The road to drain or gain: Dutch private investment and economic development in late colonial and early independent Indonesia

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Mark van de Water

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Abbreviations

ANIEM	Algemeene Nederlandsch-Indische Electriciteits-Maatschappij (General Netherlands Indies Electricity Company)
ASNI	Algemeen Syndicaat van Suikerfabrikanten in Nederlandsch-Indië (Syndicate of Java Sugar Manufacturers)
AVROS	Algemene Vereeniging van Rubberplanters ter Oostkust van Sumatra (General Association of Rubber Planters in East Sumatra)
BANAS	Badan Nasionalisasi Perusahaan-Perusahaan Belanda (Body for the Nationalisation of Dutch Companies)
BENISO	Bond van Eigenaren van Nederlands-Indische Suikerondernemingen (Union of Netherlands Indies Sugar Factories' Owners)
Borsumij	Borneo-Sumatra Handel-Maatschappij (Borneo Sumatra Trading Company)
B.O.W.	Departement der Burgerlijke Openbare Werken (Department of Civil Public Works)
BPM	Bataafsche Petroleum Maatschappij (Batavian Petroleum Company)
Caltex	California Texas Oil Company
DJB	De Javasche Bank (Java Bank)
DPV	Deli Planters' Vereniging (Deli Planters' Association)
DSM	Deli Spoorweg Maatschappij (Deli Railway Company)
FDI	Foreign direct investment

FEDERABO	Federatie van Verenigingen van Nederlands-Indische Bergcultuurondernemingen (Federation of Associations of Netherlands Indies Upland Estate Companies)
Finec	Financieele en Economische Overeenkomst (Financial and Economic Agreement)
GDP	Gross domestic product
GMB	Gemeenschappelijke Mijnbouwmaatschappij Billiton (Billiton Joint Mining Company)
GNP	Gross national product
HVA	Handels Vereeniging Amsterdam (Trading Association Amsterdam)
Internatio	Internationale Crediet- en Handelsvereeniging 'Rotterdam' (International Credit and Trading Association 'Rotterdam')
IOB	Indische Ondernemersbond (Netherlands Indies Employers Association)
KLM	Koninklijke Luchtvaart Maatschappij (Royal Dutch Airlines)
KNILM	Koninklijk Nederlandsch-Indische Luchtvaart Maatschappij (Royal Netherlands Indies Airways)
KPM	Koninklijke Paketvaart Maatschappij (Royal Packet Company)
LAAPLN	Lembaga Alat-Alat Pembayaran Luar Negeri (Regulating Body for Foreign Payments)
NHM	Nederlandsche Handel-Maatschappij (Netherlands Trading Association)
NIAM	Nederlandsch-Indische Aardolie Maatschappij (Netherlands Indies Petroleum Company)

NIBEM	Nederlandsch-Indische Bauxiet Exploitatie Maatschappij (Netherlands Indies Bauxite Exploitation Company)
NIEM	Nederlandsch-Indische Escompto Maatschappij (Netherlands indies Escompto Company)
NIGIMIJ	Nieuw-Guinea Import en Export Maatschappij (New Guinea Import and Export Company)
NIHB	Nederlandsch-Indische Handelsbank (Netherlands Indies Trading Bank)
NILM	Nederlandsch-Indische Landbouw Maatschappij (Netherlands Indies Agricultural Company)
NITEM	Nederlandsch-Indische Tin Exploitatie Maatschappij (Netherlands Indies Tin Exploitation Company)
NNGPM	Nederlandsche Nieuw-Guinea Petroleum Maatschappij (Netherlands New Guinea Oil Company)
NNP	Net national product
OBM	Oost-Borneo Maatschappij (East Borneo Company)
OGEM	Overzeese Gas- en Electriciteitsmaatschappij (Overseas Gas and Electricity Company)
PELNI	Pelayaran Nasional Indonesia (Indonesian National Shipping)
Permindo	Pertambangan Minyak Indonesia (Indonesian Oil Mining Company)
PKI	Partai Komunis Indonesia (Indonesian Communist Party)
PPN-Baru	Pusat Perkebunan Negara Baru (New Centre for State Estates)
RCMA	Rubber Cultuur Maatschappij Amsterdam (Rubber Cultivation Company Amsterdam)

RTC	Ronde Tafel Conferentie (Round Table Conference)
SARBUPRI	Sarekat Buruh Perkebunan Republik Indonesia (Estate Workers Union of the Republic of Indonesia)
SBBSI	All-Indonesian Union of Bank Employees (Serikat Buruh Bank Seluruh Indonesia)
SITEM	Singkep Tin Exploitatie Maatschappij (Singkep Tin Exploitation Company)
SKKK	Saibai Kigyô Kanri Kôdan (Agricultural Estates Management Corporation)
SOCFIN	Belgian-French Société Financière des Caoutchoucs
Stanvac	Standard Vacuum Petroleum Compan
TFP	Total factor productivity
TRK	Tōgyō Rengōkai (Sugar Industry Corporation)
VJSP	Vereenigde Javasuiker-Producenten (United Java Sugar Producers Association)

Chapter 1. Introduction

According to the agreement made between the Netherlands and Indonesia in 1966 about compensation for the nationalisation of private Dutch firms by Indonesia in 1959, Indonesia had to pay ƒ600 million to the Dutch state (ƒ689 million including interest, or the equivalent of nearly 2 billion euro in 2020).[1] Some of it was designated for individuals who had suffered a financial loss after the nationalisation of Dutch companies operating in Indonesia until the late 1950s. Another part was used to pay off the remaining state bonds and securities. Indonesia started these payments to the Dutch government after the transfer of sovereignty on 27 December 1949. However, Indonesia stopped paying in 1956, when Indonesia unilaterally abrogated the union with the Netherlands due to the continuing conflict over West New Guinea.[2]

It is interesting to note who became eligible for compensation. The so-called Bureau Schadeclaims (Bureau for Indemnification Claims in Indonesia) was entrusted with the task of distributing the money to individuals, legal bodies and corporations. In 1973, Indonesia paid the first instalment and in 2003 the last one was paid to the Dutch state.[3]

After more than 50 years since the initial agreement and after the final payment has been done, many people were still not aware of the fact that Indonesia had been paying a considerable amount of compensation money to the Dutch state. In 2003, both in Indonesia and the Netherlands people expressed disbelief that an emerging economy, which had been considered a developing country for many years, should pay large sums of money to an advanced rich state. This underscores that more detailed information is urgently needed about the colonial past. The debate about the question whether the Dutch presence in the Indonesian archipelago was eventually beneficial for Indonesian economic development is still ongoing. Did the Indonesians receive anything in return for the exploitation of their land and

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[1] J.J.P. de Jong and D.M.E. Lessing-Sutherland, *"To forget the past in favour of a promise for the future": Nederland, Indonesië en de financiële overeenkomst van 1966: onderhandelingen, regeling, uitvoering* (Den Haag: Ministerie van Buitenlandse Zaken, 2004) 7; International Institute of Social History, *Value of the Guilder versus Euro* (https://iisg.amsterdam/en/research/projects/hpw/calculate.php) last accessed, February 28, 2022.

[2] Jan Luiten van Zanden and Daan Marks, *An economic history of Indonesia 1800–2010* (London: Routledge, 2012) 138.

[3] De Jong and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 39.

resources? There is a need for scholars to address such issues and shed light on the legacy left behind by Dutch colonialism in Indonesia.

1.1 Research project and main question

This dissertation is part of a larger project entitled ‘Foreign capital and colonial development in Indonesia’. My part of the project focuses on Dutch private investment in the Netherlands Indies. The relationship between economic development in the Netherlands Indies and foreign direct investment (FDI), in particular Dutch investment, forms the core of my analysis. My research question is as follows: To what extent did Dutch private investment contribute to the economic development of the Netherlands Indies and Indonesia between c. 1910 and the late 1950s?

The effects of the operations by foreign business enterprises on the development of the indigenous economy still raises many questions. Any statement about Dutch contributions to the indigenous economy inevitably generates criticism and refutations from either side of the argument. FDI in the Netherlands Indies took place in the first place in order to get access to raw materials not available at home. Three different topics are central to the analysis: investment, profits and linkages.

1. The first topic is investment and I will seek to gain an insight into private Dutch investment in the Netherlands Indies. The focus is on macroeconomic effects of private Dutch investment in the colonial setting. Were there significant differences by sector of the economy? Another issue concerns the time period of examination. When and why did the volume of private investment begin to increase? Did the economic depression of the 1930s lead to a decline in investment? The aim here is to find out if the total volume of investment coincided with the macro economic development of colonial Indonesia. It is also relevant to establish whether there was a measure of continuity in the colonial setting after the Second World War up to the takeover of Dutch companies in 1957–1959.

2. The second topic is about profits, the transfer of profits and drain. I will compare the profitability of Dutch firms in the Netherlands Indies with the growth of the economy of the Netherlands Indies. Colonial drain was all about extracting profits and resources by the Dutch. It is important to find out whether the colonial drain prevented Indonesia from developing a balanced economy necessary for sustainable economic development. Did the economy fare worse when Indonesia became independent as compared to during the colonial period? Reinvestment of profits intersects with the first-mentioned topic. Which proportion of the profits flowed out of the Netherlands Indies

and which part was reinvested? Economic development in the immediate post-colonial era may also have been impaired by an insufficient transfer of knowledge to Indonesians.

3. The third topic is about linkages. My aim is to apply the linkage theory to private corporations in the Netherlands Indies. Below, I discuss these linkages in detail, in particular forward, backward and fiscal linkages. Forward linkages exist when the output of a company requires or attracts other companies that further process the output of the first company. Backward linkages occur when an industry requires other industries in order to start the core business of the company. Fiscal linkages emerge when taxes paid by a private business firm are used for productive public investment, for instance education or infrastructure. Final demand linkages can exist in the form of wages and compensation for land use. They generate new consumptive demand.

Almost all companies in the Netherlands Indies required some specific kind of equipment. A higher productivity in industrial activities led to an increase of production in other branches. To what extent did the presence of the mining sector provide employment in manufacturing producing equipment? It is hazardous to formulate a plausible hypothesis about this topic, but it seems likely that especially large and highly specialized companies required a certain kind of equipment that was not readily available in the Netherlands Indies. This equipment could be produced by a new company in the Netherlands Indies, but it could also be imported from the Netherlands or another country. This topic is especially relevant, since the interaction between different sectors has not yet been examined intensively for the Netherlands Indies.

Time frame

This research starts around 1910 and ends in 1959. After the abolition of the Cultivation System in 1870, the door was open for FDI. This was the beginning of an era of *laissez-faire* and economic liberalism, but it took several decades before private investment rose to a significant level. This occurred around 1910. By that time more than 1,500 foreign incorporated companies were active in the Netherlands Indies with a total combined equity of more than ƒ1 billion.[4] This year is an appropriate starting point for my analysis. The growth of the economy just before and just after Indonesian independence needs to

[4] J. Thomas Lindblad, 'Ondernemen in Nederlands-Indië c. 1900–1940', *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden*, Vol. 108 (1993) 699–710, in particular 700.

be examined in order to find out if new investment came to a halt and if this had repercussions for the economic development of Indonesia. In 1959 the nationalisation of the Dutch companies took place.

1.2 Historiography

The history of the Netherlands Indies is a much discussed theme. Without dealing with the broader topic of the justification of the presence of the Dutch in Indonesia, I will focus on debates dealing with the economic aspects. Dutch private investment in the Netherlands Indies, the transfer of profits and the economic effects of investment in the Netherlands Indies are the most important issues discussed.

The debate about the influence of the Dutch presence in the Netherlands Indies was already present in the mid-nineteenth century before the Netherlands Indies was opened for private investment. Wolter Robert van Hoëvell, the Dutch minister, politician and writer, criticized the abuses of the colonial government and the slave trade. In 1849, he wrote an article about the plan of the Dutch government to sell land in Java to private Europeans.[5] He supported the idea for the sale of land and argued that this would be beneficial to the development of Java, but he also endorsed the Cultivation System, stating that these two systems could exist next to each other.[6] Eduard Douwes Dekker, known as Multatuli, published his novel *Max Havelaar* in 1860 in which he exposed abuses of Dutch colonialism and exploitation by Javanese regents.[7] Nearly 20 years later, in 1878, Pieter Brooshooft wrote *Geef Indië wat Indië's is* (To give what belongs to the Netherlands Indies) where he discussed exploitation in the Netherlands Indies.[8]

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[5] Wolter Robert van Hoëvell, *De beschuldiging en veroordeling in Indië en de regtvaardiging in Nederland van W.R. van Hoëvell* (Zaltbommel, Noman, 1850); Wolter Robert van Hoëvell, *De emancipatie der slaven in Neerlands-Indië: Eene verhandeling* (Groningen: C.M. van Bolhuis Hoitsema, 1848); Wolter Robert van Hoëvell, *Bedenkingen tegen de mededeeling van den Minister van Koloniën aan de Tweede Kamer der Staten-Generaal, omtrent den verkoop van landen op Java* (Groningen: Van Bolhuis Hoitsema, 1849).
[6] J.W.F. Eggink, 'Wolter Robert van Hoëvell (1812–1879): Een 'ethisch' liberaal en de koloniale politiek' (MA thesis, University of Utrecht, 1982).
[7] Multatuli, *Max Havelaar, of de koffij-veilingen der Nederlandsche Handel-Maatschappij* (Amsterdam: Jacob van Lennep, 1860).
[8] Arnold Pieter Hendrik Berkhuysen, *De drainagetheorie voor Indonesië* (Den Haag: Techn. Vertaal- en Type-inr, 1948) 87–88; P. Brooshooft, *Geef Indië wat Indië's is!: De "bijdrage" als sluitpost verdwijne van de Indische begrooting, het Indisch "batig slot" uit de Nederlandsche schatkist: Koloniaal staatkundige beschouwingen* (Semarang: Van Dorp, 1878).

In the nineteenth century, debates about exploitation were related to the economic activities of the colonial government. After 1900, more research was done about the economic significance of the Netherlands Indies for the Netherlands,[9] despite assertions to the contrary. Numerous books appeared that discussed the economic influence of the trade between the Netherlands and colonial Indonesia.

Most early researchers focused on Java. One of the earliest traditional views of the Indonesian economy was provided by the economist J.H. Boeke. In 1910, he formulated a theory about dualism which he reiterated until 1956.[10] His idea was rather basic, depicting a dichotomy in the Javanese economy and society between the modern and traditional sectors. The theory stated that Western activity in the Netherlands Indies, which was more developed, remained separate from the less developed indigenous society, while existing next to each other. In this view, the indigenous economy remained stagnant; however, it is not likely that this was true in colonial Indonesia to the extent described by Boeke.[11]

Boeke also briefly discussed colonial drain in 1951 and explained the impact of private investment which was flowing into the Netherlands Indies before the economic depression of the 1930s. Reinvestment of profits was an important device to finance business undertakings. This amount exceeded the paid-out profits during times of expansion. According to Boeke, investments in the Netherlands Indies depreciated quickly, making it difficult to properly estimate the total amount of money invested in the colony. With regard to the colonial drain, Boeke argued that the development of the Netherlands Indies was not possible without Western entrepreneurs. Despite this drain, the Netherlands Indies became richer instead of poorer. The loss of mineral resources from mining did not weigh against the large profits made in this sector, which also benefitted the indigenous population. Profits were not excessive and the risks the entrepreneurs had to deal with should not be underestimated. Boeke even went as far as to claim that there was a drain away

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[9] Although Pierre van der Eng states that the importance of Indonesia for the Dutch economy after 1870 was not visible prominently in the modern Dutch economic historiography, Pierre van der Eng, *Economic benefits from colonial assets: The case of the Netherlands and Indonesia 1870–1958* (Groningen: Groningen Growth and Development Centre, 1998) 3.

[10] J.H. Boeke, *Tropisch-koloniale staathuishoudkunde: Het probleem* (Amsterdam: De Bussy, 1910); J.H. Boeke and James S. Holmes, *Indonesian economics: The concept of dualism in theory and policy* (The Hague: Van Hoeve, 1961) 167–192.

[11] J. Thomas Lindblad, 'Colonial rule and economic development: A review of the recent historiography on Indonesia', *Jahrbuch für Wirtschaftsgeschichte*, Vol. 36 (1995) 9–22, in particular 10; J.H. Boeke, *Indische economie. I: De theorie der Indische economie* (Haarlem: Tjeenk Willink, 1940) 1–21.

from the Netherlands due to the high costs of educating the entrepreneurs, by which the Netherlands Indies benefitted more than the Netherlands. Indigenous smallholder production was significant, which shows that the indigenous population did not depend on employment provided by foreign firms.[12]

Some scholars followed up on Boeke's work, but were often more concerned with the effects of colonialism on the Netherlands than on the Netherlands Indies. The banker Daniël Crena de Iongh wrote that the Dutch influence on the development of the Netherlands Indies was significant. However, he only cited one work by J.J. Tichelaar about the sugar industry without exploring this topic in more depth.[13] J.J. Tichelaar, in turn, devoted a large part of his research to the influence of the sugar industry on indigenous society.[14] Clifford Geertz applied Boeke's theory of economic dualism to his own concept of agricultural involution. Geertz stated that the Javanese peasant was caught in a traditional system with low productivity, in which a growing population competed for scarce land. On the other hand, there was the Western sugar sector which also competed for the same land.[15]

Early titles examining the macroeconomic impact are less numerous. One notable exception is a brief article written by the late Nobel Prize Laureate Jan Tinbergen and an associate J. Derksen. In it, they discussed the overall importance of the Netherlands Indies and its contribution to the Dutch national income shortly before the Second World War. Special attention was paid to private investment, interest on government loans, shipping, export and employment.[16] Regrettably, the influence of the Dutch presence on the economic development of the Netherlands Indies is underexplored in this

[12] Boeke, *Indische economie. I*, 204–218; J.H. Boeke, *Economie van Indonesië* (Haarlem: Tjeenk Willink, 1951) 205–218.

[13] D. Crena de Iongh, 'Nederlandsch-Indië als belegginsgebied van Nederlandsch Kapitaal', in: F.C. Gerretson (ed.), *De sociaal-economische invloed van Nederlandsch-Indië op Nederland* (Wageningen: Veenman, 1938) 95–114, in particular 110–111.

[14] J.J. Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk* (Surabaya: N.V. Boekhandel en drukkerij v.h. H. van Ingen, 1927); the book by Henri van der Mandere, *De Javasuikerindustrie in heden en verleden, gezien in het bijzonder in hare sociaal-economische beteekenis* (Amsterdam: Bureau Industria, 1928) is a similar publication, which also pays attention to the effects for the indigenous population.

[15] Clifford Geertz, *Agricultural involution: The process of ecological change in Indonesia* (Berkeley: University of California Press, 1963) 69–83.

[16] J.B.D. Derksen and J. Tinbergen, 'Berekeningen over de economische betekenis van Nederlandsch-Indië voor Nederland', *Maandschrift van het CBS*, Vol. 40 (1945) 210–216.

branch of the literature.[17] The fact that Tinbergen and Derksen wanted to measure the multiplier effect is especially relevant to my own analysis.

In doing so, they included the increase in unemployment in the Netherlands, the interests of shareholders and the falling demand for various products in the Netherlands, which would occur if the colony was to become independent. The multiplier effect implied a drop of an additional 70% on top of the direct loss. In total, this meant a decline of 14 per cent of the national income of the Netherlands.[18]

In 1943 the Dutch economist J.J. Polak made a pioneering effort to estimate the national income of the Netherlands Indies during the 1920s and 1930s. He differentiated between incomes of the indigenous population and foreigners and used a large body of statistics for his publication.[19] In 1947, J. Haccoû offered a different perspective, writing about the significance of export production for the Netherlands Indies. Although he also discussed colonial drain, he agreed with Boeke and M.W.F. Treub that if there had been no drain, colonial Indonesia was better off overall with the Dutch presence.[20] More interesting is the part of his study that deals with the importance of export crops for the Netherlands Indies. On the whole, this author gave a generally positive view of the Dutch presence in the Netherlands Indies without much criticism, except for saying that during the economic crisis of the 1930s, the Dutch should have done more to support the sugar industry in Java.

In his PhD dissertation of 1948, A.P.H. Berkhuysen examined colonial drain in the Netherlands Indies. He agreed with earlier authors, stating that, although the colonial era did have some drawbacks for the indigenous population, it was better for the colony to have had access to some investment capital (which also included the inevitable negative side effects of colonial drain) than to have had no capital at all.[21] The negative effects of colonial drain are not discussed in detail, apart from the lower wages and income for the indigenous population during the economic depression of the 1930s.[22]

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[17] According to Van der Eng, this is still one of the most authoritative studies in the field of the overall importance of the Netherlands Indies to the Dutch economy in the late colonial period, Van der Eng, *Economic benefits from colonial assets*, 3.
[18] Derksen and Tinbergen, 'Berekeningen over de economische betekenis van Nederlandsch-Indië voor Nederland', 16.
[19] J.J. Polak, *The national income of the Netherlands Indies, 1921–1939* (New York: Netherlands and Netherlands Indies Council of the Institute of Pacific Relation, 1943).
[20] J.F. Haccoû, *De Indische exportproducten, hun beteekenis voor Indië en Nederland* (Leiden: Stenfert Kroese, 1947) 72, 83–84.
[21] Berkhuysen, *De drainagetheorie voor Indonesië*, 129.
[22] Ibid., 105.

Colonial drain

Colonial drain received new attention by scholars in the 1970s.[23] In 1976, Frank H. Golay wrote an article about colonial drain in Southeast Asia, discussing not only Indonesia, but also Thailand, French Indochina, British Malaya and the Philippines. He reviewed an extended time period from the early twentieth century up to and after decolonization.[24] From the 1980s onwards, more research was carried out on the colonial drain by, amongst others, Angus Maddison and Anne Booth. Maddison, in particular, paid attention to the 1930s when discussing the drain and compared the Netherlands Indies with other colonies. He noted that the Chinese remitted a large part of their income to China as well. This ‘double drain’ was mentioned by Booth. She claimed that the drain was very large by contemporary standards. If more funds had been retained in the colony, the economic position of Indonesia could have been very different after independence.[25] Maddison stated that the drain from India and other colonies in Asia was smaller than the drain from Indonesia in the period 1913–1938.[26]

Since the 1990s, the debate about colonial drain seems to have been dominated by Pierre van der Eng and Alec Gordon. Van der Eng started his research on the long-term economic growth of Indonesia by arguing that the colonial and the indigenous economy did not develop differently. The economic sectors in which foreign companies were likely to be present only explained part of the total growth.[27] For want of better alternatives, Maddison and Booth use the commodity balance of trade as a proxy for colonial drain. Van der Eng applies a different method using a macroeconomic approach and

[23] P.J. Drake, 'Natural resources versus foreign borrowing in economic development', *Economic Journal*, Vol. 82 (1972) 951–962.
[24] Frank H. Golay, 'Southeast Asia: The "colonial drain" revisited', in: C.D. Cowan and O.W. Wolters (eds), *Southeast Asian history and historiography: Essays presented to D.G.E. Hall* (Ithaca, NY: Cornell University Press, 1976) 368–387, in particular 369.
[25] Anne Booth, 'Exports and growth in the colonial economy, 1830–1940', in: Angus Maddison and Gé Prince (eds), *Economic growth in Indonesia 1820–1940* (Dordrecht: Foris Publications, 1989) 67–96, in particular 80; Angus Maddison, 'Dutch colonialism in Indonesia: A comparative perspective', in: Anne Booth, William Joseph O'Malley and Anna Weidemann (eds), *Indonesian economic history in the Dutch colonial era* (New Haven, CT: Yale Center for International Studies, 1990) 322–335, in particular 322–328; Anne Booth, *Agricultural development in Indonesia* (Sydney: Allen and Unwin, 1988) 20, 222.
[26] Maddison, 'Dutch colonialism in Indonesia', 326, 331.
[27] Pierre van der Eng, ‘The real domestic product of Indonesia, 1880–1989’, *Explorations in Economic History*, Vol. 29 (1992) 343–373, in particular 344, 355.

theoretical concepts for economic modelling. He argued that the commodity trade balance cannot be accepted as a proxy for colonial drain.

According to Van der Eng, the long-term development of the Indonesian economy was not affected by colonial drain. It was not a cause of economic underdevelopment when Indonesia achieved independence.[28] Van der Eng stated that the Dutch economy benefitted from its relations with the Netherlands Indies, but was not entirely dependent on the colonial relationship. On the other hand, he admits that the Dutch economy depended to a higher degree on foreign trade in general than did Indonesia.[29] Booth disputes Van der Eng's views about the economic history of colonial Indonesia. She claims that his views are incorrect and misleading and that he did not sufficiently adjust his data for use in a long-term analysis.[30]

At the end of the twentieth century, Gordon questioned the data and methods used by Van der Eng for calculating the GDP of Indonesia. In addition, he argues that the commodity balance of trade alone is inadequate when calculating colonial drain. Gordon has published a number of articles in which he criticizes both Van der Eng and Booth.[31] He asserts that the returns on capital mentioned by Van der Eng are too low and don't compensate for the increase in share prices.[32] Several aspects of this discourse resurface in this dissertation.

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[28] Pierre van der Eng, *The 'colonial drain' from Indonesia, 1823–1990* (Canberra: Research School of Pacific Studies, 1993) 3–4, 37.
[29] Van der Eng, *Economic benefits from colonial assets*, 5, 32.
[30] Anne Booth, 'Real domestic income of Indonesia, 1880–1989: A comment and an estimate', *Explorations in Economic History*, Vol. 32 (1995) 350–364, in particular 350.
[31] Alec Gordon, 'Industrial development in colonial Indonesia, 1921–1941', *Journal of Contemporary Asia*, Vol. 28 (1998) 3–26, in particular 5–12; Alec Gordon, *The necessary but impossible task: The Netherlands Indies factory commission and promotion of industry in colonial Indonesia's economy 1901–1926* (Saarbrücken: LAP Lambert Academic Publishing, 2014); Alec Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', *Journal of Contemporary Asia,* Vol. 42 (2012) 560–580; Alec Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', *Journal of Contemporary Asia*, Vol. 40 (2010) 425–443; Alec Gordon, 'Reverse flow foreign investment: Colonial Indonesia's investment in metropolitan countries', *Journal of Contemporary Asia*, Vol. 44 (2014) 108–124; Booth, 'Real domestic income of Indonesia, 1880–1989'; Alec Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', *Journal of Contemporary Asia*, Vol. 48 (2018) 508–518, in particular 511.
[32] Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–439; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 567.

New perspectives on general economic development

Another important shift in the literature is the increasing attention given to the Outer Islands. The book series *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940* was initiated in the 1970s and led to new research, eventually embracing 16 volumes of annotated statistics. This project was started by P. Creutzberg drawing on pre-war work by W.M.F. Mansvelt. These 16 volumes contain a wealth of data, although figures for the twentieth century are more complete than for the earlier period. Volume 12b discusses trade in Java and in the Outer Islands as well.[33] The 1980s saw a revival of the debate about the colonial past of the Netherlands.[34]

In 1988, J. Thomas Lindblad analysed the economic development of Southeast Kalimantan, a region which was often overlooked in the literature.[35] According to Lindblad, there was a separation between foreign-owned companies and indigenous rubber smallholder activities, but the interactions between various groups and the social economic aspects of this are less clear. In another volume, edited partly by Lindblad as well, various case studies of companies and regions are presented by young researchers.[36] Although the articles of the case studies are brief and vary in quality, there is a great deal of statistical data and an extended bibliography about economic development in the Outer Islands.

In 2001, another scholar, Jeroen Touwen, wrote his dissertation about the economic development of the Outer Islands, distinguishing between three types of economic development: European dynamics, indigenous or Asian dynamics, and little or no dynamics, according to the type of economic development predominant in a particular region. In order to measure the

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33 A.H.P. Clemens, J. Thomas Lindblad and Jeroen Touwen, *Changing Economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 12b: Regional patterns in foreign trade 1911–1940* (Amsterdam: Royal Tropical Institute, 1992).

34 Gé Prince, 'Introduction', in: Angus Maddison and Gé Prince (eds), *Economic growth in Indonesia 1820–1940* (Dordrecht: Foris Publications, 1989) 1–14, in particular 1–9; the published PhD dissertation of Thee Kian Wie, *Plantation agriculture and export growth: An economic history of East Sumatra, 1863–1942* (Jakarta: LEKNAS-LIPI, 1977) is an earlier example of research not focusing on Java.

35 J. Thomas Lindblad, *Between Dayak and Dutch. The economic history of Southeast Kalimantan, 1880–1942* (Dordrecht: Foris, 1988).

36 A.H.P. Clemens and J. Thomas Lindblad (eds), *Het belang van de buitengewesten. Economische expansie en koloniale staatsvorming in de buitengewesten van Nederlands-Indië, 1870–1942* (Amsterdam: NEHA, 1989).

influence of foreign trade, Touwen made use of the linkage concept from Hirschman, something that will be done in this dissertation as well.[37]

At the close of the twentieth century, a new series of literature was emerging in which the overall economic development and investment in colonial and independent Indonesia was discussed. In a comprehensive study by Booth, estimates and statistics about output growth and the change of the economy are given for the period between 1800 and 2000, although she focuses less on the rise and decline of various individual sectors.[38] She pays more attention to the distribution of income and development of living standards. Nonetheless, she also touches on investment and entrepreneurship, demonstrating why Indonesia had difficulties developing into a stable, modern nation after independence. Lack of industrialisation and an excessive dependence on exports of primary export products, such as oil and rubber, were the main culprits.

A volume compiled by four scholars – Howard Dick, Vincent Houben, Lindblad and Thee Kian Wie[39] – also aims at the big picture. The role of government and the failure of democracy, as well as the exploitation and suppression of initiatives, receive due attention, whereas Booth sees the lack of open markets, foreign capital and large remittances as reasons why Indonesia did not succeed in achieving stable economic development.

More recently, Jan Luiten van Zanden and Daan Marks provide a different perspective, with new data on prices, wages and inequality using a database that is widely accessible. The authors attempt to measure total factor productivity (TFP) in order to examine technological growth and the efficiency of the Indonesian economy. Overall, economic growth was usually achieved through more labour and capital, but TFP was responsible for some growth in the first three decades of the twentieth century.[40]

Van Zanden and Marks also discuss FDI and its importance has been described extensively by Lindblad as well. Lindblad also examined other Southeast Asian countries such as Malaysia, the Philippines, Thailand and Vietnam.[41] However, due to its ambitious scope, there is not much room for

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[37] Jeroen Touwen, *Extremes in the archipelago. Trade and economic development in the Outer Islands of Indonesia, 1900–1942* (Leiden: KITLV Press, 2001).
[38] Anne Booth, *The Indonesian economy in the nineteenth and twentieth centuries. A history of missed opportunities* (London: Macmillan, 1998).
[39] Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002).
[40] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*.
[41] J. Thomas Lindblad, *Foreign investment in Southeast Asia in the twentieth century* (London: Macmillan, 1998).

in-depth research. Nevertheless, the fact that Lindblad covers both the colonial and the post-colonial era makes it valuable for comparisons between different countries and time periods.

A later publication by the same author deals specifically with the comparison before and after independence in Indonesia.[42] This brings a fresh view to the process of economic decolonization, which, in fact had already begun during the Japanese occupation. After the Pacific War, however, political independence was reached before economic independence and this became a cause for instability in Indonesia.

In another volume, edited by Lindblad and Peter Post, economic decolonization is seen in both a more regional and international perspective.[43] A similar approach is seen in another work by Booth,[44] where she tries to find out if there was a continuation during the 1950s of the economic development in various countries in Southeast Asia following independence. Her conclusion is that, overall, their colonial legacies were no driving force for most economies in this region. Comparisons with other investors and with colonial and colonizing countries have been done elsewhere in the literature.[45]

One area of comparison is with Africa. Graziella Bertocchi examined the consequences of colonial domination for the underdevelopment of countries in Africa. In order to do so, she created a model which describes the economy before, during and after colonization.[46] Colonization could lead to a higher output, while depressed living standards and decolonization would have negative consequences for economic development, yet she emphasizes that this is a difficult issue where many factors influence the outcome.

Explicit comparisons between Africa and Asia have been made and although much of that literature focuses on the post-colonial period,[47] a book

[42] J. Thomas Lindblad, *Bridges to new business: The economic decolonization of Indonesia* (Leiden: KITLV Press, 2008).
[43] J. Thomas Lindblad and Peter Post (eds), *Indonesian Economic Decolonization in Regional and International Perspective* (Leiden: KITLV Press, 2009).
[44] Anne Booth, *Colonial legacies: Economic and social development in East and Southeast Asia* (Honolulu: University of Hawaii Press, 2007).
[45] Reinier Ernst Smits, *De beteekenis van Nederlandsch-Indië uit internationaal-economisch oogpunt = The Netherlands East Indies and world trade* (Batavia: Landsdrukkerij, 1931); Helmut G. Callis, *Foreign capital in Southeast Asia* (New York: Institute of Pacific Relations, 1942).
[46] Graziella Bertocchi, *Colonialism in the theory of growth* (Brown University Working Paper No. 94–14, 1994); Graziella Bertocchi and Fabio Canova, 'Did colonization matter for growth? An empirical exploration into the historical causes of Africa's underdevelopment', *European Economic Review*, Vol. 46 (2002), 1853–1871.
[47] Bernard Berendsen et al. (eds), *Asian tigers, African lions: comparing the development performance of Southeast Asia and Africa* (Leiden: Brill, 2013); David

edited by Ewout Frankema and Frans Buelens comparing Belgian Congo and the Netherlands Indies is especially relevant.[48] For my research, contributions dealing with the rubber sector, foreign investment and taxes are the most useful parts. The cooperation between Buelens and Frankema also resulted in an article presenting new returns to investment in the Netherlands Indies using data from the Brussels stock exchange. The authors constructed a model to compensate for rising stock prices.[49]

Scholars have also analysed British colonies in Asia, in particular India and Malaysia. I will use some publications discussing sectors like rubber and sugar.[50] The branch of literature dealing with the Chinese deserves special attention. In his categorisation by degree of alienness, Lindblad labels ethnic Chinese as Indonesians who are considered 'foreigners'. Although in 1930 only 4% of incorporated companies in the Netherlands Indies were registered with ethnic Chinese owners, their total equity is likely to have been underestimated. It is highly likely that the reported equity was understated and also that large numbers of Chinese-owned firms did not opt for incorporation under Western law. The ethnic Chinese also acted as intermediaries between the indigenous population and foreign investors, a function endorsed by the Dutch.[51] Investment by Chinese Indonesians will not be discussed in detail here, although a few works on the subject deserve to be mentioned.[52] The PhD

Bevan, Paul Collier and J.W. Gunning, *Nigeria and Indonesia* (Washington D.C.: World Bank, 1999); Peter Lewis, *Growing apart oil, politics, and economic change in Indonesia and Nigeria* (Ann Arbor: University of Michigan Press, 2009); David Henley, *Asia-Africa development divergence: A question of intent* (London: Zed Books, 2015).

[48] Ewout Frankema and Frans Buelens (eds), *Colonial exploitation and economic development: The Belgian Congo and the Netherlands Indies compared* (London: Routledge, 2013). Another publication dealing with fiscal states in Asia and Africa is noteworthy too: Ewout Frankema and Anne Booth, *Fiscal capacity and the colonial state in Asia and Africa, c. 1850-1960* (Cambridge: Cambridge University Press, 2020).

[49] Frans Buelens and Ewout Frankema, 'Colonial adventures in tropical agriculture: New estimates of return to investment in the Netherlands Indies, 1919–1938', *Cliometrica*, Vol. 10 (2016) 197–224.

[50] G.C. Allen and Audrey G. Donnithorne, *Western enterprise in Indonesia and Malaya: A study in economic development* (London: Allen & Unwin, 1957); Nicholas J. White, *British business in post-colonial Malaysia, 1957–70: Neo-colonialism or disengagement?* (Abingdon: Routledge, 2004); John H. Drabble, *Malayan rubber: Interwar years* (Basingstoke: Macmillan, 1991).

[51] Lindblad, *Bridges to new business*, 22–23.

[52] M.R. Fernando and David Bulbeck (eds), *Chinese economic activity in Netherlands India: Selected translations from the Dutch* (Singapore: Asean Economic Research Unit, 1992); Peter Keppy, *Hidden business: Indigenous and ethnic Chinese entrepreneurs in the Majalaya textile industry, West Java, 1928–1974* (PhD thesis, Free University Amsterdam, 2001); J.A.C. Mackie (ed.), *The*

dissertation by Alexander Claver is particularly noteworthy, as finance and company networks figure as prominent themes.

Individual companies and sectors

This brings my survey to the last branch of literature focusing on individual companies or sectors. Several older books were published by or with the assistance of private companies or former employees. Without doubt, they express strongly biased views of the company.[53] Nevertheless, these books do offer useful factual and statistical information and also give insights into daily activities. Some of these books also make use of works by other scholars, for instance the history of Handels Vereeniging Amsterdam (HVA, Trading Association Amsterdam) as described by the firm's one-time director.[54]

Fortunately, academic works about individual companies do exist next to more biased works. One early example (from the 1970s) is a PhD dissertation by J. Weisfelt,[55] which discusses the Deli Spoorweg Maatschappij (DSM, Deli Railway Company) and its role in the economic development of North Sumatra. This dissertation is noteworthy for its focus on North Sumatra rather than Java, although the regional development is not examined in great detail. Nor is the impact of the DSM on the economic development of North Sumatra discussed to the extent one would expect.

A later and far more elaborate study by J.N.F.M. à Campo concerned the Koninklijke Paketvaart Maatschappij (KPM, Royal Packet Company), a major Dutch shipping company.[56] The original Dutch version of the book

Chinese in Indonesia: Five essays (Melbourne: Thomas Nelson, 1976); Alexander Claver, *Dutch commerce and Chinese merchants in Java: Colonial relationships in trade and finance, 1800–1942* (Leiden: Brill, 2014).

[53] Examples are: E. Enthoven, *N.V. Deli-Maatschappij, gedenkschrift bij gelegenheid van het zestigjarig bestaan aansluitende bij het gedenkboek van 1 november 1919* (Amsterdam: De Bussy 1929); P.H. Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer, directeur N.V. Deli-Maatschappij* (Amsterdam: De Bussy, 1941); Jarig Cornelis Mollema, *Gedenkboek Billiton, 1852–1927. I.* (Den Haag: Nijhoff, 1927); Mart Kind, *Van kippenveren tot dieselmotoren. De geschiedenis van de technische handelmaatschappij Lindeteves N.V.: In relatie tot: R.S. Stokvis & Zonen, Nieuwe Afrikaansche Handels-Vennootschap, Oost-Afrikaansche Compagnie, Jacobson Van den Berg, OGEM, Gulf International* (Schoorl: Pirola, 2000); *Lindeteves-Stokvis 1889*–1939 (n.p., 1939).

[54] A. Goedhart, *Eerherstel voor de plantage: Uit de geschiedenis van de Handelsvereeniging 'Amsterdam' (HVA) 1879–1983* (Amsterdam: Albini, 1999).

[55] Jacobus Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra* (Rotterdam: Bronder-Offset, 1972).

[56] J.N.F.M., à Campo, *Engines of empire: Steamshipping and state formation in colonial Indonesia* (Hilversum: Verloren, 2002).

covered the period 1888–1919, whereas the later English translation also included a chapter on the period 1945–1958. The three decades in between are left out, which is most unfortunate. The company is described in great detail for the early period, which makes the book vital for my research.

Royal Dutch Shell is another company which has been generating interest among scholars over the years. One of the more well-known early volumes is by the Utrecht economist F.C. Gerretson. In 1932, he published the first volume in Dutch; 20 years later, he was still writing about the same company.[57] Some parts are very biased, providing a narrative rather than an analysis of the company. Also it is not always clear which sources he used. Nearly half a century after this English version appeared, Joost Jonker and Van Zanden published a company biography in cooperation with Stephen Howarth and Keetie Sluyterman.[58] However, here the Dutch perspective in particular is presented and a critical analysis of the operations of the business is not always obvious, although the authors had prioritized access to archives facilitating good statistical records.

In addition, the Nederlandsch-Indische Handelsbank (NIHB, Netherlands Indies Trading Bank) has been covered by W.L. Korthals Altes.[59] This work gives a good overview of the development of this bank, but networks and relations with other enterprises and banks could have been dealt with in greater depth.

Other scholars such as Ulbe Bosma and Roger Knight focus on a specific sector, notably sugar cultivation in Java, which was one of the most important branches of export production during the early twentieth century.[60] These authors discuss several sugar companies, financial aspects, markets and technological development in the industry and form a valuable source. Comparisons with the sugar industry in India and the Caribbean have shed new light on the existing literature.

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[57] F.C. Gerretson, *History of the Royal Dutch* (Leiden: Brill, 1958).
[58] Joost Jonker and Jan Luiten van Zanden, *A history of Royal Dutch Shell: From challenger to joint industry leaders, 1890–1939* (Oxford: Oxford University Press, 2007).
[59] W.L. Korthals Altes, *Tussen cultures en kredieten: Een institutionele geschiedenis van de Nederlandsch-Indische Handelsbank en Nationale Handelsbank 1863–1964* (Amsterdam: NIBE-SVV, 2004).
[60] Roger G. Knight, *Commodities and colonialism: The story of Big Sugar in Indonesia* (Leiden: Brill, 2013); Ulbe Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010* (Cambridge: Cambridge University Press, 2013); Ulbe Bosma, Juan Giusti-Cordero and G. Roger Knight, *Sugarlandia revisited. Sugar and colonialism in Asia and the Americas, 1800 to 1940* (New York: Berghahn Books, 2007).

1.3 Theoretical issues, methodology and analytical framework

Investment

For my research FDI is highly important and this term needs some explanation. FDI is defined as an investment involving a long-term relationship and reflecting a lasting interest of an individual or a business in another country than where the investor is residing.[61] The qualification 'long-term relationship' and 'lasting interest' shows that a foreign direct investor wants to have a say in the management of the enterprise abroad, which is less the case with portfolio investment.[62]

An aspect to take into account with FDI is the difference between the accumulated stock of investment and the annual incoming private flow of capital. For colonial Indonesia this accumulated stock was much higher than could be justified by the annual flow. This meant that a major part of FDI was realized through reinvestment of profits. On top of this are fluctuating prices, especially for the long period discussed in this dissertation. In economic studies it is common to convert money values. This poses a problem for FDI data, since the accumulated stock data reflects neither current nor constant prices, but a combination of both. The option which is adopted in the literature is to use current prices, but this can be problematic for comparisons over long time periods. Comparisons with data per capita or compensating for inflation is hazardous as well.[63]

There is also the distinction between market value and book value. According to C.D.A van Lynden the market value based on stock prices is less usable, since they are more subject to monetary fluctuations and other variables. The book value based on the financial statements of the company itself is preferred since information on earnings and losses are recorded. In my research both book value and market value will be examined, since reinvestment of profits was an important way of financing new activities and usually this cannot easily be derived from the books of the company.[64]

Korthals Altes dealt with this issue as well. He discussed the problems of reinvested earnings and carefully examined the complications which occur when analysing dividend payments. He argued that by not paying out profits,

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[61] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 1.
[62] Ibid, 1, 6–8; J. Thomas Lindblad, 'Foreign investment in late-colonial and post-colonial Indonesia', *Economic and Social History of the Netherlands*, Vol. 3 (1991) 183–208, in particular 185.
[63] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 1, 6–8.
[64] C.D.A. van Lynden, *Directe investeeringen in het buitenland* ('s-Gravenhage: Boucher, 1945) 108, 118.

the value of the company may increase, but this need not be stated in the balance sheet. Instead, it can show up as dividend payments, which is misleading. For this reason, Korthals Altes did not look at years of payment, but examined the years when these dividends were earned. He contends that such a method results in a greater tendency towards equilibrium, because these figures show a higher correlation between earnings and dividend payments.[65]

The definition of FDI also gives us another problem. How foreign was Dutch investment and how can we categorize investment by overseas Chinese residing in Indonesia? It can be considered as domestic investment because the investor is not a resident abroad, but this is debatable, since Chinese can be perceived as foreigners as well.[66]

With Dutch investment this problem occurs too and especially after 1900 there was an increase in permanent residing Dutch people in the archipelago. Therefore, Dutch enterprises were less foreign than for instance companies from Britain or the United States. Lindblad applied a fourfold classification of foreign firms in colonial Indonesia. First, there are Asian but non-Indonesian firms, with their headquarters in Indonesia, primarily Chinese. Second, the Netherlands-Indies firms, with headquarters in colonial Indonesia and with a European character. Third, Dutch firms with their headquarters in the Netherlands and subsidiaries in colonial Indonesia and sometimes in other countries as well. Fourth, truly foreign firms with headquarters outside Indonesia or the Netherlands, in particular American, British or Japanese enterprises.[67]

Under the third category we can also identify free-standing companies. Basically, a free-standing company was founded in one country and had its head office there (for example in the Netherlands) but was immediately active in another country (in this case, the Netherlands Indies) and did not start with domestic operations. It could sell their output in the home country but in other countries as well. The term free-standing is to indicate the difference between a multinational that starts its operations at home and moves abroad later with a related type of business.[68] Free-standing companies were embedded in the informal networks of people who shared knowledge and information and

[65] W.L. Korthals Altes, *De betalingsbalans van Nederlandsch-Indië 1822–1939* (PhD thesis, Erasmus University Rotterdam, 1986) 48.
[66] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 6.
[67] Lindblad, 'Foreign investment in late-colonial and post-colonial Indonesia', 185.
[68] Mira Wilkins, 'The free-standing company revisited', in: Mira Wilkins and Harm Schröter (eds), *The free-standing company in the world economy, 1830–1996* (Oxford: Oxford University Press, 1998) 3–64, in particular 3.

these people were looking for new opportunities to invest their money.[69] The free-standing companies often were grouped in clusters and organisations which the companies founded themselves. Certain people had activities in multiple businesses and different roles. This sometimes led to conflicts of interest.

The free-standing company was subject to the law where its headquarters reside and the directors were mandated to monitor the overseas operations which reduced the vulnerability of their operations.[70] However, the necessary activities in the home country were very small and, therefore, many of these companies in Britain were referred to merely as a brass nameplate in the City.[71] For the Netherlands, it was argued, that the headquarters played a more important role.[72]

Economic development and economic growth

In this dissertation the focus is rather on economic development than economic growth. These terms are often used interchangeably but there is a slight difference between these two. Economic growth comes down to creating more output and increasing efficiency, whereas economic development also includes changes in educational, technical and institutional arrangements.

When economic growth occurs, there is a real sustained increase in national income per capita. The causes of this process are a higher productivity in all sectors of the economy, increasing production and consumption. Regional differences and changes in income distribution are often neglected, but are important for this research.[73] The main emphasis in this study will be on the increasing production of foreign private companies as a cause for economic development. An economy that grows is likely to develop as well, growth of gross domestic product (GDP) is one of the key issues in this dissertation. Growth without development can occur when increases in export take place in foreign enterprises while there is an absence of structural

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69 See also: Arjen Taselaar, *De Nederlandse koloniale lobby: Ondernemers en de Indische politiek, 1914–1940* (Leiden: Research School CNWS, 1998).
70 Keetie E. Sluyterman, *Dutch enterprise in the twentieth century. Business strategies in a small open economy* (Abingdon: Routledge, 2005) 12, 41.
71 S.J. Nicholas, British Multinational Investment before 1939', *Journal of European Economic History*, Vol. 11 (1982) 605–630, in particular 606.
72 Ben P.A. Gales and Keetie E. Sluyterman, 'Dutch free-standing companies, 1870–1940', in: Mira Wilkins and Harm Schröter (eds), *The free-standing company in the world economy 1830–1996* (Oxford: Oxford University Press, 1998) 293–322, in particular 313.
73 Touwen, *Extremes in the archipelago*, 18–19.

changes to make this economic growth possible in other sectors as well or institutional changes necessary for the distribution of income are lacking.[74]

There are a few terms that will be used in this dissertation dealing with economic development. GDP measures the value of all goods and services produced in a certain period and region or country. This is slightly different than gross national product (GNP) which also includes income received from residents abroad minus income paid out to non-residents working in the country. This means that in order to calculate the GNP of the Netherlands, income from Dutch people working in colonial Indonesia has to be added to the GDP of the Netherlands. Net national product (NNP) is GNP minus depreciation of capital from investment. In order to calculate NNP it is necessary to know the exact increase of capital stock and its depreciation. Finally, to achieve the national income of a country, indirect taxes – the sales tax paid by consumers to producers – has to be deducted from NNP and subsidies paid to firms has to be added to NNP.[75]

From the 1980s onward, scholars tried to apply economic growth theory to colonial economies. Many estimations and assumptions are necessary because macroeconomic data for colonies is scarce and incomplete compared with Western countries in the modern period. Usually, data was collected for the assessment of payments of duties and taxes. Taking these shortcomings into account Lindblad applied a theoretical model from Lawrence Klein when researching economic growth of Southeast Kalimantan. However, he mentions that one should be careful with making conclusions because of the lack of data a complete application of the model is not possible to this region.[76]

For my research about FDI in the Netherlands Indies, two topics in particular are important. First, the debate about the influence of the Dutch presence on the economy of Indonesia, especially the issue of colonial drain and, second, the linkage theory. I will be investigating both the macro and micro perspectives of these issues. Case studies provide detailed information about various corporations, which will be examined on a micro level. Next, statistics on the economic development of the Netherlands Indies will be reviewed in macro perspective, while case studies on individual corporations illustrate the overall economic development. I will first provide a general

[74] Charles Kindleberger and Bruce Hale Herrick, *Economic development* (New York: McGraw-Hill, 1977) 3.
[75] Olivier de la Grandville, *Economic growth. A unified approach* (Cambridge: Cambridge University Press, 2009) 8.
[76] Lindblad, *Between Dayak and Dutch*, 202–205; Touwen, *Extremes in the archipelago*, 17–18.

picture and then turn to the colonial involvement of Dutch companies and the integration of these companies into the economy of the Netherlands Indies.

A major intention of mine is to question accepted positions in the existing debate on the economy of the Netherlands Indies. For instance, arguing that the transfer of sovereignty had worse consequences for Indonesia than for the Netherlands may be construed to imply that colonialism was in the end beneficial to Indonesia.[77]

Comparisons about the influence of colonialism on both mother country and colony will be examined in detail. Based on case studies of selected firms, the effects of Dutch private investment on the economic development of the Netherlands Indies will be explored and this requires comparisons both between companies and with respect to the overall economic development of the Netherlands Indies. Another important aspect of comparative historical research has been described by James Mahoney. He discusses that research about case studies on a micro level can be useful for studies with a macro level analysis.[78] This is particularly important, since case studies of companies will be compared to the macroeconomic growth of the Netherlands Indies.

My research is based on a small sample of case studies which were not randomly selected. The data from the case studies is compared with a database which has information on a very large number of private firms. Conventional methodology for qualitative research will be used, including formulation of hypotheses and collecting and analysing data, documents and understanding patterns from time series. Detailed information on business accounts and shareholder meetings appears more relevant, when answering the why and how questions.[79] Mathematical models and regression analysis will be far less used in contrast to statistical data, but a mixed approach with a combination of quantitative and qualitative approaches is inevitable.[80]

When analysing the data it is useful to look for statistical relationships between the performance of the individual companies and the macroeconomic growth of the Netherlands Indies. Correlations between volumes of investment, levels of profitability and evidence of economic development of

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[77] Jaap van der Zwaag, *Verloren tropische zaken: De opkomst en ondergang van de Nederlandse handel- & cultuurmaatschappijen in het voormalige Nederlands-Indië* (Meppel: De Feniks Pers, 1991) 303.
[78] James Mahoney and Dietrich Rüschemeyer, *Comparative historical analysis in the social sciences* (West Nyack: Cambridge University Press, 2003) 305–336.
[79] Catherine Marshall and Gretchen B. Rossman, *Designing qualitative research* (Thousand Oaks, CA: SAGE, 2010) 137.
[80] Abbas Tashakkori and Charles Teddlie, *Handbook of mixed methods in social & behavioral research* (Thousand Oaks, CA: SAGE, 2003) 51.

the Netherlands Indies are to be explored. Identifying patterns and company-specific features will be necessary as well. I shall also examine causal connections between investment and profitability. One presumes that more investment leads to more profit. A key question is whether more profits led to a higher rate of reinvestment, benefiting the economy of the Netherlands Indies as well as the mother country. Or did company profits flow only into the pockets of shareholders? I will seek to find out what kind of companies benefitted from the economic development of the Netherlands Indies. This requires more theoretical information about dividend payments and business structures, such as free-standing companies.

Colonial drain

As mentioned earlier, Berkhuysen devoted a study to the issue of colonial drain and although his book is from 1948, some of his concepts can still be used. Just like Korthals Altes, Berkhuysen examines aspects of the balance sheets and argues that authors approach this in different ways. In addition, the movement of capital is discussed quite extensively. The issue of export of capital is particularly relevant to my research. First, a distinction is made between short- and long-term capital export. Long-term capital export implies that a considerable part of the national income is moved from one country to another and used for more productive purposes, instead of short-term capital, which is basically meant to solve liquidity problems.[81] Therefore, most attention in my thesis will be given to long-term capital movements. The second important issue is why and when investors decide to invest in foreign countries, which is also discussed by Van Lynden. An easy explanation is that this happens when the domestic market is saturated and profits and prices abroad are good, while risks are low. Solving the lack of capital in a particular foreign country does not seem to be decisive for investors, but political reasons can be important, which was the case for the Netherlands Indies and might have contributed to enhance Dutch investment there.[82]

The topic of colonial drain forms a major part of his book. Berkhuysen discusses this topic in detail and shows how to incorporate this issue into new research. In order to speak of colonial drain, there needs to have been an export surplus. It is implicitly assumed that the economy would benefit more if there was no drain. In addition, it is implicitly assumed that the colonial economy would be better off without colonial drain. Of course, there are numerous difficulties in measuring and calculating this. An aspect which is

[81] Berkhuysen, *De drainagetheorie voor Indonesië*, 6–30.
[82] Ibid., 36–45.

often mentioned, is that the Netherlands Indies did not have a capital market. Therefore, these authors claim that in order to make use of its rich natural resources, foreign capital was required. By implication they argue that any contribution to the economic growth of the Netherlands Indies was caused by foreign capital.[83] This is something that needs to be examined in greater detail.

In order to address the issue of colonial drain, one usually looks at the volume of profits that flowed back to the mother country, in the form of dividends, private trading profits and bonuses. One should also include the loss of resources and tax reports can provide valuable information when combined with balance sheets. When comparing the volume invested in the Netherlands Indies with the payments of dividend by various companies, it should be possible to calculate how much money returned to the Netherlands and how much remained in the Netherlands Indies. Naturally, it is impossible to calculate this for every individual company in the Netherlands and it should be kept in mind at all times that estimates and generalizations will have to be made. Similar studies have been done for different sectors, like the sugar sector, and these results can be used for complementing my research in order to find out if there was a colonial drain and how large this drain was.[84]

To measure profits and losses for the cultivation of land, one should take into account the costs for reclaiming waste land which must be balanced against the increase in value of the land. Eventually, the foreign capital invested in this land will result in the production of indigenous products, and weighing the benefits and costs is an important aspect in measuring colonial drain. A statement such as that rich natural resources could only be made profitable with the help of foreign capital needs to be examined critically. The last important aspect concerns the wages of the indigenous labourers working for foreign companies. These wages can be compared with other sectors and the indigenous economy.[85]

Van der Eng mentions the issue of wages as well and has made use of some interesting models discussing earlier concepts to measure colonial drain. Van der Eng, however, makes use of many variables when examining the effect of colonial drain: domestic consumption, gross domestic investment, export of commodities, exports of services, imports of commodities, imports of services, net transfers abroad, gross national product and gross domestic product.[86] Applying his methodology to the individual

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[83] Crena de Iongh, 'Nederlandsch-Indië als beleggingsgebied van Nederlandsch Kapitaal', 108–112; Berkhuysen, *De drainagetheorie voor Indonesië*, 88–89, 128.

[84] Van der Mandere, *De Javasuikerindustrie in heden en verleden;* Berkhuysen, *De drainagetheorie voor Indonesië*, 98.

[85] Berkhuysen, *De drainagetheorie voor Indonesië*, 87–111.

[86] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 6–7, 22–24.

companies in my study is not feasible, but his data combined with information of the company archives will shed a new light on colonial drain and this makes it possible to see the flow of profits and if certain sectors were more prone to drain than others.

Linkages

The analysis of the relationship between FDI and economic development is here supported by a systematic identification of linkages. Linkages and spillover effects are very relevant for this research in the sense that they tell a great deal about the relationship between investment and distribution of income. Hirschman has written a lot about forward and backward linkages, and Touwen used several of these concepts in his study of the Outer Islands. According to Hirschman, linkages are connected with input-output analysis. But input-output analysis is usually more synchronic, whereas linkage effects need time to unfold.[87] His definition of these linkage effects is as follows: 'The linkage effects of a given product line as investment-generating forces are set in motion, through input-output relations, when productive facilities that supply inputs to that line or utilize its outputs are inadequate or nonexistent. Backward linkages lead to new investment in input-supplying facilities and forward linkages to investment in output-using facilities.'[88]

Therefore, Touwen states that a forward linkage exists when investment in a specific sector requires or attracts investment in other stages of the production process. Backward linkages, on the other hand, occur when an industry sector makes use of other industries in order to start up or create the industry itself. Processing industries are an example of forward linkages. Usually, they are established near the growing areas where they are indispensable for preparing the harvested product for export.[89]

Hirschman states that this is probably done more for pragmatic reasons than as an entrepreneurial choice and shows this with the example of sugar cane. In order to maximize the yield, it needs to be crushed as soon as

[87] Albert O. Hirschman, 'A generalized linkage approach to development, with special reference to staples', *Economic Development and Cultural Change*, Vol. 25 (1977) 67–98, in particular 70.
[88] Hirschman, 'A generalized linkage approach to development, with special reference to staples', 71; Albert O. Hirschman, *The strategy of economic development* (New Haven, CT: Yale University Press, 1958) 98–103.
[89] Touwen, *Extremes in the archipelago*, 32–33.

possible after cutting and the crude sugar cane is too bulky for transport abroad.[90]

Nevertheless, the linkage effects can be applied to both manufacturing and primary production. For the latter category, the staples thesis is an important theory as well, since primary products are exported to the world markets. The incomes which are derived from this staple production and export can be spent on imports, but eventually these imports can be substituted by domestic industries when the economy becomes more developed. Hirschman calls this the ‘consumption linkage’, whereas the backward and forward linkages are described as ‘production linkages’. During the first phase of export expansion, the destruction of handicraft or artisan activities is an important effect of the exporting country.

Another important approach considers the ability of the state to generate income out of exports. Fiscal linkages exist when taxes are used for more productive investment. The mining and petroleum sectors are good examples of this, as they can be enclave economies, not involved with the rest of the economy. It is important to look for examples of this for the Netherlands Indies. Hirschman states that fiscal linkages are likely to emerge when the enclave resources are owned by foreigners. A state is more likely to tax this, because the enclave is less involved with the rest of the country. In a nation-state, foreign enterprises are likely to be taxed more heavily than domestic firms.[91]

For my research, however, this poses a problem, since the Netherlands Indies was administrated by foreigners. On the other hand, it is possible that mining and oil generated both large profits and reasonable tax revenues accruing to the state. Therefore, I will explore whether proceeds of these taxes flowed to the Netherlands or remained in the Netherlands Indies.

Touwen has discussed these linkages for the Outer Islands and examines backward and forward linkages of European firms. With backward linkages, a specific industry sector can make use of other industries for their production and he gives an example of the oil industry. The oil sector in the Netherlands Indies required pipelines and these could have been offered from other countries or be produced locally. If these were produced in the Netherlands Indies, this can be seen as beneficial for the economic development of this country, but if these pipelines were shipped from the Netherlands or another country, the economic benefits were not likely to be visible in the Netherlands Indies. Touwen also gives some examples of forward

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[90] Hirschman, ‘A generalized linkage approach to development, with special reference to staples’, 78.
[91] Ibid., 72–74.

linkages. If the output of an industry sector is used by other industries, then forward linkages occur. Refining raw oil in a local refinery before it is exported to other countries is such an example. In the Netherlands Indies, various refineries were present and they generated demand for local goods as well. The last category is final demand linkages or consumption linkage effects and Thee Kian Wie used this term in his PhD dissertation on North Sumatra. In general, this occurs if an export industry is attracted to a particular place and will result in a better income distribution and increase consumer spending.[92]

In my research, I have applied linkages in order to see the influence of FDI. One sector that will be studied is export agriculture. Over the years, estate companies were responsible for improvements in irrigation works, which were not only beneficial for the companies themselves, but for the indigenous population as well.[93] As Derksen and Tinbergen showed with the multiplier effect for the national economic development,[94] the presence of foreign companies can have additional effects for employment in other sectors as well. This could lead to an expanded demand of various products among the indigenous population, resulting in a higher national income.

Examples of specific and real improvements need to be identified, based on archival research. For instance, it is possible that a Dutch industrial company in the Netherlands Indies required specific equipment, which was not directly available in the Netherlands. Therefore, a factory which produced this equipment and was founded with the purpose of serving the other industrial company would be a good example.

1.4 Source material

This research relies on a variety of source materials. One of the most important sources consists of documents and annual reports found in the business archives deposited at the National Archives in The Hague, in particular the archives of the Deli Maatschappij, Billiton, and HVA. Regional reports by the colonial authorities can be found in the *Memories van Overgave* in the National Archive.

The National Archive provides information on the developments of different companies. Information about different banks is needed, too. The Javasche Bank (DJB, Java Bank), in particular, is the most important one. In

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92 Touwen, *Extremes in the archipelago*, 32–34; Thee, *Plantation agriculture and export growth*, 49–51.

93 Berkhuysen, *De drainagetheorie voor Indonesië*, 116.

94 Derksen and Tinbergen, 'Berekeningen over de economische betekenis van Nederlandsch-Indië voor Nederland', 7–13.

Jakarta, in the Arsip Nasional Republik Indonesia (ANRI, National Archives of Indonesia), the archives of the Algemene Vereeniging van Rubberplanters ter Oostkust van Sumatra (AVROS, General Association of Rubber Planters in East Sumatra) are available as well.

Next to these archives, the Koninklijk Instituut voor Taal-, Land- en Volkenkunde (KITLV, Royal Netherlands Institute of Southeast Asian and Caribbean Studies) collection at Leiden University provides much documentation on different companies and additional statistics. The collection of the Koninklijk Instituut voor de Tropen (KIT, Royal Tropical Institute) has been incorporated into the Leiden University catalogue. This collection provides statistics about the imports and exports of the Netherlands Indies, regional trade statistics and agricultural produce for the period of 1910 to 1940.

More information about individual companies and sectors, their profitability and dividend payments is found in the *Handboek voor Cultuur- en Handelsondernemingen in Nederlandsch-Indië* (Handbook of Plantation and Mercantile Enterprises in the Netherlands Indies) available for the years 1888–1940. Supplementary information is gathered in *Van Oss' Effectenboek* (Van Oss' Securities Book) from 1903 to 1978 and digitalized for selected years in the period 1910–1940[95] and *De Nederlandsche naamlooze vennootschappen* (The Dutch Limited Companies) by Van Nierop and Baak for the years until 1948. Information about stock prices from the *Prijscourant der effecten* (Price list of stocks) is provided by the foundation Capital Amsterdam. Various newspapers and magazines will be used as well. One example is the *Economisch Weekblad voor Nederlandsch-Indië* (Economic Weekly for the Netherlands Indies) available for the 1930s and 1940s. In addition, different reports from the Centraal Kantoor voor de Statistiek and later the Centraal Bureau voor de Statistiek (Central Bureau of Statistics) provide relevant statistics.

With this material a solid and comprehensive study is possible and financial statistics from individual companies can be linked with stock prices and comparisons with the macroeconomic development can be made. The majority of these sources are written in Dutch or originating from Dutch authors and the case studies are selected for pragmatic reasons. Data for the companies had to be available for 1910 until the date of nationalisation and, therefore companies where chosen that didn't go bankrupt during the 1930s. One note should be made; these sources are 'Euro-centric' and have to be used with caution. It is not possible to write about Dutch investment in Indonesia

[95] Colonial Business Indonesia, *CBI Database ID* (https://www.colonialbusinessindonesia.nl) last accessed, December 16, 2021.

without relying on Dutch sources, although scholars rightly argued that a more 'Asia-centric' perspective needs to be adopted in research in order to limit stigmatization.[96]

1.5 Chapter topics

This dissertation contains five substantive chapters. Within these chapters I have opted for a chronological structure. Chapters 2–5 cover the late colonial period, from about 1910 up to the Japanese occupation in 1942, whereas chapter 6 deals with the immediate independence period of Indonesia from 1945 until about 1960. In this way, it is possible to discuss each topic in a different chapter. At the conclusion of each chapter, I relate the findings to the central research question.

– Chapter 1 is a general introduction.

– Chapter 2 discusses FDI with regard to colonial Indonesia. Special attention is given to the volume of Dutch private investment in the colony over time. Details are provided about the development of the corporate network in the colony.

– Chapter 3 focuses on profits and drain. The chief topic in this chapter is colonial drain. The profitability of Dutch-owned firms is assessed in order to find out whether profits can be considered to have been excessive. Flows and transfer of profit will get particular attention.

– Chapter 4 is geared toward the linkage effects, regarding effects of private Dutch investment on various linkages and to find out how business and the society in the Netherlands Indies benefitted from the presence of various industries.

-Chapter 5 discusses the three case studies: Billiton, Deli Maatschappij and HVA for the period 1910–1942. In this chapter investment, profits and linkages will be discussed for these three companies.

– Chapter 6 is about post-independence developments. Here I examine the various themes of the previous chapters, but confined to the time period 1942–1960.

– Chapter 7 is the main conclusion.

Statistics on volumes of investment, gross domestic product, profitability and individual companies are found in the appendices. In this book I use the

[96] Touwen, *Extremes in the archipelago*, 36; Heather Sutherland, 'Writing Indonesian history in the Netherlands: Rethinking the past', *Bijdragen tot de Taal-, Land- en Volkenkunde*, Vol. 150 (1994) 785–804, in particular 788, 797; Jaap Vogel, *De opkomst van het Indocentrische geschiedbeeld: Leven en werken van B.J.O. Schrieke en J.C. van Leur* (Hilversum: Verloren, 1992) 19–22.

standard modern Indonesian spelling for place names, unless they have been changed altogether after independence such as with Batavia becoming Jakarta.

Chapter 2. Dutch private investment in late colonial Indonesia, 1910–1942

2.1 Introduction

In this chapter, I provide a quantitative survey of private Dutch investment in the Netherlands Indies in the early twentieth century, paying attention to volume, target and sources of capital for investment. The successive accumulation of investment will be examined in detail. First, I'll take a brief glance at the opening up of the colony for private capital from 1870 onwards; however, the period 1910–1942 is the main focus of the chapter. The relationship between domestic and overseas investment, and between public and private investment, serve as guidelines.

With this chapter, I will also offer insights into the volume and direction of private investment in the Netherlands Indies and ask some key questions. My focus is on Dutch private investment. The role of the Dutch colonial government in investment activities in the Netherlands Indies is discussed whenever relevant for the development of private investment. Starting-point is the development of a corporate network as indicated by increasing numbers of firms. This allows for a differentiation by sector and ethnic origin of investors as well as a size distribution of firms. Finally, I also pay attention to the development of the export industries and examine which exports were the most important for the Netherlands Indies.

I address various questions as follows. In which different industries was foreign private investment the most prominent and was there a shift visible over time? Did investment in the Netherlands Indies increase during the 'Roaring Twenties' and decline during the economic depression of the 1930s? And if so, to what extent did investment recover on the eve of the Pacific War and when did foreign private investment reach its peak? From which other countries besides the Netherlands did the Netherlands Indies receive foreign private investment?

2.2 From public to private investment, 1870–1910

Private foreign investment had already emerged in colonial Indonesia in the years before 1910. The quarter of a century between 1870 and 1895 was a period of transition, in the sense that Dutch colonialism grew more intensive, spreading rapidly to territories that had not yet been brought under effective colonial rule.[1]

At the time of the Cultivation System, from 1830 to 1870, the colony was seen as one enormous state-run enterprise, with little room for private or foreign investment. Then, the Cultivation System was dismantled from 1870 onwards, Dutch policies regarding private investment in colonial Indonesia changed. In theory, the doors were wide open for private investment, not only in Java but in the Outer Islands as well. In 1874, the government put an end to the preferential treatment of imports from the Netherlands. Companies from other countries were equally free to invest in the Netherlands Indies as well. Yet, in reality, non-Dutch companies did not always receive the same treatment.[2]

The Aceh War of 1873–1914 marked the beginning of this new era of expansion in the Outer Islands. With various military expeditions, the Dutch occupied areas in Sumatra, Southeast Kalimantan, South and Central Sulawesi, Bali and Flores. Initially, the government did not allow private entrepreneurs to enter areas where their safety could not be guaranteed. The main reason for the extension of Dutch rule was officially politically oriented, but economic interests played a role as well. The introduction of the Ethical Policy in 1901 underscores this. In some regions economic interests were paramount, in particular where oil was discovered.[3] In Jambi in Sumatra, the importance of this economic interest was clear. In neighbouring Palembang, oil was found in the 1880s, and only after intervention from a police force could the issue with the sultanate be solved which made it possible for the government to grant concessions to private companies.[4]

The new economic interest in colonial Indonesia is crucial to my argument here. Even if not necessarily caused by it, economic expansion

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[1] Lindblad, *Bridges to new business*, 21–22; J. Thomas Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', *Modern Asian Studies,* Vol. 23 (1989) 1–24, in particular 9–16.
[2] J. Thomas Lindblad, 'The economic relationship between the Netherlands and colonial Indonesia, 1870–1940', in: J.L van Zanden (ed.), *The economic development of the Netherlands since 1870* (Cheltenham: Edward Elgar, 1996) 109–119, in particular 110–111; J.N.F.M à Campo, 'Strength, survival and success. A statistical profile of corporate enterprise in colonial Indonesia, 1883–1913', *Jahrbuch für Wirtschaftsgeschichte*, Vol. 46 (1995) 45–74, in particular 52.
[3] Elsbeth Locher-Scholten, 'Dutch expansion in the Indonesian archipelago around 1900 and the imperialism debate', *Journal of Southeast Asian Studies*, Vol. 25 (1994) 91–111, in particular 93, 95, 102, 105; Herman Burgers, *De garoeda en de ooievaar. Indonesië van kolonie tot nationale staat* (Leiden: KITLV Press, 2010) 113–121.
[4] Locher-Scholten, 'Dutch expansion in the Indonesian archipelago around 1900 and the imperialism debate', 102–103.

certainly did take place after more direct colonial control had been introduced.[5] Initially, however, the colonial government had no large-scale plan for economic expansion due to its liberal political stance. Therefore, private foreign investment became indispensable to economic development, especially, in the Outer Islands.[6] On the other hand, the government stimulated and created favourable conditions in order to increase the capacity of export production. This was done by creating infrastructure and monetary policy or providing direct support.[7] Eventually, when safety could be guaranteed, the colonial government offered a favourable investment climate for private capital, in particular that of Dutch origin. The legal system encouraged private investment further and facilitated the creation of business networks.[8]

Even before the end of the Cultivation System, there were private companies active in the Netherlands Indies. With the *Wetboek van Koophandel* (Commercial Code) of 1848, the corporate firm was introduced ten years later than in the Netherlands. Banks, insurance companies and the transportation industry were already developed in the 1850s. Between 1870 and 1900 the number of agricultural and mining companies also increased. Trading companies and many factories started to flourish after 1890. In sheer number of businesses, however, agriculture remained the largest sector from the early 1880s.[9]

In the period 1870–1913, a total number of 3,801 industrial incorporated firms had already been active in the Netherlands Indies,

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[5] Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 16.
[6] Locher-Scholten, 'Dutch expansion in the Indonesian archipelago around 1900 and the imperialism debate', 104; Howard W. Dick, 'The emergence of a national economy, 1808–1990s', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 21–52, in particular 36.
[7] J. Thomas Lindblad, 'Economische aspecten van de Nederlandse expansie in de Indonesische archipel, 1870–1914', in: J. van Goor (ed.), *Imperialisme in de marge. De afronding van Nederlands-Indië* (Utrecht: HES Uitgevers, 1986) 227–266, in particular 234.
[8] J. Thomas Lindblad, 'The late colonial state and economic expansion, 1900–1930', in: Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002) 111–152, in particular 116; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 258.
[9] Petra Mahy, 'The evolution of company law in Indonesia. An exploration of legal innovation and stagnation', *American Journal of Comparative Law*, Vol. 61 (2013) 377–432, in particular 378, 384–387; À Campo, 'Strength, survival and success', 49, J.N.F.M. à, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North Holland, 1996) 71–94, in particular 75.

although not all of them were still in operation by 1913. The number of annually incorporated firms in the Netherlands Indies gradually increased from 30 in 1890 to 203 in 1910. The number of annually incorporated firms active in the Netherlands Indies with headquarters in the Netherlands rose from 31 in 1890 to 65 in 1910.[10] Therefore, in the period before the First World War, investment in the colonial economy was already in full swing. As À Campo states, the *Gründerzeit* was in the 1870s and 1880s, whereas the boom period of the 1920s, discussed below, can be classified as an Indian summer. During this period, profits were reinvested and consolidation took place.[11]

2.3 Development of a corporate sector

Before focusing on the volume of investment, I will first take a look at the number of companies founded and active in the Netherlands Indies in the period 1910–1940, and see which changes took place by sector and nationality. The data about numbers of companies stems largely from the database available at www.colonialbusinessindonesia.com, which uses the *Handboek voor cultuur- en handelsondernemingen in Nederlandsch-Indië* as its main source.

It should be noted, however, that designations such as *cultuur* ('agricultural' or 'cultivation') and *handel* ('trading') were part of the name of the companies and do not clearly reveal the type of activities undertaken. It was beneficial for firms to legally define a broad range of possible activities. Therefore, it was necessary to examine each case individually when constructing the database.[12]

In the handbook mentioned above, all business companies incorporated under Dutch law and active in the Netherlands Indies are included. It's likely that most foreign-owned incorporated firms are included here as well. This type of legal status was also sought by local residents of

[10] Sluyterman, *Dutch enterprise in the twentieth century*, 40; Dirk Cornelis Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939* (Amsterdam: De Bussy, 1951) 46; W.L. Korthals Altes and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 7: Balance of payments 1822–1939* (The Hague: Nijhoff, 1987) 143–144; À Campo, 'Strength, survival and success', 46, 49–50; À Campo has information about 3,801 companies and Sluyterman mentions almost 4,000 companies.

[11] À Campo, 'Strength, survival and success', 67.

[12] J. Thomas, Lindblad, 'Booming business in colonial Indonesia: Corporate strategy and profitability during the 1920s', paper presented at the 23rd International Association of Historians of Asia Conference (Alor Star, Malaysia, 2014) accessible at https://www.colonialbusinessindonesia.nl, 6.

Chinese descent and many of these companies are included, too, but not all of them were incorporated under the same law as other foreign companies.[13] On the other hand, the number of indigenous Indonesian enterprises listed is negligible, since they usually operated under different legal conditions. Indigenous businesses did not officially have access to incorporation under Dutch law until 1917. Only in 1939 was the Indigenous Joint Stock Company created. Then it became easier for indigenous Indonesians to establish a limited liability company with shareholders, but there were more restrictions than in the Dutch variant. Indigenous business incorporation only became widespread after 1945 when Indonesian independence was achieved.[14]

To start with, in the whole period of my research agricultural companies remained the largest group by sheer numbers. This sector was followed by trading and commercial services, as is shown in Figure 2.1 and Appendix 1.[15] One could argue that industrial development became more important in colonial Indonesia, but as reflected in the companies mentioned in the manufacturing category, the exports of primary agriculture products such as coffee, tobacco and especially sugar remained important.[16] The share of agricultural companies declined from 1915 up to the economic depression of the 1930s, whereas in the manufacturing and trading sectors an increase was visible. On the eve of the Pacific War, the share of the trading sector was still lower than before the Depression, but for manufacturing the situation was slightly better.

The share of agricultural companies dropped from 47%, or 791 out of a total of 1,678 companies in 1910 to 39% in 1925, or 1,022 companies out of a total of 2,597. In 1935, its share, however, was even higher than in 1910 with 49%, or 766 out of 1,563 companies. It is noticeable that the number of mining companies showed a gradual but persistent decrease from 194 companies in 1910 to 81 in 1940, but as will be made clear in due course, the average equity of these firms increased rapidly, which implies that smaller companies were taken over by the larger, more profitable, ones.[17]

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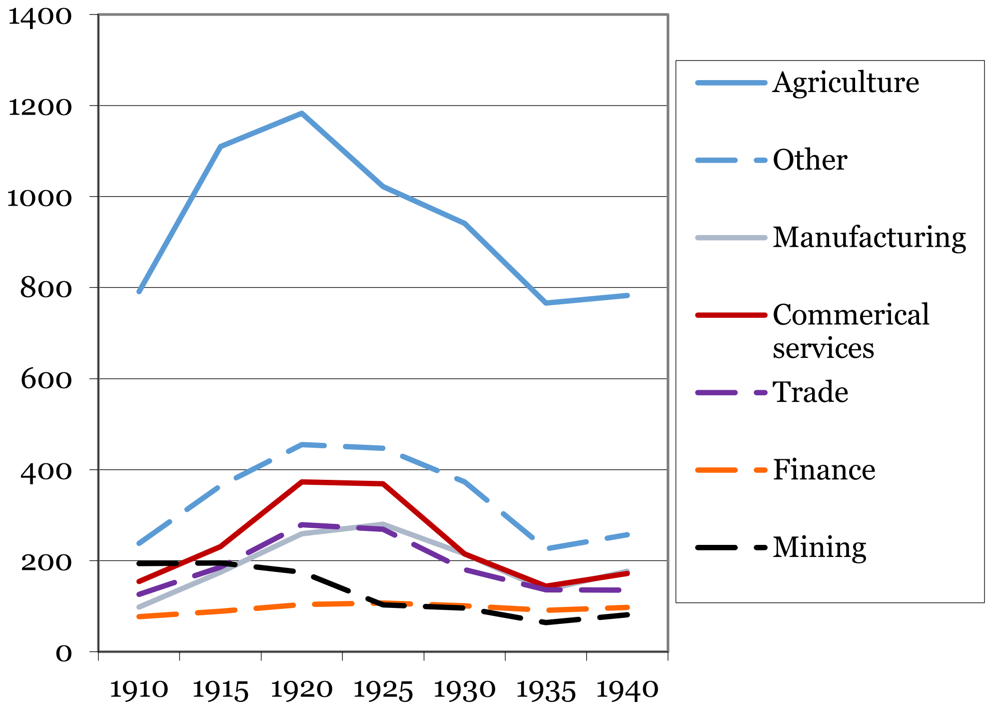
[13] Nono Anwar Makarim, *Companies and business in Indonesia* (PhD thesis, Harvard Law School, Cambridge, MA, 1978) 88–101.
[14] J. Thomas Lindblad, 'Foreign capital and colonial development in Indonesia: A synthesis', *Lembaran Sejarah*, Vol. 14 (2018) 5–27, in particular 5–10; Mahy, 'The evolution of company law in Indonesia', 391–392; Makarim, *Companies and business in Indonesia*, 156–163.
[15] Colonial Business Indonesia, *CBI Database ID*.
[16] J. Thomas Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 51 (1988) 240–298, in particular 286–289.
[17] À Campo, 'Strength, survival and success', 78.

This pattern was clearly visible in the agricultural sector. Eventually, four companies came to produce 97% of the tobacco in Sumatra, and in Java another four companies produced 67% of all tobacco. The Deli Maatschappij, Deli-Batavia Maatschappij, Senembah and Arendsburg Maatschappij were the most famous ones. HVA, Rubber Cultuur Maatschappij Amsterdam (RCMA, Rubber Cultivation Company Amsterdam) and the Belgian-French Société Financière des Caoutchoucs (SOCFIN) produced 75% of all palm oil in 1937. In the sugar industry, 13 companies produced 83% of the Java sugar and of these, the five largest produced 54%, that is, the Nederlandsche Handel-Maatschappij (NHM, Netherlands Trading Association), the Nederlandsch-Indische Landbouw Maatschappij (NILM, Netherlands Indies Agricultural Company), HVA, Cultuur Maatschappij der Vorstenlanden (Estate Company of the Principalities) and plantations belonging to the Colonial Bank. In the coffee, tea and rubber sectors, this concentration was less obvious, although six rubber companies represented 35% of all foreign estate production and twelve companies more than one half.[18] In trading the situation was more diffuse, but the well-known 'Big Five' – Borneo-Sumatra Handel-Maatschappij (Borsumij, Borneo Sumatra Trading Company) Geo. Wehry, Jacobson van den Bergh, Internationale Crediet- en Handelsvereeniging 'Rotterdam' (Internatio, International Credit and Trading Association 'Rotterdam') and Lindeteves – played a major role in trading in the Netherlands Indies.[19]

[18] Taselaar, *De Nederlandse koloniale lobby*, 43–44; J.F. Haccoû and D.A.S. Reid, *Management of direct investments in less developed countries: Report submitted to the international bank for reconstruction and development* (Leiden: Stenfert Kroese, 1957) 194; Touwen, *Extremes in the archipelago*, 111.
[19] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 50; Ralph Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure: A study in economic policy* (PhD thesis, University of California, Berkeley, CA, 1948) 53–54.

Figure 2.1. Numbers of incorporated foreign firms in the Netherlands Indies, 1910–1940.



Source: Colonial Business Indonesia, *CBI Database ID*.

The highest number of foreign companies was reached in 1920 when 2,828 different companies were active (Appendix 1). This was a rapid increase from the 1,678 companies in 1910. The large number of incorporated business firms in 1920 reflected widespread optimism in the international economy after the end of the First World War. The early 1920s formed a period of consolidation, but the upsurge in firms was followed by a small contraction in 1925. The reason why the number of firms fell is twofold. Firstly, various enterprises were set up, as I have said, during a period of exuberant optimism which lasted until the beginning of the 1920s, but many failed to become profitable within a few years. Also, many successful companies took over smaller ones, resulting in fewer individual firms.[20]

When the economic depression of the 1930s struck the economy of the Netherlands Indies, the number of firms declined rapidly and continued to

[20] Lindblad, 'Booming business in colonial Indonesia', 6.

drop until 1935. After this economic downturn, a slow growth in the number of companies was visible, but the impact of the economic depression of the 1930s was evident. In 1940, only 1,702 foreign incorporated firms were operating, which was marginally higher than during 1910. Even if we included Chinese and indigenous Indonesian incorporated firms, this number would have been only 2,156 in 1940. In the Netherlands, on the other hand, 4,894 joint-stock limited liability companies were active in 1938, which was even higher than in 1929 when 4,491 firms were stated. This number was larger than the highest figure recorded in the Netherlands Indies, 2,828 in 1920, or 3,736 incorporated firms when Chinese and indigenous Indonesian firms are included.[21]

À Campo warns that the growing number of incorporated companies up to the 1920s alone is not a good indicator for the economic development of the Netherlands Indies as public investment and non-incorporated firms are left out. Also, incorporation of a company did not automatically mean that it was a new company. A company could be taken over, merge with another company or be re-established, but that is difficult to deduce from the source itself.[22]

Another characteristic of companies active in the Netherlands Indies was that they were relatively young. If we divide the firms into seven different time periods based on the year of incorporation, we can see when the majority of companies were founded. For the years 1910, 1920, 1930 and 1940, the number of companies founded in the immediately preceding decade formed the largest group, shown in Appendix 2. Even in 1940, the share of companies founded between 1931 and 1940 was higher than the number of active companies originating in the years 1921 to 1930. Although the economic depression of the 1930s was clearly felt in the Netherlands Indies, this was not reflected in a significantly lower number of companies incorporated during the 1930s. Many firms founded in the first half of the 1930s probably had only a short lifespan or were founded in the second half of the 1930s after the economic depression.

This proves that the gradual decline in the number of companies had already occurred during the 1920s. Of all categories described in Appendix 2, only the first one, containing companies founded before 1870, actually increased its share in the long run. These companies are likely to have started their operations in the Netherlands and only later became active in the

[21] Appendix 11; Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 46.
[22] À Campo, 'Strength, survival and success', 53–54; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 78.

Netherlands Indies as well. For the other categories, the share in the total dropped rapidly as time went on.[23]

Of the 171 companies active in the Netherlands Indies in 1910 and founded between 1871 and 1890, only 91 companies, slightly more than half, were still active in 1940. For the later period, these figures were even less impressive. In 1910, for instance, there were 516 companies founded between 1891 and 1900, and by 1940 171 or 33% of these were still active. In 1910, there existed 952 companies which were founded between 1901 and 1910, and in 1940 this dropped to 336, or 35% of the number in 1910. Companies founded between 1911 and 1920 had an even shorter lifespan, which shows that there were definitely risks attached to setting up operations in the colony. In 1920, a total of 1,297 foreign incorporated companies founded in these ten years were active in the Netherlands Indies, but in 1940 only 310 of them were left, a survival rate of only 24%. Of all companies founded between 1921 and 1930 and still active in 1930, 54% were active in 1940 as well, which is a lot considering the economic depression of the 1930s.

If we take a look at the incorporation date per industry, we see that financial companies arrived early and had a longer lifespan (Appendix 2). Of all the companies incorporated before 1870, financial enterprises formed the largest group, accounting for two-thirds of all firms incorporated before 1870. Only one company in agriculture (Deli Maatschappij), one in mining (Billiton Maatschappij) and one in trading (NHM) were established before that year.[24]

In the agricultural sector, most companies were incorporated between 1901 and 1910, followed by the next decade, 1911 to 1920. In mining, 1901 to 1910 was the most popular period as well. Even for the financial industry, with its large share of older companies, 1911 to 1920 proved to be the period when most firms were incorporated. For trading companies, this was the case as well. In the year 1920, this amounted to 454 companies in trading, founded between 1911 and 1920. This represented an impressive share of 62% of all companies in 1920 for which the year of incorporation is known.[25]

If we take a look at the nationality of the foreign companies it is obvious that the Netherlands Indies and Dutch companies, with their headquarters in the Netherlands, or the Netherlands Indies, were dominant. The 1910s and 1920s were the most expansive years. Before the First World War, around 200 companies were incorporated in the Netherlands Indies annually, whereas

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[23] J. Thomas Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 54 (1991) 183–211, in particular 192.

[24] Internatio and other early founded trading companies are stated under financial enterprises in the database.

[25] See Appendix 2, 7–10.

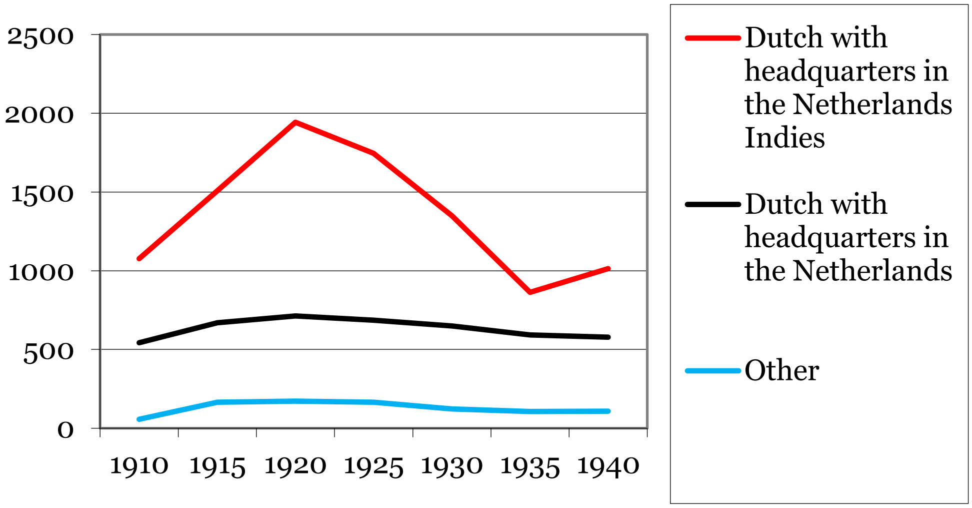
around 50 Dutch companies operating in the Netherlands Indies were established in the Netherlands on average per year. After the First World War, a founding boom occurred in the Netherlands Indies and in the years 1919 to 1921, 593, 655 and 576 companies were incorporated in the Netherlands Indies, respectively. In the Netherlands, on the other hand, only 16, 28 and 23 companies active in the Netherlands Indies were founded in the same years.[26]

The total increase of incorporated companies in the Netherlands, mostly active in the Netherlands alone and not abroad, showed a more stable upward pattern. From 1890 onwards, this number started increasing; between 1890 and 1894, 150 firms were incorporated annually, and by 1912 this had increased to 1,269. Different from the development in the Netherlands Indies, this number continued to grow in the Netherlands in the second half of the 1920s, and in 1929 2,449 firms were incorporated in that year alone. The peak had been reached much earlier in the Netherlands Indies.[27]

Moving back to the Netherlands Indies again, virtually all incorporated firms established before 1870 were Dutch.[28] Officially, until 1890 incorporated companies active in the Netherlands Indies either had to be incorporated in the Netherlands or in the Netherlands Indies.[29] In 1910, the share of companies incorporated in the Netherlands Indies or the Netherlands was still very high, with 96.6% in total or 1,077 and 543 companies incorporated in the Netherlands Indies and in the Netherlands, respectively. The share of these two types of firms combined would never drop below 90%, as shown in Figure 2.2, whereas British firms formed the largest category after the Dutch. However, if we include investment by Chinese and indigenous Indonesians, the share of firms incorporated in the Netherlands Indies and the Netherlands did drop to a low share of 70% in 1930.[30]

[26] Colonial Business Indonesia, *CBI Database ID*.
[27] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 46.
[28] Colonial Business Indonesia, *CBI Database ID*.
[29] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 46; J.F. Haccoû, 'Nederlands-Indië economisch, een beeld van groei en strijd', in: H. Baudet and I.J. Brugmans (eds), *Balans van beleid. Terugblik op de laatste halve eeuw van Nederlandsch-Indië* (Assen: Van Gorcum, 1984) 239–266, in particular, 239.
[30] Appendix 11.

Figure 2.2. Foreign incorporated private enterprises in the Netherlands Indies by nationality, 1910–1940.



Source: Colonial Business Indonesia, *CBI Database ID*.
Note: 'Other' also includes incorporated companies with headquarters in Austria, Belgium, China, Denmark, Germany, France, Italy, Japan, Malaya, Norway, Sweden, Switzerland, the United Kingdom and the United States.

Nevertheless, if we take a more detailed look at investment per country, we can see a marginal decline of companies with headquarters in the Netherlands Indies. From 64.2% of the total in 1910 to 59.6% in 1940. The largest share was in 1920, with 68.7% and 1,943 companies. This was also the year when most foreign companies were active in the Netherlands Indies, in total 2,828. The proportion of Dutch companies headquartered in the Netherlands remained relatively stable in the long run. In 1910, their share in the total was 32.4%. Although it dropped in the 1920s, in 1940 it was at 34% again. The increasing share of other non-Dutch foreign investors should be noted. Although the numbers in Figure 2.2 are still on the low side, the share of British and other foreign companies gradually increased. While their combined share in 1910 was only 3.4% in 1910, in 1940 it had increased to 6.4%. The 1900s and 1910s saw a particular increase in British companies entering the Netherlands Indies.[31]

Another trend was the growing number of companies active in the Outer Islands. Initially, companies settled in West and Central Java and between one-fourth and one-third of the companies active in these regions

[31] Colonial Business Indonesia, *CBI Database ID*.

during the interwar period were founded before 1910, whereas in East Java and North Sumatra, activity began later. In Kalimantan, one-fourth of the companies active at the end of the 1930s had only been founded after 1930, which means that foreign investment activity here was of a later date than in Java.[32]

À Campo argues that firms with headquarters in the Netherlands were liquidated more often than Dutch companies with headquarters in the Netherlands Indies. As a result, Netherlands-based corporations would become less important in the Netherlands Indies. This could be true for the late nineteenth and early twentieth century. The share of Netherlands-based companies declined until 1925, but then increased again until 1940 when it was then nearly the same as in 1910. On the other hand, the share of Netherlands-Indies companies fell gradually from 1910 onwards. One can argue that Netherlands-based corporations did not become less important, but even more important, especially after the economic depression of the 1930s.[33]

Another common characteristic of Dutch companies was that they were 'free-standing' companies. Wilkins and Sluyterman use this term to describe firms set up in one country with the purpose of doing business in another. These firms differ from multinationals, which start operating in one country and then expand to other countries later. The Netherlands Indies, however, was often seen as part of the Dutch network. Initiatives for setting up companies in the Netherlands Indies often came from the people who were already living there and who saw opportunities for business.[34] The managers in the Netherlands tried to stay up to date with business in the Netherlands Indies using the telegraph to exchange information with the overseas subsidiary.[35]

In reality, local managers could often freely decide how to operate their business, since intervention from afar was difficult. They were also better

[32] Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 191; À Campo, 'Strength, survival and success', 50.
[33] À Campo, 'Strength, survival and success', 50.
[34] Sluyterman, *Dutch enterprise in the twentieth century*, 41; Mira Wilkins, 'The free-standing company, 1870–1914. An important type of British foreign direct investment', *Economic History Review, New Series,* Vol. 41 (1988) 259–282, in particular 261; Gales and Sluyterman, 'Dutch free-standing companies, 1870–1940', 294–297; Wilkins, 'The free-standing company revisited', 3.
[35] Sluyterman, *Dutch enterprise in the twentieth century*, 39–42; Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 13; Lindblad, 'Economische aspecten van de Nederlandse expansie in de Indonesische archipel, 1870–1914', 242; Van der Eng, *Economic benefits from colonial assets*, 17; Van Lynden, *Directe investeeringen in het buitenland*, 6, 116–117.

informed about the local situation in the colony. However, they still depended on Dutch capital and so the relationship was tricky. It was not always easy to convince a board in the Netherlands, that was best informed about the possibilities of attracting capital, that certain investments were necessary.[36]

The board of the KPM, for instance, asked its manager in the Netherlands Indies to describe all developments in great detail, and he was obliged to keep in contact regularly with the board. In practice, these reports did not always arrive on time or contain adequate information. Overall, boards in the Netherlands had little control over what was happening in the colony and as long as business was going well, the managers there were less likely to follow strict orders from the Netherlands.[37]

Whether Dutch firms with headquarters in the Netherlands can be considered more foreign than Dutch companies incorporated in the Netherlands Indies, is another issue. It would be speculative to ascribe differences in the impact on the host economy and the society to these two types of incorporation. From an Indonesian perspective, both were foreign. It is likely that the majority of the shareholders were Dutch and lived in the Netherlands and had a significant influence on the management of the company. On the other hand, it is likely that decisions in Dutch companies with headquarters in the Netherlands Indies were made in closer consultation with administrators on the spot.[38]

Lindblad has in earlier research proposed a differentiation by type of investors using a scale from less to more foreign. The first category consists of indigenous Indonesians. Their number and size of incorporated companies was marginal. The next category consists of Chinese entrepreneurs in Indonesia. They were not Dutch citizens, but Dutch subjects, and often perceived by Indonesians as foreigners, although they might have lived in the Indonesian archipelago for generations. Chinese investment can only be considered as truly foreign if the headquarters of the companies were outside the Indonesian archipelago and equity originated from China. Unlike Dutch companies that had headquarters in the Netherlands Indies, the domestic Chinese companies were not directly linked to colonial rule.[39] Chinese-owned

[36] Sluyterman, *Dutch enterprise in the twentieth century*, 45–46.
[37] Sluyterman, *Dutch enterprise in the twentieth century*, 46; J.N.F.M. à Campo, *Koninklijke Paketvaart Maatschappij. Stoomvaart en staatsvorming in de Indonesische archipel, 1888–1914* (Hilversum: Verloren, 1992) 479–481.
[38] Lindblad, 'Foreign capital and colonial development in Indonesia', 7; Lindblad, 'Booming business in colonial Indonesia', 6.
[39] J. Thomas Lindblad, 'Corporate structure and profit in late colonial Indonesia', paper presented at 17th World Economic History Congress (Kyoto, 2015) accessible at https://www.colonialbusinessindonesia.com, 6; Lindblad, 'Booming business in

companies in the Netherlands Indies therefore possessed a unique character. These firms were not truly foreign but also not fully domestic. However, to all intents and purposes, investment by Chinese residents in colonial Indonesia must be thought of as domestic investment and will not be discussed in detail in this dissertation.

The third group in Lindblad's original classification was called Netherlands-Indies businessmen. These could either be Dutch or have a mixed ethnic origin and lived in the colony. Usually, they kept a bond with a foreign nation, in particular the Netherlands. One step further away were the genuinely Dutch investors in the Netherlands who managed and supervised their businesses at a large distance from actual operations. The fifth and last category consists of investors from third countries, particularly from the United Kingdom, though other European countries and the United States and Japan were also included. The first two categories consisting of Indonesian and Chinese residents in the Indonesian archipelago will not be discussed in detail here.[40]

The Chinese presence in medium-sized enterprises was clearly visible, especially in trading. In the smallholder rubber exports, for instance, the Chinese played an important role as middlemen and in exporting rubber to Singapore. By the early 1920s, there were nearly 1,700 Chinese-owned firms employing more than five people. For Western firms, these numbers were 2,800, while another 870 were owned by indigenous Indonesians.[41]

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colonial Indonesia', 6–7; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 14, 72–73; À Campo, 'Strength, survival and success', 51; Mahy, 'The evolution of company law in Indonesia', 387–389; Pierre van der Eng, 'Chinese entrepreneurship in Indonesia: A business demography approach', *Business History,* Vol. 4 (2022) 682–703, in particular 682–685.

[40] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 14, 72–73; À Campo, 'Strength, survival and success', 51; Mahy, 'The evolution of company law in Indonesia', 387–389; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 141; J.L., Vleming, *Het Chineesche zakenleven in Nederlandsch-Indië* (Weltevreden: Landsdrukkerij, 1926) 13.

[41] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 310; J.L. Vleming, 'The Chinese business community today in the various parts of Netherlands India', in: M.R. Fernando and David Bulbeck (eds), *Chinese economic activity in Netherlands India: Selected translations from the Dutch* (Singapore: Asean Economic Research Unit, 1992) 167–260, in particular 254–259; Bambang Purwanto, 'The economy of Indonesian smallholder rubber, 1890s1940', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 175–192, in particular 185; Ulbe Bosma, *The making of a periphery: How Island Southeast Asia became a mass exporter of labor* (New York: Colombia University Press, 2019) 107–114.

For foreign non-Dutch investors, it was possible to cooperate with Dutch investors in order to get a foothold in the Netherlands Indies. For the year 1913, à Campo mentions 83 such combinations.[42] Royal Dutch Shell was one example. This company resulted from an integration of the activities of the Koninklijke Nederlandsche Maatschappij tot Exploitatie van Petroleumbronnen in Nederlandsch-Indië (Royal Dutch Company for Exploitation of Petroleum Sources in the Netherlands Indies) with those of the British Shell Transport and Trading Company, the latter holding 40% of the shares in the joint subsidiaries.[43]

Although it will be discussed in more detail below, it needs to be mentioned that some foreign non-Dutch companies in the Netherlands Indies were listed as Dutch. The nationality of firms with headquarters in the Netherlands Indies is not always clear. Foreign companies could choose to locate their headquarters in the Netherlands Indies or give the firm a Dutch name.[44] In order to find out the true nationality of all companies, each individual firm would have to be examined separately.

It is improbable that the share of American companies was as low as can be discerned from the source. The highest number stated was only six companies in 1920 and 1925. For overseas Chinese companies, i.e. companies not located in the Netherlands Indies, numbers were not much higher, and only nine of them were mentioned in 1920.[45] It is likely that the actual number of foreign non-Dutch companies was higher than can be ascertained from the database. Although the Dutch government promoted an open-door policy, in practice foreign companies faced opposition, which especially was the case with German and Japanese investors. Dutch enterprises were advantaged with their familiarity of Dutch procedures, institutions and jurisdiction, which produced a well-oiled network with personal contacts.[46]

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[42] À Campo, 'Strength, survival and success', 52; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 77; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 116; for more information about the Dutch colonial network see also: Taselaar, *De Nederlandse koloniale lobby*.

[43] Jonker and Van Zanden, *A history of Royal Dutch Shell: From challenger to joint industry leaders, 1890–1939*, 81–85; Sluyterman, *Dutch enterprise in the twentieth century*, 47–48.

[44] Lindblad, 'Booming business in colonial Indonesia', 6–7; Lindblad, 'Corporate structure and profit in late colonial Indonesia', 6; Lindblad, 'Foreign capital and colonial development in Indonesia', 7; Touwen, *Extremes in the archipelago*, 144; À Campo, 'Strength, survival and success', 51–52.

[45] Colonial Business Indonesia, *CBI Database ID*.

[46] À Campo, 'Strength, survival and success', 52; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 78; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 116; Smits, *De beteekenis van Nederlandsch-Indië uit internationaal-economisch oogpunt*, 4.

Although restrictions on freedom of investment were few in the Netherlands Indies, before 1900 the Dutch government gave clear preference to Dutch and British capital, discriminating against American investment. From 1922, the administration restricted the establishment of foreign corporations to large concerns. Mining concessions were granted to foreign companies only on condition that their headquarters were in Dutch territory and that the majority of their directors were domiciled there. Metropolitan shipping interests had the advantage of exclusive government contracts for the carriage of persons and goods.[47]

American investors complained that the appropriation of the concessions in the Netherlands Indies was unfair. In 1921, a law was designed that would allow the Nederlandsch-Indische Aardolie Maatschappij (NIAM, Netherlands Indies Petroleum Company) to explore and produce in Jambi and that the Bataafsche Petroleum Maatschappij (BPM, Batavian Petroleum Company) would have first choice at new concessions in the Netherlands Indies. This law was approved by the House of Representatives, with 49 votes against 30. It was claimed by opponents that H. Colijn, involved in both politics and the oil business, abused his position in order to enhance it.[48] This was not unusual. Over time, various network analyses have been carried out for private companies. The situation for firms active in the Netherlands Indies was no different from that in the Netherlands.[49] One such analysis is by Lindblad, who examined all incorporated firms for the year 1920, including Chinese and indigenous Indonesian incorporated businesses. According to his study, 3,737 individual firms were operating and 2,746 different people were in charge of these companies. For 289 companies, no director was known and 702 companies had a director who was also in charge of another company.

The nationality of the directors reflects the nationality of the firms: 71%, or 1,953 persons, were either European, Japanese or American, although

[47] Callis, *Foreign capital in Southeast Asia*, 38.
[48] Peter de Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950* (PhD thesis, Utrecht University, 2016) 174; Taselaar, *De Nederlandse koloniale lobby*, 88–90.
[49] For more network analyses see also: J. Thomas Lindblad, 'Ver weg of ter plaatse? Bedrijfsleiders in het Nederlands-Indië van de jaren twintig', in: Anita van Dissel, Maurits Ebben and Karwan Fatah-Black (eds), *Reizen door het maritieme verleden van Nederland* (Zutphen: Walburg Pers, 2015) 305–319; Taselaar, *De Nederlandse koloniale lobby*; J. Dronkers and F.N. Stokman (eds), *Nederlandse elites in beeld. Rekrutering, samenhang en verandering* (Deventer: Van Loghum Slaterus, 1984); H. Schijf, *Netwerken van een financieel-economische elite. Personele verbindingen in het Nederlandse bedrijfsleven aan het eind van de negentiende eeuw* (Amsterdam: Spinhuis, 1993); Meindert and Huibert Schijf (eds), *Nederlandse elites in de twintigste eeuw. Continuïteit en verandering* (Amsterdam: Amsterdam University Press, 2004).

it is likely that most were Dutch. A relatively large share, 26%, or 718 persons, had Chinese names and only 75 persons, or 3%, were unmistakably indigenous Indonesians. Only 396, or 15% of the total, were managers of more than one company, on average being in charge of 2.8 companies. The majority, 256 persons or 65%, were in charge of two companies. 100 or 25% commanded three or four companies and 40 (10%) were in charge of five or six companies. Rare exceptions were K.A.R. Bosscha, who managed seventeen different firms, mostly cultivation companies specializing in tea; E. Helfferich, who led eleven companies, of which nine were rubber companies; J.W.D. Franken and J.H.T. Zimmerman, who both had ten companies. Of the 396 people who managed more than one company, the share of European, Japanese or American leaders was higher, 82% against 71% for the total. The remaining share consisted solely of Chinese businessmen, 73 directors or 18%. Only 30 of all managers were active in both the Netherlands Indies and the Netherlands, including N.J.H. ter Kuile at the HVA, H. Cremer at the Deli Company, C.J.K. van Aalst at the NHM and H.W.A. Deterding at Royal Dutch Shell.[50]

Arjen Taselaar applies a different type of analysis for the years 1913, 1921, 1928, 1935 and 1939. He Included companies that had to have *ƒ*3 million of equity in at least one of those years and had to be active in the Netherlands Indies for a significant part, and the board had to be located in the Netherlands. This brought him to a total of 214 companies. He examined the network of the managers of these companies. 1,500 people in these companies fulfilled a management function during these five years, while 143 of them were active in four or more companies simultaneously in one of the stated years and might have had other functions as director, banker, trader, lawyer or civil servant.[51]

C.J.K. van Aalst, who worked for NHM from 1889 to 1934, was also on the board of the KPM and affiliated with various other companies, including the Nederlandsche Scheepvaart Unie (Netherlands Shipping Union), the Stoomvaart Maatschappij Nederland (Netherlands Steamship Company), Royal Dutch Shell, BPM, the machine factory Werkspoor and the Koninklijk Nederlandsch-Indische Luchtvaart Maatschappij (KNILM, Royal Netherlands Indies Airways), which was founded by NHM and others in 1928. D. Crena de Iongh, who replaced C.J.K. van Aalst as manager of the NHM, was also affiliated with KPM, the Stoomvaart Maatschappij Nederland, KNILM, Royal Dutch Shell, the machine factory Werkspoor, the Java-China-Japan

[50] Lindblad, 'Ver weg of ter plaatse? Bedrijfsleiders in het Nederlands-Indië van de jaren twintig', 312–314; Sluyterman, *Dutch enterprise in the twentieth century*, 48.
[51] Taselaar, *De Nederlandse koloniale lobby*, 50–54.

Line and the Nederlandsch-Indische Suiker Unie (Netherlands Indies Sugar Union).[52] In shipping, the higher staff was usually only involved in positions at another shipping company and not in other companies. The KPM, Rotterdamsche Lloyd and Stoomvaart Maatschappij Nederland founded the Nederlandsche Scheepvaart Unie, which acquired most of the shares of these companies and prevented other foreign shipping companies from dominating the market in the Netherlands Indies. Eventually, they founded the Vereenigde Nederlandsche Scheepvaartmaatschappij (United Netherlands Navigation Company), which opened shipping routes to other parts of the world. Another purpose of this cooperation was to limit competition between the individual shipping companies and to consolidate their own positions through agreements with each other.[53]

In this way, many companies were linked to each other and the colonial network was strengthened. The network grew from 1910 and as it expanded, its sectoral and geographical characteristics, as well as nationality patterns, changed. There was a shift from the primary to the tertiary sector and also from Java to Sumatra and Kalimantan. A business network thus arose, aided by diversification of activities, extension in geographical coverage and a strengthening of the local basis.[54]

The Ondernemersraad voor Nederlandsch-Indië (Council of Entrepreneurs for the Netherlands Indies) was the top lobbying organisation and was established in 1921. All companies active in the Netherlands Indies could participate in the Ondernemersraad. HVA and NHM had their own separate organisations, since they claimed that for their products – oil palm, cassava and sisal – no group existed yet. The *Ondernemersraad* was located in the Netherlands. With the Indische Ondernemersbond (IOB, Netherlands Indies Employers Association) a similar institution was created in the Netherlands Indies.[55] In addition, many branches of industry had their own organisation. Only a few of them can be named here.[56] The sugar industry was a good example of a sector defending its political interests and stimulating the development of new technologies.

The Algemeen Syndicaat van Suikerfabrikanten in Nederlandsch-Indië (ASNI, Syndicate of Java Sugar Manufacturers) had been established as

[52] Taselaar, *De Nederlandse koloniale lobby*, 61.
[53] Taselaar, *De Nederlandse koloniale lobby*, 79; Sluyterman, *Dutch enterprise in the twentieth century*, 43.
[54] Lindblad, 'The economic relationship between the Netherlands and colonial Indonesia, 1870–1940', 114.
[55] Taselaar, *De Nederlandse koloniale lobby*, 112–118.
[56] For a more detailed description of the various organisations see: Taselaar, *De Nederlandse koloniale lobby*, 99–163.

early as 1894, and in 1917 the Bond van Eigenaren van Nederlands-Indische Suikerondernemingen (BENISO, Union of Netherlands Indies Sugar Factories' Owners) followed. When the Vereenigde Javasuiker-Producenten (VJSP, United Java Sugar Producers Association) was founded in 1918, the trade in sugar changed. In the past, individual companies sold sugar without the guarantee of a delivery date, but then the VJSP became responsible for 90% of the sale of the sugar output in Java, with the name of the individual supplier no longer given to the buyer.[57]

Other organisations include the Deli Planters' Vereeniging (DPV, Deli Planters' Association) established in 1879, the chief organisation for tobacco planters.[58] Rubber producers were organized in 1910 with the AVROS in 1910 and supplemented in 1913 by the Internationale Vereniging voor de Rubbercultuur in Nederlands-Indië (International Association for the Rubber Cultivation in Netherlands Indies). In 1935, a network was created with the Federatie van Verenigingen van Nederlands-Indische Bergcultuur-ondernemingen (FEDERABO, Federation of Associations of Netherlands Indies Upland Estate Companies).[59] With all these organisations the Dutch investors managed to strengthen their network.

