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

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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]

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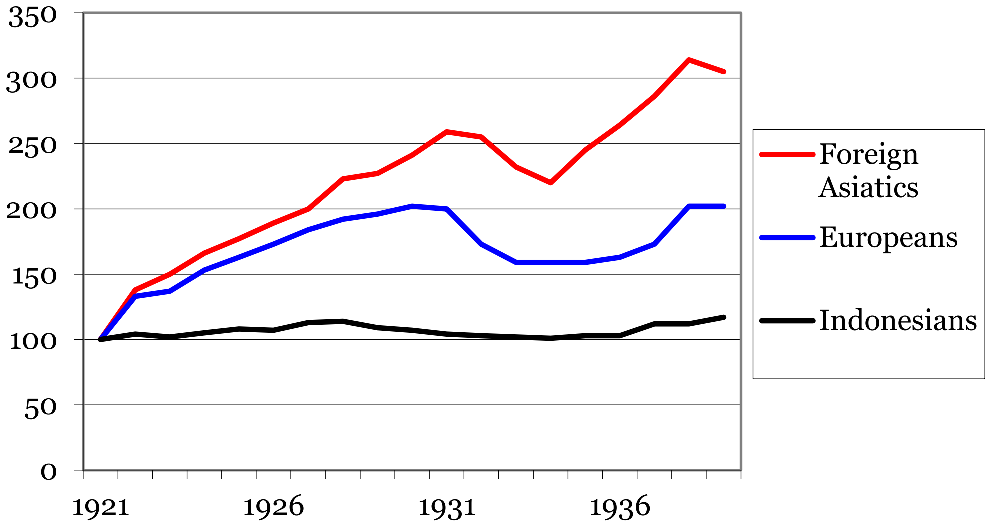
[7] Creutzberg and Van Dooren, *CEI. Vol. 5*, 80.

[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,

[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

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[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

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[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

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[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.

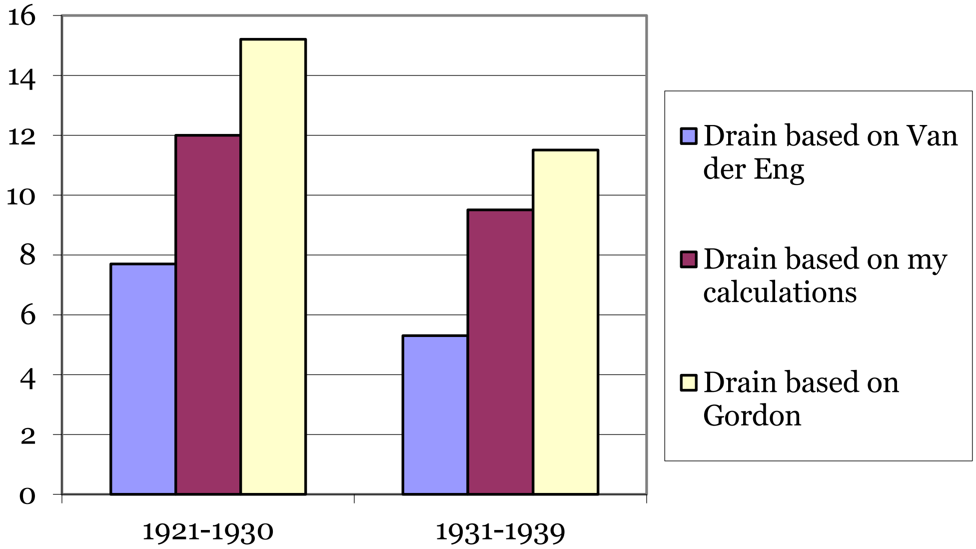
If we add this item to the total, the drain would increase to ƒ15,836 million for 1910–1939. But I doubt whether this is the right choice and find it difficult to accept that including this whole sum is correct, since it is unclear what is precisely included in these private floating balances. Nevertheless, 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.

[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.

