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

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Chapter 5. Profitable pioneers

5.1 Introduction

Macroeconomic developments and long-term trends were outlined in the previous chapters and we now turn to a microeconomic analysis. Here we shall focus on three carefully selected companies that were active in various branches of the Netherlands Indies economy. This offers us a better understanding of the effects of foreign private investment on the economic development of the Netherlands Indies.

In this chapter I focus on investment in individual companies, their profitability and linkages with the domestic economy. In my survey I show that these companies underwent changes and had to adapt to changing circumstances. Moreover, by examining these case studies we can see to what extent these companies differed from other firms. Comparisons can be made especially with respect to profitability and linkages. In the previous chapters we saw the differences across branches of industry in terms of profitability and type of linkages. Here we will explore the effects of operations by foreign companies on a more local scale.

The three companies are the Deli Company, the Billiton Company and HVA. All were free-standing companies with headquarters in the Netherlands while operating in the Netherlands Indies and later in other foreign countries as well. Billiton was a leading tin producer on the like-named island. The Deli Company was active in estate agriculture. Both are examples of what Chandler calls 'first-movers'. They had a competitive advantage above other companies and rivals had to make significant investments in order to compete with them.¹ The selected third firm is a trading company. Dutch trading houses played a key role in the colonial economy. A prime example is HVA. This company is particularly interesting, since it evolved from a trading company into a concern owning and managing plantations all over the archipelago, including the largest sugar factory in Java, Djatiroto.²

Not all companies were as successful as these three. These case studies therefore cannot pretend to reflect the entire colonial economy. However, they do represent the true pioneers in private Dutch investment in colonial Indonesia and they also represent key export industries. They had all matured

¹ Alfred D. Chandler and Takashi Hikino, *Scale and scope: The dynamics of industrial capitalism* (Cambridge: The Belknap Press of Harvard University Press, 1990) 34–35.

² Sluyterman, *Dutch enterprise in the twentieth century*, 42.

prior to 1910 and were at the peak of performance between 1910 and 1942. They had entered the Netherlands Indies as the colony was opened up for private capital investment after the dismantling of the Cultivation System in Java from 1870 onwards. Billiton had already started its tin mining operations in the 1860s on the island of Belitung off the South Sumatra coast. The Deli Company, originally specializing in tobacco, was an active player from 1870 onwards in the plantation belt of North Sumatra (then the residency East Coast of Sumatra). HVA started out in 1878 in Java and later expanded to Sumatra as well. Although HVA was active in several branches of estate agriculture, most success was achieved in the sugar industry. HVA did benefit from the abolition of protection of beet-sugar in Europe in 1902.³ Java's sugar production doubled in the years 1902–1912 and again in the second half of the 1920s. The annual volume of sugar exported from Java reached three million tons in 1930, corresponding to around one-fifth of the total value of exports from the Netherlands Indies. In 1929, the sugar industry accounted for 40% of total foreign investment in agriculture.⁴

From a methodological point of view, it is important that I selected companies that were active over a long time in order to examine their influence in the late colonial period. As Chapter 2 shows, only a minority of the companies were active throughout such a long period. In 1940 only 31% of the active companies, or 667 in total, had been founded in 1910 or earlier.⁵

Inevitably, the number of companies still active in the 1950s was smaller still. Consequently, the three companies selected here were likely to be more profitable than companies that collapsed either during the economic depression of the 1930s or in the period immediately after the Second World War. Although these selected companies represent only a tiny minority of highly successful business ventures, they may serve our purpose.

If such successful companies did not provide much for their indigenous workers, it is unlikely that less profitable businesses would have been able to provide more linkages to the local economy and society. Nevertheless, not only direct provisions for indigenous workers are at issue here, but the whole package of positive effects on indigenous economic life.

Many other enterprises expanded their activities and became well-known players. During the past decades, a large number of publications have appeared in the form of company histories, more often than not originating

³ William Joseph O'Malley, *Indonesia in the Great Depression: A Study of East Sumatra and Jogjakarta in the 1930s* (PhD thesis, Cornell University, Ithaca, NY, 1977) 21.

⁴ Claver, *Dutch commerce and Chinese merchants in Java*, 261.

⁵ Colonial Business Indonesia, *CBI Database ID*.

from the companies themselves. At each jubilee companies seem to have felt the need to publish a book.⁶ Although they provide relevant data for scholars it is doubtful whether disagreements with indigenous workers or unfair labour conditions would be discussed or even mentioned. Memorial books need to be read critically when used for scientific purposes. Professional economic historians have examined DSM, KPM, NHM and Royal Dutch Shell in various academic works.⁷ In the case of Royal Dutch Shell even the board of directors was allegedly surprised by the huge profits made in the years after the First World War.⁸ Recent academic work about Billiton, the Deli Company and HVA is scarce but some memorial books do exist.⁹ We will first discuss the Deli Company and look in particular at investment, profits and linkages.

⁶ See for instance: E.C. Godeé Molsbergen, *Maatschappij tot exploitatie van rijstlanden op Java "Michiels-Arnold" N.V., 's-Gravenhage: 23 juli 1887–1937* ('s-Gravenhage: Mouton, 1937); Lindeteves-Stokvis 1889–1939 (n.p., 1939); H. Baudet (ed.), *Handelswereld en wereldhandel: Honderd jaar Internatio: Tien essays; Kind, Van kippenveren tot dieselmotoren*; L. de Bree, *Gedenkboek van de Javasche Bank: 1828 – 24 januari – 1928* (Weltevreden: Kolff, 1928).

⁷ Examples are: Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*; Jonker and Van Zanden, *A history of Royal Dutch Shell: From challenger to joint industry leaders, 1890–1939*; Gerretson, *History of the Royal Dutch*, Vol. 1; Korthals Altes, *Tussen cultures en kredieten*; Ton de Graaf, *Voor handel en maatschappij. Geschiedenis van de Nederlandsche Handel-Maatschappij, 1824–1964* (Amsterdam: Boom, 2012); À Campo, *Engines of empire*. Apart from À Campo's work, books have been written by: De Boer and Westermann, *Een halve eeuw pakketvaart, 1891–1941*; Howard W. Dick, *The Indonesian interisland shipping industry: An analysis of competition and regulation* (Singapore: Institute of Southeast Asian Studies, 1987); A.J.J. Mulder, *Koninklijke Paketvaart Maatschappij: Wel en wee van een Indische rederij* (Alkmaar: De Alk, 1991); Singgih Tri Sulistiyono, *The Java Sea network: Patterns in the development of interregional shipping and trade in the process of national economic integration in Indonesia, 1870s–1970s* (PhD thesis, Leiden University, 2003);

⁸ Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 126–127.