2.4 Accumulation of foreign-owned assets

The start of foreign investment in colonial Indonesia

The role of FDI as opposed to portfolio investment is the main topic of this chapter. FDI is defined as investment involving a long-term relationship in productive capital like factories or subsidiaries, with a lasting interest in a different economy from the home country of the investor. Unlike portfolio investment, the direct investor wishes to be involved in the management of the company in the host country. In practice, this means that the foreign investor played a major role in founding and operating a company in the Netherlands Indies and usually did not invest in local non-foreign

[57] Vleming, *Het Chineesche zakenleven in Nederlandsch-Indië*, 171; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 83, 129; Taselaar, *De Nederlandse koloniale lobby*, 102–107; Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure*, 47–48.
[58] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 83.
[59] Taselaar, *De Nederlandse koloniale lobby*, 99–100; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer,* 173; Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure*, 47–49.

companies.[60] In my research, foreign direct investment was conceived as private investment originating outside the Netherlands Indies. The Netherlands Indies is perceived akin to a foreign destination, since it had an independent monetary policy and its own balance of trade.[61]

In the last quarter of the nineteenth century, equity for this kind of investment was partly provided by the founder himself. Initially, interest in the Dutch capital market for tropical adventures was limited and self-made businessmen formed networks with banks and trading houses to acquire capital.[62] For ventures founded between 1890 and 1905, the founders themselves brought in an average equity of 25–35%. This percentage varied widely and was significant in agriculture and mining, where early prospecting for resources was necessary for profitable exploitation. The level of this founders' equity also varied and was higher for companies run from the Netherlands. À Campo states that the average was around ƒ0.5 million in 1890 to ƒ0.8 million in 1913.[63] The Royal Dutch oil company was no exception. In 1884, a tobacco planter, A. Zijlker, started explorations in the oil market in East Sumatra. When his firm was incorporated in 1890 with a founding capital of ƒ1.3 million, he himself brought in ƒ371,000 and found additional capital in the Dutch stock market.[64]

Banks also provided capital in the late nineteenth century. Along with the Java Bank, the NHM, the Nederlandsch-Indische Escompto Maatschappij (NIEM, Netherlands indies Escompto Company), the NILM, the Rotterdamsche Bank, NIHB, Internatio, HVA and the Koloniale Bank (Colonial Bank) all made investments for the export production possible.[65]

[60] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 1; Van Lynden, *Directe investeeringen in het buitenland*, 6–7.
[61] Van Lynden, *Directe investeeringen in het buitenland*, 6, 116–117.
[62] Van der Eng, *Economic benefits from colonial assets*, 16; Taselaar, *De Nederlandse koloniale lobby*, 35; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 82; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 254.
[63] À Campo, 'Strength, survival and success', 60; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 80, 84.
[64] Sluyterman, *Dutch enterprise in the twentieth century*, 47–48; Touwen, *Extremes in the archipelago*, 143; Jeroen Touwen, 'Voordeel van veelzijdigheid. De economische ontwikkeling van Palembang en Djambi tussen 1900 en 1940', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 54 (1991) 135–182, in particular 146; Keetie E. Sluyterman and Hélène J.M. Winkelman, 'The Dutch family firm confronted with Chandler's dynamics of industrial capitalism, 1890–1940', in: Geoffrey Jones and Mary Rose (eds), *Family capitalism* (Abingdon: Routledge, 1993) 152–183, in particular 162–163.
[65] Emil Helfferich, *Die Niederländisch-Indischen Kulturbanken* (Jena: Fischer, 1914) 32–33; Sluyterman, *Dutch enterprise in the twentieth century*, 42.

In 1873, the director of the Java Bank complained that, compared to Europe and British India, almost all equity of the companies in colonial Indonesia was provided by the entrepreneurs themselves or by banks, not through issuing shares. According to the director, it would be much better if more companies could acquire equity in the stock market instead of having to borrow money and pay high interest rates. The effects of this became clear with the economic crisis of 1877 and the sugar crisis of 1884, which hit several banks.[66]

This system was vulnerable to shocks, since the plantations had to pay back credits with profits from their crops. During the sugar crisis of 1884, prices of primary export products dropped, which caused serious trouble for companies that had lent money. One of these was Dorrepaal & Co., which was linked to many plantations. The crisis had bad repercussions for the NIHB and the Koloniale Bank. The NIHB was eventually saved by a committee of six businessmen, including banker A.C. Wertheim and the director of the Deli Railway Company, J.T. Cremer, who brought the activities of the NIHB into a new company, the NILM, in which the NIHB held almost all shares.[67]

The result of the sugar crisis was that industry and banking were reorganized and the bankers increased their influence on business in colonial Indonesia. The large banks formed a crucial link in the network and the NHM was transformed into a major bank with connections to numerous cultivation companies. The sugar industry was saved with help of the colonial government and the Java Bank, which led to a greater reliance on banks, since they were allowed to make heavier demands on the companies. The banks became more reluctant to provide capital to new companies, whereas the capital market in colonial Indonesia was very small. Therefore, it became more common to reinvest profits in the Netherlands Indies than it was in the Netherlands, also because of the higher risks of operations in the colony. Most companies were active in the agricultural sector, prone to pests, diseases, weather conditions and fluctuating prices. It is estimated that between 1925 and 1938, around one-quarter to one-third of profits were ploughed back into the company. It should be noted that this reinvestment was different from new capital flowing

66 K.D. Bosch, *De Nederlandse beleggingen in de Verenigde Staten* (Amsterdam: Elsevier, 1948) 68; P.A. Lith van der, A.J. Spaan and F. Fokkens, *Encyclopaedie van Nederlandsch-Indië* (Leiden: Brill, 1896) 406.
67 Van der Eng, *Economic benefits from colonial assets*, 17–18; Sluyterman, *Dutch enterprise in the twentieth century*, 39–40; Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 13; Lindblad, 'Economische aspecten van de Nederlandse expansie in de Indonesische archipel, 1870–1914', 242.

into the Netherlands Indies from abroad. This reinvested equity did not leave or enter the country, since it was already there.[68]

Another consequence of the crisis of 1884 was that more companies were converted into *naamloze vennootschappen* (joint-stock limited liability companies) in order to reduce risks.[69] Initially, the purpose of founding joint-stock companies was to acquire large amounts of equity which was not easily possible in another way, for instance by use of *besloten vennootschappen* (private limited liability companies).[70] Dutch companies in the colony were more likely to be joint-stock companies than companies operating only in the Netherlands.[71] Raising money in the Dutch stock market was often not an option for smaller companies, because stock market listings required a minimum of *ƒ*0.5 million subscribed capital.[72] Overall, the Dutch companies active in the Netherlands Indies became more professional and better organized. When smaller companies were bought out, the ownership of these assets usually changed, which led to a relatively small number of companies in the Netherlands with considerable assets.

Indigenous Indonesians, and to a lesser extent Chinese, were disadvantaged compared to Western entrepreneurs. In the beginning of the twentieth century, the financial industry in the Netherlands Indies was poor. Many entrepreneurs relied on capital from the Dutch-owned banks active in the Netherlands Indies. They all required some kind of collateral, which made it nearly impossible for indigenous Indonesians to get credit, although the Chinese were more successful and managed to acquire funding from other foreign banks and trading companies. In fact, many Chinese firms usually got going with capital from family or friends. Only from 1912 onwards did the Volkscredietbank (People's Credit Bank) stimulate indigenous Indonesian business activities, but the results were disappointing, especially compared with foreign investment.[73]

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[68] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 258–259; Van der Eng, *Economic benefits from colonial assets*, 23; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 129; Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure*, 51–52.
[69] Taselaar, *De Nederlandse koloniale lobby*, 35.
[70] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 47.
[71] Ibid., 119.
[72] Van der Eng, *Economic benefits from colonial assets*, 16.
[73] Lindblad, *Bridges to new business*, 31; Lindblad, *Between Dayak and Dutch*, 183; P. Creutzberg and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 3: Expenditure on fixed assets* (The Hague: Nijhoff, 1977) 31; Touwen, *Extremes in the archipelago*, 123; Vleming, *Het Chineesche zakenleven in Nederlandsch-Indië*, 139–140; David Henley, and Aditya Goenka, 'Introduction: From moneylenders to microfinance in Southeast Asia', in: Aditya Goenka and

Dutch investment in the Netherlands Indies

Although it was much easier for the Dutch, than other nationalities, to invest in the Netherlands Indies, the amounts of equity entering colonial Indonesia were initially relatively small compared to investments done by the Dutch in other foreign countries. A substantial part of total Dutch overseas investment was portfolio investment. More popular among Dutch investors in the Netherlands Indies was the purchase of Indonesian public bonds, guaranteed by the Dutch government. As a consequence, the public debt of colonial Indonesia rose during the first quarter of the twentieth century in order to finance outlays on infrastructure and other expenditures. Even though the Netherlands Indies managed to have a trade surplus, the colonial government still had to borrow money to pay off its debt. Companies could also issue bonds, but this was rather uncommon, on average accounting for not much more than 10% of total equity.

Overall, the share of investment in the Netherlands Indies in total Dutch foreign investment increased from around 20% in 1900 to 46% in 1938. This was not entirely caused by new capital flowing to the Netherlands Indies. Reinvesting profits increased the value of various companies significantly and plantations and companies taken over in the Netherlands Indies from less fortunate owners also resulted in an accumulation of wealth.[74]

Demand for capital in the Netherlands Indies rose significantly in the early twentieth century. Whereas in 1885 between ƒ150 million and ƒ200 million had been invested by private foreign investors, this amount increased rapidly in the following years. Between 1900 and 1914, ƒ750 million to ƒ1 billion was invested in the colony.[75] In late colonial Indonesia, it was estimated

David Henley (eds), *Southeast Asia's credit revolution. From moneylenders to microfinance* (London: Routledge, 2010) 1–17, in particular 4.

74 Van der Eng, *Economic benefits from colonial assets*, 19–12; Pierre van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', *Revista de Historia Económica*, Vol. 16 (1998) 291–321, in particular 309–310; À Campo, 'Strength, survival and success', 55, 58–59; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 83–84; J. Thomas Lindblad, 'Changing destinies in the economy of Southeast Asia', in: Tirthankar Roy and Giorgio Riello (eds), *Global economic history* (London: Bloomsbury Academic, 2019) 337–354, in particular 346–348.

75 Creutzberg and Van Dooren, *CEI. Vol. 3*, 18, 28; Adriaan Marie de Jong, 'De financiëel-economische verhouding tusschen Nederland en Nederlandsch-Indië vóór den tweeden wereldoorlog en de geschiedenis van het Indische geldwezen gedurende de jaren 1900–1930: een terugblik', *De Economist,* Vol. 94 (1946) 664–713, in particular 668; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 254.

that the accumulated stock of FDI in the late 1930s was around ƒ3.5 billion or $1.4 billion in current prices. Compared to the balance of payments for the period 1925–1939, the average incoming flow of private capital was only around ƒ71 million per year, merely 2% of the stock value.[76]

A more detailed calculation of the flow of Dutch investment in colonial Indonesia shows that of all capital issued in the Netherlands 15% went to the Netherlands Indies in 1904, excluding the oil company Royal Dutch (from 1907 in conjunction with Shell). In the following years, this proportion increased, in 1909 amounting to 31% (around 40% if Royal Dutch Shell is included). Although it declined in the following years to 20.5% in 1911, in 1914 it increased again to 36%.

For the period 1910 to 1920, issued capital for companies active in the Netherlands Indies, including Royal Dutch Shell, was 32.1% of total Dutch issued capital, or an annual average of ƒ81.1 million. For the next ten years, it was 21.5%, or ƒ54.4 million per year, and for 1931 to 1939 56.4%, with an annual average of ƒ19.1 million, but it should be noted that Royal Dutch Shell issued a significant amount of equity in 1939, that could have been partly used outside the Netherlands Indies, thus distorting the picture. Nevertheless, between 1910 and 1939, a total of ƒ1,004 million was spent on issued shares of companies active in the Netherlands Indies and including Royal Dutch Shell this would increase to ƒ1,609 million, which was 20.1% and 32.3%, or ƒ33.4 million and ƒ53.6 million per year, respectively, out of a total Dutch investment of ƒ4,988 million in current prices.[77] The annual incoming flow of FDI accounted for only 2% of accumulated stock. A large part of the capital used for private investment in the Netherlands Indies was financed through retained profits, which does not show up in incoming FDI flows.[78]

The value of issued equity of incorporated companies must not be confused with expenditures on fixed assets, which were notably higher. Expenditures on fixed assets include all payments made by a company in order to maintain its fixed assets such as buildings, equipment and factories. Therefore, the value of issued equity is not necessarily the same as total foreign investment. Total expenditure for the years 1910 to 1939 was ƒ4,120 million in current prices, with an annual average at around ƒ250 million during the

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[76] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 7.
[77] F. de Roos and W.J. Wieringa, *Een halve eeuw rente in Nederland* (Schiedam: Levensverzekering-maatschappij HAV Bank, 1953). 56–57; Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 116; Appendix 12; Korthals Altes and Van Dooren, *CEI. Vol. 7,* 115–133.
[78] Lindblad, 'The economic relationship between the Netherlands and colonial Indonesia, 1870–1940', 114; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 7.

1920s and *ƒ*50 million during the 1930s.[79] It should be noted, however, that these figures include expenditures on plantations, mining companies and other firms owned by the government.[80] However, as Booth writes, in 1913 the corporate capital stock was around 50% of the total, which means that not only the public sector, but other non-incorporated firms as well were responsible for the other half. This explains why a part of the private capital inflow was significantly higher than the value of issued equity.[81] Imports into the Netherlands Indies consisted of less than 20% of capital goods, such as machines and railway materials, and 80–90% of these capital imports were by private firms. Imports of consumer goods remained dominant, and labour-intensive industries remained important in most of the export industries.[82]

In addition, different enterprises were built and operated by the colonial government. This was around 25% of the aggregate value of corporate investment in 1900. The proportion increased to 35% in 1924. Harbours and railways were responsible for a large share, although participation in mining and oil companies increased as well. During the 1920s, the share of the government decreased, as private investment accelerated. Between 1910 and 1939, the cumulative total of new loans in the Netherlands Indies and enlargement of the floating debt were more than twice the private capital inflow, although these loans were mainly used to finance government expenditures, not for capital formation. And so the role of the colonial government must not be overlooked.[83]

It is instructive to compare expenditures on fixed assets to inflows of private capital and issued equity. The share of domestic expenditure was around 55% of total expenditure on fixed assets, but only 45% came from abroad, mostly from the Netherlands. A significant part of the domestic expenditure went to delivery costs, labour and transport. The largest part, slightly less than half of total expenditure, was spent in the plantation

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[79] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 88–95; Lindblad, 'The economic relationship between the Netherlands and colonial Indonesia, 1870–1940', 114; Colonial Business Indonesia, *CBI Database ID*.

[80] Creutzberg and Van Dooren, *CEI. Vol. 3*, 9, 11, 23, 33, 44–46, Creutzberg states that his data for foreign companies was based on the *Bureau Schadeclaims Indonesië* (Bureau for Indemnification Claims in Indonesia), which only led to results of 564 concerns. He made extrapolations to make the numbers representative for all investments.

[81] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 255; Colonial Business Indonesia, *CBI Database ID*.

[82] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 128; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 35; Creutzberg and Van Dooren, *CEI, Vol. 3*, 72–75.

[83] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 265–266; Creutzberg and Van Dooren, *CEI. Vol. 3*, 18.

industry, around 15% in the oil and mining industry, and the government was responsible for another 14% in various other sectors.[84] The category expenditure on fixed assets from abroad was not much higher than inflows of private capital, but the value of equity was around half, which can imply that there was a share of smaller non-incorporated companies receiving capital, and that profits were reinvested.[85]

If we consider the same data corrected for inflation, we see that the peak of expenditure on fixed assets during the 1920s was lower, but higher during the 1930s, which leads to a more even trend. This is also visible in total expenditure, inflows of private capital and issued equity. The totals are only slightly lower if we adjust for the price data. The total expenditure on fixed assets only drops from ƒ4,824 million in current prices to ƒ3,970 million in constant prices, which confirms that the extremes of the 1920s and the 1930s were more flattened.

Various other calculations exist about the amount of total capital invested by the Netherlands in the Netherlands Indies and other countries. Derksen made an estimation for 1913 of ƒ3,020 million worth of investment in foreign countries, excluding investment in the Netherlands Indies. For 1934, he gave an amount of ƒ1,013 million, but even with the deflation during the economic depression of the 1930s and the results of the First World War it is unlikely that this difference would have been that big. For instance, another calculation, by Van Soest, shows that in 1936 a cumulated total of ƒ2,247 million was invested abroad by the Dutch, and another ƒ2,265 million was invested in the Netherlands Indies at that time, which confirms that in the second half of the 1930s around half of total Dutch foreign investment was undertaken in the Netherlands Indies. The Central Bureau of Statistics shows similar results, although their data refers to 1938. An estimated amount of ƒ2.1 billion was invested abroad, excluding the Netherlands Indies. It should be noted that Van Soest also includes foreign government bonds. According to his calculations, stocks in the Netherlands Indies were valued at ƒ1,183 million in 1936 and bonds at another ƒ1,082 million in current prices. If we use the stock market figures for 1929, when shares were valued higher than in 1936, a different picture emerges. The total value of shares in the Netherlands Indies would be ƒ2,740 million and bonds at ƒ935 million, which brings the total to ƒ3,675 million.[86] Another estimation comes from Weijer who showed that at

[84] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 256–257; Colonial Business Indonesia, *CBI Database ID*.
[85] Colonial Business Indonesia, *CBI Database ID*; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 255.
[86] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 164–165; Jan Jacob van Soest, *Een bijdrage tot de kennis van de beteekenis der Nederlandsche*

least ƒ2 billion was invested by the Dutch in the agricultural sector at the start of the Pacific War and a total of around ƒ5 billion was invested by all foreign investors in the Netherlands Indies. This was around 20% of the total Dutch capital stock.[87]

For a comparison with investment in the Netherlands, we have used the data from Renooij. He shows that the total value of issued bonds and stocks in the Netherlands between 1910 and 1939 have been worth ƒ4,988 million in current prices. Domestic investment was ƒ3,379 million in shares and bonds and investment in the Netherlands Indies was ƒ1,609 million in current prices, of which ƒ604 million was by Royal Dutch.[88] According to Renooij, around one-third of all Dutch investment between 1910 and 1939 went to the Netherlands Indies.

In 1929, there were 15,518 private limited liability companies and 4,491 limited liability joint-stock companies in the Netherlands. Total accumulated equity of the private limited liability companies was ƒ1,475 million; for joint-stock companies this was ƒ5,103 million, totalling ƒ6,578 million. In 1938, the figure for private limited liability companies had increased to 22,046, whereas that for joint-stock companies was slightly higher at 4,894. Yet equity had declined to ƒ1,462 million for private companies and ƒ4,659 million for joint-stock companies, or ƒ6,121 million in total.[89]

In 1913, only 286 Dutch companies were listed at the stock exchange, with a total equity of ƒ837 million. In 1939, this had increased to 424 companies, less than one-tenth of all joint-stock companies, with a total equity of ƒ2,323 million. This was around 38% of the total equity of Dutch companies.

In the first decade of the twentieth century, 102 joint-stock companies active in the Netherlands Indies were listed on the Amsterdam stock exchange. In 1936, this number had increased to 149. The total equity of the listed agricultural companies active in the Netherlands Indies increased rapidly, in 1912 to ƒ171 million and in 1936 to ƒ381 million.[90]

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beleggingen in buitenlandsche fondsen voor de volkswelvaart (Utrecht: Kemink, 1938) 44; Colonial Business Indonesia, *CBI Database ID*.

[87] Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 609; G.A.Ph. Weijer, 'De groote cultures', in: W.H. van Helsdingen and H. Hoogenbeek (eds), *Daar wèrd wat groots verricht. Nederlandsch-Indië in de XXste eeuw* (Amsterdam: Elsevier, 1941) 286–322, in particular 301–306; Buelens and Frankema, 'Colonial adventures in tropical agriculture', 202.

[88] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 116; Appendix 12.

[89] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 47, 116.

[90] Ibid., 47–49.

In certain years, especially when Royal Dutch Shell issued equity, domestic investment in the Netherlands was less than half of total investment. Therefore, it is valid to say that around half of total foreign investment was done in the Netherlands Indies, or in companies that were active there. Since total Dutch foreign investment was around half of total Dutch investment as well, around one-quarter of all Dutch private investment was done in the Netherlands Indies. In 1938, this provided around 8% of the Dutch GDP, not counting multiplier effects.[91]

Seen from the Indonesian perspective, the total stock of foreign investment (Dutch investment and investment from other third countries) was around 28% of gross domestic product (GDP) in 1913, 30% in 1924, 66% in 1930 and 69% in 1939. If we also include investment by the colonial government, then these numbers would rise to 35%, 46%, 82% and 87%, respectively.[92] Information about the annual flow of investment, including public investment, as a share of GDP of the Netherlands Indies exists for the 1920s and 1930s. In 1921, it started at a peak of 7.2% and gradually decreased to 4% in 1924, recovering in 1927 to 6.5%, before dropping again to 1.5% in 1935. After that it rose to 3% in 1938.[93] GDP is usually expressed as a flow for each individual year, whereas the accumulated investment stated here is a stock over a larger period. Differences between current and constant prices need to be taken into account as well.[94] The flow of investment and GDP can both reflect current or constant prices. For accumulated stock this is not the case, since investments for all years are added up together and this makes it difficult to use either current or constant prices. The total is likely to be a combination of both. Taking inflation into account is important when one wants to make a comparison over time, but this is not always possible. Therefore, it is more practical to use current prices when dealing with patterns of FDI and describe trends and percentages rather than absolute values.[95]

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[91] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 129; Derksen and Tinbergen, 'Berekeningen over de economische betekenis van Nederlandsch-Indië voor Nederland', 8–9.
[92] Total GDP of the Netherlands Indies in 1913, 1924, 1930 and 1940 was ƒ3,619 million, ƒ6,034 million, ƒ6,078 million and ƒ5,081 million, respectively, Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 255.
[93] Creutzberg and Van Dooren, *CEI. Vol. 3*, 22, 88.
[94] Lindblad, 'Foreign capital and colonial development in Indonesia', 10.
[95] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 7.

Total foreign investment

Let us now take a look at the database again and see which developments regarding non-Dutch foreign investment are visible in the Netherlands Indies and to what extent similarities and differences show up compared with the literature. This enables us to see how large the share of non-Dutch investment was in the Netherlands Indies and who the main competitors from third countries were.

Total equity of incorporated firms in the Netherlands Indies is extracted from the database, as is shown in Appendix 4. Usually, equity is given for paid-up capital, which means the equity that was already issued. Sometimes nominal equity is shown, which means that not all equity was issued in the year mentioned in the database, but that this would be issued within a certain lapse of time.[96] Using equity data does not resemble foreign investment perfectly, but it is an indication for the development of the presence of foreign companies, which can be used to estimate the effect of these companies on the economic development of the Netherlands Indies.

Totals in Appendix 4 are given in current prices, which means that they are not adjusted for inflation. Therefore, it is not surprising to see that both total and average equity per firm increased in the long run, even during the 1930s. Nevertheless, it is interesting to note that, in current prices, equity of companies run from the Netherlands increased rapidly in the first decades and continued to increase after 1925, whereas the peak for the Netherlands indies companies was reached by 1925. At the end of the 1930s, equity of the former category was already at the same level as before the economic crisis. The importance of other foreign countries increased significantly. In 1940, investment from other countries, except Great Britain, was almost at the same level of investment as companies with headquarters in the Netherlands Indies. However, it should be mentioned that in 1936 the Dutch guilder was devaluated by 20% when the Netherlands abandoned the gold standard.[97] This means that instead of a total of ƒ3,075 million invested in 1940, only ƒ2,460 million was invested in that year. The total value would be slightly lower than in 1925 when it had been ƒ2,559 million. If we roughly apply the devaluation

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[96] Rambarran Mangal, *An introduction to company law in the Commonwealth Caribbean* (Kingston: University of the West Indies Press, 1995) 81–83.
[97] Henk Don and Johan Verbruggen, 'Models and methods for economic policy; 60 years of evolution at CPB', *Centraal Planbureau Disccusion Paper*, No. 55 (2006) 21; E. Damsgård Hansen, *European economic history: From mercantilism to Maastricht and beyond*, (Copenhagen: Copenhagen Business School Press, 2001) 244.

by 20% to all other categories as well,[98] it gives an impression that total foreign investment in the Netherlands Indies in 1940 drops from ƒ4,643 million to ƒ3,714 million.

Therefore, it is reasonable to state that the real value of Dutch and Netherlands Indies companies in 1940 was lower than that shown in Appendix 4. The share of Chinese investors residing in the Netherlands Indies was slightly more than 6% of total investment. This is higher than the 4% usually mentioned for Chinese investment. Compared with other foreign companies, Chinese firms were less likely to have been incorporated, which implies that actual total Chinese investment was much higher.[99]

Nevertheless, companies with headquarters in the Netherlands Indies were smaller in terms of equity than companies run from the Netherlands or Great Britain. This difference continued to increase. Netherlands Indies companies were more vulnerable and more likely to default compared with Netherlands-based companies, which were more diversified.[100] Chinese and indigenous Indonesian firms in the Netherlands Indies were also small. The high average equity per company from other countries is a result of the small total number, and the presence of a few large foreign Chinese banks distorts the picture.[101] The figures of the total investment are slightly higher than is usually mentioned in the literature. Different authors have calculated accumulated equity and come to an estimate of ƒ1.7 billion in 1914 and ƒ3.7 billion or ƒ4 billion in 1930.[102]

Helmut G. Callis, who examined investment by other foreign companies in the Netherlands Indies, shows that in 1937 British investment was $200 million; using an exchange rate of ƒ2.5 per $1, this would mean that around ƒ500 million of British capital was invested in the Netherlands Indies. This is higher than the results from the database show us, but still British investment in the Netherlands Indies ranked second. This was mirrored in British Malaya, where the Dutch enjoyed a similar position. Investment by other countries amounted to ƒ427.5 million, which is more in line with the

[98] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 101. Although this is not a perfectly accurate conversion, since other countries devaluated their currencies earlier, it can give an impression of the effects of the devaluation.
[99] Lindblad, *Bridges to new business*, 22.
[100] Sluyterman, *Dutch enterprise in the twentieth century*, 101.
[101] Colonial Business Indonesia, *CBI Database ID*.
[102] Lindblad, 'Foreign capital and colonial development in Indonesia', 7; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 79; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 78; Creutzberg and Van Dooren, *CEI. Vol. 3*, 23.

figures found in the database.[103] The overall trend, however, is similar. During the 1910s until the early 1920s, investment increased rapidly and rose more slowly in the second half until the depression of the 1930s. Then it only recovered gradually again after the first half of the 1930s when the depression was over.

Although one can dispute the usefulness of applying the consumer price index of the Netherlands Indies to the total stock of equity, it is relevant to mention the development of this price index, since it affected profits and wages. Here the price index of the Netherlands Indies is used, but sometimes comparisons with the Netherlands are made as well. If we take the same categories of Appendix 4 corrected for inflation, using constant prices of 1913 in the Netherlands Indies, we can see that the results are extreme in Appendix 5. Price levels in the Netherlands Indies increased rapidly after the First World War, just as in the Netherlands, but the impact of the economic depression of the 1930s was far more intense. Price levels in the second half of the 1930s were only slightly less than three-quarters of the price level of 1913, although we have to take into account the devaluation of the guilder in 1936 with 20%.[104] Therefore, if we use the price data of the Netherlands Indies, it gives a slightly distorted picture, but it can be an indication of what results the depression had on the pace of expansion.

During the 1920s, inflation led to a lower real value. As a result, the total value of equity in 1925 was only slightly higher than in 1914. However, the figures after 1930 are unrealistic. A total Dutch investment in the Netherlands Indies of ƒ4,415 million in 1935 or ƒ6,149 million of equity in total is quite high. But if we correct for the devaluation of the guilder in 1936, Dutch investment in 1940 would be around ƒ3,177 million, which is more plausible.

It is also useful to consider the share of different foreign countries investing in the Netherlands Indies. In the database, the combined share of Netherlands-run and Netherlands Indies investment is far higher than the 70% usually mentioned in the literature.[105] In Figure 2.3 the lowest figure is

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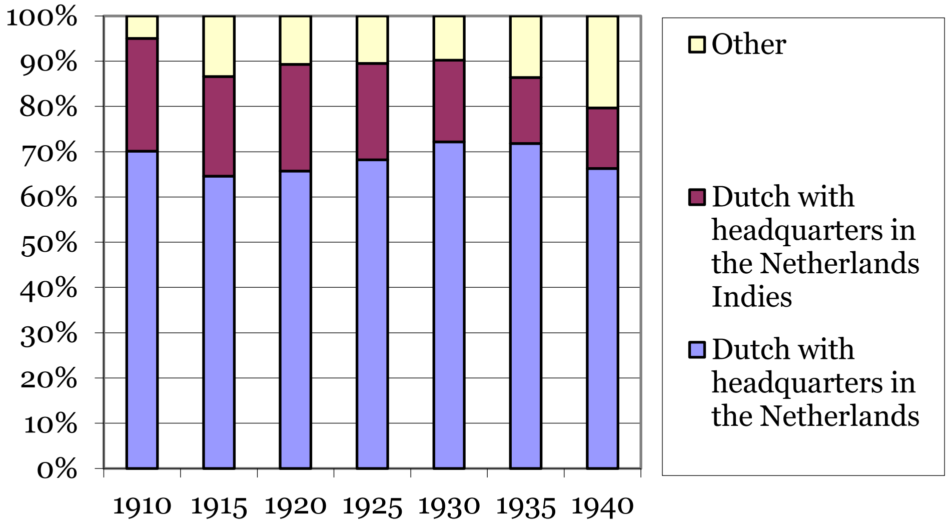
[103] Callis, *Foreign capital in Southeast Asia*, 34; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 14.
[104] Creutzberg and Van Dooren, *CEI. Vol. 3*, 77–79; Bas van Leeuwen, *Human capital and economic growth in India, Indonesia and Japan. A quantitative analysis, 1890–2000* (PhD thesis, Utrecht University, 2007), 239–242; Pierre van der Eng, 'Indonesia's growth performance in the twentieth century', in: Angus Maddison, D.S. Prasada Rao and William F. Shepherd (eds), *The Asian economies in the twentieth century* (Cheltenham: Elgar, 2002) 143–179, in particular 171–173.
[105] Callis, *Foreign capital in Southeast Asia*, 28–34. Although this ratio can also be between 80% in 1922 and 72% in 1940 according to Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 257.

79.6% for 1940 and the highest is 95.1% for 1910. Although this proportion declined up to 1940, it is still on the high side.

Figure 2.3. Share of equity of foreign incorporated companies in the Netherlands Indies by nationality and location of headquarters, 1910–1940, as percentage of total foreign equity.



Source: Colonial Business Indonesia, *CBI Database ID*.

The share of investment of companies with headquarters in the Netherlands was on average 68%, a figure comparable to the 70% of Dutch investment usually mentioned in the literature.[106] That Dutch firms were on average larger than other firms is apparent from a comparison with Figure 2.2. The number of Dutch firms was at its peak only 37.9% of all incorporated companies active in the Netherlands Indies but accounted for 68% of total foreign investment.

However, if we include foreign investment from companies with headquarters in the Netherlands Indies, but exclude Chinese and indigenous Indonesian investment, this figure increases to 88%. This number can be considered quite high. Many subsidiaries of non-Dutch foreign companies in the Netherlands Indies used a Dutch company name and maintained headquarters in the Netherlands Indies.

[106] Callis, *Foreign capital in Southeast Asia*, 28–34; Lindblad, *Bridges to new business*, 22; Arthur S. Keller, 'Netherlands India as a paying proposition', *Far Eastern Survey,* Vol. 9 (1940) 11–18, in particular 13.

The average Dutch share of investment in the Netherlands Indies was somewhere between these figures of 68% and 88%. The companies mentioned under 'Dutch' stated their equity in Dutch guilders. In order to find out the real nationality of all companies, each individual firm would have to be examined in detail. This is not the main purpose here, however. Here the focus is on total foreign investment, not only on Dutch foreign investment.

Investment per sector

The final topic to discuss is the distribution of investment by sector. Within agriculture, sugar was the most important product in the first decades of the twentieth century. The sugar industry in the Netherlands Indies took off after the conclusion of the Brussels Sugar Agreement in 1902, intended to end overproduction of beet sugar in Europe.[107] Until the end of the 1920s, the sugar industry remained a solid investment area. In 1929, the Dutch had invested around *ƒ*800 million in the Java sugar industry. In the rubber industry, a total of *ƒ*1 billion was invested by the late 1930s, but only 40% was of Dutch origin. This figure also includes Chinese and indigenous Indonesian investment.[108] When the economic crisis of the 1930s struck, investment in the sugar industry collapsed and failed to recover.[109]

The share of financial and mining companies in the total number of firms was relatively small (Appendix 1 and 6). For finance, the proportion was 4.6% in 1910 and 5.7% in 1940; for mining, 11.6% in 1910 and 4.8% in 1940. As a share of total equity, however, both industries were more important. Already in 1910 financial companies were good for 10.2% of total equity and in 1940 this share had risen to an impressive 22.4%. The share of equity of mining, however, declined from a notable 25.7% in 1910 to about half this figure, 13% in 1940. This is striking considering that oil exports became increasingly important for the Netherlands Indies in the long run. An explanation for this could be that less profitable companies ceased operations.

Total equity in mining did not fall, but equity in other industries increased more rapidly. Differences in other industries were less spectacular, although the share of equity in commercial services was relatively low

[107] Creutzberg and Van Dooren, *CEI. Vol. 3*, 18; G.H.A. Prince and H. Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', in: H. Baudet and M. Fennema (eds), *Het Nederlands belang bij Indië* (Utrecht: Spectrum, 1983) 29–53, in particular 31–32; De Roos and Wieringa, *Een halve eeuw rente in Nederland*, 54–56; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264.
[108] Keller, 'Netherlands India as a paying proposition', 14.
[109] Creutzberg and Van Dooren, *CEI. Vol. 3*, 51–53.

compared to the number of companies. Overall, most incorporated companies were rather small. Companies active in the commercial services were the smallest, followed by agricultural, manufacturing and trading companies. Mining and finance were the largest industries.

Of all incorporated companies, more than one-half had a total equity of less than ƒ0.5 million, even in 1940 (Appendix 13). In 1910, 75.2% of the foreign companies had an equity between ƒ0 and ƒ0.5 million. In 1935, this proportion was 48% and in 1940 53.7%. This increase in 1940 could be a consequence of the economic depression of the 1930s which caused a decline of equity in some companies, but could also have originated from the incorporation of new companies when the economy improved in the late 1930s.[110] Among the larger firms, companies with more than ƒ10 million of equity showed the largest rate of increase, from 13 to 68 companies. They were followed by companies with ƒ2–ƒ5 million of equity and companies with ƒ5–ƒ10 million. Consequently, there was a contrast between a large group of small companies and a small group of large companies.[111] In 1928, only five companies had more than ƒ100 million of equity. They were Royal Dutch Shell, BPM (60% owned by Royal Dutch Shell), Vereenigde Nederlandsche Scheepvaartmaatschappij, Nederlandsche Scheepvaart Unie and NHM.[112] Applying the price index of the Netherlands Indies to total equity demonstrates how the rapid increase of investment during the 1920s continued, whereas the value of investment increased more rapidly during the second half of the 1930s due to steep deflation.[113]

Foreign investment in historical perspective and international context

The relatively stable exchange rate in the Netherlands Indies under the gold standard and a moderate and transparent tariff regime made colonial Indonesia an attractive target for foreign investors. In 1914, around 60% of all FDI in Southeast Asia was in the Netherlands Indies.[114] Non-Dutch investment in the Netherlands Indies was particularly important in agriculture. Many

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[110] J. Thomas Lindblad, 'Business strategies in late colonial Indonesia', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 207–228, in particular 215.
[111] Colonial Business Indonesia, *CBI Database ID*.
[112] Taselaar, *De Nederlandse koloniale lobby*, 52.
[113] Creutzberg and Van Dooren, *CEI. Vol. 3*, 19; Colonial Business Indonesia, *CBI Database ID*; Van Leeuwen, *Human capital and economic growth in India, Indonesia and Japan*, 239–242; Van der Eng, 'Indonesia's growth performance in the twentieth century', 171–173.
[114] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 218.

rubber plantations were owned by foreign non-Dutch companies. Indigenous investors were also active, not only in rubber but also in the production of coffee, copra, cloves and pepper.[115]

An old estimate, presumably applicable to the end of the 1930s, states that total investment by indigenous Indonesian smallholders amounted to ƒ900 million of which ƒ700 million was invested in the agricultural industries, notably in rubber, coffee, tea, coconut and other crops.[116]

Although there was a great deal of foreign investment from non-Dutch foreign countries in the Netherlands Indies, the Dutch presence was overwhelming. In 1929, 98.3% of the investment in sugar, 68.6% in coffee, 80.3% in cinchona (a tree whose bark yields quinine), 96.9% in Sumatra tobacco and 100% of the investment in fibres were undertaken by Dutch firms.[117] In rubber, the situation was different. In 1914, only 39% of all foreign investment in the rubber industry was Dutch-owned, the rest was dominated by the British. After the First World War, investment in rubber increased rapidly during the international rubber boom, which lasted from 1910 to the late 1920s, when there were steep price rises. In 1927, around ƒ305 million was invested in the rubber industry, of which ƒ102 million was Dutch, ƒ98 million British, ƒ44 million American and ƒ39 million French-Belgium.[118] In 1930, the Dutch share was 38%, but the British proportion declined to 28% and 16.5% was American investment.[119]

In tea and palm oil, investment from non-Dutch foreign countries also was important. In 1920, only 25% of invested capital in tea production was Dutch, but this increased to 52% in 1920 and nearly 62% in 1930. At that time, 32% was British and almost 7% German. In palm oil, 60% of the capital was non-Dutch in 1925, but five years later the Dutch had gained a majority.

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[115] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 250; P. Creutzberg and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 1: Indonesia's export crops 1816–1940* (The Hague: Nijhoff, 1975) 93–94, 111–112, 128–130; Smits, *De beteekenis van Nederlandsch-Indië uit internationaal-economisch oogpunt*, 8–9.

[116] George Henry Charles Hart, *Towards economic democracy in the Netherlands Indies* (New York: The Netherlands Information Bureau, 1942) 44–45.

[117] Taselaar, *De Nederlandse koloniale lobby*, 45; Haccoû and Reid, *Management of direct investments in less developed countries*, 188.

[118] T. Volker, *Van oerbosch tot cultuurgebied. Een schets van de tabak, andere cultures en de industrie ter Oostkust van Sumatra* (Medan: Deli Planters Vereeniging, 1928) 151.

[119] Creutzberg and Van Dooren, *CEI. Vol. 3*, 19; H.J. Manschot, 'De invloed van het buitenlandsch kapitaal op de ontwikkeling van de cultures ter Oostkust van Sumatra', *Economisch-Statistische Berichten*, Vol. 17 (1932) 272–273 and 296–298, in particular 273–273; Touwen, *Extremes in the archipelago*, 110–111.

German presence was initially more visible in the tobacco industry, but in 1914 only two tobacco plantations in Deli were still German-owned, whereas the other plantations were sold to the British, who used the estates for cultivation of rubber. German investors then became more interested in mining.[120]

Foreign non-Dutch investment increased notably in Sumatra and Kalimantan rather than in Java. From the second half of the 1920s onwards, investment in the Outer Islands overtook Java as the prime target and kept this position henceforth.[121] In North Sumatra, besides the Deli tobacco estates, rubber investment by British firms became dominant. Next to Dutch and British investment in the oil industry, American investment expanded as well. Besides rubber estates, large oil compounds were constructed in Sumatra. In 1937, the value of the American oil companies was estimated to be around ƒ175 million, with total investment in the oil industry at around ƒ600 million.[122]

The situation in British Malaya was rather similar to that in the Netherlands Indies. In British Malaya, around 70% of foreign investment was British, with the Dutch the second largest investor. The British had a particularly strong stake in the rubber industry and had a virtual monopoly with the Straits Trading Company and Eastern Smelting Company in tin smelting. British investment was also important in Burma and Thailand. In the Philippines, the United States was the dominant investor, and in Indochina French capital was overwhelmingly predominant.[123]

Just as in the Netherlands Indies, in British Malaya, the Philippines, Thailand and Indochina, Chinese investors were also playing a major role with their tight and organized networks in smaller industries and companies dealing with finance and transport.[124] In the Netherlands Indies, there were

[120] Günther Meyer, *Das Eindringen des deutschen Kapitalismus in die niederländischen und britischen Kolonien in Südostasien von den Anfängen bis 1918* (PhD thesis, Humboldt University, Berlin, 1970) 194; Manschot, 'De invloed van het buitenlandsch kapitaal op de ontwikkeling van de cultures ter Oostkust van Sumatra', 273–273; Taselaar, *De Nederlandse koloniale lobby*, 45; Touwen, *Extremes in the archipelago*, 111.
[121] Creutzberg and Van Dooren, *CEI. Vol. 3*, 22, 44, 81.
[122] Ibid., 25–26.
[123] Helmut G. Callis, 'Capital investment in Southeast Asia and the Philippines', *The ANNALS of the American Academy of Political and Social Science*, Vol. 226 (1943) 22–31, in particular 24; Callis, *Foreign capital in Southeast Asia*, 23–25, 31, 71–77; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 127.
[124] Callis, 'Capital investment in Southeast Asia and the Philippines', 29–30; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 21–22; Suhadi Mangkusuwondo, *Industrialization efforts in Indonesia: The role of agriculture and foreign trade in the development of the industrial sector* (PhD thesis, University of California, Berkeley, CA, 1967) 112; Vleming, *Het Chineesche zakenleven in Nederlandsch-Indië*, 11.

similar close-knit communities in Japanese investment too. Rather than establishing relations with Dutch traders, the Japanese often worked together with Chinese businessmen and became active in, for instance, the textile and cloth trade. After the devaluation of the yen in 1931, 31% of all imports entering the Netherlands Indies originated in Japan, but Japanese investment in the Netherlands Indies remained relatively small due to the Dutch anti-Japanese policies.[125] A very rough calculation for Japanese investment, excluding investment in Batavia but including retail shops, shows that in total more than ƒ100 million was invested in the Netherlands Indies by 1925, of which nearly ƒ68 million was in commerce, agriculture and industry. Another estimate of investment from Japan cites only a total amount of ƒ30 million invested in incorporated firms by 1937.[126]

If we compare these figures for Australia and New Zealand for 1938, when these two countries had a population of 8.5 million people in total, and the stock of foreign investment was $4,450 million, we see that the stock of foreign investment was much higher than in the Southeast Asian countries with $4,273 million and 145 million people.[127] Indonesia was the largest country in Southeast Asia; by 1930 it had a population of almost 61 million people, of which 240,000 were Europeans, 1.2 million who were labelled as Chinese, and 115,000 other non-indigenous Asians.[128] Investment per capita in the Netherlands Indies was therefore much smaller than in New Zealand and Australia.

The Netherlands Indies remained the largest host country for FDI in Southeast Asia. The population of the Netherlands Indies was almost three times that of French Indochina and more than four times that of Thailand, the Philippines or Burma. British Malaya was smaller, with only 5.5 million inhabitants. As a consequence, FDI per capita was more than three times as

[125] Peter Post, 'Characteristics of Japanese entrepreneurship in the pre-war Indonesian economy', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 297–314, in particular 302–304. For more information about Japanese investment in the Netherlands Indies see also: Peter Post, *Japanse bedrijvigheid in Indonesië, 1868–1942. Structurele elementen van Japan's vooroorlogse economische expansie in Zuidoost-Azië* (PhD thesis, Free University Amsterdam, 1991).
[126] Post, 'Characteristics of Japanese entrepreneurship in the pre-war Indonesian economy', 307, 312; Callis, *Foreign capital in Southeast Asia*, 31.
[127] Van der Eng, *Economic benefits from colonial assets*, 23; C. Lewis, *The United States and foreign investment problems* (Washington, DC: The Brookings Institution, 1948) 298–343.
[128] Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII (Census of 1930 in the Netherlands Indies, Vol. VIII)* (Batavia: Landsdrukkerij, 1933) 33.

high in Malaya than in the Netherlands Indies.[129] Malaya was second in terms of exports. In 1937, these two neighbouring colonies together accounted for more than two-thirds of all export revenue generated in Southeast Asia, about $1 billion out of a total of $1.6 billion.[130]

2.5 Exports by Dutch firms

As investment increased rapidly in the first quarter of the twentieth century, so imports and exports grew significantly as well.[131] The total value of exports rose from ƒ259 million in 1900 to ƒ2,135 million in 1920 in current prices, which was the highest level prior to the Second World War.[132]

The total value of exports from the Netherlands Indies grew fast after the First World War until the early 1920s, when a temporary crisis struck the agricultural sector and export prices dropped rapidly, especially for sugar. In the second half of the 1920s, exports recovered and increased until the economic depression of the 1930s. Declining prices were compensated for by higher output levels, and demand for primary products such as rubber kept rising, while colonial Indonesia enjoyed a leading position in the oil and tin markets.[133]

In 1929, the export value of products from the Netherlands Indies was still ƒ1,440 million, but this dropped to a nadir in 1935 at ƒ459 million, or 32% of the total value of exports in 1929. In 1937, it increased again to ƒ955 million, but dropped in 1939 to ƒ749 million. The value of imports was slightly lower than in exports. In 1929, imports were at their peak with ƒ1,110 million, ƒ277 million in 1935, or 25% of the import value in 1929. In 1939, it recovered to ƒ479 million.[134]

Applying constant 1913 prices to subsequent export levels reduces the peak of the early 1920s, whereas levels in the 1930s remain solid and were not

[129] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 16.
[130] Pierre van der Eng, 'Extractive institutions, colonial drain and underdevelopment. The case of Indonesia', paper presented at the international workshop on 'Foreign capital in colonial Southeast Asia. Profits, economic growth and indigenous society', (Leiden, 2014) 33; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 17.
[131] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 18.
[132] Taselaar, *De Nederlandse koloniale lobby*, 39.
[133] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 84; Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 76–77; Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 16; Taselaar, *De Nederlandse koloniale lobby*, 39.
[134] Lindblad, *Bridges to new business*, 27.

much lower than in the 1920s. Developments for the imports were more stable.[135]

Nevertheless, the actual situation was different. For a long time in the early twentieth century, sugar remained the prime agricultural export commodity.[136] Demand for Java sugar increased from 1902, when the protection of European beet sugar was abolished. Between 1902 and 1914, the volume in exports of Java sugar doubled, and after the First World War it doubled again and grew until 1929. In most years before 1930, sugar was the most important export crop in terms of export value, but it was competing with rubber and oil. The average share of sugar between 1910 and 1939 was 25%, with a maximum of 49% in 1920 and its lowest point was in 1937 when exports of sugar represented only 5% of total exports.[137]

The expansion of the sugar industry came to a halt during the economic depression of the 1930s. Measured by quantity, exports of cane sugar fell by two-thirds between 1929 and 1936. Some 2.4 million tons of sugar were exported in 1929 and this dropped to 884,000 tons in 1936. However, it recovered to 1.4 million tons in 1939.[138] Measured in guilders, the situation was worse. Exports fell from *ƒ*312 million in 1929 to *ƒ*36 million in 1935 in current prices; this was little more than 10% of the value of 1929. Of the 179 sugar factories in business in 1930, only 39 were still in operation in 1935. During the economic depression of the 1930s the sugar export industry in Java virtually collapsed. It was never fully to recover.[139]

The share of rubber in total exports increased further after the 1920s.[140] In the rubber industry, indigenous smallholders proved more successful than estates in adjusting to changing market conditions during the economic depression. The share of smallholders in total output climbed from 30% in 1932 to 50% in 1939, despite government efforts to control indigenous

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135 Colonial Business Indonesia, *CBI Database ID*.
136 Ulbe Bosma, Juan Giusti-Cordero and G. Roger Knight, 'Sugarlandia revisited. Sugar and colonialism in Asia and the Americas, 1800 to 1940, an introduction', in: Ulbe Bosma, Juan Giusti-Cordero and G. Roger Knight, *Sugarlandia revisited. Sugar and colonialism in Asia and the Americas, 1800 to 1940* (New York: Berghahn Books, 2007) 5–30, in particular 5.
137 Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 286–289.
138 Taselaar, *De Nederlandse koloniale lobby*, 367; Prince and Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', 37.
139 Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 97; Taselaar, *De Nederlandse koloniale lobby*, 39; Knight, *Commodities and colonialism*, 243–246.
140 Mangkusuwondo, *Industrialization efforts in Indonesia*, 95.

production by imposing an unpopular special export duty on rubber produced by smallholders. In 1913, the export of the total rubber industry was 7,100 tons, and in 1917 this had leapt to 45,700 tons. It increased further to 301,000 ton in 1929 and continued to grow after the economic depression, reaching 546,000 ton in 1940. Compared with the sugar industry, rubber remained a key product after economic recovery in the late 1930s. Still, the price of rubber plummeted. During the economic depression, rubber prices dropped comparably with sugar prices to 10% of their pre-crisis level. In 1932, the value of rubber exports was only *ƒ*33 million, whereas in 1929 this had been *ƒ*236 million and in 1925 as much as *ƒ*582 million.[141]

Although sugar was the most important export commodity at the start of the twentieth century, colonial Indonesia was arguably less dependent on a narrow range of export products than other tropical colonies. Certainly, some export crops were dominant, but these were supplemented and not replaced by others. Coffee, sugar and tobacco did not disappear entirely from the export supply when copra, rubber and tin became more important, although their share in the total export declined.[142] Colonial Indonesia remained vulnerable to adverse price movements because it still depended largely on exports of primary products.[143]

This became abundantly clear during the economic depression of the 1930s when companies suddenly had to change their strategies in order to survive. Workers were laid off or wages were lowered and some companies reduced equity in order to deal with losses.[144] The NHM, for instance, reduced its equity from *ƒ*80 million to *ƒ*20 million in 1934 when its director, C.J.K. van Aalst, was replaced by D. Crena de Iongh. In 1939, equity was restored to more

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[141] Prince and Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', 37; Taselaar, *De Nederlandse koloniale lobby*, 369; J. Thomas Lindblad, 'De opkomst van de buitengewesten', in: A.H.P. Clemens and J. Thomas Lindblad (eds), *Het belang van de buitengewesten. Economische expansie en koloniale staatsvorming in de buitengewesten van Nederlands-Indië, 1870–1942* (Amsterdam: NEHA, 1989) 1–38, in particular 22–25.
[142] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 126; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 96; Sluyterman, *Dutch enterprise in the twentieth century*, 100.
[143] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 130.
[144] Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 97; Taselaar, *De Nederlandse koloniale lobby*, 39; Knight, *Commodities and colonialism*, 243–246; Sluyterman, *Dutch enterprise in the twentieth century*, 103; J. Thomas Lindblad, 'Business response to crisis in Indonesia: The 1930s and the 1990s', *Australian Economic History Review*, Vol.43 (2003) 169–182, in particular 171.

than *ƒ*50 million.[145] The economic depression of the 1930s was also bad for the NIHB, which was linked to many companies, while the NILM suffered losses during the 1920s when sugar prices dropped and the oil manufacturing company Insulinde went bankrupt. Equity of NIHB was then reduced from *ƒ*55 million to *ƒ*33 million.[146]

At the beginning of the economic depression, managers of the major estate companies were of the opinion that the slump should run its natural course. As prices continued to drop, however, it became clear that something had to be done. Regulations and measures were hesitantly adopted and supported by the colonial government. Some industries introduced their own restrictions. Exports of sugar were already subject to intervention in 1931[147] and international agreements for the restriction of production levels were also signed for tin, tea and rubber.[148]

In 1933, the *Crisis Invoer Ordonnantie* (Crisis Import Ordinance) was introduced with quotas and licence systems for certain goods or imports from specific countries. One year later, another ordinance was issued specifically for manufactured goods.[149] The government interfered only reluctantly and the restrictions were assumed to be temporary, but the Netherlands Indies became more protectionist in order to help manufacturing in the Netherlands.[150]

These regulations hit the Japanese import sector in particular. By 1936, the Japanese share in imports had already dropped to one-quarter and it would fall still further during the remainder of the decade.[151] In 1939, the

[145] Taselaar, *De Nederlandse koloniale lobby*, 59.
[146] Ibid., 63.
[147] Sluyterman, *Dutch enterprise in the twentieth century*, 103.
[148] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 100; J.H. Boeke, *The evolution of the Netherlands Indies economy* (New York: Netherlands and the Netherlands Indies Council, 1946) 47; Jacob Ozinga, *De economische ontwikkeling der Westerafdeeling van Borneo en de bevolkingsrubbercultuur* (Wageningen: Zomer en Keuning, 1940) 258–261; A. Neijtzell de Wilde, A.J. Gooszen and H.Th. Moll, *The Netherlands Indies during the depression: A brief economic survey* (Amsterdam: J.M. Meulenhoff, 1936) 26–27; J. van, Gelderen, *The recent development of economic foreign policy in the Netherlands East Indies* (London: Longmans, Green and Co., 1939) 50–53.
[149] Mangkusuwondo, *Industrialization efforts in Indonesia*, 142; Touwen, *Extremes in the archipelago*, 291;
Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 297; Prince and Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', 44.
[150] Mangkusuwondo, *Industrialization efforts in Indonesia*, 140.
[151] Lindblad, *Bridges to new business*, 25; Mangkusuwondo, *Industrialization efforts in Indonesia*, 134–136, 144; Taselaar, *De Nederlandse koloniale lobby*, 400–401; Pierre van der Eng, 'De-industrialisation and colonial rule. The cotton textile industry in Indonesia, 1820–1941', *Australian National University, Department of*

Netherlands once again became the major supplier of Indonesian imports. In 1940, when the Netherlands was occupied by Germany, imports from the Netherlands declined substantially, whereas those from Japan increased again.[152]

During the First World War this had happened as well. The share of Dutch imports to the Netherlands Indies dropped and imports were virtually halted in the final years of the war, due to a lack of shipping capacity during the submarine war, although the Netherlands remained neutral during this conflict. The Netherlands Indies was quick to find other countries to trade with and the Dutch market was smaller than that of Great Britain or France. These latter countries could trade more with their colonies and this makes it more understandable that the Dutch stake in the foreign trade of the Netherlands Indies declined gradually. As a result, Japan, the United States and Australia became new trading partners of the Netherlands Indies.[153] Japanese imports reached almost 21% in 1918. The devaluation of the yen at the end of 1931 made Japanese imports of consumer goods, like cotton products, very attractive before the regulations hit the Japanese imports. Until 1934, imports from Japan reached almost 32%, more than double the share of imports from the Netherlands.[154]

Before the First World War, Japan had been only a small trading partner of the Netherlands Indies. More exports went to Europe than to Asia. After the First World War, the situation changed and more exports went to Asia up to the 1930s. From 1932, the situation became more favourable for Europe as protection measures hit other foreign countries. The start of the Second World War made it difficult again to export to Europe.[155] There was a

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Economics, Departmental Working Papers, 2007–04 (2007) 1–30, in particular 6; Korthals Altes, *Tussen cultures en kredieten*, 287; Prince and Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', 42–43.

152 Mangkusuwondo, *Industrialization efforts in Indonesia*, 143–145; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 286–289.

153 Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 285–286, 425; Dick, 'The emergence of a national economy, 1808–1990s', 40; Lindblad, *Bridges to new business,* 25; Smits, *De beteekenis van Nederlandsch-Indië uit internationaal-economisch oogpunt*, 6–7.

154 Howard W. Dick, 'Formation of the nation-state, 1930s–1966', in: Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002) 153–193, in particular 158–159; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 286–289.

155 W.L. Korthals Altes and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 12a: General trade statistics 1822–1940* (Amsterdam: KIT, 1991) 102–103.

notable increase in Dutch imports after abandoning the gold standard in 1936. The increasing share of the United States occurred due to the demand of rubber for tires for automobiles, whereas in colonial Indonesia capital and consumer goods from the United States became more popular too. In terms of investment the United States became more important.[156] In other Asian countries, demand for other products rose as well due to higher population numbers, income growth and a rising standard of living. Singapore remained one of the most important trading partners in Asia.[157]

For some products, such as coffee, copra, tin and tobacco, the Dutch share of imports from the Netherlands Indies was very high. There was no need to import this from other countries if it was available cheaply from their own colony. In the total share of Dutch imports or exports, these products were of minor importance and trade with the Netherlands Indies was less important for the Netherlands than vice versa.[158] On the other hand, the importance of the Netherlands in the total trade of the Netherlands Indies declined markedly. Before the twentieth century, more than half of total exports went to the Netherlands, but by the First World War the share of mutual trade exceeded 30% from the point of view of the Netherlands Indies. During the 1920s and 1930s, this dropped to less than 20% on average.[159] The volume of exports to the Netherlands remained at around the same level, but total exports from the Netherlands Indies increased and, therefore, the Dutch share fell. The liberal trading regime, which lasted nearly six decades between the 1870s and 1930s, had as its consequence that the Netherlands Indies could orientate itself towards other markets such as Great Britain and Germany, Singapore, India and China, and the United States.[160] This trend was visible in British Malaya too. On the other hand, Korea and Taiwan did trade more with Japan, whereas the United States became an increasingly more important trading partner for the Philippines. In Indochina this effect was visible too, although less extreme. In the early twentieth century imports from France

[156] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 209; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 127.
[157] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264.
[158] Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 280–281.
[159] Lindblad, 'The economic relationship between the Netherlands and colonial Indonesia, 1870–1940', 113; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 79; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 280–281.
[160] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 117, 128, 158.

amounted to nearly 45% of total imports for Indochina but in 1939 this had increased to 55%.[161]

Another significant change was in the Netherlands Indies itself. At the beginning of the twentieth century, most exports still originated from Java, but gradually the importance and the export of the Outer Islands increased. The rise of the world automobile industry led to a higher demand for goods produced in the Outer Islands in particular, notably oil and rubber. During the 1930s, total exports from the Outer Islands surpassed the level of Java.[162]

In the Outer Islands, smallholders and non-Dutch investment were more prominent. The rubber industry was also highly popular among indigenous smallholder producers. Eventually, around 50% of the rubber production was supplied by smallholders. The total share of smallholders' production varied. In Southeast Kalimantan and Palembang, the share of estate rubber was only 13% between 1927 and 1938. In Jambi and West Kalimantan, the share was even lower, 0.4% and 7% respectively, whereas in North Sumatra 88% originated from estates.[163]

Various classifications to group the Outer Islands by intensity of foreign activity exist. Here I have applied the classification devised by Touwen, which consists of four different categories, dealing with different types of activities. The first one contains both foreign and indigenous activity, the second is characterized by indigenous production, the third by mainly foreign activity, and in the last one neither indigenous nor foreign production was of importance.

The first one is the most relevant for my research. This type was characterized by a high share of foreign activity, but also by a significant share of smallholder production. North Sumatra was the best-known example of this type. The expansion of the Dutch colonial state across the Outer Islands provided new opportunities for investment and exports. In 1902, rubber was introduced into Sumatra and in 1911 palm oil became a new product in North Sumatra, supplementing tobacco in Deli and the young petroleum industry. Palembang and Southeast Kalimantan counted among the largest exporters of oil by foreign companies and rubber from smallholders. In Palembang, other smallholder crops included coffee and pepper. Royal Dutch had been drilling in East Kalimantan around 1900 and this industry would later be dominated by the partly owned subsidiary of Royal Dutch Shell, the BPM, the largest

[161] Booth, *Colonial legacies*, 91–92.
[162] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 84; Lindblad, 'De opkomst van de buitengewesten', 8–14.
[163] Touwen, *Extremes in the archipelago*, 122; Creutzberg and Van Dooren, *CEI. Vol. 1*, 38–39.

single company in terms of equity in the Netherlands Indies. With a labour force of several tens of thousands, it became the largest oil company in terms of employment in the Netherlands Indies.[164] The establishment of refineries made it possible to ship the processed oil overseas and production levels increased tenfold in the first two decades of the twentieth century.[165] The subsidiaries of American Standard Oil and California Texas Oil Company (Caltex) started operations in the interwar years and the oil industry grew quickly. In 1892, it had started with 3,200 tons of oil products, but in 1915 this quantity exceeded one million tons.[166]

In 1917, 19.5% of all the Netherlands Indies oil exports came from North Sumatra. By 1929, its share had declined to 9.4%. In this year, around 4,200 million litres of petroleum distillates were exported from the Outer Islands, of which only 416 million litres came from North Sumatra.[167] In terms of value, petroleum exports in 1929 amounted to *ƒ*160 million, of which *ƒ*26 million were earned by North Sumatra alone. After 1900, in five years total foreign exports of Southeast Kalimantan increased ten times and in another ten years they quadrupled again. In 1914, a total volume worth *ƒ*60 million was exported from this region.[168] The two largest production centres in Southeast Kalimantan were at Balikpapan and on the island of Tarakan. Between 1912 and 1933, this region was the largest oil exporter of the Outer Islands.[169]

The second category was characterized by indigenous smallholder production of export crops in the Outer Islands, such as rubber and copra from Sulawesi. The latter crop in particular was entirely dominated by indigenous smallholders. The smallholders were mostly dominant in Aceh, Jambi, Lampung, West Kalimantan, Manado in North Sulawesi and South Sulawesi.[170]

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164 Touwen, *Extremes in the archipelago*, 60–64, 145; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 136, 139; Lindblad, *Between Dayak and Dutch*, 44–45; Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 197; J. Thomas Lindblad, 'The petroleum industry in Indonesia before the Second World War', *Bulletin of Indonesian Economic Studies*, Vol. 25 (1989) 53–77, in particular 54–55; Taselaar, *De Nederlandse koloniale lobby*, 89.
165 Lindblad, 'De opkomst van de buitengewesten', 11, 19; Touwen, *Extremes in the archipelago*, 65–67.
166 Taselaar, *De Nederlandse koloniale lobby*, 39; Sluyterman, *Dutch enterprise in the twentieth century*, 102; William Bruce Wood, *Intermediate cities in the resource frontier: A case study of Samarinda and Balikpapan, East Kalimantan, Indonesia* (PhD thesis, University of Hawaii, Honolulu, HI, 1985) 63.
167 Touwen, *Extremes in the archipelago*, 144.
168 Lindblad, *Between Dayak and Dutch*, 17.
169 Touwen, *Extremes in the archipelago*, 145.
170 Ibid., 76–87.

The third category consists of only foreign presence. This was the case in smaller or isolated areas, such as Bangka and Belitung. Here, tin mining was the dominant activity. Riau in Sumatra can also be included, since oil, tin and rubber were produced by foreign firms. Near the coast foreign activity was prevalent, but in the upper regions indigenous rubber cultivation was present as well. Oil and, to a lesser extent, tin became more capital-intensive, while the demand for labour declined. In these industries, a relatively small number of companies predominated with a significant impact on the surrounding area.[171]

The last category included areas that were not important to the foreign export economy, although there was some interregional trade. These areas included the Lesser Sunda Islands, like Bali and Timor and also Tapanuli, Bengkulu and New Guinea.[172]

2.6 Conclusion

In this chapter, I showed that after the Cultivation System was dismantled in 1870 the colonial government opened up the archipelago for private investment. Besides Java, investments increased in the Outer Islands, too, and non-Dutch foreign investors arrived in the Netherlands Indies as well. From the beginning of the twentieth century, the number of foreign firms active in the Netherlands Indies increased rapidly. In 1910, there were 1,678 firms and in 1920 the highest number of foreign incorporated companies was reached with 2,828. After this, the number decreased gradually to 1,563 in 1935 and before the start of the Pacific War it had slightly recovered to 1,702 companies. Three phases can be distinguished. The beginning of the twentieth century was characterized by initial investments and during the 1920s profits were reinvested, which, finally, led to a period of consolidation.

The majority of these firms were relatively young, most of them founded between 1900 and 1930. The largest part of the companies was either incorporated in the Netherlands Indies or the Netherlands. Companies seated in these two countries were responsible for more than 90% of all companies, but foreign non-Dutch owners could also decide to incorporate their companies in one of these countries. Nevertheless, the share of Dutch owners was overwhelming. British investors formed the second largest group, while

[171] Lindblad, 'De opkomst van de buitengewesten', 11–19.
[172] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 139; Touwen, *Extremes in the archipelago*, 63–87; Lindblad, 'De opkomst van de buitengewesten', 20.

non-Dutch foreign investors had a particularly strong presence in the agricultural sector, such as rubber.

During 1910 to 1940, the agricultural sector remained the most important one in terms of numbers of companies, followed by manufacturing, commercial and trading firms. Mining and financial companies were small in number, but their share in total equity was considerable. The total share of financial companies in terms of equity was only second to the agricultural sector and although the latter was still the largest sector in equity, its share was only around one-third of total equity, whereas approximately half of all firms were active in the agricultural sector. Most of the incorporated companies had a total equity of less than ƒ500,000 and overall companies were relatively small, with only a tiny number of firms with much equity.

Around one-quarter of total Dutch investment went to the Netherlands Indies. The share of investment that went to the Netherlands Indies increased and corresponded to nearly half of total Dutch foreign investment in 1938.[173] The effects of the economic depression were not strongly reflected in the equity of the incorporated companies, although taking inflation into account, the results were more extreme. During the 1930s, prices dropped rapidly in the Netherlands Indies, which meant that the real value of companies increased. Compared with other colonial powers, imports and exports of the Netherlands from and to the Netherlands Indies were lower because the market in the Netherlands was smaller than in other countries such as France, England, Japan and the United States. In 1933, exports from the Netherlands Indies to the Netherlands amounted to only 19% of total Dutch imports. From the perspective of the Netherlands Indies, trade with the Netherlands was more important than vice versa.

[173] Van der Eng, *Economic benefits from colonial assets*, 19–12; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 309–310; À Campo, 'Strength, survival and success', 55, 58–59; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 83–84; Lindblad, 'Changing destinies in the economy of Southeast Asia', 346–348.

Chapter 3. Profits, colonial drain and public gain

3.1 Introduction

This chapter discusses the profitability of Dutch firms in particular in the Netherlands Indies during the period 1910–1942. In it, I analyse topics such as economic growth, reinvested profits and dividend payments. I also provide general information on the development of the economy of the Netherlands Indies. My aim is to find out whether profits made by foreign private companies in the Netherlands Indies constitutes evidence for colonial drain. I discuss the concept of colonial drain and will give a macro perspective based on the balance of payments and also consider dividend payments and the return of foreign private companies. The volume of profits that remained in the Netherlands Indies and the part that was remitted overseas is also examined.

I shall also address the question of whether foreign firms contributed to the wealth of the Netherlands Indies and to what extent profits benefitted the indigenous population. Reinvesting profits might have been gainful to the Netherlands Indies, as such funds would remain in the colony, contributing to its economic development. On the other hand, if profits were high by common yardsticks and reinvested profits were only used to increase the wealth of foreigners, then it could be possible that the indigenous population would have been better off in the absence of foreign companies. By combining recent insights in the literature and new statistical analysis, I develop a view on this matter.

In the first section of this chapter, I elaborate on the economic growth and income distribution in the Netherlands Indies in the period 1910–1942. Did economic growth benefit some population groups more than others? As a yardstick I use sustained growth per capita by population group. In this context I also discuss colonial drain, defined as capital and goods flowing back to the home country without adequate compensation. I compare existing attempts to quantify this drain for the Netherlands Indies and analyse its consequences. I focus on the consequences of operations by private Dutch companies that could be conceived as resulting in a colonial drain. Remittances of profits and dividend are crucial. Drain as a consequence of the policy of the colonial government is not included unless it had repercussions for foreign private activity.

Sections 3.3 and 3.4 concern profits. How much profit made by foreign companies remained in the Netherlands Indies and was reinvested in the colony? Which part of profits was transferred overseas and were these profits higher than could have been achieved in other countries? Dividends paid by foreign private companies form a major, tangible indication of profits made. However, in interpreting such data, it is necessary to account for changing stock prices and inflation.

I show below that various estimates have been made over time based on different sources. I discuss which ones are the most useful for my purposes and which problems occur when using dividend payments as indicator of colonial drain. In order to find out if the presence of foreign private companies was beneficial for the economic development of the Netherlands Indies it is necessary to include other aspects as well. The extraction of resources, wages, taxes, linkages and spill-over effects are discussed in the next chapter.

3.2 Economic growth and income distribution, 1910–1942

It is best to begin discussing per capita GDP growth and national income by summarizing the existing literature. Calculations about the national income of colonial Indonesia had already been made before the Pacific War.[1] Götzen, who was the head of the Government Tax Accounting Service of the Netherlands Indies, wrote in 1933 that the tax burden on Europeans and Chinese living in the Netherlands Indies was heavier than for the indigenous Indonesians. Polak used a different approach when analysing production, income and taxes in order to estimate the total income for Europeans and 'Foreign Asiatics'. Combining income and production levels, in 1943 he presented estimates for the years 1921–1939 for indigenous Indonesians.[2] His work became well known and he found the average income of Europeans to be more than 45 times higher than the average income of indigenous Indonesians.[3] However, in India the ratio was even worse: a British person earned around 100 times the income of an average Indian.[4]

[1] Daan Marks, *Accounting for services. The economic development of the Indonesian service sector, ca. 1900–2000* (Amsterdam: Aksant, 2009) 41–43; Pierre van der Eng, 'The institutionalization of macroeconomic measurement in Indonesia before the 1980s', *Masyarakat Indonesia: Majalah Ilmu-Ilmu Sosial Indonesia*, Vol. 39 (2013) 551–578, in particular 554–558.
[2] J. Götzen, 'Volksinkomen en Belasting', *Koloniale studiën*, Vol. 17 (1933) 449–484; Polak, *The national income of the Netherlands Indies, 1921–1939*, 49; Marks, *Accounting for services*, 41; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 344.
[3] Marks, *Accounting for services*, 42; Polak, *The national income of the Netherlands Indies, 1921–1939*, 49.
[4] Angus Maddison, 'Dutch income in and from Indonesia, 1700–1938', in: Angus Maddison and Gé Prince (eds), *Economic growth in Indonesia 1820–1940* (Dordrecht: Foris Publications, 1989) 15–42, in particular 22; Angus Maddison,

Nevertheless, real per capita GDP did increase in the long run. There was demonstrably an increase from 1900 until 1928. In 1928 real per capita GDP was around 40% higher than in 1910, which corresponded to an annual growth rate of nearly 2%. The worst decline in living standards was in 1933–1935 when income and employment opportunities were at their lowest, aggravated by bad weather conditions and harvest failure. Consequently, in 1941 real per capita GDP was still around the same level as in the late 1920s, even after some recovery from the economic depression of the 1930s and it dropped rapidly again during the Japanese occupation. As a result, in the early 1940s GDP per capita was lower than in British Malaya, the Philippines, Taiwan and Korea. Still, until 1928 there was a solid growth even though after the 1960s real per capita GDP would increase much faster.[5]

The economic depression of the 1930s had severe repercussions for the economic development of the Netherlands Indies. Between 1928 and 1934, nominal GDP fell by 3.4% per year and real income dropped significantly for Europeans and the indigenous Indonesians in the Outer Islands. For indigenous Indonesians, nominal income at the lowest point during the economic depression was only 40% of the 1921 level, whereas for Europeans and 'Foreign Asiatics', which included Arabs and Indians as well, this was 71% and 89% respectively.[6]

'Dutch income in and from Indonesia 1700–1938', *Modern Asian Studies* Vol. 23 (1989) 645–670, in particular 656.

[5] Anne Booth, 'Foreign trade and domestic development in the colonial economy', in: Anne Booth, William Joseph O'Malley and Anna Weidemann (eds), *Indonesian economic history in the Dutch colonial era* (New Haven, CT: Yale Center for International Studies, 1990) 267–295, in particular 285–286; P. Creutzberg and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 5: National income* (The Hague: Nijhoff, 1979) 81; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 39, 45, 107; Anne Booth, 'Globalisation and poverty: Indonesia in the twentieth century', *Economics and Finance in Indonesia*, Vol. 57 (2009) 113–138, in particular 115–119; Anne Booth, *Economic change in modern Indonesia. Colonial and post-colonial comparisons* (Cambridge: Cambridge University Press, 2016) 24; Peter Boomgaard, 'Surviving the slump: Developments in real income during the depression of the 1930s in Indonesia, particularly Java', in: Peter Boomgaard and Ian Brown (eds), *Weathering the storm. The economies of Southeast Asia in the 1930s depression* (Leiden: KITLV Press, 2000) 23–52, in particular 28–30; Jeroen Touwen, 'Regional inequalities in Indonesia in the late colonial period', *Lembaran Sejarah*, Vol. 3 (2002) 102–123, in particular 109; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 354–355, 366–370; Lindblad, *Bridges to new business*, 28.

[6] Lindblad, *Bridges to new business*, 28; Creutzberg and Van Dooren, *CEI. Vol. 5*, 70; Van Leeuwen, *Human capital and economic growth in India, Indonesia and Japan*, 239–242.

Although the real incomes for indigenous Indonesians were lower at the start of the economic depression of the 1930s, during the second half of the decade the real income growth for the population in Java was higher than during the previous decade, compared with other regions or population groups. Price levels for the indigenous Indonesian population dropped more rapidly during the 1930s than was the case for the other groups.[7] Therefore, the impact of the economic depression was felt differently by each population group. Workers who were lucky to keep their jobs in sectors less affected by the economic depression may have benefitted from the decreasing price levels and would have noticed an increase in real income. However, this was only a tiny fraction of the total population. Millions of people employed in the export sector or depending on such activities were severely hurt by the economic depression. In the Outer Islands the number of coolies more than halved.[8]

It should be kept in mind that the share of Europeans and 'Foreign Asiatics' in the GDP increased. The share of GDP for Europeans, who formed around 0.5% of the total population, increased slightly from around 8.5% in 1921 to nearly 14% in 1939. The share for Chinese and 'Foreign Asiatics' increased more rapidly from slightly more than 5% in 1921 to nearly 11% in 1939, while forming less than 2% of the total population. Based on the share of foreign capital in total exports, 10–20% of GDP originated from the activities of foreign capital in the Netherlands Indies.[9]

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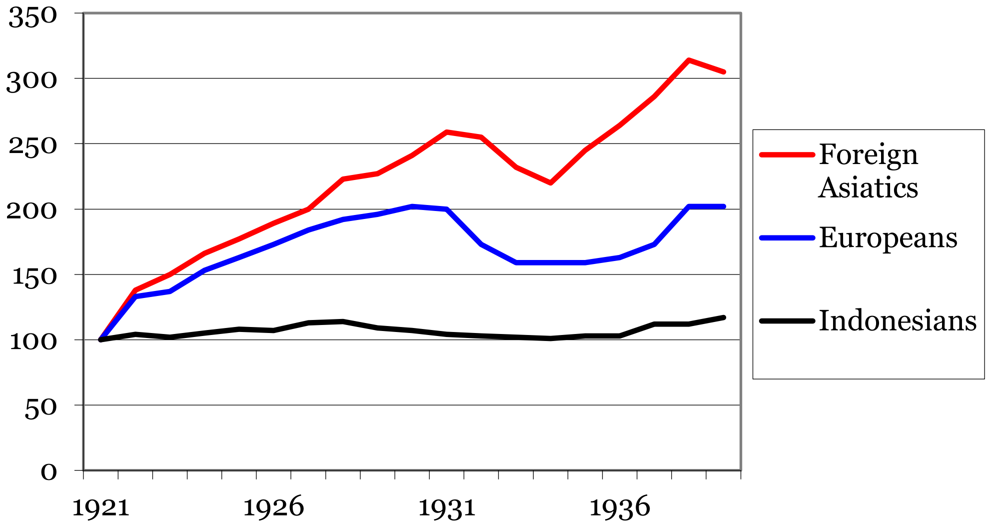
[7] Creutzberg and Van Dooren, *CEI. Vol. 5*, 80.

[8] Trudi Nierop, 'Lonely in an alien world: Coolie communities in Southeast Kalimantan in the late colonial period', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia. A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 157–178, in particular 178.

[9] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 117; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 142; Maddison, 'Dutch colonialism in Indonesia', 322; Creutzberg and Van Dooren, *CEI. Vol. 5*, 66, 70–71; D.H. Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2: Indonesia in de 20e eeuw* (Wageningen: Landbouwhogeschool Wageningen, 1975) 92, 114; J. Thomas Lindblad, 'Economic growth and decolonisation in Indonesia', *Itinerario*, Vol. 34 (2010) 97–112, in particular 106; Douglas S. Paauw, 'Economic progress in Southeast Asia', *Journal of Asian Studies*, Vol. 23 (1963) 69–92, in particular 80; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 60; Creutzberg and Van Dooren, *CEI. Vol. 3*, 38–39, 142; Korthals Altes and Van Dooren, *CEI. Vol. 12a*, 69–75.

Figure 3.1. Development of total real income in the Netherlands Indies by population group, 1921–1939, 1921 = 100.



Source: Creutzberg and Van Dooren, *CEI. Vol. 5*, 81; Van Leeuwen, *Human capital and economic growth in India, Indonesia and Japan*, 239–242.

In the longer period between 1880 and 1925, the nominal income per capita of indigenous Indonesians rose by 38%, but inflation was around 27%, so the increase in real income per capita over the entire period only amounted to around 11%. There was no significant rise in real income for the indigenous Indonesian population. For Chinese and other 'Foreign Asiatics' the nominal increase in income was almost 90%, or a 48% increase in real income. This increase was much larger than for the Europeans. Real income growth was higher for Europeans and 'Foreign Asiatics' than for indigenous Indonesians, for whom the incomes stayed roughly constant in the long term (Figure 3.1). Gradually the income gap between Europeans or 'Foreign Asiatics' and indigenous Indonesians widened.[10] I have summarized the calculations of income by Polak and Van Zanden and Marks. The enormous difference between Europeans and Indonesians is striking and I also show the consistent difference between the population groups. Income inequality between Europeans and indigenous Indonesians at the end of the 1930s was

[10] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 142; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 117; Bas van Leeuwen and Péter Földvári, 'The development of inequality and poverty in Indonesia, 1932–2008', *Bulletin of Indonesian Economic Studies*, Vol. 52 (2016) 379–402, in particular 386.

significantly larger than in earlier periods, which could indicate that the economic depression affected indigenous Indonesians more than other population groups.

Which sectors and industries were responsible for economic development? In the period 1900–1929, the volume of exports of various primary commodities, in particular sugar, tobacco, tin, rubber and palm oil, increased by 5.6% per year. Direct contribution of exports to GDP growth during this period was 42%; however, this consisted of both estate and smallholder exports. From 1934–1941, the growth of these exports slowed at 2.2% per year and the direct contribution of exports to GDP was only 8%. Booth states that in the early twentieth century, total exports accounted for around 20% of GDP, a rate fluctuating between 15 and 30%. This shows the crucial importance of the export sector to economic development in the Netherlands Indies.[11] Nevertheless, the share of exports of agricultural commodities that were produced by smallholders increased from 10% in 1898 to 38% in 1940. Western agricultural estates did not entirely dominate the export sector and production for domestic consumption also played an important role in economic development.[12] Moreover, the acceleration of GDP growth in the years 1900–1929 was also supported by investments in infrastructure, transport and irrigation. A significant part of this was done by the colonial government in the framework of the Ethical Policy, not only by foreign enterprises.[13]

Booth claims that the economic development that did take place in colonial Indonesia cannot only be ascribed to increasing investment by Western enterprises. She disputes the estimate that was made by Van der Eng to which extent Western enterprises were essential for the growth of the export sector. She argues that in the rubber industry, domestic smallholder producers were just as efficient as the foreign-owned estates, but I doubt if this was the case for other industries as well. The rubber estate industry only survived in the 1930s because of government support through the allocation of export quotas. Under such circumstances, at least part of the revenue can be seen as monopoly profits, rather than as a normal return. In the Outer Islands, Western export production failed to generate sustained economic development and although indigenous Indonesian income outside Java grew,

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[11] Booth, 'Real domestic income of Indonesia, 1880–1989', 362; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 355; Creutzberg and Van Dooren, *CEI. Vol. 5*, 76–77; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 118.

[12] Van der Eng, 'Indonesia's growth performance in the twentieth century', 154–155; Creutzberg and Van Dooren, *CEI. Vol. 1*, 195–201.

[13] Booth, 'Real domestic income of Indonesia, 1880–1989', 354.

this was the result of slow food production in Java and the increasing importance of smallholder export production in the Outer Islands, rather than a result of increasing foreign presence.[14]

The sectors that were popular among foreign investors, such as banking and finance, estate agriculture, mining, oil and gas only contributed 15% of the total economic growth during 1900–1913 and 19% during 1913–1929. Until 1913 food crops, trade, transport and communication were the most significant industries that contributed to economic growth. Between 1913 and 1929, the importance of food crops declined. Trade, transport, communication, estate crops and manufacturing became more significant. During the economic depression of the 1930s, food crops, manufacturing and public administration compensated for trade, transport and communications, which were the most affected areas during this time. Finally, it can be stated that a major part of the economic development, therefore, was achieved by indigenous economic activity but improved transport and infrastructure benefitted domestic trade and export.[15]

We may conclude that unmistakably some growth per capita GDP did take place during the period 1910–1940, especially prior to the economic depression of the 1930s, but this growth was not impressive compared with other countries. There were important differences by population group. 'Foreign Asiatics' and Europeans did benefit more from the growth than indigenous Indonesians. Factors that stimulated the increase in real income for the indigenous population were, apart from foreign investment, lower prices due to the economic depression and an increase in smallholder production.

During the Suharto period growth rates of GDP per capita exceeded those of the 1920s and late 1930s. During the first and second decade of the twenty-first century economic growth was higher than during the colonial times as well.[16] We will next find out in more detail to what extent the presence of foreign private companies was beneficial to the economic development of the Netherlands Indies.

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[14] Booth, 'Foreign trade and domestic development in the colonial economy', 260; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 231; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 140.

[15] Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 352–355.

[16] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 36; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 36; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 355; Booth, *Colonial legacies*, 166; Booth, *Economic change in modern Indonesia*, 43, 109–110; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 6, 18.

3.3 The measurement of colonial drain

A proper measurement of the extent to which profits were drained from the colony is called for. Numerous scholars have touched upon the topic of colonial drain over the years. I identify two main perspectives. The first one is that for colonial drain to occur there needs to be an export surplus in combination with impoverishment of the debtor country. In this case, the value of exports is higher than the total value of imports. Here, a substantial part of income generated by foreign companies leaves the country and benefits foreign investors rather than the host country. Compensation for the extraction of resources and wages for the indigenous population is also inadequate. It is not a question whether colonial Indonesia paid for the access to capital and management, but whether too much was paid for this.[17] The second perspective is that not enough was done to make colonial Indonesia less dependent on primary exports. This would have been caused by the policy of the colonial government, which from the start was not directed towards industrialisation but rather protection of the colonial market for Dutch industry, since good profits were made in sales of Dutch products in colonial Indonesia. Some degree of industrialisation policy was only implemented in the late 1930s.[18]

In this section I apply the first definition, which is to explore how much profit was made by foreign companies in the Netherlands Indies and how much of it flowed overseas. In order to do so, I have analysed data on balance of payments, GDP and estimates of total profits. Reinvestment of profits, corrections for changes in stock prices, equity levels and current and constant prices are analysed in relationship to industrial sectors, branches and companies.

Colonial drain in the Netherlands Indies has been discussed since the end of the nineteenth century. In 1878, Brooshooft wrote about extracting profits and resources by the Dutch. He did not apply a distinction between private and public exploitation as was done in an influential article by Van Deventer in 1899 entitled '*Een Eereschuld*' or 'A debt of honour'. From then on, colonial drain became linked to foreign capital.[19] In 1919, Sastrowidjono

[17] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 141–143, 151–152; Berkhuysen, *De drainagetheorie voor Indonesië*, 87–94; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 5; Van der Eng, *Economic benefits from colonial assets*, 2; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 83.
[18] Lindblad, 'The late colonial state and economic expansion, 1900–1930' 141–143.
[19] Berkhuysen, *De drainagetheorie voor Indonesië*, 88, 92; Touwen, *Extremes in the archipelago*, 55.

stated in the *Volksraad* (People's Council) that he wanted to welcome more foreign capital into the Netherlands Indies, but he argued that a major part of the profits went to Europe and other foreign countries, so reducing the national income of the Netherlands Indies. Treub, on the other hand, argued that a drain of profits was inevitable, causing only a slight lowering of national income, and not a serious drop, since a significant part of the profits remained in the Netherlands Indies.[20]

In the interbellum, Gonggrijp emphasized the harmful effect of profit remittances by foreign private companies; as a result, the profits scarcely affected the indigenous population, if at all.[21] After the Second World War, the drain was discussed again by Boeke and Berkhuysen.[22] Berkhuysen stated that, due to the fact that the Netherlands Indies lacked capital, the colony became dependent on the Netherlands. He argues that although the colonial era did have some drawbacks for the indigenous population, it was better for the Netherlands Indies to get Dutch capital – even if it was accompanied by the inevitable negative side effects of colonial drain – than to have none at all.[23]

In 1956, however, Wertheim discussed the effects of the Ethical Policy but also argued that remitted profits to Europe and a failing policy regarding improving production technologies were responsible for the low living standards after the First World War.[24] During the 1970s, colonial drain was discussed anew. In 1972, Drake focused on the drain of natural resources[25] and in 1976 Golay compared colonial drain of all Southeast Asia, also discussing French Indochina, British Malaya and the Philippines.[26]

Since the 1980s, research has been done on the colonial drain by Booth and Maddison in particular. They pay special attention to the early twentieth

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[20] M.W.F. Treub, *Nota van Mr. M.W.F. Treub, Voorzitter van den ondernemersraad voor Nederlandsch-Indië, over de inkomstenbelasting, de extrawinstbelasting van naamloze vennootschappen, de productenbelastingen en de uitvoerrechten op producten van ondernemingen* ('s-Gravenhage: Mouton & Co., 1922) 28–29; Diederick Slijkerman, *Enfant terrible. Wim Treub (1858–1931)* (Amsterdam: Prometheus, 2016) 231–238.
[21] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 234; G. Gonggrijp, *Schets ener economische geschiedenis van Indonesië* (Haarlem: De erven F. Bohn N.V., 1957) 160–170.
[22] Boeke, *Indische economie. I*, 204–218.
[23] Berkhuysen, *De drainagetheorie voor Indonesië*, 129.
[24] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 108; W.F. Wertheim, *Indonesian society in transition. A study of social change* (The Hague: W. van Hoeve, 1956) 87, 99–101.
[25] Drake, 'Natural resources versus foreign borrowing in economic development', 951–962.
[26] Golay, 'Southeast Asia: The "colonial drain" revisited', 369.

century and the depression of the 1930s when discussing drain and also compare the Netherlands Indies with other colonies. Besides remittances from large companies to the Netherlands, Maddison argues that the Chinese remitted about 6–11% of their income to China. This 'double drain' was elaborated by Booth. She claims that these remittances were very large by contemporary standards, arguing that colonial Indonesia could have sustained economic development before the Pacific War, should more gains and profits from foreign exports have been put to use in the colonial economy.[27]

During the 1990s the debate about the colonial drain became dominated by two scholars. Van der Eng claims that the development of the economy of the Netherlands Indies was *not* influenced by the drain of profits to the Netherlands. In addition, he asserts that the wages of European staff were not higher in the Netherlands Indies due to the power structure of the colonial society. It is unlikely that the Netherlands Indies would have achieved more economic development without foreign labour and capital.[28] Gordon, by contrast, argues that the colonial drain of the Netherlands Indies was much larger than that calculated by other scholars, in particular Van der Eng.[29] At the end of the twentieth century Gordon questioned the data and methods used by Van der Eng for calculating the GDP of colonial Indonesia.[30] Gordon argues that the returns on capital cited by Van der Eng were too low. He claims that Van der Eng did not take into account an increase in share prices or reinvestment of profits, which could lead to a higher return on capital.[31]

I observe two camps in the discourse among positions and viewpoints. On the one hand, we can see, among others, Middendorp and Stokvis on the left side, together with Bagchi, Boomgaard, Booth, Geertz, Mackie, Maddison, Gordon, Van Gelderen and Wertheim, who claim that the export surplus was large and profits were drained from the colonial economy. Burger and Treub,

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[27] Booth, 'Exports and growth in the colonial economy, 1830–1940', 80; Maddison, 'Dutch colonialism in Indonesia', 323–339; Lindblad, 'The late colonial state and economic expansion, 1900–1930' 151–152.
[28] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 38; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 344, 355.
[29] Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 577–578; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–441.
[30] Gordon, 'Industrial development in colonial Indonesia, 1921–1941'; Gordon, *The necessary but impossible task*; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?'; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939'; Gordon, 'Reverse flow foreign investment'.
[31] Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–439; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 567.

on the other hand, together with Berkhuysen, Boeke, Koningsbergen and Van der Eng, state that the surplus was not very large. Private foreign companies were important to the economic development of colonial Indonesia by spending a significant part of their profits in the host country.[32] The latter group of authors stresses the absence of a capital market in the Netherlands Indies. Therefore, in order to make use of the country's rich natural resources, foreign capital was needed. As a consequence, any contribution to economic development was generated by foreign capital.[33] I will further analyse this debate in order to find out if there was a drain present in the Netherlands Indies and to what extent private foreign companies were a part of this drain.

Colonial drain and its definitions

How have scholars sought to calculate colonial drain? To estimate colonial drain, both Booth and Maddison use the surplus on the balance of commodity trade. Between 1921 and 1939, the export surplus at its highest level corresponded to 20% of GDP. Compared to other colonies this was very high. As a result, Maddison argues that the colonial drain from the Netherlands Indies was larger than for other countries.[34]

Gains from this export growth failed to materialize because of the double drain by the Dutch and Chinese. Maddison estimates that the drain from colonial Indonesia amounted to 10.6% of GDP in the Netherlands Indies and this was very large by contemporary standards. An additional 0.5% was due to remittances to China.[35] Remittances to the Netherlands, like salaries and pensions, were high and according to Maddison this can be ascribed to the colonial power structure, which was not only evident in public life but also in private companies. Dutch staff were favoured over indigenous personnel, not only because of their higher skills and better education. Professional networks were dominated by the Dutch and it is unlikely that indigenous

[32] Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 426; Taselaar, *De Nederlandse koloniale lobby*, 299–303, 341–342, 496; Goedhart, *Eerherstel voor de plantage*, 318; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 2.
[33] Crena de Iongh, 'Nederlandsch-Indië als belegginsgebied van Nederlandsch Kapitaal', 110–113; Berkhuysen, *De drainagetheorie voor Indonesië*, 87–94; Lindblad, 'The late colonial state and economic expansion, 1900–1930' 151–152.
[34] Booth, 'Exports and growth in the colonial economy, 1830–1940', 80, 91; Booth, 'Foreign trade and domestic development in the colonial economy', 292; Maddison, 'Dutch colonialism in Indonesia', 322–327.
[35] Booth, *Agricultural development in Indonesia*, 222; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 23–24; Booth, 'Exports and growth in the colonial economy, 1830–1940', 75–91.

Indonesians could have entered these networks as easily as the Dutch did. The networks that were not controlled by the Dutch were usually influenced by Chinese.[36] Regions that had more Western activity also showed a larger surplus on the balance of trade than areas where indigenous smallholders were more important for the exports, such as South Sulawesi, West Kalimantan and West Sumatra.[37]

According to Van der Eng, the balance in commodity trade used by Booth and Maddison is not the correct measure when looking for colonial drain. A large commodity trade surplus is not necessarily an indicator of drain. Between 1900 and 1929, exports and incoming foreign investment were both higher than during the preceding period, but economic development occurred as well. Moreover, Van der Eng argues that the GDP data on which Booth and Maddison base their export surplus between 1921 and 1939 are too low. He claims that GDP in this period was an impressive 43% higher on average, but I doubt if a difference this large is credible. As a result, the trade surplus would have been significantly lower. Next to this, foreign trade between the Netherlands Indies and the Netherlands declined during the first half of the twentieth century, which reflects that trade with other countries was becoming more important.[38]

The capacity of colonies in Southeast Asia to absorb foreign investment was relatively small compared with capital flows to other parts of the world. Economic underdevelopment, therefore, may be associated with insufficient, rather than too much, foreign capital having been invested. Canada, South Africa, New Zealand, Argentina, Brazil and Thailand also had export surpluses and attracted foreign investment and experienced significant economic growth, in spite of their trade surpluses and in spite of, or perhaps because of, substantial foreign investments. Colonial countries were not unique in having export surpluses. In the post-colonial time Indonesia continued to have an export surplus.[39]

The Netherlands Indies and British Malaya received more foreign investment than Burma, the Philippines and Thailand. Van der Eng states that

[36] The double drain has been discussed by Booth and Maddison: Booth, 'Exports and growth in the colonial economy, 1830–1940', 80; Maddison, 'Dutch colonialism in Indonesia', 323–332; Booth, *Agricultural development in Indonesia*, 222.
[37] Touwen, *Extremes in the archipelago*, 56; Booth, 'Exports and growth in the colonial economy, 1830–1940', 79.
[38] Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 2–7; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 4–8, 35; Korthals Altes and Van Dooren, *CEI. Vol. 12a*, 89–90, 102–103; Lindblad, ‘De handel tussen Nederland en Nederlands-Indië, 1874–1939’, 280–281.
[39] Maddison, 'Dutch colonialism in Indonesia', 327; Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 8.

between 1900 and 1929 GDP per capita growth in the first two countries was higher than in the latter ones that received less foreign investment. Booth, however, argues that during these three decades GDP per capita growth in the Netherlands Indies was not only lower than in British Malaya, but lower than in the Philippines and probably Taiwan and Korea as well.[40] Around half of total Dutch foreign investment went to the Netherlands Indies and according to Van der Eng economic growth of the Netherlands Indies would have been higher if even more foreign capital had been invested. I agree that foreign investment was important for economic growth, but it was not the only requirement.

In certain industries such as rubber and petroleum, non-Dutch investment was significant and if there was a drain present, the Dutch were not the only ones who benefitted from it.[41] Although the Netherlands remained the most important investor in the Netherlands Indies, this does not imply that the drain only flowed to the Netherlands. Part of the remittance went to other countries as well. An argument against the ‘double drain’ theory is that wages paid to Dutch, Chinese and other foreigners, had to be earned in the first place while contributing to the economy of the Netherlands Indies by working and living there. Whether salaries of the foreign staff were too high is difficult to judge. Independent countries in Asia or other parts of the world also employed foreign personnel, at high salaries. Many Europeans were employed in the public sector as well and not everyone remitted their savings overseas, since some were born in the Netherlands Indies. Gradually indigenous Indonesians entered the private sector, and although it was not impossible for them to rise to higher positions in foreign companies, in reality this seldom happened.

However, Van der Eng neglects to say that networks in banking, shipping and insurance were securely in Dutch hands and that the public sector still depended on the activities of the government in The Hague. He argues that this aspect only slightly affected the flow of foreign capital. In theory, Dutch companies were not favoured above other foreign companies, but I find this difficult to accept. In the 1930s Dutch companies were protected

[40] Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 8–9, 36; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 15–17, 36; Booth, ‘Globalisation and poverty’, 115; Booth, *Economic change in modern Indonesia*, 24.
[41] Booth, *Agricultural development in Indonesia*, 222; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 23–24; Booth, 'Exports and growth in the colonial economy, 1830–1940', 75–91; Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 8–9; Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 164–165; Van Soest, *Een bijdrage tot de kennis van de beteekenis der Nederlandsche beleggingen in buitenlandsche fondsen voor de volkswelvaart*, 44.

from foreign ones, in particular Japanese rivals. Foreign companies active in the Netherlands Indies had to be registered there or in the Netherlands. Individual Dutch companies could be favoured above others by giving them preferred access to concessions, but according to Van der Eng there was no intertwinement between private companies and the colonial bureaucracy. Even though the KPM had a monopoly on shipping of government goods and personnel, this advantage was conditioned by the obligation for the KPM to sustain unprofitable lines in remote regions.[42] I think that in reality this would only increase the presence and dominance of the KPM in the entire archipelago. Monopolies and companies benefiting from government protection were a loss for the colonial economy.[43] Without doubt, existing professional networks gave Dutch investors in the Netherlands Indies an advantage over other foreign investors and indigenous business activities, but the question still remains whether returns on foreign capital were excessive.

New calculations of colonial drain

The most important aspect of colonial drain for my research has been the effect of foreign capital on the economic development of the Netherlands Indies. Both Van der Eng and Gordon have extensively discussed this topic. By relating the balance of payments to estimates of GDP, Van der Eng seeks to measure the size of colonial drain. In order to do so, he incorporates several components from the balance of payments which could have led to a colonial drain. These are: Cultivation System transfers, remittances of dividends and profits, management costs and bonuses paid outside the Netherlands Indies, the colonial war component of interest on public debt, government expenditure, 'shadow value' of private interest payments less actual private interest payments. The 'shadow value' was approximated with data on total invested foreign capital. For my research, the components related to private foreign companies are the most relevant. Van der Eng argues that the development of GDP per capita did not change after deducting the drain. In his most recent calculations, which included government expenditures, the drain was 3.4% of GDP over 1900–1913, 5.9% over 1914–1929 and 2.3% in

[42] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 5–7, 9–10; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 10–14, 17; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 307–308; Maddison, 'Dutch colonialism in Indonesia', 323–332; Lindblad, 'Foreign investment in late-colonial and post-colonial Indonesia', 197.
[43] Booth, *Agricultural development in Indonesia*, 222; Taselaar, *De Nederlandse koloniale lobby*, 49–51.

1930–1939.[44] This seems quite low and I think it is not exactly clear to what extent foreign private companies were responsible for this drain.

Therefore, I opt to make another division which I will call colonial drain as well and include aspects that I think can be seen as a drain. This makes it easier to compare results by Van der Eng and Gordon. Van der Eng combines all foreign payments by colonial Indonesia[45] and if we consider this as a drain it increases to 6.1% of GDP over 1914–1929 and 5.4% of GDP in 1930–1939. However, this combination of all foreign payments also includes interest payments on public debt. I will exclude this aspect in order to make a comparison with calculations by Gordon possible. This will lead to an average drain of 7.7% of GDP for 1921–1930 and 5.3% in 1931–1939.

Overall, the drain was larger during periods when GDP growth was high and foreign investment increased. This makes it more likely that there was a positive correlation between foreign investment and economic development. I think that this loss of GDP due to the drain was not substantial enough to explain the failure to achieve economic development. However, this is only one of several aspects of Dutch colonial rule in the Netherlands Indies that could have had negative consequences for the economic development during the colonial times and thereafter. Governmental policies in fields like education or employment, for instance, would have had a significant influence as well.[46]

Gordon also relies on data from the balance of payments of the Netherlands Indies. Instead of a trade surplus or a colonial drain, he presents his calculations as the colonial surplus which he defines as proceeds from the colony that benefitted the colonizing country. One component of this surplus is called total private business gains. I include it when calculating the drain. It roughly coincides with the foreign payments by the Netherlands Indies as calculated by Van der Eng.[47] For the period 1910–1939 it amounted to a total

[44] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 31, 36; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 17–19, 30, 36.
[45] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 30; These foreign payments consist of: dividends, management costs and bonuses, interest payments on private debt, interest payments on public debt, private remittances and pensions. Pensions, however, also contain a share of pensions from the government. In my calculation where I use GDP to compare the numbers with Gordon, I leave out the interest payments on public debt.
[46] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 15–23; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 4, 8–9, 35–37; Lindblad, 'The late colonial state and economic expansion, 1900–1930' 151–152.
[47] Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 560–566. Total private business gains consist of: dividends and trade profits, management costs and bonuses outside the Netherlands Indies and private interest. In order to make an adjustment for the remittances to relatives and pensions

of ƒ6,380 million. However, Gordon goes one step further, adding estimated retained profits (the part of the profit that is not paid out as dividend to shareholders and this can be reinvested in the company or added to its reserves) and private floating balances.[48] I will first examine these two components and establish whether they can be added to an estimate of drain. Gordon also calculates the share of the government, but this component is not relevant here since I focus on foreign private companies.

Dividends paid by non-Dutch companies are not clearly visible on the balance of payments. This holds true for reinvested profits as well, although some calculations have been made. Korthals Altes included reinvested profits in his data, using dividend figures from *Van Oss' Effectenboek* on an annual basis to see differences between sectors. Unfortunately, this selection did not include every company, and practically none of the non-Dutch companies either. Reinvested profits are not always easily obtainable from the balance of payments for the Netherlands Indies or the balance sheets of individual companies. Therefore, results should be used with caution, but Korthals Altes indicated that a rather high 36.5% of the total profits were retained, whereas other calculations come to between 23 and 33%.[49] Gordon argues that the reinvestment rates were 25.7% over 1910–1926 and 33% over 1928–1939. For other years, Gordon assumed a rate of 25%. Van der Eng claims that around two-thirds to three-quarters of profits were remitted as dividends and one-quarter to one-third of profits were retained between 1925 and 1938. This adds up to roughly two-thirds of the total equity of foreign enterprises in the Netherlands Indies.[50] I think this really shows that a considerable part of corporate investment in colonial Indonesia was financed internally with reinvested profits and these reinvested profits could be higher than profits paid out as dividends in certain years. Total FDI was higher than registered incoming FDI. Next to this, many companies chose to quickly write off

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Gordon argues that one-third of this item originated in the private sector and two-third in the government sector. Gordon also makes an estimate for non-Dutch profits.

48 Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 427–428; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 560–564; Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', 515–516.

49 Korthals Altes and Van Dooren, *CEI. Vol. 7*, 39–41; Van der Eng, *Economic benefits from colonial assets*, 18; Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', 511.

50 Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 566–567, 577–578; Van der Eng, *Economic benefits from colonial assets*, 18; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 9–11; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 309.

enterprises, so they had a lower value on the books. With this method, it is difficult to estimate the real value of companies and their reserve.[51]

Gordon estimates retained profits on the basis of data published by Polak and Korthals Altes. For the period 1921–1939, Polak shows that ƒ682 million worth of profits was retained, whereas ƒ2,793 million worth of dividend and profits was transferred abroad. This was slightly less than one-quarter of the total of transferred profits that were retained. Korthals Altes, however, shows slightly higher amounts of profit at ƒ2,847 million for the period 1921–1939, but he does not include retained profits. Gordon, on the other hand, presents a total of retained profits of ƒ2,960 million for the period 1910–1939, including retained profits from petroleum companies. Or ƒ2,109 million for 1920–1939. This is much higher than the figures given by Polak show. I seriously doubt if a difference that big is plausible and whether it can be inferred from the data provided by Korthals Altes.[52] Since retained profits used for reinvestment were not clearly evident on the balance of payments, estimations vary widely.

Korthals Altes states that Royal Dutch Shell was able to finance its activities in the Netherlands Indies completely out of retained profits.[53] Gordon claims that, based on the stock price of Royal Dutch Shell, around ƒ400 million was reinvested by this company. From the start of the twentieth century until 1939 Royal Dutch Shell also issued ƒ628 million worth of shares (Appendix 12).[54] In his calculation Gordon adds this ƒ400 million figure of estimated retained profits to the total private business gains, even though the former largely remained in the Netherlands Indies. Next to this sum non-Dutch profits were estimated by Gordon, based on their share in total foreign investment, to be ƒ3,217 million in the period 1910–1939. I think this is rather on the high side, but can be explained since Gordon presents these non-Dutch profits as a share of non-Dutch colonial surplus, which also includes private

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[51] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 258; Drake, 'Natural resources versus foreign borrowing in economic development', 960–961; J.H. Boeke, *The structure of the Netherlands Indian economy* (New York: Institute of Pacific Relations, 1942) 185–186; Lambertus Lancée, *Beknopt overzicht van het Nederlandsch-Indisch belastingrecht* (Batavia: Noordhoff-Kolff, 1935) 20.
[52] Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 565–567; Korthals Altes and Van Dooren, *CEI. Vol. 7*, 139–142; Creutzberg and Van Dooren, *CEI. Vol. 5*, 66; Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 92, in a later paper Gordon adjusted his calculations for retained profits to ƒ2,708 million for the period 1910–1939, or ƒ2,016 million for the period 1920–1939, Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', 509.
[53] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 46.
[54] Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 115–117.

floating balances.[55] In a later paper, however, Gordon gives a figure of ƒ1,876 million of non-Dutch profits.[56]

These private floating balances are based on the increase in private floating balances abroad, which is a residual item that Korthals Altes ranked under capital account expenses of the balance of payments. This item was used in order to balance debit and credit on the balance of payments. Korthals Altes argues that it represented the items that should appear on a complete balance of payments but for which estimates could not be made. An example is capital transactions by banks. There are many uncertainties about this item, whether or not it includes non-Dutch capital, if it truly represents a permanent flow from the Netherlands Indies to the Netherlands and to what extent it was overestimated or underestimated. Korthals Altes, therefore, gives no further specification of this item. Gordon includes the private floating balances in his calculations on the grounds that this residual was positive which could indicate that there existed a flow of liquid funds from the Netherlands Indies to other countries. But one can dispute whether this is correct and if this item should be included entirely or partly. This residual represented between 4.1% and 16.7% of the balances of payments during 1910–1934, which is substantial.[57] For the period 1910–1939 the private floating balances amounted to ƒ3.279 million. This corresponds to around 60% of total private business gains.

If we add this item to the total, the drain would increase to ƒ15,836 million for 1910–1939. But I doubt whether this is the right choice and find it difficult to accept that including this whole sum is correct, since it is unclear what is precisely included in these private floating balances. Nevertheless, if we take this sum as a percentage of the average GDP between 1921 and 1930 we arrive at 15.2% and for the period 1931–1939 11.5%. However, I think this entire sum cannot be seen as a drain. Retained profits remained partly in the Netherlands Indies and, therefore, did not fully flow away to other countries. If we include all items Gordon mentioned, except the retained profits we can argue that there was a drain of 12% in 1921–1930 and 9.5% of GDP in 1931–1939. However, this still includes the entire private floating balances even though it remains dubious if this whole item can be seen as a drain. Nevertheless, if we would only count total private business gains and

55 Gordon, 'Reverse flow foreign investment', 114; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 432–434.

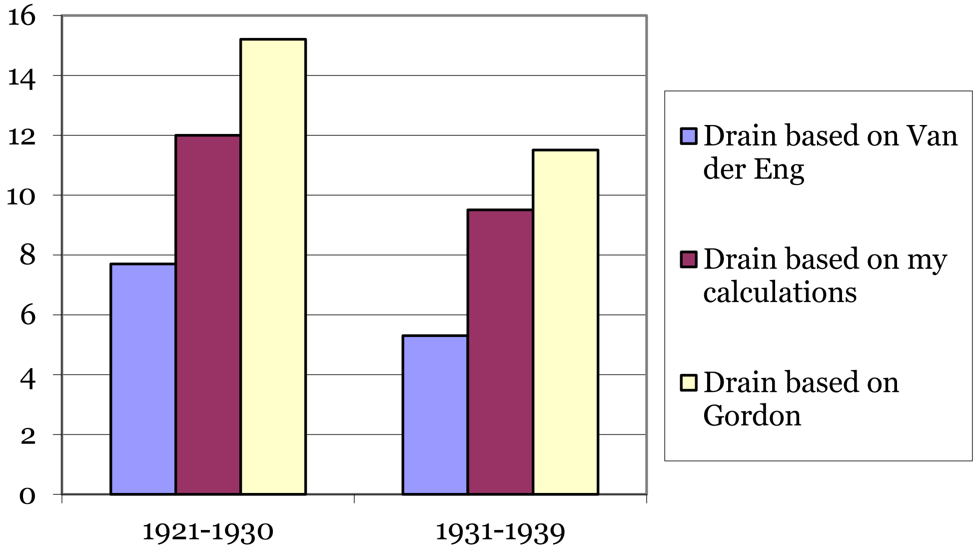
56 Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', 513–514.

57 Korthals Altes and Van Dooren, *CEI. Vol. 7*, 51–52, 70; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 565–567; Gordon, 'A last word: Amendments and corrections to Indonesia's colonial surplus 1880–1939', 516–517.

estimated non-Dutch profits, the average for the period 1921–1930 is 9.5% and for 1931–1939 8.1% of GDP. This is still slightly higher than the estimate by Van der Eng, who arrives at 7.7% for 1921–1930 and 5.3% in 1931–1939, but not significantly so (Figure 3.2). Nevertheless, I find the highest estimate made by Gordon too high to be seen as a colonial drain. This is partly the case for the drain based on my calculations as well. Estimated retained profits are excluded, but private floating balances are entirely included. However, a part of this item can be seen as a drain and, therefore, I argue that the estimate based on the calculations by Van der Eng, or the total private business gains mentioned by Gordon, does not encompass the entire drain.[58]

[58] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 7; Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 30; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 565–575; Gordon, ‘Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939’, 433–441; Creutzberg and Van Dooren, *CEI. Vol. 5*, 70; Gordon, ‘A last word: Amendments and corrections to Indonesia’s colonial surplus 1880–1939’, 509, 512–513; Gordon, ‘Reverse flow foreign investment’, 114. Besides these calculations, Gordon goes even further, including governmental expenditures and secondary income through the multiplier effect, and most of the colonial budget. Although he argues that not all expenses were a loss for the Netherlands Indies, he includes items that were a consequence of the colonial status and, therefore, a gain for the Netherlands. Moreover, Gordon argues that real returns were higher than stated by Van der Eng. As a result, the ‘real colonial surplus’ was an impressive ƒ44,748 million for the period 1910–1941 in current prices, or roughly ten times the national income of the Netherlands Indies in 1922.

Figure 3.2. Colonial drain of the Netherlands Indies as a percentage of GDP, 1921–1939.



Source: Gordon, 'Reverse flow foreign investment', 110–114; Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 577–578; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 429–437; Creutzberg and Van Dooren, *CEI. Vol. 5*, 70; Korthals Altes and Van Dooren, *CEI. Vol. 7*, 70–95; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 7; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 30.
Note: The drain based on the foreign payments by the Netherlands Indies by Van der Eng consists of: dividends, management costs and bonuses, interest payments on private debt, private remittances and pensions. Pensions, consist of government and private pensions. Data is based on an average for the period 1921–1929 and 1930–1939. The drain based on the total colonial surplus by Gordon consists of: dividends and trade profits, management costs and bonuses outside the Netherlands Indies and private interest, one-third of the item remittances to relatives and pensions, the private floating balances, estimated retained profits and estimated non-Dutch profits, but excludes the government sector. Data is based on an average for the period 1920–1929 and 1930–1939. My calculation of the drain derived from Gordon is based on the total colonial surplus but excludes estimated retained profits.

3.4 Dividends as a proxy for extraordinary profits

After having discussed colonial drain in a macroeconomic context, we will focus on profits and dividends in greater detail. Foreign companies in the Netherlands Indies made profits, although the amount did vary significantly between them. We will consider whether dividend levels were much higher in the Netherlands Indies than possible earnings in the Netherlands and what changes occurred over time and across sectors. If the real rate of return was significantly higher in the Netherlands Indies, it can be argued that profits only benefitted the shareholders overseas, whereas economic development in the Netherlands Indies was hindered. Several calculations of dividend payments in the Netherlands Indies exist and are discussed below. In addition to dividend interest was paid on bonds, but this amount was small for foreign incorporated companies compared to dividend payments. High dividend payments can indicate extraordinary profits, but complications arise when corporate savings and reinvestments are taken into account. Using dividend payments as a proxy for excessive profits poses some problems. It can be argued that nominal dividend rates alone do not accurately represent the total gain that was achieved. Therefore, it is necessary to include changes in stock prices in order to calculate real dividend rates and the possible gain or loss that would occur when the stocks are sold. The calculations in the literature have tried to account for these factors, but unfortunately this was not always possible due to the shortage of foreign investment data.