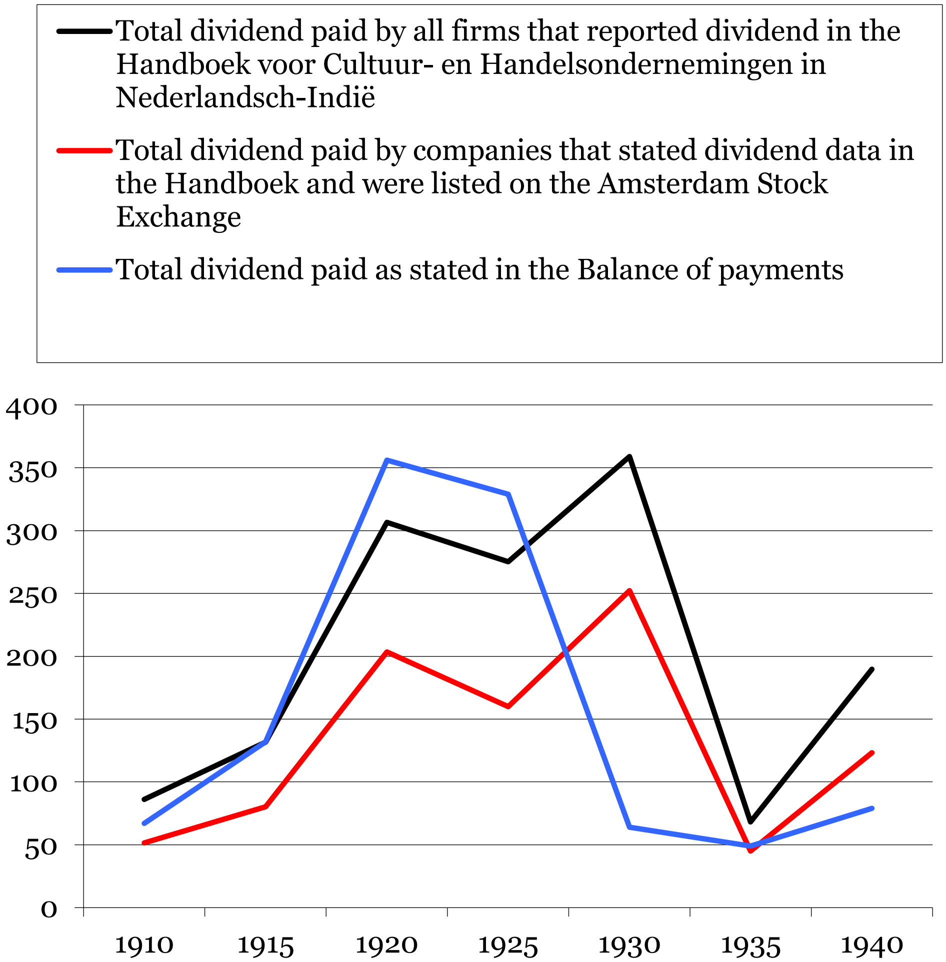
This makes it easier to compare larger selections of companies, different industries and countries.

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.

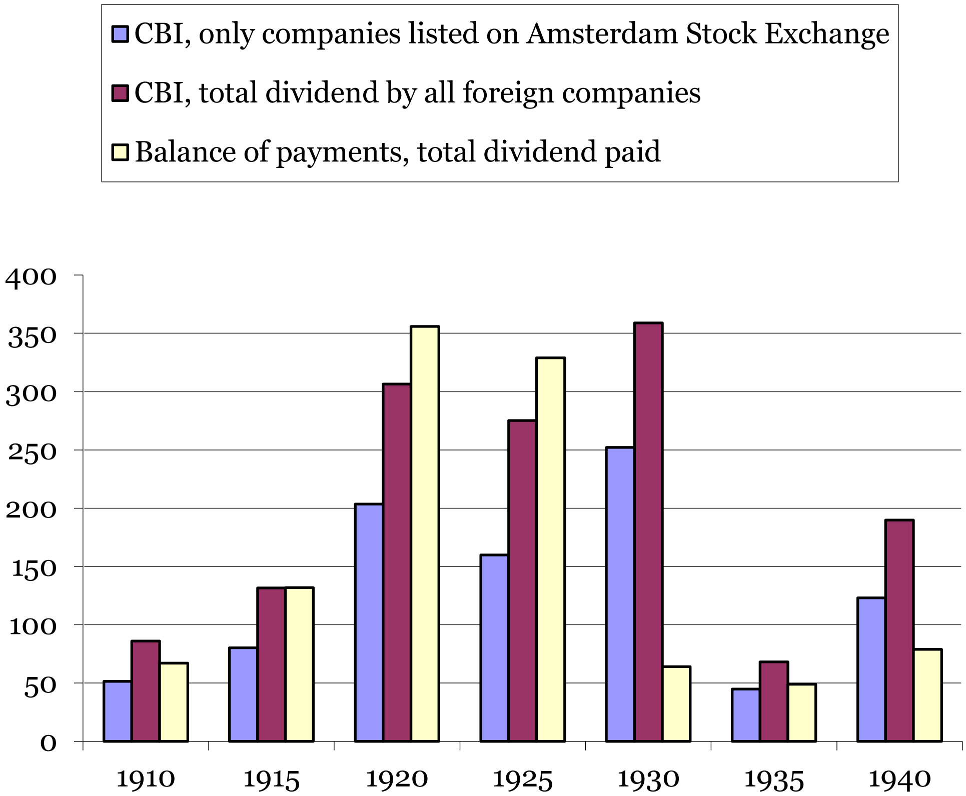
[65] Korthals Altes and Van Dooren, *CEI. Vol. 7*, 13–14, 39–41, 134–135; Lindblad, 'Het bedrijfsleven in Nederlands-Indië in het interbellum', 186–187, 204.