⁹ Substantial works that have been published about these three companies include: Jarig Cornelis Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij* ('s-Gravenhage: Nijhoff, 1922); Mollema, *Gedenkboek Billiton, 1852–1927. I*; A.F. Kamp, *De standvastige tinnen soldaat: 1860–1960, N.V. Billiton Maatschappij 's-Gravenhage* (Nijmegen: Thieme, 1960); Koert Broersma, *Eene zaak van recht en billijkheid: enkele episoden uit de enerverende Billiton-geschiedenis, 1860–1985* (Leidschendam: Billiton International Metals, 1985); Enthoven, *N.V. Deli-Maatschappij*; Ledebroer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*; J.F.L. de Balbian Venster, *Deli-Maatschappij: Gedenkschrift bij gelegenheid van het vijftigjarig bestaan* (Amsterdam: Roeloffzen-Hübner & Van Santen en Gebr. Binger, 1919); Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929* (Amsterdam: De Bussy, 1929); Goedhart, *Eerherstel voor de plantage*.

5.2 The Deli Company: The Sumatra pioneer

Investment

The Deli Company was founded in 1869, ten years after Billiton. It produced high-quality tobacco leaves and became the first *Cultuurmaatschappij* (Cultivation Company) in the Netherlands Indies to issue shares. Jacob Nienhuys succeeded in setting up a company in the 1870s that turned out to be highly successful. He was granted a land concession by the sultan of Deli and he was able to lease an 8,500 hectares of estate land for a period of 99 years. Before 1878 cultivation companies acquired large areas quite effortlessly under very favourable terms. The Deli Company, for instance, was exempted from paying land rent. For the sultan of Deli it was enough that the company paid import and export taxes and an occasional additional fee when hiring new coolies. In 1911 Sultan Ma'mun helped the Deli Company to acquire other concessions when he was in need of money because of the prodigality of his son, and the sultan even borrowed f150,000 from the company.¹⁰

The Deli Company was one of the first of its kind to set up business on a large scale in the plantation belt of North Sumatra. It developed into one of the most recognizable Dutch firms of the region.¹¹ It served as a prototype for Western pioneering in Sumatra, arriving early and developing fast. Capital was provided by the NHM, but the founder, Jacob Nienhuys, also drew on other financiers. At the end of the nineteenth century, it was the eighth largest Dutch limited liability company in colonial Indonesia.¹² Initially, it consisted of only one estate but by 1900 the concern embraced twenty individual estates producing tobacco leaves that were exceptionally well suited for high-quality

¹⁰ Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 81; Bosch, *De Nederlandse beleggingen in de Verenigde Staten*, 67; Pelzer, *Planter and peasant*, 36–39; Jan Breman, *Koelies, planters en koloniale politiek. Het arbeidsregime op de grootlandbouwondernemingen aan Sumatra's oostkust in het begin van de twintigste eeuw* (Leiden: KITLV Uitgeverij, 1992) 49; NL-HaNa: Deli Maatschappij, 33, Decennial report regarding the developments of the Deli Company 1909–1919, 81.

¹¹ Lindblad, 'Business strategies in late colonial Indonesia', 207–228, 220; F.P.A. Gevers, 'Koloniale bedrijfsvoering in het interbellum: De N.V. Deli maatschappij aan Sumatra's oostkust, 1918–1940', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek*, Vol. 8 (1991) 136–159, in particular 137; NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 8–9.

¹² Touwen, *Extremes in the archipelago*, 105; Martin Bossenbroek, *Holland op zijn breedst: Indië en Zuid-Afrika in de Nederlandse cultuur omstreeks 1900* (Amsterdam: Bert Bakker, 1996) 88; Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 165.

cigars.¹³ In order to buy up more estates, it was necessary to attract more capital. In 1915 total equity was f8.3 million and by 1917 it had increased to f9 million. By now, share prices had already reached their peak when shares were valued at nearly six times their initial value, but showed a gradual decline afterwards (Figure 5.1).

The capital raised was initially used to move into the cultivation of rubber.¹⁴ The situation in the tobacco sector deteriorated at the end of the 1910s, and in 1919 it became necessary to attract more equity. This time f4.5 million worth of shares were issued. Shareholders with two old shares with pre-emption rights could obtain a new share. As a result, issued share capital rose to f13.5 million. The Deli Company was cultivating around 120,000 hectares in Deli and Langkat.

Just four companies – the Deli Company, Deli-Batavia Maatschappij, Senembah Maatschappij and Tabak Maatschappij Arendsburg – accounted for 90% of all Deli tobacco production. The Deli Company, however, was larger than the other three combined. This situation proved very beneficial to Herbert Cremer, director of the Deli Company from 1916 until 1949. He attracted board members such as Hugo Loudon, one of the directors of the Royal Dutch Shell. Directors of the other three large tobacco companies were also represented on the board. In certain industries such as oil, sugar and tobacco, there was a tendency to concentrate control and ownership in fewer hands.¹⁵

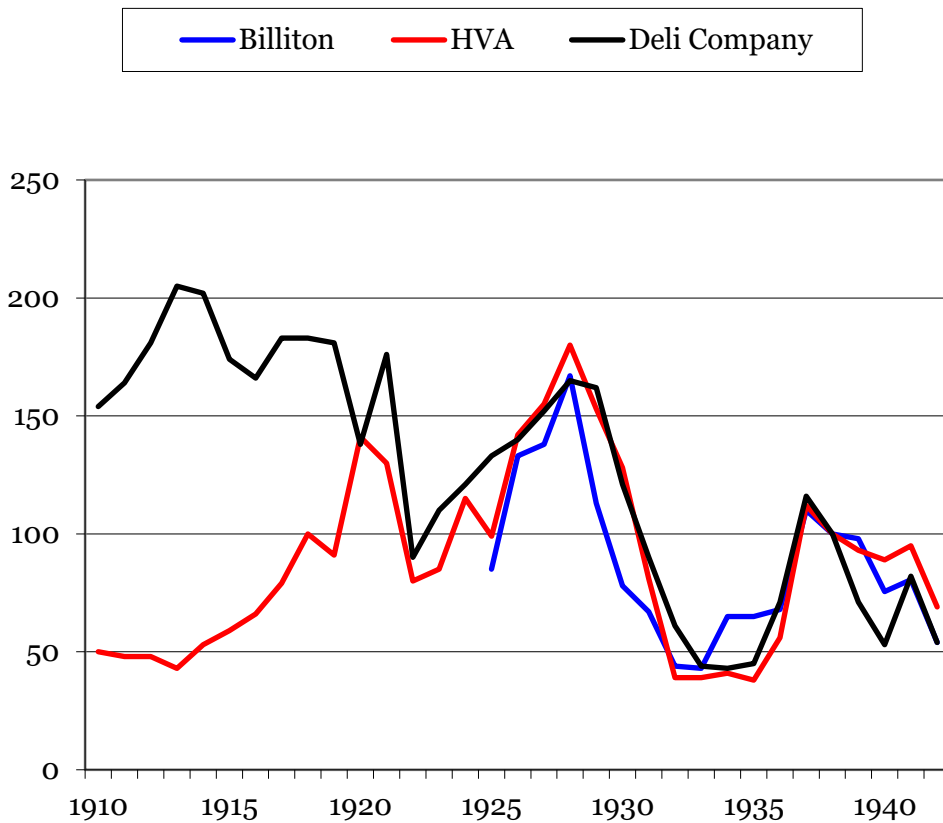
¹³ Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 49; Enthoven, *N.V. Deli-Maatschappij*, 25–26.