Even calculating the average dividend rate poses some problems. Van der Eng tried to measure this rate by dividing the paid dividends as reported in the balance of payments of the Netherlands Indies by the estimated total stock of foreign direct investment.[59] This is a very crude approach, since it had to be assumed that all dividends show up in the balance of payments tables and were transmitted.[60] Moreover, using total FDI stock data and dividend payments based on annual flows is problematic as well, since depreciation should be included.[61] As a result, it is difficult to find out the actual amount of dividend as a percentage of FDI.

Several of these aspects were addressed by à Campo as well. While using the *Handboek voor cultuur- en handelsondernemingen in Nederlandsch-Indië* for his research about the period 1883–1913, he found

[59] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 34.
[60] J. Thomas Lindblad, 'The profitability of Dutch business in late colonial Indonesia', *Lembaran Sejarah*, Vol. 14 (2018) 48–63, in particular 53.
[61] Van der Eng, *Economic benefits from colonial assets*, 21–24; Buelens and Frankema, 'Colonial adventures in tropical agriculture', 204–205.

out that dividend rates were only mentioned for a few of the foreign companies active in the Netherlands Indies. This could mean several things. It is possible that the majority of companies did not pay dividends at all, or dividend figures were not known or this information was not supplied by the company. Both assumptions could have major implications for the estimated total amount of dividend. Another issue is that average dividend rates needs to be weighted. A high dividend rate of a small company is less significant for the average dividend rate than the rate of a large company.[62] Buelens and Frankema, and also Lindblad, opt for the method in which a smaller set of companies that paid dividends is analysed. With this, it is possible to make more detailed calculations. Buelens and Frankema in particular include many corrections. The work of Keyser & Zonen from the 1930s can be seen as an early variant of this method.[63]

Even though if we would assume that high dividend rates could indicate extraordinary profits and this could reflect colonial drain it should be taken into account that investment in the Netherlands Indies could be more risky than investment in the Netherlands. Many companies in the Netherlands Indies were active in the agricultural sector that was prone to diseases, pests, changing weather conditions and volatility of the primary commodity markets. The instability of the colonial project in the long-term can also be seen as a factor of uncertainty. High profits, therefore, can be considered as a reward for the risks investors were willing to take. While the markets were booming during the 1920s profits could be higher than in other countries, but during the 1930s the situation was turned around and losses in the Netherlands Indies were larger than in other countries.[64] First I will discuss the total amount of dividend that was paid and in the next paragraph I examine various calculations before making my own estimates based on Colonial Business Indonesia (CBI). Unfortunately, the more specific the results are, the smaller the sample of firms is. Therefore, dividend rates are still one of the most important aspects of profit that I will use in this research.

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[62] À Campo, 'Strength, survival and success', 63; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 87.

[63] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 206–207; Keyser & Zonen Bank, *Nederlandsch-Indische Fondsen. Gegevens en statistieken voor beleggers* (Amsterdam: Bankierkantoor A.H. Keyser, 1937).

[64] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 258–259; Van der Eng, *Economic benefits from colonial assets*, 23; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 129; Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure*, 51–52; Buelens and Frankema, 'Colonial adventures in tropical agriculture', 204, 214.

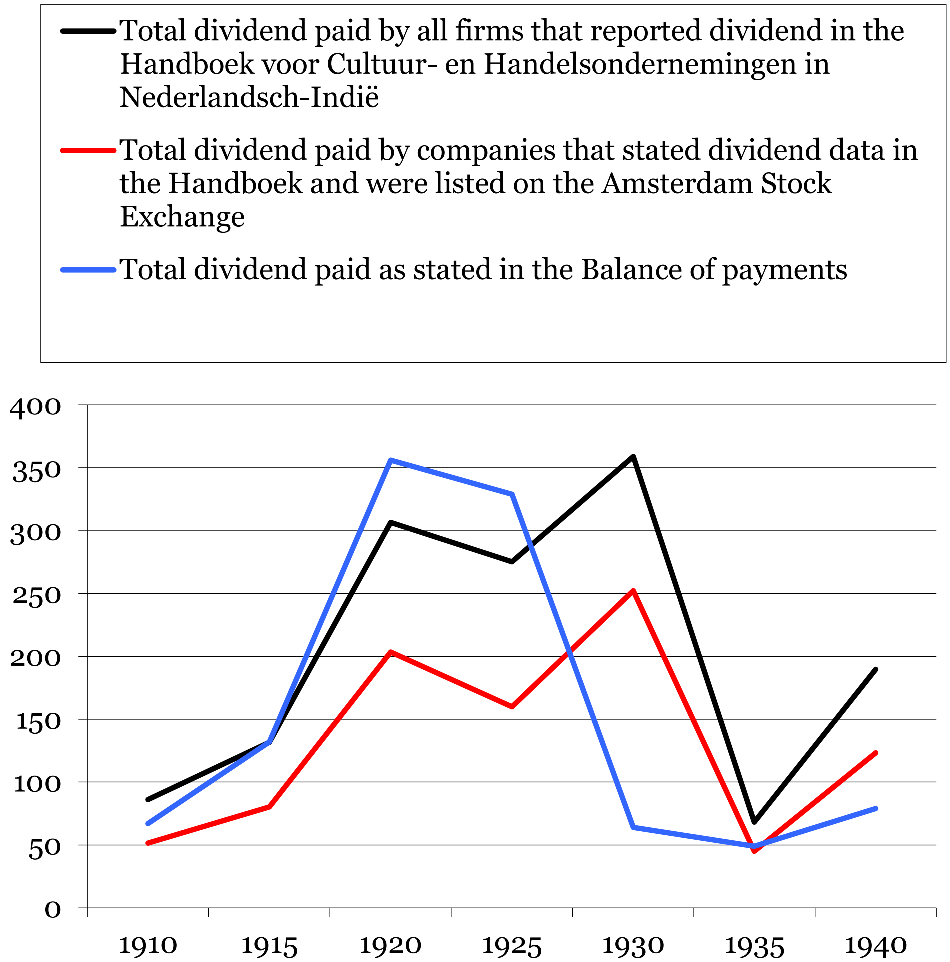
This makes it easier to compare larger selections of companies, different industries and countries.

This analysis forms the basis for this part of my research. The balance of payments published by Korthals Altes and CBI both use different sources for their dividend data. Korthals Altes used various sources provided by the government and *Van Oss' Effectenboek*, whereas CBI uses the *Handboek*. It is possible that dividends stated in the *Handboek* originated not only in the Netherlands Indies but in other countries in which the company was active. Next to this, profits or other earnings which are not strictly seen as dividends could be included in the balance of payments data and added to the total. This could happen if profits were low and dividend had to be paid from the reserve. Finally, payments declared by a company's board could also be paid in the next book year or mentioned in a later year in the *Handboek*. This could mean that results for one and the same year could be mentioned in two different years depending on the source. Therefore, results from one dataset cannot always easily be compared with another.[65] Nevertheless, we can use calculations from other authors as well to give an impression and observe whether the overall trends are more or less similar instead of focusing on differences between individual years.

We show the results based on CBI and the balance of payments of the Netherlands Indies in the graphs that follow. The selection of companies that paid dividend and were listed on the Amsterdam Stock Exchange consisted of 38–140 companies. This number was roughly one-fifth of all companies that paid dividends or even less than 5% of all foreign incorporated firms active in the Netherlands Indies. These companies listed on the Amsterdam Stock Exchange were dominant and were responsible for more than half of total dividend paid out (Figure 3.3). Even though comparisons with the balance of payments cannot be directly made, the trend of these two calculations is similar until 1925 (Figure 3.4). Dividend payments increased rapidly from 1910 onwards until the economic depression of the 1930s struck, but recovered slightly in 1940, the last year of observation. Differences between the two sources for 1930–1940 are significant, which strengthens the assumption that profits were given for different years.

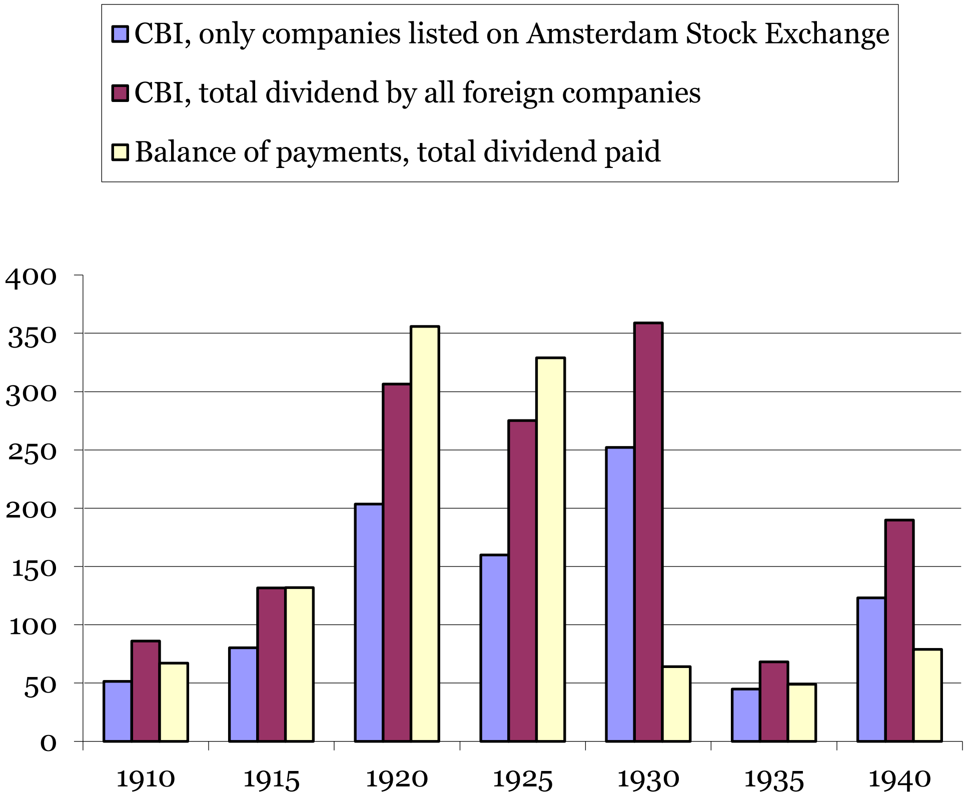
[65] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 13–14, 39–41, 134–135; Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 186–187, 204.

Figure 3.3. Total dividend payments by foreign companies in the Netherlands Indies, in million guilders in current prices, 1910–1940.



Source: Korthals Altes and Van Dooren, *CEI. Vol. 7*, 55–95, 134–141; Colonial Business Indonesia, *CBI Database ID*; Lindblad, 'The profitability of Dutch business in late colonial Indonesia', 53.
Note: Korthals Altes mentions both dividends and trade profits and estimated dividends. The estimated dividends are only available for the period until 1926 and are based on the *Van Oss' Effectenboek*, whereas dividends and trade profits are available until 1939. Dividends and trade profits have been calculated as 90% of the value of the estimated dividends. However, it is not clear what source Korthals Altes used for the dividends and trade profits for the period 1927–1939. Total dividend paid as stated in the Balance of Payments for 1940 is given for the year 1939.

Figure 3.4. Total dividend payments by foreign companies in the Netherlands Indies, in million guilders in current prices, 1910–1940.



Source: Korthals Altes and Van Dooren, *CEI. Vol. 7*, 55–95, 134–141; Colonial Business Indonesia, *CBI Database ID*; Lindblad, 'The profitability of Dutch business in late colonial Indonesia', 53.

Since statistics in CBI are given with 5–year intervals, it is not possible to calculate how much dividend was paid out for the entire period 1910–1940 by companies that are included in this source. However, using the balance of payments, we come to a figure of ƒ4,642 million of dividends and trade profits for the period 1910–1939.[66] With a margin of around 10% we can argue that between ƒ4–5 billion of dividend was paid out between 1910 and 1939. This represented two-thirds of the total profits if a maximum of one-third was reinvested, which means that up to ƒ2–2.5 billion was reinvested in the

[66] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 55–95.

Netherlands Indies in this period.[67] This does not seem to be significantly different from earlier estimates, which claimed that average profits were *ƒ*200–250 million each year.[68]

Different estimates of dividend and return on capital

Calculating dividend percentages or return on capital, however, is complicated. In the next section, I will show various examples of calculations that have been made in the past by different authors. If we look at several selections we see that average rates of return were higher than in the Netherlands. However, these results are based on small samples of firms.[69] One example is from 1937, made by bankers Keyser & Zonen. They were one of the first who tried to make an estimate of the real rate of return, including adjustment for stock prices. It was argued that fluctuating stock prices absorbed market information and would better reflect invested capital than the stock of FDI. Keyser & Zonen made a hand-picked selection of 60 companies. These probably performed better than the average firm in the Netherlands Indies, since the estimate was created as an incentive for more investment. The nominal returns are based on the initial nominal stock price, whereas real returns are based on the average stock price for a certain period. The real rates were based on an arithmetic average of dividend payments and the arithmetic average of the lowest and highest stock price in the selected time period. This calculation leads to lower returns than the nominal value, but still has some drawbacks (Appendix 14). One of the shortcomings is that capital losses are not clearly visible. If a share price drops or rises, this will mean an additional loss or gain which will take place when stocks are sold, but these gains or losses are not included in the real value, which only deals with average stock prices for a longer period. Moreover, the real rates of Keyser & Zonen are also not corrected for inflation. If corrected for these two issues, real rates could have been significantly lower.[70]

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[67] Gordon, 'How big was Indonesia's "real" colonial surplus in 1878–1941?', 566–567, 577–578; Van der Eng, *Economic benefits from colonial assets*, 18; Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 9–11; Van der Eng, ‘Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940’, 309; Korthals Altes and Van Dooren, *CEI. Vol. 7*, 60, 139–142; Creutzberg and Van Dooren, *CEI. Vol. 5*, 66**;** Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 92.
[68] Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 608–610.
[69] Buelens and Frankema, ‘Colonial adventures in tropical agriculture’, 204–205.
[70] Keyser & Zonen Bank, *Nederlandsch-Indische Fondsen. Gegevens en statistieken voor beleggers*, 5–9; Buelens and Frankema, ‘Colonial adventures in tropical agriculture’, 205–206.

A decade later Bosch collected data of 40 companies in the *Van Oss' Effectenboek*. These companies were listed on the Amsterdam Stock Exchange and were active in the Netherlands Indies. He used the initial nominal value of a company and an unweighted arithmetic average dividend of the selected companies to calculate dividend rates for the period 1900–1938. The rate of 13.46% for the total period is slightly lower than the nominal return stated by Keyser & Zonen, but is still significantly higher than the real return, since corrections for fluctuating stock prices were not made by Bosch.[71] Other calculations until the 1980s focus on the stock of FDI, instead of a smaller selection of industries or companies. Dividend percentages were calculated by dividing the returns by total stock of FDI, but further corrections for stock prices or inflation were usually not made.

Derksen and Tinbergen based their calculations on the year 1938, for which they estimated that *ƒ*155 million of dividend and interest was paid and around *ƒ*4 billion of FDI was present in the Netherlands Indies. This corresponded to a return on investment of 3.9%, which is relatively low,[72] especially taking into account that during the same time Weijers argued that returns were more in the region of 6–7%, for the period 1925–1938.[73] Haccoû argues that net profits were on average *ƒ*235 million in the period 1924–1939, when on average *ƒ*3.5 billion of FDI had been invested in the Netherlands Indies, which corresponded to a return of 6.7% in this time period.[74] Van der Zwaag shows similar figures and claims that for the earlier period of 1900–1912 the rate of return was 6.5%, whereas for the Netherlands this was 5.7% and for 1922–1929 a rate of 7% was calculated for the Netherlands Indies, while it was 4% in the Netherlands.[75]

In an initial analysis of the *Handboek*, Lindblad measured the average unweighted dividend rate of all companies that stated dividend payments. As a result, small companies that paid a high percentage of dividend would disproportionally influence the data and lead to a higher total average. This unweighted average is relatively high, not only for the 1920s, but for the 1930s as well, with 9.3% in 1935 and 9.9% in 1938.[76]

These calculations were nominal rates and not corrected for inflation, nor were changes in stock prices taken into account. À Campo used the same source, the *Handboek*, but went one step further. He focused on the earlier

[71] Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 604–605.
[72] Derksen and Tinbergen, 'Berekeningen over de economische betekenis van Nederlandsch-Indië voor Nederland', 3.
[73] Weijer, 'De groote cultures', 305–306.
[74] Haccoû, 'Nederlands-Indië economisch, een beeld van groei en strijd', 263.
[75] Van der Zwaag, *Verloren tropische zaken*, 79.
[76] Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 205.

period of 1883–1913, but his analysis of stock price data is useful for my research. He identifies a total number of 125 companies in 1893 and 250 in 1913, while his selection that was listed on the Amsterdam Stock Exchange, for which the average stock price is calculated based on the lowest and highest rate for each year, consists of only 10 companies in 1893 and 160 in 1913. Overall, stock prices increased gradually for all sectors until 1913, the last year of analysis. The average stock price has been almost consistently the highest for agricultural companies, whereas for tin and oil mining it fluctuated significantly.[77]

À Campo made three different assumptions based on dividend data in the *Handboek*. First, if dividends were not mentioned, this could mean that they were zero. This would assume that many companies never paid any dividend and this would lead to a lower average dividend rate. Second, it could mean that dividends had not been reported, which could mean that dividends were either paid or not. Third, if dividends for a company were only mentioned for a certain year, it could mean that dividends were zero when they were not stated, but for companies that did not mention dividend data for any year, it could be assumed that dividends were unknown. For all three assumptions the trend was similar. Until 1902, dividend levels were at their lowest, between 4–10%. Between 1902 and 1912 it increased to 5–15% and in 1913 it was close to 7–17%. These rates were higher than for companies active in the Netherlands, especially in the later years.[78]

It can be argued that these results by à Campo are more reliable than the nominal returns calculated by Lindblad. If we assume that companies that did not report dividend paid no dividend at all, the rates were not much higher than rates that could be achieved in Europe. However, these are the lowest rates calculated by à Campo, and Van der Eng goes even as far as to claim that the unweighted averages as calculated by Lindblad could be as low as 3.7% in 1928 and 2.3% in 1940 in this case.[79] This would be possible when dividend

[77] À Campo, 'Strength, survival and success', 60–61; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 80, 84–85.
[78] À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 88; À Campo, 'Strength, survival and success', 64, 71.
[79] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 9–11; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 21; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 311–313; Van der Eng, *Economic benefits from colonial assets*, 20–21; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 235; Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 205; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 82; M. Edelstein, *Overseas investment in the age of high imperialism: The United Kingdom, 1850–1914* (New York: Columbia University Press, 1982) 157; L. Davis and R. Huttenback, *Mammon*

payments were low and total equity high. Van der Eng also made a correction for reinvestment of profits as he argues that dividend rates alone do not give a correct impression of the actual returns on FDI. These corrected profits were slightly different than dividend rates expressed as total FDI but not significantly so (Appendix 15).

Even though this corrected actual return was not much higher than the discount rate of the Java Bank or the interest rates on public bonds, high profits could be attained in an early stage of operation before competition diminished these returns.[80] Moreover, using total FDI data is problematic, since this is based on a stock which is accumulated over time, whereas dividend payments represent an annual flow. This data has to be compensated for the differences in current and constant prices. In addition, it has to be assumed that all dividends that were transmitted are visible in the balance of payments.[81]

However, claiming that Van der Eng makes incorrect use of his sources goes too far. Gordon argues that the rates of return by Keyser & Zonen should be used, of which an adapted version was used by Van der Eng. But this is not relevant in his case since Van der Eng uses balance of payments data for his calculations instead of statistics by Keyser & Zonen or Bosch. The argument of Gordon that the rates of return in the sugar industry were higher may be true and the average return for all industries mentioned by Keyser & Zonen was only slightly lower than in the sugar industry. However, he mentions that an increase in stock price could lead to an additional gain for the shareholder, which is true, but ignores the fact that stock prices could also drop which would imply a loss for shareholders when they sold their shares.[82] To what extent this change in stock prices effected the rates of return will be seen in the next section.

Buelens and Frankema made a detailed analysis based on monthly data for a selection of 17 companies that were active in the Netherlands Indies and listed on the Brussels Stock Exchange. They used the Dimson-Marsh-Staunton method, which consists of a calculation of annual average rates of

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and the pursuit of empire. The political economy of British imperialism, 1860–1912 (Cambridge: Cambridge University Press, 1987) 105.

[80] Van der Eng, *Economic benefits from colonial assets*, 21–23; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 312–314; À Campo, 'Strength, survival and success', 48; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 15–16.

[81] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 204; Lindblad, 'The profitability of Dutch business in late colonial Indonesia', 53.

[82] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 206; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–439.

return, reinvestment of dividends and a correction for inflation. With this method, the geometric annual average rate of return, which means that annual growth is not entirely independent of preceding years, can be calculated.[83] This method shows a growth rate between the starting and the ending point that is constant every year without fluctuations. Larger fluctuations between individual years will result in a higher arithmetic average, since after a price drop in one year it will require a higher growth expressed in percentages the next following year to reach the previous high.[84]

The real returns for investors in the Netherlands Indies were impressive. From 1919–1928 an annual return of 14.3% was pocketed. This was higher than in most countries, except the US, which performed slightly better, with 14.4% in 1920–1929. The Netherlands, however, fared much worse, with a return of only 1.5%. During the 1930s, results were different, for whereas the Netherlands had a positive real return of 2.7% in 1930–1939, in the Netherlands Indies it was the opposite, with a negative return of –2.8% in 1929–1938.

Results are less extreme if we compare the entire period of the 1920s for the Netherlands Indies with other countries. With a real return of 5.4%, the Netherlands Indies still performed slightly better than some other countries. Compared with the Netherlands where a rate of 2.1% was attained in 1920–1939, it can still be considered impressive. In the United States, however, a rate of 7.9% was reached, in Australia an impressive 12.9% and in Canada 9%, whereas for the whole world returns were 7.2%. The Netherlands Indies were surpassed by Germany, Italy, Japan, South Africa, Switzerland and the United Kingdom as well. This shows that the economic performance of the Netherlands Indies was good, but not spectacularly so during this period.[85]

Buelens and Frankema noted that slight differences in the chosen time period can have a considerable impact on the perceived rate of return in the Netherlands Indies. They show this while examining the period starting in 1919 and ending in 1924 to 1928. Between 1919 and 1924, a real rate of 15.5%

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[83] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 198–199, 208–209.
[84] Mark J.P. Anson, Frank J. Fabozzi, Frank J. Jones, *The handbook of traditional and alternative investment vehicles* (Hoboken: John Wiley & Sons, 2011) 487–489.
[85] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 216–218; E. Dimson, P. Marsh and M. Staunton, *Triumph of the optimists: 101 years of global investment returns* (Princeton. NJ: Princeton University Press, 2002) 231, 241, 256–258, 266, 269–278, 281, 296, 299–315; E. Dimson, P. Marsh and M. Staunton, *Credit Suisse global investment returns yearbook 2013* (Zurich: Credit Suisse Research Institute, 2013) 38–60.

was achieved, but when they added one more year, this rate suddenly increased to 33.9%. The real rate of return for the longer period of 1919–1939, however, was only 4%, which shows that the economic depression of the 1930s lowered the average considerably, but for 1919–1936 it was 8.9%, which was probably the effect of falling stock prices after 1936. The above average rates of return can be seen as a consequence of the higher risk of these investments. Buelens and Frankema stated that these companies reserved large portions of profit for reinvestment and did not pay high dividend rates. This would imply that stock prices for companies active in the Netherlands Indies were more volatile than for other stock prices.

However, it must be noted that all companies from their selection, except one, were active in the rubber industry. The other activities included palm oil, coffee and tea, and a large number of them were non-Dutch. No companies were involved in banking, mining, petroleum or trade.[86] This concentration of the selection in the primary export sector could have had an influence on the stock price index as well. In the rubber industry, only a minority of 40% of the invested capital was Dutch, but indigenous smallholders played an important role as well.[87] After the First World War, investment in the rubber industry increased rapidly until the late 1920s. Rubber prices continued to increase until 1925, but the sector was struck by an agricultural crisis at the beginning of the 1920s and during the economic depression of the 1930s. However, compared to the sugar industry, the effects were not as bad. Prices for rubber dropped to levels comparable with sugar, but demand for rubber kept growing and exports increased rapidly after the economic depression.[88] Nevertheless, the results of Buelens and Frankema are very detailed but suffer from the drawback of the low diversification by

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[86] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 214–215.
[87] Keller, 'Netherlands India as a paying proposition', 14; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 250; Creutzberg and Van Dooren, *CEI. Vol. 1*, 93–94, 111–112, 128–130; Smits, *De beteekenis van Nederlandsch-Indië uit internationaal-economisch oogpunt*, 8–9; Creutzberg and Van Dooren, *CEI. Vol. 3*, 19; Manschot, 'De invloed van het buitenlandsch kapitaal op de ontwikkeling van de cultures ter Oostkust van Sumatra', 273–273; Touwen, *Extremes in the archipelago*, 110–111.
[88] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264; Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 16; Lindblad, 'De opkomst van de buitengewesten', 22–25; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 84; Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 76–77; Taselaar, *De Nederlandse koloniale lobby*, 39, 369; Volker, *Van oerbosch tot cultuurgebied*, 151; Prince and Baudet, 'Economie en beleid in vooroorlogs Nederlands-Indië', 37.

branch, which makes it difficult to apply these rates of return to a national level.

Dividend rates based on colonial business data

The drawback of a limited selection of companies is not present with CBI. Preliminary research based on this source has been done by Lindblad.[89] I will use this source to analyse the amount of dividend that was paid by foreign companies and discuss dividend rates and variations by industry and nationality. It is possible to examine the years 1910–1940 with intervals of five years. However, not all individual years are included in this source, which makes it impossible to make a similar analysis as Buelens and Frankema did.[90] Price information based on the Amsterdam Stock Exchange is available, but is not complete for the majority of firms that were active in the Netherlands Indies. Of only 24 companies, stock prices were available for both 1910 and 1940, but not for all intervening years.[91] This makes it impossible to calculate real returns, since companies for which equity, dividend and stock prices are known for the total period 1910–1940 are nearly non-existent. While working with the large selection of companies, one slight complication occurred when dealing with mother companies. BPM for example, was a joint subsidiary of Royal Dutch and Shell. It is possible that other mother companies are still included in my selection, together with their subsidiaries.

Just like à Campo who analysed the *Handboek* I have also had to deal with missing data. Although dividend statistics are only available for a minority of firms it is unlikely that all the other companies paid no dividend at all. It is possible, however, that many family-owned companies preferred not to pay dividend. I have followed à Campo in the sense that I have made three assumptions. The first is that dividend rates were zero if they were not stated, which would imply that only a small number of the total companies included in my selection paid dividend. This will lead to a lower average dividend rate, since dividend payment will be seen as a percentage of total equity of all companies combined. On the other hand, dividend rates would be unknown if they were not stated, which would theoretically mean that all companies would pay dividend but it is simply not known how much dividend

[89] See for instance: Lindblad, 'The profitability of Dutch business in late colonial Indonesia'.
[90] Buelens and Frankema, 'Colonial adventures in tropical agriculture'.
[91] Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940* (https://www.prijscouranten-capitalamsterdam.nl/cgi-bin/index) last accessed, December 16, 2021.

they paid. The dividend rate, therefore, is calculated as a percentage of the equity of dividend paying companies only. This is the second assumption. A third assumption is that if a company published dividend payments in a certain year, but not in another year, it could imply that dividend was paid in the first year but not in the second year. With this method, a larger sample will be obtained, since a company will be included in the selection of every year even if it only paid dividend in one year. Companies that did not pay dividend at all are excluded. À Campo argues that this is the best option available, although missing values can still distort the dataset.[92]

The first calculation is based on the equity of all foreign companies active in the Netherlands Indies, whether they paid dividend in any year or not. I will divide total dividend paid by total equity of all foreign firms, which will lead to a low return. Nevertheless, this still led to a respectable nominal dividend rate of 7.2% in 1910 which increased to 11.3% in 1920. When the economic depression struck, the average dropped to 1.6% in 1935 and slightly recovered in 1940 to 4.1% (Appendix 16). The second calculation includes only companies that paid dividend in each selected year. Total dividend is expressed as a percentage of equity of the dividend paying companies only. This will lead to a higher return. The weighted and unweighted rates do not differ significantly and even in 1935 and 1940 these rates were still high, only slightly below 10% (Appendix 17). The third calculation is that companies are included that did pay dividend in at least one year of the selection. This means that dividend is expressed as a percentage of equity of all companies that did pay dividend in at least one year between 1910 and 1940. This includes more companies than only the ones that paid dividend, but this selection is still significantly smaller than all foreign companies. In total 1,136 companies did pay dividend in at least one year, but they were not active in all selected years (Appendix 18).

The development of the three calculations shows a similar trend and results for 1910 and 1915 that can be compared with à Campo. Whereas his calculations for 1910 varied between 6–14%, in my calculations I come up with a range of 7.2–12.8%.[93] However, between 1910 and 1913 à Campo shows a gradual increase to 7–17% in 1913, while my selection for 1915 shows dividend rates in the range of 6.4–12.6%. This would imply that average rates dropped between 1913 and 1915 before they rose and reached their peak in 1920 with 11.3–19.3%. In 1925 and 1930, dividend rates remained rather stable before collapsing in 1935, when the effects of the economic depression were obvious.

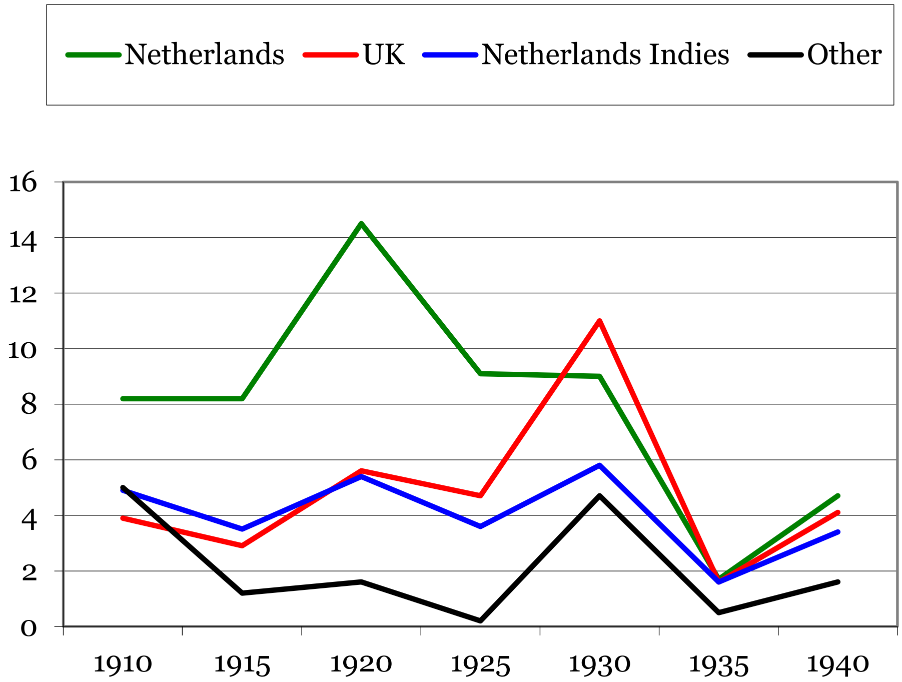
[92] À Campo, 'Strength, survival and success', 63–65.
[93] À Campo, 'Strength, survival and success', 64, 71; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 88.

In 1940, rates had recovered slightly, but were still only half the rates that had been realized during the 1920s.[94]

If we select companies based on the location of their headquarters, it is clear that the largest share of dividend was paid by companies with headquarters in the Netherlands. These companies also achieved the highest rates of dividend. Companies with headquarters in the Netherlands Indies paid relatively less dividend, whereas British firms performed average (Appendix 19–20; Figure 3.5).

[94] Colonial Business Indonesia, *CBI Database ID*.

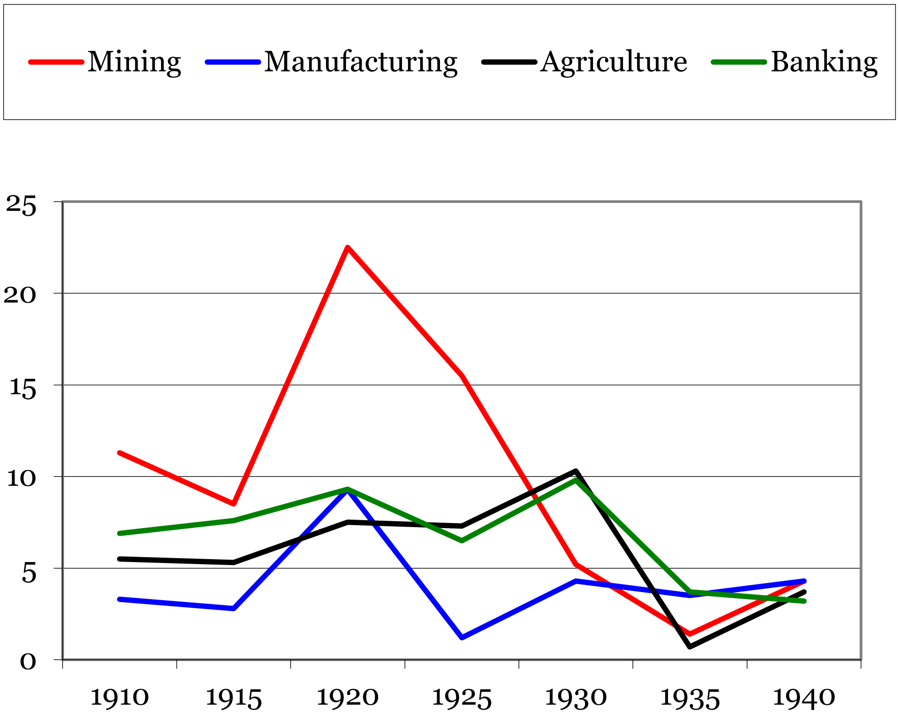
Figure 3.5. Dividend payments as a percentage of equity by location of headquarters, 1910–1940.



Source: Colonial Business Indonesia, *CBI Database ID*.

Dividend rates paid by sector showed slightly different results. In 1910, the mining sector had the largest share and paid 40.4% of all dividend. In this sector, the average dividend rates were the highest, especially in the 1920s, when rates of more than 15% were achieved. Agriculture was the second largest dividend payer, and in 1930 was responsible for 44.6% of all dividend paid. However, many firms were active in this sector, which led to moderate dividend rates. In 1930 agricultural firms paid a total dividend of *ƒ*160.1 million, whereas five years later they paid only *ƒ*9.7 million, showing that this sector was severely hit by the economic depression. The banking sector managed to sustain the economic depression better and was the largest dividend paying sector in 1935, but overall dividend rates for all sectors were far lower in the last two years of the selection (Appendix 21–22; Figure 3.6).

Figure 3.6. Dividend payments as a percentage of equity in the Netherlands Indies, 1910–1940.



Source: Colonial Business Indonesia, *CBI Database ID*.

If we compare the nominal dividend rates of all companies that paid dividend and the 38–140 companies that paid dividend and were listed on the Amsterdam Stock Exchange, the differences are small. However, in terms of total equity and dividend payments, the firms from this small sample were dominant. In each year of the selection, this smaller sample was responsible for the better part of dividend payments. The larger selection showed higher dividend rates in 1910 and 1915, which reflects the fact that smaller firms that were not listed on the Amsterdam Stock Exchange and were active in small niches performed better than the large firms. However, in 1935 and 1940 companies listed on the Amsterdam Stock Exchange showed slightly better results (Appendix 23). It was possible that these larger companies were more stable in the long run and sustained the economic depression of the 1930s better.

Stock market rates fluctuated significantly and this could have a serious impact on the return of investors who bought their shares in one year and sold them in another year when stock prices were much higher or lower.

The number of companies that reported dividend fluctuated as well and it was rarely the case that a company reported dividend for all seven years. Therefore, it is impossible to make a stock price index based on this selection or to calculate annual returns for every individual year in the period 1910–1940 based on geometric averages. Nevertheless, the stock prices were known for 24 companies for the years 1910 and 1940. Based on this selection, I calculated that stock prices were on average 16.7% lower in 1940 than in 1910. This means that shareholders who bought a share of all 24 companies in 1910 would have made an average loss of 16.7% on their investments, based on stock prices and excluding dividend payments if they had sold all their shares in 1940. Of course, this is only a very rough estimate and it is highly unlikely that a shareholder would experience a drop of exactly this size. As Buelens and Frankema showed, it makes a big difference which starting and ending points are selected.

The stock prices of the 17 companies they selected were much more volatile than the price index of the Brussels Stock Exchange. If we analyse the period 1916–1940, the nominal index for their selection rose from 100 in 1916 to 668 in 1940, but corrected for inflation it was 147. If shareholders had invested in these 17 companies in 1916, they could have made a considerable profit based on the rise of the stock prices. However, if they had bought their shares three years later, at the end of 1919, they would probably have made a loss in 1940 because the price index rose suddenly to 1,000 points at the end of 1919 and dropped in the early 1920s when a crisis struck the agricultural sector and export prices plunged.[95] These large stock price fluctuations show that a different starting point can have important consequences for the total return in the long run. It is interesting to note that the stock price peak for the selected 17 companies was reached in 1925 and dropped significantly in 1928, even before the economic crisis and when the price index of the Brussels Stock Exchange was still increasing.[96]

Therefore, when calculating the real return, it is necessary to take changes in stock prices into account. It could be argued that in the long run

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[95] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 125; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 263–264; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 84; Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 76–77; Lindblad, 'Economic aspects of the Dutch expansion in Indonesia, 1870–1914', 16; Taselaar, *De Nederlandse koloniale lobby*, 39; Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940.*

[96] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 198–199, 210–214.

stock prices mirrored the actual value of invested capital more than the payment of dividends alone. Reinvested profits for instance were not visible in dividend payments and firms could have different policies regarding dividend payments. Companies could have a preference for larger reserves or they could pay higher dividends in order to attract new investors.[97] Nevertheless, this analysis confirms that stock prices for companies active in the Netherlands Indies did not always increase in the long run and that shareholders who kept their shares for a long time had no guarantee that the price of shares would increase. It may be true that shareholders made an additional profit on top of the dividend if they managed to sell their shares with a profit,[98] but the real question is how likely this was in reality. If shareholders bought and sold their shares in the 1910s and 1920s, a profit was certainly possible, but if the shares were bought at the peak of the stock market right before the 1930s, it was nearly impossible to sell them for a higher price in 1940.[99] However, the gain or loss of shareholders would only be realized when they sold their shares. The total return on investment, therefore, depends not only on the dividend rate but for a significant part on the stock price as well.

Dividend is always expressed as a percentage of nominal equity in the annual reports. For instance, shares of the HVA had an initial value of ƒ500 per share when the company was founded. This means that if a dividend of 10% was declared, the shareholder would receive ƒ50.[100] However, it was unlikely that shareholders would pay exactly ƒ500 for their shares at a later moment. If the stock price rose to ƒ1,000 per share and the dividend payment remained the same at ƒ50 per share, the real dividend rate for this shareholder was only 5%. When stock prices were high, real dividend rates were lower and vice versa. But if the shareholders paid ƒ500 for their share and sold this share the next year for ƒ550, while also receiving dividend of ƒ50, their total gain would be ƒ100 or 20%.[101]

As a result, nominal dividend rates based on the initial share price could be too high. Lindblad made a calculation for the development of stock

[97] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 205; Lindblad, 'The profitability of Dutch business in late colonial Indonesia', 52.
[98] Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–439.
[99] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 210–211.
[100] NL-HaNa: Handelsvereniging Amsterdam N.V., 1879–1959, (HVA), 11, Annual Report 1912, 17–18.
[101] Buelens and Frankema, 'Colonial adventures in tropical agriculture', 206; Gordon, 'Netherlands East Indies: The large colonial surplus of Indonesia, 1878–1939', 438–439.

prices. However, stock price data is not available for all companies or all years and it is rather dubious to include the effects of stock prices on dividend rates for this selection based on the available source material. I mentioned that for 1910 and 1940, only 24 companies exist of which stock prices were known, but the selection of companies that had complete monthly stock price data for the period 1910–1940 was even smaller. Only two agricultural companies, Michiels Arnold and Preanger Landbouw, showed such data.[102]

Nevertheless, Lindblad calculated dividend rates that were adjusted for stock price movements. These adjusted rates were close to 7% in 1920 and 1925 when stock prices were high, whereas nominal unadjusted rates were much higher with 17.6% in 1920 and 16.7% in 1925. Conversely, in 1930 stock prices plummeted, which led to a higher dividend yield expressed in percentages, since dividend payments were still relatively high in this year, which could also be caused since dividend payments stated in the *Handboek* were sometimes based on the previous year. Dividend payments in 1935 and 1940 were slightly lower while the stock market gradually recovered, which led to only a small decline in adjusted dividend rates.

An average return on invested capital of 6% was considered reasonable in the Netherlands. However, nominal annual returns, without adjustment for inflation, during the whole twentieth century were 8.9% in the Netherlands and 7.6% between 1900 and 1920 even though the highest nominal rates were achieved after the Second World War. In 1920–1940, nominal returns were higher in the Netherlands Indies. Corrected for stock price movements, but leaving out inflation, I can argue that rates of return in the Netherlands Indies were high between 1910 and 1920, but not significantly higher than in the Netherlands. However, for the period 1920–1940 investments in the Netherlands Indies performed far better than in the Netherlands.[103]

Based on this analysis of dividend rates, I argue that the returns in the Netherlands Indies were certainly higher than was possible in the Netherlands. An investor who had the choice between investing in the Netherlands or the Netherlands Indies would likely have made more profit in the Netherlands Indies, but it was not without risk, and if investments were made at the wrong time and in sectors that did not prove to be highly profitable, one could be worse off in the Netherlands Indies.

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[102] Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940*.
[103] P.M.A. Eichholtz, C.G. Koedijk and R. Otten, 'De eeuw van het aandeel', *Economisch-Statistische Berichten*, Vol. 85 (2000) 24–27, in particular 24–26; Lindblad, 'The profitability of Dutch business in late colonial Indonesia', 59–60.

3.5 Conclusion

Can we, considering the preceding analysis, conclude that foreign companies contributed to the income of the Netherlands Indies or were profits by foreign companies excessively high compared to other investment options? Based on the reported generous profits and dividend rates, one might readily assume that profits were excessive. However, such a conclusion does not hold true for the entire period 1910–1940.

First of all, it must be noted that foreign private companies did not entirely dominate the export sector. The sectors in which foreign private companies were active only explained a small part of the income and total exports accounted for a small part as well. Production for domestic consumption played a major role in the overall income. Foreigners were more likely to realize increasing real incomes, but in the long run the gain in real income was limited. During the period 1910–1930 the Netherlands Indies saw some economic expansion. The situation for indigenous Indonesians only seemed slightly brighter in the second half of the 1920s and during the 1930s, when a severe deflation implied an increase in real income. However, this was only felt by people who kept their jobs, and during the economic depression of the 1930s many indigenous employees who worked in the export sector were laid off. Although only a minority of all indigenous Indonesians was employed in foreign enterprises and most wages were earned in the indigenous economy, many of them produced for export markets and suffered the consequences of the economic depression.

Differences in income between Indonesians and Europeans were substantial. It may be true that wages of European staff were not higher due to the power structure of the colonial society, but the argument that this structure did not play a role at all is difficult to defend. Various Dutch companies benefitted from the well-oiled network and ties with the government in The Hague, which were more difficult to access for other foreign companies, let alone the indigenous people.

I made several calculations of the colonial drain and I come to the conclusion that a drain of 12% in 1920–1930 and 9.5% of GDP in 1931–1939 is plausible. However, retained profits cannot be fully construed as a drain when profits were reinvested in the Netherlands Indies. Also, private floating balances should not be included entirely in this calculation. Can this drain be seen as excessive? If around 10–20% of GDP was primarily the result of foreign activity, then gains exceeded the drain. Nevertheless, it is nearly impossible to determine the extent to which the indigenous population benefitted from this directly.

Can the drain be better identified by focusing on profits? Between one-quarter and one-third of the profits made by foreign companies in the Netherlands Indies are estimated to have been reinvested in the economy. This was more than half of total FDI. A substantial amount of profits remained in the Netherlands Indies. To calculate the return on investment, I have shown various different approaches that all suffer from various drawbacks. It can be argued that nominal dividend rates alone do not represent accurately the total gain that was achieved. Therefore, it is necessary to include variations in the stock prices in order to calculate real dividend rates and the possible gain or loss that would occur when stocks were sold. Unfortunately, applying this method is not always possible, since complete stock price data is scarce.

If we look at several selections, we see that average rates of return were higher than in the Netherlands. However, these results are mostly based on only a small sample of firms. These firms performed above average compared to the total of all foreign incorporated companies in the Netherlands Indies. Therefore, based on these selections returns were certainly higher than returns that were possible in the Netherlands. The different analyses of dividend rates confirm this. Dividend rates were obviously lower when dividend payments are considered as a share of total equity of all foreign companies, and higher if only dividend-paying companies are included. Nevertheless, even the lowest nominal dividend rates were relatively high until the economic depression of the 1930s. Returns could be higher when the world economy grew and demand was high for primary export commodities, but the Netherlands Indies were more affected by the economic depression of the 1930s than other countries. Overall, proceeds from these investments were more volatile and vulnerable for external shocks which made them riskier. Therefore, I conclude that companies operating in the Netherlands Indies were generally more profitable than those that were active in the Netherlands, but not excessively so. In order to examine in more depth to what extent the presence of foreign companies was a boon or a burden for the economic development of the Netherlands Indies, we need to include linkages and spill-over effects. This will be done in the next chapter. This also enables me to note differences between such various branches of industry such as tin mining, sugar, rubber and petroleum.

Chapter 4. Impact on the domestic economy

4.1 Introduction

In this chapter I will be focusing on various kinds of linkages between foreign firms and the domestic economy in the Netherlands Indies between 1910 and 1942. It is necessary to start out with the definition of linkages in economic theory. The concept has been elaborated by the economist Albert O. Hirschman.[1] Hirschman distinguishes between four types of linkages: backward, forward, final demand and fiscal linkages. The following section provides a brief theoretical framework as a logical point of departure. I then discuss different areas of the economy in relationship to each of these linkages.[2]

The first type, backward linkages, occurs when there is investment in the facilities that lead to the creation of a particular project – namely, when goods are produced that make production processes possible for a specific company or industry. If, for instance, the oil industry needs steel pipelines, then that demand can either be met by imported pipes or be produced locally, near the industrial site where they are required. In the colonial context, however, only the latter situation – local production – can be considered a backward linkage. Various locally produced goods represent backward linkages. A private railway for the transport of export goods can also be considered a backward linkage.

Forward linkages, the second type emerge when the output of an industry is used in other industries to manufacture a new product or raise its quality by processing it. For example, if in the rubber industry a remilling factory is established to turn crude rubber into a product with a higher value, then this forms a forward linkage. Most crude oil in the Netherlands Indies was usually refined before being shipped abroad as kerosene, gasoline, lamp oil or other derivatives. Prime examples of forward linkages include the large refineries at Pangkalan Brandan and Palembang in Sumatra, Balikpapan in East Kalimantan and Cepu in Java. One additional positive effect of foreign investment in the colonial state may be that a foreign firm attracts other

[1] According to a more general definition, linkages are relationships and interactions between tasks, functions, departments and organisations that promote the flow of information, ideas and integration in achieving shared objectives, Christian Blind Mission, *Toolkit for DPO's. Voluntary national reviews* (Bensheim: CBM, 2018) 35.
[2] Hirschman, 'A generalized linkage approach to development, with special reference to staples', 72–73; Albert O. Hirschman, *Essays in trespassing: Economics to politics and beyond* (Cambridge: Cambridge University Press, 1981) 63–75.

companies or provides additional work for existing companies in the form of backward linkages.[3]

Final demand linkages are the third type. They can also be conceived as indirect backward linkages. Final demand linkages result from both backward and forward linkages in the sense that the activities of the foreign firms provide income for workers, which generates new consumer demand. This income is then spent on imports or goods produced by domestic industries. Such economic effects are effectively consumption linkages. Companies pay wages and offer compensation for land use. Such payments can be conceived as final demand linkages.[4]

The fourth type is fiscal linkages. These are the effects of government expenditure as a result of taxes paid by foreign firms. However, the capability and willingness of the government to tax is crucial. Specialized industries such as rubber and oil processing can have important side effects here. The oil industry in the Netherlands Indies generated large profits and could, in principle, provide substantial tax revenues. The state could use such tax proceeds to the benefit of the local economy and society. The results of fiscal linkages are more easily seen in a long-term perspective, such as in the construction of physical infrastructure by the government which might further economic development in the future. The direct influence of fiscal linkages, therefore, is more difficult to measure than backward linkages.[5]

Mining and petroleum companies were often located in enclave economies. An enclave is characterized by the absence of linkages with the surrounding economy, although refineries could possibly generate local demand for consumer goods and construction materials. Even an isolated industry would have had some influence on its surroundings. By passing on

[3] Touwen, *Extremes in the archipelago*, 32–33; Hirschman, *The strategy of economic development*, 98–100.

[4] Melville H. Watkins, 'A staple theory of economic growth,' The *Canadian Journal of Economics and Political Science,* Vol. 29 (1963), 141–158, in particular 145–146; Thee, *Plantation agriculture and export growth*, 50; Touwen, *Extremes in the archipelago*, 32–33; Hirschman, *Essays in trespassing*, 67–71.

[5] Hirschman, 'A generalized linkage approach to development, with special reference to staples', 72–75; Hirschman, *Essays in trespassing*, 65–67; Touwen, *Extremes in the archipelago*, 32–33; Malcolm Gillis, *Economics of development* (New York: Norton, 1987) 416–418; Booth, 'Foreign trade and domestic development in the colonial economy', 269–272; Alec Cairncross, 'The market and the state', in: Thomas Wilson and Andrew S. Skinner (eds), *Market and the state. Essays in honour of Adam Smith* (Oxford: The Clarendon Press, 1977) 113–134, in particular 130; William Arthur Lewis, 'Development and distribution', in: Alec Cairncross and Mohinder Puri (eds), *Employment, income distribution and development strategy. Problems of the developing countries. Essays in honour of H.W. Singer* (London: Macmillan, 1976) 26–42, in particular 26–29.

skills, technology can be transferred from the enclave to the indigenous economy so that both economies might produce more or less similar products. If the indigenous people obtain entrepreneurial skills and apply them in other industries as well, the effect can be considerable.[6]

4.2 Backward linkages

If there was one industry where linkages should have materialized, it has to be the sugar industry. It was dominated by Dutch capital and in the first quarter of the twentieth century it supplied the most important export crop of the Netherlands Indies. In 1920, sugar represented 49% of the total value of exports from the Netherlands Indies.[7] At its peak, the industry employed more than one million people.[8] What was the effect of the influx of foreign capital on infrastructure, in particular irrigation, railways and roads? These works were intended to meet the demands of the sugar estates in the first place, but the indigenous population could benefit as well.[9] This section discusses irrigation, railways and other infrastructure, supply of fuel and, finally, local activities in Java. Infrastructure could be provided by the state, private business, a public-private combination or local community. I here focus mainly on the second and third category.

Irrigation

Irrigation was crucial for the sugar industry. Around 90% of the sugar cane was planted on fields that needed to be irrigated. A stable water supply and irrigation systems can be seen as a backward linkage of the sugar industry. The indigenous rice production, however, also needed plenty of water and occupied a larger area than sugar. The two crops competed for the water supply and the local government was responsible for providing the indigenous population with enough water. There were several options available to deal

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[6] Booth, 'Foreign trade and domestic development in the colonial economy', 271–272; Lewis, 'Development and distribution', 26–29; H. Myint, 'The "classical theory" of international trade and the underdeveloped countries,' *Economic Journal*, Vol. 68 (1958) 317–337, in particular 320.

[7] Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 286–289.

[8] Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 159; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 286–289.

[9] Lukman Sutrisno, *The sugar industry and rural development: The development of cane cultivation for export on rural Java: 1830–1934* (PhD thesis, Cornell University, Ithaca, NY, 1980) 1.

with this question. During the wet season, irrigation of the rice fields would be favoured. Another option was the day-and-night arrangement:[10] the sugar companies could use the available irrigation water during the morning and the afternoon, whereas during the evening and the night it could be used by the indigenous population. This meant that the indigenous population had to work on the field in darkness, which made it more difficult for them to regulate the water supply and see what they were doing.[11]

Whether this was a fair system can be debated. Control often remained in the hands of the Dutch authorities. Moreover, there was smallholder sugar cane. This was considered a secondary crop and usually denied water in the dry season, while sugar cultivation on the estates was intensive and, as a consequence, exhausted the water supply. According to Gordon, this was the reason why the production of smallholder sugar cane remained very limited compared to estate production.[12]

Moreover, although the sugar estates only used around one-third of the irrigated sawah area, they still got to use the water supply for half of the time.[13] Sometimes, the indigenous overseer, or *mandor*, would be paid by the sugar companies to keep irrigation water flowing to the estate lands for a longer time, reducing the water available to the local farmers.[14]

Sometimes the local authorities interfered. For instance, the sugar company Pradjekan, in Besuki in East Java, made use of irrigation water from six o'clock in the morning until four o'clock in the afternoon, but if indigenous crops were planted near the sugar estates, this time was reduced to six hours, from twelve to six in the afternoon. If water was scarce, the water supply could also be regulated by a commission installed by the head of local government.[15] In order to make the water supply more efficient, both for indigenous and

[10] Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 180; J. Th. Metzelaar, 'Irrigatie', in: C.J.J. van Hall and C. van de Koppel (eds), *De landbouw in den Indischen archipel. Deel I. Algemeen gedeelte* ('s-Gravenhage, Van Hoeve, 1946) 201–238, in particular 217; Knight, *Commodities and colonialism*, 113–120.

[11] Sutrisno, *The sugar industry and rural development*, 98.

[12] Alec Gordon, 'The agrarian question in colonial Java: Coercion and colonial capitalist sugar plantations, 1870–1941', *The Journal of Peasant Studies* 27 1 (1999) 1–34, in particular 22; R.E. Elson, *Javanese peasants and the colonial sugar industry: Impact and change in an East Java Residency, 1830–1940* (Oxford: Oxford University Press, 1984) 169.

[13] W. Huender, *Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera* ('s-Gravenhage: Martinus Nijhoff, 1921) 99–101.

[14] Sutrisno, *The sugar industry and rural development*, 87–88, 101; Aard J. Hartveld, *Raising cane: Linkages, organizations and negotiations in Malang's sugar industry, East Java* (Delft: Eburon, 1996) 49.

[15] NL-HaNa: Memories van Overgave, 1852–1962 (MvO), 116, Besoeki, 1907.

foreign private estates, larger reservoirs, or *waduk*, were constructed by both the government and private companies. Through this system, water could be collected and reused.[16] In the early twentieth century, these *waduk* became more popular and it was expected that they would eventually replace the day-and-night schedule and be more beneficial to the indigenous population. However, there were also complaints about the *waduk*. It was difficult for the indigenous planters and the sugar companies to get sufficient water when they were both using the water supply and the sugar companies were often favoured. Moreover, water did also evaporate in the *waduk*. Sometimes, even if there was a *waduk*, the indigenous population and the foreign companies still decided to use the day-and-night schedule.[17]

In the residencies of Kedu and Jepara, in Central Java, the amount of irrigation water available was not sufficient, which made it necessary to opt for the day and night system in certain parts of the residencies. During the day, the sugar companies could use the irrigation water and for the rest of the time the indigenous population made use of it. However, in 1931 the provincial irrigation department advised the government to allow the indigenous population to use the water from three o'clock in the afternoon instead of four o'clock. It was stated that the indigenous population could thereby use their land more efficiently, which would lead to a higher yield. The sugar companies complained that this would negatively affect their production and said that the indigenous population had not complained about the previous schedule. The regents agreed with the company and, therefore, thought that adjustments were not necessary. A special commission was created to examine this issue, but failed to provide an answer. Complaints about the *waduk* were voiced in these residencies as well. Yet, the governmental Departement der Burgerlijke Openbare Werken (B.O.W., Department of Civil Public Works) argued that costs for improvements of irrigation systems were too high. In 1930, the irrigation commission came up with a new plan which was less expensive, but the financial position of the government had weakened by this time; in 1931, an experiment with only three *waduk* was initiated. The sugar companies in this area paid ƒ300 in total, while the villages had to pay ƒ900. Results were not yet available when the resident finished writing his report.[18]

Nevertheless, for the sugar industry the provision of an adequate water supply was necessary. Although the B.O.W. was responsible for major

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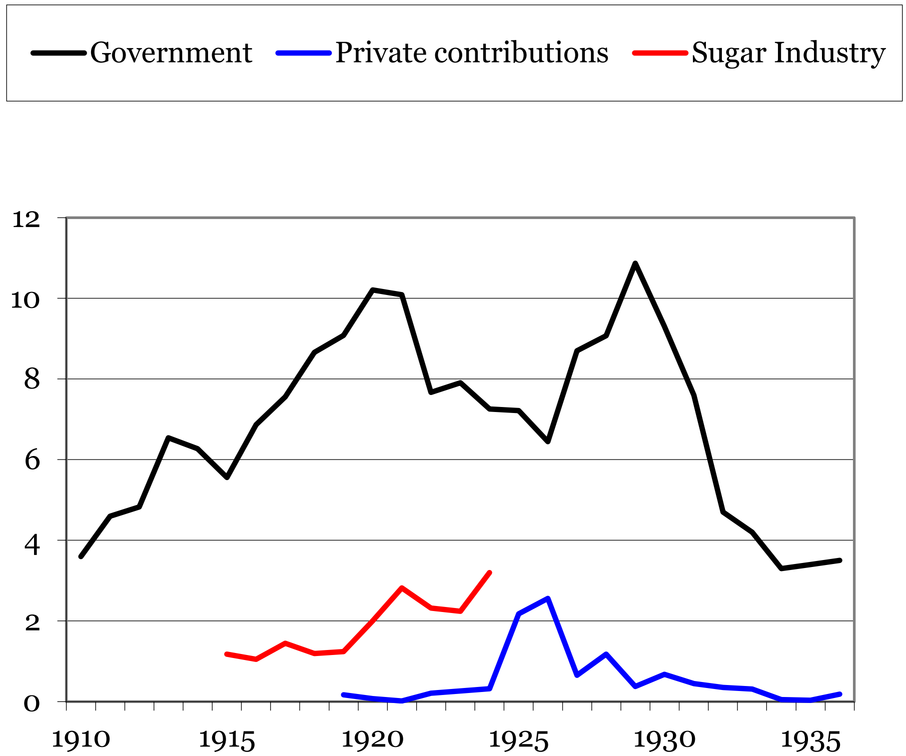
[16] Metzelaar, 'Irrigatie', 218; Sutrisno, *The sugar industry and rural development*, 99.
[17] Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 180–190, 202; Van der Mandere, *De Javasuikerindustrie in heden en verleden*; Metzelaar, 'Irrigatie', 219–221.
[18] NL-HaNa: MvO, 72, Koedoes, 1932.

irrigation works in Java, it took until 1918 before the B.O.W. was involved in irrigation in Yogyakarta and Surakarta. In many other parts of Java, private foreign companies remained important for the construction of irrigation works.[19] Between 1919 and 1936, private companies paid at least 7.3% of the expenses for irrigation works that were initiated by the colonial government. Since 1919, the sugar industry was obliged to contribute to these irrigation works. In particular, when the sugar industry was booming during the second half of the 1920s, private outlays on irrigation were substantial. In 1926, 28% of the expenses for government-initiated irrigation projects originated from private contributions. Presumably, the sugar companies were responsible for the lion's share.[20] At the end of the 1920s, private contributions fell, and as a result the colonial government had to spend more on irrigation.

[19] Van der Eng, *Agricultural growth in Indonesia*, 51.
[20] Ravesteijn, *De zegenrijke heeren der wateren: Irrigatie en staat op Java, 1832–1942*, 5, 355; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 136.

Figure 4.1. Total government expenditure and corporate contributions to investment in irrigation, in million guilders, 1910–1936.



Source: Ravesteijn, *De zegenrijke heeren der wateren: Irrigatie en staat op Java, 1832–1942*, 355; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 136.

The older and larger irrigation systems had usually been constructed by the government. However, several newer ones, in particularly those close to sugar factories, such as Pangka in Tegal, Sindanglaut near the city of Cirebon, Gunung Rowo in Pati, Banyuputih in Besuki, Watudakon in Surabaya and smaller irrigation systems in Berbek (East Java), were financed almost entirely by private companies. They are examples of the initiatives that were taken by sugar companies to construct irrigation works. In 1910, a sugar planter wanted to build a factory in Soka in Pejagoan. In order to acquire enough irrigation water, he wanted to create a reservoir. However, several thousands of people had to move and an important road had to be redirected. Moreover, it was expected that the construction of the dam would lead to numerous problems. Therefore, the government did not grant a permit for this factory.[21]

The contributions from private companies for other irrigation works differed, but for the improvement of irrigation in the Sidoarjo area in East Java, a total amount of ƒ4.5 million had to be paid, of which the sugar companies contributed ƒ1.1 million. For the canal in Madiun, total costs were ƒ2.5 million, and the four surrounding companies paid ƒ485,000 in total. A survey, which was based on 153 factories, showed that during the period 1915–1924, a total of ƒ18.7 million was spent on irrigation by the sugar industry or ƒ12,220 per factory per year.[22] This was nearly one-quarter of the total expenditure on irrigation by the colonial government, which amounted to ƒ80.9 million during the same time period (Figure 4.1).

New factories that wanted to expand from the 1920s onwards had to pay at least three-eighths of the irrigation costs and also contribute to the maintenance. The sugar factory Petjangaän wanted to build a *waduk* in 1925 which would cost ƒ300,000 and of which the indigenous population would also benefit, but the company would use only half of the water. This plan was not allowed by the government which shows that the authorities still had a say in the allocation of irrigation water.[23] The local situation was important when deciding whether a concession would be granted or not. In Pati, in Central Java, for instance, a *waduk* called Gembong was finished in 1933 at a cost of ƒ1 million. Two sugar companies, Langsee and Trangkil, each paid ƒ300,000 each. For compensation, the government agreed that both companies could increase their area under cultivation.[24]

Even though an enquiry about the importance of a *waduk* claimed that no expansion of indigenous crops had occurred after *waduk* were constructed,

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[21] NL-HaNa: MvO, 60, Kedoe, 1912.

[22] Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 110–111; J. Th. Metzelaar, *Het wadoekstelsel en zijn waarde voor den landbouw* (Buitenzorg: Archipel, 1932) 70–71, 110–111, 130–131; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 180–188, 202; Ravesteijn, *De zegenrijke heeren der wateren: Irrigatie en staat op Java, 1832–1942*, 5, appendix C, E.

[23] Adriaan Neijtzell de Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera (de particuliere landerijen uitgezonderd)* (Weltevreden: Visser & Co, 1913); 188; Booth, *Agricultural development in Indonesia*, 78; E.W.H. Clason, 'Economische beschouwingen over de irrigatie op Java en Madoera', *De ingenieur in Nederlandsch-Indië*, Vol. 1 (1936) 1–25, in particular 17; Goedhart, *Eerherstel voor de plantage*, 36; M. van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java* (Surabaya: E. Fuhri & Co., 1908) 8; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 184–188.

[24] NL-HaNa: MvO, 538, Japara-Rembang, 1936.

the presence of sugar companies and their construction of irrigation works could be beneficial to the indigenous population. The irrigation systems made it possible for both rice and sugar to be planted in the dry as well as the wet season. It provided irrigation water to areas that otherwise would not have been planted, as the example of the sugar company Asembagoes in East Java shows. River water flowing to the sea was pumped back to the fields, not only stimulating sugar cultivation, but also providing plenty of water for indigenous crops.[25]

The government was more likely to make agreements with sugar companies in East Java if the companies constructed or improved existing irrigation works.[26] In Ponorogo, the head of the provincial irrigation department allowed new sugar cultivation if a *waduk* was constructed by the future sugar company. It was considered that the presence of a sugar company would also be beneficial for the indigenous population.[27] However, in Probolinggo, the sugar companies had less luck. In 1927, three sugar companies promised to contribute to irrigation works with a total amount of *ƒ*199,500, but this was deemed insufficient by the director of B.O.W. and the sugar company Oemboel planned to withdraw, even though it initially wanted to contribute *ƒ*40,000.[28] Overall, the construction of new irrigation works and improvement of existing ones show that a backward linkage effect did materialize. On the one hand there was competition for water between smallholders and estates; on the other, estates did make a contribution to financing irrigation works although the state was responsible for the lion's share. However, the financial contribution from the estate sector was usually not large compared to that of the state.

Railways and other infrastructure

Next to irrigation works, railways were highly important for the development of the sugar industry and could offer benefits to the local indigenous population as well.[29] Constructing and maintaining railways and roads were partly done by private foreign companies. Paved roads and new bridges

[25] Metzelaar, *Het wadoekstelsel en zijn waarde voor den landbouw*, 792; NL-HaNa: MvO, 123, Bondowoso, 1929.
[26] NL-HaNa: MvO, 120, Besoeki, 1922; NL-HaNa: MvO, 88, Soerabaja, 1908.
[27] NL-HaNa: MvO, 102, Ponorogo, 1930.
[28] NL-HaNa: MvO, 115, Probolinggo, 1932.
[29] J.H.F. Kohlbrugge, *Is grondverhuur aan suikerfabrieken een zegen of een vloek voor den Javaan?* (Haarlem: H.D. Tjeenk Willink & Zoon, 1909) 21–22; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 186–190, 202; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 110–111, 130.

replaced old ones suffering from heavy use by the foreign estates. We need to distinguish carefully between the railways owned by railway companies and those constructed by sugar companies. There were numerous factory lines belonging to sugar enterprises and other plantations spread across Java and Sumatra. Some of these networks, usually with 600 to 700mm gauges, were dozens of kilometres long because they linked cane fields with factories, and then connected up with public railways and tramlines. In 1924, the 171 sugar factories taken together had a railway network with a length of 10,033km. In 1924, the railway companies had 708 locomotives, whereas the sugar companies alone possessed 565 steam and 128 other locomotives.[30]

Usually, the lines constructed by sugar companies did not cater for the transport of passengers, but company personnel and labourers would be carried in primitive carriages.[31] The rail traffic was becoming increasingly heavy. The government considered whether railways previously constructed by sugar companies in Bondowoso and Besuki for transport of sugar cane should be replaced or removed to make way for new roads. The sugar companies Tangarang and Pradjekan had already improved their rail lines. Rail lines next to the main roads from Besuki to Mlandingan were in bad condition and could be hazardous. Eventually, some of the earlier railways and roads in Bondowoso and Besuki were indeed replaced or removed to make way for new railways with the same track width. The companies contributed to these new lines as well. The state railway from Jember to Panarukan drew most of its income from the transport of sugar, tobacco, coffee and rubber from estates in Bondowoso and Jember. In Besuki, the road from Sumbergading to Sempol was improved, partly with funding from private companies in 1927 and 1928, but funds were still insufficient to guarantee a safe passable road all year round.[32]

In Pasuruan, the condition of the roads deteriorated quickly when the sugar companies harvested the sugar cane and used the roads intensively. This situation persisted until the roads were gravelled again in the new season. Due to the construction of more rail lines by the sugar companies, normal roads remained in better condition for longer. But if the finances of private companies worsened, it was expected that maintenance or construction of new roads would be neglected.[33] Near Pronojiwo a company road was constructed in 1930 that could be used by cars and was connected to the main road leading

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[30] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 57.
[31] Wim Ravesteijn and Jan Kop, *For profit and prosperity: The contribution made by Dutch engineers to public works in Indonesia: 1800–2000* (Leiden: KITLV Press, 2008) 111.
[32] NL-HaNa: MvO, 123, Bondowoso, 1929.
[33] NL-HaNa: MvO, 112, Pasoeroean, 1924.

to companies in three other places as well. In 1929 another road was connected to the main road that would go to a company in the direction of Malang and was used every day by trucks. Thanks to this road the area became less isolated. In order to connect more companies to the main roads it was expected that other companies would contribute as well.[34]

Sugar companies were responsible for the infrastructure between their factories and the ports. Several railways were constructed in conjunction with sugar plantations. Although it is not always clear to what extent estates contributed to the construction, around 30% of the transported goods were goods for the sugar industry. The profits of these railways, due to cargo transports, were often two to three times as high as that from transporting passengers. The sugar industry also meant good business for shipping companies which transported the sugar.[35] Bridges were constructed or improved and made from stone instead of wood and could also be used by the indigenous population.[36]

In Probolinggo, improvements of the infrastructure took place with the construction of a small railway and the maintenance of village roads connecting the sugar factories and the railway. Hand-carts were rented from the local population for transport over such roads. This activity was a clear example of a backward linkage. It is, however, difficult to assess whether this had a more than marginal effect on the local economy.[37]

Supply of fuel

For the increasing shipping activities in the archipelago, the supply of coal and oil formed a substantial backward linkage. After goods had been transported from inland to the port, they were shipped abroad. KPM was the largest company in inter-island and overseas shipping and included a large number of ports in the archipelago in its network.[38] It was a vertically integrated company, gradually increasing its range of services. In addition to agencies, hotels, port services, loading and unloading facilities, docks and wharfs for repairs and shipbuilding were established. Indigenous entrepreneurs also

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[34] NL-HaNa: MvO, 115, Probolinggo, 1932.
[35] Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 148; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 134.
[36] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 134.
[37] Lindblad, ‘Business strategies in late colonial Indonesia’, 215.
[38] M.G. de Boer, and J.C. Westermann, *Een halve eeuw paketvaart, 1891*–1941 (Amsterdam: De Bussy, 1941) 302; Lindblad, *Between Dayak and Dutch*, 165.

traded with KPM. In Makassar, for instance, local traders tried to sell their products to people on the ships.[39]

The large KPM vessels usually visited several ports during their trips in order to refuel. The KPM ships used either coal or oil. The growing number and size of the vessels led to a rising demand for these products. It was important for KPM and other shipping companies to have a reliable supply of coal. For this, long-term contracts were drawn up.[40] In 1903, the coal mining company Pulau Laut was founded on the like-named island near Southeast Kalimantan on the assumption that KPM would buy its coal here. This assumption backfired, since the shipping company only bought 4,000 tons in the second year of operations of Pulau Laut. In 1914, Pulau Laut was sold to the colonial government. In the same year, the Steenkolen-Maatschappij Parapattan (Parapattan Coal Company) was founded in a remote area in East Kalimantan. The pioneer V.A. Cools and the regent of Sambaliung, Datu Ranik, borrowed capital for this investment from KPM. However, the Parapattan company had constant difficulties repaying the loan, and eventually KPM bought the shares back.[41] By 1920, KPM had become the sole owner of Parapattan. It now showed more willingness to invest in it. In 1924, KPM claimed to have already spent *ƒ*9.3 million making the mine fit for large-scale production. Between 1925 and 1930, total output increased rapidly. In coal mining, competition was fierce and Parapattan enjoyed a more privileged position than Pulau Laut since the former was the sole supplier for KPM.[42] However, in order to retain its monopoly in the transport of government employees and goods throughout the entire archipelago, KPM from 1931 onwards had to buy at least 100,000 tons of coal each year from the state mines in Sumatra. Therefore, output at Parapattan had to be reduced.

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[39] De Boer and Westermann, *Een halve eeuw paketvaart, 1891*–1941, 244–246; À Campo, *Engines of empire*, 347–348.
[40] À Campo, *Engines of empire*, 378–379.
[41] NL-HaNa: Steenkolenmaatschappij Parapattan N.V., 1922–1955, 1, Annual report 1915, 1–2; J. Thomas Lindblad, 'Westers en niet-westers economisch gedrag in Zuid-Oost Kalimantan, c. 1900–1940', *Bijdragen tot de Taal-, Land- en Volkenkunde*, Vol. 142 (1986) 215–237 in particular 229; À Campo, *Engines of empire*, 387–389.
[42] J. Baks, 'De steenkolenmaatschappij "Poeloe Laoet" in Zuidoost-Borneo, 1903–1913', in: A.H.P. Clemens and J. Thomas Lindblad, *Het belang van de buitengewesten economische expansie en koloniale staatsvorming in de buitengewesten van Nederlands-Indië, 1870–1942* (Amsterdam: NEHA, 1989) 123–150 in particular 134; Lindblad, 'Westers en niet-westers economisch gedrag in Zuid-Oost Kalimantan, c. 1900–1940', 229–233; J. Thomas Lindblad, 'Strak beleid en batig slot. De Oost-Borneo Maatschappij, 1888–1940', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 48 (1985) 182–211, in particular 184.

Nevertheless, KPM made Parapattan the largest coal mine in Kalimantan. By 1939, an output of 303,000 tons was reached.[43]

Similar to oil and tin mining, coal mining also gave rise to Western enclaves, but their effect on the local economy was slightly larger than that of oil. They contributed more to local infrastructure, while they attracted large numbers of indigenous workers. Parapattan constructed railways for transport of coal and a wharf for the ships. Similar facilities were established at state mines of Pulau Laut and Ombilin, near Sawahlunto, in West Sumatra. The latter mine proved an important impetus for the construction of port facilities at Emmahaven, now Teluk Bayur, near Padang and a small-gauge railway running 150km from the mine to the coast.[44] KPM also procured coal from local suppliers. However, this was on a far smaller scale. Although the quality was lower, this coal was usually cheaper than coal from Western-owned mines in the Netherlands Indies, and therefore a welcome supplement.[45]

It is clear that KPM required an impressive amount of coal, but even at an early stage the company was experimenting with oil to empower its ships. Oil was purchased from the Royal Dutch company and other smaller petroleum producers. KPM also transported large machinery, building materials and other equipment for these firms.[46] As one of the dominant industries in colonial Indonesia, the oil companies also stimulated traffic in ports. Private investment was undertaken in bulk-handling facilities in oil ports in North Sumatra, Palembang, Balikpapan and Tarakan. The infrastructure created by the oil companies only served the specific needs of the industry. Examples include a road constructed to Pangkalan Susu in North Sumatra in 1933, the maintenance of a 450km road network in Palembang, the Manggar airfield outside Balikpapan in 1936, a new highway from Jambi to Palembang in 1938, and roads and an airstrip in Tarakan. Some roads constructed by BPM near Palembang lay close to smallholder activities and were also used by the indigenous population, more so than in Pangkalan Susu or in Tarakan, which were more remotely located. Petroleum companies also contributed to roads constructed by the government. BPM, for instance,

43 NL-HaNa: Steenkolenmaatschappij Parapattan N.V., 1, Annual report 1939, 3; Lindblad, *Between Dayak and Dutch*, 92–95; À Campo, *Engines of empire*, 387.
44 De Boer, and Westermann, *Een halve eeuw paketvaart, 1891*–1941, 409–416; Touwen, *Extremes in the archipelago*, 314.
45 À Campo, *Engines of empire*, 385; Baks, 'De steenkolenmaatschappij "Poeloe Laoet" in Zuidoost-Borneo, 1903–1913', 137; Lindblad, 'Ondernemen in Nederlands-Indië c. 1900–1940', 707.
46 À Campo, *Engines of empire*, 380–384.

supported the construction of a highway between Balikpapan and Samarinda with a length of 110km.[47]

Other backward linkages affected other countries. Equipment for Royal Dutch was largely imported from third countries. Storage tanks and a bridge across the Lepan river in North Sumatra came from Belgium. Equipment for buildings and tools were ordered in Germany. Tin plates and other goods came from England, while rails, locomotives and wagons were constructed at Decauville in France. Increasingly, machines were imported from the United States. However, some equipment was also provided by the Dutch company Stork & Co., and between 1907 and 1940 BPM ordered 150 vessels from Dutch wharfs for the transport of oil.[48]

Local activity in Java

In Java, on the other hand, there was much local economic activity as a direct consequence of the presence of the sugar companies. The local firms often supplied basic products to the estates, such as firewood and bricks. These deliveries provided another ƒ6.7 million of income for the indigenous population in 1924.[49]

The presence of Dutch sugar companies in Java attracted several categories of indigenous craftsmen. Carpenters, masons and smiths found work because of the sugar industry. In Mojokerto and Jombang, the stone and tile industry grew, although indigenous crafts were sometimes replaced by larger foreign companies or imports from Europe. However, this was no consequence of the presence of the sugar industry as such. Home-based industries remained popular as a result of the shortage of formally trained indigenous labourers.[50]

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47 Lindblad, 'The petroleum industry in Indonesia before the Second World War', 72; Touwen, *Extremes in the archipelago*, 149–150; Lindblad, *Between Dayak and Dutch*, 166; Vincent J.H. Houben, 'The pre-modern economies of the archipelago' in: Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002) 35–55, in particular 38.
48 Gerretson, *History of the Royal Dutch*, Vol. 1, 144; Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 303; Keetie E. Sluyterman, *Kerende kansen: Het Nederlandse bedrijfsleven in de twintigste eeuw* (Amsterdam: Boom, 2003) 63.
49 Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 124, 126, 128, 140, 144, 146–160, 174–176; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 135.
50 Th.G.H. Stibbe, *Verslag van de Suiker-enquête-commissie* (Surabaya: Suiker-enquête-commissie, 1921) 285–289.

Import of heavy machinery from the Netherlands can be seen as a potential backward linkage that failed to materialize. At the beginning of the 1910s, 30% of the boilers used to generate steam power for the sugar industry were constructed in the Netherlands, and their number kept increasing. For various factories specializing in machines, electrical tools and locomotives, manufacturing for the sugar industry was responsible for an average of respectively 50%, 33% and 10% of turnover during the years 1923–1925. In 1924, the export of machines and tools from the Netherlands to the Netherlands Indies was valued at ƒ13.9 million, of which nearly ƒ6 million accounted for the sugar industry alone.[51]

To sum up, we have observed different kinds of backward linkages. The most important one was infrastructure, which remained visible and present even after the economic depression of the 1930s and after independence as well.

4.3 Forward linkages

Forward linkages were less present than backward linkages. Here I have briefly described major forward linkages in the late-colonial period. A few examples are given of cases where the output of one industry was directly used in another to create a new product.

In the sugar industry in the mid-nineteenth century, the raw product – sugar cane – was shipped overseas, to be refined in the Netherlands. Later on, this was carried out in the Netherlands Indies itself, using Dutch-made engineering equipment for processing the cane. From the 1920s onwards, when more foreign non-Dutch companies were established in the Netherlands Indies, the import of equipment for sugar refining from Great Britain and the US increased.[52]

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[51] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 116–117; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 124–128, 140, 152; Van der Eng, *Economic benefits from colonial assets*, 13; Lindblad, 'De handel tussen Nederland en Nederlands-Indië, 1874–1939', 257; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 139–140; W.A.I.M. Segers and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 8: Manufacturing industry, 1870–1942* (The Hague: Nijhoff, 1987) 16; Stibbe, *Verslag van de Suiker-enquête-commissie*, 299–300.

[52] Van der Eng, 'Exploring exploitation: The Netherlands and colonial Indonesia 1870–1940', 304; Van der Eng, *Economic benefits from colonial assets*, 13; Jan Aart de Jonge, *De industrialisatie in Nederland tussen 1850 en 1914* (Nijmegen: Socialistische Uitgeverij Nijmegen, 1976) 358; Ravesteijn and Kop, *For profit and prosperity*, 111; S.A. Reitsma, *Gedenkboek der staatsspoor- en tramwegen in*

Sugar from Java was also being refined in Japan, and Chinese traders played a key role as intermediaries between the sugar factories and Japanese refineries. Sugar refineries also increasingly processed raw sugar into a more pure and whiter form using the limestone that was locally available. This process was cheaper than refining raw sugar cane, but at the end of the 1920s, exports of raw sugar still exceeded those of processed sugar.[53] Overall, the sugar industry remained dominated by private foreign estates, usually with Dutch owners. In Jombang, near Surabaya, indigenous sugar producers also operated a sugar mill in the early 1920s. Initially, these producers wanted to sell their product to foreign companies, but the foreign estates were reluctant to buy, so the indigenous producers decided to refine it for local use only.[54]

The production of sugar in the Netherlands Indies gave rise to a conflict of interest with domestic producers in the Netherlands. Sugar refineries in Amsterdam might have been interested in procuring cane sugar from the Netherlands Indies, but this product competed with domestic beet sugar, and the costs of transporting crude cane to the Netherlands was considerable. The Dutch sugar refinery Wester Suikerraffinaderij, for instance, did show some backward integration, but was not interested in cane sugar from the Netherlands Indies.[55]

Oil

Unlike the sugar industry, in the petroleum industry refining did largely take place in the Netherlands Indies before the product was shipped abroad. As refineries enlarged their capacity, so exports of crude oil declined and that of refined oil increased. In 1910, one-half of the exported oil consisted of crude oil; in 1920, only one-quarter.[56] The largest refineries were in Balikpapan in East Kalimantan, where oil from Kutai and Tarakan was refined, in Pangkalan Brandan in North Sumatra, at Plaju in Palembang and in Cepu in Central Java. These refineries formed one of the most prominent forward linkages in the Netherlands Indies. Machinery and equipment were largely imported, for instance from the Dutch firm Stork. Moreover, when a new factory was set up by the BPM for kerosene processing in Balikpapan in 1916, visitors even had to sign a non-disclosure agreement out of fear that the specialized technology

Nederlandsch-Indië, 1875–1925 (Weltevreden: Topografische Inrichting, 1925) 80–81.

[53] Knight, *Commodities and colonialism*, 29–31, 40–46, 219.

[54] NL-HaNa: MvO, 88, Soerabaja, 1908.

[55] Sluyterman, *Dutch enterprise in the twentieth century*, 44; Thee, *Plantation agriculture and export growth*, 126.

[56] Clemens, Lindblad and Touwen, *CEI. Vol. 12b*, 34–35.

would fall into the hands of competitors. Therefore, there was little impact on the local economy apart from port-related activities like the transport of refined oil to ports from where it was exported. From Pangkalan Susu in North Sumatra, refined oil from the BPM refinery at Pangkalan Brandan was shipped abroad. The transport of unprocessed oil was often inefficient and costly.[57] Rotterdam became an important location for a refinery for Royal Dutch Shell where further processing took place. This city also played a major role in processing copra and other vegetable oil products for the production of margarine and soap.[58]

Rubber processing

By contrast to the sugar and oil industry, indigenous smallholders were responsible for a significant share of the export of rubber. From an early stage, the colonial government gave priority to improving rubber cultivation, but after 1910 research by foreign private companies played a larger role. Yet there was virtually no interaction between the estate rubber companies and nearby smallholders. In its turn, the government also tried to encourage local processing of smallholder rubber in Palembang and Jambi, which in 1915 led to rubber cooperatives. This encouraged rubber smallholders to process the product into dry rubber sheets, which brought a higher price than the unprocessed rubber slabs containing more water and debris.[59]

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[57] Touwen, *Extremes in the archipelago*, 147–148; Sluyterman, *Dutch enterprise in the twentieth century*, 49; Christopher Anderson Airriess, *A port system in a developing regional economy: Evolution and response in North Sumatra* (PhD thesis, University of Kentucky, Lexington, KY, 1989) 72; Wood, *Intermediate cities in the resource frontier*, 180–181; Sluyterman, *Kerende kansen*, 63; Lindblad, *Between Dayak and Dutch*, 79–83.

[58] Van der Eng, *Economic benefits from colonial assets*, 9.

[59] Touwen, 'Voordeel van veelzijdigheid. De economische ontwikkeling van Palembang en Djambi tussen 1900 en 1940', 145; Colin Barlow and John Drabble, 'Government and the emerging rubber industries in Indonesia and Malaya 1900–1940', in: Anne Booth, William Joseph O'Malley and Anna Weidemann (eds), *Indonesian economic history in the Dutch colonial era* (New Haven, CT: Yale Center for International Studies, 1990) 187–209, in particular 201–202; R. Broersma, *Handel en bedrijf in Zuid- en Oost-Borneo* ('s-Gravenhage: Naeff, 1927) 111; Abr. Luytjes, *De bevolkingsrubbercultuur in Nederlandsch-Indië. 2: Zuider- en Oosterafdeeling van Borneo* (Weltevreden: Landsdrukkerij, 1925) 40–42; Ozinga, *De economische ontwikkeling der Westerafdeeling van Borneo en de bevolkingsrubbercultuur*, 263–265; Abr. Luytjes, *De bevolkingsrubbercultuur in Nederlandsch-Indië. 7: Eindrapport: Samenvatting der verschenen publicaties en beoordeeling van den tegenwoordigen toestand* (Weltevreden: Landsdrukkerij, 1927) 1–2.

Smallholder rubber was initially exported to Singapore where sheets were produced from the slabs, mostly in Chinese-owned factories. Chinese traders played a major role in the transport of smallholder rubber, which motivated the KPM to try to benefit from this trade as well. The Rubber Union was founded in 1926 and sponsored the construction of four rubber factories in Kalimantan and Sumatra. This initiative was not supported by the colonial government, and the last of the four factories closed their doors in 1931. Nevertheless, with the increasing share of smallholder rubber the processing of rubber took place more often in the Netherlands Indies in factories constructed near the prime rubber-producing areas. By the end of the 1930s, almost all smallholder rubber was processed in the Netherlands Indies before being exported.

Estate rubber was processed locally from the beginning, and only a few technological changes occurred in the estate rubber industry. Smoked sheets of rubber was the product of choice. Unlike the indigenous processing centres, where hand-driven sheeting machines were used, engine-driven machines replaced hand-operated machines in the estate rubber industry. Over time, experiments were made with other types of rubber products and sprayed rubber was produced in Java and in Sumatra, which resulted in rubber in powder form. Latex was also shipped abroad in unprocessed form or in a higher concentration, containing about 60% rubber. The concentrated product was obtained through centrifuging the latex or by adding creaming agents that separated the lighter cream from the heavier skim in the latex. Ammonia or other chemicals were added to prevent coagulation during transport.[60]

Thee Kian Wie argues that the processing facilities of the rubber estates, and those of oil palm plantations as well, were an integral part of the plantations and, therefore, do not present a good example of forward linkage. Tyre companies might be a better case and both the American Goodyear Tire Company and Pirelli from Italy benefitted from the high output of the rubber industry.[61]

[60] Pieter Honig and Frans Verdoorn, *Science and scientists in the Netherlands Indies* (New York: Board for the Netherlands Indies, Surinam and Curaçao, 1945) 347–351; Touwen, *Extremes in the archipelago*, 204–205; J.G.J.A. Maas and F.T. Bokma, 'Rubbercultuur der ondernemingen', in: C.J.J. van Hall and C. van de Koppel (eds), *De landbouw in de Indischen Archipel. Deel III. Industriële gewassen en register* ('s-Gravenhage: Van Hoeve, 1950) 237–426, in particular 357–405, 460.
[61] Frances Gouda and Thijs Brocades Zaalberg, *American visions of the Netherlands East Indies/Indonesia. US foreign policy and Indonesian nationalism, 1920–1949* (Amsterdam: Amsterdam University Press, 2002) 77; Maas and Bokma, 'Rubbercultuur der ondernemingen', 404.

After the First World War, the production of various other goods increased in the Netherlands Indies, contributing to self-sufficiency, but a take-off into industrialisation did not occur. The production of paper and paint increased, and in Sumatra an aluminium production plant was established thanks to cooperation between the government and the Billiton company. The aluminium was further processed in Java and could be used for various applications such as electrical wiring.[62]

Tin smelting was a forward linkage and had great potential to become an important linkage in the Netherlands when demand for tin products for technical uses increased. However, Dutch tin-can manufacturers preferred to import tin plates from Germany and, unfortunately, smelting of tin did not take place on an appreciable scale in the Netherlands Indies. Barely any smelting was done on the island Belitung, whereas on neighbouring Bangka island three smelters were active in 1930. Plans for a central smelter in Java that would serve both Bangka and Belitung never materialized. Most of the smelting of the tin ore from the Billiton company was done by the Straits Trading Company in Singapore, and from 1933 onwards in Arnhem in the Netherlands, and after 1940 even in Texas in the United States.[63]

Additional examples of forward linkages in other industries can be found for instance in soap factories that used palm oil as the basic raw material. In Batavia, an oil and soap factory was constructed by Unilever. However, such companies can only be considered as rare examples of apparent forward linkages.[64]

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[62] J.H. Boeke, *Indische economie. II: De nieuwe economische overheidspolitiek in Nederlandsch-Indië* (Haarlem: Tjeenk Willink, 1940) 99–101; Th. A. Fruin, *Het economische aspect van het Indonesische vraagstuk* (Amsterdam: Vrij Nederland, 1947) 23–27.

[63] Lindblad, 'Business strategies in late colonial Indonesia', 219–223; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 171; NL-HaNa: MvO, 246, Banka en onderhorigheden, 1928; Mary Somers Heidhues, *Bangka tin and Mentok pepper: Chinese settlement on an Indonesian Island* (Singapore: Institute of Southeast Asian Studies, 1992) 15, 182; Touwen, *Extremes in the archipelago*, 88, 137; Sluyterman, *Dutch enterprise in the twentieth century*, 44; Thee, *Plantation agriculture and export growth*, 126.

[64] Thee, *Plantation agriculture and export growth*, 131; Thee Kian Wie, *Explorations in Indonesian economic history* (Jakarta: Lembaga Penerbit Fakultas Ekonomi, 1994) 101; Goedhart, *Eerherstel voor de plantage*, 320.

4.4 Final demand linkages

Compensation for land use

More significant for the indigenous population were final demand linkages. We will look at compensation for land use, wages of workers and additional indirect benefits for workers. Estimates of the land used by estates and indigenous smallholders vary as observers apply different criteria for measuring land use. It is not always clear if they refer to the entire area of land or only the cultivable part of it. Nevertheless, estimates of the occupation of land by foreign private estates vary between 3% and 8–18% as a proportion of total irrigable land in Java. In East Java, however, sugar estates occupied around 70% of the soil in some villages. A peak occupation rate of 84% of all land was reported for Lower Deli in Sumatra in 1930.[65]

Van der Eng states that arable land occupied by estates in Java gradually dropped from 18% in 1910 to 10% in 1940, whereas in the Outer Islands between the 1910s and 1920s it increased from nearly 30% to slightly more than 45%, which reflects the prosperity in that decade. During the 1930s land use in the Outer Island dropped significantly from nearly 40% at the beginning of this decade to less than 20%. The decline in Java during the 1930s on the other hand was only the continuation of an existing trend. Overall, the share of land that was actually cultivated in the Netherlands Indies was lower. Crops were rotated and with this cycle the land management of villages had to take into account the needs of the sugar estates in the first place. Indigenous food crops, therefore, came in the second place.[66]

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[65] Berkhuysen, *De drainagetheorie voor Indonesië*, 112–113; Karl J. Pelzer, *Planter and peasant: Colonial policy and the agrarian struggle in East Sumatra, 1863–1947* ('s-Gravenhage: Nijhoff, 1978) 105; Boeke, *The structure of Netherlands Indian economy*, 83–84; Departement van Landbouw, Nijverheid en Handel, *De landbouwexportgewassen van Nederlandsch-Indië in 1938–1940* (Weltevreden: Albrecht & Co., 1949) 51–53.

[66] Pierre van der Eng, *Agricultural growth in Indonesia: Productivity change and policy impact since 1880* (London: Macmillan, 1996) 26, 52, 208–215, 283–288; Alec Gordon, *Notes on the transition from colonial to post colonial economic formations in modern Indonesia* (n.p., 1979) 7; Alec Gordon, 'The collapse of Java's colonial sugar system and the breakdown of independent Indonesia's economy', in: Francien van Anrooij (ed.) *Between people and statistics. Essays on modern Indonesian history* (The Hague: Martinus Nijhoff, 1979) 251–266, in particular 254–255; Mubyarto, 'The sugar industry', *Bulletin of Indonesian Economic Studies*, Vol. 5 (1969) 37–59, in particular 45; Boeke and Holmes, *Indonesian economics: The concept of dualism in theory and policy*, 153–155; Jan Jacob van Klaveren, *The Dutch colonial system in the East Indies* (The Hague: Nijhoff, 1953) 150–156;

Knight notes that these calculations often overlook a common overplay between planting, harvest and clearing after the leased land had been returned to the indigenous landowners. This argument has been put forward earlier by Geertz. Moreover, in order to prevent the soil from exhaustion, crops were rotated. From April to June nearly twice the 6% of arable land estimated for cane sugar would be occupied by estates, even more if we include fallow land. Only by September did this proportion drop to the average of 6%. During the time most suited for cultivation of food crops by indigenous farmers, less land was available to them.[67]

Java was densely populated and all fertile soil was already occupied either by Western estates or indigenous farmers. This resulted in rivalries between estates and indigenous smallholders about the quality rather than availability of farm land. The occupation of land by estates had a significant impact and hindered indigenous agriculture and economic development. It is likely that the best grounds were occupied by large sugar estates ever since the Cultivation System.[68] Therefore, the contraction of sugar production in the early 1930s benefitted the local population in the sense that it allowed food crop cultivation to expand. Between 1929 and 1934, the area planted with rice expanded by more than 400,000 hectares, which was accompanied by a decline in the area used for sugar cane. On the one hand, this generated a moderate growth in food crop production, but on the other hand an important source of wage employment for the indigenous population vanished.[69]

Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 68–80.

[67] Knight, Roger G., 'Did 'Dependency' really get it wrong? The Indonesian sugar industry, 1880–1942', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia*, 1890s–1990s (Amsterdam: North Holland, 1996) 155–174, in particular 163; Boeke, *The structure of Netherlands Indian economy*, 83–84; Van der Eng, *Agricultural growth in Indonesia*, 217–223; Lindblad, 'The late colonial state and economic expansion, 1900–1930', 135; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 250; Booth, *Agricultural development in Indonesia*, 44; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 87.

[68] Berkhuysen, *De drainagetheorie voor Indonesië*, 112–113; Haccoû, *De Indische exportproducten,* 87; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 299–300; Goedhart, *Eerherstel voor de plantage*, 95–96; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 64, 82, 178; E.G.J. Gimbrère, *Eenige beschouwingen over de financiering van de suikerindustrie en den suikerhandel op Java* (Tilburg, Drukkerij Henri Bergmans, 1928) 39; Booth, *Agricultural development in Indonesia*, 44; Van der Eng, *Agricultural growth in Indonesia*, 283–288, 303–308; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 74–76.

[69] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 40, 110; Wim Ravesteijn, *De zegenrijke heeren der wateren: Irrigatie en staat op Java,*

Just as with the exploitation of the soil, the extraction of natural resources such as oil, tin and minerals also need to be taken into account. Putman Cramer argues that mining companies were more closely connected with the colonial state than other private companies. Therefore, the state received a sizeable slice of profits. However, it is not clear whether this also included compensation for the permanent loss of such resources for Indonesia. Putman Cramer also states that foreign companies did not exploit the soil because the land would not have been suitable for production anyway. If foreign firms would leave, the cultivable land could still be used for agricultural production.[70] Initially, Berkhuysen agrees with Putman Cramer. The largest part of the coal output from government mines was used for domestic purposes and did not leave the colony. For tin, petroleum and bauxite, however, he argues that colonial Indonesia was clearly not compensated for the loss of these replenishable resources. On the other hand, Berkhuysen asserts that it was of no use to wait with the exploitation of such resources as synthetic production would possibly in the future make exploitation less profitable anyhow.[71]

The estates without doubt used a significant amount of arable land. The relevant question here is whether the indigenous population was adequately compensated for the land use by foreign estates or if it was more profitable for indigenous landowners to cultivate their own crops. The positive effect of backward linkages could be lost if estates did not pay enough to compensate for the use of land.[72]

Land was leased from indigenous landowners, or acquired through arrangements with indigenous rulers in Surakarta and Yogyakarta.[73] Outside Java, most concessions were granted by local indigenous sultans, who amassed sizeable fortunes from these concessions.[74] Foreign estates could not own land and had to lease it from indigenous landowners.[75] During the sugar

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1832–1942 (Delft: Delft University Press, 1997) 274; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 94.

70 G.J.W. Putman Cramer, 'De Indische begrooting 1923 in de tweede kamer der Staten-Generaal', *De economist*, Vol. 72 (1923) 186–204; in particular 201–202.

71 Berkhuysen, *De drainagetheorie voor Indonesië*, 120–124; Putman Cramer, 'De Indische begrooting 1923 in de tweede kamer der Staten-Generaal', 201–202.

72 Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 26–28; Boeke, *Economie van Indonesië*, 224–225; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 15–16.

73 Van der Eng, *Agricultural growth in Indonesia*, 52, 208–215.

74 Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 299; Pelzer, *Planter and peasant*, 86–89.

75 Gordon, *Notes on the transition from colonial to post colonial economic formations in modern Indonesia*, 6; Mubyarto, 'The sugar industry', 39; Huender,

boom in the 1920s, around 200,000 hectares were being used by sugar companies. More than 80% was rented from around 300,000–400,000 Indonesian farmers who owned on average 0.7 hectares each. Due to the rotation of crops, it was possible that up to two-thirds of the more than 200,000 hectares could not be used by the indigenous population at a certain time.[76]

In accordance with the *Agrarische Wet* (Agrarian Law) in 1870, estates could lease uncultivated land for a period of 75 years. When the number of estates grew, the surrounding village land was used as well and more contracts with local landowners were made.[77] In 1918 the *Grondhuurordonnantie* (Land Lease Ordinance) replaced previous acts and determined that no more than one-third of the arable land that belonged to a village could be leased to non-Indonesians. Moreover, a minimum rent was imposed on contracts running for more than 3.5 years. This minimum rent was usually higher than what factories had paid before and contracts could be made for a period up to 21.5 years. Long-term contracts were preferred by the sugar companies. The intention was that the payments corresponded to the value of the crops landowners would get if they cultivated the plot themselves.[78]

Even before the introduction of the *Grondhuurordonnantie* sugar companies sometimes faced restrictions. In 1916, sugar companies near Malang (in East Java) wishing to increase their area did not got permission to do so because the food the locals could grow themselves in this area was considered to be too low.[79] One year later, the resident of Kedu in Central Java stated that the large area of land used by sugar companies could have serious consequences for the rice supply if there was a bad harvest. Therefore, the resident K. Peereboom claimed, it was a blessing that the expansion of the sugar companies was halted and that it was becoming increasingly difficult for existing companies to expand production.[80] After the introduction of the *Grondhuurordonnantie*, we encounter more examples of estates that could

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Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera, 89–91.

[76] Sutrisno, *The sugar industry and rural development*, 123.

[77] Creutzberg and Van Dooren, *CEI. Vol. 1*, 24.

[78] Ibid., 25; Van der Eng, *Agricultural growth in Indonesia*, 217–223; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 114; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 43–53; Elson, *Javanese peasants and the colonial sugar industry*, 184; G.H. van der Kolff, 'Sugar and welfare in Java', in: Phillips Ruopp (ed.) *Approaches to community development* (The Hague: Van Hoeve, 1953) 188–206, in particular 195; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 86.

[79] NL-HaNa: MvO, 107, Pasoeroean, 1907.

[80] NL-HaNa: MvO, 61, Kedoe, 1917.

not expand their activities, for instance a cassava plantation owned by HVA in Kediri.[81]

However, Gordon argued that in reality the Land Lease Ordinance reinforced the ability of the estates to ensure that they could cultivate the land for an extended time period. He claims that the compensation the landowners received for leasing out their land was too low; this was due to the complexity of the contracts and the fact that landowners usually did not negotiate individual contracts. Boeke confirms that the minimum rent prices, in practice, served as the maximum, but he states that overall rents were up to one-third higher than before the introduction of the Land Lease Ordinance. Gordon also argues that the *grondhuur* was related to the price of local food crops and not to the price of sugar, which widened the gap between world market prices and domestic food prices in Java. However, he fails to mention that sugar prices dropped rapidly in the 1930s, which, if *grondhuur* were linked to sugar prices, would mean a substantial decline in rent for the landowners as well. Moreover, it is likely that landowners indirectly benefitted from the high sugar prices in the 1920s.[82]

Van der Eng argues that it was more lucrative for landowners to lease out their land to estates than to produce crops on their own in the period after 1930. He calculates that before the 1930s, the average rent that landowners received was lower than the potential value of production if they cultivated the land themselves. In 1921, compensation by sugar estates from *grondhuur* was only around 40% of the minimum potential production, but the tipping point was at the end of the 1920s when it rose to around 100%. Moreover, the cost of hired labour was not included, which meant that, in reality, the total profit for landowners would have been lower if they produced their own crops.[83] In

[81] NL-HaNa: MvO, 104, Kediri, 1924.
[82] Gordon, *Notes on the transition from colonial to post colonial economic formations in modern Indonesia*, 7; W.L. Korthals Altes and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 15: Prices (non-rice) 1814–1940* (Amsterdam: KIT, 1994) 97–99; Gordon, 'The collapse of Java's colonial sugar system and the breakdown of independent Indonesia's economy', 254–255; Mubyarto, 'The sugar industry', 45; Boeke and Holmes, *Indonesian economics: The concept of dualism in theory and policy*, 153–155; Boeke, *The structure of Netherlands Indian economy*, 83–84; Van Klaveren, *The Dutch colonial system in the East Indies*, 150–156; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 68–80; Goedhart, *Eerherstel voor de plantage*, 95.
[83] Van der Eng, *Agricultural growth in Indonesia*, 215–223; De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 102–103; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 25; Henri van der Mandere, *Wat voor de "suiker" van belang was bij de behandeling der Indische Begrooting 1922 in*

the case of the cultivation of other crops that were less exhausting than sugar production, landowners could make more use of their own land for growing of food crops.[84] In fertile areas where farmers worked efficiently it could be less lucrative for landowners to rent out their land and the difference in yield would be smaller.[85]

Nevertheless, it is unclear to what extent indigenous landowners were forced to lease out their land, and the question remains whether enough compensation was paid. This can be considered as an opportunity cost. The displacement effect in terms of land use and loss of potential income affected economic development unfavourably. One of the reasons for indigenous farmers to rent out land was that they needed cash on short notice.[86] This argument is brought forward by Elson. Cash would help the landowners to pay for expenses if there was a poor harvest. The fact was that these landowners had few chances of acquiring cash when confronted with a bad harvest.[87]

In 1921, an inquiry was organized into the sugar industry. Various complaints were voiced by indigenous landowners. They were of the opinion that the estates should pay more attention to the wishes of the landowners and complained that land was not rented in complete agreement with landowners. Leasing out of land was allegedly not voluntary and the rents were too low. The commission investigating these issues, however, did not find much evidence to confirm this charge. The compensation for the rent could be low, but was unlikely to be too low.[88] Gordon disputes the outcome of this inquiry; according to him, the commission was too optimistic.[89] Deals were made with village heads who acted as mediators between estates and landowners. In reality, the village heads tried to impose the will of the sugar company on their subordinates, in return for benefits and bribes of various kinds.[90]

Volksraad en Staten-Generaal (Amsterdam: De Bussy, 1922) 78–79; Van der Eng, ‘Extractive institutions, colonial drain and underdevelopment’, 14.

[84] Huender, *Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera*, 108.

[85] Kohlbrugge, *Is grondverhuur aan suikerfabrieken een zegen of een vloek voor den Javaan?*, 12–13, 16.

[86] Huender, *Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera*, 89–91; Boeke, *Economie van Indonesië*, 106–111; De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 117–119.

[87] Elson, *Javanese peasants and the colonial sugar industry*, 178.

[88] Stibbe, *Verslag van de Suiker-enquête-commissie*, 75–81, 125, 298; Gerrit Jacobus van der Flier, *Grondrentetheorieën en de grondhuren in de Java-suiker-industrie* (Amsterdam: Holdert & Co., 1932) 94–112.

[89] Gordon, *The agrarian question in colonial Java: coercion and colonial capitalist sugar plantations, 1870– 1941*, 15.

[90] Elson, *Javanese peasants and the colonial sugar industry*, 235–237.

Few landowners wanted to rent their land to sugar estates because they knew they could do better when using the land themselves. They were forced to rent the land to sugar estates. Gordon argues that without regulation introduced by the government, the situation would have been even worse.[91] His focus is on the period before the introduction of the Land Lease Ordinance. He refers to Kohlbrugge, who in 1909, wrote that landowners were indeed forced to rent out their land to sugar companies. It is debatable whether the slightly higher compensation in this forced system was sufficient.[92] Eventually, cheap land for sugar companies and distortion of the activities by the indigenous population prevented sugar villages in Java from reaching a rapid sustained development. But again, there was some degree of compensation.[93] As Geertz noted, planting of new sugar crops usually took place before the old ones were harvested. By implication, more land was used by the Western estates than was officially registered.[94]

Direct payments to the indigenous population consisted of wages, compensation for land use and payments for equipment and materials. Wages formed the largest expenditure for the sugar companies. During the 1920s more than ƒ90 million per year was spent on wages, which was nearly 80% of total expenditures by sugar companies benefitting the indigenous population. Only 5% consisted of payments for equipment and materials. For the period 1900–1910, before the introduction of the Land Lease Ordinance, payments for rent by sugar companies were around 10–11%. This increased to 11–14% in 1911–1921 and between 1922 and 1930 it rose further to 15–20%. During the mid–1920s more than ƒ15 million per year was spent by the sugar companies on the use of land. After the economic depression of the 1930s these payments increased to 25–45% when profits were lower and less money was paid to the indigenous population in the form of wages and other expenditure. In

[91] Gordon, *Notes on the transition from colonial to post colonial economic formations in modern Indonesia*, 7; Gordon, 'The collapse of Java's colonial sugar system and the breakdown of independent Indonesia's economy', 254–255; Mubyarto, 'The sugar industry', 45; Boeke and Holmes, *Indonesian economics: The concept of dualism in theory and policy*, 153–155; Van Klaveren, *The Dutch colonial system in the East Indies*, 150–156; Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 68–80.
[92] Kohlbrugge, *Is grondverhuur aan suikerfabrieken een zegen of een vloek voor den Javaan?*, 10, 26–43.
[93] Sutrisno, *The sugar industry and rural development*, 139.
[94] Geertz, *Agricultural involution the processes of ecological change in Indonesia*, 87.

prosperous years, total payments to landowners could be up to *f*25 million, but after the economic depression it could even fall below *f*4 million.[95]

The economic depression of the 1930s hit the sugar industry badly, which caused a rapid decline in proceeds from land lease. The companies tried to terminate long-term contracts and landowners received some compensation for this, but amounts varied significantly and sometimes resulted in court cases that were often won by the landowners.[96] Plantation owners were also willing to renegotiate deals with landowners. Old contracts were not continued, numerous estates closed down or ceased production, which meant an end to the payment of *grondhuur*.[97] As a consequence, demand for land fell and landowners reduced their prices by 10–20%. In Madiun, in East Java, estates could make use of even cheaper options, but they declined to do so and claimed that these prices were below a reasonable minimum.[98]

To conclude, the land lease that foreign estates paid also varied according to region. If the quality of the soil was higher, if there was more competition with indigenous tenants, and if good irrigation systems existed, then the land lease could be more expensive. It can therefore be argued that irrigation systems constructed by foreign private estates benefitted the indigenous population in two ways. First, it made the soil more suitable for cultivating crops, which led to a higher productivity, and, second, the indigenous landowners could ask for a higher land lease after irrigation works had been constructed.[99] The presence of sugar factories could also be more

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95 Huender, *Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera*, 89–91; Boeke, *Economie van Indonesië*, 106–111; De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 117–119; Boeke, *The structure of Netherlands Indian economy*, 84; Van der Mandere, *Wat voor de "suiker" van belang was bij de behandeling der Indische Begrooting 1922 in Volksraad en Staten-Generaal*, 19; Berkhuysen, *De drainagetheorie voor Indonesië*, 114; Elson, *Javanese peasants and the colonial sugar industry*, 239; Van der Eng, *Agricultural growth in Indonesia*, 215; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 116, 148–178; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 119–120; Karl J. Pelzer, *Pioneer settlement in the Asiatic tropics. Studies in land utilization and agricultural colonization in Southeastern Asia* (New York: American Geographical Society, 1945) 256.

96 NL-HaNa: MvO, 81, Japara-Rembang, 1936.

97 NL-HaNa: MvO, 67, Bagelen, 1932; NL-HaNa: MvO, 122, Besoeki, 1934; NL-HaNa: MvO, 81, Japara-Rembang, 1936.

98 NL-HaNa: MvO, 563, Madioen, 1932.

99 Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 110–111, 130; Ravesteijn, *De zegenrijke heeren der wateren: Irrigatie en staat op Java, 1832–1942*, 357; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 4, 14; Van der Eng, *The 'colonial drain' from Indonesia, 1823–*

beneficial to indigenous Indonesians without land than for those owning land. Workers received wages from the sugar industry and benefitted from other final demand linkages, such as housing, schooling and medical care.[100]

Wages

The compensation for use of land by foreign companies may have been felt to be too low among landowners. On the other hand, large numbers of landless Indonesians found employment in the sugar industry. The wages were supposedly the result of demand and supply in the labour market. The question is whether these wages were adequate or at least equivalent to wages that could be earned in the indigenous economy?[101]

Employment provided by foreign firms and estates affected only a small part of the total indigenous labour force. Most Indonesians preferred an indigenous employer to a foreign boss, if this meant less hard work and better conditions and even if it might mean lower incomes.[102] A census of 1930 shows that only 4% of the indigenous working population in Java was employed by sugar estates, whereas even less, 3%, worked at other foreign-owned plantations. It has to be taken into account that during this time the sugar industry started to lose momentum and producers were already feeling the impact of the economic depression. Around 40% of the workforce in the sugar industry consisted of women. In the Outer Islands the share of the indigenous population that was employed by foreign companies was similar to the one in Java (7%). The mining industry absorbed only 0.5% of all available labour.

The proportion of 7% of the total workforce includes both men and women, but not seasonal workers. In the census of 1930 seasonal workers are included in a large rest category, which consists of around 10% of the total workforce, but could be up to 30% in areas with more business activities. Without doubt, at least part of this work force found employment as seasonal worker in a foreign company. There was a substantial seasonal workforce in

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1990, 25–26; Van der Mandere, *Wat voor de "suiker" van belang was bij de behandeling der Indische Begrooting 1922 in Volksraad en Staten-Generaal*, 78–79; Haccoû, *De Indische exportproducten,* 89–90; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 180, 184, 186–190, 202; NL-HaNa: MvO, 93, Madioen, 1907.