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

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

[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.

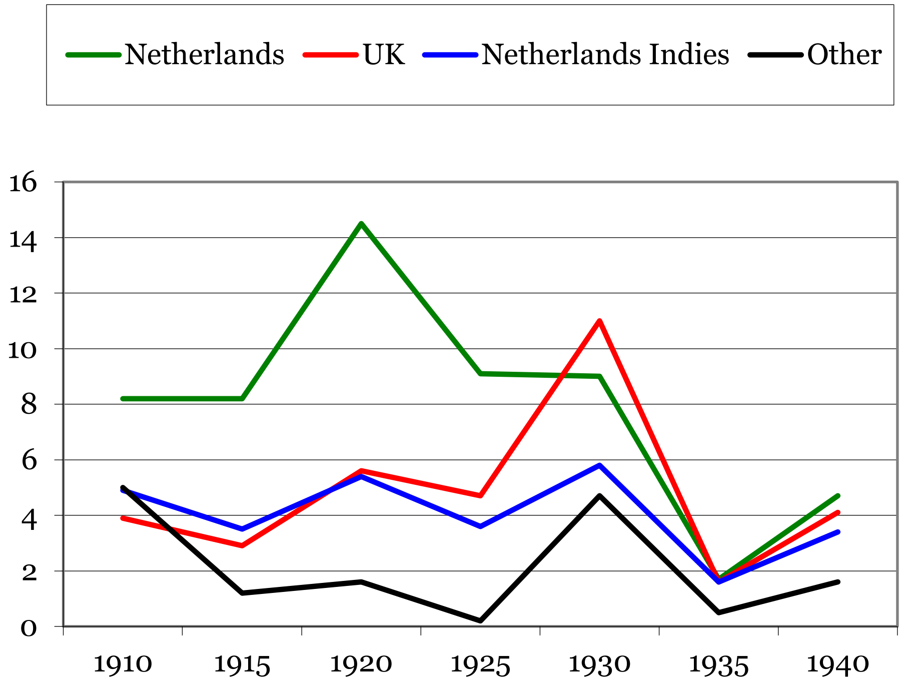
[92] À Campo, 'Strength, survival and success', 63–65.
[93] À Campo, 'Strength, survival and success', 64, 71; À, Campo, 'The rise of corporate enterprise in colonial Indonesia, 1893–1913', 88.

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*.

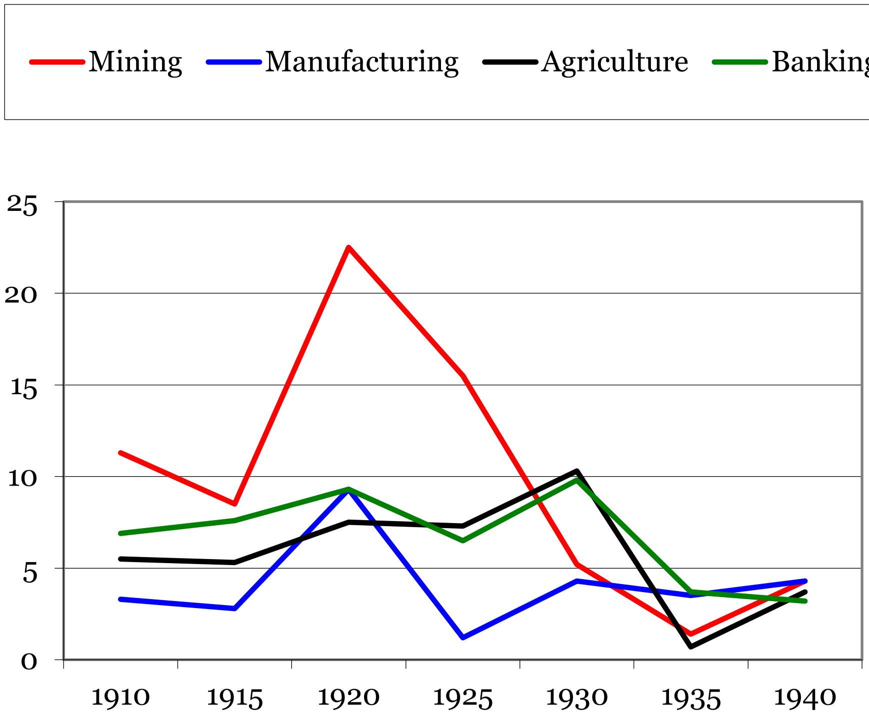
Figure 3.5. Dividend payments as a percentage of equity by location of headquarters, 1910–1940.



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 ƒ160.1 million, whereas five years later they paid only ƒ9.7 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

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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.