¹⁴ NL-HaNa: Deli Maatschappij, 34, Decennial report regarding the developments of the Deli Company 1909–1919, 26; Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940*.

¹⁵ M. Moresco, *Deli-Batavia Maatschappij, 1875–1925* (Amsterdam: Van Leer, 1925) 62; NL-HaNa: Deli Maatschappij, Decennial report regarding the developments of the Deli Company 1919–1929, 26; NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 51–54; NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 6; Taselaar, *De Nederlandse koloniale lobby*, 43–44.

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Figure 5.1. Development of share prices of Billiton, Deli and HVA, 1910–1942, index 1938 = 100.



Source: Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam*. Stichting Capital Amsterdam: 'Prijs-couranten' 1910–1940.

In order to purchase the estates St. Cyr from the Deli-Langkat Tobacco Company and Arnhemia from the Rotterdam-Deli Maatschappij in 1921, at a cost of f3 million, fresh equity again was required. New shares were issued and shareholders with five old shares with pre-emption rights could obtain a new share. In 1921 the Deli Company invested in the cultivation company 'De Oostkust' (The East Coast), of which the Deli Company owned half of the f12 million of total shares and Deli-Batavia, Senembah and Arendsburg the other half. This shows that the Deli Company did play a major role in the tobacco industry. The Deli Company now increased its own equity with another f6

million and total equity climbed to f25,654,000 by 1922.¹⁶ In 1928 equity at the Deli Company amounted to f40 million. In ten years equity had more than doubled and by the late 1920s, the Deli Company was operating 24 individual tobacco estates.¹⁷

The prices of tobacco fluctuated in accordance with the international markets, but they were also influenced by the Tobacco Office, which was founded in 1917 to represent the interests of the tobacco producers. In 1918 the tobacco producers agreed to restrict output due to bottlenecks in shipping during the First World War. In 1919, these measures were deemed unnecessary and in 1920 the market was again functioning normally. Demand for tobacco used for cigars in the United States increased. As a result, selling prices in Amsterdam were very high in 1919, but cost prices were too.¹⁸ In 1919, the market price was f7.28 per kg, but in 1921, it had dropped to f4.20 per kg. This suggests a saturation of the market. In 1922, several companies again wanted to reduce output. This had negative consequences for the Deli Company, as it was forced to obtain a loan from the Java Bank in order to sustain its existing level of operations.

In 1923, the price per kg rose to f6.36; in 1924, it dropped again to f5.92, and in the years 1925–1929 it hovered around f4.24 per kg.¹⁹ In 1925, the company increased its tobacco production again and in 1926 the largest output ever was reached at 13,785 tons. In the late 1920s, production remained above 10,000 tons. The economic depression of the 1930s, however, caused a decline to below 10,000 tons per year. In the late 1930s, the Deli Company proved unable to recover its onetime level of output. Output was

¹⁶ NL-HaNa: Deli Maatschappij, 38, Memorandum regarding the history of the Deli Company, 15–17; NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 6–7; Ledebor, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 35; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 141; Enthoven, *N.V. Deli-Maatschappij*, 16–17; H. Blink, 'Sumatra's Oostkust in hare opkomst en ontwikkeling als economisch gewest', *Tijdschrift voor Economische Geographie*, Vol. 9 (1918) 55–156, in particular 95.

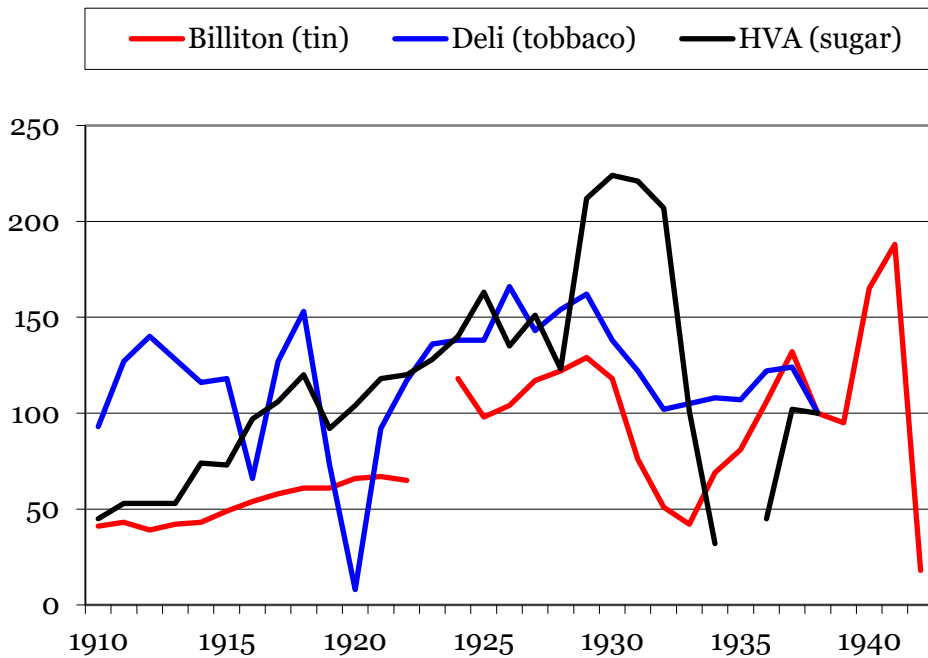
¹⁷ Enthoven, *N.V. Deli-Maatschappij*, 15–17; NL-HaNa: Deli Maatschappij, 39, Annual report 1928–1929, 4.

¹⁸ NL-HaNa: Deli Maatschappij, 39, Annual report 1922–1923, 4–5; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 142; Ledebor, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 107; De Balbian Venster, *Deli-Maatschappij: Gedenkschrift bij gelegenheid van het vijftigjarig bestaan*, 71.