[100] Kohlbrugge, *Is grondverhuur aan suikerfabrieken een zegen of een vloek voor den Javaan?*, 93.

[101] Huender, *Overzicht van den economischen toestand der inheemsche bevolking van Java en Madoera*, 101; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 26; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 15.

[102] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 125.

the sugar industry, in particular during the harvest.[103] Therefore, even in 1930, it is likely that more than 4% of the indigenous working population in Java was employed by the sugar industry. Income estimates for 1939 vary from 7% to 7.7% of indigenous income for estates in Java. For the Outer Islands, this proportion was 8–10%.[104] The overwhelming majority of wages, therefore, was earned in the indigenous economy. One can dispute whether the indigenous population actually depended on foreign employers to any significant extent or not.[105]

The sugar industry was the largest foreign employer in Java.[106] Up to 1.4 million workers were mobilized by the sugar industry in 1925, when production was in full swing. This figure comprised one million cultivators, 250,000 cane cutters and 150,000 factory workers.[107] A stark contrast to the 1930s, when sugar production was reduced to less than half of its previous volume. Next to those workers, there were considerable local economic activities. Small shops or *warung* were set up near the plantations. The factories created and maintained markets and shops which stimulated interaction between the factory and the indigenous population. The earnings of the large number of workers in the sugar industry generated an increased local demand, which testifies to a forward linkage.[108]

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[103] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 13; Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel I (Census of 1930 in the Netherlands Indies, Vol. I)* (Batavia: Landsdrukkerij, 1933) 86, 89-90; Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel III (Census of 1930 in the Netherlands Indies, Vol. III)* (Batavia: Landsdrukkerij, 1933) 91, 93-95; Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII*, 122–125; Berkhuysen, *De drainagetheorie voor Indonesië*, 107; Haccoû, *De Indische exportproducten,* 88.
[104] Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 109.
[105] Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 13; Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII*, 122–125; Berkhuysen, *De drainagetheorie voor Indonesië*, 107; Haccoû, *De Indische exportproducten,* 88.
[106] Van der Eng, *Agricultural growth in Indonesia*, 212.
[107] Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 159. In 1930 60.7 million people lived in the Netherlands Indies. In Java and Madura this number was 41.7 million and 98% can be considered as indigenous Indonesian: Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII*.
[108] Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 124, 126, 128, 140, 144, 146–160, 174–176; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 135; John W. Mellor, *Agricultural development and economic transformation. Promoting growth with poverty reduction* (New York: Palgrave Macmillan, 2017) 23–25.

During the peak years in the 1920s, the sugar industry was responsible for 8.4–11.5% of all indigenous income in Java.[109] The sugar industry was surely the largest foreign branch in the 1920s in terms of wages paid. The total wage bill had increased rapidly during the 1910s and remained at a high level throughout the 1920s, with a peak in 1928 at ƒ106 million, or the equivalent of roughly 3% of indigenous national income. The sugar industry virtually collapsed in the first half of the 1930s. Compared with the 1920s, only a fraction of the wages were paid in 1936. In real terms, indigenous income from the sugar industry in 1934 was only 20% of what it had been in 1929, and in 1938 it was still only 39%. The availability of rice and other food products per capita fell after 1930. The collapse of the sugar industry was not mitigated by increasing output of food products on the land previously used by the sugar industry. For workers lucky enough to keep their jobs during the depression, their real income would increase by 50%.[110] Total wages paid to the indigenous population were around 33 to 37.5% of total production costs in the sugar industry in the period 1910–1925. However, the share of profits was similar to 41% of the production costs. The largest share of these profits, comparable with 20–30% of the production costs, was transmitted overseas.[111]

Let us now shift our attention to Sumatra and examine estate wages there. Compared with the workforce in the sugar industry in Java, the workforce in North Sumatra, which consisted of coolies, was smaller. During the second half of the 1910s, total numbers increased to 250,000 but dropped in the early 1920s to less than 200,000. Then numbers rose again, reaching a maximum in 1929, when slightly more than 300,000 coolies were employed in North Sumatra. During the economic depression of the 1930s, figures fell again, and in the late 1930s only 200,000 coolies were employed (Figure 4.2).[112] Initially, coolies came mainly from China. In the early twentieth

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[109] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 127.
[110] Mangkusuwondo, *Industrialization efforts in Indonesia*, 69; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 110–111; Creutzberg and Van Dooren, *CEI. Vol. 5*, 70; Henri Fievez de Malines van Ginkel, *Verslag van den economischen toestand der inlandsche bevolking* (Weltevreden: Landsdrukkerij, 1924) 196–199, for the year 1913; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 119–120, for the period 1916–1926; Pelzer, *Pioneer settlement in the Asiatic tropics*, 256, for the years 1928–1938.
[111] Berkhuysen, *De drainagetheorie voor Indonesië*, 98; Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 107. Another calculation by Haccoû shows that during the 1920s wages were 30% of the production costs in the sugar industry and 40% in the rubber industry, Haccoû, *De Indische exportproducten*, 91.
[112] J. Thomas Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer*

century, around two-thirds of the coolies were Chinese and one-third Javanese. At the end of the 1910s around 25,000 Chinese coolies were left in North Sumatra and all new coolies were Javanese. One reason for this shift from Chinese to Javanese coolies was that Javanese coolies were cheaper than Chinese coolies. In addition, the Javanese were assumed to be more easily disciplined. The import of cheap labour could have lowered the overall wage level. This effect could also have materialised in the area surrounding the foreign estates and affected other businesses, even after the contracts of the coolies expired. This competition for lower wages could have prevented the economic development in these areas.[113]

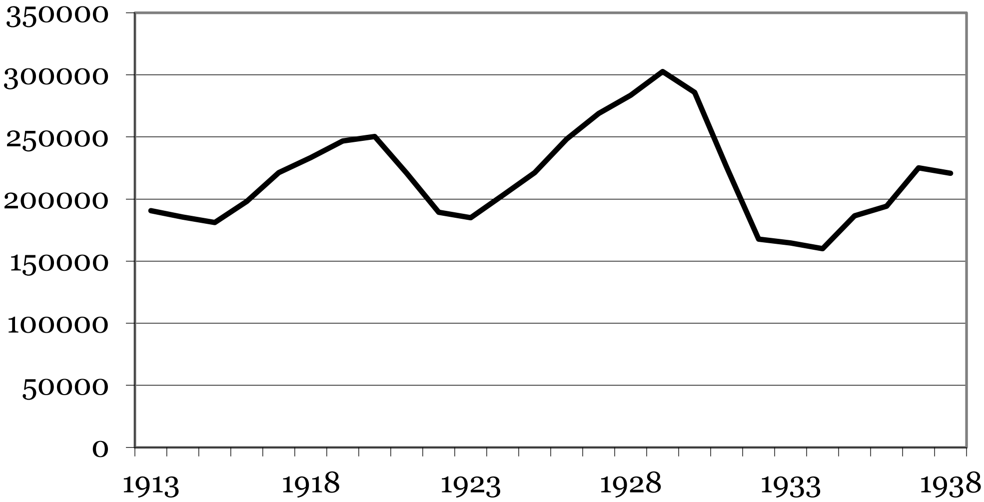
As with the sugar industry in Java, wages paid by members of the employers' organisations DPV, most of whom were in the tobacco industry in North Sumatra, plummeted in the 1930s. In the rubber industry, on the other hand, wages paid by members of the AVROS recovered after the International Rubber Restriction Agreement of 1934, which facilitated a recovery of the rubber industry.[114] But even in this industry, at the end of the 1930s, the average wage bill paid was only slightly more than one-half compared to the peak (Figure 4.3).

Islands, c. 1900–1940 (Wiesbaden: Harrassowitz Verlag, 1999) 43–78, in particular 52–58.

[113] Vincent J.H. Houben, 'Introduction: The coolie system in colonial Indonesia', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 1–25, in particular 3; Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', 25, 52; Jan Breman, *Taming the coolie beast: Plantation society and the colonial order in Southeast Asia* (Delhi: Oxford University Press, 1989) 50–64; Ann Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979* (Ann Arbor: The University of Michigan Press, 1995) 3–4.

[114] Hiroyoshi Kanō, *Indonesian exports, peasant agriculture and the world economy, 1850–2000: Economic structures in a Southeast Asian state* (Singapore: NUS Press, 2008) 62.

Figure 4.2. Total number of coolies in North Sumatra, 1910–1938.

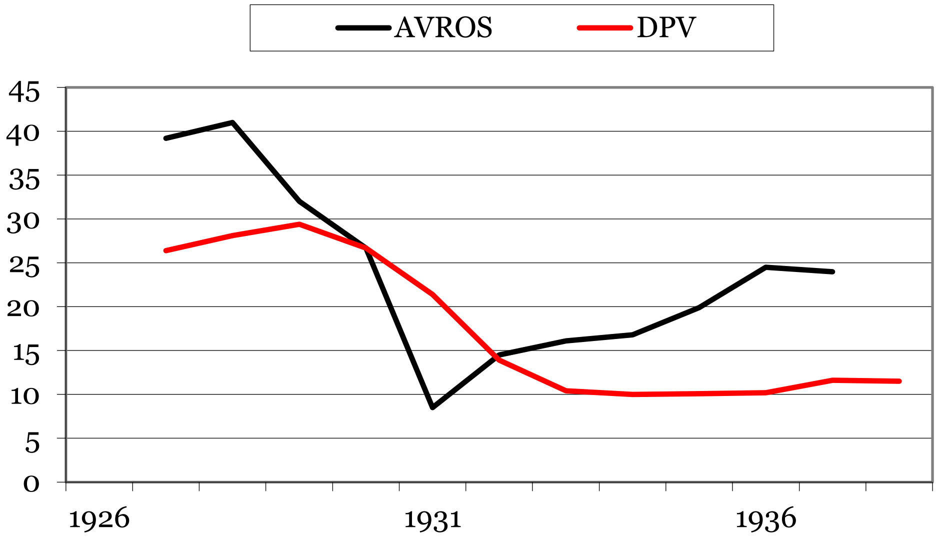


Source: Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', 52–58, 72.

Wages for unskilled labourers at plantations in Java did not necessarily differ from wages for similar work. However, in the indigenous industries, part-time work and piece wages were more common. People usually got paid on the basis of the work that had been done, instead of receiving a fixed daily wage.[115] Van der Eng claims that the wages of coolies in the Outer Islands were usually lower than the income local dwellers in the Outer Islands could have earned had they been self-employed. Outside Java, it was more difficult for foreign estates to hire local workers for low wages.[116] Yet, minimum coolie wages in North Sumatra remained virtually constant throughout the 1910s.

[115] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 23; Nico Dros and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 13: Wages 1820–1940* (Amsterdam: KIT, 1992) 31–32, 111–141; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 115–117; Putman Cramer, 'De Indische begrooting 1923 in de tweede kamer der Staten-Generaal', 201–202; Van Ginkel, *Verslag van den economischen toestand der inlandsche bevolking*, 194.
[116] Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 23–24.

Figure 4.3. Total wage payments to indigenous employees by AVROS and DPV members, in million guilders, 1926–1938.



Source: Deli Planters Vereeniging (DPV), *Jaarverslag* (Medan: Köhler & Co., 1914–1938); Algemene Vereeniging van Rubberplanters ter Oostkust van Sumatra (AVROS), *Jaarverslag* (Medan: Algemene Vereeniging van Rubberplanters ter Oostkust van Sumatra, 1910–1940).

Common wages for male coolies were around 35–40 cents per day during the 1910s. For females it was even lower, at 30–35 cents per day. In 1920, nominal coolie wages increased by around 60% compared to 1919, but this was primarily compensation for rapid inflation and did not reflect a more generous attitude on the part of foreign employers. Between 1918 and 1920 rice prices rose from 18 cents to 29 cents per kg. Price rises in the Outer Islands were possibly higher than in Java, but supporting evidence is scarce.[117]

The DPV and AVROS sought to maintain the cheap labour policy by cooperation between employers in order to avoid competition. The organisations claimed that they would prefer to improve working conditions rather than to control workers by coercive measures.[118] It is questionable whether the form of contract labour used, with its harsh penal sanction, can be considered as free market labour. The penal sanction was the chief device

[117] Creutzberg and Van Dooren, *CEI. Vol. 5*, 75; Touwen, 'Regional inequalities in Indonesia in the late colonial period', 110; Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', 53.
[118] Thee, *Plantation agriculture and export growth*, 96–98.

for control of the coolie labour. During the 1920s the employers' organisations AVROS and DPV defended the penal sanction. In 1931, the penal sanction was abolished by the colonial government in the Netherlands Indies and from 1931 onwards, tobacco companies would only hire 'free' labourers, under contract but without penal sanction. It is unlikely that wages were determined solely by demand and supply of labour in the indigenous economy nor that wages in foreign-controlled industries fully reflected the value of labour in comparison to alternatives in the indigenous economy. The extensive use of immigrant labour was bound to have exerted a downward pressure on local wage levels at large.[119]

Overall, wages showed considerable variation depending on region and industry. Coolie wages in North Sumatra were only slightly higher in the 1930s than in the Javanese sugar industry. In the petroleum industry, differences were larger and on average wages were higher in the Outer Islands than in Java. Skilled workers earned more than unskilled workers in both the indigenous and foreign-owned industries and based on wages alone there was not much difference between an indigenous or a foreign employer (Appendix 25).[120] Summing up, we may say that over time large amounts flowed into the domestic economy from foreign firms. It is important to contrast such flows with macroeconomic variables such as GDP.

In 1924, which was a good year for the sugar industry, these estates accounted for nearly one-half of the total wages paid by foreign private companies in the Netherlands Indies. The sugar industry spent ƒ92.2 million on wages, whereas other foreign private companies taken together paid ƒ99.7 million.[121] In Java alone, ƒ21 million was paid by rubber companies, ƒ17.4 million by the tea industry, ƒ15 million by coffee plantations and in the

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[119] Ellen Leenarts, 'Coolie wages in Western enterprise in the Outer Islands', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 131–156, in particular 138–141; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 42; Gerlof D. Homan, 'That 'beautiful tobacco': The Sumatra cigar wrapper and the American tariff, c. 1880–1941', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 50 (1987) 145–156, in particular 151–154; H.J. Langeveld, 'Arbeidstoestanden op de ondernemingen ter oostkust van Sumatra tussen 1920 en 1940 in het licht van het verdwijnen van de poenale sanctie op de arbeidscontracten', *Economisch- en Sociaal-Historisch Jaarboek*, Vol. 41 (1978) 294–368, in particular 301–304.
[120] Dros and Van Dooren, *CEI. Vol. 13*, 109–126, 131–137.
[121] Gordon, 'The collapse of Java's colonial sugar system and the breakdown of independent Indonesia's economy', 260; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 122; Mangkusuwondo, *Industrialization efforts in Indonesia*, 68.

Netherlands Indies as a whole ƒ17.5 million by tobacco estates and ƒ9.2 million by petroleum companies (Figure 4.4 and Appendix 24).

In 1924, the colonial government paid ƒ158.8 million in wages to the indigenous population. This was less than the ƒ191.1 million spent by all foreign estates combined. However, the colonial government had paid ƒ187.4 million in 1920 and ƒ191.3 million in 1922.[122] In 1924 the GDP of the Netherlands Indies was ƒ4,728 million, of which ƒ3,459 million accrued to indigenous Indonesians. If we compare this figure with the wages paid in the sugar industry, these wages corresponded to 2.7% of total indigenous income of the Netherlands Indies, and if we include income from other foreign private companies that proportion increases to 5.5%.[123]

Wages for Europeans were on average 47 times higher than those of indigenous Indonesians in 1930 and for Chinese they were 5 times as high. In 1939 wage differences had increased to 61 and 8 times the wages for indigenous Indonesians, respectively. Europeans obviously had different kinds of occupations and greater opportunities to move into jobs with higher wages.[124] Differences between Indonesians and Europeans, therefore, were strikingly large and continued to increase until the end of the 1930s.[125] The number of European workers on estates was of course much smaller than the number of Indonesian workers. The share of indigenous wages paid by foreign firms in the macro-economy was still substantial. Between 1927 and 1936, DPV members paid 80–85% of their salaries to indigenous workers.[126]

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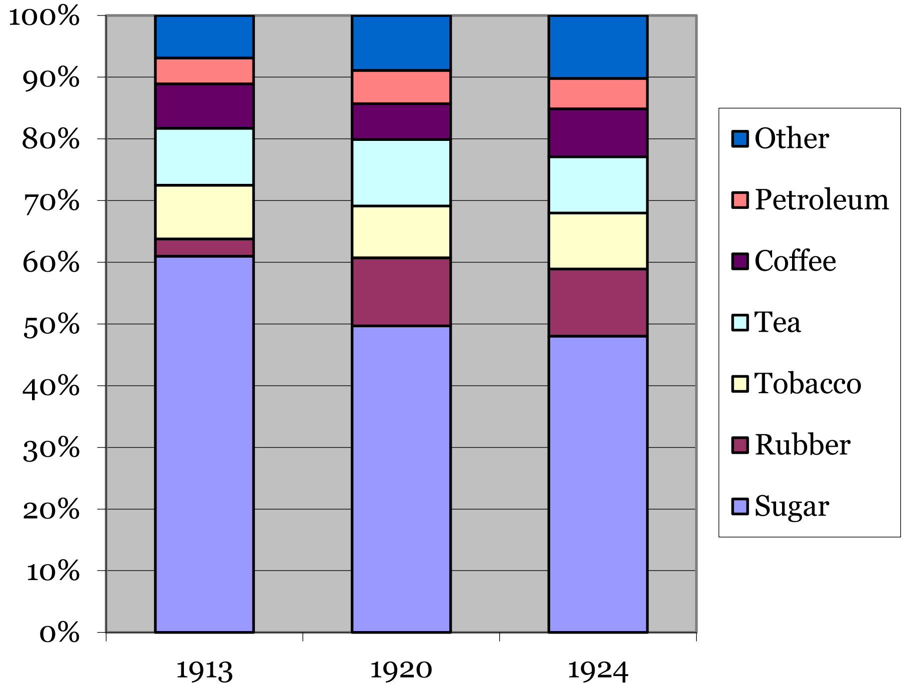
[122] Van Ginkel, *Verslag van den economischen toestand der inlandsche bevolking*, 196–199; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 164.
[123] Creutzberg and Van Dooren, *CEI. Vol. 5*, 70.
[124] Polak, *The national income of the Netherlands Indies, 1921–1939*, 49.
[125] Creutzberg and Van Dooren, *CEI. Vol. 5*, 76–77; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 117–118.
[126] Deli Planters Vereeniging (DPV), *Jaarverslag 1914–1938*.

Figure 4.4. Total wage payments as a proportion of total wage bill by sector, in 1913, 1920 and 1924.



Source: De Malines van Ginkel, *Verslag van den economischen toestand der inlandsche bevolking*, 196–199; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 164.
Note: data for rubber, tea and coffee are only for Java.

'Social provision'[127]

In addition to payments for wages and use of land, foreign employers also incurred expenditure that benefitted indigenous workers indirectly, such as healthcare, housing and schooling. This corporate social responsibility mainly served to increase the productivity of the workforce. It was a response to criticism of poor working conditions in factories, including work by children and women. The companies agreed that labour conditions should be improved, but not at the expense of profitability.[128] This attitude was common

[127] For this paragraph I am particularly indebted to Frank Ochsendorf.
[128] Archie B. Carroll, 'A history of corporate social responsibility: Concepts and practices', in: A. Crane et al. (eds), *The Oxford handbook of corporate social*

in the sugar industry in Java. At the Sugar Congress in Surabaya in 1911, the chairman, A. Paets tot Gansoyen, stated that the sugar industry was a business run with the intention of making a profit. It was not a philanthropic organisation with the purpose of benefiting the indigenous population. According to him, the sugar companies should only treat their indigenous workers well and make sure that they were compensated fairly for their work. This mentality was still present in the sugar industry in 1928 when the Ethical Policy had already been implemented for almost three decades.[129] We must not overestimate the philanthropy of the companies. J.H.F. Kohlbrugge argued that employers in the Netherlands did more for their employees than sugar companies in the Netherlands Indies.[130] Although expenditure for such purposes was little, we can nevertheless observe indirect benefits of a qualitative character that need to be taken into account, in particular with respect to housing, healthcare, drinking water and education.

Expenditures for such benefits fluctuated a great deal, but reached a maximum in the sugar industry during the boom of the 1920s (Figure 4.5). These costs were of a comparable magnitude to outlays on irrigation and infrastructure. Taking all such outgoings together, including those for irrigation and infrastructure, ƒ46 million was spent in total during the years 1915–1924. This was less than 10% of the amount the sugar companies paid in the form of wages for indigenous employees.[131]

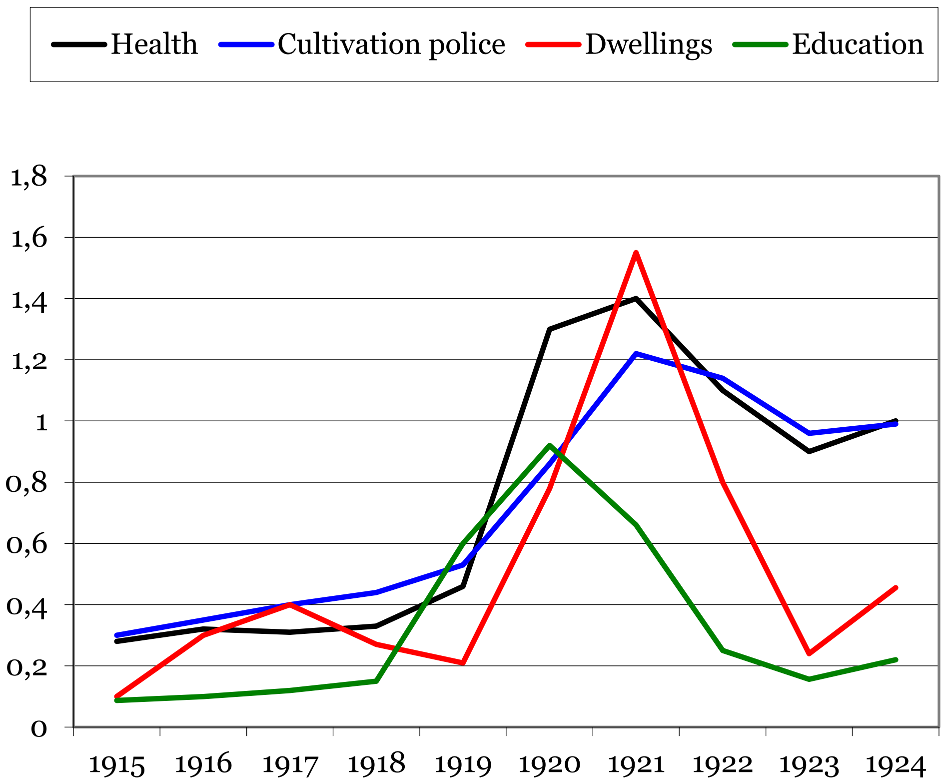
responsibility (Oxford: Oxford University Press, 2008) 19–46, in particular 2–4; Frank Ochsendorf, 'Colonial corporate social responsibility: Company healthcare in Java, East Sumatra and Belitung, 1910–1940', *Lembaran Sejarah*, Vol. 14 (2018) 83–97, in particular 94–96.

[129] J. Poll, *Handelingen van het 10de congres van het Algemeen Syndicaat van Suikerfabrikanten in Nederlandsch-Indië* (Surabaya: H. Van Ingen, 1928) 11.

[130] Kohlbrugge, *Is grondverhuur aan suikerfabrieken een zegen of een vloek voor den Javaan?*, 24–25.

[131] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 119–120, 136; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 186–190, 202.

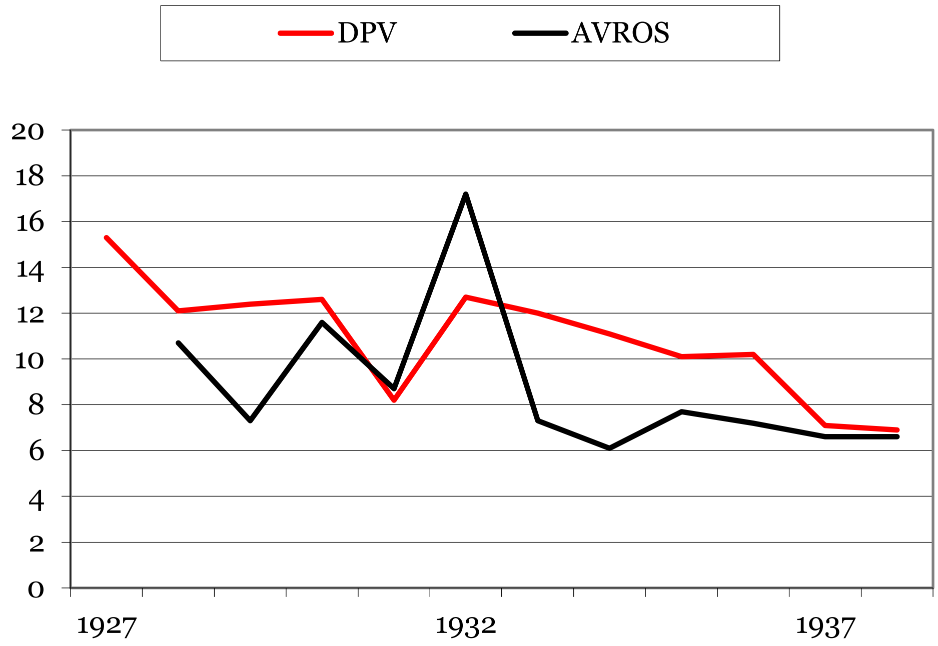
Figure 4.5. Total social expenditures by sugar companies in Java, 1915–1924, in million guilders.



Source: Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 136.

A comparison with North Sumatra offers additional insights. Expenditures on additional employment benefits in the tobacco and rubber industries in North Sumatra were higher than in Java sugar when calculated as a proportion of indigenous income. For DPV and AVROS members, the expenditure on healthcare and housing alone were higher, corresponding to 10% of the amount spent on wages for indigenous employees (Figure 4.6).

Figure 4.6. Corporate expenditure on healthcare and housing of the indigenous workforce at DPV and AVROS members, 1927–1938, as proportion of total wage bill.



Source: Deli Planters Vereeniging (DPV), *Jaarverslag 1914–1938*; Algemene Vereeniging van Rubberplanters ter Oostkust van Sumatra (AVROS), *Jaarverslag 1910–1940*.
Note: For DPV, these costs are specified as medical help and expenditure for rice and housing, whereas for AVROS these expenditures are mentioned as hospital costs and expenditures for rice.

Housing

The construction of homes and hospitals by foreign employers had a more direct impact on the indigenous workforce, than irrigation works and roads, which were initially constructed to facilitate production. With homes and hospitals, the indigenous workers were the first to benefit.[132] From 1880 foreign firms were legally required to provide housing for contract coolies in North Sumatra, but the quality of living conditions were very poor. Initially,

[132] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 131–132; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 7; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 196–212.

workers were crowded into barracks that were built of the simplest materials possible. Families lived separately from the barracks provided for single workers. Only with the introduction of the Labour Inspectorate in 1908 did the housing situation began to gradually improve. More attention, for example, was given to hygienic matters.[133]

The Senembah tobacco company was the first one to build houses for individual families. By 1917 it had constructed 725 such houses. This number grew gradually until in 1935, 2,901 of them had been built. Before the economic depression of the 1930s, it was becoming increasingly popular to attract full-time employees, and these workers required decent housing.[134]

The sugar industry, with its large contingent of seasonal labourers, spent *ƒ*5 million in total on construction and improvement of accommodation between 1915 and 1924. However, this was on average *ƒ*3,351 spent by each company every year. Therefore, the construction of dwellings only occurred on a smaller scale in the direct vicinity of the companies. Due to the large number of workers in the sugar industry, it was impossible to provide decent housing for everyone. Gradually, the situation improved and more houses were constructed from stone instead of wood.[135]

This trend was visible elsewhere as well. In Pangkalan Brandan in North Sumatra, BPM housed contract coolies in primitive shacks in the early years, but then the situation improved. After experimenting with rows of mass dwellings in the early twentieth century a *desa* (village) was created in 1911, consisting of 200 houses and plots. Every individual dwelling was adequate for one family and the plots could be used for cultivating various crops. The framework of the houses consisted of wooden poles provided for free to the coolies, but they had to cover them by themselves. Unfortunately, this system proved unsuccessful. In 1914 cases of plague had been noted in North Sumatra and the *desa* built by BPM had deteriorated and was infested with rats, so that

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133 J. Tideman, 'De huisvesting der contractkoelies ter Oostkust van Sumatra', *Koloniale Studiën*, Vol. 3 (1919) 125–150, in particular 125–127; E.P. Snijders, 'Koeliehuisvesting en geneeskundige dienst op rubberondernemingen', in: N.L. Swart & A.A.L. Rutgers (eds), *Handboek voor de rubbercultuur in Nederlandsch-Indië* (Amsterdam: De Bussy, 1921) 727–775, in particular 735; Kantoor van Arbeid, *Eerste verslag van den dienst der arbeidsinspectie en koeliewerving in Nederlandsch-Indië; Deel I. Oostkust van Sumatra* (Batavia: G. Kolff & Co, 1913) 77–78; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 40.

134 H. Heinemann, 'Het hygiënisch werk der Senembah-Maatschappij gedurende de laatste jaren', *Geneeskundig Tijdschrift voor Nederlandsch-Indië*, Vol. 75 (1935) 524–533, in particular 527–533; H. Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor* (Zutphen: De Walburg Pers, 1987) 74–76.

135 Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 132–133; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 200–202.

there was no other solution than to demolish the houses and replace them with stone houses, even though this meant additional expenses for the company.[136]

The indigenous population also benefitted indirectly from the presence of security forces on the estates. The sugar companies in Java spent more money on the so-called *cultuurpolitie* ('cultivation police') than they paid for the housing of their workers. The protection of the crops and estates from theft and fire was the main task but this would obviously also contribute to the safety of indigenous workers on the plantations.[137] These security forces were mostly present at sugar estates in Java as a consequence of a lack of local police.[138] The experiences from estates in Jember, Tanggul and Tenggarang were positive, and as a result other sugar companies in East Java also set up these forces. During the 1920s, other industries also made use of the cultivation police. In Blitar, Jember, Kediri and Malang, coffee plantations had similar forces after initially relying on the official police and even the military. In Kedewan, in East Java, the BPM also employed private security forces.[139] However, when the economic situation deteriorated in the 1930s, the size of these security forces dropped considerably, and in Jember and Kediri they were abolished altogether.[140]

Hospitals

In Java, the sugar industry played an important role in improving the healthcare of its workers. The facilities at the different sugar companies, however, varied in size and quality.[141] A survey by the Sugar Syndicate in 1919 showed that of the 138 listed companies only six had their own private hospitals with full-time doctors. One of them was the Djatiroto factory, owned by HVA. It was more common for a doctor to visit several plantations a week, though he was not able to solve every medical complaint for every estate

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[136] Gerretson, *History of the Royal Dutch*, Vol. 4, 77–79.

[137] Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 192; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 135–136; Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 190.

[138] Other companies such as the BPM also maintained security forces in Balikpapan for the protection of their oil refinery, Lindblad, 'The petroleum industry in Indonesia before the Second World War', 72.

[139] NL-HaNa: MvO, 82, Blora, 1930; NL-HaNa: MvO, 121, Besoeki, 1925.

[140] NL-HaNa: MvO, 84, Oost-Java, 1933; NL-HaNa: MvO, 123, Bondowoso, 1929; NL-HaNa: MvO, 115, Probolinggo, 1932.

[141] P.W.L. Penris, 'Het aandeel der landbouwondernemingen op Java in de geneeskundige voorzieningen van Nederlandsch Indië', *Nederlands Tijdschrift voor Geneeskunde*, Vol. 92 (1948) 1438–1445, in particular 1438.

worker. Some companies worked together to build a hospital; in Situbondo, in East Java, a hospital was operated by eight different sugar companies and here, both indigenous and European employees were treated.[142]

In those few places that boasted a company hospital – at Cirebon, Mojokerto, Pekalongan, Purwokerto and Tegal, as well as Djatiroto – badly injured workers could be treated on-site. However, these facilities were mostly out of reach for those who did not work for the companies.[143] Less severe injuries were usually treated in the more scattered polyclinics, and medicines for all kinds of diseases were distributed from here. Treatment was often available for free, and for the surrounding villages as well.[144] This was done to increase the number of local people able to work, and to prevent diseases from spreading to the estates and their workforce. More systematic attempts to eradicate diseases or prevent malaria from occurring did not take place, and vaccinations were not common.[145] After 1900, there was a rise in the number of indigenous patients, as the population was becoming more accustomed to Western healthcare and medicine. By 1930, there were 60 hospitals run by companies in Java.[146]

In North Sumatra, the situation was different for coolie labourers. It was mandatory for the employers to provide medical care for their workers and families. Although the Coolie Ordinance was rather ambiguous about what was considered reasonable healthcare, the coolies also had an obligation to look after themselves. They were required to get vaccinations and other treatments when injured or sick. In this way, it was possible to provide more efficient and large-scale medical care. In 1930 the number of hospitals run by companies reached a total of 47, the highest so far, but by 1940 this number had dropped to 28 hospitals.[147] Nevertheless, improvements in medical care did take place in the long run and research was done in private laboratories.

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142 NL-HaNa: MvO, 123, Bondowoso, 1929; Ochsendorf, 'Colonial corporate social responsibility', 84–87.
143 NL-HaNa: MvO, 91, Modjokerto, 1931.
144 Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 196–197.
145 J.J. van Loghem, 'Geneeskundige en hygiënische voorziening op en om suikerfabrieken', *Archief voor de suikerindustrie in Nederlandsch-Indië. Orgaan van het Algemeen Syndicaat van Suikerfabrikanten in Ned.-Indië*, Vol. 28 (1920) 839–859, in particular 846.
146 Sjoerd Zondervan, *Patients of the colonial state: The rise of a hospital system* (PhD thesis, Maastricht University, 2016) 168, 170.
147 Kantoor van Arbeid, *Eerste verslag van den dienst der arbeidsinspectie en koeliewerving in Nederlandsch-Indië; Deel I. Oostkust van Sumatra*, 79; W. Kouwenaar, 'De gezondheidszorg ter Oostkust van Sumatra, 1911–1935', *Geneeskundig Tijdschrift voor Nederlandsch-Indië, Feestbundel,* Vol. 76 (1936) 286–302, in particular 287.

The one at the Senembah Company, for instance, played a key role in the development of vaccines and preventive measures.[148] Gradually, death rates of workers dropped and their life expectancy rose; yet both figures improved from a very low starting point and the difference between an estate labourer and a villager was not significant. On the downside the distance between hospitals could be quite large, which meant that they were out of reach for many workers or their families, and making it often impossible to receive treatment for even minor injuries. Apart from constructing hospitals, the companies also tried to improve the living conditions of their workers by providing rice at reduced prices.[149]

Schools

The indigenous population was more likely to benefit directly from education provided by the estates.[150] Under the auspices of the Ethical Policy, plantation holders in North Sumatra were urged to improve the education of the children and the workforce. However, in 1913 the facilities provided by the estates were poorly developed. Once estate owners realized that the children of the workforce who became educated would start finding other work, employers grew reluctant to provide further education. They were afraid that eventually nobody would be willing to work on the estates anymore, since children from the nearby villages also received schooling from the plantations.[151]

The estates in North Sumatra were urged by the government to improve the education they provided and by 1920 there were 50 schools in

[148] G.T. Haneveld, 'Van slavenhospitaal tot verantwoorde bedrijfsgezondheidszorg; medisch werk in de cultuurondernemingen van Sumatra', in: G.M. van Heteren, A. de Knecht-van Eekelen and M.J.D. Poulissen (eds), *Nederlandse geneeskunde in de Indische archipel, 1816–1942* (Amsterdam: Atlanta, 1989) 69–82, in particular 72, 77–79.
[149] W. Kouwenaar, 'Geneeskundige voorziening op Sumatra's Oostkust', *Nederlands Tijdschrift voor Geneeskunde*, Vol. 92 (1948) 1293–1301, in particular 1299; H. Gooszen, *A demographic history of the Indonesian archipelago* (Leiden: KITLV Press, 1999) 201; Kantoor van Arbeid, *Eerste verslag van den dienst der arbeidsinspectie en koeliewerving in Nederlandsch-Indië; Deel I. Oostkust van Sumatra*, 81; M. Straub, *Kindersterfte ter Oostkust van Sumatra* (Amsterdam: KIT, 1928) 1–5; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 43; Ochsendorf, 'Colonial corporate social responsibility', 87–89.
[150] Besides education estates also provided leisure activities for their workers such as sporting facilities, cinemas and sometimes even libraries, Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 202–204.
[151] Kantoor van Arbeid, *Eerste verslag van den dienst der arbeidsinspectie en koeliewerving in Nederlandsch-Indië; Deel I. Oostkust van Sumatra*, 85.

North Sumatra.[152] Nevertheless, only one in 20 of the indigenous population attended school in the Deli region, whereas for the total Outer Islands combined this share was as low as one in 50. But, this tells us more about the public education provided by the government than estate education alone, since in 1930 only 7% of all children on estates received any form of education. Moreover, sometimes children did enter the workforce and work on estates instead of going to school. Apparently, the estate holders were not eager to provide education to children who would eventually leave the estates and find better employment due to the schooling they received at the estate. Despite all their good intentions, the estates held by the view that education was a job for the colonial government.[153]

The Senembah Company also declared that the task of its own schools was to bring discipline and order to children and employees. The education given was relevant for and similar to the work that had to be done on the plantations. This was considered more important than to make the children literate with the possibility that they would find employment elsewhere. Similar visions on education were common at the sugar plantations in Java as well.[154]

Other aspects of the accumulation of knowledge included spillovers or demonstration effects. The example of smallholder rubber cultivation has been discussed extensively. Thee Kian Wie and Van der Eng argue that the demonstration effect was important for the development of the indigenous rubber production in Sumatra and Kalimantan. They claim that the technique for rubber cultivation was learned at the estates, with former estate workers starting out as independent smallholders. More likely, the vast Chinese trading network played a role as well in stimulating smallholder trade.[155] Booth argues that most smallholder activities did not develop in the proximity of large Western plantations. Therefore, the demonstration effects were small.[156] Touwen argues that even if techniques of rubber tapping could have

[152] NL-HaNa: MvO, 184, Oostkust van Sumatra, 1917; NL-HaNa: Deli Maatschappij, Dochtermaatschappijen en Gefuseerde Bedrijven N.V., 1869–1989, 32–36, Decennial report regarding the developments of the Deli Company.
[153] Deli Planters Vereeniging (DPV), *Jaarverslag 1914–1938*; *Statistical abstract for the Netherlands Indies, 1930* (Weltevreden: Centraal Kantoor voor de Statistiek, 1931); Kantoor van Arbeid, *Verslag van den dienst der Arbeidsinspectie 1921/22* (Weltevreden: Kolff, 1923) 24.
[154] Senembah Maatschappij, *Leerplan voor de scholen der Senembah Mij.* (Medan: Varekamp, 1926); NL-HaNa: Cultuurmaatschappij Kadhipaten N.V., 1905–1957, 239, Received letters from representatives, 16–04–1926.
[155] Thee, *Plantation agriculture and export growth*, 17–18; Van der Eng, *Agricultural growth in Indonesia*, 233; Lindblad, *Between Dayak and Dutch*, 61.
[156] Booth, *Agricultural development in Indonesia*, 17, 221.

been learnt from former estate workers, this was only relevant in the early stages of production. The knowledge would have been acquired anyway, since the process was not very complicated. Moreover, production was stimulated by intermediary traders such as the Chinese, which shows that their influence was important as well for smallholder production.[157]

Besides providing various benefits for employees directly, estates also paid taxes to the colonial government. As a result, foreign private companies contributed indirectly to irrigation works, infrastructure, healthcare, schooling and other services that were initiated by the government. We will turn to these contributions now.

4.5 Fiscal linkages

Taselaar argues that economic cooperation between business organisations in the Netherlands Indies and the Netherlands was often problematic, and that there was a lack of interest in the Dutch government for private business initiatives in the colony. One consequence of the government policy, notably keeping the gold standard, was that exports of manufactured goods from the Netherlands Indies to the Netherlands were disadvantaged.[158] Whether a different policy would have led to a higher output of finished products and caused more linkages, falls outside the scope of this dissertation.

However, the system of taxation in the Netherlands Indies also had important repercussions for private foreign companies there. Various taxes were levied in the Netherlands Indies, including personal income tax, land tax, import and export tax and various excise taxes paid by either the indigenous population, the foreign population or both. In this section I have focused on the tax burden borne by foreign firms, in particular corporate tax. Such taxes may be considered to form fiscal linkages generating income for the colonial state, which was financially separate from the mother country from 1867. This income was spent on, and may have been beneficial, to indigenous Indonesians, either directly or indirectly.[159]

The tax base for the colonial state changed around 1900. Substantial profits were made from the Cultivation System up to 1870 and then replaced

[157] Touwen, *Extremes in the archipelago*, 192–193.
[158] Taselaar, *De Nederlandse koloniale lobby*, 461–462.
[159] Anne Booth, 'The burden of taxation in colonial Indonesia in the twentieth century', *Journal of Southeast Asian studies*, Vol. 11 (1980) 91–109, in particular 93; Touwen, *Extremes in the archipelago*, 127; P. Creutzberg and Petrus Johannes van Dooren, *Changing economy in Indonesia (CEI): A selection of statistical source material from the early 19th century up to 1940. Vol. 2: Public finance 1816–1939* (The Hague: Nijhoff, 1976) 19–25.

by other types of taxes.[160] In 1878 the *patentrecht* (patent right tax) was introduced in Java. Its explicit purpose was to tax Dutch corporations operating on the island. The indigenous population had been subject to a similar tax since 1839. The patent right tax could be levied on all kinds of profits that were made by the Dutch. This tax amounted to 2% of the total income, but many sources of income were excluded. People who earned a salary or were employed by the government or worked for a Dutch trading company which was subject to income tax in the Netherlands were exempted from paying this tax. In practice, it did not prove easy to tax Dutch companies, and in 1897 they were exempted from paying this tax. As a compensation, the colonial authorities would receive payments originating from corporate taxes paid in the Netherlands. In fact, these companies did not pay any tax at all. Even Dutch insurance companies liable to pay the patent right tax did not pay tax after 1897 in the Netherlands Indies. In 1905, the situation changed when profits made by Dutch companies in the Netherlands Indies were taxed at a rate of 1%. A low rate applied as these companies had already been taxed in the Netherlands. In 1908 a general income tax for Europeans was introduced that also applied to Dutch-owned companies. Paid-out dividends were taxed if profits exceeded 5% of stated equity. A progressive tax rate was initially applied, but in 1913 it was altered into a fixed rate of 6%. On top of this tax, an *extrawinstbelasting* ('extra-profit' tax) could be levied, with a progressive rate from 6% up to 36% on the profits in excess of 10% of equity.[161]

When the First World War broke out, new taxes were introduced. A sugar tax implemented in 1916 was short-lived, since in 1917 the *oorlogswinstbelasting* (war profit tax) was introduced to compensate for

[160] Lindblad, 'Economische aspecten van de Nederlandse expansie in de Indonesische archipel, 1870–1914', 243.
[161] Abdul Wahid, *From revenue farming to state monopoly: The political economy of taxation in colonial Indonesia, Java c. 1816–1942* (PhD thesis, Utrecht University, 2013) 47, 265–266; J.H.R. Sinninghe Damsté, *De wet op de dividend en tantièmebelasting* (Zwolle: Tjeenk Willink, 1939) 167–169; Lancée, *Beknopt overzicht van het Nederlandsch-Indisch belastingrecht*, 6–8; Maarten R. Manse, R. Arendsen and M. Klever, 'De Indische loonbelasting in perspectief: Fiscale innovatie in koloniale context', *Maandblad Belasting Beschouwingen*, Vol. 87 (2018) 20–30, in particular 21–23; Maarten R. Manse, *Promise, pretence and pragmatism. Governance and taxation in colonial Indonesia, 1870–1940* (PhD thesis, Leiden University, 2021) 82–91; R.N.J. Kamerling, *De N.V. Oliefabrieken Insulinde in Nederlands-Indië: bedrijfsvoering in het onbekende* (Franeker: Wever, 1982) 196–200; M.W.F. Treub, *Nadere beschouwing over de Indische vennootschapsbelasting* (Weltevreden: Boekhandel Visser & Co., 1923) 9; Treub, *Nota van Mr. M.W.F. Treub*, 52–55; J.L. Vleming and J. van Gelderen, *Theorie en practijk van de Indische Belastingen: Lezingen gehouden te Weltevreden in de openbare vergadering van 4 april 1923* (Weltevreden: Indonesische Drukkerij, 1923) 22–23.

government losses as a result of the war. Profits during the First World War that were higher than average profits in normal years could be taxed at a rate of up to 30%, but only if it could be proven that such excessive profits were a result of the special conditions of war. Normal average profits were calculated by taking the average over the years 1911–1913.

Companies that could prove having paid tax in the Netherlands could be exempted from paying this tax anew in the Netherlands Indies. Yet, half of the revenue from this tax was to be transferred from the Dutch treasury to the Netherlands Indies. The sugar industry in Java was one sector contributing significantly to the treasury through this tax, since it benefitted considerably from growing demand and rising prices. Between 1920 and 1924 the sugar industry contributed at least 10% of the income of the treasury in the Netherlands Indies. Calculations for the total proceeds from the war profit tax from the estate economy run as high as ƒ238 million in total between 1916 and 1925. These taxes provoked vehement protest from the oil industry. The petroleum companies, together with other mining companies, paid a fee to the owner of the land, whether an indigenous sultan or the colonial government. The BPM, for instance, reserved ƒ1.4 million for concessions in 1925, and in Southeast Kalimantan the sultan received 36% of the fee, the colonial government 44% and the Oost-Borneo Maatschappij (OBM, East Borneo Company) 20%.[162]

In 1925 a *vennootschapsbelasting* (corporate income tax) was introduced in the colony, which remained effective during the entire colonial period and even afterwards. It replaced existing profit taxes. 10% of the net profit was taxed and went to the treasury of the Netherlands Indies. Regressive taxation was obviously preferred by most companies over a progressive rate. Compared with other taxes at this time, the rate was quite high, especially when compared to other colonies. Companies with headquarters in the

[162] Wahid, *From revenue farming to state monopoly*, 172; Lancée, *Beknopt overzicht van het Nederlandsch-Indisch belastingrecht*, 8; *Oorlogswinstbelasting voor Nederlandsch-Indië* ('s-Gravenhage: Martinus Nijhoff, 1918), 1; C. Schlick, 'De Indische oorlogswinstbelasting', *Economisch-Statistische Berichten*, Vol. 25 (1940) 158–160, in particular 158–159; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 173; Taselaar, *De Nederlandse koloniale lobby*, 226–236; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 127; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 130–144; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 104–105; F.W. Diehl, 'Revenue farming and colonial finances in the Netherlands East Indies, 1816–1925', in: John Butcher and Howard Dick (eds), *The rise and fall of revenue farming. Business elites and the emergence of the modern state in Southeast Asia* (New York: St. Martin's Press, 1993) 196–232, in particular 205; Jonker and Van Zanden, *A history of Royal Dutch Shell: From challenger to joint industry leaders, 1890–1939*, 267–269; Lindblad, *Between Dayak and Dutch*, 140.

Netherlands could only be taxed for the portion of profit made in the Netherlands Indies. If tax had been paid in the Netherlands as well, they would be partly exempted from paying corporate income tax in the Netherlands Indies. During the latter half of the 1920s and 1930s, the fiscal system was developed further. The rate of corporate income tax was gradually raised and amounted to 20% in 1934.[163]

How much of the total tax yield originated from foreign companies? Corporate and personal taxes were the two most important taxes levied by the colonial government. Taken together, they accounted for more than 30% of total tax revenue for the colonial government from the 1920s onwards. Land tax paid by the indigenous population remained another important tax, but its share in total tax revenue gradually dropped. Import tax and various excises were significant as well (Table 4.1). They were paid by both the indigenous population and foreign estates, and included the highly controversial tax on indigenous rubber implemented in 1934, but which only applied to estates from 1936. Taxes on Japanese imports from 1933 benefitted Dutch manufacturing more than supporting local production.

[163] Lindblad, *Between Dayak and Dutch*, 139; J.H.A. Logeman, *De grondslagen der vennootschapsbelasting in Nederland en Indië* ('s-Gravenhage: Boekdrukkerij S.S. Korthuis, 1923) 8; A. Ritz, *De Indische inkomstenbelasting voor de naamlooze vennootschap* (Amsterdam: De Bussy, 1923) 2–8; Bernardus Johan Frederik Steinmetz, *De progressieve winstbelasting en het Nederlandsch-Indische belastingvraagstuk: Een fiscaal-vergelijkende en fiscaal-economische studie* (Amsterdam: De Bussy, 1923) 16–17; R. Mansury, *The Indonesian income tax: A case study in tax reform* (PhD thesis, Erasmus University Rotterdam, 1992) 13–16; Diehl, 'Revenue farming and colonial finances in the Netherlands East Indies, 1816–1925', 205; W.F. Prins, *Het belastingrecht van Indonesië* (Groningen: J.B. Wolters, 1951) 143; Wahid, *From revenue farming to state monopoly*, 266; Ondernemersraad voor Nederlandsch-Indië, *Advies van den Ondernemersraad voor Nederlandsch-Indië aan den Minister van Koloniën, betreffende het "eerste verslag van de commissie tot herziening van het belastingstelsel in Nederlandsch-Indië* (Helder: De Boer, 1924) 12; Frans Herman Visman, *Verslag van de commissie tot bestudeering van staatsrechtelijke hervormingen, ingesteld bij gouvernementsbesluit van 14 september 1940, No. 1x/KAB. Brief ter aanbieding van het verslag aan zijne excellentie den gouverneur-generaal en deel 1 Indië's ontwikkeling tusschen den Eersten en den Tweeden Wereldoorlog* (Batavia: Landsdrukkerij, 1941) 42–43; Booth, *Agricultural development in Indonesia*, 220; Ondernemersraad voor Nederlandsch-Indië, *De praktijk over de werking der Indische belastingen* ('s-Gravenhage: Ondernemersraad voor Nederlandsch-Indië, 1923) 5–28; J.L. Vleming, *De strijd om de Indische vennootschapsbelasting. Overzicht en beschouwing* (Haarlem: H.D. Tjeenk Willink & zoon, 1924) 1–5; I.I. Korndorffer, 'Enkele opmerkingen in zake belastingen op naamloze vennootschappen in Indië', *Koloniale Studiën*, Vol. 6 (1922) 158–172, in particular 162.

Table 4.1. Composition of colonial tax revenues in the Netherlands Indies in the period 1901–1940.

year	Income taxes		Land tax	Export taxes	Import taxes	Excises	Others
	personal	corporate					
1901–1905	8		32	3	18	10	29
1906–1910	13		26	3	20	12	26
1911–1915	20		21	3	23	11	22
1916–1920	22		16	3	23	9	27
1921–1925	37		9	3	19	7	25
1926–1930	15	17	11	4	25	11	17
1931–1935	21	5	13	4	22	18	17
1936–1940	16	16	8	12	18	21	9

Source: Wahid, *From revenue farming to state monopoly*, 274; Booth, 'The burden of taxation in colonial Indonesia in the twentieth century', 93.

During the 1930s, the income of the colonial state fell less sharply than GDP. In 1921 the GDP of the Netherlands Indies was ƒ3,955 million; by 1934 it had dropped to ƒ1,556 million. Meanwhile, revenue from taxes dropped from ƒ332.9 million in 1921 to ƒ221.6 million in 1934.[164] Expressed as a percentage of GDP, total tax revenue exceeded 10% during the 1930s. The yield from taxes was around one-third of the total revenue of the colonial government in the early 1910s, but this proportion increased to roughly two-thirds in the 1930s. Government monopolies and profits from government-owned companies accounted for the remaining share.

Overall, there was a rapid increase of tax yields after the end of the First World War. Tax revenues then remained relatively stable until the economic depression of the 1930s. Prior to the introduction of the corporate income tax in 1926, yields from taxes on companies amounted to ƒ42.1 million, after 1926

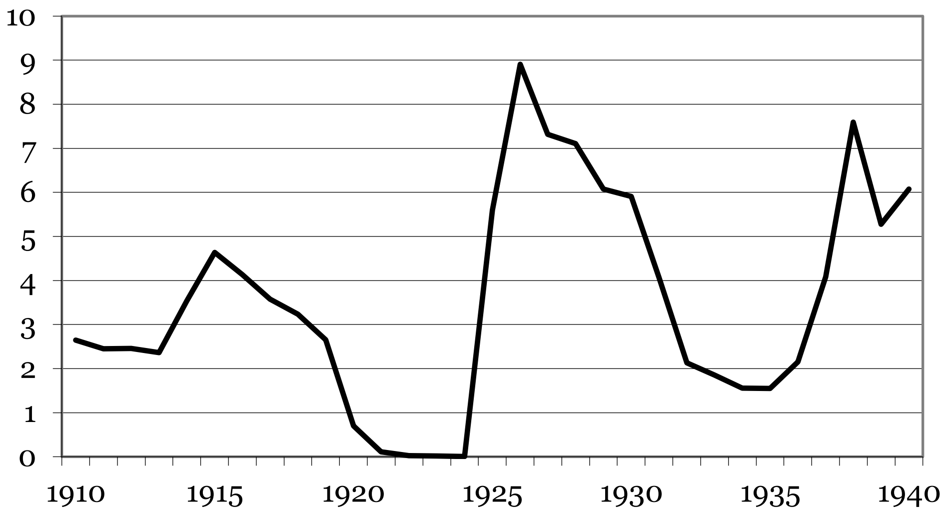
[164] Creutzberg and Van Dooren, *CEI. Vol. 2*, 64–67.

this amount rose to ƒ71.9 million.[165] In the following years, up to the economic depression this tax yielded around ƒ50 million each year. During the decade 1921–1930, company tax contributed 4.3% of total government revenue for the colonial state (Figure 4.7 and Table 4.2). During the depression, however, revenue from this tax dropped sharply to less than ƒ10 million annually. Yields from this tax only recovered in 1938. In 1940, the total government revenue was ƒ771 million, of which ƒ46 million or 6% originated from corporate income tax.[166]

[165] Joost Mellegers, *Government revenue in the Netherlands East Indies 1821–1940* (http://www.iisg.nl/indonesianeconomy/) last accessed, December 16, 2021. Note: Only includes direct taxes paid by companies, not war profit tax or import and export duties. War profit tax is in the source included in income tax. It is likely that a significant share of the income tax between 1919 and 1925 consisted of war profit tax. Adding this tax to the total company tax would show a steady increase of total tax revenue from the late 1910s until 1926.

[166] Wahid, *From revenue farming to state monopoly*, 273–274; Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 113–116; Weijer, 'De groote cultures', 302–304; Visman, *Verslag van de commissie tot bestudeering van staatsrechtelijke hervormingen*, 42–43; Creutzberg and Van Dooren, *CEI. Vol. 5*, 70; Creutzberg and Van Dooren, *CEI. Vol. 2*, 64–67; Sluyterman, *Dutch enterprise in the twentieth century*, 105; Pierre van der Eng, 'Surplus mobilisation in farm agriculture: A comparison of Java and Japan, 1870–1940', *Bulletin of Indonesian Economic Studies*, Vol. 42 (2006) 35–58, in particular 41.

Figure 4.7. Company tax as a percentage of total government revenue in the colonial state, 1910–1940.



Source: Mellegers, *Government revenue in the Netherlands East Indies 1821–1940*; Creutzberg and Van Dooren, *CEI. Vol. 2*, 64–67; *Koloniaal Verslag (Bijlagen C van het verslag der handelingen van de Tweede Kamer der Staten-Generaal)* ('s-Gravenhage: Algemeene Landsdrukkerij, 1868–1924); *Verslag van bestuur en staat van Nederlandsch-Indië, Suriname en Curaçao* ('s-Gravenhage: Algemeene Landsdrukkerij, 1924–1930); *Indisch Verslag* ('s-Gravenhage: Algemeene Landsdrukkerij, 1930–1940).

Table 4.2. Yields from various taxes as a share of total government revenue, 1910–1940.

	Company tax	Personal income tax	Import duties	Export duties	Total
1910–1920	2.7	5.5	7.4	0.8	16.4
1921–1930	4.3	12.5	9.6	1.4	27.8
1931–1940	3.9	6.6	8.5	3.6	22.6
1910–1940	3.8	8.9	8.6	2	23.3

Source: Mellegers, *Government revenue in the Netherlands East Indies 1821–1940*; Creutzberg and Van Dooren, *CEI. Vol. 2*, 64–67; *Koloniaal Verslag (Bijlagen C van het verslag der handelingen van de Tweede Kamer der Staten-Generaal)*; *Verslag van bestuur en staat van Nederlandsch-Indië, Suriname en Curaçao*; *Indisch Verslag*.

Revenue from personal income taxation was more stable than those from corporate income taxes. There was over time a slightly declining trend, although the minimum taxable income for Europeans was reduced in the early 1920s, with tax rates being more progressive than in the Netherlands. Revenue from personal income tax for the colonial state fell from around ƒ65 million in 1925 to ƒ36 million per year in the late 1930s. Wahid argues that the tax burden on the indigenous population gradually lessened. This could imply that Europeans and 'Foreign Asiatics' were taxed more heavily, and also that the taxation of companies became more important.[167] Booth, however, argues that the tax burden of the indigenous population did increase after 1920 and that foreign private companies had more leverage in influencing the tax policies of the colonial government. They were more successful in forestalling tax increases by claiming that it would damage their international competitive position.[168]

Foreign companies also contributed to other taxes. Company staff paid personal income tax, while import and export taxes also affected private firms. Indigenous Indonesians paid slightly less than half of all taxes combined over the period 1910–1940. But this proportion declined from the 1920s. The share of indigenous Indonesians in GDP was around 70%. Burger argues that the

[167] Wahid, *From revenue farming to state monopoly*, 273–274.
[168] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 147.

higher share of tax revenue from non-Indonesians resulted from taxes paid by foreign companies. Burger argues that direct and indirect taxes originating from activities of Western companies amounted to around 40% of total tax income in the Netherlands Indies prior to the Japanese occupation.[169]

During the period 1910–1940, the total government revenue was *ƒ*17.8 billion for the whole period, of which *ƒ*674 million from company tax, *ƒ*1,538 million from personal income tax, *ƒ*1,501 million from import duties and *ƒ*334 million from export duties. The burden of this tax was carried by shareholders overseas, while non-indigenous residents of the Netherlands Indies only accounted for 10%. Personal income tax and import duties were the foremost sources of tax revenue for the colonial state. Non-indigenous residents contributed about 30% of import and export duties, and 40% of excise taxes.[170] Between 70 and 90% of total personal income tax was paid by non-indigenous residents. It is likely that a substantial share of these taxes originated from the activities of foreign private companies. Therefore, the overall contribution of direct and indirect taxes by foreign firms to the colonial state exceeded 10% of total tax revenue, or roughly 5% of total government revenue, even taking into account that tax evasion by Europeans was estimated at around 10% by Polak. However, it does not seem very likely that 40% of total tax in some years originated from foreign companies as Burger at the time argued.[171]

It is hazardous to estimate how much the indigenous population benefitted from public expenditure financed by these taxes. Proceeds from taxes from all areas were collected by the exchequer in Batavia. From there, funds were distributed to regional authorities.[172] In the early twentieth

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[169] Lindblad, *Between Dayak and Dutch*, 150; H.J. van Brink, *De Indische ordonnantiën op de inkomsten- en productenbelastingen. Verzameld en van eene inleiding voorzien* (Amsterdam: De Bussy, 1921) 10, 172; Lancée, *Beknopt overzicht van het Nederlandsch-Indisch belastingrecht*, 12; Rudolf Johann Willem Reys, *De inkomstenbelasting der inlanders en met hen gelijkgestelden in Nederlandsch Oost-Indië* ('s-Gravenhage: Nijhoff, 1925) 78–82; Mansury, *The Indonesian income tax*, 10–13; Wahid, *From revenue farming to state monopoly*, 48; Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 113–116.

[170] For instance, between 1928 and 1935 the excises paid by BPM and Nederlandsche Koloniale Petroleum Maatschappij (Netherlands Colonial Petroleum Company, NKPM) in Cepu amounted to more than *ƒ*5 million each year; NL-HaNa: MvO, 81, Japara-Rembang, 1936.

[171] Burger, *Sociologisch-economische geschiedenis van Indonesia, Vol. 2*, 113–116; Booth, 'The burden of taxation in colonial Indonesia in the twentieth century', 99–100; J.W. Meijer Ranneft, and W. Huender, *Onderzoek naar den belastingdruk op de inlandsche bevolking* (Weltevreden: Landsdrukkerij, 1926) 17; Polak, *The national income of the Netherlands Indies, 1921–1939*, 37, government revenue included, besides tax revenue, non-tax revenues such as profits from state-owned companies, interest on loans and fees for licenses or concessions.

[172] Lindblad, *Between Dayak and Dutch*, 153.

century, more expenditures were intended for public works under the banner of the Ethical Policy, aided by the simultaneous increase in GDP. Investment in irrigation increased in particular. Government expenditure reached its peak around 1920, but dropped significantly in the first half of the 1920s. It then recovered somewhat in the second half of the decade, only to fall again during the economic depression of the 1930s. Developments of revenue and expenditure were quite similar. Revenue from taxes reached its peak around the 1920s as well. However, expenditures were then 25% larger than total tax revenue. As a result, a policy of cut-backs was introduced.

Interestingly, during the first quarter of the twentieth century, at a time of a booming economy, expenditure on education remained small, not exceeding 10% of the total budget. The share of public works was more than twice the figure for education, but it dropped during the 1930s, too. Defence and civil service were two other large sources of expenditure, with a combined share of around 30% of total expenditures of the colonial state.[173] Most expenditures were realized in Java, which took around 70% of the budget. It can be argued that more could have been spent on education, industrialisation, infrastructure and welfare, especially when taking into account that proceeds from the tax on smallholder rubber in Sumatra were spent on cars for Dutch officials and only a small part went to Indonesian education. Roads, bridges and other infrastructure in particular, were constructed near production sites dominated by Western estates.[174] However, even if more than 10% of the total tax revenue originated from foreign private companies and the corporate income tax can be considered high compared to other countries, it is questionable whether much of these proceeds would have benefitted the indigenous population rather than the colonial bureaucracy.

4.6 Conclusion

In this chapter, I have discussed various linkages and showed which types operated in selected regions and industries. Backward linkages were most

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[173] Lindblad, 'The late colonial state and economic expansion, 1900–1930', 119; Anne Booth, 'The evolution of fiscal policy and the role of government in the colonial economy', in: Anne Booth, William Joseph O'Malley and Anna Weidemann (eds), *Indonesian economic history in the Dutch colonial era* (New Haven, CT: Yale Center for International Studies, 1990) 210–243, in particular 221–225; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 135, 141, 145, 158; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 77, 99; H.J. van Oorschot, *De ontwikkeling van de nijverheid in Indonesië* ('s-Gravenhage: Uitgeverij W. van Hoeve, 1956) 26–27.

[174] Purwanto, 'The economy of Indonesian smallholder rubber, 1890s–1940', 190; Touwen, *Extremes in the archipelago*, 260, 302.

prominent. They were present in a variety of industries. Irrigation and infrastructure in Java are good examples, but backward linkages were not restricted to Java alone. Many foreign companies constructed roads, but there are no statistics available that allow us to estimate how much of the infrastructure was created by foreign companies and how much by the colonial government. Although roads were primarily constructed in the interest of the company, the indigenous population clearly benefitted from the improved infrastructure as well. Even during the economic depression and after independence, the effects of infrastructure were still present in Indonesia.

Foreign firms across the archipelago required materials and labour, which was provided by the indigenous population. This was a prerequisite for the construction of factories and facilities. The output of these companies, however, consisted of primary export commodities, and even though local processing took place, forward linkages were rare and the beneficial effects were more pronounced in the Netherlands than in the Netherlands Indies. This was especially the case for the processing of tin, for which specialized equipment was manufactured in the Western world as well.

Regarding the compensation for land use, wages and other final demand linkages, it is debatable whether the firms did enough for their workers. Did the advantages of working for a foreign company weigh up against the disadvantages for indigenous workers and were compensations fair considering supply and demand in the domestic labour market? Estates did pay for the use of land, but landowners were not always convinced that they were better off when leasing out their land.

In total, less than one-tenth of the indigenous population worked for foreign firms. Most wages, therefore, were earned in the indigenous economy and it would be misleading to argue that indigenous Indonesians were excessively dependent on employment in foreign firms. Estimates of the proportion of wages paid by foreign firms in aggregate income of indigenous Indonesians in Java vary from 5.5% in 1924 to 7.7% in 1939. In the Outer Islands this proportion was in the range of 8–10%. Van der Mandere, however, claims that during the peak years in the 1920s the sugar industry alone was responsible for up to 11.5% of all indigenous income in Java. Even though wages on certain plantations in Java could have been higher than for similar work in the indigenous industries, in the Outer Islands foreign companies found it difficult to recruit local workers and, therefore, resorted to importing cheaper labour. Wages earned by the Indonesian population employed by foreign companies did on average not differ much from what Indonesians were able to earn in other businesses. Nevertheless, the foreign companies did provide a wage income to a considerable number of impoverished landless Indonesians. Around 7% of the total workforce of the indigenous population was employed by foreign companies, excluding seasonal workers. Including seasonal workers it is plausible that around 10% of indigenous income originated from foreign companies and that 10% of the indigenous workforce was employed by these companies during peak years.

Additional indirect benefits for workers existed, and they benefitted the company as well. But like infrastructure, it was possible that the surrounding population could also gain from these services. Taxes were another aspect. Fiscal linkages appeared due to payment of company tax paid by foreign firms. Foreigners also contributed significantly to other taxes, including import and export duties, excise taxes and personal income tax. Although it cannot be established exactly which share of these residents worked for foreign companies and which share was paid by foreigners, it is arguable that more than 10% of the total tax income for the colonial state, or more than 5% of total government revenue, originated from operations by foreign firms. This can be seen as a low estimate, considering that indigenous Indonesians paid less than half of all taxes from the 1920s onward. The rate of the company tax was increased in the long run, but instead of a progressive rate the tax system was regressive. In relation to its ability to pay, Western big business was not heavily taxed. Moreover, it is difficult to gauge how much of these proceeds were directly used to benefit the indigenous population.

Governmental expenditure for education was quite low, and while investment in irrigation and infrastructure was higher, arguably foreign firms benefitted from this before anyone else. In the previous chapter, we saw that there was colonial drain and profits were high, but it is questionable whether higher taxes would have improved the lot of local people. In the next chapter, I will continue analysing linkages, as well as profit and investment, but this will be done with the help of case studies, which will cast a new light on these topics and help discover the influence of foreign firms on the economic development of the Netherlands Indies.

Chapter 5. Profitable pioneers

5.1 Introduction

Macroeconomic developments and long-term trends were outlined in the previous chapters and we now turn to a microeconomic analysis. Here we shall focus on three carefully selected companies that were active in various branches of the Netherlands Indies economy. This offers us a better understanding of the effects of foreign private investment on the economic development of the Netherlands Indies.

In this chapter I focus on investment in individual companies, their profitability and linkages with the domestic economy. In my survey I show that these companies underwent changes and had to adapt to changing circumstances. Moreover, by examining these case studies we can see to what extent these companies differed from other firms. Comparisons can be made especially with respect to profitability and linkages. In the previous chapters we saw the differences across branches of industry in terms of profitability and type of linkages. Here we will explore the effects of operations by foreign companies on a more local scale.

The three companies are the Deli Company, the Billiton Company and HVA. All were free-standing companies with headquarters in the Netherlands while operating in the Netherlands Indies and later in other foreign countries as well. Billiton was a leading tin producer on the like-named island. The Deli Company was active in estate agriculture. Both are examples of what Chandler calls 'first-movers'. They had a competitive advantage above other companies and rivals had to make significant investments in order to compete with them.[1] The selected third firm is a trading company. Dutch trading houses played a key role in the colonial economy. A prime example is HVA. This company is particularly interesting, since it evolved from a trading company into a concern owning and managing plantations all over the archipelago, including the largest sugar factory in Java, Djatiroto.[2]

Not all companies were as successful as these three. These case studies therefore cannot pretend to reflect the entire colonial economy. However, they do represent the true pioneers in private Dutch investment in colonial Indonesia and they also represent key export industries. They had all matured

[1] Alfred D. Chandler and Takashi Hikino, *Scale and scope: The dynamics of industrial capitalism* (Cambridge: The Belknap Press of Harvard University Press, 1990) 34–35.
[2] Sluyterman, *Dutch enterprise in the twentieth century*, 42.

prior to 1910 and were at the peak of performance between 1910 and 1942. They had entered the Netherlands Indies as the colony was opened up for private capital investment after the dismantling of the Cultivation System in Java from 1870 onwards. Billiton had already started its tin mining operations in the 1860s on the island of Belitung off the South Sumatra coast. The Deli Company, originally specializing in tobacco, was an active player from 1870 onwards in the plantation belt of North Sumatra (then the residency East Coast of Sumatra). HVA started out in 1878 in Java and later expanded to Sumatra as well. Although HVA was active in several branches of estate agriculture, most success was achieved in the sugar industry. HVA did benefit from the abolition of protection of beet-sugar in Europe in 1902.[3] Java's sugar production doubled in the years 1902–1912 and again in the second half of the 1920s. The annual volume of sugar exported from Java reached three million tons in 1930, corresponding to around one-fifth of the total value of exports from the Netherlands Indies. In 1929, the sugar industry accounted for 40% of total foreign investment in agriculture.[4]

From a methodological point of view, it is important that I selected companies that were active over a long time in order to examine their influence in the late colonial period. As Chapter 2 shows, only a minority of the companies were active throughout such a long period. In 1940 only 31% of the active companies, or 667 in total, had been founded in 1910 or earlier.[5]

Inevitably, the number of companies still active in the 1950s was smaller still. Consequently, the three companies selected here were likely to be more profitable than companies that collapsed either during the economic depression of the 1930s or in the period immediately after the Second World War. Although these selected companies represent only a tiny minority of highly successful business ventures, they may serve our purpose.

If such successful companies did not provide much for their indigenous workers, it is unlikely that less profitable businesses would have been able to provide more linkages to the local economy and society. Nevertheless, not only direct provisions for indigenous workers are at issue here, but the whole package of positive effects on indigenous economic life.

Many other enterprises expanded their activities and became well-known players. During the past decades, a large number of publications have appeared in the form of company histories, more often than not originating

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[3] William Joseph O'Malley, *Indonesia in the Great Depression: A Study of East Sumatra and Jogjakarta in the 1930s* (PhD thesis, Cornell University, Ithaca, NY, 1977) 21.
[4] Claver, *Dutch commerce and Chinese merchants in Java*, 261.
[5] Colonial Business Indonesia, *CBI Database ID*.

from the companies themselves. At each jubilee companies seem to have felt the need to publish a book.[6] Although they provide relevant data for scholars it is doubtful whether disagreements with indigenous workers or unfair labour conditions would be discussed or even mentioned. Memorial books need to be read critically when used for scientific purposes. Professional economic historians have examined DSM, KPM, NHM and Royal Dutch Shell in various academic works.[7] In the case of Royal Dutch Shell even the board of directors was allegedly surprised by the huge profits made in the years after the First World War.[8] Recent academic work about Billiton, the Deli Company and HVA is scarce but some memorial books do exist.[9] We will first discuss the Deli Company and look in particular at investment, profits and linkages.

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6 See for instance: E.C. Godeé Molsbergen, *Maatschappij tot exploitatie van rijstlanden op Java "Michiels-Arnold" N.V., 's-Gravenhage: 23 juli 1887–1937* ('s-Gravenhage: Mouton, 1937); *Lindeteves-Stokvis 1889*–1939 (n.p., 1939); H. Baudet (ed.), *Handelswereld en wereldhandel: Honderd jaar Internatio: Tien essays*; Kind, *Van kippenveren tot dieselmotoren*; L. de Bree, *Gedenkboek van de Javasche Bank: 1828 – 24 januari – 1928* (Weltevreden: Kolff, 1928).

7 Examples are: Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*; Jonker and Van Zanden, *A history of Royal Dutch Shell: From challenger to joint industry leaders, 1890–1939*; Gerretson, *History of the Royal Dutch*, Vol. 1; Korthals Altes, *Tussen cultures en kredieten*; Ton de Graaf, *Voor handel en maatschappij. Geschiedenis van de Nederlandsche Handel-Maatschappij, 1824–1964* (Amsterdam: Boom, 2012); À Campo, *Engines of empire*. Apart from à Campo's work, books have been written by: De Boer and Westermann, *Een halve eeuw paketvaart, 1891*–1941; Howard W. Dick, *The Indonesian interisland shipping industry: An analysis of competition and regulation* (Singapore: Institute of Southeast Asian Studies, 1987); A.J.J. Mulder, *Koninklijke Paketvaart Maatschappij: Wel en wee van een Indische rederij* (Alkmaar: De Alk, 1991); Singgih Tri Sulistiyono, *The Java Sea network: Patterns in the development of interregional shipping and trade in the process of national economic integration in Indonesia, 1870s–1970s* (PhD thesis, Leiden University, 2003);

8 Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 126–127.

9 Substantial works that have been published about these three companies include: Jarig Cornelis Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij* ('s-Gravenhage: Nijhoff, 1922); Mollema, *Gedenkboek Billiton, 1852–1927. I*; A.F. Kamp, *De standvastige tinnen soldaat: 1860–1960, N.V. Billiton Maatschappij 's-Gravenhage* (Nijmegen: Thieme, 1960); Koert Broersma, *Eene zaak van regt en billijkheid: enkele episoden uit de enerverende Billiton-geschiedenis, 1860–1985* (Leidschendam: Billiton International Metals, 1985); Enthoven, *N.V. Deli-Maatschappij*; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*; J.F.L. de Balbian Venster, *Deli-Maatschappij: Gedenkschrift bij gelegenheid van het vijftigjarig bestaan* (Amsterdam: Roeloffzen-Hübner & Van Santen en Gebr. Binger, 1919); Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929* (Amsterdam: De Bussy, 1929); Goedhart, *Eerherstel voor de plantage*.

5.2 The Deli Company: The Sumatra pioneer

Investment

The Deli Company was founded in 1869, ten years after Billiton. It produced high-quality tobacco leaves and became the first C*ultuurmaatschappij* (Cultivation Company) in the Netherlands Indies to issue shares. Jacob Nienhuys succeeded in setting up a company in the 1870s that turned out to be highly successful. He was granted a land concession by the sultan of Deli and he was able to lease an 8,500 hectares of estate land for a period of 99 years. Before 1878 cultivation companies acquired large areas quite effortlessly under very favourable terms. The Deli Company, for instance, was exempted from paying land rent. For the sultan of Deli it was enough that the company paid import and export taxes and an occasional additional fee when hiring new coolies. In 1911 Sultan Ma'mun helped the Deli Company to acquire other concessions when he was in need of money because of the prodigality of his son, and the sultan even borrowed ƒ150,000 from the company.[10]

The Deli Company was one of the first of its kind to set up business on a large scale in the plantation belt of North Sumatra. It developed into one of the most recognizable Dutch firms of the region.[11] It served as a prototype for Western pioneering in Sumatra, arriving early and developing fast. Capital was provided by the NHM, but the founder, Jacob Nienhuys, also drew on other financiers. At the end of the nineteenth century, it was the eighth largest Dutch limited liability company in colonial Indonesia.[12] Initially, it consisted of only one estate but by 1900 the concern embraced twenty individual estates producing tobacco leaves that were exceptionally well suited for high-quality

[10] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 81; Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 67; Pelzer, *Planter and peasant*, 36–39; Jan Breman, *Koelies, planters en koloniale politiek. Het arbeidsregime op de grootlandbouwondernemingen aan Sumatra's oostkust in het begin van de twintigste eeuw* (Leiden: KITLV Uitgeverij, 1992) 49; NL-HaNa: Deli Maatschappij, 33, Decennial report regarding the developments of the Deli Company 1909–1919, 81.

[11] Lindblad, 'Business strategies in late colonial Indonesia', 207–228, 220; F.P.A. Gevers, 'Koloniale bedrijfsvoering in het interbellum: De N.V. Deli maatschappij aan Sumatra's oostkust, 1918–1940', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek,* Vol. 8 (1991) 136–159, in particular 137; NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 8–9.

[12] Touwen, *Extremes in the archipelago*, 105; Martin Bossenbroek, *Holland op zijn breedst: Indië en Zuid-Afrika in de Nederlandse cultuur omstreeks 1900* (Amsterdam: Bert Bakker, 1996) 88; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 165.

cigars.[13] In order to buy up more estates, it was necessary to attract more capital. In 1915 total equity was ƒ8.3 million and by 1917 it had increased to ƒ9 million. By now, share prices had already reached their peak when shares were valued at nearly six times their initial value, but showed a gradual decline afterwards (Figure 5.1).

The capital raised was initially used to move into the cultivation of rubber.[14] The situation in the tobacco sector deteriorated at the end of the 1910s, and in 1919 it became necessary to attract more equity. This time ƒ4.5 million worth of shares were issued. Shareholders with two old shares with pre-emption rights could obtain a new share. As a result, issued share capital rose to ƒ13.5 million. The Deli Company was cultivating around 120,000 hectares in Deli and Langkat.

Just four companies – the Deli Company, Deli-Batavia Maatschappij, Senembah Maatschappij and Tabak Maatschappij Arendsburg – accounted for 90% of all Deli tobacco production. The Deli Company, however, was larger than the other three combined. This situation proved very beneficial to Herbert Cremer, director of the Deli Company from 1916 until 1949. He attracted board members such as Hugo Loudon, one of the directors of the Royal Dutch Shell. Directors of the other three large tobacco companies were also represented on the board. In certain industries such as oil, sugar and tobacco, there was a tendency to concentrate control and ownership in fewer hands.[15]

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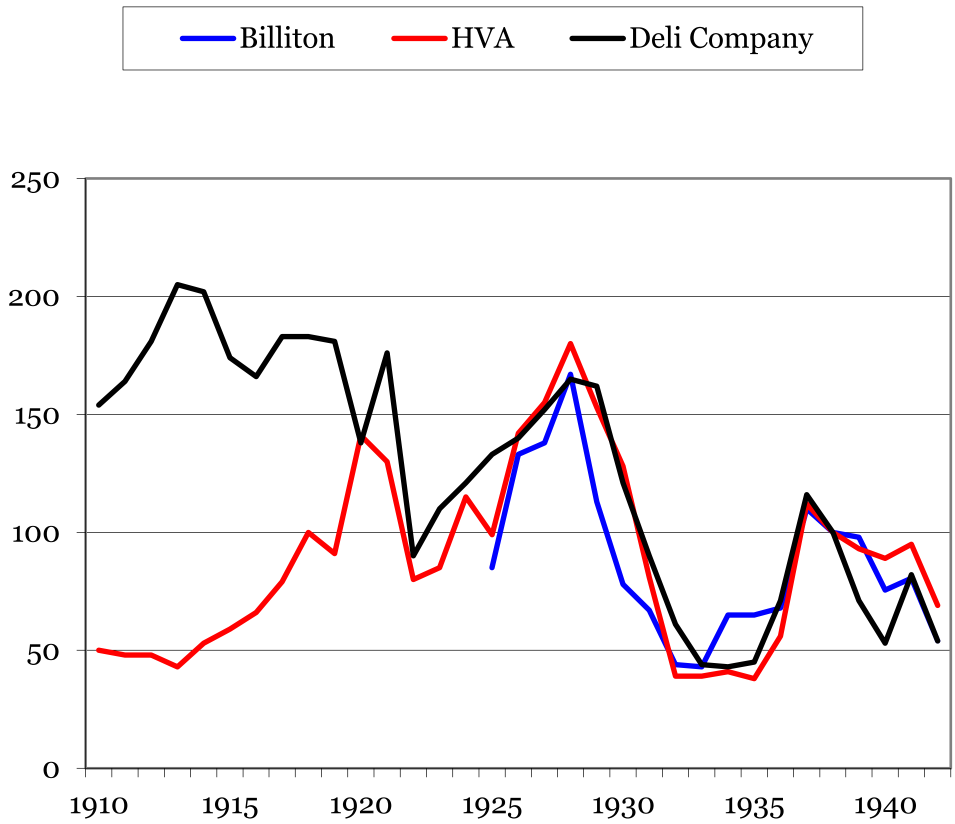
[13] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 49; Enthoven, *N.V. Deli-Maatschappij*, 25–26.

[14] NL-HaNa: Deli Maatschappij, 34, Decennial report regarding the developments of the Deli Company 1909–1919, 26; Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940.*

[15] M. Moresco, *Deli-Batavia Maatschappij, 1875–1925* (Amsterdam: Van Leer, 1925) 62; NL-HaNa: Deli Maatschappij, Decennial report regarding the developments of the Deli Company 1919–1929, 26; NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 51–54; NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 6; Taselaar, *De Nederlandse koloniale lobby*, 43–44.

Figure 5.1. Development of share prices of Billiton, Deli and HVA, 1910–1942, index 1938 = 100.



Source: Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940*.

In order to purchase the estates St. Cyr from the Deli-Langkat Tobacco Company and Arnhemia from the Rotterdam-Deli Maatschappij in 1921, at a cost of ƒ3 million, fresh equity again was required. New shares were issued and shareholders with five old shares with pre-emption rights could obtain a new share. In 1921 the Deli Company invested in the cultivation company 'De Oostkust' (The East Coast), of which the Deli Company owned half of the ƒ12 million of total shares and Deli-Batavia, Senembah and Arendsburg the other half. This shows that the Deli Company did play a major role in the tobacco industry. The Deli Company now increased its own equity with another ƒ6 million and total equity climbed to ƒ25,654,000 by 1922.[16] In 1928 equity at the Deli Company amounted to ƒ40 million. In ten years equity had more than doubled and by the late 1920s, the Deli Company was operating 24 individual tobacco estates.[17]

The prices of tobacco fluctuated in accordance with the international markets, but they were also influenced by the Tobacco Office, which was founded in 1917 to represent the interests of the tobacco producers. In 1918 the tobacco producers agreed to restrict output due to bottlenecks in shipping during the First World War. In 1919, these measures were deemed unnecessary and in 1920 the market was again functioning normally. Demand for tobacco used for cigars in the United States increased. As a result, selling prices in Amsterdam were very high in 1919, but cost prices were too.[18] In 1919, the market price was ƒ7.28 per kg, but in 1921, it had dropped to ƒ4.20 per kg. This suggests a saturation of the market. In 1922, several companies again wanted to reduce output. This had negative consequences for the Deli Company, as it was forced to obtain a loan from the Java Bank in order to sustain its existing level of operations.

In 1923, the price per kg rose to ƒ6.36; in 1924, it dropped again to ƒ5.92, and in the years 1925–1929 it hovered around ƒ4.24 per kg.[19] In 1925, the company increased its tobacco production again and in 1926 the largest output ever was reached at 13,785 tons. In the late 1920s, production remained above 10,000 tons. The economic depression of the 1930s, however, caused a decline to below 10,000 tons per year. In the late 1930s, the Deli Company proved unable to recover its onetime level of output. Output was

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[16] NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 15–17; NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 6–7; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 35; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 141; Enthoven, *N.V. Deli-Maatschappij*, 16–17; H. Blink, 'Sumatra's Oostkust in hare opkomst en ontwikkeling als economisch gewest', *Tijdschrift voor Economische Geographie*, Vol. 9 (1918) 55–156, in particular 95.

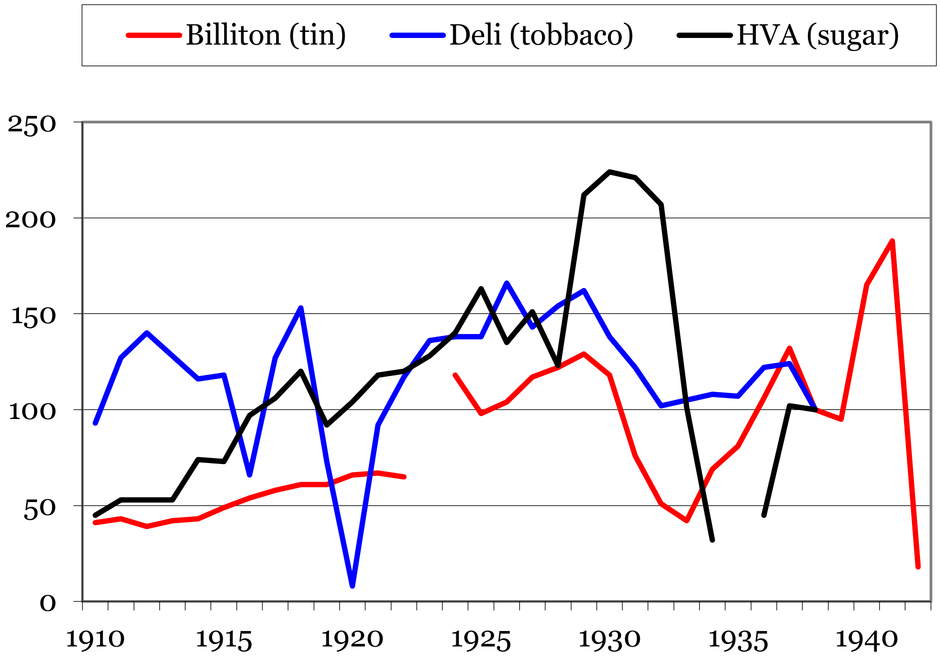
[17] Enthoven, *N.V. Deli-Maatschappij*, 15–17; NL-HaNa: Deli Maatschappij, 39, Annual report 1928–1929, 4.

[18] NL-HaNa: Deli Maatschappij, 39, Annual report 1922–1923, 4–5; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 142; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 107; De Balbian Venster, *Deli-Maatschappij: Gedenkschrift bij gelegenheid van het vijftigjarig bestaan*, 71.

[19] A. van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', in: A.H.P. Clemens and J. Thomas Lindblad (eds), *Het belang van de buitengewesten. Economische expansie en koloniale staatsvorming in de buitengewesten van Nederlands-Indië, 1870–1942* (Amsterdam: NEHA, 1989) 97–122, in particular 99, 104–107; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 138; NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 5.

only slightly above 10,000 tons in 1936 and 1937. As a result of the acquisition of tobacco companies in the past, the production of tobacco by the Deli Company as a share of total estate tobacco production increased over time: by the late 1930s it was considerably higher than in 1910 (Figure 5.2 and 5.3).[20]

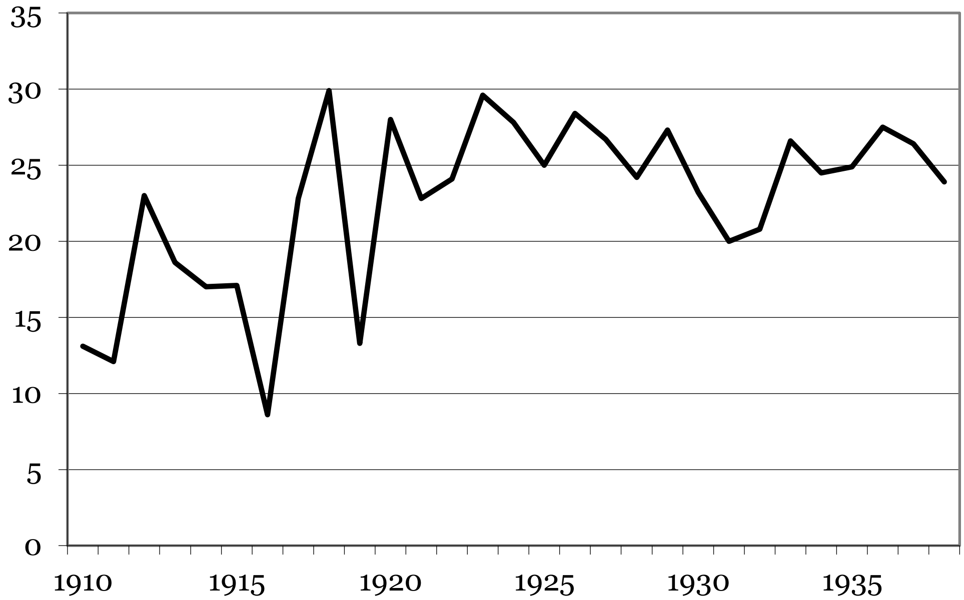
Figure 5.2. Development of production volume at Billiton, the Deli Company and HVA, 1910–1942, index 1938 = 100.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 45, 361, 362, Annual reports; NL-HaNa: Deli Maatschappij, 39, 40, 41, Annual reports; NL-HaNa: HVA, 11, 12, Annual reports.

[20] Gevers, 'Koloniale bedrijfsvoering in het interbellum', 143; NL-HaNa: Deli Maatschappij, 39, Annual report 1924–1925, 3–4.

Figure 5.3. Total output of tobacco at the Deli Company, 1910–1938, as a percentage of total estate tobacco production.



Source: NL-HaNa: Deli Maatschappij, 39, Annual reports; Enthoven, *N.V. Deli-Maatschappij*, 26; Creutzberg and Van Dooren, *CEI. Vol. 1*, 113–124.

The Deli Company and the other three major tobacco companies were also producing rubber, palm oil, sisal and tea. In 1907, the Deli Company planted its first rubber tree and in 1919 it opened a palm oil estate. The number of trees rose from 13,437 in 1916 to 910,855 trees in 1940. Production climbed from 262 tons in 1919 to 1,524 tons in 1928. Rubber was planted on a large scale, but tobacco remained the main source of revenue. Some newly acquired fields proved less suitable for tobacco and were planted with rubber. Overall, the area under rubber cultivation increased rapidly. In 1930, the construction of a palm oil estate was initiated. In order to obtain more knowledge about sisal, the Deli Company invested in the N.V. Kota Pinang Cultivation Company. This knowledge could later be used if the tobacco sector were to plummet, but results were not impressive.[21]

The depression of the 1930s meant serious losses for the Deli Company. In addition, harvests from 1929 and 1930 suffered from bad

[21] Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 30–43; Enthoven, *N.V. Deli-Maatschappij*, 18; Taselaar, *De Nederlandse koloniale lobby*, 43, 70–72; Lindblad, 'Business strategies in late colonial Indonesia', 221; NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 9–11, Annual report 1932–1933, 7.

weather.[22] The company tried to deal with the deteriorating situation in two ways: by reducing production to forestall a further decline in selling prices and by cutting costs.[23] In 1930 the four major tobacco companies concluded a gentlemen's agreement which led to a reduction of the area used for tobacco by 10%, yet market prices failed to rise. Output was restricted again in 1932 and 1933. Due to a reduction in costs due to dismissals of workers, the Deli Company made no losses in 1934. The higher quality of the tobacco after 1933 and increasing international demand also helped to improve the situation. Besides ups and downs in the tobacco market, the Deli Company also suffered from the international rubber restriction in effect in the Netherlands Indies from 1934.[24]

Profit

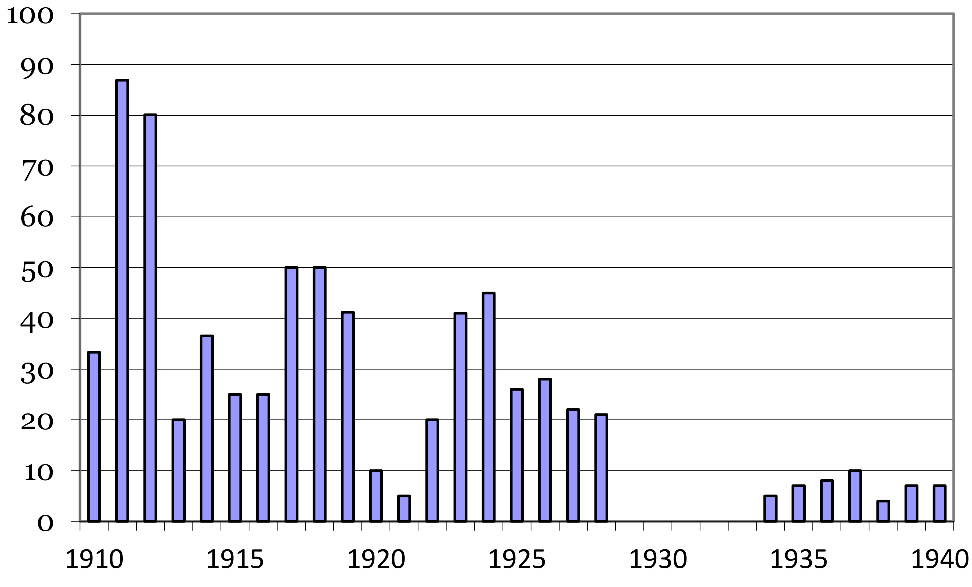
Although output levels remained stable, profitability in the Deli Company's tobacco business varied a great deal.[25] Although the Deli Company also produced rubber and palm oil, these production lines were of marginal importance in terms of generating profits. Between 1920 and 1940, average annual profits from tobacco were ƒ5.3 million, whereas yearly profits from rubber and palm oil only amounted to ƒ0.3 million.[26] Moreover, tobacco cultivation was a very volatile business and it was necessary to accumulate sufficient financial reserves. The Deli Company maintained a high level of liquidity (liquid assets plus credits divided by outstanding debts) of around 1.35. Solvability (total liabilities divided by non-equity capital) was high as well, usually above 2.5. Overall, the company was highly profitable. This was,

[22] NL-HaNa: Deli Maatschappij, 39, Annual report 1929–1930, 5.
[23] NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 6–7; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108.
[24] NL-HaNa: Deli Maatschappij, 39, Annual report 1934–1935, 6–7; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 144–146; Lindblad, 'Business response to crisis in Indonesia: The 1930s and the 1990s', 173–174; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108; NL-HaNa: Deli Maatschappij, 16, Board meeting 16–6–1932; NL-HaNa: Deli Maatschappij, 39, Annual report 1933–1934, 5–7.
[25] Enthoven, *N.V. Deli-Maatschappij*, 15.
[26] Lindblad, 'Business strategies in late colonial Indonesia', 221; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 55; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 157; NL-HaNa: Deli Maatschappij, 39, Annual reports.

of course, very beneficial to shareholders, who received substantial dividends.[27]

Dividend payments of the Deli Company were impressive at the beginning of the twentieth century. Expressed as a percentage of equity, dividend payments were the highest in the 1910s, reaching 86.9% in 1911, when ƒ7.2 million was paid out in total. One year later, the dividend rate was 80.1%, as the Deli Company paid out ƒ6.6 million to its shareholders. In 1913, the rate dropped to 20% and nearly ƒ1.7 million was paid. During the First World War, dividend rates fluctuated between 25% and 50%, with average annual dividend payments slightly below ƒ5 million (Appendix 26). Dividend rates dropped after the First World War (Figure 5.4). It needs to be noted that total equity increased at the same time. Therefore, the total amount of dividends paid out rose again after the short-lived dip in the early 1920s.[28]

Figure 5.4. Dividend rates at the Deli Company, 1910–1940.

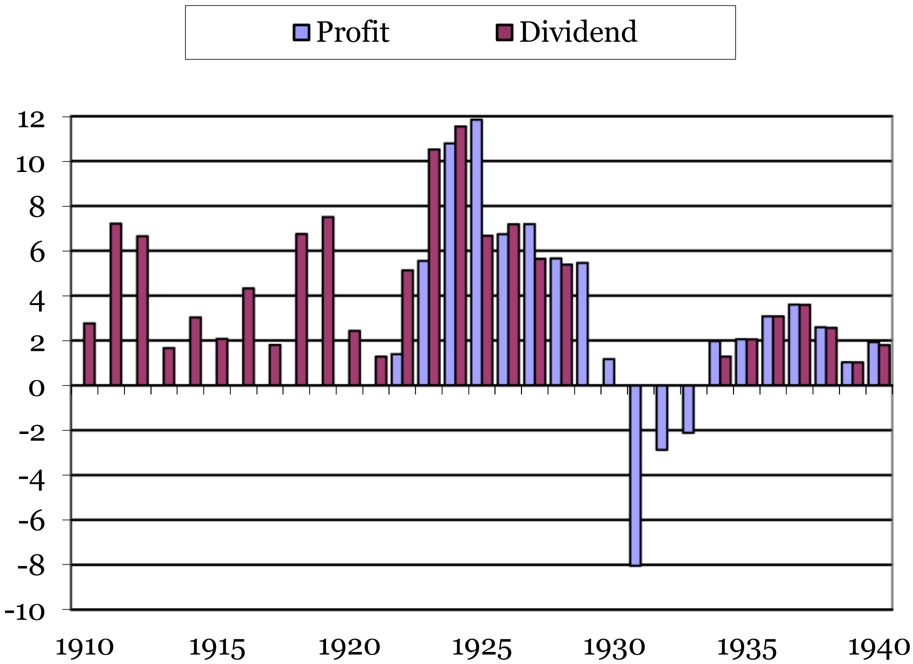


Source: NL-HaNa: Deli Maatschappij, 39, Annual reports.

[27] Gevers, 'Koloniale bedrijfsvoering in het interbellum', 154–156; Lindblad, 'Business strategies in late colonial Indonesia', 221.
[28] Enthoven, *N.V. Deli-Maatschappij*, 27–28.

Profits at the Deli Company remained solid during the 1920s, conditioned by a high level of turnover. The most favourable years were shortly after the acquisition of new estates. In 1923, for instance, turnover climbed above ƒ18 million, a level almost sustained into the next year. In 1923 and 1924, dividend rates were 41% and 45%, while total pay-outs amounted to ƒ10.5 million and ƒ11.5 million, respectively. Dividend rates in the late 1920s fluctuated between 21% and 28%. The decline during these years coincided with the acquisition of several large estates in order to maintain its prominent market position. Nevertheless, the company paid out nearly all its profit to its shareholders (Figure 5.5). During the economic depression of the 1930s the Deli Company suffered considerable losses and no dividends were paid out in the years 1929–1933. The worst year was 1931, when the Deli Company was confronted with a loss of ƒ8 million. In 1932, losses dropped below ƒ3 million and in 1933 it was only ƒ2 million.

Figure 5.5. Total profits and paid-out dividends at the Deli Company, 1910–1940, in million guilders.



Source: NL-HaNa: Deli Maatschappij, 39, Annual reports; Enthoven, *N.V. Deli-Maatschappij*, 26–28.
Note: Total profit data only available for 1922–1940.

During the depression of the 1930s, ƒ4.5 million was written off from assets. Losses could be covered largely by reserves. In the books there was no loss or profit, but reserves dropped by more than ƒ10 million.[29] Dividend payments came to a virtual standstill in 1929, yet then recovered somewhat.[30] In 1934, the situation had improved and with a profit of almost ƒ2 million the company could pay a dividend of 5%, or nearly ƒ1.3 million to its shareholders. Fluctuating tobacco prices enhanced profits in the following years, but during 1937 and 1938 the gap between cost and market prices narrowed. As a result, profits dropped as well.[31]

In the late 1930s, dividend rates oscillated between 4% and 10%, but profits as high as during the 1920s were no longer achieved. Data for the early 1940s is incomplete, but the year 1940 itself saw a turnover of almost ƒ8 million. Although profits were lower than in the 1920s, the company performed well up to the start of the Pacific War.[32] If we compare dividend payments of the Deli Company with other companies, the Deli Company performed much better than the average company between 1910 and 1915. In 1920, the Deli Company performed less than average, an indication that the economic crisis of the early 1920s hurt agricultural companies more than companies active in other industries. In 1925, however, the tables were turned and the Deli Company outperformed the average company. In 1930, the Deli Company performed worse than average since it did not pay any dividends, but compared with companies that paid dividends in 1935 and 1940 the Deli Company stood its ground and performed only slightly below average.[33]

Linkages

As the largest tobacco company in North Sumatra, the Deli Company also provided facilities benefitting its workforce. Here we focus on the workforce as a whole. The Deli Company was a large company offering much employment. In North Sumatra the share of Chinese coolies gradually dropped and by the 1920s all new coolies were Javanese. They were considered to be less hard working than the Chinese, but they were cheaper

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[29] Gevers, 'Koloniale bedrijfsvoering in het interbellum', 154–156.
[30] Lindblad, 'Business strategies in late colonial Indonesia', 220–223.
[31] Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 110; NL-HaNa: Deli Maatschappij, 39, Annual report 1933–1934, 5–6, 1937–1938, 5–8.
[32] Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108–110.
[33] Figure 3.5, 3.6; Appendix 14, 15.

and easier to discipline by the supervisors.[34] On average, around 30,000 coolies under contract with penal sanction and roughly 7,000 so-called free coolies under contract without penal sanction were employed by the company between 1919 and 1929. This was more than one-tenth of the total number of coolies subject to penal sanction in North Sumatra. For free coolies, not subject to the penal sanction, the share was even higher. Around one-third of the total free coolies employed in North Sumatra worked for the Deli Company. During the 1930s, when the number of free coolies increased, this share dropped to around one-fifth (Appendix 27).

During the economic depression of the 1930s the Deli Company began cutting costs. This proved to be difficult since coolie labour was regulated by contracts that could not be terminated or changed in the short run. But, in 1931, the penal sanction was abolished by the colonial government and from 1931 the tobacco estates would only hire 'free' labourers, under contract without penal sanction. It is worth noting that the Deli Company had claimed that the company would not have become so profitable in the absence of the penal sanction in the 1920s. The employers' organisations DPV and AVROS had defended the penal sanction vigorously during the 1920s, precisely at the time when voices were raised in the government to abolish the system. In 1930, an American Tariff Act was introduced which stated that the United States would not import any goods produced by indentured labour under penal sanctions. As a result, the Deli Company had to get rid of its workers under coolie contracts with penal sanction and hire more 'free' labourers in order to export to the United States. The abolishment of the penal sanction in 1931 made hiring 'free' labourers more urgent. Implementation was speeded up by the economic depression in 1932.[35]

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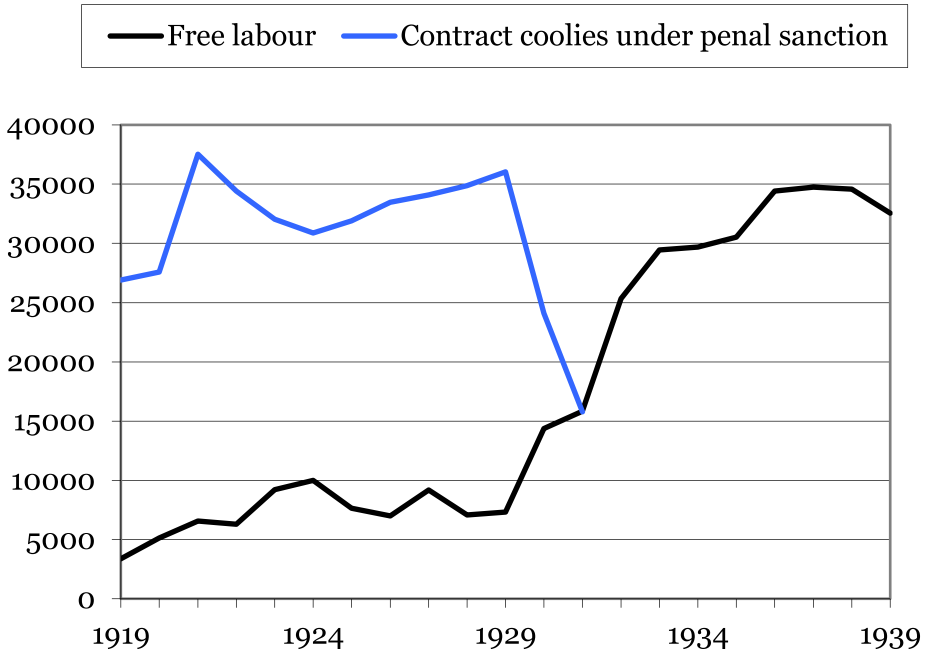
[34] Houben, 'Introduction: The coolie system in colonial Indonesia', 3; Vincent J.H. Houben, 'Before departure: Coolie labour recruitment in Java, 1900–1942', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 25–42, in particular 25; Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', 52; J. Thomas Lindblad, 'New destinations: Conditions of coolie labour outside East Sumatra, 1910–1938', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 79–108, in particular 88; Jurrien van den Berg, 'Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 209–230, in particular 209; Breman, *Taming the coolie beast*, 50–64.

[35] Homan, 'That 'beautiful tobacco': The Sumatra cigar wrapper and the American tariff, c. 1880–1941', 151–154; Langeveld, 'Arbeidstoestanden op de ondernemingen

Figure 5.6. Workforce at the Deli Company, by type of contract, 1919–1939.



Source: Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 115; Enthoven, *N.V. Deli-Maatschappij*, 45.

Immigration of workers discontinued and numerous contracts were not renewed. In 1930, the company had just over 24,000 labourers on a coolie contract with penal sanction, but in 1931 this dropped to slightly less than 16,000 workers, while at the same time 287 Europeans were employed. In 1929, the total workforce of the company, including 'free' labourers, numbered

ter oostkust van Sumatra tussen 1920 en 1940 in het licht van het verdwijnen van de poenale sanctie op de arbeidscontracten', 301–304; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 102–108; NL-HaNa: Deli Maatschappij, 39, Annual report 1921–1922, 4, 1929–1930, 5–6, 1930–1931, 5–9; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 74–75; P.A. van der Laan, 'Deli-tabak', in: C.J.J. van Hall and C. van de Koppel (eds), *De landbouw in de Indische archipel. Deel IIB. Genotmiddelen en specerijen* ('s-Gravenhage, Van Hoeve, 1949) 353–413, in particular 357; Nizaar Makdoembaks, *Foute dokters en de tabaksindustrie van Sumatra: (K)NMG en de tientallen miljoenen overzee* (Zierikzee: De Woordenwinkel, 2019) 144–146, 149–153.

43,360 workers. This figure dropped to 29,450 in 1934 with the company being forced to close several estates. Average wages of coolies fell too, from ƒ26.05 per month in 1929 to ƒ24.15 in 1932. In the mid–1930s wages were barely above ƒ20 per month. In 1938, the number of labourers rose slightly to 34,747 (Figure 5.6). Even though wages earned in the foreign-owned economy did not differ much from the wages earned in the indigenous economy, coolies were subject to the agreements made by the employers' organisations, which had an impact on the wage level and prevented competition between individual companies.[36]

Although tobacco leaves were produced by the Deli Company for making cigars, which were in high demand in Europe and the United States, the Deli Company chose not to manufacture the cigar itself.[37] Manufacturing of cigars took place elsewhere, in the Netherlands and other European countries. The cigar-making companies often used tobacco from the Netherlands Indies but were usually too small to start tobacco estates in the Netherlands Indies. One well-known Dutch cigar manufacturer, Ribbius Peletier, was smaller than one-tenth the size of the Deli Company. Another leading tobacco company, Arendsburg, was established by P. van den Arend, who had started out as a trader of cigars and tobacco. He went into tobacco cultivation as a separate activity of trade, but not for the production of his own cigars.[38] Another reason was that cigar manufacturers often used a mix of tobacco leaves not only from Java and Sumatra but also from other countries. It was more practical for manufacturers to be able to choose a smaller quantity from a large selection of tobacco producers instead of depending on one source of tobacco.[39] Mignot & De Block was one of the few manufacturers who actually tried to produce cigars in Indonesia. In 1919 it started the Negresco cigar factory in Yogyakarta close to tobacco plantations and in 1923 it employed 400 workers.[40]

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[36] Lindblad, 'Business response to crisis in Indonesia: The 1930s and the 1990s', 173–174; *Deli Maatschappij: Hoe zij ontstond en groeide* (Medan: N.V. Deli Maatschappij, 1931) bijlage iv; Leenarts, 'Coolie wages in Western enterprise in the Outer Islands', 132, 153; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 42.
[37] Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 34.
[38] Sluyterman, *Dutch enterprise in the twentieth century*, 44; Thee, *Plantation agriculture and export growth*, 126.
[39] Gales and Sluyterman, 'Dutch free-standing companies, 1870–1940', 304; Keetie E. Sluyterman, *Ondernemen in sigaren: Analyse van bedrijfsbeleid in vijf Nederlandse sigarenfabrieken in de perioden 1856–1865 en 1925–1934* (Tilburg: Stichting Zuidelijk Historisch Contact, 1983) 78–108.
[40] Karel A. Steenbrink, *Catholics in Indonesia, 1808–1942: A documented history. Volume 2: The spectacular growth of a self-confident minority, 1903–1942* (Leiden: KITLV Press, 2007) 394.

Education and water supply

Gradually, the estates were pressured by the government to improve the education they provided. As a result, in 1920 there were 50 schools in North Sumatra and in 1925 the Deli Company had 27 schools where 1,389 children were taught.[41] However, in the early 1920s, only 3,300 of the 50,000 children on estates in Binjai and Medan attended school, either in the village or at the estate. The Deli Company also provided training for coolie children as carpenters or housekeepers. The total number of schools run by the Deli Company increased to 30 in 1930. However, during the economic depression of the 1930s, some schools were closed, but in 1938 a new peak was reached when 2,290 pupils were in class, distributed across 27 schools.[42]

The Deli Company was also responsible for the supply of fresh water. This was vital for efficient operations of the company and to make sure that the workforce remained healthy.[43] The use of contaminated or polluted water was a cause of many diseases on plantations and in nearby villages. In 1905 the Deli Company obtained a franchise for the construction and exploitation of a water system, although it argued that the provision of fresh water was actually a task for the government. It was called the Ajer Beresih Waterworks Company, and it would supply Medan and four nearby tobacco plantations.[44] According to the original plan, Ajer Beresih would provide water for around 14,000 people in Medan. The number of plots connected to the waterworks increased from 283 in 1907 to 4,521 in 1930, of which most belonged to Europeans. Attention was paid to public utilities as well. As with the construction of hospitals, these waterworks were intended to improve the productivity and health of employees so that they could work harder and, in doing so, make the company more profitable. The construction of the

[41] NL-HaNa: MvO, 184, Oostkust van Sumatra, 1917; NL-HaNa: Deli Maatschappij, 32–36, Decennial report regarding the developments of the Deli Company.
[42] Kantoor van Arbeid, *Elfde verslag van de arbeidsinspectie voor de Buitengewesten* (Weltevreden: Landsdrukkerij, 1926); Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 122–124; Frank Ochsendorf, 'Gains from foreign investment for indigenous society in North Sumatra, 1860–1960', paper presented at 17th World Economic History Congress (Kyoto, 2015) accessible at https://www.colonialbusinessindonesia.com, 17–19.
[43] NL-HaNa: MvO, 120, Besoeki, 1922; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 137.
[44] NL-HaNa: Deli Maatschappij, 228, Annual report Ajer Beresih 1905; Ravesteijn and Kop, *For profit and prosperity*, 314; T. Boshuyer, *Rapport aan de Deli Maatschappij omtrent het onderzoek naar de mogelijkheid en de kosten van eene watervoorziening van de hoofdplaats Medan ter Oostkust van Sumatra* (Medan, 1904) 8.

waterworks can be seen as an investment that would benefit the company in the first place and the local population in the second place.[45]

Infrastructure

The Deli company did play an important role in the construction of railways in North Sumatra, a region where private railways usually preceded government ones. The first applicant for a concession to construct a railway between estates in the Deli Sultanate and Medan, in June 1881, was from a Frenchman called De Guigné, who was a planter in Deli. Weisfelt argues that his non-Dutch nationality was the reason why his application was not approved. However, the Deli Company mentioned that De Guigné's plans were purely speculative and that it was possible his intention was to sell the claim for more money in the future.

One month later, in July 1881, the Deli Company, led by J. Th. Cremer, submitted an application for the same line between Deli and Medan, stating that the railway would be created by planters for planters. By stressing the importance of a good infrastructure in North Sumatra for economic development and considering the rapid growth of the tobacco industry, Cremer convinced the government. His permit was granted in October 1881. The government was not expected to be involved in the project, nor would it provide any subsidy.[46] In 1883, the Deli Company founded DSM providing ƒ570,000 of the equity capital. Other subscribers included the Deli-Batavia Maatschappij, Tabaks-Maatschappij Arendsburg, Rotterdam Deli Maatschappij, NHM and some Chinese traders. The remainder of the ƒ2.6 million of equity was found on the Amsterdam Stock Exchange.[47]

The purpose of DSM was to transport the harvested and dried bales of tobacco to the ports at the coast, where they could be shipped abroad; this would replace transport by oxcart. However, DSM would eventually earn half of its revenues from transporting passengers. Nevertheless, the development of DSM depended on the fluctuating prices and export volumes of tobacco and

[45] NL-HaNa: Deli Maatschappij, 228, Annual report Ajer Beresih 1905; NL-HaNa: MvO, 181, Oostkust van Sumatra, 1905; Ochsendorf, 'Colonial corporate social responsibility', 89–91.
[46] NL-HaNa: Deli Spoorwegmaatschappij N.V., 1883–1970, (DSM), 66, Report by J. Krol, 4–7–1881; Volker, *Van oerbosch tot cultuurgebied*, 7, 21; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 35–37; Ravesteijn and Kop, *For profit and prosperity*, 124; Thee, *Plantation agriculture and export growth*, 125.
[47] NL-HaNa: DSM, 117, Annual report 1883–1884, 15–17; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 38–39.

it was also plagued by bureaucratic and technical problems. The construction of the different railways by the DSM was, after all, the result of a lack of interest by the government in constructing a railway in North Sumatra which connected the estates with the port at Belawan near Medan. DSM took up this challenge and created normal broad-gauge railway lines. The first railway was constructed in 1883 between Deli Tua and Labuan Deli and in 1886 Langkat to the north was added to the network. In 1888, a line connected Serdang with Labuan Deli so that by the 1890s there were already more than 100 kilometres of railway track. From an early stage, the estates created their own lines to connect their plantations to the DSM's railway network. On occasion, DSM would subsidise these lines if it proved beneficial for its own services. By the end of the 1890s, the ports of Tanjung Pura and Pangkalan Brandan in Langkat were reached. However, the construction slowed down during this decade as a result of a tobacco crisis, when many tobacco estates were closed. From the start, DSM enjoyed a high return on both freight and passenger transport, but after 1890 profits fell as a result of the tobacco crisis. No new tracks were constructed until 1902. Until that point, passenger transport accounted for almost half of returns, but in the course of the twentieth century the share of freight transport gradually increased, rising to more than 80% in the 1930s.[48]

Competition for passengers by cars, buses and shipping companies increased significantly in the 1920s, but the rise of new crops such as rubber was another reason for expansion for DSM. Railway lines were extended to Asahan, Teluk Nibung and Pematangsiantar, southeast of Pangkalan Brandan. Transport of oil was only of minor significance.[49] In the best years of the company, the second half of the 1920s, nearly one million tons of freight and nearly seven million passengers were transported annually. After the

48 NL-HaNa: DSM, 117, Annual report 1883–1884, 8–10; W.H.M. Schadee, *Geschiedenis van Sumatra's Oostkust* (Amsterdam: Oostkust van Sumatra-Instituut, 1918) 230–232; A.W.E. Weyerman, *Geschiedkundig overzicht van de totstandkoming der aan spoor- en tramwegmaatschappijen in Ned.-Indië verleende concessievoorwaarden en der op grond van die concessievoorwaarden gesloten overeenkomsten. Deel II. A. Spoor- en tramwegconcessiën van alle maatschappijen met uitzondering van de N.I.S.M. Tekst.* (n.p., 1917) 3–36; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 13–16; Ruurd Auke Jellema, *Nederlandsch-Indische spoorwegpolitiek* ('s-Gravenhage: L. Gerretsen, 1929) 83–84; Touwen, *Extremes in the archipelago*, 154; Thee, *Explorations in Indonesian economic history*, 99; Thee, *Plantation agriculture and export growth*, 122–123.

49 Touwen, *Extremes in the archipelago*, 155–156; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 17, 44–62; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 32–38.

economic depression of the 1930s, DSM recovered slightly, and in 1941, 875,000 tons of goods and 4.5 million passengers were transported on its rails.[50] The construction of railways depended heavily on the economic development of the region. Yet, much time elapsed from the granting of concessions and actual construction.[51] The railway network encompassed more than 400 kilometres of track in 1920. Despite the economic depression of the 1930s, by the end of the colonial period the DSM network had expanded to around 550 kilometres of track.[52]

One of the reasons for the success of DSM was its connection to the ports in North Sumatra near Medan, at first, primarily Labuan Deli, about 15 miles north of Medan.[53] As the export of tobacco increased and railways were developed, the small port at Labuan Deli, on the Deli River, was not capable of handling the increasing traffic. Large vessels had difficulties navigating the port. Moreover, erosion caused by deforestation by estates made the Deli River shallower every year. It became necessary to construct a new port closer to the sea. DSM extended its Medan-Labuan Deli line to Belawan in 1886, and new port facilities were constructed at Belawan. Transport of goods by the DSM increased from 28,559 tons in 1888 to 185,775 tons in 1900. In 1910, it was determined that the port of Belawan should be taken over by the government. DSM had created the port in the first place in order to increase rail traffic and, therefore, the port did not run at a profit, but this was not seen as a problem as long as railway transport kept increasing. Further improvement of the port would have been too costly for DSM, and in 1912 the DSM agreed to transfer the ownership of the port to the government for nearly half a million guilders. Belawan would later develop into the most important port of North Sumatra.[54]

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[50] Ravesteijn and Kop, *For profit and prosperity*, 125; NL-HaNa: DSM, 117, Annual reports; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 172–173.

[51] Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 42–62; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 32–38, 55, 69, 72.

[52] Thee, *Explorations in Indonesian economic history*, 98; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 13–15, 26–44, 62, 97; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 18–21; Touwen, *Extremes in the archipelago*, 127; Lindblad, 'Business strategies in late colonial Indonesia', 222; Airriess, *A port system in a developing regional economy*, 64, 107–108; NL-HaNa: MvO, 182, Oostkust van Sumatra, 1917.

[53] NL-HaNa: DSM, 117, Annual report 1883–1884, 19–23; Airriess, *A port system in a developing regional economy*, 62, 103–110.

[54] NL-HaNa: DSM, 118, Annual report 1912, 9; Departement der Burgerlijke Openbare Werken. Afdeeling Havenwezen, *Belawan oceaanhaven, Deel I: Tekst*

However, due to its close proximity to Penang and Singapore, across the Strait of Malacca, Belawan experienced competition from these ports in attracting large ocean-going steamships. Singapore benefitted significantly from the expanding rubber industry, and large amounts of unprocessed rubber were milled in Singapore instead of in the Netherlands Indies.

Despite many improvements in the early twentieth century, the facilities of Belawan were insufficient to accommodate large vessels. H. Blink argued that the government should spend more money on dredging and improving facilities, and he claimed that such outlays could easily be covered by the extra income from larger vessels if able to visit the port after expansion.[55] Compared to Java, overall port investment by the government amounted to far less in North Sumatra. This could have been caused by a stubborn focus on Java, but could equally well have been the result of successful construction of infrastructure by private companies in the past. In the long run, the colonial government realized the value of Belawan and decided to improve the port. During the 1920s, the government invested more than 26 million guilders in port facilities. Consequently, the capacity of Belawan increased, as did the frequency of visiting vessels.[56]

In 1923, only 8% of the exports from the port of Belawan originated from indigenous suppliers, whereas elsewhere in Sumatra, indigenous exports amounted to more than one-half of total exports. However, in 1918, Belawan was responsible for 45% of the total export value of North Sumatra and by 1938 this share had risen to 80%. Without the presence of the railway network of DSM, this percentage would have been much lower.[57] By 1938, Belawan was visited regularly by vessels from eleven different foreign steamship companies. Coffee and tea were shipped to Europe. Palm oil required shipment through Belawan since only this port possessed adequate liquid

(Batavia: Departement der Burgerlijke Openbare Werken, 1917) 1–14; Airriess, *A port system in a developing regional economy*, 67–73; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 54–56; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 28–30; Thee, *Explorations in Indonesian economic history*, 100.

[55] Blink, 'Sumatra's Oostkust in hare opkomst en ontwikkeling als economisch gewest', 147–148.

[56] Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 30, 54–59; Airriess, *A port system in a developing regional economy*, 79–97; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 235; Thee, *Plantation agriculture and export growth*, 125–126.

[57] Airriess, *A port system in a developing regional economy*, 111, 117.

storage facilities; therefore, palm oil from Labuhan Batu and Asahan was transported by ship and rail to Belawan for export.[58]

Although the DSM did benefit from the foreign shipping activities of KPM in Belawan, KPM remained a competitor in the firm's regional transport. DSM was afraid that further expansion of KPM would slow growth. In 1925, a compromise was reached. KPM would limit its transport in North Sumatra and DSM would not sign agreements with other shipping companies in areas where the two companies competed. The good river connections and coastal shipping opportunities in the south were another reason for DSM not to expand further south than Rantau Prapat. With the development of accessible roads, cars as well as buses and trucks started competing with the railway. The company roads of the Deli Company formed the basis for the network of roads connecting plantations and towns in North Sumatra. The main roads were later maintained by the government, eventually connecting Aceh in the north with the southern regions. In 1933, a total of 930 kilometres of road was present in the estate area, of which 260 kilometres was paved.[59]

In 1914, DSM also began a motor car service after a road had been constructed from the Karo mountain area to Deli and trucks were purchased to transport goods between estates and the railway. In 1921, DSM started a bus line from Pulo Brayan – around six kilometres north of Medan – to Medan. Then competition intensified between car, bus and rail transport. The relatively good and flat roads and the sparse population proved good conditions for road transport, while railway transport was bound by more regulations.[60]

Another network set up by DSM was a telephone service. It was initiated in 1886, as several areas were difficult to reach by road. The area of the telephone service was larger than the area for the railways. Apart from Deli, Langkat and Serdang were also included and other companies could make use of the telephone service as well. From 1890 onwards, telegraph connections with other countries were made possible. Meanwhile, other companies acquired telephone licences and sometimes asked for help from

[58] Airriess, *A port system in a developing regional economy*, 110; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 46.
[59] Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 28, 97; Airriess, *A port system in a developing regional economy*, 108; Thee, *Explorations in Indonesian economic history*, 100; Thee, *Plantation agriculture and export growth*, 123; Touwen, *Extremes in the archipelago*, 156.
[60] NL-HaNa: DSM, 118, Annual report 1916, 89–90; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 97–99.

DSM in order to construct phone lines of their own.[61] In 1910, DSM acquired licences for telephone lines and in 1911 bought the Langkat en Tamiang Telefoon-Maatschappij (Langkat and Tamiang Telephone Company) for ƒ50.000. The government asked DSM to construct phone lines as well, for instance one from Medan to Seribu Dolok and in the sub-district from Karo to Simalungun. Following this expansion, the government became reluctant to approve more requests from DSM, since the firm's telephone network had more subscribers than all government networks in the region taken together. In 1928, an agreement was reached between the government and DSM. The government would not take over any lines and DSM would modernize its network.[62]

The chief backward linkage that occurred was the network of railways, roads and ports serving the estates. Other backward linkages, such as the production of capital goods were of less importance. Such production industries which produced equipment for railways, for instance, required large markets and the one in North Sumatra at that time was too small to warrant local production. Therefore, equipment for railways were by and large imported. Nevertheless, some small-scale industries were founded in order to serve the needs of the plantations, for instance, brick, cement and ice factories and repair workshops. These flourished since they did not require much skilled labour or any import of raw materials.[63] DSM even had its own forests to produce fuel for its locomotives.[64]

Fiscal linkages

The Deli Company made substantial contributions to colonial tax revenues. Annual tax payments reportedly averaged more than one million guilders during the 1920s and 1930s. It is not always clear who actually benefitted from these revenues. It is likely that a proportion of these revenues went to the Netherlands and into the pockets of the Dutch state. Nevertheless, in 1920 an

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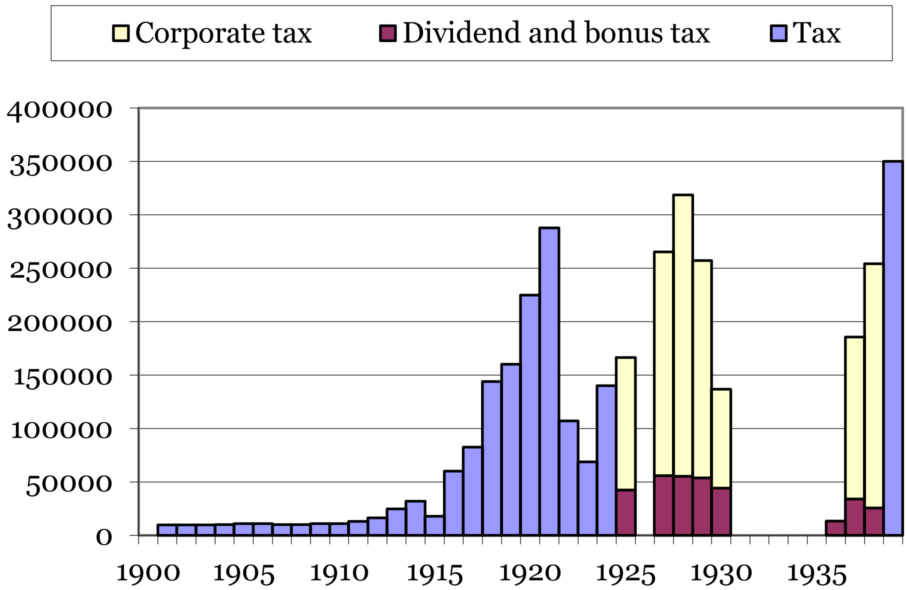
[61] NL-HaNa: DSM, 117, Annual report 1886–1887, 19–20; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 139–140.
[62] Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 142; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 25–27; NL-HaNa: DSM, 118, Annual report 1910, 61–64, 1911, 70.
[63] Thee, *Plantation agriculture and export growth*, 131; Thee, *Explorations in Indonesian economic history*, 101; Lindblad, 'Business strategies in late colonial Indonesia', 222.
[64] Touwen, *Extremes in the archipelago*, 148–154; Ravesteijn and Kop, *For profit and prosperity*, 125; see also: NL-HaNa: DSM, 117, Annual reports.

amount of ƒ1,340,000 was reserved exclusively for income tax and profit tax in the Netherlands Indies, ƒ2 million for product tax in the Netherlands Indies as well and another ƒ226,489 for dividend tax in the Netherlands. This shows that a substantial proportion of total tax revenue did indeed stay in the Netherlands Indies.[65] The peak in 1920 also reflected war profit tax; in 1924 the company received a restitution payment of ƒ201,510.[66] Tax payments by DSM show the same trend compared to the total company tax paid by all companies combined. Payments increased after the First World War, fell in the first half of the 1920s and increased again until the start of the economic depression, and finally recovered at the end of the 1930s (Figure 5.7).

Figure 5.7. Taxes paid by DSM, in guilders, 1900–1939.



Source: NL-HaNa: DSM, 117–120, Annual reports.
Note: For the years 1900–1914 and 1939, tax data is given without specification, 1915 is income tax in the Netherlands, 1916–1924 is income tax in the Netherlands Indies, 1925–1938 is dividend and bonus tax in the Netherlands, and *vennootschapsbelasting* in the Netherlands Indies. For the year 1926 no data is available.

[65] NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 12–13.
[66] NL-HaNa: Deli Maatschappij, 39, Annual report 1923–1924, 10–11.

Assessment of the Deli Company

The Deli Company was a highly profitable company. During the 1920s it paid out nearly all its profits in dividends, which shows that the company had sufficient means to attract capital for further expansion. This was at a time when it had matured and was operating efficiently. Although the company was at first reluctant to give up the penal sanction, it was eventually forced to do so and had to hire more than 30,000 labourers under contract without penal sanction. The high profits were beneficial at any rate for the colonial government as they generated a great deal of tax revenue. As mentioned, the Deli Company was largely responsible for the construction of a railway network that connected various towns and ports in North Sumatra. Although the Deli Company suffered losses during the economic depression of the 1930s, it did recover somewhat in the latter half of the decade.

5.3 The Billiton Company: A private-public partnership

Investment

This section is about the tin mining company Billiton. First we take a look at investment, then profitability, and finally linkages and social expenditure. Tin mining had a long history in colonial Indonesia. Indigenous and Chinese tin miners had already been active on Bangka – off the east coast of Sumatra – in the Vereenigde Oostindische Compagnie (Dutch East India Company) era. In 1852, the Billiton Company was founded as a private enterprise for tin mining on the neighbouring island of Belitung. In the same year, the company acquired a mining concession for forty years. The Dutch entrepreneurs were supported by Prince Willem Frederik Hendrik, younger brother of King Willem III. Mining operations began in 1860 with an equity of ƒ5 million, but this was later reduced to ƒ1 million in favour of accelerating depreciation of the tin mining concession. This was inspired by the uncertainty as to whether the tin mining concession would be renewed.[67]

[67] J. Thomas Lindblad, 'The Outer Islands in the 19th century: Contest for the periphery', in: Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002) 82–110, in particular 95; Somers Heidhues, *Bangka tin and Mentok pepper*, xiv, xv, 7, 54; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 69–72; Touwen, *Extremes in the archipelago*, 58, 133–134; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48–57; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Lindblad, 'Business strategies in late colonial Indonesia', 219; Van Zanden and

In 1882, a conflict arose with the Dutch state about the renewal of the concession, as it wanted a larger share of the profits. Eventually, the concession was extended, but instead of up to 10% of the profits the company had to surrender a much larger share of profits to the state. With the renewal of the concession in 1892, which remained valid until 1927, this share increased to 62.5% of gross profits.[68]

During the 35–year period from 1892 to 1927, the Billiton Company accumulated large reserves but also succeeded in paying lavish dividends. In 1914, the company would have been able to restore its equity to the initial ƒ5 million, but chose to do so only in 1917. The strategy of accumulating reserves was continued up to 1920. At that time, the board expected that the concession would not be extended beyond its expiry in 1927. Therefore, it was argued that the most easily accessible tin should be extracted as soon as possible, and that new exploitation should only be undertaken if profitable in the short run.[69]

The company's desire to accelerate the renewal of the concession created another conflict with the Dutch state in the early 1920s. The government accused the company of paying out lavish dividends without a long-term strategy or long-term investment in the company itself. The government now went one step further and became a major shareholder and partial owner of a new concern that was created in 1924. From that moment there were two companies. The new concern was called the Gemeenschappelijke Mijnbouwmaatschappij Billiton (GMB, Billiton Joint Mining Company). The equity of this newly founded company was ƒ16 million in 1924, divided into 16,000 shares. This consisted of 10,000 shares of category A, owned by the state, and 6,000 shares of category B, held by the Billiton Company. The Dutch state now held a stake of 62.5% and received a corresponding share of profits. Tin mining in the Netherlands Indies became

Marks, *An economic history of Indonesia 1800–2010*, 85; NL-HaNa: Billiton Maatschappij en Dochtermaatschappijen: Nederlands-Indische en Indonesische Aktiviteiten N.V., 1860–1985, 30, Report shareholders meeting 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918.

[68] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48–49; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 86.

[69] NL-HaNa: Billiton Maatschappij, 88, Report concession claim 10–12–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 54–55; NL-HaNa: Billiton Maatschappij, 342, Documents regarding issue of shares 9–6–1920; NL-HaNa: Billiton Maatschappij, 30, Meetings of shareholders, 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 53; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 68.

dominated by the government. It already owned the Bangka tin mining company and the GMB was majority-owned by the government. Initial hopes of shareholders of the Billiton Company that the share of profit destined for the state would be reduced proved false. The board of the GMB consisted of five members, three appointed by the government and two by the Billiton Company. The latter also chose the director who would be in charge of management for a period of five years.[70] The GMB operated the tin mines but the Billiton Company was responsible for the management of the GMB.

After renewal of the concession in 1927 and participation in the holding concern GMB, the Billiton Company doubled its equity to *f*10.5 million in 1928. In the period after the renewal of the concession, share prices of the Billiton Company increased rapidly and in 1928 they were valued at nine times the initial stock value. By comparison, the stock value of the Deli Company had reached its peak in 1914 and performed worse during the 1920s. At the beginning of the economic depression of the 1930s, the share price of the Billiton Company dropped faster compared with the Deli Company. In the second half of the 1930s, shares of both companies recovered, but remained below their previous peak.[71]

The Billiton Company purchased other companies, such as the mining company Stannum. New areas were explored, for instance in Sulawesi where nickel was mined. Several companies were owned by both the GMB and the Billiton Company, for instance, Singkep Tin Exploitatie Maatschappij (SITEM, Singkep Tin Exploitation Company), Nederlandsch-Indische Tin Exploitatie Maatschappij (NITEM, Netherlands Indies Tin Exploitation Company), the Nederlandsche Tinhandel Maatschappij (Netherlands Tin Trading Company) and the Nederlandsch-Indische Bauxiet Exploitatie Maatschappij (NIBEM, Netherlands Indies Bauxite Exploitation Company)

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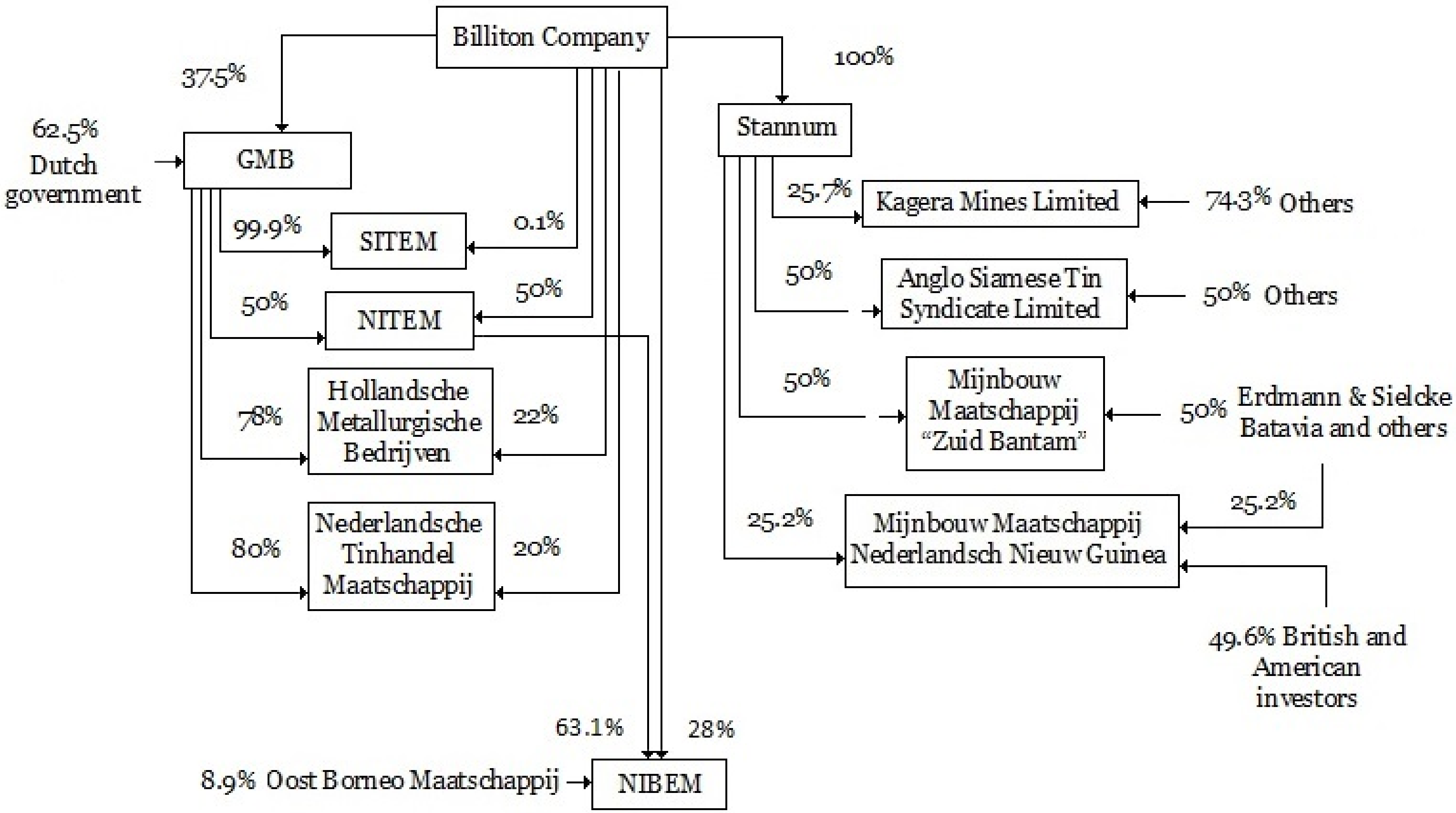
[70] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 11–12–1923; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 5; NL-HaNa: Billiton Maatschappij, 43, Annual report 1925, 5–6; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 5; Lindblad, 'Business strategies in late colonial Indonesia', 217–219; Kamp, *De standvastige tinnen soldaat*, 282–283; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 70, 116–117, 234; Touwen, *Extremes in the Archipelago*, 135; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 168–171; Broersma, *Eene zaak van regt en billijkheid*, 28–31; Taselaar, *De Nederlandse koloniale lobby*, 87; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48; A. Groothoff, *De tinfusie in Nederlandsch-Indië* ('s-Gravenhage: Martinus Nijhoff, 1937) 11–12; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 71.
[71] Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940*.

(Figure 5.8). In 1939, Billiton increased its equity to *ƒ*14 million. By this time, stock prices had recovered slightly from the economic depression of the 1930s and the aluminium companies Nederlandsch-Indische Aluminium Industrie (Netherlands Indies Aluminium Industry) and the Nederlandsch-Indische Aluminium Verwerkings Industrie (Netherlands Indies Aluminium Processing Industry) were financed by Billiton. A hydroelectric power plant and an aluminium investment syndicate were also financed.[72] In 1940, a bauxite mining facility was set up in Suriname which proved beneficial when the Second World War broke out. In May 1940 headquarters of Billiton were moved to Batavia but in 1942 headquarters had to be moved to Paramaribo in Suriname as a result of the Japanese occupation of the Netherlands Indies.[73]

[72] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 11–12–1917, 11–12–1923, 29–11–1928, 7–6, 1933; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918, 12–6–1940; NL-HaNa: Billiton Maatschappij, 59, Organisation scheme; Kamp, *De standvastige tinnen soldaat*, 194–195, 279–283; Lindblad, 'Business strategies in late colonial Indonesia', 217–218; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 70; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century,* 53.

[73] NL-HaNa: Billiton Maatschappij, 31, Report shareholder meeting, 30–5–1940, 25–3–1942; NL-HaNa: Billiton Maatschappij, 44, Annual report 1940–1948, 10; NL-HaNa: Billiton Maatschappij, 44, 361, Annual report 1940, 5.

Figure 5.8. Overview of ownership of Billiton and affiliated companies, 1936, with equity participation by subsidiary.



Source: NL-HaNa: Billiton Maatschappij, 59, Organisation scheme.

Production

Billiton's tin output increased steadily in the late nineteenth century before stagnating around 1900 at an average of some 5,000 tons. In the beginning of the twentieth century, output even dropped below 4,000 tons, but from 1910 onwards a steady increase took place. In 1921 the company produced nearly 6,000 tons. The enlargement of output at the beginning of the 1920s was motivated by the pending expiration of the concession. In the meantime, market prices dropped but cost prices failed to decline.[74]

During the brief economic slump in the early 1920s, tin producers sought to regulate the tin market by creating the Bandung Pool, in which producers in British Malaya also participated. Output remained stable, but supplies were not brought immediately to the market so as to keep prices at a high level. The situation improved after the establishment of the GMB in 1924. Output increased rapidly and more than 10,000 tons were produced annually by the second half of the 1920s.
Cost prices increased due to a lack of technological improvement and due to exploitation of new tin mines. Fortunately for Billiton, market prices rose even faster, in particular during the second half of the 1920s.[75] The market price was high at *ƒ*221.98 per picul in 1927 and output increased to 13,000 tons in 1929 before the economic depression struck.[76]

An international agreement of the International Tin Committee was signed in 1931 in London, in order to restrict the production and export of tin. The original four main tin-producing countries who signed the February 1931 agreement were British Malaya, Bolivia, the Netherlands Indies and Nigeria. Siam signed in September 1931. After the agreement was renewed in 1933, the Belgian Congo and Indochina, among others, joined in. Output was regulated and new quotas were introduced in the following years. For GMB this meant

[74] NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, Annual reports 1910–1946; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 235.
[75] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–6–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; Kamp, *De standvastige tinnen soldaat*, 192, 248.
[76] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 29–11–1928;
NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 5–6–1940; Kamp, *De standvastige tinnen soldaat*, 194–195; Lindblad, 'Business strategies in late colonial Indonesia', 218; Note: 1 picul is 62 kg.

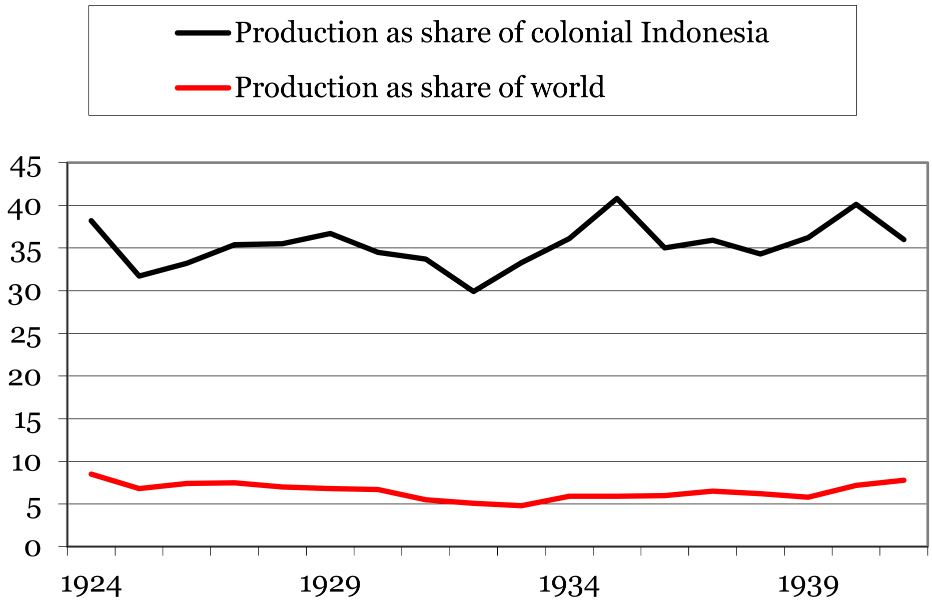
that production levels for 1931 had to be 25.15% lower than in 1930. In practice, this implied that total output of the company was restricted to less than 10,000 tons, whereas for Bangka an output of 19,000 tons was still possible.

As a result of the restriction by the international tin pool, world supplies fell from 58,000 tons in 1932 to 22,400 tons in 1934, which pushed the tin price up. Output at the GMB reached its minimum at less than 4,300 tons in 1933 but recovered afterwards. Output increased slightly again in 1934 and 1935, exceeding 10,000 tons in 1936. Between 1937 and 1941, selling prices recovered and the GMB maintained its high level of production, aided by increasing demand as a result of the start of the Second World War in Europe. In 1941 the GMB reached a new record producing 19,000 tons, but during that year increasing numbers of mine workers had to take part in military service. On 31 January 1942 tin mining operations were halted. Nevertheless, during war, new agreements were made about the restriction of tin production.[77] Overall, the output of the GMB as a share of total production remained stable. The GMB produced between 30% and 40% of all tin in the Netherlands Indies while the rest came from Bangka. The share of the GMB in world supply fluctuated between 5% and 10% (Figure 5.9).[78]

[77] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920, 9–6–1931, 7–6–1934; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 10–6–1938, 9–6–1939, 29–9–1939; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; NL-HaNa: Billiton Maatschappij, 360, Annual report 1930, 5–11, 87–92, Annual report 1932, 5–6, Annual report 1933, 7; NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 5, Annual report 1941, 5; Touwen, *Extremes in the Archipelago*, 136; Somers Heidhues, *Bangka tin and Mentok pepper*, 131; William L. Baldwin, *The World Tin Market: Political Pricing and Economic Competition* (Durham, NC: Duke University Press, 1983) 65–67; John Hillman, *The international tin cartel* (Hoboken: Taylor & Francis, 2010) 137–142; Kamp, *De standvastige tinnen soldaat*, 203–205.

[78] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 29–11–1928; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 12–6–1940; Kamp, *De standvastige tinnen soldaat*, 203 194–195; Lindblad, ‘Business strategies in late colonial Indonesia’, 218.

Figure 5.9. Tin production by GMB as a proportion of production in colonial Indonesia and world production, 1924–1941.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, Annual reports 1910–1946.

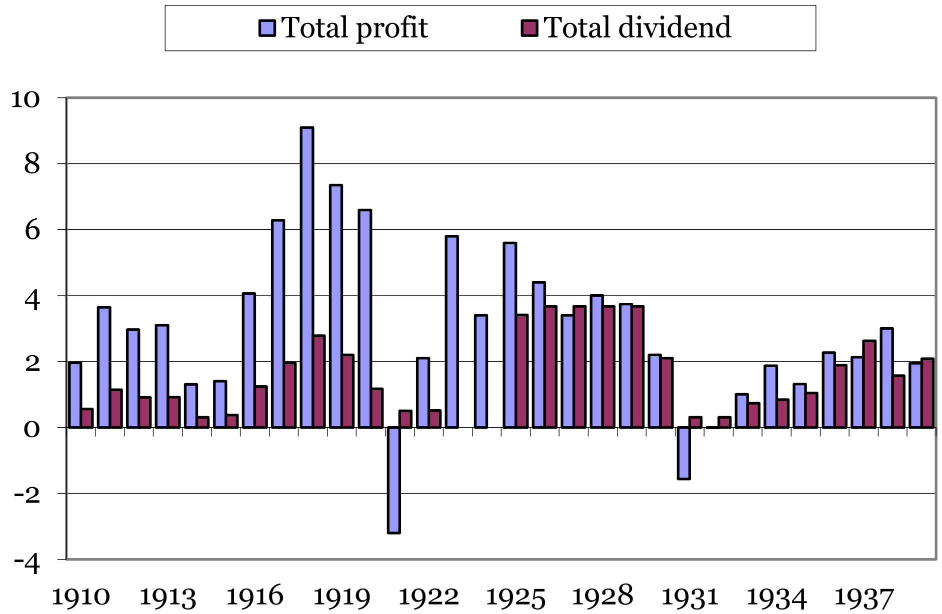
Profits

Billiton was widely renowned for its profitability. It generated substantial revenues for its shareholders and for the Dutch state. Already from 1892 onwards, 62.5% of the profits of the Billiton Company went to the state.[79] Nevertheless, the company still managed to pay large sums of dividend to its shareholders, often as a result of higher market prices. This was the case in the early and late 1910s. Large reserves were accumulated and equity was kept artificially low. This means that a relatively large share of profits was reinvested in expanding production facilities and increasing the capital stock. Between 1910 and 1915, dividend paid out averaged at around ƒ700,000 per

[79] NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 5; Baldwin, *The World Tin Market*, 65–67; Somers Heidhues, *Bangka tin and Mentok pepper*, 131; Touwen, *Extremes in the Archipelago*, 135; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 168–171; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 116–117, 234; Broersma, *Eene zaak van regt en billijkheid*, 30.

year, while average profits nearly reached *f*3 million per year (Figure 5.10). Compared with the Deli Company, Billiton was more profitable but initially paid out a lower share of its profits.

Figure 5.10. Total profits and paid-out dividends at the Billiton Company, 1910–1940, in million guilders.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.
Note: For 1923 and 1924 no dividend data available.

Still higher profits in the second half of the 1910s allowed the restoration of equity to *f*5 million in 1917. Yet assets remained undervalued even after this increase. This resulted in a high profit/equity ratio in the later years as well. During the short-lived economic crisis in the early 1920s, dividend rates were still kept at 10%, but reserves dropped from *f*7.7 million in 1920 to *f*4.5 million in 1921 and the company even took up a bond loan of *f*5 million with 7% interest.[80]

Such high dividend rates could either indicate that reserves were already large enough or that the company was conceived primarily as a source of revenue rather than as a long-term investment. The fear of losing

[80] NL-HaNa: Billiton Maatschappij, 88, Report concession claim 10–12–1920; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 68.

concessionary rights in the future or facing more governmental interference can explain this dividend policy.[81] New investments were not made until the renewal of the concession.[82] When the concession was renewed and the GMB was established in 1924, dividend rates shot up to 70% with annual dividend payments of *ƒ*3.675 million in the late 1920s for Billiton and 75% or *ƒ*12 million per year for GMB between 1924 and 1929 (Figures 5.11). Paying out dividend was preferred above accumulating reserves after the renewal of the concession (in 1927, dividend payments were so large that they partly had to be paid from reserves).[83]

In 1928, Billiton doubled its equity and, as a result, dividend rates were reduced to half in that year (Figure 5.11). During the economic depression, Billiton still paid out a dividend of 3% in 1931 and 1932, despite the fact that the company actually made losses in these years. By contrast, the GMB paid no dividend at all in these years. Production costs were still slightly higher compared to Bangka. It was estimated that the amount of tin per cubic metre of soil was higher on Bangka, which made it cheaper to produce on Bangka. From 1933 until 1937, dividend rates rose again and large dividend payments were made in 1941 when the company benefitted from more production during the war.[84] As a raw material, tin was vulnerable to price dips, yet generated a steady profit for the shareholders of Billiton and the GMB during most years, in particular during the boom periods of 1916–1919 and 1925–1930.

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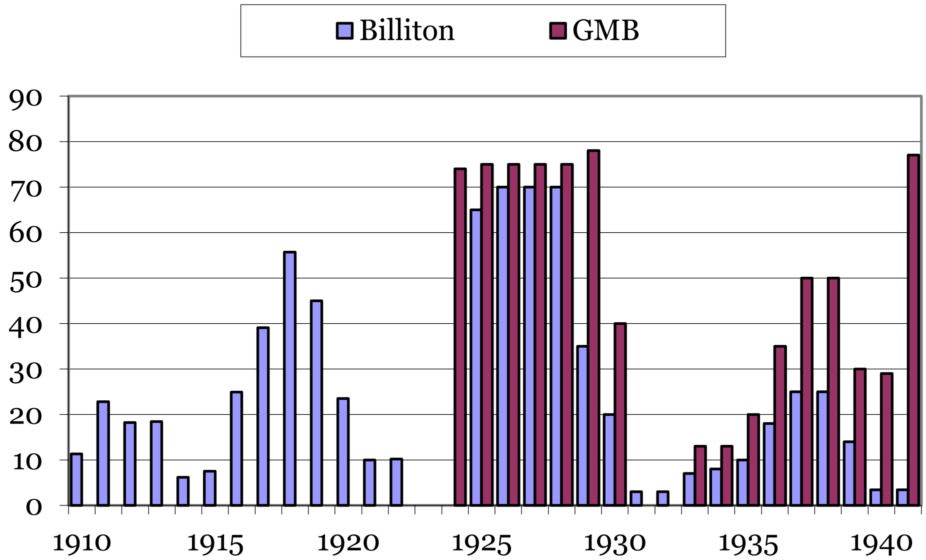
[81] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1914, 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 6, 20; Lindblad, 'Business strategies in late colonial Indonesia', 218–219.
[82] NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century,* 53–54; Lindblad, 'Business strategies in late colonial Indonesia', 218–219; Kamp, *De standvastige tinnen soldaat*, 278.
[83] NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946, Note: For 1923 no dividend data available.
[84] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922; NL-HaNa: Billiton Maatschappij, 89, Report financial situation 26–4–1937; Touwen, *Extremes in the Archipelago*, 137; Lindblad, 'Business strategies in late colonial Indonesia', 219–220; Groothoff, *De tinfusie in Nederlandsch-Indië*, 16.

Figure 5.11. Dividend rates at Billiton and GMB, 1910–1941.

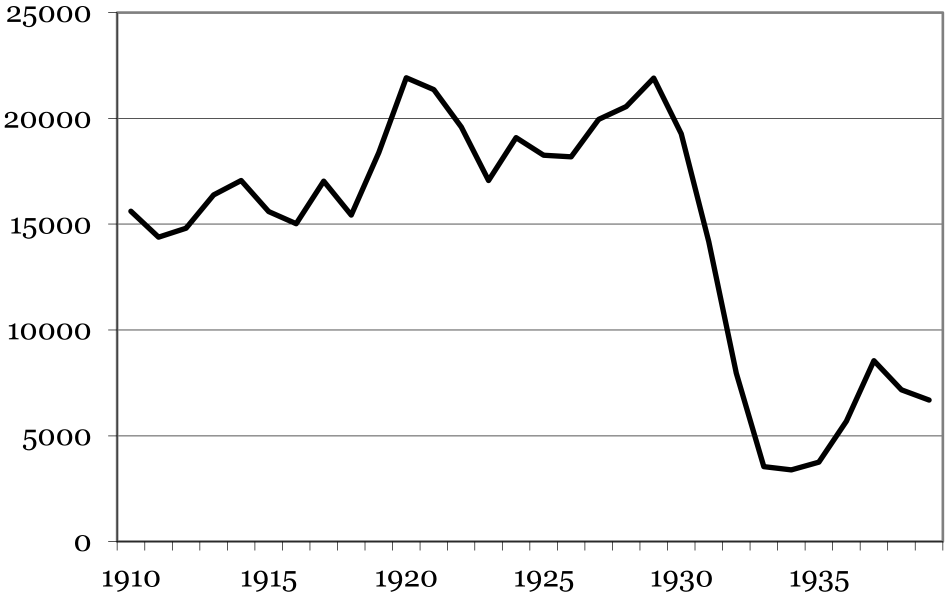


Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.
Note: Data for GMB starts at 1924. No data for Billiton for 1923 and 1924. Years 1940 and 1941 for Billiton is based on average for the period 1940–1946. In 1928 Billiton doubled its equity and as a result dividend payments corresponded to one half of total equity.

Linkages

We now turn to the various effects generated by tin mining in the local economy. First, the influx of workers. The vast majority of the workers in the Billiton mines in Belitung were Chinese. They started arriving in 1851 from Singapore. The Chinese mineworkers were recruited by the company overseas, notably in British Malaya and South China. From 1908, they were mostly shipped directly from China. In 1910, around 15,000 people worked at the Billiton Company, including 627 women and 1,113 children. In 1929, more than 21,000 labourers were employed (Figure 5.12). The workforce grew steadily until the economic depression of the 1930s, with fresh workers arriving from China every year. The number of European staff members fluctuated between 1% and 3% of the total workforce. A similar share of Chinese and Indonesian staff members worked as supervisors or assisted during mining operations.[85] In the 1930s, the number of indigenous Indonesian workers grew. Compared with the Deli Company in North Sumatra, the number of Chinese workers remained much higher at the Billiton Company. By 1939 around one-quarter of the total workforce consisted of indigenous Indonesians, mostly Javanese.[86]

Figure 5.12. Total workforce at the Billiton Company, 1910–1939.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.

Just as on Bangka (whose mines were state run), the Chinese mineworkers at Billiton in Belitung were initially divided into groups called *kongsi* in Bangka and *numpang* at Billiton. These groups were in charge of operating a mine and paid its workers directly. At Billiton, these groups were developed further, which made it possible for workers to take up additional employment after the

[85] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 4–6–1937; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 20–21, Annual report 1927, 12–13; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, 151–152; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 72; Kamp, *De standvastige tinnen soldaat*, 192, 248.
[86] NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 34–35.

first year of the contract had expired. Profits from tin production were shared and the workers selected their own boss.[87]

In the Billiton Company, around one-third of the total workforce was part of one of these *numpang*, but this proportion fell rapidly during the economic depression of the 1930s. In 1932, only 3% of the workers belonged to a *numpang*. The total workforce had at that time already declined to less than 8,000 workers. Two years later, in 1934, the bottom was reached with less than 3,500 workers. During this time there were no workers in a *numpang* anymore and the remaining workforce consisted only of free workers and part-time labourers. Although the penal sanction was officially abolished in 1931, in 1933 14.7% of the total workforce of the Billiton Company still fell under the penal sanction.[88]

Average wages for workers in a *numpang* rose from *ƒ*266 per year in 1910 to *ƒ*402 in 1931. Compensated for inflation, however, real wages declined during the 1920s, but workers who did keep their jobs during the 1930s economic depression experienced an increase in purchasing power. Total payments by these *numpang* fluctuated between *ƒ*600,000 and *ƒ*1 million a year.[89] Chinese coolies working in the Netherlands Indies did send money back to China and the Chinese miners at the Billiton Company were no exception. A tragic example is an accident in 1920 when 33 miners died after a mine had been flooded with mud and water. A compensation was sent to relatives of these miners in China, but sources do not specify how much.[90] The miners themselves usually had saved money when they returned to China as well. It was possible to save around *ƒ*200 in five or six years, but only if the miners lived very frugally. An example is documented in the annual reports, telling how in 1921, 974 miners went back to China and taking *ƒ*386,388 with them, nearly *ƒ*400 per person. Sending money to relatives abroad while still working in the tin mines also happened. This demonstrated that workers were

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[87] Van den Berg, 'Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries', 213–217; Somers Heidhues, *Bangka tin and Mentok pepper*, 125.
[88] NL-HaNa: Billiton Maatschappij, 360, Annual report 1933, 26–27, Annual report 1934, 24–25;
NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 18–19.
[89] NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; Somers Heidhues, *Bangka tin and Mentok pepper*, 79, 125–126; Mary Somers Heidhues, 'Company island: A note on the history of Belitung', *Indonesia*, Vol. 51 (1991) 1–20, in particular 7.
[90] NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 14–15; Leenarts, 'Coolie wages in Western enterprise in the Outer Islands', 137; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 30; Booth, 'Exports and growth in the colonial economy, 1830–1940', 80.

able to save some money during their contract at Billiton. In the macro economy, the flow constituted a drain of funds flowing back to China.[91]

In 1920, the company created a pension fund for its Chinese and indigenous employees, whereas for Europeans a similar fund had already been set up in 1905. A total of ƒ500,000 was put aside for this fund, less than half of the fund for Europeans.[92] The Billiton Company distributed rice to its workers at a discount. In 1910 the company bought 120,000 picul for ƒ5.90 per picul and sold it for ƒ5 each. Prices increased to ƒ7.81 per picul in 1924, but the company continued to sell at ƒ5. Subsidies on rice and other foodstuffs cost the company around ƒ100,000 to ƒ200,000 each year. For the year 1925, an estimated ƒ49.94 per worker was provided by the company in the form of food and other goods. Rice was bought from Chinese traders who also provided salt and sugar. Sometimes, rice was imported from Burma as well.[93]

The Billiton Company provided housing and healthcare for its workers. In 1907, for instance, 76 dwellings for workers had been constructed or repaired.[94] Since workers in a *numpang* often had to relocate when the soil was exhausted and a new spot found, housing facilities were often temporary.[95] Sometimes the population was forced to move when tin was found in a settlement or village and the company wished to start mining operations there.[96] As long as the company paid a compensation to the state and the area measured less than 5 hectares, it was possible to occupy areas not needed for indigenous agriculture.[97] Houses were regularly built by the company. In 1910 houses were constructed for European staff in Manggar and Tanjung Pandan, but workers had to do with 5 newly constructed sheds. Near

[91] NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 8–9, This flow of money back to China has been described by Booth and Maddison as a double drain. Since profits not only flowed back to the Netherlands, but money went back to China as well, see: Lindblad, ‘The late colonial state and economic expansion, 1900–1930’, 151; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 79; Maddison, 'Dutch colonialism in Indonesia', 322; Somers Heidhues, *Bangka tin and Mentok pepper*, 125.

[92] NL-HaNa: Billiton Maatschappij, 42, Annual report 1919, 32–33; NL-HaNa: Billiton Maatschappij, 360, Annual report 1925, 10–11; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, 36–38.

[93] NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 30–31, Annual report 1910–1911, 30–31; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 18–19, Annual report 1925, 14–15.

[94] NL-HaNa: MvO, 251, Billiton, 1908.

[95] NL-HaNa: MvO, 253, Billiton, 1913.

[96] NL-HaNa: MvO, 255, Billiton, 1918.

[97] NL-HaNa: MvO, 248, Banka en onderhorigheden, 1934; NL-HaNa: MvO, 971, Banka en onderhorigheden, 1934.

the 29 mines of the company, 35 houses were built for *numpang* workers.[98] In 1910 the company maintained that housing for workers was of a 'decent level' and, therefore, less money needed to be spent on housing.[99] Nevertheless, one year later, in 1911, the company withdrew that statement and expenditures for housing were again increased.[100] In that year 39 houses were constructed close to the mines and in 1913 another 29 houses were built.[101] The number of constructed houses varied over the following years, but until 1940 homes were still being constructed for the workers.[102]

Healthcare was a recurring issue for the company. A healthy workforce meant a higher productivity, which was reflected in lower costs of production. In 1912 two hospitals for the indigenous population living on the island in Manggar and Tanjung Pandan were renovated. One year later a hospital with six barracks was constructed in Tanjung Pandan for the workers of the company.[103] Overall, the health of the workers fluctuated subject to outbreaks of influenza, malaria and other recurring diseases. Nevertheless, the Billiton Company argued that in Deli, mortality among Chinese workers was higher than at Billiton. Also, the company argued, hospital visits were less frequent compared to Deli. At any given moment in the 1910s, 0.5–1% of its workers were in a hospital, whereas in Deli this was around 4–5%, which seems improbably high. Nevertheless, at Billiton an annual average of more than 20% of its workers visited a hospital with an average stay of 22 days. The number of hospitalized patients fluctuated between 629 in 1911 to a maximum of 7,692 patients in 1920. At Billiton, mortality among its workers fluctuated as well. The lowest figure was reported in 1934 with 19 deaths, but in 1920 it had been 229, corresponding to an annual average of 0.68% of the workforce, or around 100 workers (Appendix 28).[104]

The company had difficulties in attracting sufficient numbers of workers to construct roads, collect firewood and provide construction materials.[105] Although smelting did not take place in Belitung, firewood was essential as fuel for the increasing number of steam engines used in tin mining.[106] Agreements were made between the Billiton Company and the

[98] NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 20–23.
[99] NL-HaNa: Billiton Maatschappij, 157, Financial statement 1909–1911.
[100] NL-HaNa: Billiton Maatschappij, 157, Financial statement 1910–1912.
[101] NL-HaNa: Billiton Maatschappij, 42, Annual report 1911–1912, 24–25, Annual report 1913–1914, 16–17.
[102] NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 12–13.
[103] NL-HaNa: Billiton Maatschappij, 42, Annual report 1912–1913, 16–17.
[104] NL-HaNa: Billiton Maatschappij, 254, Annual report medical department 1911–1912, 2–6; NL-HaNa: Billiton Maatschappij, 42, Annual report 1918, 16–17.
[105] NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 25–1–1926.
[106] NL-HaNa: MvO, 248, Banka en onderhorigheden, 1934.

colonial authorities that allowed the company to get firewood from areas outside the concession. For this, the company paid a compensation of ƒ1,800 to the state.[107] Steam engines and other equipment used in mining, but not locally produced, came largely from the Netherlands.[108]

Attempts by the company to employ the indigenous population for jobs other than tin mining proved futile. Only small numbers of indigenous Indonesian workers had a supporting role in the tin mining industry or were active in construction work. The company argued that this was the result of the mentality of the island's indigenous population, calling them 'lazy'. The company thus had a strong preference for Chinese workers. More could most likely have been done by the company to engage the indigenous population in production and to strengthen backward linkages.[109] If the indigenous inhabitants wished to use wood from forests on the Belitung concession, they had to pay compensation to the colonial state. The Billiton Company had to make such payments as well. In total ƒ30,392 was paid in 1912 and ƒ15,082 in 1913, although it is not specified how much of it originated from the indigenous population.[110]

The Belitung population was in the 1920s eager to plant rubber trees, stimulated by rising world prices of rubber. This development was not encouraged by the Billiton Company. The company argued that planting rubber trees would come at the expense of rice production by the local population. If there was a crisis in the rubber market the population would have insufficient means to buy rice. Since there was not enough space available on the island for large-scale rice production, a significant part had to be imported from elsewhere in Indonesia or abroad. This rice was provided by the company at a reduced price and therefore, it would be more cost effective for the company if the local population could produce its own food instead of producing rubber.[111] During the economic depression of the 1930s, it became more difficult for the indigenous inhabitants to get a side job at the Billiton Company. Collecting firewood and construction materials was done more often by employees of the company since there was not enough work available for them in the mines and unemployment was increasing.[112]

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[107] NL-HaNa: MvO, 250, Billiton, 1907.
[108] NL-HaNa: Billiton Maatschappij, 360, Annual report, 1925, 25–29.
[109] NL-HaNa: MvO, 257, Billiton, 1928.
[110] NL-HaNa: MvO, 254, Billiton, 1914.
[111] NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 25–1–1926; P., Creutzberg, 'De prijs van de rijst in het verre verleden. Een vondst bij de Billiton Maatschappij', *Erts: Maandblad der Billiton bedrijven*, Vol. 21 (1969) 27–30, in particular 27–29.
[112] NL-HaNa: MvO, 259, Billiton, 1932.

Health care and education

In 1926 the company created the *Billiton Bevolkingsfonds* (Billiton People's Fund). Its main purpose was to improve the economic and hygienic condition of the entire population of the island. This was not limited to people employed by the company, but in particular served to freely aid the indigenous population on the island. An important assumption was that if the health of the indigenous population was good, this would have a beneficial effect on the wellbeing of the Chinese and European employees as well. Chances of spreading contagious diseases were reduced. This meant lower costs and a higher productive workforce for the company.[113]

The fund received a sum of *ƒ*500,000 from the company and was particularly successful in creating polyclinics and setting up a vocational education centre. An ambulance was bought to visit and treat patients all over the island. To drive this ambulance, an indigenous Indonesian was employed. Of the eight candidates to drive the ambulance, only one was deemed suitable and the political orientation of the employee was an important criteria when selecting the candidate. The company feared unrest among the population at a time when people were becoming politically more aware.[114] In order to finance the expansion of the healthcare activities in 1928, another *ƒ*250,000 was put in the fund. Polyclinics were established at various locations on the island and at the end of the 1930s 22 of these polyclinics were frequented by patients who had various diseases, among which malaria was the most persistent, followed by skin diseases. Medical staff from the company hospital and the polyclinics worked together. Other plans, for instance the erection of a central hospital for the indigenous population, were considered too ambitious by the company. Nevertheless, the medical facilities provided by the fund reached a large number of people. In 1928 a total number of 10,246 patients visited the polyclinics and by 1940 this had increased to 31,089 out of a total population of between 70,000 to 80,000 inhabitants. The number of visits was even higher, exceeding 45,000 in 1940 (Figure 5.13).[115] Although the

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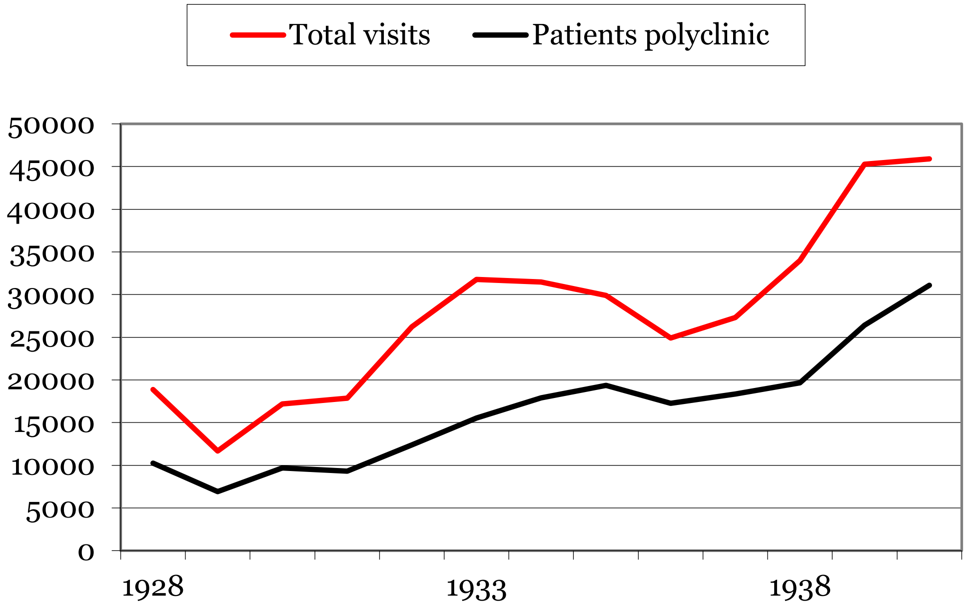
[113] NL-HaNa: Billiton Maatschappij, 360, Annual report 1926 10–11; Ochsendorf, 'Colonial corporate social responsibility', 91–93.

[114] NL-HaNa: Billiton Maatschappij, 360, Annual report 1928, 10–11; NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 12–10–1926, 15–3–1957; NL-HaNa: Billiton Maatschappij, 490, Bevolkingsfonds Billiton, Annual report 1927–1928.

[115] NL-HaNa: Billiton Maatschappij, 360, Annual report 1929, 12–13; NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 5–10–1930; Ochsendorf,

number of patients and visits increased, expenditures dropped. In 1930 expenditures peaked at ƒ30,000, but by 1938 they were only ƒ21,000 (Figure 5.14).

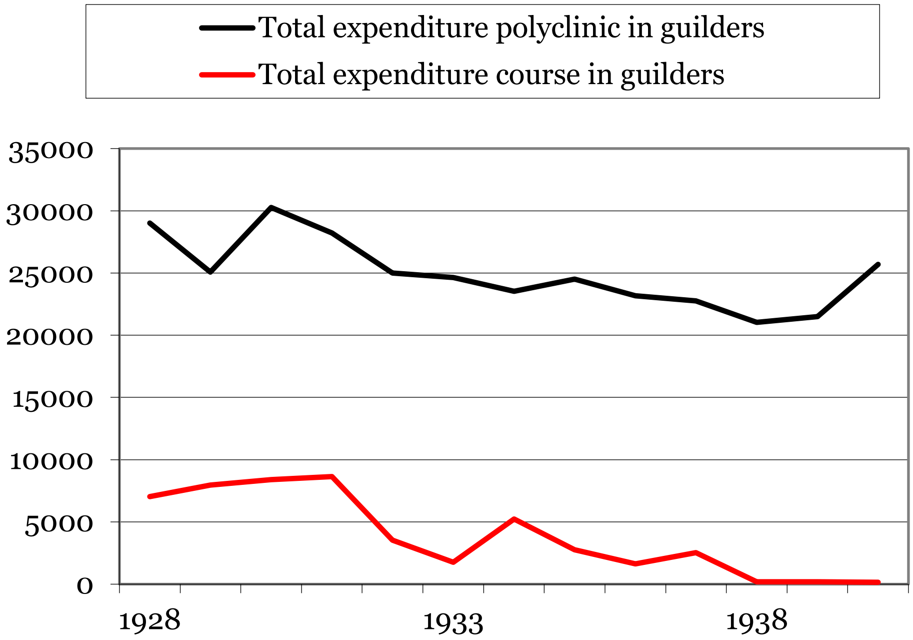
Figure 5.13. Numbers of visits and patients for polyclinics provided by the Billiton People's Fund, 1928–1940.



Source: NL-HaNa: Billiton Maatschappij, 42, 360, 361, 490.

'Colonial corporate social responsibility', 93; Mollema, *Gedenkboek Billiton, 1852–1927. I*, appendix 5.

Figure 5.14. Expenditures for polyclinics and training provided by the Billiton People's Fund, 1928–1940, in guilders.



Source: NL-HaNa: Billiton Maatschappij, 42, 360, 361, 490.
Note: The income the workers earned as a result of the employment the course created is deducted from the costs of the course.

The second target of the fund was providing education. The courses set up aimed mainly to recruit local workers for the Billiton Company by teaching relevant skills to be of use in the company. But the training the workers received was only relevant for manual labour in mining operations, whereas no initiatives were taken to prepare workers for higher staff positions. There were six classes of different levels and in total 269 apprentices completed the training. Expenditures on training dropped over time. However, it needs to be mentioned that the income the workers earned in work available after completing training was deducted from the total costs of the course.[116] In total, 2.4% of net profits was invested in the Billiton People's Fund between 1928

[116] NL-HaNa: Billiton Maatschappij, 360, Annual report 1927, 10–11, Annual report 1930, 20–21, Annual report 1931, 18–19, Annual report 1932, 14–15, Annual report 1934, 14–15; NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 10–11, Annual report 1936, 14–15, Annual report 1937, 12–15, Annual report 1938, 14–17, Annual report 1939, 10–13; NL-HaNa: Billiton Maatschappij, 490, Bevolkingsfonds Billiton, 1929–1930

and 1941, whereas funds for European employees were more than twice as large.[117]

Could the establishment of this fund be construed as an indication that labour conditions were better at Billiton and that the indigenous population on the island was better off than the inhabitants of Bangka? There are some indications that this was indeed the case. There were more complaints to the Labour Inspectorate by workers from Bangka than from Belitung. Sickness and mortality were lower in Belitung, whereas desertion rates were higher on Bangka. Between 1924 and 1927 the desertion rate was around 1% in Belitung, but on Bangka it was almost 8% in 1927. Also, workers on Bangka moved more earth than their colleagues in Belitung. This could be a sign that work was harder on Bangka, but it could also indicate that productivity and efficiency was higher om Bangka compared to mining in Belitung.[118]

Whether better, or less worse, conditions of labourers in Belitung derived from the difference between a (partly) private company such as Billiton and a purely state-owned enterprise as Bangka, remains difficult to determine. However, in the literature it is argued that the systems of *kongsi* and *numpang*, and the recruitment of workers, was different on the two islands. There was more cohesion in Belitung and the ties between management and workforce were stronger. This resulted in more freedom for workers in Belitung and a greater ability to save money.[119]

If we look at aspects such as healthcare, housing and recreational facilities, the situation was similar. Conditions of housing on Bangka and Belitung were about the same. On Bangka there were slightly more hospitals, which suggests that final demand linkages generated by (partly) private companies did not necessarily differ much from those provided by government-run operations.[120]

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[117] NL-HaNa: Billiton Maatschappij, 360, Annual report 1925, 10–11; NL-HaNa: Billiton Maatschappij, 360, Annual Report 1919, 32–33, See also: Ochsendorf, ‘Colonial corporate social responsibility’, 94, between 1928 and 1941 ƒ930,178 had been invested in the Billiton People’s Fund whereas total profits in the same time amounted to ƒ38.5 million.
[118] Somers Heidhues, *Bangka tin and Mentok pepper* 79, 125–126.
[119] Van den Berg, ‘Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries’ 208–229.
[120] Lindblad, ‘New destinations: Conditions of coolie labour outside East Sumatra, 1910–1938’, 88–89; Leenarts, ‘Coolie wages in Western enterprise in the Outer Islands’, 146–147.

Infrastructure

In Belitung, a telephone network, roads and tramways were created by the Billiton Company. Waterworks were established and electricity became more widespread at the beginning of the twentieth century. The development of infrastructure benefitted the indigenous population, whilst also stimulating the local economy, quite similar to the situation at the Deli Company. The colonial government benefitted the most, in particular from the telephone networks. In addition, government officials could make free use of cars owned by the company.[121] Belitung was visited by vessels from KPM and other shipping companies sailing between Batavia and Singapore. The ports at Tanjung Pandan and Manggar were connected with rails to the tin mines.[122] From 1910 onwards, shipping companies and the Billiton Company worked together to distribute mail for the government on the island, for which Billiton received a compensation of ƒ1,500 each year. The company began distributing mail with wheelbarrows, but after one month Billiton found this too inefficient and a postal car was acquired to transport the mail.[123]

Initially, footpaths were constructed on the island by the company. These roads were kept up by the indigenous population. In later years, the Billiton Company improved many roads that had been constructed by the government. In 1910, for instance, a road from Tanjung Pandan to Manggar was improved at a cost of ƒ46,900. Plans were then made to improve the overall condition of roads on the island. One truck was bought to transport materials for paving the roads. At this time, many roads were still unpaved, which made access with heavy equipment and car transport difficult.[124] The increase in traffic, however, must not be exaggerated. In 1915 there were only 45 cars on the island and 57 motorcycles, but an estimated 1,000 bicycles were used as well.

Gradually, wooden bridges were replaced with stone and concrete ones in order to make traffic by tram possible and roads were widened. The Billiton Company reserved ƒ10,000 annually for the improvement of roads.[125]

[121] NL-HaNa: MvO, 252, Billiton, 1910; NL-HaNa: MvO, 253, Billiton, 1913.
[122] Lindblad, ‘Business strategies in late colonial Indonesia’, 219; NL-HaNa: MvO, 251, Billiton, 1908.
[123] NL-HaNa: MvO, 252, Billiton, 1910, In 1914 the agreement of transporting mail for the government was extended and the Billiton Company would receive a compensation of ƒ225 per month, NL-HaNa: MvO, 254, Billiton, 1914.
[124] NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 6–7; NL-HaNa: MvO, 256, Billiton, 1924.
[125] NL-HaNa: MvO, 256, Billiton, 1924; NL-HaNa: MvO, 253, Billiton, 1913; NL-HaNa: Billiton Maatschappij, 42, Annual report 1911–1912, 6–7, Annual report 1915,

Nevertheless, the indigenous population also had to maintain the infrastructure as part of the *heerendiensten* (services for the government).[126] The Billiton Company in its turn paid money to the government for the use of public roads but could also receive compensation if the company repaired or constructed such roads.[127] Some roads, such as the one near the Kelapa Kampit mine, were constructed entirely for the purpose of serving the company and, therefore, fully paid by Billiton.[128] In the early 1930s there were around 600 km of roads in Belitung; 430 km of these were constructed specifically for the company.[129] In addition, there were 53 km of tramline in 1935.[130] The construction of the phone network, roads and tramways can be seen as important backward linkages created by the Billiton Company.

Smelting

Tin smelting in Belitung was less successful than on Bangka. On Bangka, numerous smelters were active at the beginning of the twentieth century. Gradually, the number of them dropped to only three in the 1930s. By contrast, experiments with smelters in Belitung did not lead to sustainable smelting facilities.[131] When the Billiton Company started its operations, each mine had its own smelting facility, but already in 1897 tin was shipped to Singapore for smelting. In 1906, more than half of the tin was smelted in Singapore.

Several years later, in 1910, a smelter was set up at Lipat-Kajang near Manggar. This smelter operated until 1921 when the company decided to process all its tin in Singapore.[132] For Billiton, it proved difficult to attract the appropriate staff and engineers required for the specialized operations in smelting. The provision of coal was complicated too and the quantities needed was more than expected. New plans were made to establish smelting facilities near Batavia, but after experiments in Germany with electricity instead of coal as fuel for smelting proved successful, GMB decided that a similar smelting

6–7, Annual report 1916, 12–13; NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 27–6–1917.

[126] NL-HaNa: MvO, 251, Billiton, 1908.

[127] NL-HaNa: MvO, 251, Billiton, 1908; NL-HaNa: MvO, 253, Billiton, 1913.

[128] NL-HaNa: MvO, 253, Billiton, 1913.

[129] NL-HaNa: MvO, 258, Billiton, 1931.

[130] NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 16–17.

[131] Touwen, *Extremes in the Archipelago*, 134; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century*, 57; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Lindblad, 'Business strategies in late colonial Indonesia', 219.

[132] NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 22–23.

facility had to be constructed in the Netherlands. A separate company was founded for this purpose in 1928.[133] The Hollandsche Metallurgische Bedrijven (Dutch Metallurgical Companies) in Arnhem was founded jointly by the GMB and the Billiton Company. In 1930 the GMB shipped its first 200 tons of tin to Arnhem in order to smelt it there and from 1931 the smelter was fully in possession of the GMB after all remaining shares had been acquired. By 1933 this smelter had become so successful that all tin from Belitung and Singkep Island was smelted in Arnhem, and in 1938 half of the tin from Bangka as well.[134]

In total, Billiton produced around one-fifth of the world's tin production. In the meantime, the facilities in Arnhem had been enlarged. However, it proved too expensive to acquire the required electricity for this process and therefore oil was used as fuel for the furnaces. When the Second World War broke out in Europe, tin from Belitung was smelted in Singapore again.[135] But Singapore was occupied by the Japanese in the beginning of 1942 and tin smelting was halted. In the United States, plans were made to build a smelter in order to meet the local demand for tin. Supported by initiatives by Billiton, this led to the foundation of the Tin Processing Corporation in 1941. In April 1942 it started its operations in Texas City, becoming the largest tin smelter in the world, with a production of 45% of the world's tin in 1946, and also smelting tin from Belitung.[136]

Taxes

Billiton was a highly profitable company and from 1892 onwards the Dutch state received five-eighths of its profit. The income accruing to the state amounted to more than ƒ800,000 in 1914 and reached its maximum in 1918 at nearly ƒ5.7 million. This amount increased further after the foundation of the GMB to ƒ13 million in 1927, dropping to ƒ4 million in 1930. During the economic depression, losses were incurred, but in 1938 more than ƒ6 million was made by the Dutch state.

Revenue from excises and taxes from the island of Belitung were substantial as well. In 1913 such revenues surpassed ƒ1 million; they doubled by 1925, although not all can be ascribed to activities of the company. Import

[133] NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 9–11.
[134] NL-HaNa: Billiton Maatschappij, 43, Annual report 1930, 9; NL-HaNa: Billiton Maatschappij, 360, Annual report 1929 48–49; Kamp, *De standvastige tinnen soldaat*, 175–178.
[135] NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 14–15; Annual report 1941, 16–17.
[136] Kamp, *De standvastige tinnen soldaat*, 180–188.

and export taxes taken together increased from around ƒ300,000 in 1910 to more than ƒ900,000 in 1924, amounting to more than ƒ8 million between 1910 and 1924. Annual proceeds from income tax, company tax and war profit tax paid by the Billiton Company exceeded ƒ100,000 from 1910 and reached a peak at nearly ƒ1 million in 1918. Proceeds fluctuated between these two extremes until 1923. Over the period 1910–1923, in total nearly ƒ4.3 million was brought in by these taxes, corresponding to 10% of total profits at Billiton.

The share of dividend and company tax in total revenues rose rapidly in the second half of the 1920s. Before 1924 company tax had generated less than ƒ100,000 annually, but after the introduction of the new company tax in 1925 this share rose substantially. Later in the 1920s, an annual average of ƒ2 million went to the Dutch state from this tax alone and in the late 1930s, after the recovery from the economic depression, a similar amount was collected, with a peak at ƒ4.6 million in 1940. Revenues from the dividend tax were lower, but still at ƒ200,000 per year between 1925 and 1940.[137]

Assessment of Billiton

The Billiton case study demonstrates that much happened on the island of Belitung. The Billiton Company attracted large numbers of workers from China, but during the 1930s it became necessary to reduce the workforce to half, even though production rose to unprecedented levels. Billiton was responsible for the construction and maintenance of a significant part of the physical infrastructure on the island. The company also provided housing and medical care for both its workers and the island's population in general. It can therefore be seen as a pioneer comparable to the Deli Company. Unfortunately, forward linkages such as tin smelting on the island of Belitung did not materialise. Just like the Deli Company, the Billiton Company was highly profitable, but Billiton did better than the Deli Company during the 1920s and the 1930s.

[137] Jarig Cornelis Mollema, *Gedenkboek Billiton, 1852–1927. II*. (Den Haag: Nijhoff, 1927) appendix 13; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, bijlage 4; NL-HaNa: MvO, 256, Billiton, 1924; NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946, the export tax on tin was partly paid by the Billiton Company and partly by the tin buyers. Income tax, company tax, war profit tax 1918 and 1919 also includes taxes paid by workers and staff.

5.4 HVA: A tale of sugar

Investment

The third and final case study concerns HVA, which started as a general trade company but later became an important player in the production of export crops, in particular sugar. In 1878 the trading company Van Beek, Reineke & Co. in Batavia, was dissolved. The operations of this firm and those of two other firms, H. Reineke in Amsterdam and Wille, Gans & Co. in Surabaya, were converted into a new company, Handelsvereeniging 'Amsterdam'. Operations began on 1 January 1879 with a total equity of ƒ1.25 million divided into 2,500 shares of ƒ500 each. The list of founders mentioned 144 names and varied from the engineering company Stork to gin distillers Blankenheym & Nolet. H. Reineke and J.L. Kuinders were the first directors of the new company with headquarters in Amsterdam. In Java, branch offices were set up in Batavia, Semarang and Surabaya. Activities were initially described as trade in general, including import and export, but excluding commercial plantations. The last-mentioned were deemed too risky.[138] The main customers of HVA included Chinese businessmen in particular and also a few Arab traders.[139]

Already in its first year of operation a consignment agreement was concluded with one sugar company in East Java. In 1880, similar agreements were made with other sugar companies and with a coffee estate as well. In 1881, equity was raised to ƒ2.5 million, and in 1882 the statutes made it possible to engage in estate agriculture. If debtors possessed agricultural estates but became insolvent, their estates could be taken over by HVA. There was a preference for providing short-term credit instead of longer commitments in order to guard against fluctuations and exposure to the world market. Therefore, it was no surprise that at a given moment HVA would become involved in the operations of several agricultural companies. This was accelerated due to the sugar crisis from 1884 and lasted until the 1890s. HVA then had to take up a bond loan of ƒ1.5 million in 1885, but running

[138] Goedhart, *Eerherstel voor de plantage*, 16–17; Joost Jonker and Keetie E. Sluyterman, *Thuis op de wereldmarkt* (Den Haag: SDU Uitgevers, 2000) 202–203; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 5; Claver, *Dutch commerce and Chinese merchants in Java*, 66; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 190–191; NL-HaNa: HVA, 11, Annual report 1910, 7–8; W. Brand, *1879 HVA 1979: Honderd jaar geschiedenis der Verenigde HVA Maatschappijen NV* (Amsterdam: Verenigde HVA-Maatschappijen, 1979) 35.
[139] Claver, *Dutch commerce and Chinese merchants in Java*, 69–71.

agricultural activities became now part of the official company policy. HVA became more strict with lending money out of fear of bankruptcies. The average credit limit of its Chinese customers was reduced from ƒ10,000 to ƒ7,000. In 1884, the agricultural activities of HVA amounted to ƒ1,150,000 and by 1891 it had increased to ƒ3,690,000. In the meantime, 11 consignment agreements had been made with sugar companies, six with coffee estates, two logging concessions and one with an indigo and tobacco producer. One year later, in 1892, equity was further increased to ƒ3.5 million in order to enable an expansion of agricultural activities.[140]

In 1893 seven-eighths of the sugar company Minggiran was in the hands of HVA, while HVA gained full possession of Kentjong and Kawarasan when its Chinese owners failed to pay their debts to HVA. Kawarasan was sold right away for ƒ200,000, since HVA was not keen on running it, but in 1894 it was again acquired by HVA. After a fruitless attempt to sell it, in 1896 it was decided to erect a new factory for this company and in the same year the sugar interests of HVA expanded with another company, Sroenie. In 1896 HVA produced sugar on an area of 1,562 hectares (2,200 bouw) with a production of 11,520 tons (192,000 picul). In the meantime, some coffee estates had been acquired as well. In 1896 they covered 3,550 hectares (5,000 bouw) with a production of 1,080 tons (18,000 picul). Gradually, production levels increased and at the turn of the century the cultivation company Menang came fully into the hands of HVA, whereas two indigo estates in Kediri were bought and converted for use in the sugar industry. In order to finance all these activities, equity was once more increased in 1899 to ƒ5 million. By that time HVA possessed six sugar estates and nine coffee plantations.[141]

Although the agricultural activities of HVA expanded rapidly, its import and export activities were far from neglected. Imported items varied from bibles to matches and lightbulbs, but products from Dutch textile producers became increasingly important. Between 1896 and 1901, total turnover at the trade branch in Java increased by 40%, and in 1904 new offices were opened in Manchester and Singapore. The willingness of HVA to invest

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[140] NL-HaNa: HVA, 11, Annual report 1910, 7–8; Claver, *Dutch commerce and Chinese merchants in Java*, 67–72, 104; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 123; J.A.M. Goedkoop, 'Handelsvereeniging 'Amsterdam' 1945–1958, herstel en heroriëntatie', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek*, Vol. 7 (1990) 219–240, in particular 221; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 9.

[141] Goedhart, *Eerherstel voor de plantage*, 20–21, 32; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 6–9.

in the sugar industry was strongly motivated by the termination of the protection of the beet sugar industry in Europe in 1902. When both import duties on sugar cane from Java and the subsidy of beet sugar in Europe were reduced, it became more profitable to produce sugar in Java.[142] In 1904, HVA acquired another sugar factory, Garoem, while six coffee estates in Kediri were transformed into tapioca and fibre producers. Plots of land between Jember and Lumajang in East Java were purchased and the single largest sugar factory in Java, Djatiroto, was built. In the meantime, equity was increased from ƒ5 million to ƒ6.25 million in 1905.

The construction of Djatiroto was an ambitious project. In 1906 construction started and eventually the area on which this factory operated covered around nearly 10,645 hectares (15,000 bouw), more than ten times the size of the average sugar factory. In 1909 it was ready to start producing but this required increasing equity on two occasions in order to finance the operations. First to ƒ7.5 million in 1908 and one year later to ƒ10 million. Moreover, a bond loan of ƒ4.5 million and reinvestment of profit proved necessary to finance these expenditures.[143] However, in 1909 and 1910 losses at the Djatiroto factory amounted to around ƒ1 million each year. Various problems such as cane fires, low fertility of the virgin soil and difficulties due to its sheer size had to be tackled. The vast administration, irrigation, the large size of the required labour force and the power supply of the machines also offered unexpected challenges.[144]

The construction of the factory cost a lot of money. Reineke argued that by 1910 roughly ƒ10 million had been spent on Djatiroto, and operating costs would eventually increase to around ƒ8–9 million each year.[145] In the meantime, doubts were voiced about the future profitability of the import and export activities. Debtors were slow in paying off loans; a problem deemed to be less serious if HVA owned and operated agricultural activities. Moreover, it was considered that the activities of HVA had become too extensive.

The import trade required funding, but equity was vital for the expansion and operation of the agricultural estates. By 1910 the value of the agricultural branch of HVA was estimated to be more than ƒ20 million, which

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[142] Claver, *Dutch commerce and Chinese merchants in Java*, 261.
[143] NL-HaNa: HVA, 11, Annual report 1909, 4–8, Annual report 1910, 9, Annual report 1919, 5; Claver, *Dutch commerce and Chinese merchants in Java*, 255; Knight, *Commodities and colonialism*, 185.
[144] NL-HaNa: HVA, 11, Annual report 1909, 8, Annual report 1910, 9; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71; Van der Zwaag, *Verloren tropische zaken*, 106.
[145] Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

was more than three times the estimate for 1904. Trading activities were valued at no more than ƒ5 million in 1910. Prospects looked more promising in estate agriculture whereas the picture for the import trade was bleak.[146] The initial failure of Djatiroto in 1910 was a major drawback and HVA ended up in a liquidity crisis needing capital at short notice. At the end of 1910, 42% of the money invested in Djatiroto had been written off. Thanks to other profitable sugar plantations, the company managed to survive.[147]

This experience led the management to conclude that it had to discontinue other trading activities and put the money into estate agriculture. After a fruitless attempt by HVA to set up its own trade company, it was eventually decided in 1910 to terminate the import trade. Goods and equipment imported from then were solely linked to the expanding agricultural activities of the company. Exports of these crops, in particular sugar, became the core activity of the company. The decision to change the company policy was not without disagreement. This change of strategy was done without consulting shareholders and led to objections. Still, decisions of the board were accepted since its position was very powerful, with directors holding around half of total equity. Therefore, the directors did not find it necessary to inform or discuss their plans with all shareholders. The new strategy was only briefly raised at the shareholder meeting of 1911, where the board stated that it was in the best interest of the company and of the shareholders.[148]

Internatio was immediately asked whether it was interested in taking over the trade activities of HVA for the sum of ƒ500,000; it was in reality,

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[146] NL-HaNa: HVA, 1, Board Meeting, 7–2–1908; Goedhart, *Eerherstel voor de plantage*, 23; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 9–10; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 123–141; Knight, *Commodities and colonialism*, 177; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

[147] NL-HaNa: HVA, 11, Annual report 1910, 7–8; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 131; Claver, *Dutch commerce and Chinese merchants in Java*, 255–259; Brand, *1879 HVA 1979*, 13–14.

[148] NL-HaNa: HVA, 13, Report shareholders meeting 21–6–1911; NL-HaNa: HVA, 11, Annual report 1910, 5–8; Claver, *Dutch commerce and Chinese merchants in Java*, 253–254; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 122–123. Compared with other large enterprises, for instance the Deli Company, staff members of HVA did usually not hold high positions in other companies. The management did not consist of people from the nobility but self-made men. HVA was also one of the few companies that was not part of the Java Suiker Vereniging (Java Sugar Association) but in 1918 it became a member of the Verenigde Java-Suiker Producenten (United Java Sugar Producers Association), Taselaar, *De Nederlandse koloniale lobby*, 69, 106; Goedhart, *Eerherstel voor de plantage*, 171–172.

valued at ƒ250,000. Internatio was reluctant and argued that the price was too high and that there was also an issue of conflicting interests.[149] HVA was now running out of options and decided to resume negotiations with Internatio. In December 1910 they succeeded in making an agreement and Internatio took over all trade in bulk goods such as ammonia, cement, iron, phosphates and wood. On the last day of 1910, the trading firm Geo. Wehry was willing to take over the trade of beverages and food. Eventually, HVA received ƒ352,000 for the sale of its trading activities. The approximately ƒ4–ƒ5 millions of capital earned annually from trading activities and obligations was directly invested in the agricultural branch. The ending of trading activities ushered in a new start for HVA. From then onwards, it could fully focus on the production of agricultural crops. Hopes were high for Djatiroto.[150] Gradually, the situation improved. In 1913 directors admitted that mistakes had been made when constructing Djatiroto. Now the future looked brighter, due to rising sugar prices.[151]

In the meantime, HVA explored areas outside Java as well in order to spread risks and not become dependent on the production of one single crop. Whilst another four sugar plantations were purchased in Java, large areas were acquired in North Sumatra for the production of palm oil, rubber, tea and sisal. This required yet another increase of equity to ƒ15 million in 1916 and a bond loan of ƒ4 million, topped by another bond loan of ƒ4.8 million in 1917. The share of equity held by the directors declined from one-half in 1911 to one-quarter in 1917.[152] By 1919, when at least ƒ10 million had already been invested in Sumatra, issued equity reached ƒ17.5 million, and at the beginning of the 1920s, HVA made plans to expand into Sulawesi and Kalimantan. Yet none of these ambitions materialized. Various reasons were given for this, such as infertile land, wrong rainfall, poor infrastructure and lack of a labour

[149] Claver, *Dutch commerce and Chinese merchants in Java*, 258; Goedhart, *Eerherstel voor de plantage*, 23.
[150] NL-HaNa: HVA, 11, Annual report 1912, 25; Claver, *Dutch commerce and Chinese merchants in Java*, 103, 257–259.
[151] Knight, *Commodities and colonialism*, 183–184; Claver, *Dutch commerce and Chinese merchants in Java*, 260; Goedhart, *Eerherstel voor de plantage*, 40; NL-HaNa: HVA, 11, Annual report 1913, 10.
[152] NL-HaNa: HVA, 11, Annual report 1916, 4, 26, Annual report 1917, 9; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 10; Knight, *Commodities and colonialism*, 148–151; Robin Murray, 'Drakentanden. HVA en de ontwikkeling van het imperialisme', in: Ferd Crone and Henk Overbeek (eds), *Nederlands kapitaal over de grenzen. Verplaatsing van produktie en gevolgen voor de nationale ekonomie* (Amsterdam: SUA, 1981) 94–115, in particular 94–96.

force. The last mentioned factor was particularly relevant for the failure of expansion to New Guinea.[153]

Production of sugar, therefore, remained the vital activity of HVA and the 1920s proved to be the best decade for this crop. The company continued to expand. In 1920 equity was increased to ƒ20 million and by the end of this decade it had reached an impressive ƒ40 million. However, even this equity of ƒ40 million was less than the real value of the assets. Already at the beginning of the 1920s, director P. Reineke argued that the real value of the company exceeded ƒ90 million.[154] Many estates and offices – including more than 1,000 homes for employees and even more dwellings for labourers – had a symbolic book value of only ƒ1. Assets were written off fast. The reduction of the value of assets stemmed from a conservative financial policy and was also undertaken for fiscal reasons.[155] In 1919, for instance, buildings and offices were bought at a price of ƒ388,648 and valued in the books at only ƒ3.[156]

Initially, capital was mobilised through issuing shares and bond loans. In the course of time, retained earnings and reinvestment of profit became more important for financing expansion. The company also had a preference for bond loans for which the company was not required to pay any dividend. As a result it could maintain its high rate of dividend for shareholders. Between 1910 and 1930, at least ƒ150 million was invested in HVA. On top of total equity, another ƒ100 million was obtained through reinvestment of profits.[157] Goedhart argues that from 1879 until 1925 ƒ100 million was invested, between 1925 and 1929 another ƒ110 million, and between 1930 and 1940 another ƒ50 million. This calculation brings the total to ƒ260 million. By the end of the 1920s ƒ60 million was invested in East Java, mainly in Djatiroto, but also in an adjacent factory and three other factories located to the south and east of Djatiroto. Goenoengsari and Semboro began producing

[153] NL-HaNa: HVA, 11, Annual report 1909, 4; NL-HaNa: HVA, 12, Annual report 1919, 5; Goedkoop, 'Handelsvereeniging 'Amsterdam'', 219–240, 234; Knight, *Commodities and colonialism*, 145; NL-HaNa: HVA, 2, Board meeting, 4–4–1919.
[154] NL-HaNa: HVA, 11, Annual report 1920, 5; NL-HaNa: HVA, 12, Annual report 1925, 5, Annual report 1926, 5; Annual report 1927, 5; Knight, *Commodities and colonialism*, 144; Taselaar, *De Nederlandse koloniale lobby*, 252.
[155] Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13; Goedhart, *Eerherstel voor de plantage*, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11, Annual report 1927, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.
[156] NL-HaNa: HVA, 12, Annual report 1919, 10.
[157] NL-HaNa: HVA, 11, Annual report 1916, 7; NL-HaNa: HVA, 12, Annual report 1917, 40, Annual report 1928, 9; NL-HaNa: HVA, 13, Report shareholders meeting 21–3–1928; Knight, *Commodities and colonialism*, 137–145.

in 1928 and Bedadoeng in 1929. Finally, in Kediri, to the west of Djatiroto, the last sugar factory of HVA was constructed in 1930.[158]

HVA truly had become a dominant player in the field. In total, HVA managed 36 agricultural estates. The majority was in Java but investment in Sumatra must not be overlooked. Twenty-one of the estates were located in Java and 15 in Sumatra. In Java the company had 15 sugar factories, four tapioca factories, of which three also produced sisal, and two rubber estates, of which one also produced coffee. In Sumatra there were five tea plantations, four sisal factories, four rubber estates and two palm oil factories. In Java the area cultivated for sugar amounted to 13,500 hectares of leased land in Kediri and another 12,500 hectares in East Java. The estates growing cassava covered 17,000 hectares and the sisal estates 5,000 hectares. For rubber, another 1,000 hectares was used and for coffee 400 hectares. In Sumatra 25,000 hectares was used for sisal, 20,000 hectares for palm oil, 10,000 hectares for tea and 9,000 hectares for rubber. In total, the company operated a vast area of 113,400 hectares.[159] During the economic depression of the 1930s, the company suffered severely and had to call a halt to long-term investments, whilst also reducing output levels.[160] At the start of the Second World War the administration moved from Amsterdam to Surabaya. HVA then still produced around 25% of all palm oil in the Netherlands Indies. Production of cassava and sisal for England and the United States continued until the Japanese invasion.[161]

[158] Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11–13; Goedhart, *Eerherstel voor de plantage*, 42, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11; NL-HaNa: HVA, 12, Annual report 1925, 12; Annual report 1927, 11–12; Annual report 1929, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden,* 70–71.
[159] Taselaar, *De Nederlandse koloniale lobby*, 40; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 130; Theophile George Emil Hoedt, *Indische bergcultuurondernemingen voornamelijk in Zuid-Sumatra: Gegevens en beschouwingen* (Wageningen: H. Veenman & Zonen, 1930), 12–13; Goedhart, *Eerherstel voor de plantage*, 326–327; Goedkoop, 'Handelsvereeniging 'Amsterdam'', 221; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12.
[160] NL-HaNa: HVA, 12, Annual report 1930, 12; Annual report 1931, 10, Annual report 1932, 11–12; Brand, *1879 HVA 1979*, 37, 71.
[161] Goedkoop, 'Handelsvereeniging 'Amsterdam'', 223.

Output

HVA's total sugar production increased rapidly from 1910, when output was less than 100,000 tons until it reached its peak in 1930, when 390,000 tons of sugar were produced.[162] By contrast, in 1930 a total of 3 million tons of sugar was produced in the Netherlands Indies. HVA expanded into becoming the largest single producer in the sugar industry. In 1910, HVA produced 7% of the total sugar production in Java, but in 1932 it reached nearly 14% (Figure 5.15). The share of the sugar production by HVA corresponded to the total acreage used for sugar in Java. Total area under cultivation increased rapidly up to the early 1930s. Roughly 200,000 hectares in Java were used for sugar production, whereas HVA occupied a total of around 26,000 hectares, which translates into a share of 13%. In terms of productivity, HVA was average. During its entire period of operations, productivity at Djatiroto was below average. In 1930, the average sugar yield per hectare was around 148 quintals or 14.8 tons. For Djatiroto, however, this was only 126 quintals. It is possible that over time Djatiroto could have managed to reduce production costs and become more competitive despite the lower productivity per hectare, but this is speculative, as in 1914 the total cost price of sugar per picul produced by HVA increased precisely because Djatiroto was included in the company's calculations from that year onwards. Djatiroto's productivity was clearly compensated for by HVA's other sugar factories in Kediri. During the economic depression only four of its sugar factories maintained operations, and in 1935 no sugar was produced at all. After the economic depression of the 1930s output figures were only half of the levels achieved during its peak. Only in 1939 did output again exceed 200,000 tons. Nevertheless, HVA managed to maintain its high share in total sugar production, a sign that the company did not fare worse than other producers.[163]

[162] NL-HaNa: HVA, 11, Annual report 1910–1918, NL-HaNa: HVA, 12, Annual reports 1919–1939.
[163] NL-HaNa: HVA, 11, Annual report 1914, 8; NL-HaNa: HVA, 12, Annual report 1935, 9, Annual report 1948, 8; Knight, *Commodities and colonialism*, 185–187; Goedhart, *Eerherstel voor de plantage*, 78, 95–103.

Figure 5.15. Sugar production of HVA as proportion of the total sugar production in Java, 1910–1939.

Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939; Creutzberg and Van Dooren, *CEI. Vol. 1*, 75–76.

By 1930 sugar prices had dropped significantly from their peak in 1920. During the peak, HVA had managed to sell at an average of *ƒ*33 per picul, but by the early 1930s market prices had dropped to less than *ƒ*5 per picul. They never fully recovered. Fortunately for HVA, cost prices had declined during the 1920s as well, yet not far enough to make the sugar business as profitable as it had been in the 1920s.[164] Next to sugar, HVA produced up to 60,000 tons of sisal, 60,000 tons of palm oil, 12,000 tons of rubber and 10,000 tons of tea each year, which helped to compensate for the declining revenue from sugar.[165]

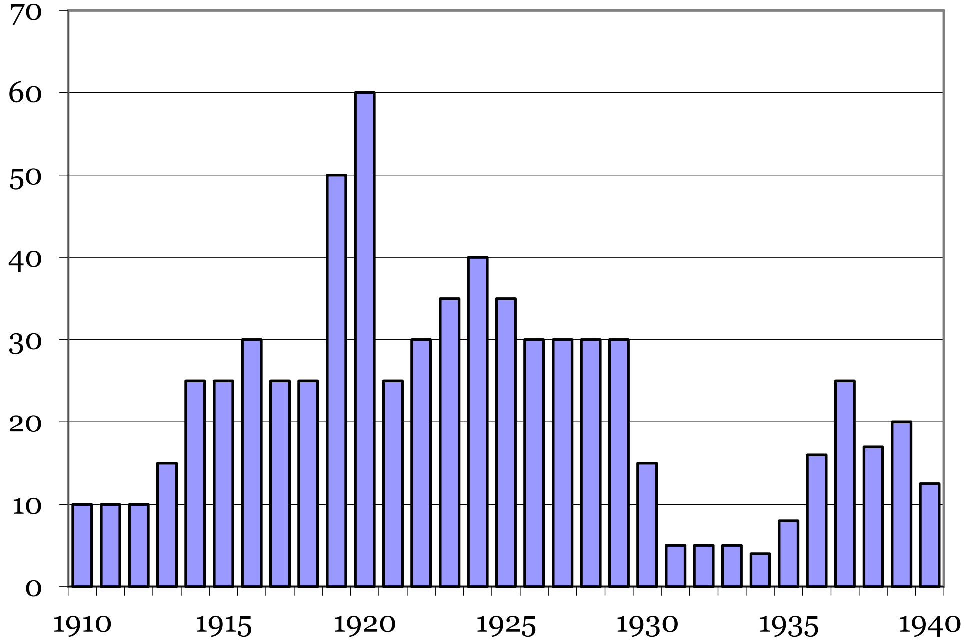
[164] Goedhart, *Eerherstel voor de plantage*, 79–81; Creutzberg and Van Dooren, *CEI. Vol. 1*, 75–76; Knight, *Commodities and colonialism*, 191–192; NL-HaNa: HVA, 11, Annual report 1909–1918; NL-HaNa: HVA, 12, Annual report 1919–1939. Note: cost price data available until 1927.
[165] Goedkoop, 'Handelsvereeniging 'Amsterdam'', 221; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12.

Profits

Net profits at HVA displayed a rapid growth during the 1910s. Although in 1910 ƒ1 million, or slightly less than one-third of profits, were still made in trading non-agricultural products, the exports and profits from sugar and other crops were necessary and became the primary source of income. After 1910 the trade of non-agricultural products was abandoned.[166] Sugar was the major source of income during the 1910s. Although the large sugar factory Djatiroto made losses until 1912 of around ƒ1 million per year, the other sugar factories offered compensation.[167] Net profits rose from ƒ2 million in 1910 to nearly ƒ14.5 million in 1920. During the sugar crisis of the early 1920s, profits declined but in 1927 a new peak was reached, generating a profit of ƒ15.5 million. Dividends increased accordingly. In the early 1910s ƒ1 million was paid to shareholders, but this amount increased to ƒ12 million in 1920 when a dividend rate of 60% was paid out. Dividend payments fell during the sugar crisis of the early 1920s but recovered again to ƒ12 million in the late 1920s. By that time, dividend rates were 30% and equity had doubled between 1920 and 1927 (Figure 5.16 and 5.17).

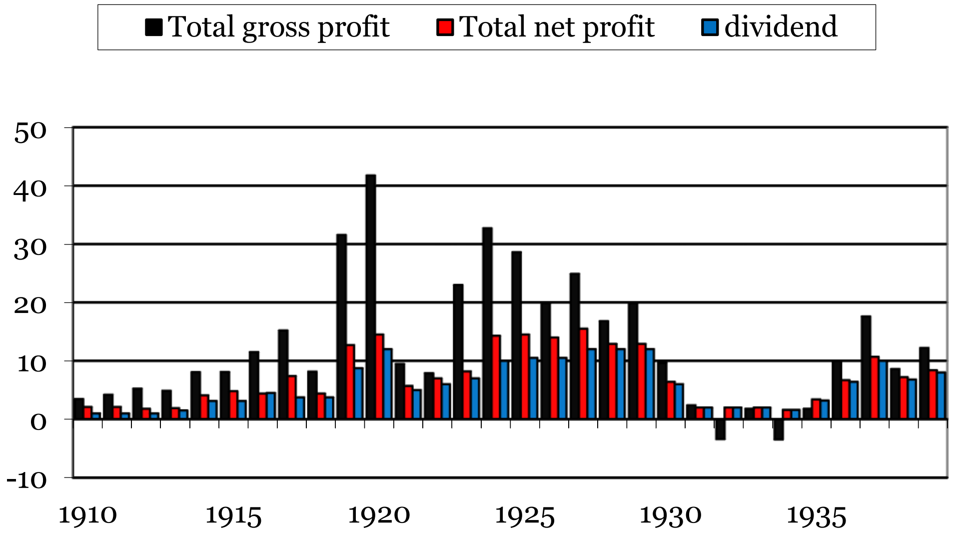
[166] Claver, *Dutch commerce and Chinese merchants in Java*, 252–254.
[167] NL-HaNa: HVA, 11, Annual report 1909, 8, Annual report 1910, 9, Annual report 1911, 8; Annual report 1912, 8.

Figure 5.16. Dividend rates at HVA, 1910–1940.



Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.

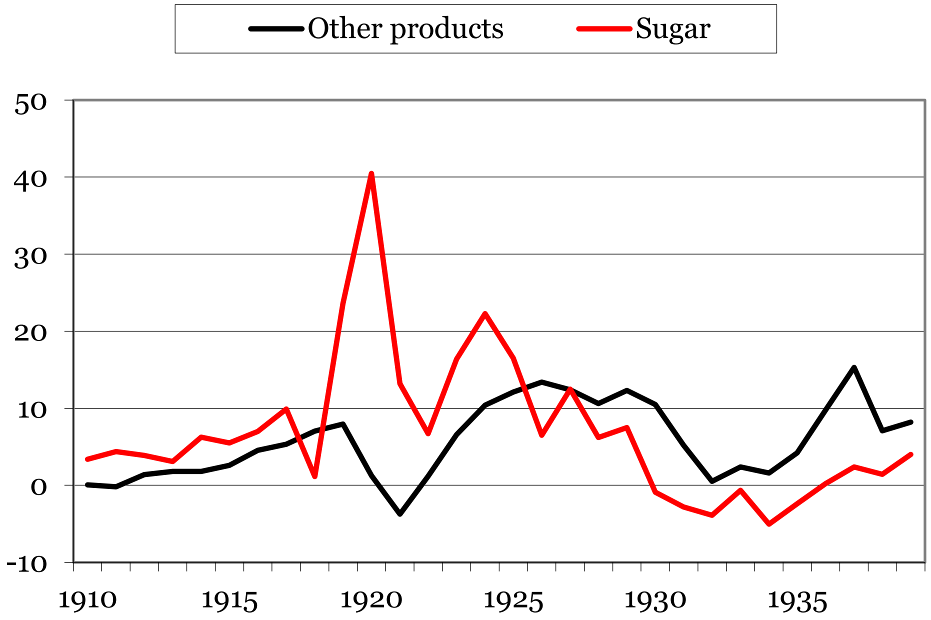
Figure 5.17. Total gross and net profits and dividends at HVA, 1910–1939, in million guilders.



Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.
Note: During the economic depression of the 1930s net profit contains dividend paid from reserves.

The economic depression of the 1930s was far worse than the sugar crisis of the early 1920s. In the early 1920s profits from sugar had dropped rapidly, but during the 1930s actual losses were made. Whereas in 1921 exports of non-sugar crops made a loss, the still profitable sugar industry kept the company out of the red. During the 1930s, however, losses in the sugar industry were too large to be compensated for by profits from the other crops (Figure 5.18).

Figure 5.18. Gross profit of HVA from sugar and other products, 1910–1939, in million guilders.



Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.

Dividend rates took a hit only once, in 1934, when a dividend of only 4% was paid out. In the early 1920s this had been 5%. In 1935 dividends rose to 8% and in the next year it doubled and remained at that level until the start of the Second World War.[168] It is important to note that profits were being reinvested. This was absolutely vital for the operations of the company. It is calculated that a total of ƒ260 million was invested in the company between 1879 and 1940.[169] Between 1910 and 1930 at least ƒ150 million was invested, of which more than ƒ100 million was acquired through reinvestment of profit. Between 1910 and 1930 net profits amounted to ƒ171 million and paid-out dividends ƒ134 million. The difference between net profits and paid-out dividends during this time was only ƒ37 million, which could be reinvested in

[168] Goedhart, *Eerherstel voor de plantage*, 93; Brand, *1879 HVA 1979*, 37, 71.
[169] Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11–13; Goedhart, *Eerherstel voor de plantage*, 42, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11; NL-HaNa: HVA, 12, Annual report 1925, 12, Annual report 1927, 11–12; Annual report 1929, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

the company. This is in line with other large sugar companies which had a pay-out ratio of 74% between 1910 and 1930. This suggests that the remainder of the ƒ100 million was reinvested before net profits were calculated by the company. Reinvested profits in reality amounted to far more than one-quarter of net profits. Arguably, HVA reinvested more than other sugar companies, whilst also raising more funds on the capital market in Amsterdam than competitors.[170]

This argument makes sense if we examine the reserves of the company. In 1930 statutory and extraordinary reserves were ƒ20 million, half of the company's equity. Reserves dropped to ƒ15 million in 1932. Between 1910 and 1930 in total more than ƒ120 million was added to various reserves of which a considerable part was reinvested in the company. In particular, reserves for the estates received significant sums, since depreciation rates were high. Each year the operations of the estates required vast amounts of capital, and since investments were written off fast reserves had to be replenished regularly. Other sugar companies did not do it differently.[171] The difference between gross profits – from which depreciation and taxes are not yet deducted – and net profits was nearly ƒ164 million between 1910 and 1930. During this period, more than ƒ130 million was written off. Assets were written off fast, especially during the 1910s and 1920s, which required the reinvestment of large sums.[172]

The amounts of capital flooding in and out of the company were truly impressive. Issued equity and net profits show only part of the results. The increase in the company's worth is also reflected in the share prices. Director Reineke stated that the company's worth was estimated at ƒ92 million in 1923 when issued equity amounted to ƒ20 million. With a share price in 1923 at 460% of initial stock value, this is a realistic estimate. During the second half of the 1920s share prices continued to increase, reaching an impressive peak at 830% in 1927, which was similar to the Billiton Company. The share price of the Deli Company, on the other hand, had peaked in 1913 and dropped to one-fifth of that level by the end of the 1920s. During the economic depression of the 1930s, share prices of HVA collapsed just as it did for the Billiton Company and the Deli Company. At the end of the 1930s, share prices recovered for all three case studies. Yet, overall a decline occurred for all of them from the 1920s until the beginning of the 1940s.

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[170] NL-HaNa: HVA, 12, Annual report 1930, 9; Knight, *Commodities and colonialism*, 142–147.
[171] NL-HaNa: HVA, 2, Board meeting 22–5–1913; NL-HaNa: HVA, 12, Annual report 1933, 5; A. Paets tot Gansoyen, 'Winsten der Suikerfabrieken', *Archief voor de suikerindustrie in Nederlandsch-Indië*, Vol. 21 (1913) 1447–1479, in particular 1454–1455.
[172] Knight, *Commodities and colonialism*, 145.

Based on share prices alone, HVA performed far better than the Deli Company at any rate between 1909 and 1942. If we take into account dividend payments, it is clear that the Deli Company performed strongly during the 1910s, paying an average dividend of 34%. The Billiton Company performed even better in that decade with an average annual dividend of 45%, whereas HVA settled for an average of 22.5%. The performance of all three during the 1910s was much better than for the average private company in the Netherlands Indies where average dividend rates did not exceed 15%. During the 1920s, the situation changed. Then the profitability of tobacco estates exceeded that of the tin mines and sugar factories. In this decade the Deli Company paid an average annual dividend of 24.2%, while for the Billiton Company and HVA the average was 53.3% and 34.5%, respectively. This was again much higher than the dividend payment rate of the average firm in the Netherlands Indies. Finally, during the 1930s, the Billiton Company and HVA did better in coping with the depression. Even though the Deli Company paid an average dividend rate of 6.8% during the 1930s, the Billiton Company and HVA outperformed the Deli Company with average dividend rates of 13.3% and 12%, respectively. Only during this period did the Deli Company perform slightly worse than the average company. This was not the case at the Billiton Company or HVA. Even during the 1930s they performed better than other dividend paying companies.[173]

A hypothetical shareholder who had bought stock in the three companies could receive a total dividend of 436% from the Deli Company, 498% from the Billiton Company, but an impressive 690% dividend in the period 1909–1942 from HVA (Appendix 5.1). On top of this, shareholders with HVA could make an additional profit when selling their shares in 1942. By that time, share prices were nearly 70% higher than in 1909. Share prices of the Deli Company, on the other hand, were more than 60% lower in 1942 compared with 1909. HVA truly was a highly profitable company during this period. With the benefit of hindsight it is easily argued that share prices were overvalued in the late 1920s. Considering issued equity of HVA at ƒ40 million in 1927, this was commensurate with ƒ328 million, which seems not grossly overestimated given the fact that between 1879 and 1940 ƒ260 million had been invested in the company.[174]

[173] Figure 5.4, 5.5, 5.10, 5.11, 5.16, 5.17; Appendix 26.
[174] NL-HaNa: HVA, 3, Board meeting 27–6–1923.

Linkages

HVA was the single largest sugar producer, accounting for nearly 14% of total sugar production in Java in the early 1930s. The size of the workforce was impressive. In total the company employed around 155,000 workers at the end of the 1920s, of whom 50,000 were active in the sugar industry. This figure is likely to include seasonal workers as well.[175] Besides the sugar industry, HVA employed 55,000 workers in the sisal and cassava industry, 20,000 workers in palm oil, 20,000 workers in tea plantations and 10,000 in rubber. In 1940 the total number of workers was about 170,000. A marked shift had taken place from the sugar industry to other industries.[176] The European staff members, on the other hand, had decreased in number from 1,300 in 1930 to less than 1,000 in 1940, meaning that a smaller number of staff members was responsible for managing an area that remained unchanged in size. Until 1940 the only Indonesian staff members were doctors in the company hospitals.[177] The Djatiroto sugar factory employed around 15,000 indigenous Indonesians; 1,750 factory workers and 1,400 planters were required for daily operations, but during the harvest another 8,500 planters and 3,500 cane cutters were mobilised. These figures include seasonal workers who were not housed by the company. They would receive a free meal, but no medical care.[178] In order to build the factory, workers had to be brought in from other areas. Canals, railways and roads had to be constructed as well.[179] We turn to such linkages after discussing the demand linkage from payment of wages.

Workers employed by the company on a permanent basis received a daily or weekly wage, whereas part-time and seasonal workers received piece wages. Their income fluctuated more. Information about wages paid by HVA is scarce. During the 1920s, sugar cane cutters on a temporary basis and

[175] Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 159. In 1930 60.7 million people lived in the Netherlands Indies. In Java and Madura this number was 41.7 million and 98% can be considered as indigenous Indonesian: Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII*, 1–5; Van der Eng, *Agricultural growth in Indonesia*, 212.
[176] Goedkoop, 'Handelsvereeniging 'Amsterdam''', 221; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12; Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8.
[177] Goedhart, *Eerherstel voor de plantage*, 108–109.
[178] Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden,* 70–71.
[179] Goedhart, *Eerherstel voor de plantage*, 38; Brand, *1879 HVA 1979*, 13–14.

working for piece wages would earn around 75 cents per day. This was 30% more than workers earning daily or weekly wages, but the latter also received free housing and medical care. Food was provided for free to both groups of workers. Wages at HVA were slightly higher than the average in the Java sugar industry, but compared with other industries wages in the sugar industry remained relatively low.[180]

As at Billiton, HVA had a pension fund for its permanent non-Western employees. And similarly, this fund was only initiated several years later than the creation of a pension fund for its European staff. In 1912 the pension fund for the European staff became active, and from 1918 plans were made to include indigenous staff as well. In 1924 ƒ500,000 was reserved for this purpose and in 1927 designated reserves increased to ƒ1.3 million. By this time, both pension funds of HVA were around the same size in terms of money. Only in 1929, fifty years after HVA had been founded, did the pension fund for indigenous employees start its operations.[181] Contract coolies in Sumatra were also included, provided they had worked for at least 30 years for the company. HVA argued that the situation for contract workers in Sumatra was different than in Java where workers did not live in a foreign environment far away from family and relatives.[182] HVA argued that the penal sanction in Sumatra was one important reason that made expansion of the company easier and made the supply of labourers more stable.[183]

HVA also leased land from the indigenous population in Java for sugar production and other crops. For the construction of Djatiroto HVA would mainly use land that was not cultivated before. The company leased this land under *erfpacht* (free state domain) from the government. This land consisted of different plots and not all of them were connected. In 1913 HVA returned some of these scattered plots to the government. The government then made such land available to the indigenous population, in return HVA had the option of renting this land again as long as it was willing to construct irrigation works in this area. On wages and land lease combined, the Djatiroto factory

[180] Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8.
[181] NL-HaNa: HVA, 11, Annual report 1912, 6, Annual report 1918, 10; NL-HaNa: HVA, 12, Annual report 1924, 21, Annual report 1927, 10, 33; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 14.
[182] NL-HaNa: HVA, 4, Board meeting 3–8–1928, 7–9–1928; NL-HaNa: HVA, 5, Board meeting 3–2–1933.
[183] NL-HaNa: HVA, 12, Annual report 1922, 12; NL-HaNa: HVA, 12, Annual report 1923, 12.

spent an average of *ƒ*4 million each year.[184] During the economic depression of the 1930s and as a consequence of declining output, HVA had to cancel contracts for land lease for various sugar factories. In 1932 the indemnification for landowners totalled *ƒ*5.2 million, in 1933 *ƒ*750,000 and in 1934 HVA had to pay landowners *ƒ*100,000.[185] The economic depression also meant a cutback of security forces on the estates of HVA.[186]

Infrastructure. Irrigation, railways and roads.