¹⁹ A. van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', in: A.H.P. Clemens and J. Thomas Lindblad (eds), *Het belang van de buitengewesten. Economische expansie en koloniale staatsvorming in de buitengewesten van Nederlands-Indië, 1870–1942* (Amsterdam: NEHA, 1989) 97–122, in particular 99, 104–107; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 138; NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 5.

only slightly above 10,000 tons in 1936 and 1937. As a result of the acquisition of tobacco companies in the past, the production of tobacco by the Deli Company as a share of total estate tobacco production increased over time: by the late 1930s it was considerably higher than in 1910 (Figure 5.2 and 5.3).²⁰

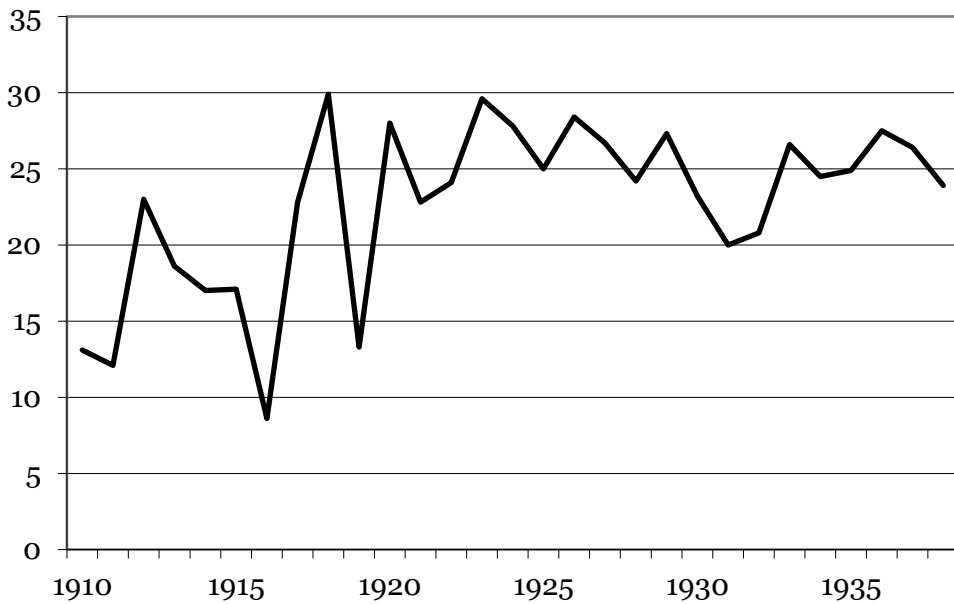
Figure 5.2. Development of production volume at Billiton, the Deli Company and HVA, 1910–1942, index 1938 = 100.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 45, 361, 362, Annual reports; NL-HaNa: Deli Maatschappij, 39, 40, 41, Annual reports; NL-HaNa: HVA, 11, 12, Annual reports.

²⁰ Gevers, 'Koloniale bedrijfsvoering in het interbellum', 143; NL-HaNa: Deli Maatschappij, 39, Annual report 1924–1925, 3–4.

Figure 5.3. Total output of tobacco at the Deli Company, 1910–1938, as a percentage of total estate tobacco production.



Source: NL-HaNa: Deli Maatschappij, 39, Annual reports; Enthoven, *N.V. Deli-Maatschappij*, 26; Creutzberg and Van Dooren, *CEI. Vol. 1*, 113–124.

The Deli Company and the other three major tobacco companies were also producing rubber, palm oil, sisal and tea. In 1907, the Deli Company planted its first rubber tree and in 1919 it opened a palm oil estate. The number of trees rose from 13,437 in 1916 to 910,855 trees in 1940. Production climbed from 262 tons in 1919 to 1,524 tons in 1928. Rubber was planted on a large scale, but tobacco remained the main source of revenue. Some newly acquired fields proved less suitable for tobacco and were planted with rubber. Overall, the area under rubber cultivation increased rapidly. In 1930, the construction of a palm oil estate was initiated. In order to obtain more knowledge about sisal, the Deli Company invested in the N.V. Kota Pinang Cultivation Company. This knowledge could later be used if the tobacco sector were to plummet, but results were not impressive.²¹

The depression of the 1930s meant serious losses for the Deli Company. In addition, harvests from 1929 and 1930 suffered from bad

²¹ Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 30–43; Enthoven, *N.V. Deli-Maatschappij*, 18; Taselaar, *De Nederlandse koloniale lobby*, 43, 70–72; Lindblad, ‘Business strategies in late colonial Indonesia’, 221; NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 9–11, Annual report 1932–1933, 7.

weather.²² The company tried to deal with the deteriorating situation in two ways: by reducing production to forestall a further decline in selling prices and by cutting costs.²³ In 1930 the four major tobacco companies concluded a gentlemen's agreement which led to a reduction of the area used for tobacco by 10%, yet market prices failed to rise. Output was restricted again in 1932 and 1933. Due to a reduction in costs due to dismissals of workers, the Deli Company made no losses in 1934. The higher quality of the tobacco after 1933 and increasing international demand also helped to improve the situation. Besides ups and downs in the tobacco market, the Deli Company also suffered from the international rubber restriction in effect in the Netherlands Indies from 1934.²⁴

Profit

Although output levels remained stable, profitability in the Deli Company's tobacco business varied a great deal.²⁵ Although the Deli Company also produced rubber and palm oil, these production lines were of marginal importance in terms of generating profits. Between 1920 and 1940, average annual profits from tobacco were f5.3 million, whereas yearly profits from rubber and palm oil only amounted to f0.3 million.²⁶ Moreover, tobacco cultivation was a very volatile business and it was necessary to accumulate sufficient financial reserves. The Deli Company maintained a high level of liquidity (liquid assets plus credits divided by outstanding debts) of around 1.35. Solvability (total liabilities divided by non-equity capital) was high as well, usually above 2.5. Overall, the company was highly profitable. This was,

²² NL-HaNa: Deli Maatschappij, 39, Annual report 1929–1930, 5.

²³ NL-HaNa: Deli Maatschappij, 39, Annual report 1930–1931, 6–7; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108.

²⁴ NL-HaNa: Deli Maatschappij, 39, Annual report 1934–1935, 6–7; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 144–146; Lindblad, 'Business response to crisis in Indonesia: The 1930s and the 1990s', 173–174; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108; NL-HaNa: Deli Maatschappij, 16, Board meeting 16–6–1932; NL-HaNa: Deli Maatschappij, 39, Annual report 1933–1934, 5–7.