Since the Djatiroto sugar factory was constructed in an isolated area, irrigation systems and roads had to be constructed as well. HVA took advantage of drainage and irrigation schemes financed by the colonial government. HVA paid for all of the irrigation in West Djatiroto, which was more than *ƒ*1.3 million and in East Djatiroto costs for HVA for irrigation and construction of roads were estimated at *ƒ*400 per bouw, in total more than *ƒ*1.75 million. On top of this sum, the government contributed a similar amount of money for irrigation works in East Djatiroto, which were also used by the indigenous population. By 1912 the irrigation works initiated by HVA were already finished, but in 1920 the board expressed disappointment by the progress of irrigation works constructed by the government. In 1922 the works in East Djatiroto were completed as well. The claim that foreign private companies used the best soil available in the Netherlands Indies did not hold true for Djatiroto. Technological improvements and irrigation systems were necessary to increase the output, especially for Djatiroto. So-called *proefstations* (research institutes, of which HVA had its own one in Kediri) also helped to increase the productivity of crops and soil, stimulating the use of fertilizer and crop adjustments.[187]

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[184] De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 80; Goedhart, *Eerherstel voor de plantage*, 33–43; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 1; Van der Zwaag, *Verloren tropische zaken*, 102–103; Van der Mandere, *De Javasuikerindustrie in heden en verleden,* 70–71.
[185] NL-HaNa: HVA, 12, Annual report 1932, 11–12, Annual report 1933, 11, Annual report 1934, 11; NL-HaNa: MvO, 121, Besoeki, 1925.
[186] NL-HaNa: MvO, 84, Oost-Java, 1933; NL-HaNa: MvO, 115, Probolinggo, 1932; NL-HaNa: MvO, 121, Besoeki, 1925.
[187] NL-HaNa: HVA, 12, Annual report 1919, 12; Van der Zwaag, *Verloren tropische zaken*, 103–106, 210; Goedhart, *Eerherstel voor de plantage*, 36, 42, 95–103; Knight, *Commodities and colonialism*, 191–192; De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 78; Clason, 'Economische beschouwingen over de irrigatie op Java en Madoera', 17; Van Geuns, *De suikeronderneming Djatiroto en de regeling*

In the second half of the 1920s, HVA became more reluctant to invest in less fertile areas where expensive irrigation systems would have to be constructed. From then on, private companies had to pay a larger share for new irrigation works and could expect less support from the government.[188] New land was acquired from the government east of Djatiroto. In the second half of the 1920s, the sugar estates Goenoengsari and Semboro were set up in this area and a new concession was acquired for the development of Bedadoeng which was finished by the end of the 1920s. Costs for irrigation at these three factories were around ƒ1.75 million.[189] In Bedadoeng the estate area was around 3,000 bouw and the contributions for irrigation cost ƒ300 per bouw, or ƒ900,000 in total. It was common to make agreements with the colonial government about infrastructure if companies wanted to expand or construct new factories. At the start of the 1920s the government was willing to grant HVA a concession to construct a sugar plantation in Tanggul near Jember where the infrastructure was poor. In exchange, HVA was expected to provide funding for the construction of roads.[190]

HVA was not always lucky and expansion was not permitted every time. In the mid–1920s HVA asked permission for a concession in South Banyuwangi, in East Java. One-half of the area of the concession would be used for sugar, while the other half could be used by the indigenous population. The necessary irrigation works would be funded and constructed by HVA. However, the colonial government argued that in this region the total area of land available to the indigenous population and its agricultural activities was too small. As a result, the concession was not granted.[191] The local situation was important when deciding whether a concession would be granted or not.

Like the Deli Company, HVA also constructed railways. These connected the sugar cane fields to the huge Djatiroto processing factory, with

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van het werkcontract op Java, 8; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 184–188.

188 NL-HaNa: HVA, 12, Annual report 1922, 11, Annual report 1923, 12.

189 De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 188; Booth, *Agricultural development in Indonesia*, 78; Clason, 'Economische beschouwingen over de irrigatie op Java en Madoera', 17; Goedhart, *Eerherstel voor de plantage*, 36, 43; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 8; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 184–188.

190 NL-HaNa: MvO, 121, Besoeki, 1925; NL-HaNa: HVA, 12, Annual report 1926, 11–12.

191 NL-HaNa: MvO, 121, Besoeki, 1925; NL-HaNa: MvO, 104, Kediri, 1924; NL-HaNa: MvO, 110, Pasoeroean, 1919.

steam locomotives pulling long trains of flatbed wagons piled high with the cut cane intended for processing. Before 1940, the Djatiroto factory had more than 40 such locomotives and some 270km of track. The rails also carried small open-sided 'inspection cars' with seating for staff, officials or others who wanted to visit the cane fields. State-owned railway companies received around ƒ600,000 per year for the transport of sugar cane from Djatiroto.

Just like the machines of the factory, which originated from Germany, Scotland and the Netherlands, the railway equipment came partly from Germany as well. The two factories Orenstein & Koppel in Berlin and J.A. Maffei in Munich, together with Du Croo & Brauns in Amsterdam, produced numerous engines for these operations. In Kediri a railway network was present too and five sugar factories were connected by a railroad. In Deli in Sumatra, an interconnecting network with 700mm gauge and 100 steam locomotives linked HVA's palm oil plantations with each other.[192] In total, HVA owned between 2,000 and 2,500 km of narrow-track railway in 1929, with around 200 locomotives and 19,000 wagons. Railroads constructed by the government in Java and Sumatra amounted to 7,250 km at that time, although not all rails constructed by HVA were suitable for transporting large numbers of passengers and goods.[193]

The conditions of the roads deteriorated quickly when the sugar companies harvested sugar cane. This situation persisted until the roads were gravelled again in the new season. Due to the construction of more rail lines, normal roads remained in better condition for a longer time. With the construction of Djatiroto, two villages were disconnected from each other and came to depend on the company's roads. The construction of decent roads was a prerequisite in order for HVA to obtain the concession, and HVA contributed to the construction of government roads in Java and Sumatra. HVA agreed to construct a road from Nogosari to Rojopolo in the residency Lumajang, pay the largest part for this road and connect it to other main roads. However, only after 1920 was progress visible in the construction of these roads.[194] As a result, a denser network evolved and Djatiroto could be accessed from various directions. Moreover, the Probolinggo Stoomtram Maatschappij (Probolinggo Steam Tram Company) had a bus service that went to Djatiroto after the new

[192] Ravesteijn and Kop, *For profit and prosperity*, 111; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71; Goedhart, *Eerherstel voor de plantage*, 35.

[193] Brand, *1879 HVA 1979*, 60; Goedhart, *Eerherstel voor de plantage*, 83.

[194] NL-HaNa: MvO, 112, Pasoeroean, 1924; NL-HaNa: HVA, 12, Annual report 1928, 13.

road was constructed.[195] Thanks to these roads the area became less isolated and more companies were connected with each other.

Conflicts and disagreements between HVA and the government were the order of the day. Arguments varied from finding and keeping a decent workforce to issues related to irrigation and land use. The socialist influence of the government and the *Volksraad* (People's Council) were both seen as hindering and unnecessary by HVA.[196] HVA frequently complained that the government was not cooperative and disadvantaged the company more than competitors. For instance, it was argued that negligence by the government was responsible for an increased damage of cane fires, due to its slow reaction. During the reduction of sugar output in the economic depression of the 1930s HVA was allegedly hurt more than other sugar producers.[197]

Another matter that caused disagreement was taxes. HVA argued that the tax policy of the government was unfair and taxes too high. HVA considered they already exceeded the limit of what was acceptable and the introduction of new taxes and regulations led to more uncertainty for companies. It became increasingly difficult to start a profitable enterprise when taking into account the risks of the operation and the share of the profit accruing to the government. This reduced the willingness of HVA to further expand its operations at the start of the 1920s.[198] In 1923 the mood improved slightly after the interests of the company had been subject to discussion with the government. It was concluded that both should take a more positive stand towards further expansion.[199] HVA did indeed contribute to the treasury and each year HVA reserved a significant amount for taxes. Data about actual tax payments by HVA before the First World War is scarce, although the company paid more taxes after the war. In 1915 the company started to reserve money for new taxes proposed by the government. These reserves increased rapidly from ƒ1.5 million in 1915 to ƒ12.9 million in 1919 and ƒ27.8 million in 1920.[200] Such large reserves were deemed necessary to pay the war tax. Afterwards, the company argued that too much had been reserved. As a result, reserves were

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[195] NL-HaNa: MvO, 115, Probolinggo, 1932.

[196] NL-HaNa: HVA, 11, Annual report 1918, 11–12; NL-HaNa: HVA, 2, Board meeting 7–2–1919.

[197] NL-HaNa: HVA, 11, Annual report 1911, 8; NL-HaNa: HVA, 12, Annual report 1935, 10–11; NL-HaNa: HVA, 1, Board meeting 4–11–1910.

[198] NL-HaNa: HVA, 11, Annual report 1918, 12; NL-HaNa: HVA, 12, Annual report 1920, 13, Annual report 1921, 11; NL-HaNa: HVA, 13, Report shareholders meeting 4–11–1921.

[199] NL-HaNa: HVA, 12, Annual report 1923, 12; NL-HaNa: HVA, 13, Report shareholders meeting 25–6–1924.

[200] NL-HaNa: HVA, 11, Annual report 1915, 11; NL-HaNa: HVA, 12, Annual report 1919, 16, Annual report 1920, 17–18.

reduced and by 1930 they were less than ƒ6 million. During the economic depression of the 1930s, reserves for tax continued to drop until it was around ƒ2 million in 1933. In 1934 the introduction of a sugar tax also had repercussions for HVA, and in 1941 the company had to pay ƒ5.2 million for a special dividend tax that became active after the Second World War broke out in Europe.[201]

Healthcare, housing and education

HVA initiated projects related to medical care, drinking water, housing, electricity and education. In total, six hospitals were built and two dozen polyclinics were constructed. In Java there were eventually two hospitals, including the one at Djatiroto. In Sumatra there were four. It was necessary to build a hospital at Djatiroto since it was located in a remote area far away from medical facilities.[202] The costs of the hospital were estimated at ƒ20,000 annually, the colonial government providing a subsidy of ƒ8,000. The colonial authorities worried about the high death rate of the workers at Djatiroto even when the medical doctor there argued that there was no need to be concerned. Nevertheless, the high mortality could have been one of the reasons why it was difficult for HVA to attract workers.[203]

In 1919 HVA was only one of six sugar companies with a private hospital and full-time doctors of their own. It was more common for several companies to combine efforts and set up a joint hospital. Together with several other companies and a subsidy from the government, HVA founded an ophthalmic clinic in Surabaya. However, when the Red Cross asked for a contribution from HVA the company politely refused, although a modest contribution of ƒ2,000 to stimulate the research into tropical hygiene at the Royal Tropical Institute in Amsterdam was granted.[204]

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[201] NL-HaNa: HVA, 12, Annual report 1927, 11–13, Annual report 1930, 17; NL-HaNa: HVA, 12, Annual report 1933, 11–13, Annual report 1940, 9; NL-HaNa: HVA, 6, Board meeting 7–11–1941.

[202] Brand, *1879 HVA 1979*, 48, 60; Goedhart, *Eerherstel voor de plantage*, 83, 109; Handelsvereeniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13; Van Loghem, ‘Geneeskundige en hygiënische voorziening op en om suikerfabrieken’, 841–844.

[203] NL-HaNa: HVA, 1, Board meeting 5–11–1909; NL-HaNa: HVA, 2, Board meeting 5–9–1913, 5–11–1915; Knight, *Commodities and colonialism*, 176, 179.

[204] NL-HaNa: HVA, 2, Board meeting 14–12–1916, 5–4–1917, 7–12–1917; NL-HaNa: HVA, 12, Annual report 1924, 11; NL-HaNa: MvO, 123, Bondowoso, 1929; Ochsendorf, ‘Colonial corporate social responsibility’, 84–87. In 1916 ƒ5,000 was also given to provide relief for a flood in central Java, NL-HaNa: HVA, 2, Board meeting 24–2–1916.

Things were different after the Kelud volcanic eruption on May 19, 1919 in East Java. The effects were visible in Kediri where HVA had a cassava and sisal factory named Bendoredjo. It had only been constructed shortly before the volcanic eruption occurred and the factory suffered heavily with many Indonesian casualties. Although the effects of this eruption on the factory's productivity received more attention in the annual reports, the company put ƒ100,000 in the Smeroe fund. This fund was founded ten years earlier when the eruption of the Semeru volcano took place and was intended to provide help to victims of natural disasters in Indonesia.[205] HVA also agreed to provide ƒ10,000 for establishing an orphanage for victims of the eruption.[206]

Overall, HVA deemed it necessary to take into account the health of the surrounding villages as the company expanded. This was done in order to avoid the spreading of diseases. Also, if the population of the villages were in good health, they could provide more workers for the factory that was desperately in need of labourers. After 1923 HVA created polyclinics on its estates. In 1924 one polyclinic was established at Djatiroto and in 1925 a second one which would make it more easy for the local population of nearby villages to get medical help. Within three years polyclinics were also built at the new factories of Bedadoeng, Goenoengsari and Semboro. In the polyclinics, indigenous nurses were employed while a European doctor visited the polyclinics on a weekly basis. During the first five years after opening its first polyclinic, 43,000 persons visited the polyclinic and in 1926 the number of visits was 110,832.[207]

In 1927 the company made plans to build a central hospital near Djatiroto which could also be used by the nearby sugar factories. Costs were estimated at around ƒ400,000. By this time there were 22 polyclinics in total and 137,554 visits were made in 1927. In North Sumatra, in Balimbingan and Laras, central hospitals were built too, costing ƒ350,000 and ƒ450,000, respectively and HVA lent ƒ25,000 for a hospital in Medan. In 1929 the hospital near Djatiroto was completed. It included five wards with space for 28 Indonesian patients each. However, there were eight private rooms for

[205] NL-HaNa: HVA, 11, Annual report 1919, 14–17; NL-HaNa: HVA, 3, Board meeting 13–7–1919, 5–9–1919, 5–3–1920; Alicia Schrikker, 'Disaster management and colonialism in the Indonesian archipelago, 1840–1920', in: Greg Bankoff and Joseph Christensen (eds), *Natural hazards and peoples in the Indian Oceanic world. Bordering on danger* (New York: Palgrave Macmillan, 2016) 225–254, in particular 240.

[206] NL-HaNa: HVA, 3, Board meeting 7–11–1919.

[207] P.W.L. Penris, *Geneeskundige verzorging van arbeiders bij landbouwondernemingen op Java* (Amsterdam: H.J. Paris, 1930) 44, 47; NL-HaNa: HVA, 12, Annual report 1925, 12.

treatment of European patients as well. In the same year the last polyclinic was built for the sugar factory Koenir in Kediri. In Kediri HVA also contributed *ƒ*100,000 for an indigenous hospital. In total the company had 24 polyclinics and in 1930 the number of visits had increased to 267,733, whereas for the Billiton Company this number was only 17,000 in 1930, increasing to nearly 46,000 in 1940.[208]

Given the fact that Djatiroto was established in a remote swamp area, it was necessary for HVA to build housing that would improve the health and wellbeing of its workforce. Small villages were built by the company near the estates, and initially workers were housed together in barracks constructed from bamboo. For the construction of the factory, many trees were cut down and some of the wood was used for constructing houses. Later, small one-room dwellings were available and slightly more comfortable houses with a kitchen and bathroom for indigenous workers of higher rank. Numerous small shops were also attracted by the presence of these villages and the local population could find extra employment at one of the brick producers, tile-makers or support with construction works.[209] HVA did not want to go as far as creating a cement factory, in order to build houses, although the fundamental ingredients were plentiful in Java.[210]

Unlike other sugar factories, Djatiroto created villages to house the nearby population. The required workforce for the factory was so large that HVA saw no other way to guarantee a stable supply of workers. In order to prevent diseases from spreading, HVA constructed sewers and provided fresh drinking water.[211] Exactly how many dwellings were constructed for HVA's workforce is not clear. One source argues that it was more than 10,000, whereas for its staff 800 houses were built.[212] It is realistic to assume that areas inhabited by large numbers of workers were seen as company villages.

Schooling was also provided by HVA, but concrete evidence is scarce and the effects for the indigenous population are not very clear. One of the earliest examples of a contribution by HVA dates from 1905. A legal dispute

[208] NL-HaNa: HVA, 2, Board meeting 7–12–1917; NL-HaNa: HVA, 4, Board meeting 6–1–1928, 6–9–1929; NL-HaNa: HVA, 12, Annual report 1919, 10–11; Annual report 1926, 11–12, Annual report 1927, 11–13; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 5–6.
[209] Van der Zwaag, *Verloren tropische zaken*, 106.
[210] NL-HaNa: HVA, 2, Board meeting 29–5–1915, 23–6–1915.
[211] Penris, *Geneeskundige verzorging van arbeiders bij landbouwondernemingen op Java*, 12–17, 85; Van Loghem, 'Geneeskundige en hygiënische voorziening op en om suikerfabrieken', 850–854; Knight, *Commodities and colonialism*, 176; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 5–12.
[212] Goedhart, *Eerherstel voor de plantage*, 98, 108–109.

with Chinese traders was settled by HVA paying a contribution of ƒ25,000 for the construction of a Chinese school (plus ƒ5,000 for legal expenses).[213] This case cannot be seen as an example of a voluntary initiative to increase the welfare of the workforce. Two other examples include an annual contribution of ƒ250 for the renovation of a technical school in 1910, which was estimated to cost around ƒ40,000. Another contribution was approved in 1917. HVA contributed ƒ100,000 to a project that would cost at least ƒ2 million. This was the Koninklijk Instituut voor Hooger Technisch Onderwijs in Nederlandsch-Indië (Royal Institute for Higher Technical Education in the Netherlands Indies), which would later become the Bandung Institute of Technology. A plan to construct a craft school in Kediri was not approved by the directors.[214] It is highly unlikely that children from indigenous labourers would have benefitted from these types of higher education. Only one school is known of that kind, a boarding school for planters' children in Sumatra,[215] while other sources mention Malay or Javanese schools established at several estates in Sumatra during the 1920s.[216]

Assessment of HVA

The decision of HVA to specialize in the production of sugar proved to be the right one. In particular during the 1920s, when the sugar market was booming, HVA's profits increased. Operations required a large workforce, especially for the sugar factory Djatiroto. Houses were built for its workers and it was necessary to improve the healthcare in the surrounding area. This was done by the company in the first place to improve productivity of the workers and make operations more efficient. The provision of food and drinking water fits in this pattern as well, but more important were irrigation and railroads. Djatiroto made use of modern equipment, but forward linkages were not prominent. The required specialized equipment was produced abroad and local production was only stimulated by providing basic materials.

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213 Claver, *Dutch commerce and Chinese merchants in Java*, 218; NL-HaNa: HVA, 2, Board meeting 3–9–1909.
214 NL-HaNa: HVA, 2, Board meeting 4–5–1917, 1–6–1917, 7–12–1917.
215 Goedhart, *Eerherstel voor de plantage*, 83.
216 NL-HaNa: HVA, 12, Annual report 1927, 11–13; Handelsvereeniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13.

5.5 Conclusion

The three case studies discussed here all depict the firms as profitable pioneers. They were successful and expanded in the early twentieth century. Their operations were in different key sectors. Yet, a caveat is needed to the effect that these three firms obviously did not represent the entire colonial economy. All three companies had matured before 1910 and the peak of their operations was between 1910 and 1942, although they remained active also in independent Indonesia. In this chapter I have focused on investment, profitability and linkages. Equity of the companies increased and numbers of production units grew, resulting in a larger output of sugar, tin and tobacco. All three companies were highly profitable during the 1910s and 1920s. Although the companies were active in different industries, they all suffered during the economic depression of the 1930s but managed to recover afterwards. During the economic depression the companies tried to reduce production in order to keep prices high, while at the same time cutting costs.

New investment in the late 1930s was undertaken sporadically and overall, the companies had by that time reached their peak in terms of expansion and production. They counted among the largest firms in their respective industry and were on average more profitable than most other companies. Especially during the 1910s and 1920s they paid out more dividend than average. Despite – or thanks to – their profitability all three companies contributed to the development of the local economy. Infrastructure was one of the most visible aspects. Railroads and roads were constructed by the Deli Company, Billiton and HVA. With the DSM, the Deli Company played a large role in connecting remote locations in North Sumatra, also setting up a telephone service. Infrastructural projects at Billiton were limited to the island Belitung. Next to roads, the company did set up a telephone network and tramways from which the local population as well as the colonial government benefitted. HVA also constructed railways connecting the sugar cane fields to the sugar factories. As a result, normal roads were less densely used by the company, which prevented them from deteriorating fast. Besides these railways which were mainly used for transporting sugar cane, the company also constructed roads connecting villages surround the Djatiroto factory. Ambitious irrigation projects were also initiated by HVA, sometimes supported by considerable funding from the colonial government. Especially for the production at Djatiroto, it was necessary to create a large irrigation system.

The three companies required large numbers of workers. In North Sumatra the Deli Company initially employed a vast number of Chinese coolies, but from the 1920s onwards the work force increasingly originated from Java. The majority of them were coolies under contract with penal sanction. In total, more than one-tenth of the coolies subject to penal sanction in North Sumatra worked for the Deli Company and the company employed one-third of the total number of coolies without penal sanction. Workers had to be imported since the local population found the wages offered by the companies too low. Moreover, the employers had more control over an imported workforce compared to local labourers. The majority of the workers of the Billiton Company was Chinese. Although from the 1930s onwards more indigenous workers were employed by the company, the Chinese workforce remained dominant. HVA was the largest sugar producer and had an impressive workforce. At the end of the 1920s the company employed 155,000 workers and 50,000 of them were active in the sugar industry. This figure included seasonal workers as well.

The workforce of the companies was supported with healthcare, housing and schooling. Such linkages can be seen as a necessary condition for starting operations. They made the workforce more productive and the surrounding population could also draw some benefit from these services. This was particularly the case with healthcare and housing. The Billiton Company in particular also provided medical aid which was not limited to the workers of the company only, but also beneficial to the other inhabitants of the island. HVA also built a number of hospitals and polyclinics in order to provide care for its workers, since its estates were often located in a remote area. Providing medical care led to a higher productivity of the workers and was directly beneficial to the company. The provision of food, drinking water and housing fits into this pattern as well. With the houses constructed by the companies the workers could live close to the factories, which saved travel time and made operations more efficient for the company.

The provision of education, on the other hand, was likely to affect only a marginal share of the indigenous population. Schools were built by the companies for the children from the labourers and training was provided as well, but the possibilities of getting promoted were small. Wages and compensation for the use of land can be considered moderate, but the opportunity cost and displacement of land also need to be taken into account. Workers were imported from China or brought from Java to North Sumatra because it was cheaper than to recruit local labourers. During certain periods, significant areas of land could be occupied by the companies and it cannot be ruled out that force was used by the companies to move the population or getting access to land.

Next to this, forward linkages were few and far between. Smelting of tin ore did not take place in Belitung and tin was usually processed in Singapore, the Netherlands and later in the United States. The Deli Company did not produce cigars from its tobacco leaves and besides processing the harvested sugar cane, not many forward linkages materialised at HVA. More could also have been done to involve the indigenous population for other work activities, such as construction work. Although the companies and their leaders had good intentions in taking care of their workers, this was mainly done in order to increase efficiency and profitability of the company. It was a welcome addition when the indigenous population benefitted from the activities of the companies, but production levels and profits remained more important. Whether the situation improved or became worse after the Second World War will be discussed in the next chapter.

Chapter 6. Operations by Dutch firms in early independent Indonesia

6.1 Introduction

In this chapter, I will discuss developments in Indonesia from 1942 until the late 1950s. This time period is divided into three phases, each with a character of its own and a unique type of business for foreign, and in particular, Dutch, firms.

The first phase 1942–1949 runs from the beginning of the Japanese occupation until the transfer of sovereignty by the Dutch to Indonesia (6.2). During the Japanese occupation, the Dutch lost their hold on the colony and after the war Indonesia proclaimed itself independent. Yet the Dutch tried to retain power. Regaining access to the private foreign companies, repairing factories and making them operate again were the chief conditions for the Dutch in order to succeed in Indonesia. The next phase 1950–1956 gives an insight into the development of private foreign companies in Indonesia until the abrogation of the Netherlands-Indonesian Union in February 1956 (6.3).[1] The final section, and phase covering 1956–1960 (6.4), describes the takeover and nationalisation of Dutch companies and the virtual end of Dutch investment in Indonesia. With the takeover of Dutch companies, the colonial era finally came to an end. Including the first years after the nationalisation of Dutch companies until 1960, the final part provides us with useful information about the effects on the economic development of Indonesia, when the country had achieved both political independence, and also economic independence, from the Netherlands. New investment in Indonesia which took place on a large scale from the second half of the 1960s onwards, falls outside the scope of this research.

The phase discussed in this chapter gives us an overview of the changing situation after the Dutch lost their hold on Indonesia, the struggle of the Dutch to take charge of Indonesia again, and their final expulsion from the country. Three topics are addressed: the development of foreign investment after 1945; the process culminating in nationalisation, 1950–1960; and the impact of foreign investment on the Indonesian economy in the period 1945–1960.

First, investment after the Pacific War is discussed. Many factories and estates were destroyed or heavily damaged during the Japanese occupation

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[1] M.C. Ricklefs, *A history of modern Indonesia since c. 1200* (Basingstoke: Palgrave Macmillan, 2008) 305; Jean Bush Aden, *Oil and politics in Indonesia, 1945 to 1980* (PhD thesis, Cornell University, Ithaca, NY, 1988) 148.

and the following Indonesian Revolution. Recovery and reparations are discussed first. Adjusting investment policies to Indonesia's independence in 1945 is the next issue, preceding nationalisation. There was an abrupt halt to investment of Dutch capital which had repercussions. Some companies with headquarters in the Netherlands did manage to find new destinations for their overseas investment after the nationalisation, but others did not. Assets were taken over by the Indonesian government, which took charge of these companies after the law on the nationalisation of the Dutch companies was promulgated in December 1958.[2]

The second topic concerns the fear of nationalisation, which had profound effects on remittances and reinvestment of profits. This differed substantially from the pre-war period. Foreign companies continued to operate at a profit after they had recovered from war and revolution. Despite political problems, they chose to stay in Indonesia, hoping that the situation would improve. Nonetheless, not all sectors recovered from the war and several companies were reluctant to invest in Indonesia and decided to look for new opportunities abroad. Such changes provide an insight into how different sectors developed in the long run and the extent to which Indonesia remained a competitive player in export markets.

The third topic refers to profits and linkages. The positive effects of linkages are likely to have been smaller in the post-war period, since most funds were used for recovery from war damage and companies were reluctant to make new investments because of the political turmoil of the late 1940s and 1950s. Long-term investment was less pronounced, which implied less money spent on irrigation, infrastructure and other projects. Fiscal linkages arguably became more important, considering also that the Indonesian government introduced new legislation that included new taxes and constraints on overseas transfer of profits. By this analysis, it is possible to answer the key question, which is to what extent did foreign private companies contribute to the economic development of Indonesia during the early independent era?

6.2 Japanese occupation and Indonesian Revolution, 1942–1949

After the capitulation by the Netherlands Indies on 9 March 1942, all oil installations were put under management of the Japanese and foreign-owned agricultural estates were seized. On 11 April foreign banks were closed down

[2] J. Thomas Lindblad, 'The economy of decolonization in North Sumatra', in: J. Thomas Lindblad and Peter Post (eds), *Indonesian Economic Decolonization in Regional and International Perspective* (Leiden: KITLV Press, 2009) 87–106, in particular 95–97.

and their assets confiscated.[3] Their assets and activities were taken over by the Japanese.[4] The oil sector was heavily affected by the policy of the Japanese. Oil installations were managed by the Japanese navy, which initially tried to resume operations and restore production by making employees return to their work. Various Dutch and other Western engineers were even briefly released from internment. Within a few weeks, the Japanese authorities were able to resume the operation at the oil installations in Tarakan, Balikpapan and Palembang. But the damage caused by a Dutch scorched-earth policy resulted in a decline of output in 1942 to less than half of the 1938 level. In order to increase oil production, the Japanese brought 4,000 oil technicians to the Netherlands Indies, which amounted to 70% of all skilled personnel available for Japan in the oil industry. Technical training schools were established for Indonesian workers in the oil industry and they advanced to positions that had previously been closed to them.

Between April 1942 and March 1943 oil production amounted to 4 million tons, of which 40% was exported to Japan. Whereas in 1943 production rose to 6.5 million tons (90% of the 1938 level), it fell again to only 850,000 tons in 1945. The war had disrupted the transport sector and tankers shipping oil to Japan were sunk by enemy action more often in the later stages of the war.

Although oil production was controlled by the Japanese army, Japanese private companies were urged to invest in various other industries. For instance, Mitsubishi was in charge of the tin mines on Bangka and Belitung, Mitsui was active in bauxite and coal mining and managed the Ombilin and Bukit Asam coal mines, whereas Sumitomo operated nickel mines in Sulawesi.[5] Output at Ombilin dropped drastically from 228,724 tons

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[3] Lindblad, *Bridges to new business*, 48; Peter Keppy, *Sporen van vernieling: Oorlogsschade, roof en rechtsherstel in Indonesië, 1940–1957* (Amsterdam: Boom, 2006) 28; Peter Keppy, *The politics of redress. War damage compensation and restitution in Indonesia and the Philippines, 1940–1957* (KITLV Press: Leiden, 2010) 23; Peter Keppy,'Occupation: Economy', in: Peter Post et al. (eds), *The encyclopedia of Indonesia in the Pacific War* (Brill: Leiden, 2010) 218–281, in particular 219; Korthals Altes, *Tussen cultures en kredieten*; 371.

[4] Pham Van Thuy, *Beyond political skin. Colonial to national economies in Indonesia and Vietnam (1910s–1960s)* (Singapore: Springer, 2019) 26–27.

[5] Pham Van Thuy, *Beyond political skin*, 25–26; Lindblad, *Bridges to new business*, 53; Burgers, *De garoeda en de ooievaar*, 262–263; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 40–42; Allen M. Sievers, *The mystical world of Indonesia: Culture and economic development in conflict* (Baltimore: John Hopkins University Press, 1974) 156; J. van Goor, *De Nederlandse koloniën: Geschiedenis van de Nederlandse expansie, 1600–1975* (Den Haag: SDU Uitgeverij, 1993) 315; Stephen Howarth and Joost Jonker, *A history of Royal Dutch Shell: Powering the hydrocarbon revolution, 1939–1973* (Oxford: Oxford University Press, 2007) 65–

of coal in 1942 to only 50,324 tons in 1945, even though the Japanese tried to find skilled workers to increase production and machines were brought in from the tin mines in Bangka to the coal mines.[6]

Different strategies were applied by the Japanese in the agricultural sector. Because the rubber industry had a vital military function, the military administration initially kept tight control. In July 1942, however, the Saibai Kigyô Kanri Kôdan (SKKK, Agricultural Estates Management Corporation) was put in charge of all agricultural estates, with the exception of sugar. In May 1944, activities of rubber and other agricultural plantations supervised by the SKKK were granted to private Japanese companies, and the few Dutch managers that were left had now been replaced by Japanese. In the meantime, rubber production dropped from 99,000 tons in 1940 to only 24,000 tons in 1944. Similar to the oil industry, the export of agricultural products was hindered by a shortage of shipping capacity.

Sugar was less vital to war production and initially the management of the sugar estates was in hands of the Tōgyō Rengōkai (TRK, Federation of the Sugar Industry Corporation). In November 1942, the control of the sugar companies in Java was transferred from the TRK to six Japanese companies.[7] These six companies, together with Oei Tiong Ham and two Indonesian sugar estates, controlled the production of all sugar in Java. Dutch managers supervised operations until August 1943. Like rubber, the output of sugar fell dramatically during the Japanese occupation. By 1940 the sugar industry had

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66; Anderson G. Bartlett, *Pertamina: Indonesian national oil* (Jakarta: Amerasian, 1972) 54; Ida Liana Tanjung, 'The Indonesianization of the symbols of modernity in Plaju (Palembang), 1930s–1960s', in: Freek Colombijn and Joost Coté (eds), *Cars, conduits, and kampongs. The modernization of the Indonesian city, 1920–1960* (Leiden: Brill, 2015) 300–322, in particular 310–312; Booth, *Economic change in modern Indonesia*, 35; Bisuk Siahaan, *Industrialisasi di Indonesia: Sejak hutang kehormatan sampai banting stir* (Jakarta: Pustaka Data, 1996) 108; Shigeru Satō, *War, nationalism and peasants: Java under the Japanese occupation 1942–1945* (Armonk: Sharpe, 1994) 5–8; Somers Heidhues, 'Company island: A note on the history of Belitung', 14; Ethan Mark, *Japan's occupation of Java in the Second World War* (London: Bloomsbury Academic, 2018) 209; Djajusman, *Hancurnya angkatan Perang Hindia Belanda* (Bandung: Angkasa, 1978) 67; NL-HaNa: Billiton Maatschappij, 41, Annual report 1943–1946, 1.

[6] Pham Van Thuy, *Beyond political skin*, 26–27; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 135.

[7] Lindblad, *Bridges to new* business, 49–53; Pham Van Thuy, *Beyond political skin*, 27; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 135; Keppy, *Sporen van vernieling*, 139–142; Keppy,'Occupation: Economy', 224–225; Twang Peck Yang, *The Chinese business elite in Indonesia and the transition to independence, 1940–1950* (Kuala Lumpur: Oxford University Press, 1998) 92–93; M.A. Aziz, *Japan's colonialism and Indonesia* (The Hague: Martinus Nijhoff, 1955) 188–190.

slightly recovered from the economic crisis and in 1942 1.3 million tons of sugar were still being produced. In 1943, output nearly halved to 680,000 tons and 500,000 tons in 1944. In the final year of the war, less than 100,000 tons were produced.

In 1945 only 51 sugar factories were operational out of the 112 estates that had been active in March 1942. At HVA, for instance, of the 16 sugar factories seven remained in operation during the war and in 1945 only Ngadiredjo was active. Only Djatiroto II and Semboro were recoverable of the remaining sugar factories owned by the HVA. During the war, several sugar refineries, such as Djatiroto I, had been converted to the production of butyl alcohol from sugar-cane. This was mixed with petrol and used as fuel for airplanes. Sugar estates were also converted for the production of food crops and cotton in order to reach self-sufficiency. Other estates met the same fate. The acreage of tea estates declined by one-third, the oil palm industry by 16% and the rubber industry by 12%. Total production of the main food crops in Indonesia also dropped due to the war. In 1945 rice production had dropped by one-third, output of cassava was halved and maize production was even more affected with a drop of two-thirds. Food shortages and famine were rampant.[8]

Post-war development and recovery

Lack of statistics makes it impossible to give a good estimate of the decline in GDP and standards of living in Indonesia during the Japanese occupation. Initial estimates by Van der Eng showed a sharp decline in GDP: in 1945 it was less than half compared with 1941.[9] Later, however, Van der Eng omitted the

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8 Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 134–135; Lindblad, *Bridges to new business*, 53; Hartveld, *Raising cane*, 51–52; A. Kraal, ‘Indonesie en suiker’, *Ekonomi dan Keuangan Indonesia*, Vol. 6 (1953) 745–767, in particular 745–750; Burgers, *De garoeda en de ooievaar*, 317–319; Stoler, *Capitalism and confrontation in Sumatra’s plantation belt, 1870–1979*, 97; T.F.H. Postma, J.W. d’Hane and J.A. von Meijenfeldt, *De Javasuikerindustrie gedurende de Japansche bezetting* (Batavia: Departement van economische zaken in Nederlandsch-Indië, 1946) 10–14; Pelzer, *Planter and peasant*, 124; NL-HaNa: HVA, 7, Report shareholders meeting 1–11–1946, 3–4–1947, 5–9–1947; NL-HaNa: HVA, 12, Annual report 1948, 10; Goedhart, *Eerherstel voor de plantage*, 142; Roger G. Knight, ‘From Merdeka! to massacre: The politics of sugar in the early years of the Indonesian republic’, *Journal of Southeast Asian Studies*, Vol. 43 (2012) 402–421, in particular 405; Brand, *1879 HVA 1979*, 74; J.P. van de Kerkhof, ‘”Defeatism is our worst enemy”. Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958’, *Lembaran Sejarah*, Vol. 8 (2005) 109–127, in particular 111–112.

9 Van der Eng, ‘The real domestic product of Indonesia, 1880–1989’, 369.

data for this period from his calculations, still maintaining that the peak of pre-war GDP per capita in 1941 was only reached again in 1971.[10]

The manufacturing sector was less affected. Local producers benefitted from import restrictions and the total number of factories increased from 340 in 1942 to 540 in 1945. Yet the overall situation was grim, not only in terms of economic development, but also for the millions of Indonesians who suffered during the war and those enduring forced labour.[11] The damage done to the economy during the war was estimated at *ƒ*2.3 billion (in 1942 prices). This was comparable to 50% of GDP in colonial Indonesia in 1941. Recovering the economy and bringing economic development back to Indonesia would cost much time and energy.[12]

Although the Netherlands had been defeated in both Europe and Asia, the Dutch government was convinced that colonial rule over the Indonesian archipelago should be restored. The very idea of colonial rule was not questioned by the colonizer. Law and order had to be recovered before there could be any talk about independence. In the meantime, the situation had changed in Indonesia, where independence was proclaimed on 17 August 1945 by Sukarno and Hatta, two days after the Japanese capitulation. Even though chaos was rampant and the political situation was unstable after 1945, many Dutch companies were eager to continue operations as if nothing had happened. Factories and plantations were heavily damaged and repair would take considerable effort.[13] Of the 136 ships the KPM possessed in 1939, only

[10] Pierre van der Eng, 'Indonesia's economy and standard of living in the 20th century', in: J. Lloyd Grayson and Shannon L. Smith (eds), *Indonesia today: Challenges of history* (Singapore: Institute of Southeast Asian Studies, 2001) 181–199, in particular 182; Van der Eng, 'Indonesia's growth performance in the twentieth century', 172–173.

[11] L. de Jong, Jeroen Kemperman and Jennifer Kilian, *The collapse of a colonial society: The Dutch in Indonesia during the Second World War* (Leiden: KITLV Press, 2002) 54; Lindblad, *Bridges to new business*, 54; Rémy Limpach, *De brandende kampongs van generaal Spoor* (Amsterdam: Boom, 2016) 52; David van Reybrouck, *Revolusi. Indonesië en het ontstaan van de moderne wereld* (Amsterdam: De Bezige Bij, 2020) 290, 471.

[12] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 136; Van der Eng, *Economic benefits from colonial assets*, 23; J.J. van der Wal, *De schade en het herstel: Dit rapport vormt het resultaat van een studie, welke in de periode van 1 januari – 1 mei 1945 gemeenschappelijk werd gemaakt* (n.p., 1946) 24.

[13] Sluyterman, *Dutch enterprise in the twentieth century*, 167; Keppy, *Sporen van vernieling*, 31; J.J.P. de Jong, *Diplomatie of strijd: Een analyse van het Nederlands beleid tegenover de Indonesische Revolutie 1945 1947* (Meppel: Boom, 1988) 84; Sievers, *The mystical world of Indonesia*, 151; Booth, *Economic change in modern Indonesia*, 2; Jaap van der Zwaag, *Tjoeroeg: De Indische ondernemingslandbouw en de ondergang van een rubbercultuurmaatschappij* (Meppel: De Feniks Pers,

26 remained when the war was over.[14] Installations at oil refineries had suffered badly from the war. Those at Balikpapan in East Kalimantan had been destroyed twice. In 1942 they were destroyed by the Dutch to prevent the Japanese from using the installations for war production, and when the Japanese were losing the war in 1945 the installations were destroyed again.

Already during the war, in April 1945, the United States and the Netherlands made an agreement. The Dutch would receive $98 million in credits to be used in the first half year after liberation if they made vital raw materials from colonial Indonesia, such as oil and rubber, available to Allied troops. After the Japanese capitulation, however, the American army transferred command to the British forces. The progress of the British in reconquering the Indonesian archipelago was much slower than the Dutch had hoped, which also resulted in disappointment about the progress of making available raw materials for the United States, and as a result the US withdrew funding to the Netherlands.[15]

After the war, two sides were fighting for power in the Indonesian archipelago. The Republic Indonesia of Sukarno and Hatta controlled large parts of Java and Sumatra, in particular the crucial regions where many of the Dutch estates were located. The British, Australians and eventually the Dutch occupied the other Outer Islands and some strategic locations in Java and Sumatra. In October 1945 the Netherlands Indies government re-established its seat in what the Indonesians now called Jakarta, but was still named Batavia by the Dutch. In the final months of 1945 and early 1946, the presence of the Allied forces was restricted to the main port cities in Java and Sumatra. After British forces had withdrawn from Indonesia and the Netherlands Indies government resumed control, the Dutch remained intent on strengthening their position in Indonesia and occupy areas not yet under their control.[16]

2002) 156; Stef Scagliola, *Last van de oorlog: De Nederlandse oorlogsmisdaden in Indonesië en hun verwerking* (Amsterdam: Balans, 2002) 22–23.

[14] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 160; Marks, *Accounting for services*, 104.

[15] Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century*, 103; Howard Palfrey Jones, *Indonesia: The possible dream* (New York: Harcourt, Brace & Jovanovich, 1971) 101. Some factories were even destroyed thrice. First by the Dutch to prevent Japanese from taking over the factories, second by the Japanese during the war and finally by the Indonesians after the war and during the Indonesian Revolution, Henri Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', in: H. Baudet and M. Fennema (eds), *Het Nederlands belang bij Indië* (Utrecht: Spectrum, 1983) 136–175, in particular 136–137; Gert Oostindie, *Soldaat in Indonesië, 1945–1950: Getuigenissen van een oorlog aan de verkeerde kant van de geschiedenis* (Amsterdam: Prometheus, 2015) 20.

[16] Limpach, *De brandende kampongs van generaal Spoor*, 52–54; J.P. van de Kerkhof, 'Indonesianisasi of Dutch economic interests, 1930–1960: The case of

By late 1945, Royal Dutch Shell had managed to recover its installations in Borneo and some installations of Caltex and Royal Dutch Shell in South Sumatra were reoccupied in mid–1946. Royal Dutch Shell and Standard Vacuum Petroleum Company (Stanvac) negotiated with the governor of South Sumatra, A.K. Gani, to employ Indonesians who had occupied the refineries in return for unhindered rehabilitation and operation. As a result, Royal Dutch Shell and Stanvac were the first companies to reinvest in the Indonesian archipelago in 1946. In the first years after the war, several Indonesian oil companies were established too; they operated various oil installations previously exploited by the Dutch in Java and Sumatra.[17]

Tin mining in Belitung was rapidly resumed as well and the industry benefitted from rising tin prices. In May 1946 the first tin ore after the war was ready for export, even though many machines had been destroyed. New dredges were ordered, four Dutch and two American, and it was estimated that the recovery would cost in total around ƒ40 million. Several of the other companies were also able to start production again.[18]

In order to come to an agreement about the division of the Indonesian archipelago, the Linggadjati Agreement was concluded on 15 November 1946 between the Netherlands and the Republic of Indonesia. The Netherlands admitted that the Republic Indonesia effectively exercised authority in much of Java and Sumatra. The Indonesians agreed to protect foreign possessions and companies. Right after the agreement was signed, the Dutch doubted whether the Indonesians could or would fulfil their undertaking. Ratification was withheld and only partially realized on 5 March 1947 and finally signed on 25 March.

In February 1947 average industrial capacity was about 50% of the pre-war level. In Bandung, Semarang and Surabaya the recovery of the economic situation was slow due to a lack of skilled labour, severe damage and a poor electrical supply. In the Outer Islands progress was even slower.[19] The

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Internatio', *Bijdragen tot de Taal-, Land- en Volkenkunde*, Vol. 161 (2005) 181–209, in particular 186–187; Van Reybrouck, *Revolusi*, 307, 323, 344.

[17] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 48, 53–56, 70–78.

[18] NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 7–12–1945, 4–1–1946; NL-HaNa: Billiton Maatschappij, 361, Annual report 1943–1946, 3; Broersma, *Eene zaak van regt en billijkheid*, 73; Kamp, *De standvastige tinnen soldaat*, 154; J.P. van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', *Tijdschrift voor Sociale en Economische Geschiedenis*, Vol. 2 (2005), 122–146, in particular 128; Somers Heidhues, *Bangka tin and Mentok pepper*, 184.

[19] Pham Van Thuy, *Beyond political skin*, 111; Burgers, *De garoeda en de ooievaar*, 356, 474–476, 484, 503; Keppy, *Sporen van vernieling*, 32; De Jong, *Diplomatie of*

agricultural export sector was divided between Republican and Dutch-controlled territories. In North Sumatra, the palm oil and rubber plantations were divided between the two sides. The Dutch controlled several tobacco estates in Deli, whereas the Indonesians were in charge of the tobacco plantations in East Java.[20]

Dutch military actions and the transfer of sovereignty

From 21 July to 4 August 1947 the Netherlands attempted to enlarge the area under Dutch control by military force, in particular areas where Dutch corporations were located. Therefore, the military intervention was labelled 'Operation Product'. The purpose of the Dutch military intervention was threefold. First, to undermine the political and strategic position of the Indonesian Republic. Second, to retake Dutch companies occupied by the Indonesians in order to increase production and exports. Third, to prove to the US that the Dutch were in control of the situation in the Indonesian archipelago in order to receive a loan from the Americans.[21]

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strijd, 345–346; Ide Anak Agung Gde Agung, '*Renville' als keerpunt in de Nederlands-Indonesische onderhandelingen* (Alphen aan den Rijn: Sijthof, 1980) 39–40; Ide Anak Agung Gde Agung, *Twenty years Indonesian foreign policy 1945 1965* (The Hague: Mouton, 1973) 31; E.P.M. Tervooren, *Statenopvolging en de financiële verplichtingen van Indonesië* ('s-Gravenhage: Nijhoff, 1957) 61; Tom van den Berge, *H.J. van Mook: 1894–1965: Een vrij en gelukkig Indonesië* (Bussum: Uitgeverij Thoth, 2014) 238–239; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 117; Oostindie, *Soldaat in Indonesië*, 23; Limpach, *De brandende kampongs van generaal Spoor*, 54; Van Reybrouck, *Revolusi*, 381; Jeroen Kemperman, ''No lasting improvement without political agreement', Britse en Amerikaanse visies op het Nederlands-Indonesische conflict', in: Jeroen Kemperman, Emma Keizer and Tom van den Berge, *Diplomatie en geweld: De internationale context van de Indonesische onafhankelijkheidsoorlog, 1945–1949* (Amsterdam, Amsterdam University Press, 2022) 15–62, in particular 22–23.

[20] Lindblad, *Bridges to new business*, 61.

[21] Pierre van der Eng, 'Marshall aid as a catalyst in the decolonization of Indonesia, 1947–49', *Journal of Southeast Asian Studies*, Vol. 19 (1988) 335–352, in particular 337; H.W. van den Doel, *Het rijk van Insulinde: Opkomst en ondergang van een Nederlandse kolonie* (Amsterdam: Prometheus, 1996) 286–287; Ulf Sundhaussen, *The road to power: Indonesian military politics 1945–1967* (Kuala Lumpur: Oxford University Press, 1982) 33–34; John Jansen van Galen, *Afscheid van de koloniën. Het Nederlandse dekolonisatiebeleid 1942–2012* (Amsterdam: Atlas Contact, 2013) 243. For the Dutch military action several names are used in the historiography. In Dutch the term *politionele actie* is common, whereas in Indonesia the term *agresi militer Belanda* is more used, although Van den Doel also uses the term Dutch-Indonesian war, C. Fasseur, *De leeuw en de Cheshire kat: Engeland, Nederland en de dekolonisatie van Indonesië 1945–1949* (Amsterdam: Koninklijke Nederlandse

Dutch companies, such as HVA, encouraged the government to take military action. With this operation, the Dutch seized control of the ports in Java, all estates in Deli (Sumatra) and oil installations in Palembang. The attack was unexpected and rapid, resulting in occupation without severe damage. The Dutch military worked together with the DSM, which played an important role for transport of military goods and personnel. Nevertheless, the Dutch faced a big challenge. The condition of many estates was bad due to damage during the war and the Indonesian Revolution; also many estates were still not operational. Export volumes had plummeted. Sugar and palm oil exports were even less than 1% of pre-war levels. For estate rubber and oil the situation was not much better, with 5% and 12%, respectively. The situation was better for smallholders but their production was smaller and also affected by deteriorated trade and transport networks.[22]

Although the Netherlands gained control over more than 1,000 enterprises, the Dutch companies still faced attacks from Indonesian forces. Much work had to be done before operations were back to normal.[23] There was a gradual improvement in economic terms in the areas controlled by the Dutch. By the end of 1947 nearly all tobacco estates were in Dutch hands, half of the oil palm estates and nearly two-thirds of the rubber plantations.[24] Nevertheless, production levels and employment in 1948 remained low. Wages were low and reconstruction and rebuilding were initially done by men, which meant that family incomes were lower still and employment

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Akademie van Wetenschappen, 1999) 11; H.W. van den Doel, *Afscheid van Indië. De val van het Nederlandse imperium in Azië* (Amsterdam: Prometheus, 2000) 198.

[22] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 137; Lindblad, *Bridges to new business*, 65–73; Keppy, *Sporen van vernieling*, 33; Keppy, *The politics of redress*, 83–85; Agung, '*Renville' als keerpunt in de Nederlands-Indonesische onderhandelingen*, 55–60; Agung, *Twenty years Indonesian foreign policy 1945 1965*, 32; Pieter J. Drooglever, *De kolonie en dekolonisatie. Nederland, Nederlands-Indië en Indonesië. Een bundel artikelen aangeboden bij het afscheid van het Instituut voor Nederlandse Geschiedenis* (Den Haag, Instituut voor Nederlandse Geschiedenis, 2006) 140; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 80; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 99; Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 113; Van Reybrouck, *Revolusi*, 395; For more information about the effects of the military actions on the indigenous population see also: Limpach, *De brandende kampongs van generaal Spoor*.

[23] Sluyterman, *Dutch enterprise in the twentieth century*, 168; Burgers, *De garoeda en de ooievaar*, 552–558; Van der Zwaag, *Verloren tropische zaken*, 280–283.

[24] Pelzer, *Planter and peasant*, 135.

opportunities for women were scarce. In early 1948 the HVA operated with only 50% of its former labour force.[25]

Before the war, the companies had had sufficient financial reserves. GMB was even able to produce at full capacity until the start of 1942, and as a result could finance its recovery largely by itself, although it was helped by a remission from the colonial government.[26] However, a survey of 740 Dutch companies calculated that these firms only had ƒ284 million available for the reconstruction. This amounted to ƒ330,000 on average per company. For HVA alone, the loss was estimated at ƒ160 million.

Nevertheless, HVA assumed prospects to be good. Already in 1947, a recapitalization took place by increasing equity from ƒ40 million to ƒ60 million. Instead of paying dividends at a higher rate, the HVA increased equity by providing shareholders one new share for every two shares held. This recapitalization also had fiscal benefits for the HVA. HVA had to pay dividend tax on the interim dividend of 1940, estimated at around ƒ5.2 million, but with the recapitalization HVA could receive ƒ3.2 million from the state. With such a windfall gain, it then appeared that HVA was intent on staying in Indonesia after the war and continue its operations as usual. The Java Bank did not provide much capital to stimulate the recovery of Dutch companies. By March 1948, the Java Bank had lent only ƒ8.7 million to 115 companies, including 76 Chinese companies and 22 Western firms. This was only a very small share of total corporate funds reported to be needed for reconstructing Dutch companies.[27] Plans were made by the Dutch government to create a Herstelbank (Bank of Reconstruction) with ƒ300 million of equity, but it failed to materialize.[28]

In the oil sector, however, significant new investment did take place after the war, mostly through reinvestment of profits. This was different from the 1920s when more investment was done in agricultural industries. Exports

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[25] Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 118–119.
[26] NL-HaNa: Billiton Maatschappij, 361, Annual report 1942, 5; NL-HaNa: Billiton Maatschappij, 416, Report financial situation 31–12–1945.
[27] NL-HaNa: HVA, 12, Annual report 1940, 8–9; Lindblad, *Bridges to new business*, 66; Goedhart, *Eerherstel voor de plantage*, 145, 170.
[28] H.J.M. van Leeuwen, 'De financiering van het industrieel herstel', *Economisch Weekblad voor Indonesië*, Vol. 14 (1948) 720–723, in particular 723; C.F. Scheffer, *Het bankwezen in Indonesië sedert het uitbreken van de tweede wereldoorlog* (Jakarta: Noordhoff-Kolff, 1951) 90–92; Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', 138; Goedhart, *Eerherstel voor de plantage*, 144–145, 170; John, O. Sutter, *Indonesianisasi: Politics in a changing economy, 1945–1955* (PhD thesis, Cornell University, Ithaca, NY: 1959) 626; ANRI, Jakarta: Algemeene Secretarie, 480, 28–6–1948; Bank Indonesia, Jakarta: DJB, 2993, 30–4–1946.

of petroleum increased too. In 1948, agreements were made with the three major foreign oil companies, Caltex, Royal Dutch Shell and Stanvac. With these Let Alone agreements the companies were exempted from restrictions regarding remittance of profit and access to foreign exchange. The colonial government lowered the tax rate for these companies from 20 to 8%. Pre-war concessions were extended by three years, the period which the companies had lost during the war. In return, the companies were urged to repair their installations and continue production as quickly as possible.[29]

The government also made agreements for the mining industry. Recovery of the tin industry was the task of the GMB. Billiton increased its issued equity from ƒ14 million to ƒ16.8 million by not paying out dividend for the years 1940–1946 but issuing 20% in shares.[30] In March 1948, the government put the GMB in charge of operating the mines in Bangka, for which GMB would receive ƒ460,000 each year including a share of the profit, and the mining concession for GMB in Belitung was extended to 1953. Recovery of the operations in Bangka was time-consuming, and smelting works in Bangka were not recovered, but raw tin ore was shipped to Arnhem and Texas for further processing. Initiatives were also taken to employ the indigenous population instead of recruiting labourers from China.[31]

The Marshall Plan and credits provided by the US had made it possible for the Netherlands to strengthen its position in Indonesia.[32] Initially, the Dutch government was grateful for the support from the US. The US also supported the Dutch because they declared that eventually Indonesia would gain sovereignty. The US was afraid that communism would spread in Indonesia and that American investment there would be lost. After the Indonesian Republic successfully beat down the communist revolt in Madiun in September 1948, and after claims by Indonesia that the Netherlands would use the money of the Marshall Plan for military action in Indonesia, American

[29] J.A.C. Mackie, 'The Indonesian economy 1950–1963', in: Bruce Glassburner (ed.), *The economy of Indonesia: Selected readings* (Ithaca, NY: Cornell University Press, 1971) 16–69, in particular 35; Lindblad, *Bridges to new business*, 41, 58–59; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 88; K.D. Thomas and J. Panglaykim, 'Indonesian exports: Performance and prospects 1950–1970, part II', *Bulletin of Indonesian Economic Studies*, Vol. 3 (1967) 66–88, in particular 74.
[30] NL-HaNa: Billiton Maatschappij, 44, Annual report 1947, 5.
[31] NL-HaNa: Billiton Maatschappij, 416, Report financial situation 16–12–1949; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 7–12–1945, 30–6–1947; NL-HaNa: Billiton Maatschappij, 361, Annual report 1947, 5–7; Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 128.
[32] Gouda and Brocades Zaalberg, *American visions of the Netherlands East Indies/Indonesia*, 29.

support shifted in favour of Indonesia. In December 1948, the US declared that if the Netherlands went so far as starting a new military action, their support for the Netherlands for reconstruction in Indonesia would be discontinued.[33]

Nevertheless, The Dutch decided to strengthen their position in Indonesia again. With the second Dutch military intervention, which lasted from 19 December 1948 to 5 January 1949, the Dutch occupied larger areas. It was a military success but a diplomatic failure, and support from Dutch companies in Indonesia was less this time. Dutch companies increasingly realized that Indonesian independence was inevitable. Most companies were not unwilling to continue operations in independent Indonesia. The area of rubber, oil palm and tea estates in North Sumatra and West Java in Dutch hands doubled in size, while the number of agricultural companies controlled by the Dutch rose to 750. A survey of 360 factories showed that damages inflicted by both military actions left 31% of the factories unrepairable, 21% was still recoverable and 48% of the factories was undamaged.[34]

This second military intervention led to an increase in total export production capacity of around ƒ250 million, which was around half of the total increase of export revenue between 1948 and 1949. However, total damage of the war and two military actions was much larger, amounting to ƒ4.15 billion. Including losses of crops and food, this total increased to ƒ6.5 billion. Recovery of the economy would surely take a long time. Copra, oil and rubber combined provided more than 60% of the total export revenue from areas controlled by the Dutch. The importance of Indonesian smallholders increased, in particular in the rubber industry, whereas copra was dominated completely by smallholders. Crops like coffee, tobacco and sugar, which had played a major role before the war, were less important to the recovery of Indonesia.[35]

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33 Pierre van der Eng, *De Marshall-hulp: Een perspectief voor Nederland, 1947–1953* (Houten: De Haan/Unieboek, 1987) 211–216; Sluyterman, *Dutch enterprise in the twentieth century*, 168; Anne Booth, 'Towards a modern fiscal state in Southeast Asia, c. 1900–60', in: Ewout Frankema and Anne Booth (eds), *Fiscal capacity and the colonial state in Asia and Africa, c. 1850–1960* (Cambridge: Cambridge University Press, 2020) 36–78, in particular 61.

34 Keppy, *Sporen van vernieling*, 61, 77; Van Reybrouck, *Revolusi*, 432; John Jansen van Galen, *Fiasco van goede bedoelingen. Nederland en de Indonesische onafhankelijkheid* (Amsterdam: Pluim, 2019) 180–185.

35 Lindblad, *Bridges to new business*, 66–69; Sluyterman, *Dutch enterprise in the twentieth century*, 168; Joris Nobel and Meindert Fennema, 'Economische elites na de dekolonisatie van Nederlands-Indië. Verlies van posities, desintegratie van netwerken, verschuiving van zwaartepunten', in: Meindert Fennema and Huibert Schijf (eds), *Nederlandse elites in de twintigste eeuw. Continuïteit en verandering* (Amsterdam: Amsterdam University Press, 2004) 15–38, in particular 19–20;

Sumitro Djojohadikusumo, who was at first a commissioner for the trade relations between Indonesia and the US and then representative of the Indonesian delegation to the United Nations, spoke in Washington with undersecretary Robert A. Lovett from the State Department on 20 December 1948. Sumitro requested that the US stop foreign aid to the Netherlands. In the US, Sumitro got support from various groups. As a result, the US asked the United Nations Security Council to discuss the Dutch military intervention, and on 28 January 1949 the Council ordered a ceasefire.[36]

A week later the military intervention ended and it was no longer necessary for the US to threaten the Netherlands with halting all financial aid provided by the Marshall Plan. The Dutch had to restore the Republican government in Yogyakarta and start negotiations for a transfer of sovereignty. The Ronde Tafel Conferentie (RTC, Round Table Conference) in The Hague, initiated to set the terms of transfer, took place from 23 August to 2 November 1949.[37]

On 2 November, 1949 the Financieele en Economische Overeenkomst (Finec, Financial and Economic Agreement) was signed by both parties.[38] Indonesia was saddled with a debt unheard of in the history of decolonization. During and after the war, the debt of the colonial government to the Netherlands had increased significantly. In March 1942 it amounted to ƒ2.6 billion, increasing to ƒ4 billion in 1947. With the costs of the first military intervention, the total debt even rose to ƒ5.9 billion by September 1949. Export earnings were lower than expenditure on imports and the deficit in the balance of trade increased dramatically in 1946 and 1947. Although exports increased in 1948 and 1949, the Indonesian government finally had to acquiesce, after negotiations, in a debt of ƒ4.3 billion ($1,130 million) that had to be paid to the Netherlands by June 1964. A total of ƒ3 billion of this debt

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Burgers, *De garoeda en de ooievaar*, 603–608; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 99–100; Sluyterman, *Kerende kansen*, 216; Van der Zwaag, *Verloren tropische zaken*, 282–284; Bank Indonesia, Jakarta: DJB, 1553, Annual report 1949–1950, 98; Bank Indonesia, Jakarta: DJB, 2993, 29–3–1946, 30–4–1946.

[36] J. Thomas Lindblad, 'Politieke economie en de dekolonisatie in Indonesië', in: J. Thomas Lindblad en Willem van der Molen (eds), *Macht en Majesteit. Opstellen voor Cees Fasseur bij zijn afscheid als hoogleraar in de geschiedenis van Indonesië aan de Universiteit Leiden* (Leiden: Vakgroep talen en culturen van Zuidoost-Azië en Oceanië, 2002) 132–146, in particular 136–137.

[37] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 102; Van der Eng, *De Marshall-hulp*, 216–218.

[38] Pham Van Thuy, 'The constraints of economic nationalism in early independent Indonesia, 1945–60', in: Alicia Schrikker and Jeroen Touwen (eds), *Promises and predicaments. Trade and entrepreneurship in colonial and independent Indonesia in the 19th and 20th centuries* (Singapore: NUS Press, 2015) 227–243, in particular 229; Lindblad, *Bridges to new business*, 73.

consisted of the internal debt of the colonial government to the Netherlands. The remainder was an external debt to other creditors in either the Netherlands or elsewhere. No payments were made by Indonesia for the Dutch military interventions. The financial concessions Indonesia made far outweighed the economic assistance that the US gave to Indonesia. Whereas Indonesia received one-third of what the Dutch got, the Dutch were no longer responsible for the economic recovery of Indonesia and they had secured their share of the Marshall aid.[39]

For Dutch companies active in Indonesia, the agreement guaranteed unhindered business operations. The Dutch failed to occupy the entire Indonesian archipelago by military means, but succeeded in securing the position of their companies and factories along the diplomatic way. Article 1 of the Finec demanded a restoration of the legal rights according to colonial rule. Article 3 guaranteed against nationalisation of Dutch companies. Only if these companies operated in the public interest and both parties agreed, would it be possible to nationalize them. In that case, compensation had to be paid. The Dutch pledged to participate in joint ventures with Indonesian business, if this proved viable, according to Article 5.

With Article 12(d) Indonesians had to be included in the management of Dutch companies and eventually they had to form the majority of managers and supervisors. This process was called *Indonesianisasi* and its purpose was to increase the participation of Indonesians, in particular indigenous Indonesians in higher positions in foreign companies. Some companies, such as HVA, had started with some *Indonesianisasi* as early as 1940, although at a slow pace. To conclude, Article 19 of Finec required the Indonesian government to consult with the Dutch government in matters of economic and financial policy as long as the debt of the Republic to the Netherlands had not

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[39] Thee Kian Wie, 'Indonesianization. Economic aspects of decolonization in Indonesia in the 1950s', in: J. Thomas Lindblad and Peter Post (eds), *Indonesian Economic Decolonization in Regional and International Perspective* (Leiden: KITLV Press, 2009) 19–38, in particular 20–25; Taufik Abdullah, *The heartbeat of Indonesian revolution* (Jakarta: Gramedia, 1997) 26; George McT. Kahin, *Nationalism and revolution in Indonesia* (Ithaca, NY: Cornell University Press, 1952) 443; Pham Van Thuy, 'The constraints of economic nationalism in early independent Indonesia, 1945–60', 229; Lindblad, *Bridges to new business*, 67, 73–74; Booth, *Economic change in modern Indonesia*, 37; Lindblad, 'Politieke economie en de dekolonisatie in Indonesië', 135; Van der Eng, 'Marshall aid as a catalyst in the decolonization of Indonesia, 1947–49', 351–352. Apart from the $100 million loan from the US, Indonesia had received a gift of $37.5 million by the Organisation for Economic Cooperation and Development, plus a loan of $2.2 million and special drawing rights with a value of $9 million, Van der Eng, *De Marshall-hulp*, 215, 222, 227.

been fully paid.[40] The Java Bank, which had served as the central bank of the Netherlands Indies, was still in Dutch hands, and thus reduced opportunities for Indonesia to pursue an independent monetary policy.[41]

The Finec secured the maximum feasible for the Dutch in economic terms. Dutch companies that were active in Indonesia still had room to breathe when sovereignty was transferred to the Republic of the United States of Indonesia on 27 December 1949. Dutch entrepreneurs were optimistic that economic recovery and growth in Indonesia remained possible and that activities could be continued, even when the Dutch had become a guest in a foreign country. Few companies, however, were aware that decolonization would not only imply political independence from the Netherlands, but that economic decolonization would become a growing issue for Indonesians too.[42]

[40] Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 137; Lindblad, *Bridges to new business*, 73; Burgers, *De garoeda en de ooievaar*, 653–656; Keppy, *Sporen van vernieling*, 34; Tervooren, *Statenopvolging en de financiële verplichtingen van Indonesië*, 129, 138–140, 167, 178, 180; Sievers, *The mystical world of Indonesia*, 165; Agung, '*Renville' als keerpunt in de Nederlands-Indonesische onderhandelingen*, 304, 326–330, 343; Agung, *Twenty years Indonesian foreign policy 1945 1965*, 15–17; J.A. Bank, 'Rubber, rijk, religie: De koloniale trilogie in de Indonesische kwestie 1945 1949', *Bijdragen en Mededelingen betreffende de Geschiedenis der Nederlanden*, Vol. 96 (1981) 230–259, in particular 243–244; J.J.P. de Jong, and Harry A. Poeze, *Avondschot: Hoe Nederland zich terugtrok uit zijn Aziatisch imperium* (Amsterdam: Boom, 2011) 639; John Rhijnsburger and Meindert Fennema, 'Nederland, Indië en de wereldmarkt', in: Ferd Crone and Henk Overbeek (eds), *Nederlands kapitaal over de grenzen. Verplaatsing van produktie en gevolgen voor de nationale ekonomie* (Amsterdam: Uitgeverij SUA, 1981) 72–93, in particular 88; Keppy, *The politics of redress*, 204; Brand, *1879 HVA 1979*, 76; Sutter, *Indonesianisasi*, 1–3; Hans Meijer, *Den Haag-Djakarta: De Nederlands-Indonesische betrekkingen 1950–1962* (Utrecht: Spectrum, 1994) 46–47.

[41] Booth, *Economic change in modern Indonesia*, 39.

[42] Sluyterman, *Dutch enterprise in the twentieth century*, 168; Nobel and Fennema, 'Economische elites na de dekolonisatie van Nederlands-Indië. Verlies van posities, desintegratie van netwerken, verschuiving van zwaartepunten', 19–20; Lindblad, *Bridges to new business*, 66; Burgers, *De garoeda en de ooievaar*, 668–674; Thee, 'Indonesianization', 22; M. Fennema and H. Baudet, 'Beheersconcepties en beleidsvisies', in: H. Baudet and M. Fennema (eds), *Het Nederlands belang bij Indië* (Utrecht: Spectrum, 1983) 9–28, in particular 21–23; Van de Kerkhof, 'Indonesianisasi of Dutch economic interests, 1930–1960: The case of Internatio', 189. Benjamin Higgins, a UN consultant to the Indonesian government, estimated that most of Indonesia's modern sector, that was still dominated by Dutch business activities, accounted for around 25% of Indonesia's GDP and about 10% of total employment, Benjamin Higgins, 'Thought and action: Indonesian economic studies and policies in the 1950s', *Bulletin of Indonesian Economic Studies*, Vol. 26 (1990) 37–47, in particular 39–41.

In this section, we have seen that the Pacific War and the subsequent Indonesian Revolution, including two military actions by the Dutch, had a significant impact on foreign companies operating in Indonesia. The Dutch tried to maintain their position in the archipelago, but eventually had to transfer sovereignty to Indonesia. From an economic perspective, the situation was different and Dutch companies remained active in Indonesia. In the next section, we shall see if and to what extent these companies were able to recover their export volumes and become profitable.

6.3 New investment and economic growth, 1950–1956

In the previous part, we saw that investment by foreign private companies before the transfer of sovereignty to Indonesia mainly concerned recovery from the war and the Indonesian Revolution. Here we focus on fresh investment and investigate whether companies did in fact expand in Indonesia after 1949 with new production facilities.

Although several foreign companies active in Indonesia had shifted their emphasis in production by starting out elsewhere before or immediately after the war, many of the large ones remained active in Indonesia. These companies expected that high profit rates would continue during the 1950s and that prospects were good for the primary export crops. This idea was strengthened by the Korean War boom of the early 1950s which led to a higher demand for key products.[43]

Another argument in favour of staying in Indonesia was that the companies were specialized in operating in Indonesia. Much research had been done about soil and climate in order to increase productivity. In addition, managers were convinced that their presence was essential to Indonesia. Without them, they believed, the economy would collapse.[44] After an agreement was reached at the RTC in November 1949, Dutch and other foreign companies could continue their operations in Indonesia, controlling the large and modern export industries in the agricultural and mining sectors.[45]

In 1950 President Sukarno argued that foreign investment was necessary to develop the economy of Indonesia. The cabinet of Sukiman in 1951 encouraged foreign investment, in particular Sjafruddin Prawiranegara

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43 Mackie, 'The Indonesian economy 1950–1963', 14.
44 Sluyterman, *Kerende kansen*, 218–221.
45 Thee, *Explorations in Indonesian economic history*, 112; Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', 140.

as a Minister of Finance.[46] The economist Sumitro Djojohadikusomo was another ardent supporter. In late 1952, Prime Minister Wilopo requested a study of foreign investment and began drafting a law on foreign investment, but this was not finished when the Wilopo cabinet fell in June 1953. The first official policy on foreign investment was formulated in February 1954 during the first Ali Sastroamidjojo cabinet, while another one was issued during the following cabinet of Burhanuddin Harahap, in 1955. In 1956, during the second Ali Sastroamidjojo cabinet, a law on foreign investment was submitted to Parliament, but it was not approved. Only in 1958 was the new law promulgated.

During the first half of the 1950s, the Indonesian government was still favourable to foreign investment, in particular non-Dutch firms, but in 1955 restrictions were introduced. Several sectors such as public utilities were excluded from foreign investment and had to be owned by the government and basic industries were limited to a foreign ownership of 49%. These criteria were in line with what Sumitro had argued already in 1952.[47] The question is whether this policy of the Indonesian government succeeded in attracting much new foreign investment in the first half of the 1950s.

Investment in oil

One branch of industry that became increasingly important in early independent Indonesia was the oil industry. The three foreign oil companies, Royal Dutch Shell, Caltex and Stanvac, invested significant sums in Indonesia during the 1950s. $350 million (ƒ1,330 million) was spent on rehabilitation and expansion.[48] Oil companies were in particular stimulated to invest in Indonesia as a result of the Let Alone agreements made with the Dutch colonial government in the late 1940s.[49]

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[46] William A. Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s* (PhD thesis, University of Michigan, Ann Arbor, MI, 2010) 126.
[47] Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 127–128; Lindblad, *Bridges to new business*, 171; Thee, 'Economic policies in Indonesia during the period 1950–1965, in particular with respect to foreign investment', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 315–330, in particular 326–328.
[48] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 172; Benjamin Higgins, *Indonesia's economic stabilization and development* (New York: Institute of Pacific Relations, 1957) 78.
[49] Mackie, 'The Indonesian economy 1950–1963', 35; Lindblad, *Bridges to new business*, 41.

The Indonesian government fully understood the importance of the oil industry and the necessity of foreign technology. Caltex was more successful than the other two in consolidating its position. In 1952, it expanded into Riau, whereas Royal Dutch Shell and Stanvac were less fortunate in obtaining new concessions. As a result, Caltex spent around $50 million (ƒ190 million) in 1952 alone, the same amount Stanvac had spent between 1945 and 1951. Total American investment increased from $130 million (ƒ494 million) in 1949 to $262 million (ƒ996 million) in 1954, with the oil industry responsible for more than two-thirds of the total.[50]

In March 1954, Stanvac signed a new foreign exchange agreement with the Indonesian government which obliged Stanvac to invest $80 million (ƒ304 million) in the Lirik oil field in Central Sumatra and also to include more Indonesian staff members in higher positions. In return, Stanvac was exempted from import duties on imported capital equipment.

After observing these developments, Caltex started negotiations with the government too. Similar to Stanvac, Caltex promised to hire more Indonesian staff members and make new investments. Developing a harbour near its oil installations in Dumai was estimated at a total of $100 million (ƒ380 million). A paved road of 170 km connecting the oil installations to the port was also constructed. Negotiations of Royal Dutch Shell with the Indonesian government resulted in comparable tax and duty exemptions as for Stanvac and Caltex, but the capital to be invested for this agreement was not disclosed.[51]

In New Guinea, the oil industry was the most important area for investment. New Guinea remained a Dutch possession also after the transfer of sovereignty. Besides investment by the Nederlandsche Nieuw-Guinea Petroleum Maatschappij (NNGPM, Netherlands New Guinea Oil Company), no other significant investment had been made in New Guinea before Indonesian independence. Royal Dutch Shell had a share of 40% in this company and was responsible for management. In 1956, the total amount of private investment in New Guinea was estimated to be only around ƒ12

[50] Mackie, 'The Indonesian economy 1950–1963', 35; Lindblad, *Bridges to new business*, 172–174; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 105; Alex Hunter, 'The Indonesian oil industry', in: Bruce Glassburner (ed.), The economy of Indonesia: Selected readings (Ithaca, NY: Cornell University Press, 1971) 254–314, in particular 262–263.
[51] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 136; Lindblad, *Bridges to new business*, 174; Bartlett, *Pertamina: Indonesian national oil*, 109–112; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 160; Haccoû and Reid, *Management of direct investments in less developed countries*, 201.

million. High costs and a relatively low production level were characteristic for NNGPM. Oil production peaked in 1954 at 500,000 tons and declined afterwards.[52]

Investment in agricultural estates

Initially, other Dutch companies were interested in doing business in New Guinea as well. Koninklijke Luchtvaart Maatschappij (KLM, Royal Dutch Airlines), KPM and NHM were active in New Guinea, but the Dutch government had much difficulty attracting an import company for New Guinea. Hagemeyer established the Nieuw-Guinea Import en Export Maatschappij (NIGIMIJ, New Guinea Import and Export Company) and became a profitable asset for Hagemeyer until the late 1950s.[53]

Large estate industries, such as the sugar industry in Java, had to spend considerable money and energy on recovery before starting to produce again. Many estates had been destroyed. Only 55 sugar factories were able to continue operations right after the war, a far cry from the situation before the economic depression of the 1930s when nearly 200 factories were in operation. Occupation of land by squatters was rampant. It was not uncommon that one-third of the harvest was lost as a result of fire or theft. As a result, foreign estate owners were reluctant to make any significant new investments. Gradually, the situation improved in the early 1950s and good contacts with village heads and local officials did help here. But although the Indonesian government wanted to get the sugar factories operational again, foreign money failed to flow in.[54]

Problems with labour, squatters and conversion of estate land into food production, rising costs and competition with other countries, difficulties with bureaucracy and remitting profits meant that companies tried to spend as little as possible just to keep operations running. It became increasingly difficult to attract investors in industries other than oil as a result of Sukarno's increasingly leftist policies. Oil was seen as a vital industry and investment in this industry was fully supported by the Indonesian government. Even though

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[52] Cornelis Antonius Cannegieter, *De economische toekomst-mogelijkheden van Nederlands Nieuw-Guinea* (Leiden: Stenfert Kroese, 1959) 52–54, 101–103.
[53] Cannegieter, *De economische toekomst-mogelijkheden van Nederlands Nieuw-Guinea*, 52–61; R.J. Stratenus, *Een voorlopig onderzoek naar de economische vooruitzichten in Nederlands Nieuw Guinea* (Amsterdam: Paris, 1952) 49–53.
[54] Hartveld, *Raising cane*, 54, 82–83; Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 223–226; Thee, 'Economic policies in Indonesia during the period 1950–1965', 342; Van der Eng, *Agricultural growth in Indonesia*, 224.

the Korean War boom of 1950–1952 increased demand for products such as rubber and tin, the effects only lasted a few years before prices fell and optimism faded.[55] In the rubber industry, for instance, lack of replanting in the 1940s meant that rubber had to be produced from older and less productive trees. By and large, output figures for most export products were lower than those of the pre-war period.[56]

By 1952, around 70% of the foreign estates in Java and Sumatra had been returned to their legal owners. Around 80% of the fibre estates, 88% of the palm oil plantations and 98% of the rubber estates in Medan were back in the hands of their legal owners. In West Java, most estates and in East Java around 60% of the estates had been returned to the owners as well. This amounted to 1,140 estates, covering an area of around 2 million hectares. In the following years, 466 more estates, covering about 480,000 hectares, were returned as well.[57]

Many new companies were founded during the 1950s. In 1951, 491 firms and in 1953 544 had been founded. However, nearly half of these companies were indigenous Indonesian whereas the rest was dominated by Chinese Indonesians. In 1951, only 35 Dutch firms were founded and in 1953 the number was even lower with 16 new Dutch companies.[58] In terms of capital, foreign firms still held the largest share and in 1953 only 19% of non-agricultural capital was owned by *pribumi* Indonesians.[59]

In the meantime, more foreign companies searched for opportunities outside Indonesia, where restrictions were less stringent and the investment climate was better. Latin America and Africa were popular locations, although not all efforts proved profitable. Billiton had strengthened its position in Suriname and Southern Rhodesia, (today's Zimbabwe) and had ventured into

[55] J.A.C. Mackie, 'The 1941–1965 period as an interlude in the making of a national economy: How should we interpret it?', in: J. Thomas Lindblad (ed.), *Historical foundations of a national economy in Indonesia, 1890s–1990s* (Amsterdam: North-Holland, 1996) 331–348, in particular 339; Lindblad, *Bridges to new business*, 153–154.
[56] Airriess, *A port system in a developing regional economy*, 128; Makarim, *Companies and business in Indonesia*, 249; Henri Baudet and R.C. Carrière, 'Het Nederlandse bedrijfsleven in Nederlands-Indië/Indonesië 1945–1958', *Oost-West*, Vol. 9 (1970) 65–70, in particular 67.
[57] Pham Van Thuy, *Beyond political skin*, 149; Keppy, *Sporen van vernieling*, 189.
[58] Sutter, *Indonesianisasi*, 1307; J. Panglaykim, 'Marketing organisation in transition', *Bulletin of Indonesian Economic Studies*, Vol. 4 (1968) 35–59, in particular 46; J. Thomas Lindblad, 'De economische dekolonisatie van Indonesië', in: Els Bogaerts & Remco Raben (eds), *Van Indië tot Indonesië* (Amsterdam: Boom, 2007) 91–106, in particular 100–101.
[59] Lindblad, *Bridges to new business*, 40, 151; Pham Van Thuy, *Beyond political skin*, 152; Meijer, *Den Haag-Djakarta*, 350, 497.

Uganda even before the Second World War. In 1951, only 22.4% of its investment was in Indonesia, whereas it had invested 42.8% in Suriname and the remaining share in Africa, Europe and the United States. Investments made during the 1950s, therefore, went largely to countries other than Indonesia. However, in 1951, 55% of the profits still came from Indonesia.[60]

Immediately after the war, HVA looked for investment possibilities in America and in Africa too. HVA started sugar operations in Ethiopia and by 1953 39% of its equity had been invested there, but HVA was unable to attain similar successes there as in the past in Java. In 1953 HVA was still reinvesting profits in Indonesia, in particular in oil palm and rubber, since only a part of the profit could be transferred to the Netherlands, but new capital largely went to other countries.[61]

The Deli Company tried its luck in Malaya, Panama and Paraguay, but was more successful in the United States and Europe. In 1947, 53% of its equity was still invested in Indonesia and in May 1947 it was the first cultivation company to issue new equity. In 1950 the Indonesian government gave the tobacco companies permission for the cultivation of tobacco in North Sumatra on a new area of 125,000 hectares, although these companies had written off 180,000 hectares since the war. Nevertheless, the Deli Company was optimistic about its future in Indonesia. Initially, several million guilders were invested until 1950. This was mostly done for recovery and rehabilitation, and from 1951 to 1955 all profits made in Indonesia were reinvested there. In 1953 the Deli Company merged with other tobacco and rubber companies elsewhere and was converted into the Verenigde Deli Maatschappijen (United Deli Companies), with equity increasing from ƒ60 million to ƒ100 million. By 1956 total equity invested in Indonesia dropped to only 31%.[62]

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[60] NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 29–8–1950, 2–7–1951, 20–7–1954; NL-HaNa: Billiton Maatschappij, 44, Annual report 1949, 5; NL-HaNa: Billiton Maatschappij, 45, Annual report 1952, 9; NL-HaNa: Billiton Maatschappij, 45, Annual report 1954, 18–19; NL-HaNa: Billiton Maatschappij, 361, Annual report 1948, 10–11; NL-HaNa: Billiton Maatschappij, 362, Annual report 1952, 6–9.

[61] NL-HaNa: HVA, 8, Board meeting 30–6–1950, 1–6–1950; Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 117. Ulbe Bosma, *The world of sugar. How the sweet stuff transformed our politics, health, and environment over 2,000 years* (Cambridge, MA, Harvard University Press, 2023) 281–282.

[62] NL-HaNa: Deli Maatschappij, 2, Articles of association 4–6–1953, 8–7–1953; NL-HaNa: Deli Maatschappij, 11, Documents regarding unlawful occupation 25–6–1951, 19–9–1951, 21–9–1951; NL-HaNa: Deli Maatschappij, 19, Board meeting 1–7–1953, It was decided not to call this company United Deli Plantations since that had a negative connotation and reminded of the colonial era; NL-HaNa: Deli

KPM stopped investment in new ships in Indonesia as well and began focusing on other areas while not replacing old vessels with new ones in regional shipping. A gradual reduction of investments by the Dutch took place in Indonesia.[63] Numerous smaller Dutch companies sold their property in Indonesia, often at a loss, and Chinese businessmen saw this as an opportunity. In 1952, one-fifth of the estates in Java was owned by Chinese. For many larger foreign companies that had invested substantial amounts of capital in Indonesia this was not a profitable option due to restrictions on transfer of foreign exchange by the Indonesian government. If these companies decided to sell their facilities in Indonesia, they could only transfer a small part of the money to the Netherlands. Therefore, these companies remained in Indonesia and hoped for better times.[64]

GMB had already become partly Indonesian in December 1949, when the transfer of sovereignty took place. The Indonesian government became the owner of the tin mines on Bangka and had a major share of five-eighths in GMB, but GMB was still responsible for the tin mining on Bangka and Belitung. In March 1953, the agreement with GMB for mining on Bangka expired and the Indonesian government took over the activities, but did grant GMB another concession for five years in Belitung until 1958. However, if another renewal were to take place the headquarters had to be moved to Indonesia.[65]

The gas and electricity company Overzeese Gas- en Electriciteitsmaatschappij (OGEM, Overseas Gas and Electricity Company) sold its main operations in Jakarta to the Indonesian government in 1954, but had already started new successful operations in Suriname and the Netherlands Antilles.[66] For the Algemeene Nederlandsch-Indische Electriciteits-Maatschappij (ANIEM, General Netherlands Indies Electricity

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Maatschappij, 39, Annual report 1949–1950, 8–9; NL-HaNa: Deli Maatschappij, 41, Annual report 1953, 6–10, 26–31, Annual report 1954, 16–17, Annual report 1955, 10–15; NL-HaNa: Deli Maatschappij, 117, Nationalisation, 8–10–1959; NL-HaNa: Deli Maatschappij, 430, Documents regarding issue of shares, 7–5–1948; NL-HaNa: Deli Maatschappij, 447, Documents regarding the United Deli Company, 16–3–1956; Erik van Zanten, *A heart of wood. The history of Deli Home* (Gorinchem: Deli Home, 2020) 78–81, 86.

[63] Wytze Gorter, 'Enkele gedachten over de economische betekenis van het verlies van Indonesië', *De Economist*, Vol. 108 (1960) 641–658, in particular 656; Sluyterman, *Dutch enterprise in the twentieth century*, 172.

[64] Van der Eng, *Economic benefits from colonial assets*, 30; Jonker and Sluyterman, *Thuis op de wereldmarkt*, 279, 288; Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', 144, 154, 163; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 141.

[65] NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 2–6–1955.

[66] Sluyterman, *Dutch enterprise in the twentieth century*, 171.

Company), the situation was more difficult since its operations were entirely focused on Indonesia.[67]

Total investment in the late 1940s and the 1950s

Although the pre-war peak of investment was not reached again in the 1950s, capital was still invested in Indonesia after the war. Estimates differ widely and there is a lack of statistics regarding investment from various countries. Van Esterik and Meijer argue that until 1958, in a period of seven years, as much as ƒ250 million to ƒ300 million annually, or around ƒ1.5 billion in total, was invested in Indonesia by the Dutch alone. This seems improbably high. Especially if we take into account that during the 1950s substantial investment was made by the US in particular. Van Esterik argues that the nominal numbers of investment were similar to the 1920s but are not comparable because of the inflation between the 1920s and the 1950s.[68]

It is not known how much was reinvestment of profit and how much was new capital flowing into Indonesia from the Netherlands. Van der Eng only gives information about gross capital formation which includes a share which is called 'residual' as well.[69] Creutzberg provides data of expenditure on fixed assets by Dutch private companies. Excluding mining and oil companies, he arrives at a total of nearly ƒ900 million for the period 1945–1957, or nearly ƒ75 million annually. This figure seems more reasonable although it is unknown if it can be seen as new investment rather than rehabilitation and recovery. Creutzberg argues that these expenditures consisted mainly of reconstruction costs and that new investment was largely done with undistributed profits.[70] There is a strong correlation (R = 0.8) between the expenditure on fixed assets (excluding mining and oil companies) and GDP per capita growth in the period 1946–1957.[71]

The importance of investment through retained profits indicates that the capital market in Indonesia was underdeveloped, which hurt the ability of the firms to finance expansion.[72] For instance, after HVA finished recovering

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[67] Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', 150.
[68] Chris van Esterik, *Nederlands laatste bastion in de Oost: Ekonomie en politiek in de Nieuw-Guinea-kwestie* (Baarn: In den Toren, 1982) 103; Meijer, *Den Haag-Djakarta*, 497; Dick, 'Formation of the nation-state, 1930s–1966', 182; Van der Eng, 'Indonesia's growth performance in the twentieth century', 159.
[69] Van der Eng, 'Indonesia's growth performance in the twentieth century', 152–159.
[70] Creutzberg and Van Dooren, *CEI. Vol. 3*, 21; Van der Eng, *Economic benefits from colonial assets*, 30.
[71] Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 369–370'; Creutzberg and Van Dooren, *CEI. Vol. 3*, 21.
[72] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 259.

its estates, it continued reinvesting profits in Indonesia because new restrictions made it more difficult to transfer profits abroad. There was an obligation to deposit an increasing share of profits with the central bank, designated for new investment in Indonesia.[73] Although depreciation was visible and investment was far lower than before the war, we must not forget that most of these assets that had been invested in the past remained in Indonesia and contributed to the economic development of Indonesia even though large amounts had been written off by the 1950s.[74] Total value of Dutch corporate assets in Indonesia in 1950 was estimated to be around ƒ3.15 to ƒ3.5 billion.[75] This was lower than in 1940. Depreciation and damages explain this lower estimate. However, statistics on Dutch private investment in Indonesia for the post-war period are disturbingly scarce and incomplete.[76]

An American report prepared for the Indonesian government stated that in 1952 the value of foreign investment in Indonesia was $2,240 million (ƒ8,512 million), of which $1,470 million (ƒ5,586 million) was Dutch and around $350 million (ƒ1,330 million) originated from the US. Around $260 million (ƒ988 million) was British and $105 million (ƒ399 million) French and Belgian. These figures are higher than the calculations from Meijer for the Dutch case and could indicate the inclusion of forms of investment other than foreign direct investment alone, but do indicate that new investment in the post-war period took place, especially by non-Dutch foreign investors.[77] A significant share of new investment in the latter half of the 1950s originated from the US, and in particular from the oil companies Caltex and Stanvac, given the fact that total American investment increased from $130 million (ƒ494 million) in 1949 to $410 million (ƒ1,558 million) in 1959.[78] This was different from the 1920s when much investment was done in the agricultural sector.

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73 Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 116–117; Brand, *1879 HVA 1979*, 38.
74 Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 12.
75 Lindblad, *Bridges to new business*, 151; Meijer, *Den Haag-Djakarta*, 648.
76 Lindblad, *Bridges to new business*, 151.
77 Bartlett, *Pertamina: Indonesian national oil*, 83; Hong Lan Oei, 'Implications of Indonesia's New Foreign Investment Policy for Economic Development', *Indonesia*, Vol. 7 (1969) 33–66, in particular 42; Ada V. Espenshade, *Investment in Indonesia: Basic information for United States businessmen* (Washington: U.S. Government Printing Office, 1956) 9; Hal Hill, *Foreign investment and industrialization in Indonesia* (Singapore: Oxford University Press, 1988) 3–4; Van der Eng, *Economic benefits from colonial assets*, 22. It is possible that differences in estimations also occur because of different exchange rates used by various authors. For the 1950s I apply the exchange rate of $1 = ƒ3.80.
78 Lindblad, *Bridges to new business*, 172; Espenshade, *Investment in Indonesia*, 13.

By the mid–1950s, post-war investment had reached its peak and disinvestment gradually increased as foreign companies refrained from planting new crops. Installations and equipment were worn out and not replaced, as foreign investors waited for a better investment climate. Although American investment in oil encompassed the largest share of new investment in this period, the situation was not bright for all American companies. For instance, General Motors sold its assembly plant in 1954–1955 to the Indonesian government.[79]

In the 1950s, foreign investment became less important, whereas financial support in the form of grants and loans became more important among incoming flows of capital. In the post-war period until the mid–1950s, Indonesia received around $300 million (ƒ1,140 million) from the US and the Netherlands in the form of economic and technical assistance. The Netherlands provided a loan in 1950 of $73.7 million (ƒ280 million). Support from communist countries did increase after 1957 and by 1960 Indonesia had received nearly $100 million (ƒ380 million) from these countries. Initially the US provided support to contain the spread of communism and after the Korean War the Americans and the Soviet Union were interested in obtaining raw materials from Indonesia.[80] In the middle of the 1950s, the atmosphere changed and relations between the US and Indonesia deteriorated, whereas talks between Indonesia and the Soviet bloc became more frequent and diplomatic relations were strengthened. In 1954 and 1955, trade agreements with Czechoslovakia, East Germany, Poland and the Soviet Union were signed.[81]

After recovery and reconstruction took place, companies were able again to continue operations but production and export levels were lower than before the war. During the early 1950s, oil and rubber were still Indonesia's most important export products. The Korean War boom increased the demand for these two products and tin, but the Indonesian economy was still dependent on the export of basic primary products and major export industries were still controlled by foreign companies. Moreover, the boom

[79] Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 176; J. Thomas Lindblad, 'The economic impact of decolonization in Southeast Asia: Economic nationalism and foreign direct investment, 1945–1965', in: Marc Frey, Ronald W. Pruessen and Tan Tai Yong (eds), *The transformation of Southeast Asia. International perspectives on decolonization* (Armonk: M.E. Sharpe, 2003) 35–51, in particular 40; Mackie, 'The 1941–1965 period as an interlude in the making of a national economy: How should we interpret it?', 339.

[80] Usha Mahajani, *Soviet and American aid to Indonesia, 1949–68* (Athens, OH: Center for International Studies, 1970) 6.

[81] Mahajani, *Soviet and American aid to Indonesia*, 7–8.

only lasted a few years and the growth of the export of many other crops stagnated in the middle of the 1950s.[82]

In early independent Indonesia, rubber production increased and by 1950 the pre-war output had doubled. Even before the war, rubber smallholders accounted for nearly half of the rubber production and during the second half of the 1950s this had increased to 65%.[83] In the tobacco industry and coffee, smallholders were dominant too, with a production share of 88% and 77%, respectively.[84] The oil industry, on the other hand, was completely in foreign hands and the production and export of oil continued to increase. In the early 1950s the pre-war levels were surpassed and in the second half of the 1950s more than 10 million tons was produced annually. As a share of total world production, Indonesia's oil production increased from around 1.3% in 1950 to nearly 2% in 1960. By 1957, Caltex produced 47% of the total, Royal Dutch Shell 23% and Stanvac 20%.[85] After 1951, the production of Stanvac dropped after the concession for the oil fields in South Sumatra partially expired. It took until 1955 before the output levels recovered. In 1955 and 1956, the output of Royal Dutch Shell dropped, whereas Caltex was able to strengthen its position during the 1950s with increasing output figures.[86]

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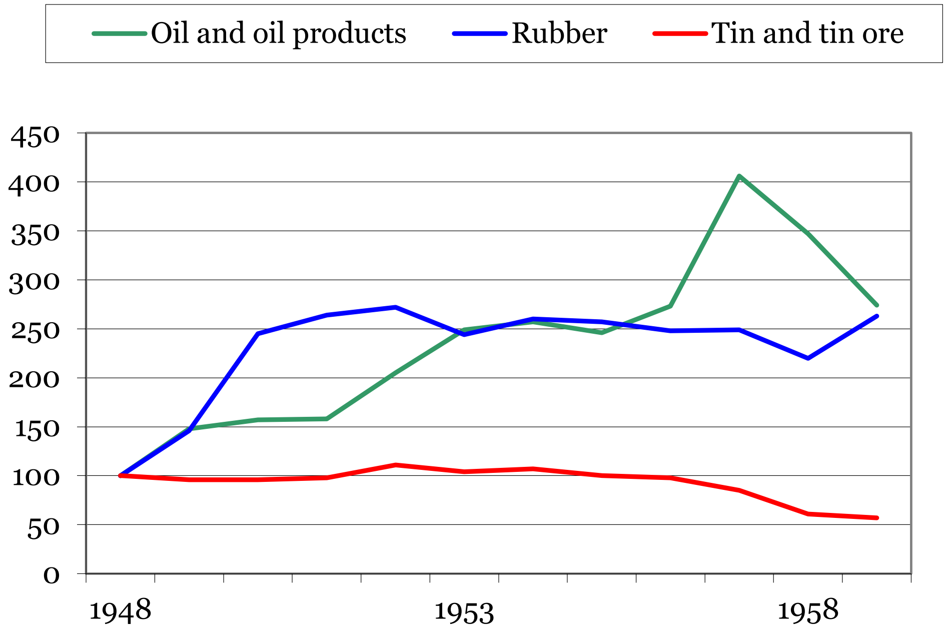
[82] Lindblad, *Bridges to new business*, 77, 126; Booth, *Economic change in modern Indonesia*, 47; Anne Booth, 'Trade and growth in the colonial and post-colonial periods', in: Alicia Schrikker and Jeroen Touwen (eds), *Promises and predicaments. Trade and entrepreneurship in colonial and independent Indonesia in the 19th and 20th centuries* (Singapore: NUS Press, 2015) 17–35, in particular 27.
[83] Booth, *Economic change in modern Indonesia*, 47; Higgins, *Indonesia's economic stabilization and development*, 149, 155.
[84] Booth, *Colonial legacies*, 184.
[85] Lindblad, *Foreign investment in Southeast Asia in the twentieth century* 105; Hunter, 'The Indonesian oil industry', 259; Phyllis Rosendale, *The Indonesian balance of payments, 1950–1976, some new estimates* (PhD thesis, Australian National University, Canberra, 1978) 218; Arend Lijphart, *The trauma of decolonization: The Dutch and West New Guinea* (New Haven, CT: Yale University Press, 1966) 49.
[86] Hunter, 'The Indonesian oil industry', 278; Bartlett, *Pertamina: Indonesian national oil*, 112.

Figure 6.1. Development of export volumes of oil, rubber and tin in Indonesia, index 1948 = 100, 1948–1959.



Source: Bank Indonesia, Jakarta: DJB, 1553, Annual report 1950–1951, 68; Bank Indonesia, *Report for the year 1953–1954*, 86; Bank Indonesia, *Report for the year 1956–1957*, 115; Bank Indonesia, *Report for the year 1959–1960*, 90, 117.

Oil and rubber combined were responsible for more than half of the total export revenues in Indonesia during the 1950s.[87] Although the output of rubber remained largely stagnant after the Korean War boom while oil production doubled, in terms of money rubber surpassed oil at the beginning of the 1950s as a result of the increasing rubber prices. Only in the late 1950s did yields from oil match those of rubber again (Figure 6.1).[88]

[87] Lindblad, 'Economic growth and decolonisation in Indonesia', 99; Lindblad, *Bridges to new business*, 158.
[88] Bruce Glassburner, 'The economy and economic policy: General and historical', in: Bruce Glassburner (ed.), The economy of Indonesia: Selected readings (Ithaca, NY: Cornell University Press, 1971) 1–15, in particular 14; Hunter, 'The Indonesian oil industry', 296; Bank Indonesia, Jakarta: DJB, 1553, Annual report 1950–1951, 69; Bank Indonesia, *Report for the year 1953–1954* (Jakarta: Kolff, 1954) 87; Bank Indonesia, *Report for the year 1956–1957* (Jakarta: Kolff, 1957) 114; Bank Indonesia, *Report for the year 1959–1960* (Jakarta: Kolff, 1960) 91, 116.

The output of tin reached its peak in 1952 thanks to the Korean War boom with a total of 51,000 tons. During the first half of the 1950s production numbers and prices remained high. Tin production of GMB shows a similar picture, although GMB reached its peak in 1948. Nevertheless, 1952 proved to be the next best year for GMB and only from 1955 onwards did tin production drop below 9,000 tons per year. Production levels of Bangka were roughly twice as large as those of GMB, but production levels may have been higher in reality because of smuggling.[89]

In contrast to rubber and oil, some crops, such as sugar, had lost their importance even before the war and never recovered after it. Sugar was responsible for only 3% of total exports afterwards.[90] Sugar production did recover after the war but reached its peak in the late 1950s with a production of 800,000 tons per year. This was only around half of the total production of 1941 and slightly less than one-third of the record production reached in the late 1920s.[91]

Even though HVA was able to recover a part of its sugar factories, production peaked at 83,135 tons in 1953. This was around half of the production numbers during the 1930s and around 20% of the peak year 1930. Tobacco production of the Deli Company showed a slightly better result. In 1949 more than 45,000 sacks of tobacco were produced. This was still much lower than during the 1920s and 1930s when annual production figures of nearly 70,000 and 60,000 sacks, respectively, were reached. During the 1950s, tobacco production of the Deli Company dropped to around 25,000 sacks per year, which was in line with the trend in the Deli area and the company had to deal with rising production costs (Figure 6.2 and Appendix 29).[92]

As a result of the increasing importance of products such as oil and rubber and the declining share of crops such as sugar, the share of Java in total

[89] NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 29–6–1949, 2–7–1951; Thomas and Panglaykim, 'Indonesian exports: Performance and prospects 1950–1970, part II', 74; Kamp, *De standvastige tinnen soldaat*, 194–195; Somers Heidhues, *Bangka tin and Mentok pepper*, 208.
[90] Mackie, 'The Indonesian economy 1950–1963', 37; Rosendale, *The Indonesian balance of payments, 1950–1976*, 213–214.
[91] Colin Brown, 'The politics of trade union formation in the Java sugar industry, 1945–1949', *Modern Asian Studies*, Vol. 28 (1994) 77–98, in particular 79; Mubyarto, 'The sugar industry', 52; Kraal, 'Indonesie en suiker', 746; Van der Eng, *Agricultural growth in Indonesia*, 225; E.P.M. Tervooren., 'De financiele en economische ontwikkeling in Indonesië', *De Economist*, Vol. 102 (1954) 499–519, in particular 510; Hartveld, *Raising cane*, 82.
[92] NL-HaNa: Deli Maatschappij, 39, Annual report 1949–1950, 10–11; Douglas S. Paauw and Lim Kim Liat, *Prospects for East Sumatran plantation industries: A symposium* (New Haven, CT: Southeast Asian Studies Yale University, 1962) 19.

exports of Indonesia dropped. Whereas in the late 1930s roughly 35% of the exports originated from Java, by the late 1950s this percentage had dropped to only 14%.[93] Until 1957 the Netherlands was one of three foremost export markets. Together with Singapore and the United states these three countries received more than half of total Indonesian exports.[94] If we take a look at the import figures of Indonesia, the results are slightly different. Already in 1947, the United States was the largest exporter to Indonesia, with Japan quickly taking the second position at the beginning of the 1950s and surpassing the Netherlands, which had to settle for third place.[95]

Overall, the importance of the trade between the Netherlands and Indonesia was higher for Indonesia than vice versa during most of the 1950s. The share of Indonesia in Dutch imports and exports was less than 5%, whereas exports to the Netherlands amounted to nearly 20% of total Indonesian exports. The Netherlands accounted for around 10% of total Indonesian imports.[96]

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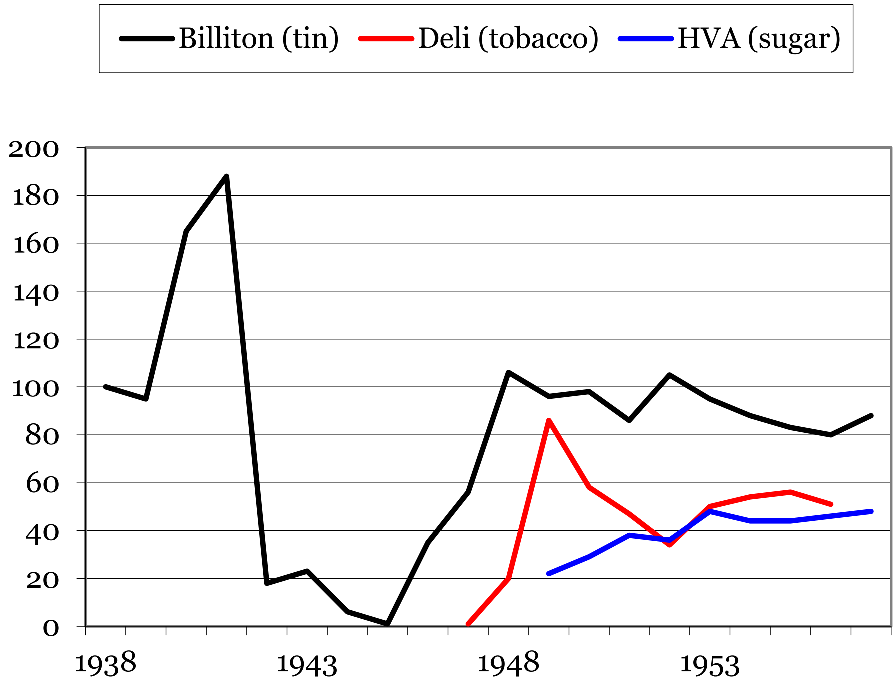
[93] Booth, *Economic change in modern Indonesia*, 47.
[94] Meijer, *Den Haag-Djakarta*, 650.
[95] Ibid., 651.
[96] Pham Van Thuy, *Beyond political skin*, 152–153; Meijer, *Den Haag-Djakarta*, 652–653.

Figure 6.2. Development of production volume at Billiton, the Deli Company and HVA, 1938–1957, index 1938 = 100.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 45, 361, 362, Annual reports; NL-HaNa: Deli Maatschappij, 39, 40, 41, Annual reports; NL-HaNa: HVA, 11, 12, Annual reports.

Economic performance and profits

The Japanese occupation was devastating for the Indonesian economy. When discussing GDP per capita for this period, we need to acknowledge the shortcomings of available statistical data. During 1942 to 1944, GDP per capita dropped by 20% each year and in 1945 by more than 10%. There was a slow recovery from 1946, but in this year GDP per capita was only half of the level of 1938. In 1947 and 1948, GDP per capita did increase with 15% per year, whereas in 1949 growth slowed to 9% and in 1950 it was 8%. The relatively high growth rates in the second half of the 1940s mainly reflected the recovery from the war. In 1950 GDP per capita was still 20% lower than in 1938. In the first half of the 1950s, average annual GDP growth per capita was almost 5%

but stagnated in the second half of the 1950s. In 1957 real GDP per capita was 10% lower than in 1938 and even 20% lower than in 1941.[97]

Roughly half of the economic growth in Indonesia during the 1950s originated from the primary sector, which also included mining, while manufacturing and the tertiary sector were responsible for the other half. Van der Eng shows that oil contributed 40% of the growth of GDP between 1953 and 1957. This is likely to be an overestimation since his data is based on 1983 prices, when oil prices were higher than during the 1950s. Still, the profits from the oil and rubber industries in the 1950s were not sufficient to restore real GDP per capita at the peak level of 1941.[98] Substantial profits in oil ended up in the pockets of foreign shareholders. On this account the contribution by the rubber industry was more substantial by the end of the 1950s, providing more than 40% of Indonesian export revenue, with smallholders responsible for two-thirds of exports.[99]

Estimates of contributions of total exports to GDP for the post-war period vary between 5% and nearly 40%. But overall the direct contributions of exports to GDP growth during the 1950s were lower than during the first half of the twentieth century.[100] The share of foreign capital in total export revenue rose from 53% in 1950 to 65% in 1956. In 1956 total exports amounted to some 20% of GDP. 13% of GDP was the result of activities in the export industry by foreign capital. If we include the contribution to domestic activities in Indonesia by foreign investors, due to the multiplier effect, then this may bring their contribution to the economy as far as to 20% of GDP, comparable with the late colonial period. On the basis of these assumptions, I estimate contributions of foreign capital to GDP, including the multiplier effect on domestic activities, to be in the range of 10–25% during the first half of the 1950s.[101] The presence of foreign private companies remained

[97] Van der Eng, 'Indonesia's growth performance in the twentieth century', 144; Lindblad, 'Economic growth and decolonisation in Indonesia', 98–99; Booth, 'Trade and growth in the colonial and post-colonial periods', 27; Van der Eng, 'Indonesia's economy and standard of living in the 20th century' 181–185.

[98] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 55–56; Glassburner, 'The economy and economic policy', 14; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 369–370; Douglas S. Paauw, *Financing economic development: The Indonesian case* (Glencoe: Free Press of Glencoe, 1960) 444; Van der Eng, 'Indonesia's growth performance in the twentieth century', 172–173.

[99] Hunter, 'The Indonesian oil industry', 296–297.

[100] Van der Eng, 'Indonesia's growth performance in the twentieth century', 155.

[101] Lindblad, 'Economic growth and decolonisation in Indonesia', 100, 106; Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 369–370; Mangkusuwondo, *Industrialization efforts in Indonesia*, 181; Glassburner, 'The economy and economic policy', 14; Paauw, 'Economic progress in Southeast Asia',

important for the economic development of Indonesia during the first ten years of its independence.

Some foreign companies, especially from countries other than the Netherlands, kept investing in Indonesia, but how profitable were these fresh investments? In 1952 it became increasingly difficult for foreign firms to transfer their profits overseas. Under a new regime, profits were taxed more heavily and transfers were increasingly delayed. As a result, more profit was reinvested in Indonesia.[102] Initially, the corporate tax rate was 40%, but it was increased to 52.5% in 1952. From 1954, profits and other transferred income were subject to a surcharge of 66.6%.[103] From 1955 onwards, foreign companies were obliged to deposit 40% of net profits at Bank Indonesia in an account created for that purpose. The remaining 60% of the profit could be transferred overseas after payment of a hefty corporate tax. Transfers of foreign exchange by foreign employees were eventually reduced to 20% of their salaries. Difficulties with the prevailing system of multiple exchange rates aggravated the situation.[104]

Nevertheless, the remaining share of the profits did flow back to the Netherlands and other countries. Between 1950 and 1952, around ƒ320 million of profit was transferred from Indonesia to the Netherlands. This corresponds to a dividend rate of less than 5%, which was in fact not much lower than in the late pre-war period, yet results for individual companies differed. In 1953 profit transfers increased to ƒ141 million in 1953, but dropped to ƒ99 million and ƒ107 million in 1954 and 1955, respectively. In the subsequent years these transfers fell dramatically as relations between the Netherlands and Indonesia deteriorated. Apart from these profits, pension

80; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 60; United Nations, *Economic survey of Asia and the Far East 1953* (Bangkok, ECAFE, 1954) 71; Bank Indonesia, *Report for the year 1954–1955* (Jakarta: Kolff, 1955) 93; Bank Indonesia, *Report for the year 1956–1957*, 127; Higgins, 'Thought and action: Indonesian economic studies and policies in the 1950s', 39–41.

[102] Van der Eng, *Economic benefits from colonial assets*, 30.

[103] Higgins, *Indonesia's economic stabilization and development*, 13; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 104; Meijer, *Den Haag-Djakarta*, 429; NL-HaNa: HVA, 11, Annual report 1955, 9.

[104] Espenshade, *Investment in Indonesia*, 94; J. Thomas Lindblad, 'British business and the uncertainties of early independence in Indonesia', *Itinerario*, Vol. 37 (2013) 147–164, in particular 152–155; Nicholas J. White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', *Modern Asian Studies*, Vol. 46 (2012) 1277–1315, in particular 1289; Anne Booth, 'Government and welfare in the new republic: Indonesia in the 1950s', *Itinerario*, Vol. 32 (2010) 57–76, in particular 5; Bank Indonesia, *Report for the year 1953–1954*, 94; Van der Eng, *Economic benefits from colonial assets*, 30.

and saving funds and other forms of income were also transferred to the Netherlands.[105]

Overall, nearly ƒ2.4 billion of direct transfers by private Dutch companies went to the Netherlands between 1950 and 1957. To put these transfers in perspective, in the three years 1956, 1957 and 1958 combined, the total investment by the Indonesian government, including investment in transportation and social affairs, amounted to 7.3 billion rupiah, or roughly ƒ2.4 billion. Although statistics on new investment during this period are incomplete, it seems likely that the money flowing out of Indonesia to the Netherlands was twice as large as new Dutch investment entering Indonesia.[106] Apparently, Dutch companies had shifted their long-term vision for short-term gains. Growing uncertainty about the future led to a paradox. Dutch companies were reluctant to make new investments but were forced to do so by the new regulations. They were unable to transfer all their profits abroad and the remaining share was reinvested.[107]

For the Netherlands, these transfers (including other forms of income directly related to activities in Indonesia) contributed less to GDP than in the pre-war period. In 1938 the contribution of Indonesia to the GDP of the Netherlands had been around 7.9%, but in 1948 it had declined to 2.8%. In 1949 the contribution increased to 4.4% due to an increase in exports to Indonesia, but in 1950 it was down to 2.5%. Again in 1955 this contribution was still 2.5%. By 1956 it amounted to only 2.1%.[108] Despite all the difficulties and problems that foreign companies had to deal with in post-war Indonesia, most trading and agricultural companies still made profits. However, total returns were lower than during the pre-war period and did not compensate for losses made during the 1930s and 1940s.[109]

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[105] J. Thomas Lindblad, 'The economic decolonisation of Indonesia: A bird's-eye view', *Journal of Indonesian Social Sciences and Humanities*, Vol. 4 (2011) 1–20, in particular 11; Jonker and Sluyterman, *Thuis op de wereldmarkt*, 267; Meijer, *Den Haag-Djakarta*, 649; Van der Eng, *Economic benefits from colonial assets*, 30.
[106] Lindblad, *Bridges to new business*, 158–159; Paauw, *Financing economic development*, 446–447.
[107] Van der Eng, *Economic benefits from colonial assets*, 30.
[108] M.J. Baudet, and G.J. Wijers, 'De economische betekenis van Nederlands-Indië voor Nederland. Oude en nieuwe berekeningen', *Economisch-Statistische Berichten*, Vol. 61 (1976) 885–888, in particular 887–888.
[109] Meijer, *Den Haag-Djakarta*, 497; Buelens and Frankema, 'Colonial adventures in tropical agriculture', 213; Lindblad, 'The economy of decolonization in North Sumatra', 93.

Profit transfer and reinvestment

Our case studies, of Billiton, the Deli Company and HVA show that reinvestment of profit was common.[110] HVA succeeded in enlarging output substantially after the war and market prices for palm oil, fibre and rubber were favourable. Despite a corporate tax of 40% and an export tax of 8%, HVA was still making a profit. However, compared with the pre-war period, profit rates were significantly lower. In most years, HVA was only able to pay out a dividend of 6%, while significant sums were added to the reserves. It needs to be noted that when HVA started paying dividends again in 1948, equity had been increased from ƒ40 million to ƒ60 million, which meant that the total amount of dividend paid out was 50% higher at the same standard profit rate of 6%.[111]

In 1953 turnover exceeded ƒ10 million and net profits of ƒ4.4 million allowed HVA to pay out a dividend of 7%.[112] In 1954 the situation became more difficult since the Indonesian government obliged companies to deposit reserves at Bank Indonesia. HVA decided to write off significant sums and keep larger reserves. Between 1948 and 1955, HVA paid a total dividend of ƒ29.4 million, whereas it added ƒ21.6 million to the reserves. HVA was able to maintain its dividend payments at 6% and paid 8% in 1956 and 1958, but in 1955 had to borrow from the NHM in order to transfer sufficient funds for dividends due to the restriction on direct transfer of realized profits.[113]

After the Deli Company had started operations again, turnover increased to ƒ7 million in 1949 and ƒ10 million in 1950. In the late 1940s profits recovered. While in 1948 profits were slightly more than half a million guilders, in 1949 profits increased to nearly ƒ2 million and in 1950 more than doubled to nearly ƒ4.3 million. Dividend rates were initially comparable to those of HVA. Until 1951 6% was paid out, except in 1950 when the Deli Company paid 9% to its shareholders. In the following years turnover fell to less than ƒ3 million in 1951 but recovered and reached a peak of ƒ15.4 million in 1953. In 1953 a profit of nearly ƒ7.7 million was reported and a dividend of 10% was paid. In the meantime equity was increased from ƒ40 million to ƒ64 million due to mergers of different tobacco companies. In the following years

[110] Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 116–117; Brand, *1879 HVA 1979*, 38.
[111] NL-HaNa: HVA, 12, Annual report 1949, 15, Annual report 1950, 16, Annual report 1951, 14, Annual report 1952, 13.
[112] NL-HaNa: HVA, 12, Annual report 1953, 13, 19.
[113] NL-HaNa: HVA, 9, Board meeting 6–4–1956; NL-HaNa: HVA, 12, Annual report 1955, 9, 12–13.

turnover and profits both declined. In 1954 turnover had halved to ƒ7.5 million and by 1957 it was slightly above ƒ4 million. Profits dropped from ƒ6.2 million in 1954 to ƒ4.2 million in 1956. As a result dividend was reduced too. In 1954 8% was paid out but the next year it was halved to 4%. In 1956, however, 6% was paid again. It was estimated that between 1950 and 1954 more than ƒ40 million of net proceeds remained in Indonesia. In the first half of the 1950s the company could have transferred more money to the Netherlands than it had done. Instead, the company decided to reinvest in order to make larger depreciations possible. In this way, the Deli Company reinvested nearly 60 million rupiah (ƒ20 million) in 1955 and 62 million rupiah (ƒ20.66 million) in 1956.[114]

Equity at Billiton in Indonesia was low at ƒ16 million after the war. The reserves were used for recovery. Dividend rates were high as a result of the company's policy of keeping equity very low. Shortly after the war, in 1947, profits amounted to nearly ƒ7 million which allowed the company to pay a dividend of 40%. GMB succeeded in increasing its profit in the following years. In 1948 profits were nearly ƒ8.5 million and dividend increased to 50%. One year later, profits more than doubled to ƒ18.1 million. In 1949 the company paid an impressive dividend of 100% and the Indonesian government took over the shares of the colonial government and was now five-eighths owner of GMB, eligible to receive a corresponding portion of profits. In 1950 nearly ƒ11.9 million of profits were made, which resulted in a dividend of 80%.

From 1951 onwards, profits in the annual reports of GMB were stated in both the Indonesian rupiah and Dutch guilders. A distinction was made between profits that were available for transfer to the Netherlands and the share that remained in Indonesia. In 1951 profits amounted to 51 million rupiah (ƒ17 million) and dividend dropped to 20%. A significant portion of profits thus remained in Indonesia.[115] In the following years, profits remained high due to the Korean War boom. Between 1952 and 1954 profits were on average 45 million rupiah each year, whereas dividend payments were 20%, 25% and 30% respectively. Until 1953 GMB also received a fee of ƒ460,000 annually for the exploitation of the tin mines on Bangka, plus a share of its profit. In 1955, however, profits dropped below 30 million rupiah and

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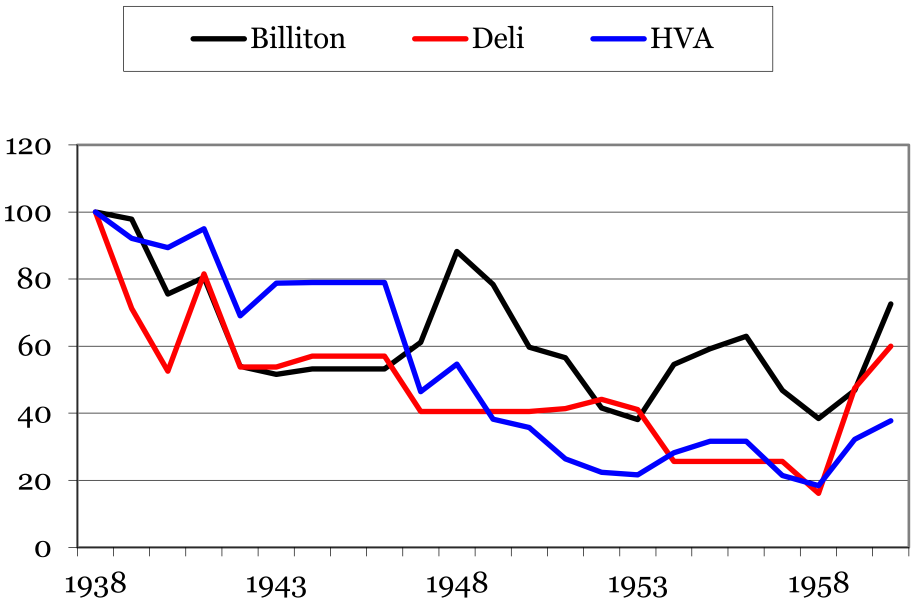
[114] NL-HaNa: Deli Maatschappij, 39, 40, 41, Annual reports; NL-HaNa: Deli Maatschappij, 447, Documents regarding the United Deli Company, 16–3–1956; J. Thomas Lindblad, 'Pursuit of profit in the shadow of decolonisation: Indonesia in the 1950s', in: Ulbe Bosma and Anthony Webster (eds), *Commodities, ports and the Asian maritime trade since 1750* (London: Palgrave Macmillan, 2015) 241–257, in particular 246–247.
[115] NL-HaNa: Billiton Maatschappij, 361, Annual report 1950, 5, Annual report 1951, 5, 24–25.

dividend fell to 19%. GMB had confronted lower prices and higher costs. In 1956 profits were around one-third lower, slightly above 20 million rupiah and dividend was lowered to 17%. These lower dividend payments to Dutch shareholders from 1951 and relatively high profit rates at least until 1955 imply that a significant share of the profit ended up in Indonesian pockets. Moreover, reserves increased from ƒ6 million to ƒ17.5 million between 1952 and 1956.[116]

Declining profitability is also reflected in stock market prices. The share price of Billiton recovered after the war but dropped during the 1950s and recovered only slightly after the Korean War boom. For the Deli Company and HVA, the situation was worse. In the mid–1950s their share prices had dropped to less than one-third of the level in 1938, whereas for Billiton shares were down to half. Shareholders who had bought their shares before the war and waited for better times faced a significant drop of share prices and had to rely on dividends (Figure 6.3).

[116] NL-HaNa: Billiton Maatschappij, 45, Annual report 1955, 5–9; NL-HaNa: Billiton Maatschappij, 362, Annual report 1952, 24–25, Annual report 1953, 22–23; Annual report 1954, 24–25; Annual report 1955, 25; Annual report 1956, 22; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 30–6–1947; NL-HaNa: Billiton Maatschappij, 416, Report financial situation 16–12–1949.

Figure 6.3. Development of share prices of Billiton, Deli and HVA, 1938–1960, index 1938 = 100.



Source: Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijscouranten' 1910–1940*.

Linkages

This section focuses on linkages. We will start with fiscal linkages and then discuss tax policies of the Indonesian government effecting foreign investors. Subsequently, we will move on to backward and forward linkages and final demand linkages to find out whether linkages were more or less prominent in Indonesia after independence than before. Taxes formed an important source of income for the Indonesian government. Total tax revenue corresponded to nearly 90% of total government income between 1951 and 1954. The remaining share of the government revenue originated from the profit of government enterprises. Around 70% of total tax revenue originated from indirect taxes, of which export and import taxes were the most important.[117]

[117] Espenshade, *Investment in Indonesia*, 77; Paauw, *Financing economic development*, 171, 181.

The proportion of these indirect taxes in total government revenue was definitely larger after independence than before.[118]

The higher share of export taxes in particular was a result of the multiple exchange rate policy applied by the Indonesian government. Foreign exchange certificates and a continuous depreciation of the rupiah made it possible for the government to earn up to one-third of the earnings from exports. For overseas transfers of foreign currency, permission was required from the Lembaga Alat-Alat Pembayaran Luar Negeri (LAAPLN, Regulating Body for Foreign Payments). In 1952 these import and export taxes still accounted for 59% of total taxes, with 43% originating from exports alone.
In February 1952 extra export duties were introduced on top of the general export tax of 8%. For copra and rubber, the surtax was 25% and for oil and tin the rate was 15%, whereas tobacco was exempted. In 1952 the surtax on rubber was reduced.[119]

The three large foreign oil companies in Indonesia negotiated the Let Alone agreements with the Indonesian government to get exemptions from or reductions of the tax rate. In mid–1952, Stanvac was exempted from the surtax but still had to pay its major share of profit to the state. In 1953 under the first Ali Sastroamidjojo cabinet the situation improved from the point of view of Stanvac. Profits were split with the government and export duties were reduced from 8% to 4%. After 1953 the two other oil companies, Caltex and Royal Dutch Shell, followed with similar agreements with the government.[120]

The share of import and export taxes in total tax revenue declined to 36% in 1954 and 40% in 1955, but amounted to more than 50% again in the

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[118] Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 88; Booth, 'Government and welfare in the new republic: Indonesia in the 1950s', 70.

[119] Paauw, *Financing economic development*, 182, 230–231, 259; Farabi Fakih, *The rise of the managerial state in Indonesia: Institutional transition during the early independence period. 1950–1965* (PhD thesis, Leiden University, 2014) 346–347; Sievers, *The mystical world of Indonesia*, 213–214; Booth, *Economic change in modern Indonesia*, 42; Higgins, *Indonesia's economic stabilization and development*, 5, 13; Douglas S. Paauw, 'From colonial to guided economy', in: Ruth T, McVey (ed.), *Indonesia* (New Haven, CT: HRAF Press, 1963) 155–247, in particular 241; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 148; Mangkusuwondo, *Industrialization efforts in Indonesia*, 201; Douglas S. Paauw, 'The tax burden and economic development in Indonesia', *Ekonomi dan Keuangan Indonesia*, Vol. 7 (1954) 564–588, in particular 585; Rosendale, *The Indonesian balance of payments, 1950–1976*, 158; Pham Van Thuy, *Beyond political skin*, 149–150; NL-HaNa: Billiton Maatschappij, 45, Annual report 1951, 11; NL-HaNa: Deli Maatschappij, 39, Annual report 1950–1952, 6–7.

[120] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 128, 135; United Nations, *Economic survey of Asia and the Far East 1953*, 74; Hunter, 'The Indonesian oil industry', 261–263; Bartlett, *Pertamina: Indonesian national oil*, 109.

following year. By that time the share of export tax had dropped to only 3% in 1956 as a result of lower market prices for the chief export products of Indonesia and a reduction of export duties. Proceeds from the import tax increased from 1951 when more duties were introduced, reaching 51% of total tax revenue in 1956.[121]

Company tax was another significant source of revenue that affected foreign companies in particular. During the colonial period, company profits had been taxed at 25% but the Indonesian government increased the tax rate in 1951 to 40% for profits up to 500,000 rupiah and a maximum rate of 52.5% for profits in excess of 2.5 million rupiah. The contribution of this tax increased rapidly during the 1950s. In 1950 the company tax amounted to 275 million rupiah, but in 1951 it had increased to 655 million rupiah, which was around 7% of total taxes. Its share increased to 13% in 1953 and 19% in 1955 when it amounted to 1,804 million rupiah.[122]

Roughly two-thirds of the export tax were paid by foreign companies, the rest by indigenous smallholders.[123] The rubber export surtax for smallholders was a legacy from the colonial period. Overall, the purpose of the policy was on taxing foreigners and not indigenous smallholders. With other taxes combined, Indonesia was one of the countries that taxed foreign enterprises the heaviest.[124]

Taxes contributed significantly to the Indonesian treasury.[125] For the Indonesian government, it was easier to collect trade taxes than taxes on income. In political terms it was expedient to aim at taxing foreigners.[126] The personal income tax was in that sense beneficial to the Indonesian state as well. Overall, foreigners earned more money than indigenous Indonesians and consequently paid relatively more income tax.[127] However, taxation on consumption was becoming more important, for instance with the introduction of a sales tax in 1951. This tax obviously affected the entire

[121] Paauw, *Financing economic development*, 181; Bernard Vlekke, *Indonesia in 1956: Political and economic aspects* (The Hague: Netherlands Institute of International Affairs, 1957) 59; NL-HaNa: HVA, 7, Board meeting 4–2–1949.
[122] Paauw, *Financing economic development*, 195–196; Higgins, *Indonesia's economic stabilization and development*, 14; Paauw, 'The tax burden and economic development in Indonesia', 584; Sutter, *Indonesianisasi*, 1004–1005; Bank Indonesia, Jakarta: DJB, 1553, Annual report 1952–1953, 95; Bank Indonesia, *Report for the year 1953–1954*, 59.
[123] Paauw, *Financing economic development*, 585; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 88.
[124] Paauw, *Financing economic development*, 256.
[125] Mackie, 'The 1941–1965 period as an interlude in the making of a national economy: How should we interpret it?', 341.
[126] Lindblad, *Bridges to new business*, 127.
[127] Espenshade, *Investment in Indonesia*, 104.

population, not only foreigners.[128] Gradually, as a result of the higher taxes, the share of total government revenue originating from Dutch companies and people combined increased from 35% in 1951 to more than 50% in 1954.[129]

Foreign firms found it increasingly difficult to retain operations in Indonesia as a result of heavy taxation. It was not uncommon that foreign companies saw half of their profits flow to the Indonesian state, which made companies less willing to invest or expand their operations.[130]
For Billiton, for instance, lower profitability resulted in lower dividend rates, which in fact affected the Indonesian government as well since it was for five-eighths owner of the company's tin mining operations in Indonesia. Lower dividends pocketed by the government were more than compensated by higher tax income plus access to the reserves accumulated at Bank Indonesia.[131] The tin mines on Bangka on the other hand had become completely Indonesian-owned after the transfer of sovereignty and the company was exempted from income tax.[132]

Backward and forward linkages

While fiscal linkages became increasingly important for the Indonesian state during the 1950s, backward and forward linkages were only visible in the most rudimentary sense. Construction of new roads and other infrastructure was mainly part of the rehabilitation after the war. Billiton, for instance, ordered six dredges in the Netherlands and two in the United States in order to expand operations after the war.[133] The oil companies also expanded dramatically during the 1950s. The Indonesian government required them to invest locally. Before the war, Royal Dutch Shell and Stanvac used local facilities for oil refining.[134] This contrasts with Caltex, which refined oil from Minas in Sumatra overseas, despite requests from the Indonesian government to set up local refining. If Caltex had built a refinery in Indonesia that would have been a significant contribution to the local economy, yet another example of a

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128 Paauw, *Financing economic development*, 258; Mansury, *The Indonesian income tax*, 284; Booth, 'Government and welfare in the new republic: Indonesia in the 1950s', 59; Ondernemersraad voor Indonesië, *Verslag over het negen en twintigste, het dertigste en het een en dertigste verenigingsjaar (1950, 1951 en 1952)* ('s-Gravenhage, 1952) 65–66.
129 Meijer, *Den Haag-Djakarta*, 654.
130 Goedkoop, 'Handelsvereeniging 'Amsterdam'', 230.
131 Lindblad, 'Pursuit of profit in the shadow of decolonisation: Indonesia in the 1950s', 245.
132 Paauw, *Financing economic development*, 243.
133 NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 30–6–1947.
134 Aden, *Oil and politics in Indonesia, 1945 to 1980*, 140.

missed opportunity for Indonesia. Overall, the oil industry required the import of much equipment, which was not locally produced. Instead of creating backward and forward linkages, Caltex however, chose to transfer funds to the Indonesian government in the form of fiscal linkages.[135] Caltex did construct port facilities in Dumai in East Sumatra. Pipelines connected the Duri and Minas oilfields with Dumai and a road of some 180km was constructed between Dumai and Pekanbaru.[136] At about the same time, Stanvac constructed a road of 94km and a pipeline to connect its oil field in Lirik.[137]

In the tin mining industry, forward linkages such as smelting tin ore failed to materialize during the period Billiton was producing in Indonesia. Tin ore from Belitung and Bangka was shipped to and smelted in Arnhem and Texas.[138] The old smelting facilities at Bangka were not repaired after the war.[139] As a result of government policy, imports became more expensive throughout the 1950s. At Billiton, this caused a lack of spare parts and a decline in productivity. Despite increasing difficulties with imports, foreign companies did not choose to make use of local production or were unable to do so.[140]

Final demand linkages

Independence saw an increase in militant labour union activity. Protests and strikes had a great impact on operations by foreign companies. Several foreign companies had to halt or postpone operations, which cost the company time and money. Protests by the Sarekat Buruh Perkebunan Republik Indonesia (SARBUPRI, Estate Workers Union of the Republic of Indonesia) in August and September 1950, involving nearly half a million labourers, were successful in increasing the minimum wage for estate labourers. In 1951 the estate

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[135] Aden, *Oil and politics in Indonesia, 1945 to 1980*, 141–142; Sutter, *Indonesianisasi*, 823; Hunter, 'The Indonesian oil industry', 297; Bank Indonesia, Jakarta: DJB, 3045, 16–12–1955.
[136] Bartlett, *Pertamina: Indonesian national oil*, 112.
[137] Ibid., 113.
[138] Pierre van der Eng, 'Mining and Indonesia's economy: Institutions and value adding, 1870 2010', *Centre for Economic Institutions, Hitotsubashi University, Working paper series*, No. 2014–5 (2014) 1–42, in particular 26; NL-HaNa: Billiton Maatschappij, 45, Annual report 1953, 6–7, Annual report 1955, 13.
[139] Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 128; Thomas and Panglaykim, 'Indonesian exports: Performance and prospects 1950–1970, part II', 75
[140] NL-HaNa: Billiton Maatschappij, 361, Annual report 1949, 3.

companies implemented a seven-hour work day and forty hours of work per week became more common. Another strike in 1953 led to an additional increase in wages of 30%. Gradually, more legislation was introduced that protected workers' rights and created a safer and better work environment. The incidence of child labour was curbed and female workers were granted maternity leave.[141]

Although wages of workers did rise, inflation was rampant during the 1950s. In 1951 alone, the cost of living for families of workers increased by more than one-third. It is likely that real incomes of labourers declined during the 1950s as wages could not keep up with inflation.[142] With rising prices, employers had no other choice than to increase wages. In 1950 Billiton increased minimum wages by 60%, while food was provided to workers at reduced prices, which cost the company substantial amounts.[143]

A rough estimate made by the Java Bank of 14 industrial branches claimed that by 1951 the number of workers had increased by 70% compared to 1940, while salaries were ten times higher and productivity had on occasion dropped by 50%.[144] Other sources show that in the sugar industry, wages had increased between 35 and 40 times, while in other estates in Java increases had been less at 20–25 times. In North Sumatra, wages had increased by 30–35 times. Staff wages, however, had increased between 4 and 7 times.[145] At HVA wages of labourers had increased fivefold between 1939 and 1949, whereas salaries for the lower Indonesian staff rose 2.5–4 times and tripled for European employees.[146] In 1950 overall wages for workers at HVA nearly doubled, with male labourers receiving ƒ2.15 per day and female workers ƒ2. On top of this, HVA provided food and products which cost the company on average one guilder per worker per day. Total costs of these increases for the

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[141] Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 127; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 104; Lindblad, *Bridges to new business*, 155; Goedkoop, 'Handelsvereeniging 'Amsterdam'', 28; E.D. Hawkins, 'Labor in developing countries: Indonesia', in: Bruce Glassburner (ed.), The economy of Indonesia: Selected readings (Ithaca, NY: Cornell University Press, 1971) 196–250 in particular 239–240; R.N.J. Kamerling, *Indonesië toen en nu* (Amsterdam: Intermediair, 1980) 237–240.
[142] Higgins, *Indonesia's economic stabilization and development*, 2; Adrian Vickers, *A history of modern Indonesia* (Cambridge: Cambridge University Press, 2005) 152; United Nations, *Economic survey of Asia and the Far East 1953*, 71; Bank Indonesia, Jakarta: DJB, 1553, Annual report 1952–1953, 177; Ali Wardhana, *Monetary problems of an underdeveloped economy with special reference to Indonesia* (PhD thesis, University of California, Berkeley, CA, 1962) 121–135.
[143] NL-HaNa: Billiton Maatschappij, 361, Annual report 1950, 2.
[144] United Nations, *Economic survey of Asia and the Far East 1953*, 71.
[145] Bank Indonesia, Jakarta: DJB, 1553, Annual report 1951–1952, 90–91.
[146] NL-HaNa: HVA, 7, Board meeting 3–2–1950.

company were estimated at around *f*10 million.[147] The combination of higher wages, fewer working hours and new government regulations resulted in lower profits and higher costs for foreign investors.[148] For the Deli Company, production costs were three times as high in 1951 compared to 1949.[149]

In the 1950s, Billiton limited its medical care to employees and their families, whereas before it also provided care to the other population on the island. After 1951, medical care on the island was increasingly provided by the government, with Billiton partly financing the service. Foodstuffs were offered at reduced prices, but the system was gradually phased out, although a certain amount of rice was distributed for free. Schooling was continued by the company and a new school was built. More houses for workers were constructed and the telephone network on the island was expanded at the company's expense.[150] The Deli Company built 3,788 two-family dwellings and made plans for more housing and improvement of existing dwellings.[151] HVA, on the other hand, decided to discontinue construction of new housing after 1952.[152]

Inevitably, the government and the labour unions continued to urge the foreign companies to improve the situation for workers and the Indonesian population at large. The Indonesian government requested sugar factories to process cane grown by Indonesian smallholders. Between 1950 and 1954 cane from smallholders milled by the factories increased from a few percent to 20% of total sugar output.[153] Most foreign sugar companies in Java leased their land and had to pay *grondhuur* (land lease) to the indigenous landowners. After independence, landowners asked for higher rents. In

[147] NL-HaNa: HVA, 7, Board meeting 6–1–1950; NL-HaNa: HVA, 8, Board meeting 6–1–1950; 5–5–1950.
[148] J.N.F.M. à Campo, 'Business not as usual: Dutch shipping in independent Indonesia, 1945–1958', *International Journal of Maritime History*, Vol. 10 (1998) 1–39, in particular 28–29; Marks, *Accounting for services*, 105; Goedhart, *Eerherstel voor de plantage*, 158; Brand, *1879 HVA 1979*, 75; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 29–6–1949; NL-HaNa: HVA, 7, Board meeting 5–12–1947; NL-HaNa: Deli Maatschappij, 9, Documents regarding land use 20–6–1957; Bank Indonesia, Jakarta: DJB, 1553, Annual report 1950–1951, 156.
[149] NL-HaNa: Deli Maatschappij, 39, Annual report 1949–1950, 6–11.
[150] NL-HaNa: Billiton Maatschappij, 361, Annual report 1949, 9, 14, 16, Annual report 1950, 8, Annual report 1951, 6–11; NL-HaNa: Billiton Maatschappij, 362, Annual report 1954, 10–11.
[151] NL-HaNa: Deli Maatschappij, 41, Annual report 1953, 8–9, Annual report 1954, 10–11.
[152] NL-HaNa: HVA, 8, Board meeting 3–8–1951.
[153] Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 226.

Kediri, prices were ten times higher in 1950 than before the war. Eventually, land rents were regulated by the Indonesian government.[154] Foreign estates also had to deal with unlawful land occupation and squatters remaining since the war. The situation became increasingly difficult for the estates, with much theft and vandalism. The tobacco companies and HVA in particular confronted this situation. Theft of crops and squatting were recurring topics at board meetings.[155]

Another trend was the slow but steady increase of Indonesian employees attaining a higher position in foreign firms. At the Round Table Conference in 1949, the Dutch companies had committed themselves to employ more Indonesian personnel in management and supervisory positions. Eventually, they would even have to form the majority of the management staff.[156] Various companies, such as HVA, had already started after the war with this so-called *Indonesianisasi*, which meant employment of Indonesian personnel in higher positions. However, companies often cooperated more readily when there was a lack of qualified Dutch or other foreign personnel available. Indonesian employees of long standing in the company were perfectly capable of managing various activities without the presence of the Dutch.[157]

Billiton also had to deal with a shortage of Chinese and Chinese Indonesian labourers. The company, therefore, decided to hire more indigenous Indonesian workers and staff members as well. Despite increased training of Indonesian employees, the company argued that it was still necessary to attract more Dutch staff.[158] Caltex, Stanvac and Royal Dutch Shell had all started with training programmes for Indonesian employees in the

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[154] Paauw, *Financing economic development*, 402; Fakih, *The rise of the managerial state in Indonesia*, 346–347; Hartveld, *Raising cane*, 56–57; NL-HaNa: HVA, 7 Board meeting 31–3–1950.
[155] Lindblad, *Bridges to new business*, 155–156; Knight, 'From Merdeka! to massacre: The politics of sugar in the early years of the Indonesian republic', 405–406; Freek Colombijn, *Under construction. The politics of urban space and housing during the decolonization of Indonesia, 1930–1960* (Leiden: Brill, 2014) 173–174; NL-HaNa: HVA, 8, Board meeting 4–1–1952, 7–5–1954; NL-HaNa: Deli Maatschappij, 9, Documents regarding land use 9–10–1956; NL-HaNa: Deli Maatschappij, 10, Documents regarding land use 4–12–1952; NL-HaNa: Deli Maatschappij, 11, Documents regarding unlawful occupation 29–4–1950.
[156] Fakih, *The rise of the managerial state in Indonesia*, 272.
[157] Sutter, *Indonesianisasi*, 2; Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 120.
[158] Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 128; NL-HaNa: Billiton Maatschappij, 45, Annual report 1954, 8–9.

1950s. Between 1949 and 1956, the share of Indonesians in middle and higher positions at Stanvac increased by 28% and by the mid–1950s 25% of the managers at Caltex were Indonesians, a proportion comparable with Unilever.[159] At HVA, around 40% of the staff positions were occupied by Indonesians in 1954.[160]

Slowly it became more difficult for the companies to bring Dutch staff to Indonesia. Fewer visas were issued and fewer Dutch citizens were given work permits. This also increased competition with foreign staff of other nationalities and could hinder the training of Indonesian staff due to a lack of qualified teachers. More companies did send Indonesian students to universities abroad and the number of Indonesian graduates showed a steady increase. Foreign companies started to realize that hiring Indonesians for higher positions was necessary and that the number of foreign staff members would have to decline. Non-Dutch foreign companies seem to have implemented Indonesianization faster than Dutch companies.[161]

In the meantime, the government put emphasis on indigenous Indonesian entrepreneurship with the *Benteng* (fortress) programmes from 1950 onwards. This was the first official policy that focused on increasing the share of indigenous traders in a field that was dominated by Dutch and Chinese businessmen. It was considered that in the import trade Indonesians could start business operations with a small amount of money. In reality, however, the policy was not efficient and the dominance of Chinese traders only increased. Although the number of Indonesian companies did grow under this programmes, a significant share of them were non-bona fide entrepreneurs. Some sold their import licences to others, especially to Chinese businessmen, and others became rent-seekers, who contributed little to the economy. Overall, these entrepreneurs lacked the knowledge and commercial skills to become successful. These groups were often called briefcase importers, since their sole qualification was the licence in their briefcase.[162]

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[159] Fakih, *The rise of the managerial state in Indonesia*, 272; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 104; Sutter, *Indonesianisasi*, 828; Hunter, 'The Indonesian oil industry', 162, 174.

[160] NL-HaNa: HVA, 8, Board meeting 1–10–1954.

[161] Meijer, *Den Haag-Djakarta*, 353; Thee, 'Indonesianization', 29; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 152; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 2–6–1955; NL-HaNa: Deli Maatschappij, 19, Board meeting 7–6–1950; NL-HaNa: Deli Maatschappij, 41, Annual report 1953, 16–17, Annual report 1954, 14–15, Annual report 1955, 10–11; NL-HaNa: Deli Maatschappij, 451, Documents regarding Indonesianisation 10–4–1953; NL-HaNa: HVA, 12, Annual report 1954, 10–11.

[162] Thee Kian Wie, *Recollections: The Indonesian economy, 1950s–1990s* (Singapore: Institute of Southeast Asian Studies, 2003) 12; Thee Kian Wie, 'Menuju

Nevertheless, a new spirit and dynamism arose. It was strengthened by the Indonesianization but nationalisation was an even stronger impulse.

According to the agreements at the Round Table Conference, the Indonesian government was allowed to nationalize foreign companies. This was brought into practice when the Java Bank was nationalized in 1951 and renamed Bank Indonesia in 1953. This operation went relatively smooth and the government continued to increase its control over other sectors.[163] The transport industry also became increasingly regulated by the government. Garuda Indonesian Airways had been founded in 1949 as a joint venture between KLM and the Indonesian government, which held 51% of the shares. The airline had a monopoly position and in 1954 KLM sold its shares to the government. In the same year, the two electricity companies OGEM and ANIEM were nationalized.[164]

No nationalisations occurred in 1955. The failure of reaching an agreement about New Guinea led to the unilateral abrogation of the Netherlands-Indonesian Union in February 1956, which implied an abrogation of the Round Table Conference agreements, including the refusal by Indonesia to pay the last instalment of its debt to the Netherlands.[165] Indonesia had already paid 85% and only $171 million of the $1,130 million was still to be paid.[166] It is likely that from the start Indonesia wanted to pay

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perkembangan sektor swasta Indonesia yang berkelanjutan', in: Bondan Kanumoyoso (ed.), *Kembara bahari. Esei kehormatan 80 tahun Adrian B. Lapian* (Depok: Komunitas Bambu, 2009) 291–314, in particular 295; Thee, 'Indonesianization', 9–14; White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', 1284; Siahaan, *Industrialisasi di Indonesia*, 168; Greta Christine Seibel, *The role of government policy in Indonesian small and medium enterprise development, 1966–2006* (PhD thesis, London School of Economics, London 2020) 59.

[163] Thee, *Recollections*, 11; J. Thomas Lindblad, 'Van Javasche Bank naar Bank Indonesia. Voorbeeld uit de praktijk van indonesianisasi', *Tijdschrift voor Sociale en Economische Geschiedenis*, Vol. 1 (2004) 28–46, in particular 35–36.

[164] Marks, *Accounting for services*, 128; Meijer, *Den Haag-Djakarta*, 428; Baudet, 'Ondernemen in Indonesië na de Tweede Wereldoorlog', 150; Sutter, *Indonesianisasi*, 868.

[165] Lindblad, *Bridges to new business*, 178; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 148; Bank Indonesia, *Report for the year 1955–1956* (Jakarta: Kolff, 1956) 24; Anspach, *The problem of a plural economy and its effects on Indonesia's economic structure*, 293; Jan Pluvier, *Indonesië: Kolonialisme, onafhankelijkheid, neo-kolonialisme: Een politieke geschiedenis van 1940 tot heden* (Nijmegen: SUN, 1978) 185–187; Frank H. Golay et al., *Underdevelopment and economic nationalism in Southeast Asia* (Ithaca, NY: Cornell University Press, 1969) 189; Meijer, *Den Haag-Djakarta*, 507–509.

[166] Abdullah, *The heartbeat of Indonesian revolution*, 27; Meijer, *Den Haag-Djakarta*, 518; Tervooren, *Statenopvolging en de financiële verplichtingen van Indonesië*, 334–337.

off this debt as soon as possible, since the Indonesian government had to consult with the Dutch government regarding economic and financial policy as long as the debt had not been fully paid. The economic boom during the early 1950s made it possible for the Indonesian government to pay off a substantial sum of the debt in a short amount of time. Although there were no immediate consequences for private foreign companies, it did show that the Indonesian government was not afraid to take drastic measures.[167] Inevitably, it anticipated the final phase of Dutch private investment in Indonesia.

6.4 Takeover and nationalisation of Dutch companies, 1957–1960

The abrogation of the Netherlands-Indonesian Union in February 1956 did not have any immediate negative effects on the operations of Dutch companies in Indonesia. In addition, in October 1956 a law was passed that prevented unlawful occupation of Dutch companies. Indemnification payments for the nationalized companies OGEM and ANIEM were initiated and no other companies were nationalized in 1956. Other foreign companies continued operations but the abrogation in particular targeted the Dutch government. It was not the purpose of the Indonesian government to further hinder private foreign entrepreneurship, but it did want to take measures against the former colonizer, although Indonesia had already paid the largest share of the debt.[168]

The interests of Dutch companies in Indonesia were still significant. In June 1956 Vice-President Hatta argued that Indonesia still depended on the presence of foreign inter-island shipping companies. President Sukarno was of the opinion that foreign domination of the economy should come to an end. He stated this in a speech on 17 August 1956. Requests were made by various associations and labour unions demanding the nationalisation of Dutch electricity and gas companies. The Indonesian government made plans to initiate further nationalisation. During this time, Dutch companies such as Lindeteves and Internatio were of the opinion that it was impossible to give

[167] Tom van den Berge, O. Simons and H. van Woerden, 'Het ministerie van Buitenlandse Zaken', in: H. Baudet and M. Fennema (eds), *Het Nederlands belang bij Indië* (Utrecht: Spectrum, 1983) 108–135, in particular 132.
[168] Van den Berge, Simons and Van Woerden, 'Het ministerie van Buitenlandse Zaken', 132; Thee, ‘Indonesianization’, 4; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 138; P.B.R. de Geus, *De Nieuw-Guinea kwestie, aspecten van buitenlands beleid* (Leiden: Martinus Nijhoff, 1984) 61, 77.

up their activities in Indonesia since the interests and investments were too large, even if the situation was becoming alarming for the companies.[169]

A next step was taken by the second Ali Sastroamidjojo cabinet to regulate port activities in October 1956. Lightering, stevedoring and port warehousing were largely done by Dutch or other foreign companies and these activities were to be taken over by Indonesian firms. Since these activities barely required any investment and were very labour-intensive, this hardly affected the KPM.[170] In the meantime, various Dutch plantations were sold to Chinese and other foreign nationals in particular, not to indigenous Indonesians. The book value of remaining Dutch companies was rapidly reduced, while Dutch estates increasingly confronted land occupation and squatters.[171]

In April 1957, after the fall of the second Ali Sastroamidjojo cabinet, Sukarno appointed an extra-parliamentary cabinet and introduced martial law. This was the start of the era of Guided Democracy that was hoped to bring political stability to Indonesia. In August 1957 West Irian became a prominent issue on the agenda of the United Nations again and diplomatic relations with the Netherlands deteriorated further.

At the same time, the Indonesian military made preparations to take over the economy. Numerous foreign companies in various fields such as gas, oil, printing and transportation were deemed to be vital to the military and thus prone to nationalisation, but had not yet been brought under military control. In October 1957 Sukarno launched a campaign aiming at the liberation of West Irian, and Dutch companies were boycotted for four days. The next month Sukarno stated that it was not unthinkable that trade relations with the Netherlands would be severed and Dutch properties confiscated if there was no favourable outcome in the West Irian issue.[172]

In the meantime, Indonesia strengthened its relations with other countries. By 1957 the Soviet Union surpassed the United States in terms of deliveries of goods. Loans and support from the Soviet Union for the Five-Year Plan kept growing, whereas relations with the United States cooled down.

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[169] NL-HaNa: Lindeteves-Jacoberg N.V., 1889–1978, 58, Annual report 1953, 8; Annural Report 1954, 8; Pham Van Thuy, *Beyond political skin*, 154; Meijer, *Den Haag-Djakarta*, 597; Lindblad, *Bridges to new business*, 117–119, 160.

[170] Dick, *The Indonesian interisland shipping industry*, 19; Lindblad, *Bridges to new business*, 121.

[171] Pham Van Thuy, *Beyond political skin*, 154; Meijer, *Den Haag-Djakarta*, 594; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 155.

[172] Booth, *Economic change in modern Indonesia*, 44; Sievers, *The mystical world of Indonesia*, 178; Lindblad, *Bridges to new business*, 181; Pham Van Thuy, *Beyond political skin*, 194; Daniel S. Lev, *The transition to guided democracy: Indonesian politics, 1957–1959* (Jakarta: Equinox Publishing, 2009) 32–40, 47–49.

Indonesian purchases of military equipment did not go through and only a small loan was granted by the United States.[173]

One development that compensated for the deteriorating relations with Western countries was an agreement with Japan in November 1957 regarding payments for war damage. A total of $800 million was destined for reparation, technical assistance and private economic projects. Coincidentally, shortly after Indonesia sealed the deal with Japan, Indonesia failed to achieve a two-thirds majority in the United Nations General Assembly, which meant that West Irian was not to be handed over to Indonesia. On 1 December the Indonesian cabinet called for reprisals and the following day Dutch newspapers were banned and KLM landing rights revoked. On 3 December 1957 Indonesian trade unions took over the KPM, 40 ships were seized and this was the start of the takeover of Dutch companies by Indonesia.[174]

Numerous other Dutch companies in Java and Sumatra were taken over. Three Dutch banks: Cultuurbank, Escomptobank and Nationale Handelsbank came under control by the Serikat Buruh Bank Seluruh Indonesia (SBBSI, All-Indonesian Union of Bank Employees). The 'Big Five' (Borsumij, Geo. Wehry, Internatio, Jacobson van den Berg and Lindevetes), plus the NHM, were taken over on 4 December 1957. The following day, Dutch

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[173] Mahajani, *Soviet and American aid to Indonesia*, 9–11; Fakih, *The rise of the managerial state in Indonesia*, 143; John Saltford, *The United Nations and the Indonesian takeover of West Papua, 1962–1969: The anatomy of betrayal* (Abingdon: Taylor and Francis, 2003) 7; Jones, *Indonesia: The possible dream*, 122.
[174] Lindblad, *Bridges to new business*, 161, 181–182; Keppy, *The politics of redress*, 108; Agung, *Twenty years Indonesian foreign policy 1945 1965*, 266; Aden, *Oil and politics in Indonesia, 1945 to 1980*, 180–182; Pham Van Thuy, *Beyond political skin*, 180–181; Booth, *Economic change in modern Indonesia*, 44; Fakih, *The rise of the managerial state in Indonesia*, 75; Thee Kian Wie, *Indonesia's economy since independence* (Singapore: ISEAS Publishing, 2012) 13; Booth, *Colonial legacies*, 184; Thee, 'Indonesianization', 12; W. Brand, 'Heroriëntatie van vroeger in Indonesië werkende Nederlandse Bedrijven', in: H. Baudet (ed.), *Handelswereld en wereldhandel: Honderd jaar Internatio: Tien essays* (Rotterdam: N.V. Internationale Crediet- en Handelsvereniging, 1963) 143–174, in particular 150; À Campo, *Engines of empire*, 568; J.A.C. Mackie, 'Indonesia's government estates and their masters', *Pacific Affairs*, Vol. 34 (1961) 337–360, in particular 340; Herb Feith, 'Constitutional democracy: How well did it function?', in: David Bourchier and John Legge (eds), *Democracy in Indonesia. 1950s and 1990s* (Clayton: Centre of Southeast Asian Studies, Monash University, 1994) 16–25, in particular 22; Ailsa Zainu'ddin, *A short history of Indonesia* (Melbourne: Cassell Australia, 1968) 265; Masashi Nishihara, *The Japanese and Sukarno's Indonesia: Tokyo-Jakarta relations, 1951–1966* (Honolulu: University Press of Hawaii, 1976) 35, 49–50; Singgih Tri Sulistiyono, 'In the shadow of nationalism: Pelni during the period of Indonesianisasi', *Lembaran Sejarah*, Vol. 8 (2005) 85–108, in particular 95.

nationals without employment were requested by the Indonesian Minister of Justice to leave the country in the next few months.[175]

The takeovers by labour unions inspired the Indonesian government and military to take action from 5 December onwards. Out of fear of a larger involvement of the Partai Komunis Indonesia (PKI, Indonesian Communist Party), the Indonesian government put the military in charge of the Dutch enterprises that had been taken over. The takeovers were not initiated by the Indonesian government but the government was not opposed to the takeovers.[176] On 6 December the labour union of the tin miners occupied the offices of the Billiton Company, arguing that the process of Indonesianization was too slow. On 7 December the seizure of estates in North Sumatra began under the supervision of the military. By 9 December, control of the three Dutch banks was transferred from the SBBSI to the Indonesian army. On 10 December 1957 the government created the Pusat Perkebunan Negara Baru (PPN-Baru, New Centre for State Estates). This institution was put in charge of Dutch estates, including those of the Deli Company and HVA.[177] On the same day, the military issued a statement for further takeovers of Dutch companies in Central Java.[178]

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175 Van de Kerkhof, 'Indonesianisasi of Dutch economic interests, 1930–1960: The case of Internatio', 201, Meijer, *Den Haag-Djakarta*, 584; J. Thomas Lindblad, 'The importance of indonesianisasi during the transition from the 1930s to the 1960s', *Itinerario*, Vol. 26 (2002) 51–72, in particular 65–72.

176 Pham Van Thuy, *Beyond political skin*, 194–197; Bambang Purwanto, 'Decolonisation and the origin of military business in Indonesia', in: Hans Hägerdal (ed.), *Responding to the west. Essays on colonial domination and Asian agency* (Amsterdam: Amsterdam University Press, 2009) 151–166, in particular 162–165; Bambang Purwanto, 'Entertain people, accumulate capital: Indonesian military entrepreneurship in the 1950s and 1960s, in: Alicia Schrikker and Jeroen Touwen (eds), *Promises and predicaments. Trade and entrepreneurship in colonial and independent Indonesia in the 19th and 20th centuries* (Singapore: NUS Press, 2015) 151–162, in particular 155; Thee, *Recollections*, 13; Thee, 'Indonesianization', 11; Lindblad, 'The importance of indonesianisasi during the transition from the 1930s to the 1960s', 66–72.

177 Pham Van Thuy, *Beyond political skin*, 194–197; Purwanto, 'Decolonisation and the origin of military business in Indonesia', 162–165; Purwanto, 'Entertain people, accumulate capital: Indonesian military entrepreneurship in the 1950s and 1960s', 155; Thee, *Recollections*, 13; Mackie, 'Indonesia's government estates and their masters', 338; Lindblad, *Bridges to new business*, 184; Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 142; Richard Robison, *Indonesia: The rise of capital* (Sydney: Allen & Unwin, 1986) 73–76; NL-HaNa: Deli Maatschappij, 20, Board meeting 17–4–1958; NL-HaNa: HVA, 12, Annual report 1957, 9.

178 Purwanto, 'Decolonisation and the origin of military business in Indonesia', 165.

The pace of appropriation was accelerated and Dutch companies in South Sulawesi were also seized. On 13 December General Nasution instructed the army to manage the estates already seized and companies that were taken over after that date came directly under the control of the army. On 16 December the Billiton Company also came into the hands of the military, but the Dutch director was still allowed to lead the company. The PKI and the affiliated labour union chose to support the army and made sure that companies kept running. Djuanda, who was both Prime Minister and Minister of Defence, officially placed the Dutch companies in Indonesia under government control. Various government organisations were created to supervise and operate the Dutch companies. The companies were grouped according to their activity. Dutch banks, manufacturing and mining companies, plantations and estates, pharmaceutical companies and trading firms were all in different groups. Later, in 1958, two additional bodies were created for insurance companies and Dutch contracting companies. These organisations were operated by ministries as well as the army and labour unions.[179]

Since more Dutch people had to leave Indonesia, their roles in companies were quickly taken over by Indonesian employees who rapidly rose to higher positions. Former Indonesian staff now took charge of the operations, with the army acting as supervisor. As a result, these takeovers enhanced the role of the military in the economy of Indonesia. Indonesianization increased more rapidly than before the takeover and more training and schooling were provided. There was a shortage of skilled staff and it became a challenge for the Indonesians to keep operations running as usual.[180] It was an interesting situation: the Dutch companies remained legally in Dutch hands while being operated by Indonesians.[181] During the remainder

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[179] Bank Indonesia, *Report for the year 1957–1958* (Jakarta: Kolff, 1958) 217–218; Pham Van Thuy, *Beyond political skin*, 182, 194–195; Thee, *Recollections*, 13; Thee, 'Indonesianization', 11; Lindblad, *Bridges to new business*, 184, 189–190; Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 142; Bambang Purwanto, 'Economic decolonization and the rise of Indonesian military business', in: J. Thomas Lindblad and Peter Post (eds), *Indonesian Economic Decolonization in Regional and International Perspective* (Leiden: KITLV Press, 2009) 39–58, in particular 51–53.

[180] Pham Van Thuy, *Beyond political skin*, 197; Purwanto, 'Entertain people, accumulate capital: Indonesian military entrepreneurship in the 1950s and 1960s', 155; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 148.

[181] Lindblad, 'British business and the uncertainties of early independence in Indonesia', 153.

of 1958, more companies were taken over and within one year around 60% of foreign trade and 75% of banking was controlled by Indonesians.[182]

Shortly before February 1958 the Billiton Company still expected that the Indonesian government would renew the concession for the company. On 1 March 1958 the activities of the Billiton Company in Indonesia were completely taken over by the Indonesian government and the company was renamed Perusahaan Pertambangan Timah Belitung (Belitung Tin-Mining Corporation).[183] The Dutch share of three-eighths ownership was liquidated and accompanied by large dividend payments paid to the Dutch shareholders, a large part paid from accumulated reserves. The Indonesian state which initially owned five-eighths of the equity now came into possession of the entire company. Although the 165 Dutch employees of the Billiton Company were not forced to leave Indonesia, nearly all of them did.[184] This was the case in several other companies as well. In April 1958 the last Dutch employees of HVA left Indonesia and all European staff of the Deli Company was sent home as well.[185] Although HVA wanted to resume operations in Indonesia, the management realized that their role in Indonesia was over. They thought there was little chance of Sukarno disappearing, just as was the chance of getting compensation.[186]

Although the takeover of Dutch companies happened suddenly and quickly, it is questionable whether Dutch companies really were surprised and unprepared for the takeover. In the board meetings of HVA, for instance, already by 1956 the situation was repeatedly referred to as 'difficult and bad', without good prospects. Even though in 1956 it was still expected that nationalisation would not occur and that HVA still had a future in Indonesia, in 1957 this perspective changed. The new Djuanda cabinet made the situation worse for the foreign companies and HVA complained about the stubborn

[182] Golay et al., *Underdevelopment and economic nationalism in Southeast Asia*, 193.
[183] NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 29–7–1958; NL-HaNa: Billiton Maatschappij, 45, Annual report 1957, 12–13, Annual report 1958, 6–7.
[184] Somers Heidhues, *Bangka tin and Mentok pepper*, 208; Lindblad, *Bridges to new business*, 192; Van de Kerkhof, 'Onmisbaar maar onbemind. De Koninklijke Paketvaart Maatschappij en de Billiton Maatschappij in het onafhankelijke Indonesië (1945–1958)', 143; Lindblad, 'Pursuit of profit in the shadow of decolonisation: Indonesia in the 1950s', 246; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 1–6–1960; NL-HaNa: Deli Maatschappij, 21, Board meeting 20–1–1959; NL-HaNa: HVA, 12, Annual report 1957, 10–11.
[185] Van de Kerkhof, '"Defeatism is our worst enemy". Rehabilitation, Reorientation and indonesianisasi at Internatio and HVA, 1945–1958', 117; NL-HaNa: Deli Maatschappij, 41, Annual report 1957, 5.
[186] NL-HaNa: HVA, 9, Board meeting 10–1–1958, 7–3–1958.

attitude of the Dutch government regarding West Irian. A reason why the Dutch companies could not do much about the developments in Indonesia also had to do with the fact that Dutch interests there were still large, whereas Indonesian interests in the Netherlands were small. If the Dutch were to act too aggressively, chances for compensation would be even less, whereas for Indonesia the consequences were smaller.[187]

Nationalisation of Dutch companies

In November 1958 the Indonesian government passed a law with the name Rancangan Undang-Undang tentang Nasionalisasi Perusahaan2 Milik Belanda di Indonesia (Draft Law concerning the Nationalisation of Dutch-owned Enterprises in Indonesia). It was supported by Indonesian businessmen and it was argued that the takeovers were approved in relation to the abrogation of the agreements at the Round Table Conference as a result of ongoing conflict between Indonesia and the Netherlands regarding West Irian. The law on nationalisation was promulgated on 27 December 1958 and applied to all Dutch-owned companies that had been taken over since 3 December. These companies would be completely run and owned by the Indonesian state, and operations and production levels had to continue as usual. Compensation to Dutch business owners had to be paid and a special committee was established to determine the amount of money that was to be paid.[188]

In December 1958 the Indonesian military had already created a list in preparation of nationalisation, including more than half of the Dutch-owned companies. After the law became active, Dutch companies were rapidly nationalized. A start was made with 38 tobacco companies in February 1959. Unlike the few takeovers in the mid–1950s, the large scale nationalisation of Dutch companies after 1957 took place without mutual consent and resulted in objections from the Dutch companies and government. The Deli Company and the Senembah Company filed a lawsuit regarding the tobacco harvest of the previous year from a seized estate that was shipped by a German company

[187] NL-HaNa: HVA, 9, Board meeting 5–10–1956, 6–12–1957, 7–11–1958; A. Goedhart, *Weerzien met Indië en Indonesië. Herinneringen aan wat wel en niet verloren ging* (Amsterdam: Albini, 1995) 135–141.

[188] Lindblad, *Bridges to new business*, 195; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 103–104; Bondan Kanumoyoso, *Nasionalisasi perusahaan Belanda di Indonesia: Menguatnya peran ekonomi negara* (Jakarta: Pustaka Sinar Harapan, 2001) 60–65; Pham Van Thuy, *Beyond political skin*, 181–184; Lindblad, 'The economic decolonisation of Indonesia', 15; NL-HaNa: HVA, 12, Annual report 1958, 9.

and sold in Bremen instead of Amsterdam. Ultimately, the Indonesian state won the case and this paved the way for further takeovers and nationalisation. By May 1959 a large part of all Dutch-owned plantations had been nationalized, followed in June by around 40 manufacturing and trading firms, including the 'Big Five'. By July, 248 Dutch-owned companies had been nationalized and renamed.[189]

One year later, in June 1960, this figure had almost doubled to 489 Dutch-owned companies that had been nationalized, including the Dutch banks. Most companies that were nationalized were active in estate agriculture (216 companies) followed by manufacturing and mining companies (161 companies) and trading companies (40 companies). Eventually, a total of around 700 Dutch companies came into the hands of Indonesians.[190] However, the Indonesian ordinance did mention 911 nationalized companies considered to have been Dutch.[191]

In 1920 a total of 2,656 Dutch companies were operating in the Netherlands Indies. During the economic depression of the 1930s this number dropped and by 1940 a total of 1,593 Dutch companies were still active in the Netherlands Indies. Of these, 1,014 had their headquarters in the Netherlands Indies and 579 were based in the Netherlands.[192] It is likely that numerous Dutch companies ceased to exist after 1940. The following period proved challenging for the companies facing the war and revolution and the transfer of sovereignty to Indonesia. Companies able to weather the storm faced takeover in the late 1950s, and it is probable that many small Dutch companies were either sold to Chinese or Indonesian businessmen before nationalisation, merged with other companies or simply discontinued activities in Indonesia.[193] The total number of Dutch companies that were nationalized included most of the Dutch operations that were still active in Indonesia at that time.

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[189] Pham Van Thuy, *Beyond political skin*, 183–185; Lindblad, *Bridges to new business*, 195–198; NL-HaNa: Billiton Maatschappij, 45, Annual report 1959, 5; NL-HaNa: Deli Maatschappij, 40, Annual report 1959, 22–23.
[190] Fakih, *The rise of the managerial state in Indonesia*, 104; Lindblad, *Bridges to new business*, 197–199; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 104; Thee, *Indonesia's economy since independence*, 14.
[191] NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, het bureau Schadeclaims Duitse Democratische Republiek en de sectie Uitvoering Compensatie Accoord Egypte, 1962–1989 (Ministry of Foreign Affairs, Bureau for Indemnification Claims in Indonesia, Bureau for Indemnification Claims in German Democratic Republic and the Section Execution Compensation Agreement Egypt) access number 2.05.407, Inventaris 3–2–2020, 8.
[192] Colonial Business Indonesia, *CBI Database ID*.
[193] Sluyterman, *Dutch enterprise in the twentieth century*, 171; Van der Zwaag, *Verloren tropische zaken*, 299.

The former Dutch companies that had been nationalized came under control of a new organisation that was founded in 1959 and labelled Badan Nasionalisasi Perusahaan-Perusahaan Belanda (BANAS, Body for the Nationalisation of Dutch Companies). Prime Minister Djuanda was in charge of this body. He was supported by Soetikno Slamet from Bank Indonesia and Colonel Suprayogi, who was also Minister of Economic Stabilisation. Under this new organisation the companies were divided into fourteen different groups, each representing a different type of industry. Most of these groups were established when the Dutch companies were taken over. As a result of nationalisation, the Indonesian government came to play a larger role in the economy of Indonesia. The role of the military had increased too, with many officers resigning from the military and supervising business activities.[194]

Not all Dutch companies had been nationalized in the first round of nationalisations. Royal Dutch Shell and Unilever were exempted because they were partly British.[195] Operations by Royal Dutch Shell in Indonesia were renamed Shell Indonesia. Three British managers were assigned to the company and the Dutch staff was largely replaced by American and British employees, while Indonesian employees moved into higher positions.[196] However, in 1959, one subsidiary of Royal Dutch Shell, NIAM, was renamed Pertambangan Minyak Indonesia (Permindo, Indonesian Oil Mining Company). The NIAM was originally 50% owned by the Dutch government and after the transfer of sovereignty the Indonesian government took over this share. Its headquarters was moved to Jakarta while Indonesian board members were installed. Nationalisation did not occur during this period, but several Royal Dutch Shell oilfields had already been taken over by Indonesians after the war and were never returned to the company.[197]

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[194] Lindblad, *Bridges to new business*, 200; Mackie, 'Indonesia's government estates and their masters', 342; R.M. Sarwoko and R. Hendro Koosman, *Kumpulan ketentuan-ketentuan dan pengumuman-pengumuman BANAS; (chusus untuk penggunaan dinas)* (Jakarta: Badan Nasionalisasi, 1961) 23; Siahaan, *Industrialisasi di Indonesia*, 320–322.

[195] Nobel and Fennema, 'Economische elites na de dekolonisatie van Nederlands-Indië. Verlies van posities, desintegratie van netwerken, verschuiving van zwaartepunten', 19; Lindblad, *Bridges to new business*, 219; Lindblad, 'Politieke economie en de dekolonisatie in Indonesië', 143; Aden, *Oil and politics in Indonesia 1945 to 1980*, 167.

[196] Bartlett, *Pertamina: Indonesian national oil*, 119–123; Howarth and Jonker, *A history of Royal Dutch Shell: Powering the hydrocarbon revolution, 1939–1973*, 231.

[197] Purwanto, 'Decolonisation and the origin of military business in Indonesia', 164; Bartlett, *Pertamina: Indonesian national oil*, 119–123; Pham Van Thuy, *Beyond political skin*, 202; Howarth and Jonker, *A history of Royal Dutch Shell: Powering the hydrocarbon revolution, 1939–1973*, 230; Lindblad, *Bridges to new business*,

Takeover of Chinese companies

During the 1950s the Indonesian government tried to limit the economic role of the ethnic Chinese as well, but this was more difficult than reducing the influence of the Dutch. Chinese economic activities were more connected with rural areas and the indigenous population compared with Dutch activities. During the 1950s many new Chinese companies were established in Indonesia. Chinese companies, were as a group, more diverse and complex than Dutch firms. The ethnic Chinese consisted of Indonesian citizens, as well as citizens of the People's Republic of China and a smaller group that supported Taiwan, so taking measures against the Chinese would automatically affect Indonesian citizens and lead to a difficult situation for the Indonesian government.[198]

By 1955, a start had been made by the Indonesian government in banning foreign nationals from operating rice mills. Until that time, many Indonesian citizens of Chinese descent still had dual citizenship and the government specified that persons with sole Indonesian citizenship were preferred to operate the rice mills. After limiting harbour activities for the Dutch, the Indonesian government also tried to exclude Chinese from these operations. In reality this proved more difficult than expected and initially the government wanted to transfer these activities to indigenous Indonesians by 1956, but was later delayed to 1959.[199] After the takeover and nationalisation of Dutch companies, the Indonesian government turned its attention increasingly to Chinese businesses. Next to the Indonesian government, ethnic Chinese businessmen, including both Chinese and Indonesian nationals, were dominating the Indonesian economy after the departure of the Dutch. Chinese investment is considered here as domestic investment, whereas my focus is on foreign investment. Some Dutch trading activities were taken over by Chinese businessmen, who even managed to increase their economic influence in the country.[200]

163; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 105; Aden, *Oil and politics in Indonesia 1945 to 1980*, 124; Sarwoko and Koosman, *Kumpulan ketentuan-ketentuan dan pengumuman-pengumuman BANAS*, 492.

[198] Thee, 'Indonesianization', 12; Thee, *Recollections*, 14; Thee, *Indonesia's economy since independence*, 14–20; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 108; Lindblad, *Bridges to new business*, 216.

[199] Thee, 'Indonesianization', 15.

[200] Lindblad, 'The economic decolonisation of Indonesia', 15; J. Thomas Lindblad, 'Emerging business elites in newly independent Indonesia', in: Jost Dülffer and Marc Frey (eds), *Elites and decolonization in the twentieth century* (London:

In 1959 Indonesia was about to ratify an agreement concluded at the Bandung Conference in 1955 with the People's Republic of China regarding citizenship of Chinese born in Indonesia. Anti-Chinese sentiments emerged, and in May 1959 a regulation was issued banning foreign nationals, including Chinese, who did not have Indonesian citizenship, from trade in rural areas. Operations had to be transferred to indigenous Indonesian citizens by 30 September 1959. The purpose was to strengthen the economic position of indigenous Indonesian businesses. Before the regulation could be brought into action, a new cabinet was installed by Sukarno as part of the Guided Democracy in July 1959.[201] In November 1959 the Indonesian government proceeded with a comparable decree which became active on 1 January 1960. A result was that many Chinese had to relocate. Some went to other cities and towns in Indonesia, but some 120,000 people moved to China. Chinese businesses were confiscated directly by the Indonesian government, whereas in the takeover of Dutch companies the military and labour unions played a large role. This regulation would affect thousands of small companies. In 1959 there were 168,000 businesses with a 'foreign' character. Of these, 125,000 were trade companies and a majority of them were operated by ethnic Chinese without Indonesian citizenship. Inevitably, this badly hurt the relationship between Indonesia and the People's Republic of China as well. Later in 1960, further implementation of this regulation was partly suspended.[202]

New foreign direct investment

After the nationalisation of the Dutch companies, American and British companies were the most prominent foreign non-Asian companies in Indonesia, with Japan gradually becoming another important investor. The United States and the Soviet Union both provided loans and grants to Indonesia. Especially in the late 1950s and early 1960s, the Soviet Union

Palgrave Macmillan, 2011) 74–93, in particular 89; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 118.

[201] Thee, 'Indonesianization', 16; J.A.C. Mackie, and Charles A. Coppel, 'A preliminary survey', in: J.A.C. Mackie (ed.), *The Chinese in Indonesia: Five essays* (Melbourne: Thomas Nelson, 1976) 1–18, in particular 11.

[202] Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 108; Thee, *Recollections*, 14; Lindblad, *Bridges to new business*, 145; M.C. Ricklefs, *A history of modern Indonesia, c. 1300 to the present* (Bloomington: Indiana University Press, 1981) 225; Thee, 'The Indonesian government's economic policies towards the ethnic Chinese: Beyond economic nationalism' in: Leo Suryadinata (ed.) *Southeast Asia's Chinese businesses in an era of globalization* (Singapore: Institute of Southeast Asian Studies, 2006) 76–101, in particular 87–88.

strengthened its relationship with Indonesia and increased spending on the country. Indonesia became the largest non-communist receiver of Soviet aid. Aid received from communist countries increased after 1956 and between 1957 and 1965 it was estimated to be more than $550 million. Including military aid, this amount could have been more than one billion dollars. Indonesia managed to get support from non-communist countries as well. Total grants and loans received from non-communist countries was estimated to be roughly $1.1 billion, more than half originating from the United States.[203] After 1963, when the *Konfrontasi* began between Indonesia and Malaysia, support from the United States nearly vanished whereas communist support remained strong.[204] There was a clear tendency of the Indonesian government to prefer loans and grants above foreign direct investment, since this would mean that there was less dependence on foreign firms.[205]

The foreign investment law of 1958 urged new investors to form joint ventures with Indonesian businesses, and foreign investors had to comply with regulations about employing and training Indonesian staff.[206] Yet, official foreign direct investment between 1956 and 1965 amounted to only $84 million, which was entirely invested in the oil industry, mainly by Americans.[207] The estimated value of all American-owned investment in Indonesia, however, increased between 1954 and 1959 from $262 million to $401 million. Not much new foreign direct investment took place during the period between the nationalisation of the Dutch companies and the onset of

[203] Fakih, *The rise of the managerial state in Indonesia*, 143–144; Rosendale, *The Indonesian balance of payments, 1950–1976*, 103–112; Saltford, *The United Nations and the Indonesian takeover of West Papua, 1962–1969*, 7; Jones, *Indonesia: The possible dream*, 122; Mahajani, *Soviet and American aid to Indonesia*, 8–10, 16–18; Aden, *Oil and politics in Indonesia 1945 to 1980*, 182; Paauw, *Financing economic development*, 346; Agung, *Twenty years Indonesian foreign policy 1945 1965*, 384; Joyce Gibson, ‘Foreign enterprise and production-sharing’, in: Tjin Kie Tan, Heinz Arndt and Lance Castles (eds), *Sukarno’s Guided Indonesia* (Brisbane: Jacaranda Press, 1967) 89–101, in particular 89.

[204] Agung, *Twenty years Indonesian foreign policy 1945 1965*, 492; Pierre van der Eng, ‘Konfrontasi and Australia’s aid to Indonesia during the 1960s’, *ANU Working papers in economics and econometrics*, No. 493 (2008) 1–22, in particular 6; Pierre van der Eng, ‘”Send them a shipload of rice”: Australia’s food aid to Indonesia, 1960s–1970s’, *Australian Journal of Politics & History*, Vol. 1 (2021) 50–66, in particular 55.

[205] White, ‘Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967’, 1304.

[206] Mackie, 'The 1941–1965 period as an interlude in the making of a national economy: How should we interpret it?', 326–328; Redfern, *Sukarno’s guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 129.

[207] Rosendale, *The Indonesian balance of payments, 1950–1976*, 81.

the New Order under Suharto in 1966.[208] Flows of foreign investment became insignificant, especially after Sukarno announced in August 1962 that private foreign investment was only welcome if profits were not transferred abroad.

In 1960 a new law was passed for the oil industry. Existing oil concessions for the foreign oil companies were prolonged for one year and the government received 60% of profits. The government wanted to control the oil industry entirely but in 1963 it realized that state companies were not yet at the technological level of foreign oil companies. Therefore, foreign oil companies could continue operations. In 1960 the Basic Agrarian Law was signed as well. The result of this law was that foreign, mainly British, estates with concessions dating back to the colonial times had to renegotiate their estates while one-third of their areas had to be surrendered. Concessions expiring before 1965 came into the hands of the Indonesian government.[209]

Takeover of British companies

After the Indonesian government had taken over Dutch and Chinese companies, it took until 1963 before British operations were affected as a result of the *Konfrontasi*.[210] Initially, British operations were allowed to continue, but uncertainties increased. When the formation of the Federation of Malaysia took place in 1963 and Malaya was merged with North Borneo, Sarawak and Singapore, this was seen by Sukarno as a form of neo-colonialism by the British. In order not to aggravate the situation, some companies such as Shell and Unilever replaced British staff with Dutch managers. After the West Irian conflict was solved in 1962 Dutch staff was more favoured compared to British staff.

In West Java, British companies were put under custody of the Indonesian government. In January 1964 attempts were made to take over the management at Unilever. Eventually the firm came under supervision of the government and companies in West Sumatra, such as Harrisons & Crosfield,

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[208] Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 105.
[209] Aden, *Oil and politics in Indonesia 1945 to 1980*, 237; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 144; Golay et al., *Underdevelopment and economic nationalism in Southeast Asia*, 196; White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', 1292; Mackie, 'The Indonesian economy 1950–1963', 32, 36; Karl J. Pelzer, 'The agricultural foundation', in: Bruce Glassburner (ed.), The economy of Indonesia: Selected readings (Ithaca, NY: Cornell University Press, 1971) 128–161, in particular 147–148; Hunter, 'The Indonesian oil industry', 270.
[210] Sievers, *The mystical world of Indonesia*, 185.

were taken over by the unions.[211] Workers at Shell in Plaju, in South Sumatra, occupied the refinery and the military took over the refinery in Balikpapan. By April 1965 all British companies had been put under control of the government, including Shell. However, to what extent operations were affected differed according to the company. At the beginning of 1965, the relationship between Indonesia and the US also became tense as a result of growing fears about the political developments. After operations from Shell had been taken over, facilities of Caltex and Stanvac were occupied by workers. However, the management remained in the hands of the same people since the Indonesian government argued that this industry was vital to the economy and, therefore, operations had to be guaranteed.[212]

Unlike the Dutch companies, the British companies were also assured that if the conflict over Malaysia was solved, control of the companies would come into British hands again. In late 1966 the conflict between Indonesia and Malaysia was settled, and in 1967 Unilever returned to its business in Indonesia again. At the beginning of 1968, Harrisons & Crosfield took control of its estates again and later in the year the British banks started operating again. Shell, however, had been sold to the Indonesian oil company Pertamina for $110 million.[213]

Linkages

With the takeover and nationalisation of Dutch companies, Dutch staff was increasingly replaced with Indonesian personnel. Nearly 50,000 Dutch people left the country, which opened a lot of possibilities for Indonesians to take over

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[211] Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 258; White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', 1297–1298, 1306; Lindblad, 'British business and the uncertainties of early independence in Indonesia', 157; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 159; Pham Van Thuy, *Beyond political skin*, 190; Ulf Sundhaussen, *Politik militer Indonesia 1945–1967. Menuju dwifungsi ABRI* (Jakarta: LP3ES, 1986) 292–299.

[212] White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', 1301; Lindblad, *Bridges to new business*, 206; Sluyterman, *Dutch enterprise in the twentieth century*, 170; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 106; Aden, *Oil and politics in Indonesia 1945 to 1980*, 260; Pham Van Thuy, *Beyond political skin*, 190–191; Agung, *Twenty years Indonesian foreign policy 1945 1965*, 401–402.

[213] White, 'Surviving Sukarno: British business in post-colonial Indonesia, 1950–1967', 1303, 1312–1314; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 106; Aden, *Oil and politics in Indonesia 1945 to 1980*, 278; Wood, *Intermediate cities in the resource frontier*, 65; Sievers, *The mystical world of Indonesia*, 207.

their positions. At the time of the takeover of the Deli Company, around half of the staff was Indonesian but this number increased quickly in the following period.[214] The American oil companies in particular sent Indonesian employees abroad to study and by 1959 this number for Stanvac had reached 59. Training programmes initiated by the private corporations proved more successful and efficient than programmes supported by universities or the government. By 1959 the Indonesian government organisations in charge of the former Dutch companies and other Indonesian departments had started their own courses and seminars to train managers and other staff. During the 1960s more than 300 people were also sent to higher education institutions in the Soviet Union in order to study engineering and gain technical knowledge.[215] PPN-Baru argued that with the departure of Dutch staff, much valuable knowledge had been lost.[216] This was also true for interisland shipping. The lack of knowledge led to a lower productivity for Pelayaran Nasional Indonesia (PELNI, Indonesian National Shipping) compared with KPM.[217]

Between the end of the Second World War and the nationalisation of Dutch companies, the infrastructure seriously deteriorated. The overall effect of less foreign investment had repercussions for the construction and maintenance of bridges, roads and irrigation systems. Although recovery started during the 1950s, even by 1967 only a small percentage of the roads was deemed in good condition. Rail transport recovered faster, in 1960 surpassing the peak of the 1920s in passenger and freight numbers.[218] Another

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[214] Tanjung, 'The Indonesianization of the symbols of modernity in Plaju (Palembang), 1930s–1960s', 318; Howarth and Jonker, *A history of Royal Dutch Shell: Powering the hydrocarbon revolution, 1939–1973*, 231; Hunter, 'The Indonesian oil industry', 263; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 152–153; Lindblad, 'The importance of indonesianisasi during the transition from the 1930s to the 1960s', 17–18; Sluyterman, *Dutch enterprise in the twentieth century*, 170; Sluyterman, *Kerende kansen*, 219; NL-HaNa: Deli Maatschappij, 41, Annual report 1957, 5.
[215] Fakih, *The rise of the managerial state in Indonesia*, 144; Farabi Fakih, *Authoritarian modernization in Indonesia's early independence period. The foundation of the New Order State (1950–1965)* (Leiden: Brill, 2020) 89–90; NL-HaNa: HVA, 9, Board meeting 27–6–1958.
[216] Fakih, *The rise of the managerial state in Indonesia*, 273; Hawkins, 'Labor in developing countries: Indonesia', 225; Hunter, 'The Indonesian oil industry', 263.
[217] Daan Marks, 'The economic consequences of decolonization. The "special" case of Indonesia', in: J. Thomas Lindblad and Peter Post (eds), *Indonesian Economic Decolonization in Regional and International Perspective* (Leiden: KITLV Press, 2009) 157–174, in particular 171.
[218] Marks, *Accounting for services*, 118–123; Booth, *Agricultural development in Indonesia*, 106.

effect of nationalisation of foreign companies and departure of foreigners was a declining tax base.[219]

Economic growth

Until the mid–1950s, exports developed relatively stably, whereas after 1957 the situation became more volatile. The nationalisation of Dutch companies brought a shift and some companies were idle and not productive during 1958. Smallholder production, in particular of rubber, increased. An accelerating inflation reached its peak in the mid–1960s, aggravating the situation, and much illegal trade and smuggling took place.[220]

Profits from export crops such as palm oil, rubber and tobacco declined during 1958 as a result of falling prices, but not necessarily because of lower output. That effect on the economy of Indonesia had more to do with international market developments than with the takeover of foreign companies. Productivity, however, did seem to be effected by the takeover. Knowledge and skills did disappear and it did take some time before the Indonesian institutions gained the required knowledge to operate the businesses.[221]

Nevertheless, the nationalisation of the Dutch companies came as a shock for many business owners. They were unprepared and the Indonesian successors faced a big challenge to make sure that productivity would remain high. Gradually in 1959 and 1960 the situation improved again, although falling oil prices in 1960 and a lower rubber production tempered the export value again. One of the reasons for lower rubber production was slow replanting before the takeover and many rubber trees were already old and unproductive. Overall, the area planted with crops and numbers of workers were back to their previous high level. Dutch directors of HVA stated that they were not disappointed with the performance of their Indonesian successors. GDP did fall during 1958, however, but showed a recovery in 1959 and 1960, although real growth rates were lower than before 1958 and growth had virtually stagnated by the mid–1960s.

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[219] Marks, *Accounting for services*, 141; Redfern, *Sukarno's guided democracy and the takeovers of foreign companies in Indonesia in the 1960s*, 88; NL-HaNa: HVA, 9, Board meeting 6–9–1957.

[220] Booth, *Economic change in modern Indonesia*, 47; Paauw, *Financing economic development*, 350; Lindblad, *Bridges to new business*, 42; Mackie, 'The Indonesian economy 1950–1963', 64.

[221] Marks, 'The economic consequences of decolonization. The "special" case of Indonesia', 171.

It is speculative, but it is possible that growth rates in the late 1950s and early 1960s could have been higher if Dutch companies had not been nationalized. Especially taking into account the high taxes paid by these companies, significant amounts of money would remain in Indonesia. On the other hand, the Americans still had a firm position in the oil industry in Indonesia. A clear effect of the nationalisation of Dutch companies was the decline of the trade between Indonesia and the Netherlands. In 1957 the Dutch share in exports from Indonesia dropped from 17% in 1957 to less than one per cent in 1960. By 1960 around three-fifths of the area of the estates was operated by the Indonesian government and the position of British and American rubber estates also declined, whereas that of Indonesian smallholders improved.[222]

The share of the labour force that worked in the agricultural sector even increased between 1953 and 1961 from 61% to 73%. A drop of the workforce in manufacturing was visible, whereas the share in services slowly increased. Further industrialisation of the Indonesian economy did not happen during this period and structural retrogression took place with an increase of labour-intensive production. However, in terms of GDP, the manufacturing and service industries became more important in contrast to the agricultural sector.[223] Despite the growth in per capita GDP in the 1950s, GDP per capita was still lower during the early Suharto years than before the Second World War. Much of the observed growth was recovery from the war and the Indonesian Revolution. It would take another decade, the early 1970s, before the peak of GDP per capita of 1941 was surpassed.[224]

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[222] Lindblad, *Bridges to new business*, 201–202; Lindblad, 'The economy of decolonization in North Sumatra', 99; Lindblad, 'The economic decolonisation of Indonesia', 17; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 65; Paauw, 'From colonial to guided economy', 183; Meijer, *Den Haag-Djakarta*, 597, 646, 650–653; Mackie, 'Indonesia's government estates and their masters', 339, 348–349; Mackie, 'The Indonesian economy 1950–1963', 2832; NL-HaNa: HVA, 9, Board meeting 3–10–1958.

[223] Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 70–72; Paauw, *Financing economic development*, 209–211; Lindblad, 'Economic growth and decolonisation in Indonesia', 99–100; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 153; Glassburner, 'The economy and economic policy', 12; Booth, *Colonial legacies*, 168–170.

[224] Van der Eng, 'The real domestic product of Indonesia, 1880–1989', 369–370; Van der Eng, *The 'colonial drain' from Indonesia, 1823–1990*, 9, 35; Van der Eng, 'Indonesia's growth performance in the twentieth century', 158–160; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 134, 150–152; Lindblad, *Bridges to new business*, 38; Lindblad, 'Economic growth and decolonisation in Indonesia', 98; Booth, 'Government and welfare in the new republic: Indonesia in the 1950s', 59.

Indemnification claims

The issue of compensation came to the fore immediately after the takeover had begun. The first company to demand compensation was KPM. In December 1957 KPM asserted that the Indonesian government was responsible for the seizure of its ships and therefore the KPM demanded a compensation of *ƒ*114.5 million for 40 ships if they were not returned within four months.
KPM had insured its fleet at Lloyd's of London and British Ambassador McDermott told the Indonesian government that a compensation this large would have serious effects for Lloyd's. In March 1958 representatives of Lloyd's discussed the matter with the Indonesian government. The Indonesian government was put under pressure and the Indonesian Prime Minister Djuanda had no choice but to release all 40 ships on 20 March 1958. KPM had to remove its ships from Indonesian waters and even though the company got its ships back, KPM was disappointed that its operations in Indonesia had come to an end. And while the Indonesian government did not take possession of any of KPM's ships, most of the former 10,000 Indonesian employees of KPM had already been employed by the national shipping company PELNI.[225]

The nationalisation of Dutch companies was to be accepted, but on condition that compensation was paid.[226] By early 1963, diplomatic relations between Indonesia and the Netherlands improved after the New Guinea issue had been settled. This paved the way for talks about compensation for the nationalized companies and this would be the concluding piece of the economic decolonization. Between 1963 and 1966 the Dutch and the Indonesian government negotiated about the payments. Initially, the Dutch claimed a sum of *ƒ*1,800 million, including interest, which later was reduced to *ƒ*1,260 million.[227]

Finally, on 7 September 1966, after Suharto had ascended to power, a settlement was concluded between Indonesia and the Netherlands. Indonesia would pay *ƒ*600 million (*ƒ*689 million including interest) as a compensation

[225] À Campo, *Engines of empire*, 568; Lindblad, *Bridges to new business*, 184; Dick, *The Indonesian interisland shipping industry*, 24.
[226] Lindblad, 'Economic growth and decolonisation in Indonesia', 105.
[227] NL-HaNa: Deli Maatschappij, 41, Annual report 1963; De Jong, and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 15, 17; Van Galen, *Fiasco van goede bedoelingen*, 239; NL-HaNa: Ministerie van Buitenlandse Zaken, 1965–1974, 25238, Financial situation in Indonesia, 26–4–1966.

for the nationalisation of Dutch companies.[228] Payments were made from 1973 to 2003. In 1965 Indonesia had already paid ƒ36 million and each year instalments were paid to the Dutch government. One reason why Indonesia agreed to this settlement was that the payments were necessary in order to receive international funding and aid in the future. Also from the Netherlands. Indonesia had to pay compensations to the Dutch but received new money in return. In particular Japan and the US were in favour of these new programmes. The Dutch Ministry of Foreign Affairs was responsible for distributing the money to individuals and companies that had filed a claim. Already in 1962 the Bureau Schadeclaims Indonesië (Bureau for Indemnification Claims in Indonesia) had been created to handle the distribution. Claimants had until 19 August 1969 to register for claims.[229]

The money was paid in three different stages. First, to individuals who filed claims with a relatively low value. Second, larger claimants with claims up to ƒ250,000, and finally, large companies. Since the money was paid by Indonesia in instalments, it took several years before larger claimants received their money. In order to solve this issue, several measures were taken. Two funds listed on the Dutch stock exchange were created. Belindo and Claimindo enabled Dutch companies to issue their claim to one of these funds in return for shares in the company. As a result, it was not necessary for individual companies to suspend operations until the last payment of 2003 had been received.[230]

In total 4,775 individuals and 827 legal entities, most of which were cultivation companies and other enterprises, had filed a claim. Eventually, a total sum of ƒ466 million was paid to individuals and companies. This was roughly one-tenth of the book value of the companies, or one-fifth of the ƒ2.7 billion that was initially claimed by individuals and companies. On average, smaller claimants received a relatively larger share of their claim compared

[228] Besides against Indonesia, claims were also filed against Egypt and several Eastern European countries. The claim with Egypt was settled for ƒ6 million, whereas the Eastern European countries combined paid more than ƒ30 million, G.N.J. van Wees, 'Compensation for Dutch property nationalized in East European countries', *Netherlands Yearbook of International Law*, Vol. 3 (1972) 62–96, in particular 65–76; NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, Inventaris 3–2–2020, 10.

[229] De Jong, and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 18, 24–26; Lindblad, *Bridges to new business*, 208; J.M.M.J. Clerx, 'Financiële verhouding tussen Nederland en Indonesië opnieuw bezien (1945–1967)', *Politieke opstellen*, 11–12 (1992) 59–71, in particular 69; Van der Eng, *Economic benefits from colonial assets*, 24; Van der Zwaag, *Tjoeroeg*, 173–174; De Graaf, *Voor handel en maatschappij*, 379–380.

[230] De Jong, and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 26, 32, 34; Van der Zwaag, *Verloren tropische zaken*, 301.

with larger claimants and companies. Another *ƒ*223 million went to the Dutch state as a compensation for halting the payment of bonds after the termination of the agreements of the RTC. The compensation paid was around 12% of the initial claim of *ƒ*1.9 billion.[231]

The compensation for Lindeteves was more than *ƒ*4 million, for the Deli Company it was more than *ƒ*4.5 million and for KPM it was *ƒ*6 million. This was around 15–20% of the initial claim of these companies. Compensation for HVA was higher with *ƒ*23 million, which corresponded to more than 20% of the claimed value.[232] The total value of seized property was estimated at *ƒ*2.7 billion and the book value of the seized companies was *ƒ*4.5 billion. The previous owners of the companies argued that this compensation was only a fraction of the estimated value and not enough.

The Deli Company initially wanted to sell its activities in Indonesia to another company for *ƒ*125 million in 1958. This figure was gradually reduced to *ƒ*50 million and eventually the company claimed *ƒ*31 million, of which slightly more than *ƒ*4.5 million was paid. A large part of the assets from the former Dutch companies remained in Indonesia.[233] Before the takeover, the Deli Company valued all its possessions in Indonesia at an impressive *ƒ*450 million. The company buildings were valued at nearly *ƒ*130 million, whereas the 22,600 houses for labourers were valued at almost *ƒ*129 million. Depreciation, however, was large at rates of 10–20% per year. During the time between the takeover and the final claim by the Deli Company, the value of its possessions in Indonesia had dropped considerably.[234] Many assets of Dutch companies in Indonesia had already been written off after the Second World War and the Indonesian Revolution, leaving numerous companies with zero book value even, though profits had been reinvested in the years preceding the nationalisation.[235]

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[231] De Jong, and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 25–30.

[232] NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, 4726, KPM, 19–2–1971; NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, 4811, HVA, 15–3–1971; NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, 4967, Lindeteves Jacoberg, 16–4–1971; NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, 5229, Deli Verenigde Maatschappijen, 18–5–1971.

[233] De Jong, and Lessing-Sutherland, *"To forget the past in favour of a promise for the future"*, 13; Lindblad, *Bridges to new business*, 207–208; Clerx, 'Financiële verhouding tussen Nederland en Indonesië opnieuw bezien (1945–1967)', 69; Van der Eng, *Economic benefits from colonial assets*, 24; NL-HaNa: Deli Maatschappij, 113, Nationalisation 28–2–1958; NL-HaNa: Ministerie van Buitenlandse Zaken, Bureau Schadeclaims Indonesië, 5229, Deli Verenigde Maatschappijen, 18–5–1971.

[234] NL-HaNa: Deli Maatschappij, 116, Nationalisation 25–5–1959.

[235] Lindblad, *Bridges to new business*, 184–185; Meijer, *Den Haag-Djakarta*, 594.

6.5 Conclusion

At the start of the Japanese occupation, the foreign estates and companies had to halt their operations in Indonesia. Companies were taken over by the Japanese or had to start producing crops that were important to the Japanese war machine. Despite Indonesia's proclamation of independence on 17 August 1945, the Dutch wanted to restore colonial rule and continue its business as usual. Dutch companies had already started with reconstruction in late 1945. After the two military actions, sovereignty was transferred on 27 December 1949, but this was not the end for Dutch private business in Indonesia. Operations were continued until the late 1950s. The firms recovered from war and revolution and once again became profitable. New investment was made, although on a smaller scale than before the war and several companies expanded activities outside Indonesia. At the same time, American companies in particular kept investing large sums of money in the oil industry in Indonesia. The oil companies were also responsible for a large share of the fiscal linkages. The importance of foreign private companies for the economic development of Indonesia during the first half of the 1950s was particularly visible through fiscal linkages. Company taxes increased and more profits from Dutch, American and other foreign companies remained in Indonesia compared with earlier periods. The construction of new infrastructure or other linkages only materialised on a small scale.

Nevertheless, the situation for many Dutch companies grew increasingly difficult during the second half of the 1950s. Labour issues and land occupations occurred and it became increasingly difficult to transfer profits back to the Netherlands or to bring Dutch staff to Indonesia. Although some Indonesian employees managed to get higher positions in companies, for the Indonesian government and the labour unions progress was too slow. In December 1957 Indonesian labour unions took control of numerous Dutch companies. This was enforced by the Indonesian government, which placed the seized firms under military supervision. Until the takeover of Dutch companies the foreign private sector remained important for the economic development of Indonesia and American oil companies continued their operations. In terms of export revenue the share of foreign companies even increased. During this period the contribution of foreign private investment to the GDP of Indonesia was comparable with the late colonial period.

After the takeover of Dutch companies Dutch staff had to repatriate and companies were henceforth run by Indonesians. Training and education of the staff became a new task for the Indonesian government and related institutions. From 1959 onwards, most Dutch companies that had been taken over were nationalized. In 1966 the Dutch and the Indonesian governments made an agreement for compensation of the nationalisation of the Dutch companies. This payment was estimated to be around 10–20% of the value of the companies. This sum was too small according to many Dutch companies, but taking into account the depreciation over time, which was more than 10% per year, a compensation of nearly ƒ700 million, including interest, seemed more than fair in my opinion. Economic decolonization appeared near-complete by 1959. But after the regime change in 1966, foreign investment would soon rush back to Indonesia to help rescue an economy struck by its isolation from the outside world.

Chapter 7. Conclusion

At the board meeting of the Amsterdam Trading Company (HVA) on 10 January 1958, the chairman of the company stated:

> 'It does not make much sense [...] to dwell too much on the past. Unfortunately, we do seriously need to consider that our activities in Indonesia may soon come to an end as the measures taken by the Indonesian government show all too clearly a desire to expel Dutch businessmen once and for all from the management and operations of their companies.'[1]

It was a remarkable statement, at a moment when decades of investment and activity in Indonesia were coming to an end. In this thesis, I have analysed the development of private Dutch business in Indonesia and its effect on the Indonesian economy during the late-colonial and early independence periods that preceded economic decolonization. My concluding chapter now summarizes the findings relevant to the three main themes discussed in this thesis: investment, profit and linkages. In doing so, it also draws on results from three company-level case studies: Billiton Company, Deli Company and HVA.

The aim of my analysis is to contribute to the current discourse about the extent to which the Dutch presence in Indonesia was beneficial, economically speaking. Did Dutch private investment facilitate or generate economic development in Indonesia between 1910 and 1960? Was the compensation paid by foreign private companies for their use of land and resources in Indonesia commensurate with the profits accruing to them? With respect to investment, I focus on numbers of companies, their size and nationality, and the industry in which they operated. In discussing profits, my purpose has been to determine whether the profits made in Indonesia were higher than elsewhere and whether they could be considered excessive constituting a drain of resources away from the colony. The topic of linkages, finally, serves to identify the economic impact of foreign private investment in terms of the direct and indirect effects that to some extent could have compensated for the drain. I have considered two time periods: the late-

[1] NL-HaNa: HVA, 9, E. Bennink, Chairman of the Handelsvereeniging 'Amsterdam', Board meeting, 10–1–1958, 'Het heeft weinig zin [...] om onder de huidige omstandigheden uitvoerig stil te staan bij het verleden. Helaas moeten wij zeer ernstig rekening houden met de mogelijkheid dat onze activiteit in Indonesië een snel aflopende zaak is, omdat de door de Indonesische regering genomen maatregelen er maar al te zeer op wijzen, dat men de Nederlandse ondernemers definitief uit het beheer en de exploitatie hunner bedrijven wil stoten'.

colonial period from 1910 until the outbreak of the Pacific War in 1942, and the time period from the Pacific War onwards, including early independence, up to about 1960, when full economic decolonization can be said to have been achieved.

1910–1942: Investment

The years from 1870 to around 1900 formed a period of expansion of private foreign investment in colonial Indonesia. Dutch colonialism in the Netherlands Indies intensified and expanded into areas other than Java. In theory, the doors were equally open to both private Dutch investment and to non-Dutch foreign investors. In practice, however, Dutch companies were favoured by a tight network involving businessmen and Dutch officials, and companies could be required to have their headquarters in the Netherlands or the Netherlands Indies. Nevertheless, the colonial government did play a part by initiating the building of some rudimentary infrastructure and the beginnings of a fiscal system. The upshot of liberal colonial policies was that private foreign investment emerged as a vital precondition for economic development in the Outer Islands. In the event, a rather long gestation period was needed before private foreign investment reached an appreciable level, which occurred around 1910. By then, there were more than 1,500 active foreign incorporated companies and their total equity exceeded ƒ1 billion.

Initially, while interest in tropical adventures on the Dutch capital market remained tepid, a significant proportion of equity had to be provided by the founders of the company themselves. Nevertheless, by the end of the nineteenth century, joint-stock limited-liability companies became more common in the Netherlands Indies as a means of acquiring larger amounts of equity. Reinvesting profits was another way of financing further investment. Nearly half of total Dutch foreign private investment flowed in the direction of the Netherlands Indies between 1910 and 1940. This corresponds to one-quarter of total Dutch private investment.

Numerically, agricultural companies formed the majority. Tobacco and sugar were the most important crops in the early period between 1910 and 1930. The highest total number of foreign companies was reached in 1920 with 2,828 incorporated firms, including both incorporated companies with headquarters outside the Netherlands Indies and Dutch companies with headquarters in the Netherlands Indies (see Table 2.1). After this year the number of companies fell despite the fact that the economy was booming. In some sectors, such as oil, the smaller companies were taken over by larger ones and in many industries, a small number of big players such as the Deli

Company predominated. Nevertheless, most companies remained small in size, especially those in sectors with less capital-intensive production such as agriculture, manufacturing and trade.

Besides the incorporated companies, there were also government-owned companies and non-incorporated businesses. The latter category included many small Chinese shops and businesses. Most Chinese and indigenous Indonesian firms were not incorporated under Western law. The incorporated world of business in the colony was composed of a large group of small companies and a small group of large companies. Furthermore, directors of big companies were also often involved in other companies as well.

Although most private companies were optimistic about their chances during the early 1920s, many failed to stay profitable in the long run. Since many firms went bankrupt relatively quickly, the majority of firms was young. Less than 40% of those companies active in 1940 had been founded in 1910 or earlier. In terms of company law, most companies operating in late-colonial Indonesia were incorporated either in the Netherlands or the Netherlands Indies. Before the Second World War, their combined share exceeded 70% of the total number of incorporated companies, the remaining 30% being made up of non-Dutch foreign firms and indigenous Indonesian firms.

After 1900, new lines of export production evolved, notably in oil, rubber, palm oil and copra. In the major established agricultural industries of sugar and tobacco, Dutch firms still retained their predominance. However, in the rubber industry, Dutch investment now had to take second place to British companies. Non-Dutch foreign investment in tea and palm oil was also significant. The oil industry attracted Dutch, British and American investors.

To come to grips with the capitalization of the foreign firms in Indonesia, I analysed the origin of private investment. The result of this analysis was that investors in the Netherlands Indies can be divided into five categories. The largest category consisted of Dutch investors resident in the Netherlands who managed business operations in the colony from a distance. A second category can be labelled Netherlands Indies investors. They could be Dutch or have a mixed ethnic origin and were resident in the colony. Whether Dutch firms with headquarters in the Netherlands can be considered more foreign than Dutch companies incorporated in the Netherlands Indies is a matter of debate. Investors from third countries formed the third category. The fourth category consisted of Chinese investors in colonial Indonesia. They were often regarded as foreigners, although their families might have lived in Indonesia for generations. The fifth and final category consisted of indigenous Indonesians. Disregarding all other economic activities, the number and size of their *incorporated* companies remained marginal throughout the colonial period, despite the fact that as individual farmers, craft producers and traders, Indonesians accounted for more than three quarters of all economic activities in the colony.

The majority of investors from third countries came from Europe, but the United States and Japan also made their presence felt. In order to gain a foothold in the Netherlands Indies, non-Dutch foreign investors cooperated with Dutch investors. Royal Dutch Shell for instance, was a combination of British and Dutch investors. This fact does muddy the waters because, as these companies were registered as Dutch-owned, the share of non-Dutch foreign investment would have been higher than is reflected in the registration of incorporated enterprises. The same can be said about Netherlands Indies companies. Their nationality is not always clear cut and it is possible that non-Dutch foreign investors were also included in this category. Despite the caveats, it is safe to state that up to 1940, nearly ƒ4 billion was invested by Dutch private investors alone, against about ƒ1 billion by other foreign investors (see Chapter 2.4). The lack of statistical data on domestic investment makes it difficult to estimate the share of foreign investment in total investment.

1910–1942: Profits and 'drain'

On average foreign private companies in the Netherlands Indies made a tidy profit. The three case studies I have presented were no exception. Large dividend payments are considered a solid indicator of considerable profits, but reserves, reinvestment and stock prices need to be taken into account as well. Between 1910 and 1939, two-thirds of total profits were paid out as dividend, leaving one-third to be reinvested in the Netherlands Indies. The amount reinvested was comparable to more than half of all foreign direct investment entering the colony (see Chapter 3.3). Overall, corrected for changes in stock prices, returns to investors were high, especially during the 1920s. In the 1930s returns were lower than in the Netherlands, but when the 1920s and 1930s are taken together, returns in the Netherlands Indies still exceeded those in the Netherlands. Our case studies, Billiton, the Deli Company and HVA, show a similar pattern. Although during the 1930s, they all had to cope with losses and declining profits, in earlier decades they had been highly profitable, making it possible for them to reinvest substantial amounts of capital. Proceeds were highly volatile and, therefore, it is difficult to argue on the basis of this limited sample alone that profits were excessive.

As might have been expected, a fair share of the profits flowed back to the Netherlands and other foreign countries. In the debate about colonial drain, some argue that this share was disproportionally high, while others state that without private foreign investment, no economic development at all would have occurred in the colonies, since they were unable to raise the capital required for autonomous investment. Proponents of the latter opinion argue that it was preferable to have economic development, entailing colonial drain, than to have no economic development at all. The loss of mineral resources and the use of land handed over to foreign activities did not weigh up against the (indirect) benefits accruing to the indigenous population. The higher risk of investing in the Netherlands Indies is also often mentioned when justifying the high level of remitted profits.

On average, the drain was greater when GDP and foreign investment rose. I have made several calculations of the colonial drain and come up with a plausible estimate that it amounted to 12% of GDP of colonial Indonesia in 1920–1930 and 9.5% over the years 1931–1939 (see Figure 3.2). As these estimates may already be conceived as substantially, it seems unlikely that the colonial drain was in reality higher. This still begs the question whether colonial drain of this magnitude should be considered excessive. Assuming that 10–20% of GDP resulted from the presence of foreign capital, as may be inferred from the share of exports in GDP and the foreign share of exports, then gains did indeed exceed the drain (see Chapter 3.2 and 3.3). Whether the colonial drain should be considered excessive is hard to ascertain. Suffice it to say that the colonial drain *did* represent a very substantial proportion of GDP.

It was an inescapable fact that land was occupied by foreign investors for purposes of production. Estimates of this land occupation in Java vary from 3% to 18% of total irrigable land. Therefore, this occupation of land undoubtedly had a significant impact on indigenous agriculture. It should also be borne in mind that probably the best land was being used by foreign producers. During the 1930s, when sugar production declined, vast areas were planted with rice by indigenous Indonesians. What remains to be done is to investigate to what extent the indigenous population was compensated and benefitted from investment by foreign companies. To discover this, I have analysed various linkages.

1910–1942: Linkages

In my quest to assess the wider or indirect effects of foreign private investment on economic development in the Netherlands Indies, I examined several types of linkages. Backward linkages (when goods and services are used to enable a production process) were found for example in the production of food and building materials. Irrigation and infrastructure such as railways that were both crucial to the sugar industry in Java, were even more significant examples of backward linkages in the sense that these facilities were indispensable in enabling production to take place. Although the sugar estates and indigenous agriculture initially competed for the same land and water supply, the indigenous producers benefitted from the irrigation works once the sugar producers departed or the land became available to them again. Moreover, the land had been made more productive than it would have been without irrigation. The irrigation works created by HVA for the Djatiroto sugar factory are a case in point, as I argued in chapter 5.

The railways connected plantations, ports and villages. Paved roads and bridges were also constructed in order to facilitate the transport of sugar and other products, but they also improved the prospects for further economic development. In the general run of things, large-scale production by foreign firms did put stress on existing infrastructure and thus new roads and railways were urgently needed. Compared to Java, the physical infrastructure in the Outer Islands was less developed. Railways constructed by foreign companies connected regions that had been completely isolated before. The railways constructed by the Deli Spoorweg Maatschappij to transport tobacco are a prime example. Ultimately, the indigenous population would benefit from this new infrastructure. On the downside, most of the equipment and machines were imported from Europe or other countries and, therefore, did not generate backward linkages in the Netherlands Indies. Only building materials such as bricks and firewood and food were sourced locally.

Forward linkages emerged when the output of an industry was used by other industries to make a new product or to improve its quality. Oil and rubber are good examples. Oil was refined and processed in the Netherlands Indies, in Cepu, Balikpapan, Pangkalan Brandan and Palembang, before being shipped abroad. Initially, smallholder rubber was processed abroad but, by the end of the 1930s, nearly all processing was taking place in colonial Indonesia. In contrast, estate rubber had been processed in the Netherlands Indies from the outset. Tin was a different story. Most of this metal mined by the Billiton Company was smelted in Singapore, the Netherlands or the United States, but not locally in Belitung, whereas some tin on Bangka was smelted locally.

Final demand linkages pertain to the additional but more indirect effects of the presence of foreign companies. The operations of these firms generated income that bolstered consumptive demand. Wages, compensation for the use of land and various other payments formed the foremost components. Nevertheless, healthcare, housing and water supply, for instance, provided by the Billiton Company, the Deli Company and HVA, also fall into this category. Although compensation for land use would be considered adequate only by making a comparison of proceeds from the land lease with yields from cultivation by the landowners themselves, we must not lose sight of the fact that the indigenous population could not make use of the confiscated land for a long period of time. This was an opportunity cost that was also aggravated by land displacement. It is likely that some kind of coercion was applied. Confronted by the iron hand in the velvet glove, the indigenous population was forced to lease out land. Yet another complication is the unpleasant truth that the local population often had to contend with lack of compliance with contracts by companies.

It must also be conceded that, at least to some extent, local landless labourers did benefit from employment opportunities offered by the sugar and other agricultural estates in Java. Nevertheless, overall, the number of indigenous labourers working for foreign companies was less than 10% of the total labour force (see Chapter 4.4). The great majority of the indigenous population did not have to depend on the operations of these companies for income.

This leads to the matter of the use of immigrant labour by foreign companies. This option did not always reflect a shortage of available local labour. Wages for immigrant labour were often lower than those paid to local labourers, and foreign companies may also have been motivated by a desire to be able to exercise control over the workforce. Through a combination of the imposition of coercive measures and the fact that contract labourers were forced to work under the penal sanction, the companies undeniably did have more control over their labourers. Employers' organisations supported the penal sanction but, after abolishment in 1931, contracts were only offered or renewed for 'free' coolies. Nevertheless, the Deli Company and HVA both openly admitted that the penal sanction was indispensable to a high level of productivity.

In this discussion it is also important to bear in mind that wages were not the only form of compensation for work done. Food was also often provided; more important still was the (modest) provision of housing, healthcare and (some degree of) education, as I argued in Chapter 5. In this respect, Billiton provided training programmes for workers and the Deli Company built schools for the children of its workers. In contrast to the more general benefits offered by irrigation and infrastructure, it was the workers who directly benefitted from such services. The provision of these services was essential if companies were to keep productivity levels high. These benefits could trickle down even further as other people living near the production sites could sometimes make use of hospitals and other facilities even if not employed by the firm in question. This was, for example, the case at Billiton (see Chapter 5).

Companies also contributed indirectly to irrigation, infrastructure, healthcare and education through taxation. Fiscal linkages via payment of taxes by foreign companies did increase in the long run. In the first quarter of the twentieth century, various new taxes were introduced that were payable by either the indigenous population, foreign firms, or both. Company profits were taxed at a very low rate in 1905. However, in 1925 a general income tax was introduced and taxes on profit subsequently increased. The rub was that companies could be exempted from paying tax in the Netherlands Indies if they already paid tax in the Netherlands. The operations of foreign private companies also contributed to other taxes and around 10% of the total tax revenue, or roughly 5% of total government revenue (total government revenue consists of tax revenue, but also includes non-tax revenue such as profits from state-owned companies, interest on loans and fees for licenses or concessions) was generated by private foreign companies between 1910 and 1940 (see Chapter 4.5). However, as around 10–20% of GDP originated from the presence of foreign capital, by comparison, the foreign firms can be said to have been under-taxed.

1942–1960: Investments

The Dutch lost their hold on the colonial economy during the Japanese occupation. The war had devastating effects. Besides the many human casualties and a sharp drop in living standards, foreign companies were either dismantled or converted for military use by the Japanese. Oil and rubber were of crucial importance throughout the war. Output gradually declined and by 1945 numerous factories and estates had either been destroyed or were drastically neglected. Once the war was over, Indonesia lost no time in declaring its independence on 17 August 1945. Despite the uncertainty this caused, the Dutch were motivated to repair their factories and continue operations. Billiton, the Deli Company and HVA again were no exceptions. Eventually, the oil installations were repaired and the large-scale production of rubber and tin was resumed. The Dutch also made two attempts to enlarge the area under their control by military force in 1947 and 1948–1949. They did succeed in expanding the scope of the activities of Dutch businesses, and many factories and estates again came under Dutch control. Politically, however, these military actions were a failure. Not least because the United States threatened to discontinue Marshall Aid to the Netherlands. As this economic support was vital to the post-war reconstruction, on 27 December 1949 the Dutch conceded and sovereignty was officially transferred to Indonesia. Despite this sweeping political change, Dutch companies continued to function unimpeded. Indonesia promised that operations would not be hindered or the firms taken over. Furthermore, debts accrued by the colonial government had to be repaid to the Netherlands by Indonesia once sovereignty was transferred. As long as this debt was not fully paid off, the Indonesian government was obliged to consult with the Dutch government about economic and financial policy (see Chapter 6.2).

Feeling the writing was on the wall, following the transfer of sovereignty, several major companies set up operations in other countries so as to become less dependent on Indonesia. Billiton, the Deli Company and HVA all expanded their activities outside Indonesia. Despite these precautions, they were still fully determined to remain active in Indonesia as long as possible after recovery from war damage. The situation did improve somewhat in the early 1950s but the prospects remained ominous. Although output and export levels increased, new investments were marginal. Dutch investors were reluctant to take the plunge with new investment and the Indonesian government exacerbated the situation by introducing a stream of restrictions. Despite these hindrances, in the mid–1950s, foreign firms still played a key role in the Indonesian economy with most fresh investment done by American oil companies. About 10–20% of GDP is likely to have been generated by foreign firms, resembling the situation in the late colonial period (see Chapter 6.3).

1942–1960: Profits

After the foreign companies recovered from the depredations of the war, by the end of the 1940s they continued to operate at a profit and began to pay dividends again. In 1949 the Indonesian government also became a major shareholder in the Billiton Company and benefitted from its profits. As noted, at the beginning of the 1950s the situation looked precarious, but companies expected that profits would increase again as a result of the Korean War boom. There was a high demand for oil, rubber and tin. In the early 1950s dividend rates were still running at nearly 5% on average, that was not much lower than in the pre-war period. Billiton, the Deli Company and HVA remained profitable. During the mid–1950s, the government of Indonesia introduced a policy that made it gradually more difficult to transfer profits back to the Netherlands. Taxes increased and transfers were delayed. The result was that more profits were reinvested by Billiton, the Deli Company, HVA and other businesses in Indonesia, even though most companies would have preferred to transfer profits abroad. Nevertheless, in the early 1950s, substantial amounts of profits were transferred overseas until the Indonesian government introduced restrictions to it in the mid–1950s. Oil companies were largely exempted from restrictions and could still transfer large amounts of profits abroad.

1942–1960: Linkages

Fiscal linkages now became the most important type of linkages. Although the foreign oil companies managed to get exemptions from some taxes, taxes on profit were raised. By 1955 nearly one-fifth of all taxes consisted of company tax. Income and profits transferred overseas were taxed more heavily, consequently more profits remained in Indonesia and were reinvested. A large share of the export tax fell on the shoulders of the foreign companies. When all these taxes are combined there is no doubt that foreign companies were more heavily taxed after independence than in colonial days. The share of government revenue derived from Dutch firms increased but, despite being more heavily taxed, companies were willing to stay in Indonesia. The three case studies show that although companies complained about the high taxes, they were still willing to continue their activities even though the prospects grew bleaker as time passed. This suggests that even if taxes had been higher during the colonial period, these companies would probably still have been willing to operate in colonial Indonesia. If so, then there was a missed opportunity here for Indonesia, which could have benefitted from higher taxes at an earlier stage.

Backward and forward linkages became less prominent during this period. Most of the construction of roads and other infrastructure by estates was carried out in the context of the repair of the war damage. Although more houses were constructed for workers by the Deli Company, less effort than before the war was made by foreign employers in the sphere of linkages. For instance, the smelting of tin ore from Belitung was still done outside Indonesia and smelting facilities on Bangka were not repaired after the war. Billiton now limited its medical care to employees and their families only, whereas earlier a larger share of the population of the island could make use of the company's medical facilities. The provision of food at reduced prices was also phased out. In the meantime, there was an increase in Indonesian employees in middle or higher positions in foreign firms. Especially from the mid–1950s, this so-called *Indonesianisasi* assumed greater importance. Training programmes for

Indonesian employees were set up by, among other firms, American oil companies. Slowly it became more difficult for Dutch companies to bring Dutch replacements to Indonesia.

The political relationship between Indonesia and the Netherlands gradually deteriorated. The greatest bone of contention was Netherlands New Guinea, still a Dutch colonial possession. The failure to reach a settlement about its future angered Indonesia and this irritation spilled over to the presence of Dutch companies in Indonesia. The crunch came on 3 December 1957, when Indonesian labour unions began taking over Dutch companies. KPM was first in line and was soon followed by other companies appropriated by the labour unions and placed under the supervision of the Indonesian military. Indonesian employees took charge of management. A full year later, on 27 December 1958, a law on the nationalisation of Dutch companies was passed by the Indonesian parliament. On balance, although the companies now had new owners, the presence of these companies in Indonesia can be seen as a lasting legacy. They remained important productive assets for the new Indonesian operators. Crucially, the role of the Indonesian state and the armed forces in the economy of Indonesia increased rapidly. In all this turmoil, non-Dutch foreign companies were spared, as were those that were only partly Dutch-owned.

Initially, the nationalisation in 1957–1959 had a profound impact on the economic development of Indonesia. In spite of the fact the situation gradually stabilized, by the early and mid–1960s, economic development was virtually stagnant with a level of GDP per capita lower than in 1941. Trade with the Netherlands vanished almost altogether but American and British companies continued their activities unimpeded. New foreign direct investment came from American oil companies and, although British and American companies were temporarily seized during the *Konfrontasi* between Indonesia and Malaysia (1963–1966), these companies were eventually returned to their legal owners.

At the time when KPM was taken over in 1957, discussions about compensation had already been initiated. The large-scale nationalisation of the Dutch companies in the following years was accepted, provided compensation was paid. To this end, negotiations with the Indonesian government in 1966 resulted in an agreement. As we have seen in Chapter 6, the upshot of this was that a total sum of *ƒ*689 million, including interest, was paid between 1973 and 2003. Indonesia's agreement to make these payments was a prerequisite insisted on by other countries to be willing to offer international aid and funding. The Netherlands, the United States and Japan supported this aid. The compensation paid to Dutch private companies was around one-tenth of the total book value, or one-fifth of the initially claimed sum. Claimants argued that too little compensation was paid, an assertion countered by the Indonesian government that stated that Dutch assets had depreciated as a consequence of the lack of new investment (see Chapter 6.4).

Compensation versus 'drain'

The time has come to return to the main research question: to what extent did foreign private investment, particularly from the Netherlands, contribute to the economic development of late-colonial Indonesia? Three topics have been discussed in detail: investment, profit and linkages. Between 1910 and 1940, very significant amounts of Dutch capital were invested in colonial Indonesia. Around one-quarter of all Dutch private investment was made in colonial Indonesia. Although these investments were considered riskier than their domestic counterparts, in the long run substantially more profits were pocketed by firms operating in Indonesia than in the Netherlands. Large dividend payments to Dutch shareholders resulted in a considerable flow of capital back to the home country. This can, in my view, be reasonably described as a 'colonial drain'.