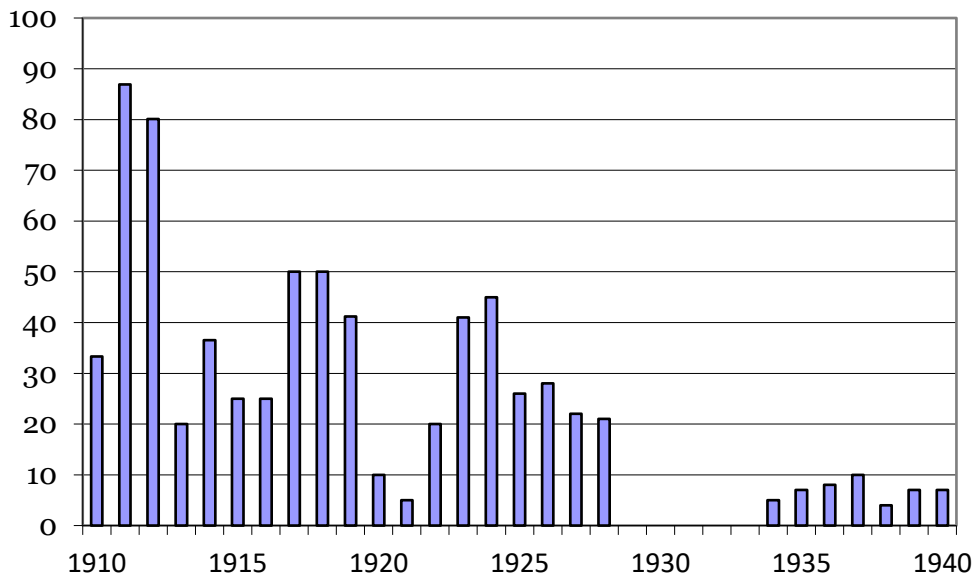
²⁵ Enthoven, *N.V. Deli-Maatschappij*, 15.

²⁶ Lindblad, 'Business strategies in late colonial Indonesia', 221; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 55; Gevers, 'Koloniale bedrijfsvoering in het interbellum', 157; NL-HaNa: Deli Maatschappij, 39, Annual reports.

of course, very beneficial to shareholders, who received substantial dividends.²⁷

Dividend payments of the Deli Company were impressive at the beginning of the twentieth century. Expressed as a percentage of equity, dividend payments were the highest in the 1910s, reaching 86.9% in 1911, when £7.2 million was paid out in total. One year later, the dividend rate was 80.1%, as the Deli Company paid out £6.6 million to its shareholders. In 1913, the rate dropped to 20% and nearly £1.7 million was paid. During the First World War, dividend rates fluctuated between 25% and 50%, with average annual dividend payments slightly below £5 million (Appendix 26). Dividend rates dropped after the First World War (Figure 5.4). It needs to be noted that total equity increased at the same time. Therefore, the total amount of dividends paid out rose again after the short-lived dip in the early 1920s.²⁸

Figure 5.4. Dividend rates at the Deli Company, 1910–1940.



Source: NL-HaNa: Deli Maatschappij, 39, Annual reports.

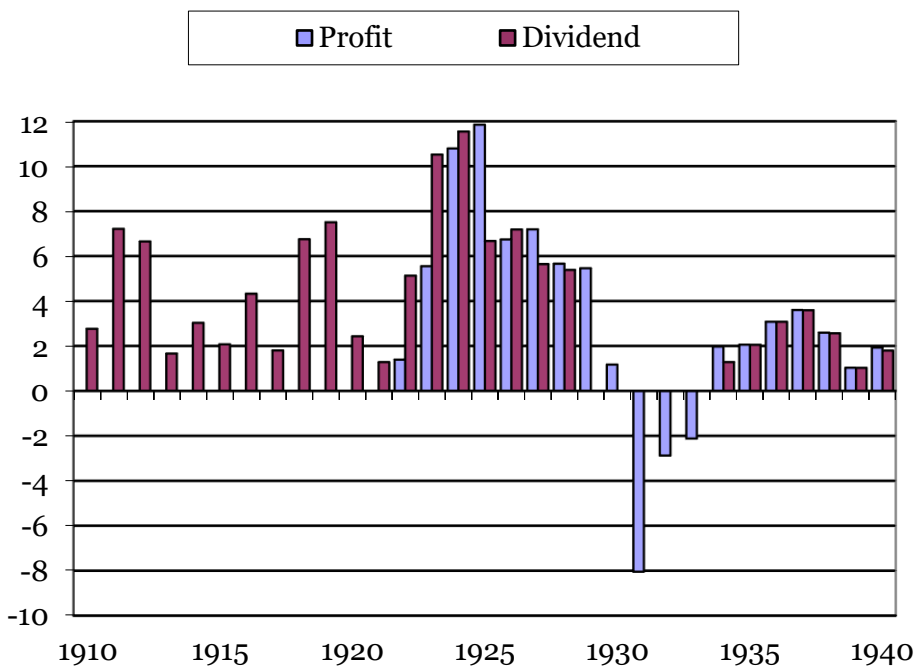
²⁷ Gevers, 'Koloniale bedrijfsvoering in het interbellum', 154–156; Lindblad, 'Business strategies in late colonial Indonesia', 221.

²⁸ Enthoven, *N.V. Deli-Maatschappij*, 27–28.

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Profits at the Deli Company remained solid during the 1920s, conditioned by a high level of turnover. The most favourable years were shortly after the acquisition of new estates. In 1923, for instance, turnover climbed above *f*18 million, a level almost sustained into the next year. In 1923 and 1924, dividend rates were 41% and 45%, while total pay-outs amounted to *f*10.5 million and *f*11.5 million, respectively. Dividend rates in the late 1920s fluctuated between 21% and 28%. The decline during these years coincided with the acquisition of several large estates in order to maintain its prominent market position. Nevertheless, the company paid out nearly all its profit to its shareholders (Figure 5.5). During the economic depression of the 1930s the Deli Company suffered considerable losses and no dividends were paid out in the years 1929–1933. The worst year was 1931, when the Deli Company was confronted with a loss of *f*8 million. In 1932, losses dropped below *f*3 million and in 1933 it was only *f*2 million.

Figure 5.5. Total profits and paid-out dividends at the Deli Company, 1910–1940, in million guilders.



Source: NL-HaNa: Deli Maatschappij, 39, Annual reports; Enthoven, *N.V. Deli-Maatschappij*, 26–28.

Note: Total profit data only available for 1922–1940.