On the other hand, a substantial share of the profits was also reinvested in the Indonesian economy. In addition, foreign business activities provided employment for indigenous Indonesian workers. Indonesians may not initially have benefitted but did so increasingly as time progressed. In the Outer Islands, there was initially a strong preference for non-Indonesian workers, especially from China, but already in the 1910s Javanese migrants predominated in the workforce of foreign enterprises outside Java. It Is likely that wages of local Sumatran workers were pushed down by the competition from Javanese migrants.

To put our question in context, we need to acknowledge that, proportionally speaking, foreign private enterprises amounted to a relatively small part of the Indonesian economy, be this expressed in terms of output, profits, employment, or tax revenue. In both the late-colonial and early-independence periods, the activities of foreign capital contributed to no more than around 10–20% of GDP. During peak years, up to 10% of indigenous employment and income originated from those sources (see Chapter 3.2, 4.4 and 6.3).

The majority of the Indonesians remained active as peasants or informal sector workers, self-employed, not working for foreign companies. On a macroeconomic level, indigenous Indonesians were therefore not heavily dependent on foreign investment. Nevertheless, these estimated figures do not take into account the indirect economic effects of foreign companies, nor do they include the wider effects of the reinvestment of profits in Indonesia. Wages earned by labourers working for foreign firms generated more employment and income in other sectors and industries. Some foreign companies built irrigation or transport infrastructure that had beneficial side-effects for the general public, for instance, the irrigation works constructed by HVA and the railways set up by the Deli Railway Company. Some companies, such as the Billiton Company, the Deli Company and HVA, also provided medical services and schooling, but the degree to which they were willing to do this varied widely. Initially, medical aid provided by the Billiton Company was not limited just to its workforce, but during the 1950s the company tightened its belt, which meant that only its employees and their families could make use of the medical care provided by the company. Schools were built by the Deli Company and the Billiton Company also set up in-house training programmes. Nor should it be forgotten that foreign companies and their employees also paid the colonial government tax, that benefitted Indonesia in the sense that part of those taxes were used by the government to fund public services and infrastructure.

However, these indirect positive effects are difficult to quantify. They need to be balanced against the 'colonial drain' with its characteristic features of high profitability and large-scale repatriation of earnings. Another question that also needs to be addressed is whether Indonesians would have been better off, in economic terms, in a non-colonial situation. Undeniably, foreign companies and their European owners and employees did contribute to the public purse but, as under the regressive colonial tax system, they were only lightly taxed. Foreign companies generated about 10–20% of GDP, but provided only about 10% of total tax revenue in Indonesia, or roughly 5% of total government revenue (which also consisted of other non-tax revenue, such as profits from state-owned companies, interest on loans and fees for licenses or concessions).

The foreign companies and their owners are likely to have benefitted disproportionally from the infrastructure and services which the colonial state provided. In this context, the under-taxation of foreign companies represents a missed opportunity for the Indonesian economy during the colonial period. After independence taxes did increase, leading to lower overall profitability for foreign firms and, as a result, these firms became more reluctant to invest in Indonesia. The importance of other linkages, backward and forward, now diminished. Eventually, crises, hardships and indemnification claims crowded in after the foreign companies were driven away in the wake of the political changes. Once again this put an economic burden on Indonesian shoulders. Importantly, there are indications that up to 1942, state-backed coercion played a role in the expropriation of land that was used by European companies.

Any attempt to make a comparison between the negative and positive aspects of colonial business for a colonized country is fraught with complications. One reason for this is that items on the cost and benefit sides of the ledger are often difficult to compare directly with each other. Another is that speculative 'what if?' questions inevitably arise, calling for counterfactual scenarios in order to try to predict what could have happened if colonization had not occurred.

However, the complications do not preclude the drawing of some general conclusions. The compensation provided by colonial businesses for Indonesian labour, land and natural resources, whether this was through wages and rents or through taxation, can best be described as moderate. In some cases, coercion, ultimately backed up by the power of the colonial state, was involved in gaining access to land and labour and making production possible for the foreign firms in the first place. Some of the outflows of profits from Indonesia can be seen as reasonable returns on capital investment. For a number of years, the profitability of foreign companies was relatively high and in all financial dealings, Dutch capital clearly predominated over other Western or Asian capital. There is evidence of collusion between Dutch business interests and policy-makers, which strengthens the argument that there was significant colonial drain.

In contrast to this negative image, it cannot be denied that certain businesses in some parts of Indonesia did provide the local population with significant indirect benefits in the form of infrastructure, such as railways, roads, bridges, ports and irrigation systems, alongside other linkage effects like houses, hospitals and schools. In the long run, Indonesia did benefit from this. Up to the present day, infrastructure has remained a visible legacy of Dutch private investment in colonial Indonesia. The overall picture of the colonial past is bleak. Still, it remains a mixed message. Besides regions and industries from which foreign investment was marginal, or even disadvantageous, to Indonesian economic development, there were enclaves of synergy in which both European capital and local interests were well served.

Appendices

Appendix 1. Numbers of incorporated foreign business enterprises in the Netherlands Indies, 1910–1940.

Appendix 2. Period of incorporation of foreign business enterprises in the Netherlands Indies, listed 1910–1940.

Appendix 3. Incorporated foreign business enterprises in the Netherlands Indies by nationality and location of headquarters, 1910–1940.

Appendix 4. Total equity of incorporated firms in the Netherlands Indies, 1910–1940, in millions of guilders, by nationality and location of headquarters. Average equity per incorporated firm within brackets, in current prices.

Appendix 5. Total equity of incorporated firms in the Netherlands Indies, 1910–1940, in millions of guilders, by nationality and location of headquarters, average equity per incorporated firm within brackets, in prices of 1913.

Appendix 6. Total equity of incorporated firms in the Netherlands Indies by sector, 1910–1940, in millions of guilders in current prices. Average equity per firm within brackets and percentage share of total.

Appendix 7. Periods of incorporation of agricultural enterprises in the Netherlands Indies, listed in 1910–1940.

Appendix 8. Periods of incorporation of mining enterprises in the Netherlands Indies, listed in 1910–1940.

Appendix 9. Periods of incorporation of financial enterprises in the Netherlands Indies, listed in 1910–1940.

Appendix 10. Periods of incorporation of trading enterprises in the Netherlands Indies, listed in 1910–1940.

Appendix 11. Numbers of incorporated foreign business enterprises in the Netherlands Indies, 1910–1940.

Appendix 12. Issued stocks and bonds by Dutch corporations, in thousands of guilders, 1904–1939.

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Appendix 19. Dividend payments as a percentage of total dividend payments by location of headquarters of the company, 1910–1940.

Appendix 20. Dividend rates as share of equity of foreign companies by location of their headquarters, 1910–1940.

Appendix 21. Total dividend paid by foreign companies in the Netherlands Indies, by sector, in million guilders, 1910–1940.

Appendix 22. Dividend rates by sector as a percentage of total equity of the sector in the Netherlands Indies, 1910–1940.

Appendix 23. Companies listed on the Amsterdam Stock Exchange and active in the Netherlands Indies, 1910–1940.

Appendix 24. Wage payments of foreign firms by industry, in 1913, 1920 and 1924, as a proportion of total wages.

Appendix 25. Wage rates of indigenous workers by industry in selected years.

Appendix 26. Dividend rates and total paid-out dividends of the Deli Company, Billiton and HVA, 1910–1941.

Appendix 27. Total labour force in North Sumatra and at the Deli Company, 1919–1939.

Appendix 28. Sickness and death rates of workers at the Billiton Company, 1910–1939.

Appendix 29. Output of tin, tobacco and sugar by GMB, Deli Company and HVA.

Appendix 1. Numbers of incorporated foreign business enterprises in the Netherlands Indies, 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
Agriculture	791 (47.1%)	1,110 (47.2%)	1,183 (41.8%)	1,022 (39.4%)	941 (44.4%)	766 (49%)	783 (46%)
Finance	77 (4.6%)	89 (3.8%)	104 (3.7%)	107 (4.1%)	101 (4.8%)	91 (5.8%)	97 (5.7%)
Manufacturing	98 (5.8%)	175 (7.4%)	259 (9.2%)	280 (10.8%)	215 (10.1%)	136 (8.7%)	177 (10.4%)
Mining	194 (11.6%)	195 (8.3%)	175 (6.2%)	103 (4%)	96 (4.5%)	64 (4.1%)	81 (4.8%)
Other	238 (14.2%)	365 (15.5%)	455 (16.1%)	447 (17.2%)	373 (34.7%)	226 (14.5%)	257 (15.1%)
Commercial services	154 (9.2%)	231 (9.8%)	373 (13.2%)	369 (14.2%)	215 (10.1%)	144 (9.2%)	172 (10.1%)
Trade	126 (7.5%)	186 (7.9%)	279 (9.9%)	269 (10.4%)	180 (8.5%)	136 (8.7%)	135 (7.9%)
Total[1]	1,678	2,351	2,828	2,597	2,121	1,563	1,702

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Excludes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies. If we included these firms, the total numbers for 1910 to 1940, with an interval of five years, would be: 2,060, 3,009, 3,736, 3,497, 2,854, 1,884 and 2,156 incorporated firms, respectively. For statistics of different sectors including Chinese and indigenous Indonesian companies, see Appendix 11.

Appendix 2. Period of incorporation of foreign business enterprises in the Netherlands Indies, listed 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
<1870	27 (1.6%)	27 (1.2%)	26 (0.9%)	29 (1.1%)	28 (1.3%)	29 (1.9%)	32 (1.9%)
1871–1890	171 (10.3%)	147 (6.4%)	138 (5%)	111 (4.4%)	102 (4.9%)	89 (5.8%)	91 (5.5%)
1891–1900	516 (31%)	403 (17.5%)	342 (12.4%)	245 (9.7%)	202 (9.7%)	178 (11.5%)	171 (10.3%)
1901–1910	952 (57.1%)	1,098 (47.7%)	947 (34.4%)	665 (26.3%)	479 (23.1%)	346 (22.4%)	336 (20.2%)
1911–1920		626 (27.2%)	1,297 (47.2%)	1,027 (40.7%)	632 (30.4%)	323 (20.9%)	310 (18.7%)
1921–1930				447 (17.7%)	634 (30.5%)	396 (25.7%)	341 (20.5%)
1931–1940						181 (11.7%)	381 (22.9%)
total[1]	1,666	2,301	2,750	2,524	2,077	1,542	1,662

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Excludes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies; for statistics including these groups see Appendix 11. Date of foundation is not known for every company.

Appendix 3. Incorporated foreign business enterprises in the Netherlands Indies by nationality and location of headquarters, 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
Dutch with headquarters in the Netherlands Indies	1,077 (64.2%)	1,507 (64.3%)	1,943 (68.7%)	1,745 (67.2%)	1,349 (63.6%)	863 (55.2%)	1,014 (59.6%)
Dutch with headquarters in the Netherlands	543 (32.4%)	669 (28.6%)	713 (25.2%)	686 (26.4%)	649 (30.6%)	593 (37.9%)	579 (34%)
United Kingdom[1]	48 (2.9%)	137 (5.8%)	135 (4.8%)	131 (5%)	102 (4.8%)	89 (5.7%)	87 (5.1%)
Other[2]	9 (0.5%)	29 (1.1%)	37 (1.3%)	35 (1.3%)	21 (1%)	18 (1.2%)	22 (1.3%)
Total	1,677	2,342	2,828	2,597	2,121	1,563	1,702

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Also includes a small number of incorporated companies with headquarters in the United States.
[2] Including incorporated companies with headquarters in Austria, Belgium, China, Denmark, Germany, France, Italy, Japan, Malaya, Norway, Sweden and Switzerland.

Appendix 4. Total equity of incorporated firms in the Netherlands Indies, 1910–1940, in millions of guilders, by nationality and location of headquarters. Average equity per incorporated firm within brackets, in current prices.

	1910	1915	1920	1925	1930	1935	1940
Dutch with headquarters in the Netherlands	844 (1.55)	1,323 (1.98)	1,778 (2.49)	2,559 (3.73)	3,043 (4.69)	3,092 (5.21)	3,075 (5.31)
Dutch with headquarters in the Netherlands Indies	299 (0.28)	450 (0.30)	638 (0.33)	799 (0.46)	760 (0.56)	629 (0.73)	625 (0.62)
UK	54 (1.13)	234 (1.70)	244 (1.81)	297 (2.27)	331 (3.25)	285 (3.20)	344 (3.95)
Other[1]	6 (0.67)	42 (2.00)	45 (1.61)	99 (3.41)	86 (4.10)	300 (17.65)	599 (29.95)
Chinese	60 (0.17)	123 (0.20)	142 (0.17)	245 (0.29)	209 (0.30)	134 (0.43)	312 (0.72)
Indonesian	3 (0.12)	5 (0.08)	7 (0.09)	12 (0.19)	8 (0.19)	4 (0.36)	4 (0.20)
Total	1,266 (0.61)	2,177 (0.72)	2,854 (0.76)	4,011 (1.15)	4,437 (1.55)	4,444 (2.36)	4,959 (2.30)
Total foreign[2]	1,203 (0.75)	2,049 (0.88)	2,705 (0.96)	3,754 (1.45)	4,220 (1.99)	4,306 (2.76)	4,643 (2.73)

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Includes Chinese incorporated firms with headquarters in China.
[2] Includes incorporated firms with headquarters in China, but excludes Chinese and indigenous Indonesian companies with headquarters in the Netherlands Indies.

Appendix 5. Total equity of incorporated firms in the Netherlands Indies, 1910–1940, in millions of guilders, by nationality and location of headquarters, average equity per incorporated firm within brackets, in prices of 1913.

	1910	1915	1920	1925	1930	1935	1940
Dutch with headquarters in the Netherlands	979 (1.80)	1,398 (2.09)	779 (1.09)	1,954 (2.85)	2,532 (3.90)	4,415 (7.44)	3,971 (6.86)
Dutch with headquarters in the Netherlands Indies	334 (0.32)	552 (0.32)	279 (0.14)	610 (0.35)	632 (0.47)	898 (1.04)	807 (0.80)
UK	63 (1.31)	247 (1.80)	107 (0.79)	227 (1.73)	275 (2.70)	407 (4.57)	444 (5.10)
Other[3]	7 (0.78)	44 (2.11)	20 (0.71)	76 (2.60)	72 (3.41)	428 (25.20)	774 (38.68)
Chinese	70 (0.20)	130 (0.21)	62 (0.07)	187 (0.22)	174 (0.25)	191 (0.61)	403 (0.93)
Indonesian	3 (0.14)	5 (0.08)	3 (0.04)	9 (0.15)	7 (0.16)	6 (0.51)	5 (0.26)
Total	1,469 (0.71)	2,300 (0.76)	1,250 (0.33)	2,869 (0.88)	3,691 (1.29)	6,346 (3.37)	6,404 (2.97)
Total foreign[4]	1,396 (0.87)	2,165 (0.93)	1,185 (0.42)	2,866 (1.11)	3,511 (1.66)	6,149 (3.94)	5,996 (3.52)

Source: Colonial Business Indonesia, *CBI Database ID*; Van Leeuwen, *Human capital and economic growth in India, Indonesia and* Japan, 171–173.

[3] Includes incorporated Chinese firms with headquarters in China.
[4] Includes Chinese incorporated firms with headquarters in China, but excludes Chinese and indigenous Indonesian incorporated companies with headquarters in the Netherlands Indies.

Appendix 6. Total equity of incorporated firms in the Netherlands Indies by sector, 1910–1940, in millions of guilders in current prices. Average equity per firm within brackets and percentage share of total.

	1910	1915	1920	1925	1930	1935	1940
Agriculture	429 (0.54) 35.7%	844 (0.76) 41.2%	975 (0.82) 36%	1,289 (1.26) 34.4%	1,557 (1.65) 36.9%	1,489 (1.94) 34.6%	1,453 (1.86) 31.3%
Finance	123 (1.60) 10.2%	232 (2.61) 11.3%	300 (2.88) 11.1%	408 (3.81) 10.9%	418 (4.14) 9.9%	635 (6.97) 14.8%	1,039 (10.71) 22.4%
Manu-facturing	33 (0.34) 2.7%	89 (0.51) 4.3%	207 (0.80) 7.7%	254 (0.91) 6.8%	239 (1.11) 5.7%	233 (1.71) 5.4%	251 (1.42) 5.4%
Mining	309 (1.59) 25.7%	426 (2.18) 20.8%	478 (2.73) 17.7%	586 (5.69) 15.6%	612 (6.38) 14.5%	548 (8.56) 12.7%	605 (7.47) 13%
Other	191 (0.80) 15.9%	260 (0.71) 12.7%	338 (0.74) 12.5%	693 (1.55) 18.5%	908 (2.43) 21.5%	845 (3.74) 19.6%	870 (3.39) 18.7%
Commercial services	17 (0.11) 1.4%	36 (0.16) 1.8%	75 (0.20) 2.8%	113 (0.31) 3%	93 (0.43) 2.2%	87 (0.60) 2%	67 (0.39) 1.4%
Trade	101 (0.80) 8.4%	162 (0.87) 7.9%	332 (1.19) 12.3%	409 (1.52) 10.9%	394 (2.19) 9.3%	468 (3.44) 10.9%	357 (2.64) 7.7%
Total[5]	1,203 (0.72)	2,049 (0.87)	2,705 (0.96)	3,752 (1.44)	4,221 (1.99)	4,305 (2.75)	4,642 (2.73)

Source: Colonial Business Indonesia, *CBI Database ID*.

[5] Includes Chinese incorporated firms with headquarters in China, but excludes Chinese and indigenous Indonesian incorporated companies with headquarters in the Netherlands Indies.

Appendix 7. Periods of incorporation of agricultural enterprises in the Netherlands Indies, listed in 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
<1870	1 (0.1%)	1 (0.1%)	1 (0.1%)	1 (0.1%)	1 (0.1%)	1 (0.1%)	1 (0.1%)
1871–1890	106 (12.8%)	88 (7.5%)	80 (6.4%)	63 (5.9%)	63 (6.3%)	57 (7.2%)	56 (6.9%)
1891–1900	280 (33.8%)	227 (19.4%)	204 (16.3%)	155 (14.5%)	133 (13.3%)	116 (14.7%)	110 (13.6%)
1901–1910	442 (53.3%)	570 (48.7%)	510 (40.7%)	392 (36.6%)	308 (30.8%)	248 (31.4%)	245 (30.2%)
1911–1920		284 (24.3%)	458 (36.6%)	367 (34.3%)	271 (27.1%)	176 (22.3%)	167 (20.6%)
1921–1930				92 (8.6%)	224 (22.4%)	168 (21.3%)	150 (18.5%)
1931–1940						24 (3%)	82 (10.1%)
total[1]	829	1,170	1,253	1,070	1,000	790	811

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Includes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies as well. Date of foundation is not known for each company.

Appendix 8. Periods of incorporation of mining enterprises in the Netherlands Indies, listed in 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
<1870	1 (0.5%)	1 (0.5%)	1 (0.6%)	1 (0.9%)	1 (1%)	1 (1.5%)	1 (1.3%)
1871–1890	6 (3.1%)	4 (2%)	4 (2.3%)	3 (2.8%)	2 (2.1%)	2 (3.1%)	2 (2.5%)
1891–1900	92 (47.2%)	61 (31.3%)	50 (28.4%)	21 (19.8%)	12 (12.4%)	9 (13.8%)	9 (11.3%)
1901–1910	96 (49.2%)	87 (44.6%)	70 (39.8%)	35 (33%)	27 (27.8%)	13 (20%)	13 (16.3%)
1911–1920		42 (21.5%)	51 (29%)	36 (34%)	25 (25.8%)	13 (20%)	14 (17.5%)
1921–1930				10 (9.4%)	30 (30.9%)	17 (26.2%)	18 (22.5%)
1931–1940						10 (15.4%)	23 (28.8%)
total[1]	195	195	176	106	97	65	80

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Includes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies as well. Date of foundation is not known for each company.

Appendix 9. Periods of incorporation of financial enterprises in the Netherlands Indies, listed in 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
<1870	19 (23.5%)	18 (17.8%)	17 (14.3%)	19 (14.8%)	21 (17.5%)	21 (21.6%)	23 (21.5%)
1871–1890	20 (24.7%)	21 (20.8%)	20 (16.8%)	16 (12.5%)	13 (10.8%)	8 (8.2%)	14 (13.1%)
1891–1900	16 (19.8%)	18 (17.8%)	15 (12.6%)	14 (10.9%)	14 (11.7%)	14 (14.4%)	14 (13.1%)
1901–1910	26 (32.1%)	30 (29.7%)	28 (23.5%)	25 (19.5%)	22 (18.3%)	9 (9.3%)	8 (7.5%)
1911–1920		14 (13.7%)	39 (32.8%)	41 (32%)	30 (25%)	18 (18.6%)	20 (18.7%)
1921–1930				13 (10.2%)	20 (16.7%)	19 (19.6%)	17 (15.9%)
1931–1940						8 (8.2%)	11 (10.3%)
total[1]	81	101	119	128	120	97	107

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Includes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies as well. Date of foundation is not known for each company.

Appendix 10. Periods of incorporation of trading enterprises in the Netherlands Indies, listed in 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
<1870	1 (0.3%)	1 (0.2%)	1 (0.1%)	1 (0.1%)	1 (0.2%)	1 (0.4%)	2 (0.6%)
1871–1890	6 (1.7%)	6 (1.1%)	6 (0.8%)	6 (0.8%)	5 (1%)	5 (1.9%)	6 (1.8%)
1891–1900	46 (13.3%)	40 (7.4%)	30 (4.1%)	22 (3.1%)	14 (2.7%)	7 (2.6%)	9 (2.7%)
1901–1910	294 (84.7%)	298 (55.2%)	241 (32.9%)	175 (24.5%)	108 (20.7%)	18 (6.7%)	14 (4.2%)
1911–1920		195 (36.1%)	454 (62%)	401 (56.2%)	229 (43.9%)	32 (11.9%)	26 (7.7%)
1921–1930				108 (15.1%)	165 (31.6%)	107 (39.6%)	73 (21.7%)
1931–1940						100 (37%)	207 (61.4%)
total[1]	347	540	732	713	522	270	337

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Includes Chinese and indigenous Indonesian incorporated firms with headquarters in the Netherlands Indies as well. Date of foundation is not known for each company.

Appendix 11. Numbers of incorporated foreign business enterprises in the Netherlands Indies, 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
Chinese	358 (17.4%)	607 (20.2%)	834 (22.3%)	838 (24%)	690 (24.2%)	310 (16.5%)	434 (20.1%)
Indonesian	25 (1.2%)	60 (2%)	74 (2%)	62 (1.8%)	43 (1.5%)	11 (0.6%)	20 (0.9%)
Dutch with headquarters in the Netherlands Indies	1,077 (52.3%)	1,507 (50.1%)	1,943 (52%)	1,745 (49.9%)	1,349 (47.3%)	863 (45.8%)	1,014 (47%)
Dutch with headquarters in the Netherlands	543 (26.4%)	669 (22.2%)	713 (19.1%)	686 (19.6%)	649 (22.7%)	593 (31.5%)	579 (26.9%)
United Kingdom[1]	48 (2.3%)	137 (4.6%)	135 (3.6%)	131 (3.7%)	102 (3.6%)	89 (4.7%)	87 (4%)
Other[2]	9 (0.4%)	29 (1%)	37 (1%)	35 (1%)	21 (0.7%)	18 (1%)	22 (1%)
Total	2,060	3,009	3,736	3,497	2,854	1,884	2,156

Source: Colonial Business Indonesia, *CBI Database ID*.

[1] Also includes a small number of incorporated companies with headquarters in the United States.
[2] Including incorporated companies with headquarters in Austria, Belgium, China, Denmark, Germany, France, Italy, Japan, Malaya, Norway, Sweden and Switzerland.

Appendix 12. Issued stocks and bonds by Dutch corporations, in thousands of guilders, 1904–1939.

	Financial industrial, commercial and traffic in the Netherlands	Financial industrial, commercial and traffic in the Netherlands	Overseas, excluding Royal Dutch Shell[1]	Overseas, excluding Royal Dutch Shell	Royal Dutch Shell	Royal Dutch Shell	Total
		In % of total		In % of total		In % of total	
1904	52,233	84.6	9,494	15.4			61,727
1905	83,494	78.7	17,610	16.6	4,950	4.7	106,054
1906	49,509	87.6	7,022	12.4			56,531
1907	31,987	57.9	13,272	24.1	9,945	18	55,204
1908	66,063	74.2	23,017	25.8			89,080
1909	65,789	61.1	32,839	30.5	9,086	8.4	107,716
1910	70,950	72.2	27,402	27.8			98,352
1911	98,572	79.5	25,393	20.5			123,965
1912	81,727	73.1	30,043	26.9			111,770
1913	103,44	60.3	43,109	25.1	25,085	14.6	171,633
1914	82,015	63.8	46,484	36.2			128,499
1915	112,200	69.1	30,474	18.8	19,640	12.1	162,314
1916	151,990	73	37,456	17.9	18,882	9.1	208,328
1917	235,691	82.2	51,113	17.8			286,804

[1] Overseas group contains financial, industrial, commercial, mining and transport companies in the Netherlands Indies.

Appendix 12. Issued stocks and bonds by Dutch corporations, in thousands of guilders, 1904–1939, continued.

	Financial industrial, commercial and traffic in the Netherlands	Financial industrial, commercial and traffic in the Netherlands	Overseas, excluding Royal Dutch Shell[1]	Overseas, excluding Royal Dutch Shell	Royal Dutch Shell	Royal Dutch Shell	Total
		In % of total		In % of total		In % of total	
1918	174,643	55.4	98,104	31	42,764	13.6	315,511
1919	400,724	73.7	99,946	18.4	42,764	7.9	543,434
1920	378,569	59.9	146,614	23.2	106,909	16.9	632,092
1921	212,659	81	49,961	19			262,620
1922	132,052	87.7	18,582	12.3			150,634
1923	26,952	60.8	17,367	39.2			44,319
1924	46,058	32.7	14,538	10.3	80,364	57	140,960
1925	96,149	62.7	57,126	37.3			153,275
1926	75,680	43.3	28,806	16.5	70,200	40.2	174,686
1927	103,012	81.5	23,446	18.5			126,458
1928	199,229	60.7	47,318	14.4	82,421	24.9	329,968
1929	303,852	91.5	28,177	8.5			332,029
1930	159,645	86	11,121	6	14,850	8	185,616
1931	26,702	87.4	3,852	12.6			30,554

[1] Overseas group contains financial, industrial, commercial, mining and transport companies in the Netherlands Indies.

Appendix 12. Issued stocks and bonds by Dutch corporations, in thousands of guilders, 1904–1939, continued.

	Financial industrial, commercial and traffic in the Netherlands	Financial industrial, commercial and traffic in the Netherlands	Overseas, excluding Royal Dutch Shell[1]	Overseas, excluding Royal Dutch Shell	Royal Dutch Shell	Royal Dutch Shell	Total
		In % of total		In % of total		In % of total	
1932	6,271	88.7	800	11.3			7,071
1933	1,666	75.2	550	24.8			2,216
1934	14,928	56.3	11,566	43.7			26,494
1935	1,813	47.3	2,016	52.7			3,829
1936	7,125	76	2,252	24			9,377
1937	31,189	48.9	32,629	51.1			63,818
1938	30,859	77.9	8,757	22.1			39,616
1939	12,351	10.2	9,200	7.5	100,500	82.3	122,051
Total	3,727,787		1,107,456		628,360		5,464,605

Source: Renooij, *De Nederlandse emissiemarkt van 1904 tot 1939*, 116; De Roos and Wieringa, *Een halve eeuw rente in Nederland*, 56.

[1] Overseas group contains financial, industrial, commercial, mining and transport companies in the Netherlands Indies.

Appendix 13. Foreign incorporated companies in the Netherlands Indies by size category of equity, in millions of guilders, 1910–1940.

	1910	1915	1920	1925	1930	1935	1940
0–0.5	1,243 (75.2%)	1,610 (70%)	1,933 (70.5%)	1,641 (65.3%)	1,117 (55.8%)	734 (48%)	900 (53.7%)
0.5–1	219 (13.3%)	335 (14.6%)	390 (14.2%)	361 (14.4%)	326 (16.3%)	267 (17.5%)	247 (14.7%)
1–2	94 (5.7%)	185 (8%)	208 (7.6%)	241 (9.6%)	248 (12.4%)	212 (13.9%)	216 (12.9%)
2–5	62 (3.8%)	115 (5%)	138 (5%)	174 (6.9%)	194 (9.7%)	194 (12.7%)	186 (11.1%)
5–10	21 (1.3%)	33 (1.4%)	40 (1.5%)	52 (2.1%)	66 (3.3%)	66 (4.3%)	59 (3.5%)
10>	13 (0.8%)	21 (0.9%)	32 (1.2%)	44 (1.8%)	50 (2.5%)	57 (3.7%)	68 (4.1%)
Total	1,652	2,299	2,741	2,513	2,001	1,530	1,676

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 14. Rate of return as a percentage of equity by industry in the Netherlands Indies, 1906–1936.

Industry	Nominal returns	Real returns	Real returns	Real returns
	1906–1936	1919–1929	1930–1936	1919–1936
Tin	21	12.62	2.58	8.71
Tobacco (Sumatra)	30.5	12.55	2.1	8.48
Sugar	28.8	11.76	4.02	8.73
Oil	21.9	11.27	6.07	9.23
Other agricultural crops	17	10.77	5.01	8.53
Tea	17.8	10.03	4.93	8.04
Tobacco (Java)	18.1	8.48	3.04	6.36
Rubber	9.8	8.37	2.35	6.03

Source: Keyser & Zonen Bank, *Nederlandsch-Indische Fondsen. Gegevens en statistieken voor beleggers*, 8–9.

Appendix 15. Dividend rate and real return on foreign capital in the Netherlands Indies in selected years, 1900–1939.

Year	Dividend as percentage of FDI stock (low)	Dividend as percentage of FDI stock (high)	Remitted dividend, profits, interest as percentage of FDI stock (actual returns)
1900	2.4	3.3	3.9
1904	3.9		
1914	6.2	6.2	6.2
1917	10.6		
1922	5	6.6	6.9
1929	4.9		
1930	1.5	2.8	2.7
1937	4	6.8	5.6
1939	2.2	2.7	2.8

Source: Van der Eng, *Economic benefits from colonial assets*, 22; Van der Eng, 'Extractive institutions, colonial drain and underdevelopment', 11–12, 34; Korthals Altes and Van Dooren, *CEI. Vol. 7*, 84–94, 134–141.

Appendix 16. Dividend payments of foreign companies active in the Netherlands Indies, 1910–1940.

Year	Number of companies that reported non-zero dividends	Total equity of all foreign firms, in million guilders	Total dividend paid by all firms that reported dividend in the *Handboek*, in million guilders	Dividend as percentage of total foreign equity
1910	432	1,203	86.1	7.2
1915	429	2,049	131.7	6.4
1920	605	2,705	306.5	11.3
1925	441	3,754	275.1	7.3
1930	562	4,220	358.9	8.5
1935	222	4,306	68.2	1.6
1940	403	4,643	189.7	4.1

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 17. Average dividend rate and total dividend payments of foreign companies active in the Netherlands Indies reporting payment of dividend, 1910–1940.

Year	Number of companies that reported non-zero dividends	Average unweighted dividend of all firms that paid dividend, in percentage of nominal equity	Average weighted dividend of all firms that paid dividend, in percentage of nominal equity	Total equity of all firms that paid dividend, in million guilders	Total dividend paid by all foreign firms that reported dividend in the *Handboek*, in million guilders
1910	432	13.8	12.8	696.3	86.1
1915	429	14.5	12.6	1,047.1	131.7
1920	605	17.5	19.3	1,590.9	306.5
1925	441	16.8	14.5	1,897.3	275.1
1930	562	19	14.9	2,407.4	358.9
1935	222	9.1	8.3	821	68.2
1940	403	9.9	8.4	2,261.6	189.7

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 18. Total dividend payments of foreign companies active in the Netherlands Indies reporting dividend in at least one year of the observation.

Year	Number of companies that paid dividend in at least one of the seven selected year	Total equity of all firms that paid dividend in at least one of the seven selected years, in million guilders	Total dividend paid by all firms that reported dividend in the *Handboek*, in million guilders	Dividend as percentage of equity of firms that paid dividend in at least one of the seven observed years
1910	643	863.4	86.1	10
1915	797	1,417	131.7	9.3
1920	886	1,731.1	306.5	17.7
1925	852	2,592.8	275.1	10.6
1930	780	3,024.8	358.9	11.9
1935	677	2,906.7	68.2	2.3
1940	671	2,801.2	189.7	6.8

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 19. Dividend payments as a percentage of total dividend payments by location of headquarters of the company, 1910–1940.

Year	Netherlands	Netherlands Indies	UK	Other	Total
1910	80.3	17	2.4	0.3	100
1915	82.5	11.9	5.2	0.4	100
1920	84	11.3	4.5	0.2	100
1925	84.5	10.3	5.1	0.1	100
1930	76.5	12.2	10.2	1.1	100
1935	76	14.8	6.9	2.3	100
1940	76.3	11.1	7.5	5.1	100

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 20. Dividend rates as share of equity of foreign companies by location of their headquarters, 1910–1940.

Year	Netherlands	Netherlands Indies	UK	Other
1910	8.2	4.9	3.9	5
1915	8.2	3.5	2.9	1.2
1920	14.5	5.4	5.6	1.6
1925	9.1	3.6	4.7	0.2
1930	9	5.8	11	4.7
1935	1.7	1.6	1.6	0.5
1940	4.7	3.4	4.1	1.6

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 21. Total dividend paid by foreign companies in the Netherlands Indies, by sector, in million guilders, 1910–1940.

Year	Agriculture	Banking	Mining	Manufacturing	Total
1910	23.7	8.5	34.8	1.1	86.1
1915	44.6	17.7	36.3	2.5	131.7
1920	73.4	27.9	107.4	19.2	306.5
1925	94.4	26.7	91	3.1	275.1
1930	160.1	40.8	31.7	10.2	358.9
1935	9.7	23.2	7.8	8.2	68.2
1940	53.3	33.7	25.8	10.9	189.7

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 22. Dividend rates by sector as a percentage of total equity of the sector in the Netherlands Indies, 1910–1940.

Year	Agriculture	Banking	Mining	Manufacturing
1910	5.5	6.9	11.3	3.3
1915	5.3	7.6	8.5	2.8
1920	7.5	9.3	22.5	9.3
1925	7.3	6.5	15.5	1.2
1930	10.3	9.8	5.2	4.3
1935	0.7	3.7	1.4	3.5
1940	3.7	3.2	4.3	4.3

Source: Colonial Business Indonesia, *CBI Database ID*.

Appendix 23. Companies listed on the Amsterdam Stock Exchange and active in the Netherlands Indies, 1910–1940.

Year	Number of companies that paid dividend and were listed on the Amsterdam Stock Exchange	Total equity of firms that paid dividend and were listed on the Amsterdam Stock Exchange, in million guilders	Dividend paid by firms that reported dividend in the *Handboek* and were listed on the Amsterdam Stock Exchange, in million guilders	Dividend as share of total dividend paid by all companies	Dividend as percentage of equity of firms that reported dividend and were listed on the Amsterdam Stock Exchange
1910	74	456	51.5	59.8	11.3
1915	75	693	80.2	60.9	11.6
1920	93	935	203.5	66.4	21.8
1925	102	1,062	159.8	58.1	15
1930	140	1,467	252.2	70.3	17.2
1935	38	594	45.0	66	7.6
1940	98	1,534	123.2	64.9	8

Source: Colonial Business Indonesia, *CBI Database ID*; Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940.*

Appendix 24. Wage payments of foreign firms by industry, in 1913, 1920 and 1924, as a proportion of total wages.

	1913	1920	1924
Sugar	61	49.7	48
Rubber	2.8	11	10.9
Tobacco	8.7	8.4	9.1
Tea	9.2	10.8	9.1
Coffee	7.2	5.8	7.8
Petroleum	4.2	5.4	4.9
Other	6.9	8.9	10.2
Total	100 (*f*93.7 million)	100 (*f*199.4 million)	100 (*f*191.9 million)

Source: De Malines van Ginkel, *Verslag van den economischen toestand der inlandsche bevolking*, 196–199; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 164.
Note: data for rubber, tea and coffee are only for Java.

Appendix 25. Wage rates of indigenous workers by industry in selected years.

	1915	1920	1923	1928	1933	1938
Average Javanese coolie labour in AVROS and DPV estates		72.5	72.5	89.5	66.5	68.5
Average Chinese coolie labour in AVROS and DPV estates		79.5	67	84.5	67.5	67
Minimum female wages Javanese coolies in tobacco in North Sumatra	30–35	50–55	37–42	37–42	27–32	25–27
Minimum male wages Javanese coolies in tobacco in North Sumatra	35–40	55–60	42–47	42–47	32–37	30–32
Average female wage in sugar factories in Java			36	37	25	23
Average male wage in sugar factories in Java			47	46	31	27
Wage of unskilled Javanese in the metallurgical industry in Java	40–64	30–110	50–75			
Wage of skilled Javanese in the metallurgical industry in Java	100–175	80–200	75–260			
Wages of unskilled Javanese in the oil industry	30–66	55–75	30–90			

Appendix 25. Wage rates of indigenous workers by industry in selected years, continued.

	1915	1920	1923	1928	1933	1938
Wages of skilled Javanese in the oil industry	70–175	130–325	70–385			
Average wage for Chinese contract labourer in Bangka tin mining			50.5	42	39	53.5
Wage of batik labourers		20–100	15–150	10–300		
Wage in Javanese cigarette industry				12–70	5–35	

Source: Dros and Van Dooren, *CEI. Vol. 13*, 111–141.
Note: 'Average Javanese and Chinese coolie labour in AVROS and DPV' estates include field coolies who were not paid a daily wage, but were paid for the amount of products they delivered to the company. 'Minimum daily wages female and male Javanese coolies in tobacco in North Sumatra' covers the roughly 90% of coolie workers that were paid a daily wage. These wages did not differ significantly from wages in the rubber industry in North Sumatra.

Appendix 26. Dividend rates and total paid-out dividends of the Deli Company, Billiton and HVA, 1910–1941.

	Deli Company		Billiton		HVA	
	%	Thousand guilders	%	Thousand guilders	%	Thousand guilders
1910	33.3	2,764	11.3	565	10	1,000
1911	86.9	7,213	22.8	1,140	10	1,000
1912	80.1	6,649	18.2	910	10	1,000
1913	20	1,660	18.4	920	15	1,500
1914	36.5	3,030	6.2	310	25	3,125
1915	25	2,075	7.5	375	25	3,125
1916	25	4,325	24.9	1,245	30	4,500
1917	50	1,800	39.1	1,955	25	3,750
1918	50	6,750	55.7	2,785	25	3,750
1919	41.2	7,508	45	2,250	50	8,750
1920	10	2,432	23.5	1,175	60	12,000
1921	5	1,283	10	500	25	5,000
1922	20	5,131	10.2	510	30	6,000
1923	41	10,518			35	7,000
1924	45	11,544			40	10,000
1925	26	6,670	65	3,413	35	10,500
1926	28	7,183	70	3,675	30	10,500
1927	22	5,644	70	3,675	30	12,000
1928	21	5,387	70	3,675	30	12,000

Appendix 26. Dividend rates and total paid-out dividends of the Deli Company, Billiton and HVA, 1910–1941, continued.

	Deli Company		Billiton		HVA	
	%	Thousand guilders	%	Thousand guilders	%	Thousand guilders
1929			35	3,675	30	12,000
1930			20	2,100	15	6,000
1931			3	315	5	2,000
1932			3	315	5	2,000
1933			7	735	5	2,000
1934	5	1,285	8	840	4	1,600
1935	7	2,050	10	1,050	8	3,200
1936	8	3,079	18	1,890	16	6,400
1937	10	3,592	25	2,625	25	10,000
1938	4	2,565	25	1,575	17	6,800
1939	7	1,026	14	2,084	20	8,000
1940	7	1,796	3.4	595	12.5	5,000
1941			3.4	595		

Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 361, 362, Annual reports; NL-HaNa: Deli Maatschappij, 15, 39, 40, Annual reports; NL-HaNa: HVA, 11, 12, Annual reports; Enthoven, *N.V. Deli-Maatschappij*, 27–28.

Appendix 27. Total labour force in North Sumatra and at the Deli Company, 1919–1939.

	Coolies under penal sanction		Free labour under contract without penal sanction	
	North Sumatra	Deli Company	North Sumatra	Deli Company
1919	239,307	26,906	7,493	3,374
1920	238,336	27,593	12,126	5,128
1921	208,343	37,525	12,550	6,565
1922	179,812	34,421	9,509	6,293
1923	176,212	32,042	8,734	9,206
1924	175,730	30,870	27,397	9,999
1925	196,080	31,910	25,310	7,655
1926	223,219	33,465	25,107	7,004
1927	239,270	34,080	29,579	9,177
1928	250,558	34,879	33,127	7,080
1929	261,619	36,040	41,084	7,320
1930	236,850	24,084	49,000	14,380
1931	137,636	15,781	88,059	15,831
1932			140,499	25,338
1933			153,026	29,450
1934			153,992	
1935			179,910	30,517
1936			187,889	34,425
1937			215,328	34,747
1938			216,094	34,576
1939				32,560

Source: Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 115; Enthoven, *N.V. Deli-Maatschappij*, 45.

Appendix 28. Sickness and death rates of workers at the Billiton Company, 1910–1939.

	Total number of workers	Number of workers who died	Number of workers who visited a hospital	Total days in hospital	Death rate (as percentage of total workers)	Percentage of workers visiting a hospital in a given year	Average number of days in hospital
1910	15,616	73	802		0.47	5.14	
1911	14,382	90	629		0.63	4.37	
1912	14,808	92	753		0.62	5.09	
1913	16,382	167	1,319	34,691	1.02	8.05	26
1914	17,064	165	3,742	86,066	0.97	21.92	23
1915	15,594	185	3,487	87,175	1.19	22.36	25
1916	15,024	135	1,911	47,775	0.90	12.72	25
1917	17,040	112	3,566	82,018	0.66	20.93	23
1918	15,429	123	3,597	79,134	0.80	23.31	22
1919	18,373	204	3,877	93,854	1.11	21.10	24
1920	21,920	229	7,692	176,769	1.04	35.09	23
1921	21,356	209	7,035	184,968	0.98	32.94	26
1922	19,591	136	4,002	108,559	0.69	20.43	27
1923	17,067		2,488	64,566		14.58	26
1924	19,096	84	3,183	69,246	0.44	16.67	22
1925	18,260	95	3,243	60,557	0.52	17.76	19
1926	18,185	79	3,614	85,688	0.43	19.87	24

Appendix 28. Sickness and death rates of workers at the Billiton Company, 1910–1939, continued.

	Total number of workers	Number of workers who died	Number of workers who visited a hospital	Total days in hospital	Death rate (as percentage of total workers)	Percentage of workers visiting a hospital in a given year	Average number of days in hospital
1927	19,957	98	3,854	87,006	0.49	19.31	23
1928	20,557	105	3,820	84,745	0.51	18.58	22
1929	21,900	126	4,166	94,352	0.57	19.02	23
1930	19,279	104	4,342	88,611	0.54	22.52	20
1931	14,173	81	4,515	77,895	0.57	31.86	17
1932	7,951	54	2,210	56,092	0.68	27.79	25
1933	3,543	28	1,014	27,664	0.79	28.62	27
1934	3,387	19	1,023	20,894	0.56	30.20	20
1935	3,746	38	1,378	26,938	1.01	36.79	20
1936	5,692	26	1,861	35,630	0.46	32.70	19
1937	8,552	27	2,536	39,667	0.32	29.65	16
1938	7,171	24	2,947	45,368	0.33	41.10	15
1939	6,691	23	1,833	30,567	0.34	27.4	17

Source: NL-HaNa: Billiton Maatschappij, 42, 360, 361, 490.

Note: Blanks indicate no data available.

Appendix 29. Output of tin, tobacco and sugar by GMB, Deli Company and HVA.

	GMB, tin (ton)	Deli Company, tobacco (sacks of 79kg)	HVA, sugar (ton)
1910	4,145	48,618	78,024
1911	4,344	66,608	92,768
1912	3,976	73,593	92,753
1913	4,259	67,096	91,515
1914	4,413	60,725	129,138
1915	5,027	61,859	126,899
1916	5,475	34,566	169,288
1917	5,931	66,708	184,059
1918	6,232	80,324	209,349
1919	6,264	38,375	160,307
1920	6,714	40,811	180,476
1921	6,858	48,108	205,140
1922	6,587	61,522	208,603
1923		71,365	222,536
1924	12,026	72,560	243,104
1925	9,943	72,566	282,786
1926	10,567	87,247	235,236
1927	11,944	74,856	263,015
1928	12,486	80,746	214,194
1929	13,180	84,901	369,029
1930	12,039	72,470	390,503
1931	7,833	63,876	385,310
1932	5,157	53,645	359,330
1933	4,259	54,847	175,805
1934	7,099	56,603	56,191
1935	8,227	56,008	
1936	10,768	63,844	78,940
1937	13,490	64,918	178,967
1938	10,196	52,457	173,995
1939	9,681		

Appendix 29. Output of tin, tobacco and sugar by GMB, Deli Company and HVA, continued.

	GMB, tin (ton)	Deli Company, tobacco (sacks of 79kg)	HVA, sugar (ton)
1940	16,852		
1941	19,201		
1942	1,860		
1943	2,323		
1944	650		
1945	104		
1946	3,617		
1947	5,683	767	
1948	10,858	10,378	
1949	9,821	45,095	39,011
1950	10,002	30,392	50,189
1951	8,737	24,911	66,235
1952	10,654	18,038	61,910
1953	9,715	26,197	83,135
1954	9,019	28,452	76,009
1955	8,512	29,371	76,985
1956		26,820	77,600
1957	8,998		83,000

Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 45, 361, 362, Annual reports; NL-HaNa: Deli Maatschappij, 39, 40, 41, Annual reports; NL-HaNa: HVA, 11, 12, Annual reports.

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Samenvatting

Deze dissertatie gaat over de effecten van Nederlandse private investeringen in Nederlands-Indië van 1910 tot 1942 en tijdens de vroege onafhankelijke periode van Indonesië van 1945 tot 1960. Het doel van mijn analyse is om een bijdrage te leveren aan het huidige debat over de mate waarin de Nederlandse aanwezigheid gunstig was voor de economische ontwikkeling van Indonesië. In deze dissertatie worden met name drie onderwerpen geanalyseerd: investeringen, winst en linkages (neveneffecten of overloopeffecten). Mijn onderzoeksvraag luidt als volgt: tot op welke hoogte hebben Nederlandse private investeringen bijgedragen aan de economische ontwikkeling van Nederlands-Indië en Indonesië tussen 1910 en 1960?

Met betrekking tot de investeringen richt ik mij op de aantallen bedrijven, hun omvang, nationaliteit en de industrie waarin ze werkzaam waren. De relatie tussen de economische ontwikkeling in Nederlands-Indië en directe buitenlandse investeringen, met name Nederlandse investeringen, vormt de kern van mijn onderzoek. Bij het behandelen van het thema 'winst' is mijn doel om te onderzoeken of de winsten die in Indonesië werden behaald hoger waren dan elders en of deze winsten als excessief kunnen worden beschouwd. Hierbij kan het wegvloeien van winsten en grondstoffen uit de kolonie als drainage worden gezien. Het onderwerp linkages heeft als doel om de economische impact van directe buitenlandse investeringen in termen van directe en indirecte effecten te onderzoeken. Deze kunnen beschouwd worden als gedeeltelijke compensatie voor het wegvloeien van winsten. Twee tijdsperiodes zijn onderzocht: de laat-koloniale periode van 1910 tot aan het uitbreken van de Tweede Wereldoorlog in Azië in 1942, en de tijdsperiode vanaf de Tweede Wereldoorlog in Azië, inclusief de periode van de vroege onafhankelijkheid tot 1960, toen volledige economische dekolonisatie was bereikt. Drie belangrijke bedrijven zijn in deze dissertatie als casestudies onderzocht: Billiton Maatschappij, Deli Maatschappij en Handels Vereeniging Amsterdam.

Hoofdstuk 1 biedt een algemene introductie. Hierin geef ik een overzicht van de methodologie, het theoretisch kader, de onderzoeksvragen en de bronnen die gebruikt zijn voor dit onderzoek. In dit hoofdstuk introduceer ik ook het debat over de vraag of de Nederlandse aanwezigheid in Indonesië bijdroeg aan de economische ontwikkeling van Indonesië. De effecten van de activiteiten van buitenlandse ondernemingen op de ontwikkeling van de inheemse economie roepen nog steeds veel vragen op, zoals elke uitspraak over de Nederlandse bijdrage aan de ontwikkeling van de inheemse economie ook discussie oproept. Onderzoek naar deze onderwerpen werpt licht op de nalatenschap van het Nederlandse kolonialisme in Indonesië.

In hoofdstuk 2 laat ik zien wat er gebeurde na de afschaffing van het Cultuurstelsel in 1870, toen de koloniale overheid de archipel opende voor private investeerders. De jaren van 1870 tot ongeveer 1900 vormden een periode van expansie van directe buitenlandse investeringen. In theorie stonden de deuren wagenwijd open voor zowel Nederlandse private investeringen als wel als voor andere buitenlandse investeerders. In de praktijk genoten Nederlandse bedrijven echter een voorkeurspositie, dankzij een hecht netwerk van ondernemers en Nederlandse ambtenaren. Om een voet tussen de deur te krijgen, werkten niet-Nederlandse investeerders ook samen met Nederlandse investeerders, zoals bij de Koninklijke Shell het geval was.

Het aantal buitenlandse ondernemingen dat in Nederlands-Indië actief was, nam tot 1920 snel toe. In sommige sectoren, zoals de oliesector, werden de kleinere bedrijven overgenomen door grote bedrijven. Over het algemeen, bleven de meeste bedrijven relatief klein, met name de bedrijven die actief waren in minder kapitaalintensieve sectoren.

Investeerders in Nederlands-Indië kunnen in vijf categorieën worden ondergebracht. De grootste groep bevat de Nederlandse investeerders die hun zaken in de kolonie vanuit Nederland regelden. Nederlands-Indische investeerders kunnen gezien worden als de tweede groep. Deze groep omvat zowel Nederlandse investeerders als investeerders met een gemengde afkomst die woonachtig waren in de kolonie. De derde groep omvat investeerders uit overige landen. De vierde groep omvat Chinese investeerders in de kolonie. De vijfde en laatste categorie omvat inheemse Indonesiërs. Hoewel het aantal Indonesische bedrijven een minuscuul aandeel vormde van het totaal aantal bedrijven dat onder Nederlands recht was opgericht, kan gesteld worden dat deze Indonesische bedrijven verantwoordelijk waren voor driekwart van de totale omvang van de economische activiteiten.

De meeste bedrijven in laat-koloniaal Indonesië waren óf in Nederland opgericht óf in Nederlands-Indië. Voor de Tweede Wereldoorlog bedroeg het aandeel van deze twee soorten Nederlandse bedrijven meer dan 70% van alle bedrijven die onder Nederlands recht waren opgericht. Britse investeerders vormden de op een na grootste groep. Ongeveer een kwart van alle Nederlandse investeringen ging naar Nederlands-Indië. Dit kwam in 1938 overeen met ongeveer de helft van alle Nederlandse buitenlandse investeringen in dat jaar. Tot aan 1940 werd bijna ƒ4 miljard geïnvesteerd door Nederlandse private investeerders in Nederlands-Indië, tegenover ongeveer ƒ1 miljard door investeerders uit derde landen.

In hoofdstuk 3 ligt de focus op winsten en het wegvloeien daarvan. De winstgevendheid van Nederlandse bedrijven is onderzocht om na te gaan of de winsten die in Nederlands-Indië behaald werden excessief waren of niet. Gebaseerd op de winsten en de dividendpercentages kan gesteld worden dat de winsten, gemiddeld genomen, inderdaad excessief waren, in die zin dat zij hoger waren dan de winsten in Nederland behaald konden worden. Maar dit is niet het geval voor de hele periode van 1910 tot 1940.

Tijdens de periode van 1910 tot 1930 zag Nederlands-Indië gestage economische expansie. De situatie voor de inheemse Indonesiërs ging echter alleen in de tweede helft van de jaren twintig enigszins vooruit. Als gevolg van de economische depressie in de jaren dertig raakten veel Indonesiërs, die werkzaam waren bij buitenlandse bedrijven, hun baan kwijt, hoewel slechts een klein deel van alle inheemse Indonesiërs werkzaam was voor buitenlandse bedrijven. Daarnaast produceerden veel Indonesische ondernemingen (en zelfstandige Indonesiërs) voor de exportmarkt en ondervonden ook zij de last van de economische depressie.

Ik heb verschillende berekeningen gemaakt om het wegvloeien van winsten, of omvang van de zogenoemde drainage, te schatten. Ik concludeer dat dit ongeveer 12% van het bruto nationaal product was in 1920–1930 en 9.5% in 1931–1939. Indien ongeveer 10–20% van het bruto nationaal product het resultaat was van buitenlandse bedrijvigheid, dan kan gezegd worden dat de opbrengst groter was dan de drainage. Of deze drainage als excessief kan worden beschouwd, is een ingewikkelde kwestie. De drainage vormde een flink aandeel van het bruto nationaal product. Kan de drainage beter verklaard worden als wij ons richten op de winsten? Tussen 1910 en 1939 werd tweederde van de totale winsten uitbetaald als dividend, terwijl een derde opnieuw werd geïnvesteerd in Nederlands-Indië. Het bedrag dat weer opnieuw werd geïnvesteerd, kwam overeen met meer dan de helft van het totale bedrag dat via directe buitenlandse investeringen de kolonie binnenstroomde.

Een substantieel deel van de winst bleef dus in Nederlands-Indië. Op basis van statistische gegevens kunnen we vaststellen dat de gemiddelde opbrengst van de investeringen in Nederlands-Indië hoger was dan in Nederland. Hierbij moet echter wel vermeld worden dat deze resultaten grotendeels gebaseerd zijn op kleine selecties van bedrijven die bovengemiddeld goed presteerden in vergelijking met alle buitenlandse bedrijven die in Nederlands-Indië actief waren. Zelfs de laagste nominale dividendpercentages waren relatief hoog, tot het begin van de economische crisis in de jaren dertig. Opbrengsten uit investeringen in Nederlands-Indië waren kwetsbaarder voor externe schokken, waardoor zij risicovoller waren dan investeringen in Nederland. Tijdens de jaren dertig waren de opbrengsten flink lager, maar wanneer de jaren twintig en dertig samen worden beschouwd, dan waren de opbrengsten in Nederlands-Indië nog steeds hoger dan in Nederland.

Naast de winsten die uit de kolonie vloeiden, heb ik ook het grondgebruik onderzocht. Land werd bezet gehouden door buitenlandse ondernemers om hun productie mogelijk te maken. Bij een differentiatie op basis van landbouwproduct en regio varieert het landgebruik in Java van 3% tot 18% van het totale irrigeerbare land. In Oost-Java, in dorpen nabij suikerplantages, kon dit aandeel oplopen tot zelfs 70%. Het landgebruik door buitenlandse bedrijven had een grote impact op de inheemse landbouw. Daar komt nog bij dat waarschijnlijk de beste gronden in gebruik werden genomen door buitenlandse bedrijven.

In hoofdstuk 4 worden de linkages onderzocht om te achterhalen in hoeverre de bevolking in Nederlands-Indië profiteerde van de aanwezigheid van verschillende industrieën. Backward linkages (wanneer goederen en diensten gebruikt worden om het productieproces op gang te brengen) waren het meest duidelijk zichtbaar. Irrigatie en infrastructuur zijn hiervan goede voorbeelden. Hoewel de suikerindustrie en de inheemse landbouw met elkaar concurreerden om dezelfde grond en watervoorziening, profiteerden inheemse boeren van de irrigatiewerken zodra het land als gevolg van de grondrotatie weer beschikbaar kwam voor inheemse landbouw.

Veel buitenlandse bedrijven legden wegen en spoorwegen aan. De spoorwegen verbonden plantages, havens, dorpen en regio's die voorheen moeilijk toegankelijk waren. Wegen werden verhard en bruggen gebouwd om het vervoer van suiker en andere producten mogelijk te maken. Zij verbeterden de vooruitzichten op economische ontwikkeling. Grootschalige productie door buitenlandse bedrijven vormde een zware last voor de bestaande infrastructuur waardoor nieuwe wegen noodzakelijk werden. Vergeleken met Java was de infrastructuur in de Buitengewesten minder ontwikkeld. Hoewel de wegen in de eerste plaats werden aangelegd om de belangen van de bedrijven te dienen, profiteerde de inheemse bevolking duidelijk van de verbeterde infrastructuur. Zelfs tijdens de economische depressie en sinds de onafhankelijkheid van Indonesië bleven de effecten van deze infrastructuur duidelijk zichtbaar.

De productie van de buitenlandse bedrijven bestond voornamelijk uit primaire exportgoederen. Hoewel enige lokale verwerking van deze producten plaatsvond, waren forward linkages erg zeldzaam. Uitzonderingen waren olie en rubber. Olie werd geraffineerd in Nederlands-Indië voordat het naar het buitenland werd vervoerd en aan het eind van de jaren dertig werd bijna al het rubber van de landbouwondernemingen ook verwerkt in Nederlands-Indië.

Wat betreft de compensatie voor het landgebruik, lonen en andere zogenaamde *final demand linkages*, is het twijfelachtig of de bedrijven genoeg deden voor hun werknemers. De compensatie voor het gebruik van land kan, gemiddeld genomen, als voldoende worden beschouwd, indien gekeken wordt naar de opbrengst van deze landhuur in vergelijking met de potentiële opbrengst door inheemse landbouwers. We moeten echter niet vergeten dat de inheemse bevolking lange tijd geen gebruik kon maken van deze gronden en dus ook de opbrengst zelf miste. Dit kan beschouwd worden als *opportunity costs* die plaatsvonden zodra het land door buitenlandse bedrijven gebruikt werd. Soms werd er dwang uitgeoefend op de inheemse bevolking om het land te verhuren aan buitenlandse bedrijven.

Het grootste gedeelte van het inkomen werd gegenereerd in de inheemse bedrijvigheid en het is moeilijk te bewijzen dat de inheemse bevolking afhankelijk was van buitenlandse bedrijven voor haar inkomen. Schattingen van de lonen die door buitenlandse bedrijven werden betaald aan de inheemse bevolking, uitgedrukt als aandeel van het totale Indonesische inkomen, variëren van 5,5% in 1924 tot 7,7% in 1939. Voor de Buitengewesten was dit aandeel 8–10%. De lonen die Indonesiërs konden verdienen bij buitenlandse bedrijven verschilden niet veel met de lonen die zij bij inheemse of Chinese bedrijven konden verdienen. Buitenlandse bedrijven maakten daarom ook gebruik van arbeidsmigranten. Hun lonen waren vaak lager dan de lonen die de buitenlandse bedrijven betaalden aan lokale arbeiders. Buitenlandse bedrijven kozen vaak om gebruik te maken van arbeidsmigranten omdat het gemakkelijker was om over deze groep controle uit te oefenen.

Buitenlandse bedrijven zorgden doorgaans voor voeding, huisvesting, gezondheidszorg en enige mate van onderwijs. De voorziening van deze diensten was van belang voor de productiviteit van de ondernemingen. Deze voorzieningen konden ook gunstig zijn voor bewoners van omliggende dorpen omdat zij hier vaak ook gebruik van konden maken.

Hiernaast droegen buitenlandse bedrijven ook *indirect* bij aan irrigatie, infrastructuur, gezondheidszorg en onderwijs door middel van het betalen van belasting. De activiteiten van buitenlandse bedrijven zorgden voor ongeveer 10% van de totale belastingopbrengst, of 5% van de totale overheidsinkomsten in de periode 1910 tot 1940.

Indien we dit vergelijken met het aandeel van de buitenlandse bedrijven in het nationaal product, dan kunnen we concluderen dat de belastingheffing op buitenlandse bedrijven erg laag was. Immers, ongeveer

10–20% van het bruto nationaal product was afkomstig van de activiteiten van buitenlandse bedrijven, terwijl zij verantwoordelijk waren voor 5% van de totale overheidsinkomsten.

In hoofdstuk 5 worden de drie casestudies onderzocht voor de periode 1910–1942. Billiton, Deli Maatschappij en HVA waren winstgevende pioniers. Hun activiteiten vonden plaats in verschillende sectoren en zij waren niet representatief voor de gehele koloniale economie. Deze drie bedrijven waren al tot volle wasdom gekomen vóór 1910. De piek van hun activiteiten lag in de periode tussen 1910 en 1942 en zij bleven ook nog actief nadat Indonesië onafhankelijk was geworden. Deze drie bedrijven waren erg winstgevend in de periode 1910–1930. Zij leden onder de economische depressie van de jaren dertig maar het lukte ze om hiervan te herstellen.

Deze drie bedrijven droegen bij aan de ontwikkeling van de lokale economie. Infrastructuur was hierbij een van de meest belangrijke aspecten. Spoorwegen en wegen werden aangelegd door de Deli Maatschappij, Billiton en HVA. De werknemers van deze bedrijven konden gebruik maken van gezondheidszorg, huisvesting en onderwijs. Dit zorgde ervoor dat de werknemers productiever waren en de lokale bevolking kon tot op zekere hoogte ook gebruik maken van deze diensten. Scholen werden door de bedrijven gebouwd voor kinderen van de werknemers en training werd ook aangeboden, maar de mogelijkheden om hogerop te komen, bleven erg beperkt.

Forward linkages waren niet wijdverspreid. Het smelten van tin vond niet plaats op Belitung en tin werd meestal elders verwerkt. De Deli Maatschappij maakte geen sigaren van de tabaksbladeren en met uitzondering van het verwerken van suikerriet waren er ook in de suikerindustrie bij HVA weinig forward linkages. De eerste prioriteit voor de bedrijven was om de efficiency en de winstgevendheid van de onderneming op peil te houden, en door te zorgen voor productieve werknemers.

In hoofdstuk 6 wordt de aandacht besteed aan de postkoloniale periode. De verschillende onderwerpen van de vorige hoofdstukken komen in dit hoofdstuk samen, maar dan voor de periode 1942–1960. Nadat Indonesië de onafhankelijkheid uitriep op 17 augustus 1945 wilden de Nederlanders het bewind weer van de Japanse bezetters overnemen en de ondernemingen weer als vanouds laten werken. De Nederlanders deden twee pogingen om hun invloed uit te breiden door middel van de militaire acties in 1947 en 1948–1949. De Nederlanders slaagden erin om fabrieken en plantages weer in hun bezit te krijgen en de bedrijfsactiviteiten te hervatten, maar op politiek gebied was de koloniale oorlog desastreus. Op 27 december 1949 droeg Nederland officieel de soevereiniteit over aan de Republiek Indonesië. De Indonesische regering beloofde om de bedrijfsactiviteiten van Nederlandse bedrijven niet te hinderen en Indonesië was ook bereid de schuld van de koloniale overheid aan Nederland te betalen.

De activiteiten van Nederlandse bedrijven konden worden voortgezet tot de late jaren vijftig. De ondernemingen herstelden en werden weer winstgevend. In het midden van de jaren vijftig speelden buitenlandse bedrijven nog steeds een belangrijke rol in de Indonesische economie. De meeste nieuwe investeringen werden toen echter gedaan door Amerikaanse oliebedrijven. Buitenlandse bedrijven waren nog steeds verantwoordelijk voor ongeveer 10–20% van het bruto nationaal product, hetgeen overeenkomt met de laat-koloniale periode.

Het belang van buitenlandse private bedrijven voor de economische ontwikkeling van het onafhankelijke Indonesië was vooral zichtbaar door de fiscale linkages. Bedrijfsbelastingen werden hoger en het werd moeilijker om winsten te laten uitkeren in vergelijking met eerdere periodes als gevolg van het beleid van de Indonesische overheid. Andere linkages waren minder belangrijk. Hoewel de bedrijven klaagden over de hoge belastingen waren zij nog steeds bereid om hun activiteiten voort te zetten, ondanks het feit dat de vooruitzichten in Indonesië steeds slechter werden. Dit laat zien dat, zelfs als de belastingen hoger waren geweest tijdens de koloniale periode, deze bedrijven waarschijnlijk nog steeds bereid waren geweest om actief te blijven in de kolonie. Dit impliceert dat het een gemiste kans was voor Indonesië om eerder en meer te kunnen profiteren van de aanwezigheid van buitenlandse ondernemingen.

Tegelijkertijd vond er ook een toename plaats van het aantal Indonesische werknemers in hogere posities in buitenlandse bedrijven. Vooral in het midden van de jaren vijftig werd deze zogenoemde *Indonesianisasi* steeds belangrijker. Langzaamaan werd het steeds moeilijker voor Nederlandse bedrijven om hogere functies door Nederlandse werknemers te laten vervullen. Voor de Indonesische overheid en de vakbonden gingen deze processen echter te langzaam. Daarnaast speelde de kwestie van Nieuw-Guinea, dat nog steeds in bezit was van de Nederlanders, een rol. Op 3 december 1957 namen Indonesische vakbonden het roer over van verschillende Nederlandse bedrijven. Deze acties werden achteraf bevestigd door de Indonesische regering die de bedrijven onder militair toezicht plaatste.

De KPM was het eerste bedrijf dat werd overgenomen en snel volgden andere bedrijven. Op 27 december 1958 werd de wet met betrekking tot de nationalisatie van Nederlandse bedrijven goedgekeurd door de Indonesische overheid. De bedrijven hadden nu nieuwe eigenaren, maar ze bleven een belangrijke rol spelen voor de economie van Indonesië. Dit kan worden gezien als een blijvende nalatenschap.

Aanvankelijk had de nationalisatie in 1957–1959 een grote impact op de economische ontwikkeling van Indonesië. De economische dekolonisatie was nagenoeg afgerond in 1959. In de vroege jaren zestig kwam de economische ontwikkeling nagenoeg tot stilstand en was het bruto nationaal product per hoofd van de bevolking lager dan in 1941. De handel met Nederland was vrijwel helemaal verdwenen, maar Amerikaanse en Britse bedrijven werden steeds belangrijker in Indonesië. Amerikaanse oliebedrijven vormden nu de belangrijkste investeerders.

In 1966 bereikten de Indonesische en de Nederlandse regeringen overeenstemming over de compensatie van de nationalisatie van Nederlandse bedrijven. In totaal werd er een bedrag van bijna *ƒ*700 miljoen, inclusief rente, door de Indonesische overheid betaald. Dit bedrag bedroeg ongeveer 10–20% van de boekwaarde van de bedrijven. Indien er rekening wordt gehouden met de depreciatie van de waarde van de bedrijven, die meer dan 10% per jaar bedroeg, dan kan deze compensatie als schappelijk worden gezien.

Om in aanmerking te komen voor internationale steun en fondsen, waar Nederland, de Verenigde Staten en Japan een stem in hadden, moest Indonesië deze compensatie aan Nederland betalen. Na de wisseling van het regime in 1966 vloeiden de buitenlandse investeringen Indonesië weer binnen, deze hielpen de economische ontwikkeling weer op gang te brengen en maakten de isolatie van de buitenwereld ongedaan.

De tijd is rijp om terug te keren naar de hoofdvraag van dit onderzoek: tot op welke hoogte hebben Nederlandse private investeringen bijgedragen aan de economische ontwikkeling van Nederlands-Indië en Indonesië tussen 1910 en de late jaren 1950? Tussen 1910 en 1940 waren er aanzienlijke Nederlandse private investeringen gedaan in koloniaal Indonesië. Hoewel risicovoller in vergelijking met Nederlandse binnenlandse investeringen, waren deze investeringen in koloniaal Indonesië ook winstgevender. Grote dividendbetalingen gingen naar Nederlandse aandeelhouders, wat betekende dat een groot deel van de winst terugvloeide naar Nederland of andere landen. Dit kan, in mijn ogen, worden gezien als een drainage van winsten. Aan de andere kant bleef een gedeelte van de winst in Indonesië en werd opnieuw geïnvesteerd in de Indonesische economie.

Op het gebied van productie, winsten, werkgelegenheid of belastingopbrengst waren de buitenlandse private bedrijven maar een relatief klein onderdeel van de gehele Indonesische economie. Zowel in de laat-koloniale periode als in het vroeg onafhankelijke Indonesië bedroegen deze activiteiten niet meer dan 10–20% van het bruto nationaal product. Tijdens piekjaren ontving ongeveer 10% van de Indonesische bevolking een inkomen van deze bedrijfsactiviteiten. Op macro-economisch niveau was de Indonesische bevolking dus niet sterk afhankelijk van buitenlandse investeringen. Deze cijfers houden echter geen rekening met de indirecte effecten van buitenlandse bedrijven of de grotere gevolgen van het herinvesteren van winsten in Indonesië. De indirecte positieve effecten zijn moeilijk te kwantificeren, maar ze moeten wel worden afgewogen tegen de drainage van de winsten.

Een andere vraag die gesteld moet worden, is of de Indonesische bevolking beter af zou zijn, althans op economisch gebied, in een niet-koloniale situatie. Onmiskenbaar droegen buitenlandse bedrijven, hun eigenaren en werknemers bij aan de staatskas van Indonesië, maar zij werden relatief licht belast. In dit opzicht vormden de lage belastingen een gemiste kans voor de Indonesische economie tijdens de laat-koloniale periode. De compensatie die de buitenlandse private bedrijven alles bij elkaar kwijt was aan lonen voor de Indonesische werknemers, het gebruik van land en het gebruik van de grondstoffen was niet erg hoog. In sommige gevallen was er sprake van dwang om toegang te krijgen tot de beste stukken grond en voldoende arbeidskrachten om de productie van deze bedrijven überhaupt mogelijk te maken.

Tegenover dit negatieve beeld staat de observatie dat sommige bedrijven in bepaalde delen van Indonesië wel degelijk voordelen brachten voor de lokale bevolking op het gebied van infrastructuur en irrigatie, naast andere linkage-effecten zoals huisvesting, gezondheidszorg en onderwijs. Op de lange termijn profiteerde Indonesië hiervan. Tot op de dag van vandaag vormt de infrastructuur nog steeds een blijvende nalatenschap van Nederlandse private investeringen in Indonesië in de koloniale tijd. Het algemene beeld van het koloniale verleden blijft er daarom een van gemengde indrukken. Er waren bepaalde gebieden waar de impact van buitenlandse investeringen minimaal was, maar ook gebieden waar zowel lokale belangen als de belangen van het Europese kapitaal werden behartigd.

Summary

This dissertation is about the effects of Dutch private investment in the Netherlands Indies and early independent Indonesia. The aim of my analysis is to contribute to the current discourse about the extent to which the Dutch presence in Indonesia was beneficial, economically speaking. In this dissertation three different topics are discussed: investment, profits and linkages.

With respect to investment, I focus on numbers of companies, their size and nationality, and the industry in which they operated. The relationship between economic development in the Netherlands Indies and foreign direct investment (FDI), in particular Dutch investment, forms the core of my analysis. In discussing profits, my purpose is to determine whether profit rates from investment in Indonesia were higher than elsewhere and whether they could be considered excessive, constituting a drain of resources away from the colony. The topic of linkages, serves to identify the economic impact of foreign private investment in terms of direct and indirect effects that to some extent would have compensated for the drain. Two time periods are considered: the late-colonial period from 1910 until the outbreak of the Pacific War in 1942, and the time period from the Pacific War onwards, including early independence, up to about 1960, when full economic decolonization had been achieved. Three case studies: Billiton Maatschappij, Deli Maatschappij and Handels Vereeniging Amsterdam are also discussed. My main research question is as follows: To what extent did Dutch private investment contribute to the economic development of the Netherlands Indies and Indonesia between 1910 and 1960?

Chapter 1 presents a general introduction. Here I give an overview of the methodology, theoretical framework, research questions and the sources used for this research. In this chapter I introduce the debate about whether Dutch presence in Indonesia was eventually beneficial for the economic development of Indonesia. The effect of operations by foreign business enterprises on the development of the indigenous economy still raises many questions. Any statement about Dutch contributions to the indigenous economy inevitably elicits criticism and refutations from either side of the debate. There is a need for scholars to address such issues and shed light on the legacy left behind by Dutch colonialism in Indonesia.

In chapter 2 I show that after the Cultivation System was dismantled in 1870 the colonial government opened up the archipelago for private foreign investment. The years from 1870 to around 1900 formed a period of expansion of private foreign investment in colonial Indonesia. In theory, the doors were

open to both private Dutch investment and to non-Dutch foreign investors. In practice, however, Dutch companies were favoured by a tight network of businessmen and Dutch officials. In order to gain a foothold in the Netherlands Indies, non-Dutch foreign investors often cooperated with Dutch investors, for example in the formation of Royal Dutch Shell.

The number of foreign firms active in the Netherlands Indies rose rapidly until 1920. In some industries, for instance oil, the smaller companies were taken over by larger ones. Most companies remained small in size, especially in industries where production was less capital-intensive such in agriculture, manufacturing and trade.

Investors in the Netherlands Indies can be divided into five categories. The largest category consisted of Dutch investors in the Netherlands who managed business operations in the colony from a distance. A second category can be labelled Netherlands Indies investors. They could be Dutch or have a mixed ethnic origin and were residents of the colony. Investors from third countries formed the third category. The fourth category consisted of Chinese investors in colonial Indonesia. The fifth and final category consisted of indigenous Indonesians. Even though the number of Indonesian companies incorporated under Dutch law was very small, these Indonesian companies were responsible for three-quarters of the total economic activities.

Most companies operating in late-colonial Indonesia were incorporated either in the Netherlands or the Netherlands Indies. Before the Second World War, their combined share exceeded 70% of the total number of incorporated companies under Dutch law. British investors formed the second largest group. Around one-quarter of total Dutch investment went to the Netherlands Indies. This corresponded to nearly half of total Dutch foreign investment in 1938. It is safe to state that up to 1940, nearly ƒ4 billion was invested by Dutch private investors alone, against about ƒ1 billion by other foreign investors.

In chapter 3 the focus is on profits and colonial drain. Profitability of Dutch-owned firms is assessed in order to find out whether profits can be considered to have been excessive.

Based on profit and dividend rates, it can be said that, on average, they were excessive, in the sense that they were higher than the profits that could be attained in the Netherlands. However, this does not hold true for the entire period 1910–1940.

During the period 1910–1930 the Netherlands Indies saw some economic expansion. The situation for indigenous Indonesians only seemed slightly brighter in the second half of the 1920s. As a result of the economic depression of the 1930s, many indigenous employees working in export production were laid off. Although only a minority of all indigenous Indonesians was employed in foreign enterprises and most wages were earned in the indigenous economy, many of them produced for export markets and thus suffered from the economic depression.

I made several calculations of the colonial drain and concluded that a drain of 12% in 1920–1930 and 9.5% of GDP in 1931–1939 is a plausible estimate. If around 10–20% of GDP was primarily the result of foreign activity, then gains did exceed the drain. Whether the colonial drain should be considered excessive is hard to ascertain. However, the colonial drain *did* represent a very substantial proportion of GDP. Can the drain be better identified by focusing on profits? Between 1910 and 1939, two-thirds of total profits were paid out as dividend, while one-third was reinvested in the Netherland Indies. The amount reinvested was comparable to more than half of all foreign direct investment entering the colony.

A substantial part of profits in fact remained in the Netherlands Indies. Although not quite comparable, we see that average rates of return were higher in the Netherlands Indies than in the Netherlands. However, the results are mostly based on small samples of firms that performed above average compared to the total of all foreign incorporated companies in the Netherlands Indies. The lowest nominal dividend rates were relatively high until the economic depression of the 1930s. Proceeds from investment in the Netherlands Indies were more volatile and vulnerable to external shocks which made them riskier. During the 1930s, returns were lower, but when the 1920s and 1930s are taken together, returns in the Netherlands Indies still exceeded those in the Netherlands.

Beside profits that flowed abroad, land use has to be taken into account. Land was occupied by foreign investors for purposes of production. Based on differentiation between crop and region estimates of land occupation in Java vary from 3% to 18% of total irrigable land. In East Java, however, sugar estates occupied around 70% of the soil in some villages. Therefore, this occupation of land undoubtedly had a significant impact on indigenous agriculture. It should also be borne in mind that probably the best land was being used by foreign producers.

In chapter 4 the linkage effects are examined in order to find out how society in the Netherlands Indies benefitted from the presence of foreign investment. Backward linkages (when goods and services are used to enable a production process) were most prominent. Irrigation and infrastructure are good examples. Although the sugar estates and indigenous agriculture initially competed for the same land and water supply, indigenous producers benefitted from irrigation works once the land became available again as a result of the crop rotation.

Many foreign companies constructed roads and railways. The railways connected plantations, ports, villages and regions that were difficult to reach. Paved roads and bridges were constructed in order to facilitate the transport of sugar and other products and they improved the prospects for further economic development. Large-scale production by foreign firms did put stress on existing infrastructure which required new roads. Compared to Java, the physical infrastructure in the Outer Islands was less developed. Although roads were primarily constructed in the interest of the company, the indigenous population clearly benefitted from the improved infrastructure as well. During the economic depression and even after independence, the effects on infrastructure are still present in Indonesia.

The output of these foreign companies consisted of primary export commodities, and even though local processing took place, forward linkages were relatively rare. Oil was refined and processed in the Netherlands Indies before being shipped abroad and by the end of the 1930s, nearly all processing of rubber took place in colonial Indonesia.

Regarding the compensation for land use, wages and other final demand linkages, it is debatable whether the firms did enough for their workers. Although compensation for land use would be considered adequate by making a comparison of proceeds from land lease with yields from cultivation by landowners themselves, we must not lose sight of the fact that the indigenous population could not make use of the confiscated land for a long period of time. This was an opportunity cost that was aggravated by land displacement. Sometimes coercion was applied and the indigenous population was forced to lease out land.

Most wages were earned in the indigenous economy and it is difficult to argue that indigenous Indonesians were dependent to a high degree on employment in foreign firms. Estimates of the contribution of wages paid by foreign firms to the total income of indigenous Indonesians in Java vary from 5.5% in 1924 to 7.7% in 1939 of total Indonesian income. In the Outer Islands this proportion was in the range of 8–10%. Wages earned by the Indonesian population employed by foreign companies did not differ much from what Indonesians were able to earn in other businesses. Foreign companies also used immigrant labour. Their wages were often lower than those paid to local labourers and foreign companies.

Food, housing, healthcare and some education were also provided for labourers. The provision of these services was vital for the productivity of the companies. These benefits could trickle down further as other people living near the production sites could in some cases make use of hospitals and other facilities even if not employed by the firm in question.

Companies also contributed indirectly to irrigation, infrastructure, healthcare and education through taxation. The operations of foreign private companies contributed to around 10% of the total tax revenue, or roughly 5% of total government revenue between 1910 and 1940. However, as around 10–20% of GDP originated from the presence of foreign capital, by comparison, the foreign firms can be said to have been under-taxed.

In chapter 5 three case studies concerning respectively: Billiton, Deli Maatschappij and HVA are discussed for the period 1910–1942. These companies were profitable pioneers. Their operations were in different key industries and do not fully represent the colonial economy. All three companies had matured before 1910, the peak of their operations was between 1910 and 1942 and they remained active in independent Indonesia. All three companies were highly profitable during the 1910s and 1920s. They suffered during the economic depression of the 1930s but managed to recover afterwards.

They contributed to the development of the local economy. Infrastructure was one of the most visible aspects. Railroads and roads were constructed by the Deli Company, Billiton and HVA. The workforce of the companies was supported with healthcare, housing and schooling. This made the workforce more productive and the surrounding population could also draw some benefit from these services. The provision of education, on the other hand, was likely to affect only a marginal share of the indigenous population. Schools were built by the companies for the children from the labourers and training was provided, but the possibilities of getting promoted were meagre.

Forward linkages were not present on a substantial scale. Smelting of tin ore did not take place in Belitung as tin was usually processed elsewhere. The Deli Company did not produce cigars from its tobacco leaves and besides processing the harvested sugar cane, not many forward linkages materialised at HVA. The main priority of the companies was to increase efficiency and profitability.

In chapter 6 the post-independence developments are discussed. The various themes of the previous chapters are again examined, specifically for the time period 1942–1960. At the start of the Japanese occupation companies were taken over by the Japanese or had to start producing for the Japanese war machine. After Indonesia's proclamation of independence on 17 August 1945, the Dutch wanted to restore colonial rule and continue its business as usual. The Dutch also made two attempts to enlarge the area under their control by military force in 1947 and 1948–1949. They did succeed in doing so and many factories and estates again came under Dutch control. Politically, however, these military actions were a failure. On 27 December 1949 the Netherlands officially transferred sovereignty to Indonesia. Indonesia promised that operations of Dutch companies could continue and Indonesia agreed to pay the debt of the colonial government to the Netherlands.

Operations of Dutch private businesses were continued until the late 1950s. The firms recovered and became profitable again. In the mid–1950s, foreign firms still played a key role in the Indonesian economy. Most new investment was now done by American oil companies. About 10–20% of GDP is likely to have been generated by foreign firms, resembling the situation in the late colonial period.

The importance of foreign private companies for the economic development of independent Indonesia now became visible through fiscal linkages in particular. Company taxes increased and it became more difficult to transfer profits overseas compared to earlier periods as a result of the policy of the Indonesian government. Other linkages became less important. Although companies complained about high taxes, they were still willing to continue their activities even though the prospects grew bleaker as time passed. This suggests that even if taxes had been higher during the colonial period, these companies would probably still have been willing to operate in colonial Indonesia. If so, then here was a missed opportunity for Indonesia, which could have benefitted from higher taxes at an earlier stage.

In the meantime, there was an increase in Indonesian employees in middle and higher positions in foreign firms. Especially from the mid–1950s, this so-called *Indonesianisasi* became more important. Slowly it became more difficult for Dutch companies to bring Dutch replacements to Indonesia. For the Indonesian government and the labour unions progress was too slow. The failure to reach a settlement about New Guinea, still a Dutch colonial possession, angered Indonesia and this irritation spilled over to the presence of Dutch companies in Indonesia. On 3 December 1957 Indonesian labour unions took control of numerous Dutch companies. This was endorsed by the Indonesian government that placed the seized firms under military supervision.

KPM was the first company to be taken over. It was soon followed by other companies. On 27 December 1958, a law on the nationalisation of Dutch companies was passed by the Indonesian parliament. The companies now had new owners, but the companies remained important productive assets in Indonesia. This can be seen as a lasting legacy.

Initially, the nationalisation in 1957–1959 had a profound impact on the economic development of Indonesia. Economic decolonization appeared near-complete by 1959. By the early and mid–1960s, economic development was virtually stagnant with a level of GDP per capita lower than in 1941. Trade with the Netherlands vanished almost altogether but American and British companies continued their activities unimpeded. American oil companies were the most important new investors.

In 1966 the Dutch and the Indonesian governments made an agreement for compensation of the nationalisation of the Dutch companies. In total an amount of nearly *ƒ*700 million, including interest, was paid by the Indonesian government. This payment was estimated to be around 10–20% of the value of the companies. Taking into account depreciation over time, exceeding more than 10% per year, this compensation seemed more than fair.

In order to receive international aid and funding, which was supported by the Netherlands, the United States and Japan, Indonesia was required to make these payments to the Netherlands. After the regime change in 1966, foreign investment would soon rush back to Indonesia to help rescue an economy struck by its isolation from the outside world.

In conclusion, in this thesis I have analysed the development of private Dutch business in Indonesia and its effect on the Indonesian economy during the late-colonial and early independence periods. The time has come to return to my main research question: to what extent did foreign private investment, particularly from the Netherlands, contribute to the economic development of late-colonial Indonesia? Three topics have been discussed in detail: investment, profit and linkages. Between 1910 and 1940, significant amounts of Dutch capital were invested in colonial Indonesia. Around one-quarter of all Dutch private investment was made in colonial Indonesia. Although these investments were considered riskier than domestic investment, in the long run substantially large profits were pocketed by firms operating in Indonesia than in the Netherlands. Large dividend payments to Dutch shareholders resulted in a considerable flow of capital back to the home country. This can, in my view, be reasonably described as a colonial drain. On the other hand, a substantial share of the profits was also reinvested in the Indonesian economy.

In terms of output, profits, employment, or tax revenue, foreign private enterprises amounted to a relatively small part of the Indonesian economy. In both the late-colonial and early-independence periods, the activities of foreign capital contributed to no more than 10–20% of GDP. During peak years, up to 10% of indigenous employment and income originated from those sources. On a macroeconomic level, indigenous Indonesians were therefore not heavily dependent on foreign investment.

Nevertheless, these estimated figures do not take into account the indirect economic effects of foreign companies or the wider effects of reinvestment of profits in Indonesia. The indirect positive effects are difficult to quantify and need to be balanced against the colonial drain.

Another question that also needs to be addressed is whether Indonesians would have been better off, in economic terms, in a non-colonial situation. Undeniably, foreign companies and their European owners and employees did contribute to the public purse but they were only lightly taxed. In this context, the under-taxation of foreign companies represents a missed opportunity for the Indonesian economy during the colonial period.

The compensation provided by colonial businesses for Indonesian labour, land and natural resources, can best be described as moderate. In some cases, coercion was involved in gaining access to land and labour and making production possible for the foreign firms in the first place.

In contrast to this negative image, it cannot be denied that certain businesses in some parts of Indonesia did provide the local population with indirect benefits in the form of infrastructure and irrigation systems, alongside other linkage effects like housing, hospitals and schools. In the long run, Indonesia did benefit from this. Up to the present day, infrastructure has remained a visible legacy of Dutch private investment in colonial Indonesia. The overall picture of the colonial past remains a mixed message. There were regions where foreign investment was minimal, or seems to have brought no net benefit to the indigenous population; but there were also areas where both European capital and local interests were well served.

Ringkasan

Disertasi ini membahas tentang pengaruh investasi sektor swasta Belanda di Hindia Belanda dan masa awal Indonesia merdeka. Tujuan dari analisis yang dilakukan adalah untuk menambah kontribusi pada wacana saat ini, perihal sejauh mana pengaruh positif–dengan kata lain keuntungan–dari hadirnya keberadaan Belanda di Indonesia yang ditinjau secara ekonomi. Dalam disertasi ini terdapat tiga topik berbeda yang didiskusikan, yaitu: investasi, keuntungan dan keterkaitan.

Sehubungan dengan investasi, saya berfokus pada sejumlah perusahaan, ukuran dan kenegaraan mereka, serta jenis industri yang dioperasikan mereka. Hubungan antara pembangunan ekonomi di Hindia Belanda dan investasi asing langsung (FDI), khususnya investasi Belanda, merupakan inti dari analisis yang saya lakukan. Dalam pembahasan mengenai keuntungan, tujuan saya adalah untuk menentukan apakah tingkat keuntungan dari investasi di Indonesia lebih tinggi daripada tempat lainnya dan apakah hal tersebut dapat dianggap berlebihan, misalnya pengurasan sumber daya dari tanah jajahan. Topik keterkaitan berfungsi untuk mengidentifikasi dampak ekonomi dari investasi swasta asing mengenai efek langsung dan tidak langsung yang sampai batas tertentu akan mengkompensasi pengurasan tersebut. Penelitian ini mengambil dua periode waktu, yaitu: periode akhir-kolonial Belanda dari 1910 hingga pecahnya Perang Pasifik pada 1942, dan periode waktu dari Perang Pasifik dan seterusnya, termasuk awal kemerdekaan, hingga sekitar 1960, ketika dekolonisasi ekonomi penuh telah tercapai. Penelitian ini memaparkan tiga studi kasus: Billiton, Deli Maatschappij dan HVA. Pertanyaan penelitian utama saya adalah sebagai berikut: Sejauh mana kontribusi investasi swasta Belanda terhadap pembangunan ekonomi Hindia Belanda dan Indonesia antara 1910 dan 1960?

Bab 1 menyajikan pengantar umum. Di sini saya memberikan gambaran tentang metodologi, kerangka teori, pertanyaan penelitian, dan sumber yang digunakan dalam penelitian ini. Pada bab ini dipaparkan perdebatan mengenai kebermanfaatan kehadiran Belanda di Indonesia bagi pembangunan ekonomi Indonesia. Pengaruh operasi-operasi perusahaan bisnis asing terhadap perkembangan ekonomi pribumi masih menimbulkan banyak pertanyaan. Setiap pernyataan tentang kontribusi Belanda terhadap ekonomi pribumi pasti menimbulkan kritik dan sanggahan dari kedua sisi perdebatan. Oleh karena itu, terdapat suatu kepentingan bagi para sarjana untuk mengatasi masalah tersebut dan menjelaskan warisan yang ditinggalkan oleh kolonialisme Belanda di Indonesia.

Pada bab 2 saya menunjukkan bahwa setelah Sistem Tanam Paksa dibongkar pada tahun 1870, pemerintah kolonial membuka kepulauan tersebut untuk investasi swasta asing. Beberapa tahun sejak 1870 sampai sekitar 1900 merupakan periode ekspansi investasi swasta asing di tanah jajahan Indonesia. Secara teoritis, pintu investasi terbuka lebar baik untuk investor swasta Belanda maupun investor asing non-Belanda. Namun, dalam praktiknya, perusahaan Belanda disukai oleh jaringan pengusaha dan pejabat Belanda yang sempit. Untuk mendapatkan pijakan di Hindia Belanda, investor asing non-Belanda sering bekerja sama dengan investor Belanda, misalnya dalam pembentukan Royal Dutch Shell.

Jumlah perusahaan asing yang aktif di Hindia Belanda meningkat pesat hingga 1920. Di beberapa industri, misalnya minyak, perusahaan yang lebih kecil diambil alih oleh perusahaan yang lebih besar. Sebagian besar perusahaan tetap berukuran kecil, terutama pada industri yang produksinya kurang padat modal seperti di bidang pertanian, manufaktur dan perdagangan.

Investor di Hindia Belanda dapat dibagi menjadi lima kategori. Kategori terbesar terdiri dari investor Belanda di Belanda yang mengelola operasi bisnisnya di tanah jajahan dari jarak jauh. Kategori kedua dapat disebut investor Hindia Belanda. Mereka bisa jadi orang Belanda atau memiliki asal etnis campuran dan merupakan penduduk Indonesia. Investor dari negara ketiga digolongkan dalam kategori ketiga. Kategori keempat terdiri dari investor Cina/Tionghoa yang tinggal di Indonesia. Kategori kelima dan terakhir terdiri dari penduduk pribumi Indonesia. Orang Indonesia menyumbang lebih dari tiga perempat dari semua kegiatan ekonomi di Indonesia (yang saat itu sebagai tanah jajahan).

Mayoritas perusahaan yang beroperasi di Indonesia pada masa akhir colonial didirikan di Belanda atau Hindia Belanda. Sebelum Perang Dunia Kedua, gabungan sahamnya melebihi 70% dari jumlah total perusahaan yang tergabung. Investor Inggris membentuk kelompok terbesar kedua. Sekitar seperempat dari total investasi Belanda masuk ke Hindia Belanda. Ini sesuai dengan hampir setengah dari total investasi asing Belanda pada 1938. Hal ini dapat dikatakan bahwa hingga 1940, hampir ƒ4 miliar diinvestasikan oleh investor swasta Belanda saja, dibandingkan dengan sekitar ƒ1 miliar oleh investor asing lainnya.

Pada bab 3 berfokus pada keuntungan dan pengurasan sumber daya tanah jajahan oleh pemerintah kolonial. Dilakukan penilaian terhadap profitabilitas perusahaan milik Belanda untuk mengetahui apakah laba yang dihasilkan dapat dianggap berlebihan. Berdasarkan tingkat laba dan dividen, dapat diasumsikan bahwa laba tersebut berlebihan. Namun, ini tidak berlaku untuk seluruh periode 1910–1940.

Selama periode 1910–1930 Hindia Belanda mengalami beberapa ekspansi ekonomi. Situasi penduduk pribumi Indonesia baru tampak sedikit lebih baik pada paruh kedua 1920-an. Akibat depresi ekonomi 1930-an, banyak pegawai pribumi yang bekerja di bidang produksi ekspor diberhentikan. Meskipun hanya sebagian kecil dari semua orang pribumi Indonesia yang bekerja di perusahaan asing dan sebagian besar upah diperoleh dari kegiatan ekonomi lokal, banyak dari mereka diproduksi untuk pasar ekspor dan dengan demikian terdampak depresi ekonomi.

Saya membuat beberapa kalkulasi pengurasan sumber daya koloni dan menyimpulkan bahwa pengurasan sebesar 12% pada 1920–1930 dan 9,5% dari PDB pada 1931–1939 merupakan perkiraan yang masuk akal. Jika sekitar 10–20% dari PDB adalah hasil utamanya dari aktivitas asing, maka keuntungan memang melebihi kerugian. Apakah pengurasan kolonial harus dianggap berlebihan, hal tersebut sulit dipastikan. Namun, pengurasan sumber daya tanah jajahan mewakili proporsi yang sangat besar dari PDB. Dapatkah pengurasan lebih baik diidentifikasi dengan berfokus pada keuntungan? Antara 1910 dan 1939, dua pertiga dari total keuntungan dibayarkan sebagai dividen, sementara sepertiganya diinvestasikan kembali di Hindia Belanda. Jumlah yang diinvestasikan kembali sebanding dengan lebih dari setengah dari semua investasi langsung asing yang memasuki koloni.

Sebagian besar keuntungan sebenarnya tetap ada di Hindia Belanda. Meskipun tidak sebanding, kita melihat bahwa tingkat pengembalian rata-rata lebih tinggi di Hindia Belanda daripada di Belanda. Namun, hasilnya sebagian besar didasarkan pada sampel kecil perusahaan yang memiliki kinerja di atas rata-rata dibandingkan dengan total semua perusahaan berbadan hukum asing di Hindia Belanda. Tingkat dividen nominal terendah relatif tinggi sampai depresi ekonomi sekitar 1930-an. Hasil dari investasi di Hindia Belanda lebih fluktuatif dan rentan terhadap guncangan eksternal yang membuatnya lebih berisiko. Selama 1930-an, pengembalian lebih rendah, tetapi ketika 1920-an dan 1930-an digabungkan, pengembalian di Hindia Belanda masih melebihi di Belanda.

Selain keuntungan yang mengalir ke luar negeri, penggunaan lahan juga harus diperhitungkan. Lahan dipakai oleh investor asing untuk keperluan produksi. Perkiraan kependudukan lahan di Jawa bervariasi mulai dari 3% sampai 18% dari total lahan irigasi. Oleh karena itu, kependudukan lahan oleh investor asing ini tidak diragukan lagi berdampak signifikan pada pertanian pribumi. Hal tersebut juga harus diingat bahwa kemungkinan lahan terbaik yang digunakan oleh produsen asing.

Pada bab 4 pengaruh keterkaitan ditelaah untuk mengetahui bagaimana masyarakat di Hindia Belanda diuntungkan dengan adanya investasi asing. Keterkaitan ke belakang (ketika barang dan jasa digunakan untuk menjalankan proses produksi) adalah yang paling menonjol. Irigasi dan infrastruktur merupakan contoh yang baik. Meskipun perkebunan gula dan pertanian pribumi pada awalnya bersaing untuk mendapatkan lahan dan pasokan air yang sama, produsen pribumi mendapat manfaat dari pekerjaan irigasi begitu produsen gula pergi atau lahan tersedia kembali untuk mereka.

Banyak perusahaan asing membangun jalan. Jalur kereta api menghubungkan perkebunan, pelabuhan, desa, dan daerah yang sebelumnya benar-benar terisolasi. Jalan beraspal dan jembatan dibangun untuk memfasilitasi pengangkutan gula dan produk lainnya serta meningkatkan prospek pembangunan ekonomi lebih lanjut. Produksi skala besar oleh perusahaan asing memang memberi tekanan pada infrastruktur yang ada dan membutuhkan jalan baru. Dibandingkan dengan Jawa, infrastruktur fisik di luar Jawa kurang berkembang. Meskipun jalan dibangun terutama untuk kepentingan perusahaan, penduduk pribumi juga jelas mendapat manfaat dari perbaikan infrastruktur. Selama depresi ekonomi dan bahkan setelah kemerdekaan, dampak pembangunan infrastruktur tersebut masih terasa di Indonesia.

Output dari perusahaan asing ini terdiri dari komoditas ekspor primer, dan meskipun ada pengolahan lokal, keterkaitan ke depannya relatif jarang. Minyak disuling dan diproses di Hindia Belanda sebelum dikirim ke luar negeri dan pada akhir 1930-an, hampir semua pengolahan karet dilakukan di tanah jajahan Indonesia.

Perihal kompensasi dalam penggunaan lahan, upah dan hubungan permintaan akhir lainnya, masih dapat diperdebatkan apakah perusahaan telah memenuhi hak tersebut secara cukup untuk para pekerjanya. Meskipun kompensasi untuk penggunaan lahan akan dianggap memadai melalui perbandingan hasil dari sewa tanah dengan hasil dari penanaman oleh pemilik tanah itu sendiri, kita tidak boleh melupakan fakta bahwa penduduk pribumi tidak dapat menggunakan tanah yang disita untuk waktu yang lama. Hal ini adalah biaya peluang yang diperburuk oleh pemindahan tanah. Kemungkinan telah terjadi semacam pemaksaan yang diterapkan kepada penduduk pribumi untuk menyewakan tanah.

Sebagian besar upah diperoleh dalam kegiatan ekonomi pribumi dan sulit untuk menyatakan bahwa penduduk pribumi Indonesia sangat bergantung pada pekerjaan di perusahaan asing. Perkiraan proporsi upah yang dibayarkan oleh perusahaan asing kepada penduduk pribumi di Jawa bervariasi mulai dari 5,5% pada 1924 hingga 7,7% pada 1939 dari total pendapatan Indonesia. Di luar Jawa proporsinya berkisar antara 8–10%. Upah yang diperoleh penduduk Indonesia yang dipekerjakan oleh perusahaan asing tidak jauh berbeda dengan yang diperoleh orang Indonesia dari usaha lain. Perusahaan asing juga menggunakan tenaga kerja imigran. Upah mereka seringkali lebih rendah daripada yang dibayarkan kepada buruh lokal dan perusahaan asing, yang mungkin dimotivasi oleh keinginan untuk dapat melakukan kontrol terhadap tenaga kerja.

Makanan, perumahan, layanan kesehatan dan beberapa fasilitas pendidikan juga disediakan untuk buruh. Penyediaan layanan ini sangat penting untuk produktivitas perusahaan. Manfaat ini dapat semakin berkurang karena orang lain yang tinggal di dekat lokasi produksi dapat menggunakan rumah sakit dan fasilitas lain bahkan jika mereka tidak dipekerjakan oleh perusahaan tersebut.

Perusahaan juga memberikan kontribusi tidak langsung untuk irigasi, infrastruktur, kesehatan dan pendidikan melalui perpajakan. Operasional perusahaan swasta asing menyumbang sekitar 10% dari total pendapatan pajak, atau sekitar 5% dari total pendapatan pemerintah antara 1910 dan 1940. Namun, sekitar 10–20% dari PDB berasal dari kehadiran modal asing, sebagai perbandingan, perusahaan asing dapat dikatakan telah kurang pajak.

Pada bab 5 memaparkan tiga studi kasus, yaitu: Billiton, Deli Maatschappij dan HVA yang dibahas dalam rentang periode 1910–1942. Perusahaan-perusahaan ini merupakan perintis yang menguntungkan. Usaha mereka bergerak di bidang industri kunci yang berbeda dan tidak sepenuhnya mewakili ekonomi kolonial. Ketiga perusahaan tersebut telah berkembang pesat sebelum 1910, puncak operasionalnya antara 1910 dan 1942 dan mereka tetap aktif bahkan setelah Indonesia merdeka. Ketiga perusahaan tersebut menghasilkan profit yang luar biasa selama 1910-an dan 1920- an. Pada 1930-an, mereka terdampak depresi ekonomi namun berhasil pulih setelahnya.

Mereka berkontribusi pada pengembangan ekonomi lokal. Infrastruktur menjadi salah satu aspek yang paling terlihat. Jalur rel kereta api dan jalan dibangun oleh Deli Company, Billiton dan HVA. Tenaga kerja perusahaan didukung dengan perawatan kesehatan, perumahan dan sekolah. Hal ini membuat tenaga kerja lebih produktif dan penduduk sekitar juga dapat memperoleh manfaat dari layanan ini. Penyediaan sarana pendidikan, di sisi lain, kemungkinan besar hanya mempengaruhi sebagian kecil penduduk pribumi. Sekolah dibangun oleh perusahaan untuk anak-anak dari para buruh dan pelatihan juga diberikan, tetapi kemungkinan untuk dipromosikan sangat kecil.

Keterkaitan ke depan (forward linkage) tidak hadir dalam skala yang substansial. Peleburan bijih timah tidak dilakukan di Belitung karena timah biasanya diolah di tempat lain. Deli Company tidak memproduksi cerutu dari daun tembakaunya dan selain mengolah tebu yang dipanen, tidak banyak hubungan ke depan yang terwujud di HVA. Meskipun perusahaan dan pimpinannya memiliki niat baik dalam merawat pekerjanya, namun hal ini semata-mata dilakukan untuk meningkatkan efisiensi dan profitabilitas perusahaan.

Pada bab 6 perkembangan pascakemerdekaan dibahas. Berbagai tema dari bab-bab sebelumnya ditelaah kembali, khususnya dalam periode waktu 1942–1960. Pada masa awal pendudukan Jepang, perusahaan diambil alih oleh Jepang atau harus mulai memproduksi mesin perang Jepang. Setelah proklamasi kemerdekaan Indonesia pada 17 Agustus 1945, Belanda ingin mengembalikan pemerintahan colonial dan melanjutkan bisnisnya seperti biasa. Belanda juga melakukan dua kali upaya untuk memperluas wilayah yang dikuasainya dengan kekuatan militer pada 1947 dan 1948–1949. Mereka berhasil melakukannya dan banyak pabrik dan perkebunan kembali berada di bawah kendali Belanda. Namun secara politis, agresi militer ini gagal. Pada 27 Desember 1949, Belanda secara resmi menyerahkan kedaulatan kepada Indonesia. Indonesia berjanji agar operasi perusahaan Belanda dapat dilanjutkan dan Indonesia setuju untuk membayar utang pemerintah colonial kepada Belanda.

Operasi bisnis swasta Belanda dilanjutkan hingga akhir 1950-an. Perusahaan pulih dan mendulang untung kembali. Pada pertengahan 1950-an, perusahaan asing masih memainkan peran kunci dalam perekonomian Indonesia. Sebagian besar investasi baru sekarang dilakukan oleh perusahaan minyak Amerika. Sekitar 10–20% dari PDB kemungkinan dihasilkan oleh perusahaan asing, mirip dengan situasi di akhir periode kolonial.

Signifikansi perusahaan swasta asing bagi pembangunan ekonomi Indonesia kini menjadi nyata khususnya melalui keterkaitan fiskal. Pajak perusahaan meningkat dan lebih banyak keuntungan tetap di Indonesia dibandingkan dengan periode sebelumnya. Keterkaitan lain menjadi kurang penting. Meski perusahaan mengeluhkan pajak yang tinggi, mereka tetap bersedia melanjutkan aktivitasnya walaupun prospeknya semakin suram seiring berjalannya waktu. Ini menunjukkan bahwa meskipun pajak lebih tinggi selama masa kolonial, perusahaan-perusahaan ini mungkin masih bersedia beroperasi di Indonesia. Jika demikian, maka ini adalah kesempatan yang terlewatkan bagi Indonesia yang seharusnya mampu mendapatkan keuntungan dari pajak yang lebih tinggi pada tahap awal.

Sementara itu, terjadi peningkatan jumlah tenaga kerja Indonesia pada posisi menengah ke atas di perusahaan asing. Terutama dari pertengahan 1950-an, yang kemudian disebut Indonesianisasi menjadi lebih penting. Perlahan semakin sulit bagi perusahaan Belanda untuk membawa pengganti pekerja Belanda ke Indonesia. Bagi pemerintah Indonesia dan serikat buruh kemajuannya terlalu lambat dan pada 3 Desember 1957 serikat buruh Indonesia menguasai banyak perusahaan Belanda. Hal ini didukung oleh pemerintah Indonesia yang menempatkan perusahaan yang disita di bawah pengawasan militer.

KPM adalah perusahaan pertamayang diambil alih dan hal ini segera diikuti oleh perusahaan lain. Pada 27 Desember 1958, undang-undang tentang nasionalisasi perusahaan Belanda disahkan oleh parlemen Indonesia. Perusahaan-perusahaan tersebut sekarang memiliki pemilik baru, tetapi perusahaan tetap menjadi aset produktif yang penting di Indonesia. Hal ini dapat dilihat sebagai warisan abadi.

Pada awalnya, nasionalisasi pada 1957–1959 berdampak besar pada perkembangan ekonomi Indonesia. Dekolonisasi ekonomi tampaknya hamper selesai pada 1959. Pada awal dan pertengahan 1960-an, perkembangan ekonomi hampir stagnan dengan tingkat PDB per kapita lebih rendah daripada 1941. Perdagangan dengan Belanda hampir tidak terjalin sama sekali tetapi perusahaan Amerika dan Inggris melanjutkan aktivitas mereka tanpa hambatan. Perusahaan minyak Amerika adalah investor baru yang paling penting.

Pada 1966 pemerintah Belanda dan Indonesia membuat perjanjian kompensasi atas nasionalisasi perusahaan-perusahaan Belanda. Pembayaran ini diperkirakan sekitar 10-20% dari nilai perusahaan. Mempertimbangkan depresiasi dari waktu ke waktu, melebihi 10% per tahun, kompensasi dengan nilai hampir ƒ700 juta, termasuk bunga, tampak lebih dari wajar. Untuk mendapatkan bantuan dan pendanaan internasional yang didukung oleh Belanda, Amerika Serikat dan Jepang, Indonesia diwajibkan untuk melakukan pembayaran tersebut kepada Belanda. Setelah pergantian rezim pada 1966, investasi asing segera kembali ke Indonesia untuk membantu menyelamatkan ekonomi negara yang terkucilkan dari dunia luar.

Kesimpulannya, dalam tesis ini saya telah menganalisis perkembangan bisnis swasta Belanda di Indonesia dan pengaruhnya terhadap perekonomian Indonesia selama periode akhir kolonial dan awal kemerdekaan. Waktunya telah tiba untuk kembali ke pertanyaan penelitian utama saya: sejauh mana investasi swasta asing, terutama dari Belanda, berkontribusi pada perkembangan ekonomi Indonesia pada masa kolonial akhir? Tiga topik telah dibahas secara rinci: investasi, keuntungan

dan keterkaitan. Antara 1910 dan 1940, sejumlah besar modal Belanda diinvestasikan di Indonesia. Sekitar seperempat dari semua investasi swasta Belanda dilakukan di Indonesia. Meskipun investasi ini dianggap lebih berisiko daripada investasi dalam negeri, dalam jangka panjang keuntungan yang jauh lebih besar dikantongi oleh perusahaan yang beroperasi di Indonesia daripada di Belanda. Pembayaran dividen yang besar kepada pemegang saham Belanda menghasilkan aliran modal yang cukup besar kembali ke negara asal. Menurut saya, hal ini dapat digambarkan secara wajar sebagai pengurasan kolonial. Di sisi lain, Sebagian besar keuntungan juga diinvestasikan kembali dalam perekonomian Indonesia.

Dalam hal output, laba, lapangan kerja, atau pendapatan pajak, perusahaan swasta asing merupakan bagian yang relatif kecil dari perekonomian Indonesia. Baik pada periode akhir kolonial maupun awal kemerdekaan, aktivitas modal asing menyumbang tidak lebih dari 10–20% PDB. Selama tahun-tahun puncak, hingga 10% pekerjaan dan pendapatan penduduk pribumi berasal dari sumber-sumber tersebut. Oleh karena itu, pada tingkat ekonomi makro, penduduk pribumi Indonesia tidak terlalu bergantung pada investasi asing.

Namun demikian, angka perkiraan ini tidak memperhitungkan dampak ekonomi tidak langsung dari perusahaan asing atau efek yang lebih luas dari reinvestasi keuntungan di Indonesia. Efek positif tidak langsung tersebut sulit dihitung dan perlu diimbangi dengan pengurasan kolonial.

Pertanyaan lain yang juga perlu dijawab adalah apakah orang Indonesia akan lebih baik, secara ekonomi, dalam situasi non-kolonial. Tidak dapat disangkal, perusahaan asing dan pemilik serta pekerja Eropa mereka memang berkontribusi pada pendapatan publik, tetapi mereka hanya dibebani pajak yang rendah. Dalam konteks ini, rendahnya pajak perusahaan asing merupakan peluang yang terlewatkan bagi perekonomian Indonesia selama masa kolonial.

Kompensasi yang diberikan oleh aktivitas bisnis asing bagi tenaga kerja, lahan, dan sumber daya alam Indonesia, paling baik digambarkan sebagai sedang (menengah/rata-rata). Pada beberapa kasus, pemaksaan dilibatkan dalam mendapatkan akses ke lahan dan tenaga kerja serta memungkinkan produksi bagi perusahaan asing pada awalnya.

Berbeda dengan citra negatif tersebut, tidak dapat disangkal bahwa aktivitas bisnis tertentu di beberapa wilayah Indonesia memang memberikan manfaat tidak langsung kepada penduduk lokal dalam bentuk infrastruktur dan sistem irigasi, di samping dampak keterkaitan lainnya seperti perumahan, rumah sakit dan sekolah. Dalam jangka panjang, Indonesia memang diuntungkan dari hal ini. Hingga saat ini, infrastruktur tetap menjadi warisan nyata dari investasi swasta Belanda di Indonesia. Gambaran keseluruhan mengenai masa lalu kolonial tetap merupakan pesan yang bercampur (beragam). Terdapat beberapa daerah di mana investasi asing sangat minim, akan tetapi ada juga daerah-daerah tertentu di mana modal asing Eropa dan kepentingan lokal terakomodasi dengan baik.

Curriculum Vitae

Mark van de Water was born in 1989 and grew up in Alphen aan den Rijn, where he completed his primary and secondary education. He graduated from Leiden University with a Bachelor of Arts in history in 2011. He continued his studies at Leiden University to obtain his Master of Arts in history in 2012, specializing in economic history of the Netherlands during the post-war period. He pursued his academic career while working as a PhD researcher at the Leiden Institute for Area Studies at Leiden University from 2012–2023. He worked on economic history of colonial Indonesia, specializing in foreign businesses. He is currently working as a financial analyst at a bank.