During the depression of the 1930s, *f*4.5 million was written off from assets. Losses could be covered largely by reserves. In the books there was no loss or profit, but reserves dropped by more than *f*10 million.²⁹ Dividend payments came to a virtual standstill in 1929, yet then recovered somewhat.³⁰ In 1934, the situation had improved and with a profit of almost *f*2 million the company could pay a dividend of 5%, or nearly *f*1.3 million to its shareholders. Fluctuating tobacco prices enhanced profits in the following years, but during 1937 and 1938 the gap between cost and market prices narrowed. As a result, profits dropped as well.³¹

In the late 1930s, dividend rates oscillated between 4% and 10%, but profits as high as during the 1920s were no longer achieved. Data for the early 1940s is incomplete, but the year 1940 itself saw a turnover of almost *f*8 million. Although profits were lower than in the 1920s, the company performed well up to the start of the Pacific War.³² If we compare dividend payments of the Deli Company with other companies, the Deli Company performed much better than the average company between 1910 and 1915. In 1920, the Deli Company performed less than average, an indication that the economic crisis of the early 1920s hurt agricultural companies more than companies active in other industries. In 1925, however, the tables were turned and the Deli Company outperformed the average company. In 1930, the Deli Company performed worse than average since it did not pay any dividends, but compared with companies that paid dividends in 1935 and 1940 the Deli Company stood its ground and performed only slightly below average.³³

Linkages

As the largest tobacco company in North Sumatra, the Deli Company also provided facilities benefitting its workforce. Here we focus on the workforce as a whole. The Deli Company was a large company offering much employment. In North Sumatra the share of Chinese coolies gradually dropped and by the 1920s all new coolies were Javanese. They were considered to be less hard working than the Chinese, but they were cheaper

²⁹ Gevers, 'Koloniale bedrijfsvoering in het interbellum', 154–156.

³⁰ Lindblad, 'Business strategies in late colonial Indonesia', 220–223.

³¹ Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 110; NL-HaNa: Deli Maatschappij, 39, Annual report 1933–1934, 5–6, 1937–1938, 5–8.

³² Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 108–110.

³³ Figure 3.5, 3.6; Appendix 14, 15.

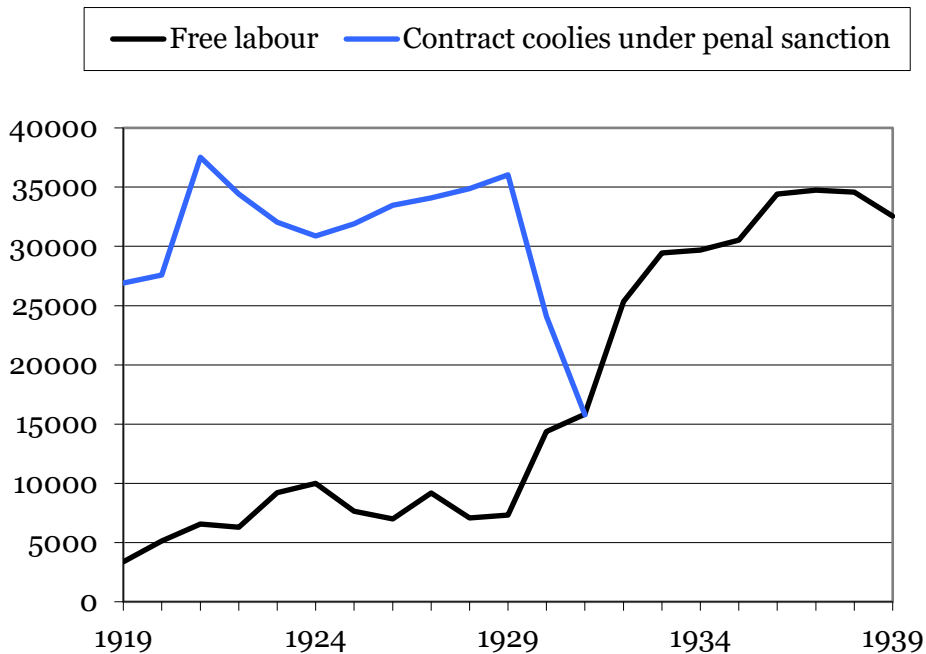
and easier to discipline by the supervisors.³⁴ On average, around 30,000 coolies under contract with penal sanction and roughly 7,000 so-called free coolies under contract without penal sanction were employed by the company between 1919 and 1929. This was more than one-tenth of the total number of coolies subject to penal sanction in North Sumatra. For free coolies, not subject to the penal sanction, the share was even higher. Around one-third of the total free coolies employed in North Sumatra worked for the Deli Company. During the 1930s, when the number of free coolies increased, this share dropped to around one-fifth (Appendix 27).

During the economic depression of the 1930s the Deli Company began cutting costs. This proved to be difficult since coolie labour was regulated by contracts that could not be terminated or changed in the short run. But, in 1931, the penal sanction was abolished by the colonial government and from 1931 the tobacco estates would only hire 'free' labourers, under contract without penal sanction. It is worth noting that the Deli Company had claimed that the company would not have become so profitable in the absence of the penal sanction in the 1920s. The employers' organisations DPV and AVROS had defended the penal sanction vigorously during the 1920s, precisely at the time when voices were raised in the government to abolish the system. In 1930, an American Tariff Act was introduced which stated that the United States would not import any goods produced by indentured labour under penal sanctions. As a result, the Deli Company had to get rid of its workers under coolie contracts with penal sanction and hire more 'free' labourers in order to export to the United States. The abolishment of the penal sanction in 1931 made hiring 'free' labourers more urgent. Implementation was speeded up by the economic depression in 1932.³⁵

³⁴ Houben, 'Introduction: The coolie system in colonial Indonesia', 3; Vincent J.H. Houben, 'Before departure: Coolie labour recruitment in Java, 1900–1942', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 25–42, in particular 25; Lindblad, 'Coolies in Deli: Labour conditions in Western enterprises in East Sumatra, 1910–1938', 52; J. Thomas Lindblad, 'New destinations: Conditions of coolie labour outside East Sumatra, 1910–1938', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 79–108, in particular 88; Jurrien van den Berg, 'Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries', in: Vincent J.H. Houben and J. Thomas Lindblad (eds), *Coolie labour in colonial Indonesia: A study of labour relations in the Outer Islands, c. 1900–1940* (Wiesbaden: Harrassowitz Verlag, 1999) 209–230, in particular 209; Breman, *Taming the coolie beast*, 50–64.

³⁵ Homan, 'That 'beautiful tobacco': The Sumatra cigar wrapper and the American tariff, c. 1880–1941', 151–154; Langeveld, 'Arbeidstoestanden op de ondernemingen

Figure 5.6. Workforce at the Deli Company, by type of contract, 1919–1939.



Source: Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 115; Enthoven, *N.V. Deli-Maatschappij*, 45.

Immigration of workers discontinued and numerous contracts were not renewed. In 1930, the company had just over 24,000 labourers on a coolie contract with penal sanction, but in 1931 this dropped to slightly less than 16,000 workers, while at the same time 287 Europeans were employed. In 1929, the total workforce of the company, including 'free' labourers, numbered

ter oostkust van Sumatra tussen 1920 en 1940 in het licht van het verdwijnen van de poenale sanctie op de arbeidscontracten', 301–304; Van Kommer, 'De Deli-Maatschappij aan de Oostkust van Sumatra gedurende de jaren 1900–1940', 102–108; NL-HaNa: Deli Maatschappij, 39, Annual report 1921–1922, 4, 1929–1930, 5–6, 1930–1931, 5–9; Ledebor, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 74–75; P.A. van der Laan, 'Deli-tabak', in: C.J.J. van Hall and C. van de Koppel (eds), *De landbouw in de Indische archipel. Deel IIB. Genotmiddelen en specerijen* ('s-Gravenhage, Van Hoeve, 1949) 353–413, in particular 357; Nizaar Makdoembaks, *Foute dokters en de tabaksindustrie van Sumatra: (K)NMG en de tientallen miljoenen overzee* (Zierikzee: De Woordenwinkel, 2019) 144–146, 149–153.

43,360 workers. This figure dropped to 29,450 in 1934 with the company being forced to close several estates. Average wages of coolies fell too, from f26.05 per month in 1929 to f24.15 in 1932. In the mid-1930s wages were barely above f20 per month. In 1938, the number of labourers rose slightly to 34,747 (Figure 5.6). Even though wages earned in the foreign-owned economy did not differ much from the wages earned in the indigenous economy, coolies were subject to the agreements made by the employers' organisations, which had an impact on the wage level and prevented competition between individual companies.³⁶

Although tobacco leaves were produced by the Deli Company for making cigars, which were in high demand in Europe and the United States, the Deli Company chose not to manufacture the cigar itself.³⁷ Manufacturing of cigars took place elsewhere, in the Netherlands and other European countries. The cigar-making companies often used tobacco from the Netherlands Indies but were usually too small to start tobacco estates in the Netherlands Indies. One well-known Dutch cigar manufacturer, Ribbius Peletier, was smaller than one-tenth the size of the Deli Company. Another leading tobacco company, Arendsburg, was established by P. van den Arend, who had started out as a trader of cigars and tobacco. He went into tobacco cultivation as a separate activity of trade, but not for the production of his own cigars.³⁸ Another reason was that cigar manufacturers often used a mix of tobacco leaves not only from Java and Sumatra but also from other countries. It was more practical for manufacturers to be able to choose a smaller quantity from a large selection of tobacco producers instead of depending on one source of tobacco.³⁹ Mignot & De Block was one of the few manufacturers who actually tried to produce cigars in Indonesia. In 1919 it started the Negresco cigar factory in Yogyakarta close to tobacco plantations and in 1923 it employed 400 workers.⁴⁰

³⁶ Lindblad, 'Business response to crisis in Indonesia: The 1930s and the 1990s', 173–174; *Deli Maatschappij: Hoe zij ontstond en groeide* (Medan: N.V. Deli Maatschappij, 1931) bijlage iv; Leenarts, 'Coolie wages in Western enterprise in the Outer Islands', 132, 153; Stoler, *Capitalism and confrontation in Sumatra's plantation belt, 1870–1979*, 42.

³⁷ Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 34.

³⁸ Sluyterman, *Dutch enterprise in the twentieth century*, 44; Thee, *Plantation agriculture and export growth*, 126.

³⁹ Gales and Sluyterman, 'Dutch free-standing companies, 1870–1940', 304; Keetie E. Sluyterman, *Ondernemen in sigaren: Analyse van bedrijfsbeleid in vijf Nederlandse sigarenfabrieken in de perioden 1856–1865 en 1925–1934* (Tilburg: Stichting Zuidelijk Historisch Contact, 1983) 78–108.

⁴⁰ Karel A. Steenbrink, *Catholics in Indonesia, 1808–1942: A documented history. Volume 2: The spectacular growth of a self-confident minority, 1903–1942* (Leiden: KITLV Press, 2007) 394.

Education and water supply

Gradually, the estates were pressured by the government to improve the education they provided. As a result, in 1920 there were 50 schools in North Sumatra and in 1925 the Deli Company had 27 schools where 1,389 children were taught.⁴¹ However, in the early 1920s, only 3,300 of the 50,000 children on estates in Binjai and Medan attended school, either in the village or at the estate. The Deli Company also provided training for coolie children as carpenters or housekeepers. The total number of schools run by the Deli Company increased to 30 in 1930. However, during the economic depression of the 1930s, some schools were closed, but in 1938 a new peak was reached when 2,290 pupils were in class, distributed across 27 schools.⁴²

The Deli Company was also responsible for the supply of fresh water. This was vital for efficient operations of the company and to make sure that the workforce remained healthy.⁴³ The use of contaminated or polluted water was a cause of many diseases on plantations and in nearby villages. In 1905 the Deli Company obtained a franchise for the construction and exploitation of a water system, although it argued that the provision of fresh water was actually a task for the government. It was called the Ajer Beresih Waterworks Company, and it would supply Medan and four nearby tobacco plantations.⁴⁴ According to the original plan, Ajer Beresih would provide water for around 14,000 people in Medan. The number of plots connected to the waterworks increased from 283 in 1907 to 4,521 in 1930, of which most belonged to Europeans. Attention was paid to public utilities as well. As with the construction of hospitals, these waterworks were intended to improve the productivity and health of employees so that they could work harder and, in doing so, make the company more profitable. The construction of the

⁴¹ NL-HaNa: MvO, 184, Oostkust van Sumatra, 1917; NL-HaNa: Deli Maatschappij, 32–36, Decennial report regarding the developments of the Deli Company.

⁴² Kantoor van Arbeid, *Elfde verslag van de arbeidsinspectie voor de Buitengewesten* (Weltevreden: Landsdrukkerij, 1926); Ledeboer, *Gedenkschrift aangeboden aan den heer Herbert Cremer*, 122–124; Frank Ochsendorf, 'Gains from foreign investment for indigenous society in North Sumatra, 1860–1960', paper presented at 17th World Economic History Congress (Kyoto, 2015) accessible at <https://www.colonialbusinessindonesia.com>, 17–19.

⁴³ NL-HaNa: MvO, 120, Besoeki, 1922; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 137.

⁴⁴ NL-HaNa: Deli Maatschappij, 228, Annual report Ajer Beresih 1905; Ravesteijn and Kop, *For profit and prosperity*, 314; T. Boshuyer, *Rapport aan de Deli Maatschappij omtrent het onderzoek naar de mogelijkheid en de kosten van eene watervoorziening van de hoofdplaats Medan ter Oostkust van Sumatra* (Medan, 1904) 8.

waterworks can be seen as an investment that would benefit the company in the first place and the local population in the second place.⁴⁵

Infrastructure

The Deli company did play an important role in the construction of railways in North Sumatra, a region where private railways usually preceded government ones. The first applicant for a concession to construct a railway between estates in the Deli Sultanate and Medan, in June 1881, was from a Frenchman called De Guigné, who was a planter in Deli. Weisfelt argues that his non-Dutch nationality was the reason why his application was not approved. However, the Deli Company mentioned that De Guigné's plans were purely speculative and that it was possible his intention was to sell the claim for more money in the future.

One month later, in July 1881, the Deli Company, led by J. Th. Cremer, submitted an application for the same line between Deli and Medan, stating that the railway would be created by planters for planters. By stressing the importance of a good infrastructure in North Sumatra for economic development and considering the rapid growth of the tobacco industry, Cremer convinced the government. His permit was granted in October 1881. The government was not expected to be involved in the project, nor would it provide any subsidy.⁴⁶ In 1883, the Deli Company founded DSM providing f570,000 of the equity capital. Other subscribers included the Deli-Batavia Maatschappij, Tabaks-Maatschappij Arendsborg, Rotterdam Deli Maatschappij, NHM and some Chinese traders. The remainder of the f2.6 million of equity was found on the Amsterdam Stock Exchange.⁴⁷

The purpose of DSM was to transport the harvested and dried bales of tobacco to the ports at the coast, where they could be shipped abroad; this would replace transport by oxcart. However, DSM would eventually earn half of its revenues from transporting passengers. Nevertheless, the development of DSM depended on the fluctuating prices and export volumes of tobacco and

⁴⁵ NL-HaNa: Deli Maatschappij, 228, Annual report Ajer Beresih 1905; NL-HaNa: MvO, 181, Oostkust van Sumatra, 1905; Ochsendorf, 'Colonial corporate social responsibility', 89–91.

⁴⁶ NL-HaNa: Deli Spoorwegmaatschappij N.V., 1883–1970, (DSM), 66, Report by J. Krol, 4–7–1881; Volker, *Van oerbosch tot cultuurgebied*, 7, 21; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 35–37; Ravesteijn and Kop, *For profit and prosperity*, 124; Thee, *Plantation agriculture and export growth*, 125.

⁴⁷ NL-HaNa: DSM, 117, Annual report 1883–1884, 15–17; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 38–39.

it was also plagued by bureaucratic and technical problems. The construction of the different railways by the DSM was, after all, the result of a lack of interest by the government in constructing a railway in North Sumatra which connected the estates with the port at Belawan near Medan. DSM took up this challenge and created normal broad-gauge railway lines. The first railway was constructed in 1883 between Deli Tua and Labuan Deli and in 1886 Langkat to the north was added to the network. In 1888, a line connected Serdang with Labuan Deli so that by the 1890s there were already more than 100 kilometres of railway track. From an early stage, the estates created their own lines to connect their plantations to the DSM's railway network. On occasion, DSM would subsidise these lines if it proved beneficial for its own services. By the end of the 1890s, the ports of Tanjung Pura and Pangkalan Brandan in Langkat were reached. However, the construction slowed down during this decade as a result of a tobacco crisis, when many tobacco estates were closed. From the start, DSM enjoyed a high return on both freight and passenger transport, but after 1890 profits fell as a result of the tobacco crisis. No new tracks were constructed until 1902. Until that point, passenger transport accounted for almost half of returns, but in the course of the twentieth century the share of freight transport gradually increased, rising to more than 80% in the 1930s.⁴⁸

Competition for passengers by cars, buses and shipping companies increased significantly in the 1920s, but the rise of new crops such as rubber was another reason for expansion for DSM. Railway lines were extended to Asahan, Teluk Nibung and Pematangsiantar, southeast of Pangkalan Brandan. Transport of oil was only of minor significance.⁴⁹ In the best years of the company, the second half of the 1920s, nearly one million tons of freight and nearly seven million passengers were transported annually. After the

⁴⁸ NL-HaNa: DSM, 117, Annual report 1883–1884, 8–10; W.H.M. Schadee, *Geschiedenis van Sumatra's Oostkust* (Amsterdam: Oostkust van Sumatra-Instituut, 1918) 230–232; A.W.E. Weyerman, *Geschiedkundig overzicht van de totstandkoming der aan spoor- en tramwegmaatschappijen in Ned.-Indië verleende concessievoorwaarden en der op grond van die concessievoorwaarden gesloten overeenkomsten. Deel II. A. Spoor- en tramwegconcessiën van alle maatschappijen met uitzondering van de N.I.S.M. Tekst.* (n.p., 1917) 3–36; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 13–16; Ruurd Auke Jellema, *Nederlandsch-Indische spoorwegpolitiek* ('s-Gravenhage: L. Gerretsen, 1929) 83–84; Touwen, *Extremes in the archipelago*, 154; Thee, *Explorations in Indonesian economic history*, 99; Thee, *Plantation agriculture and export growth*, 122–123.

⁴⁹ Touwen, *Extremes in the archipelago*, 155–156; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 17, 44–62; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 32–38.

economic depression of the 1930s, DSM recovered slightly, and in 1941, 875,000 tons of goods and 4.5 million passengers were transported on its rails.⁵⁰ The construction of railways depended heavily on the economic development of the region. Yet, much time elapsed from the granting of concessions and actual construction.⁵¹ The railway network encompassed more than 400 kilometres of track in 1920. Despite the economic depression of the 1930s, by the end of the colonial period the DSM network had expanded to around 550 kilometres of track.⁵²

One of the reasons for the success of DSM was its connection to the ports in North Sumatra near Medan, at first, primarily Labuan Deli, about 15 miles north of Medan.⁵³ As the export of tobacco increased and railways were developed, the small port at Labuan Deli, on the Deli River, was not capable of handling the increasing traffic. Large vessels had difficulties navigating the port. Moreover, erosion caused by deforestation by estates made the Deli River shallower every year. It became necessary to construct a new port closer to the sea. DSM extended its Medan-Labuan Deli line to Belawan in 1886, and new port facilities were constructed at Belawan. Transport of goods by the DSM increased from 28,559 tons in 1888 to 185,775 tons in 1900. In 1910, it was determined that the port of Belawan should be taken over by the government. DSM had created the port in the first place in order to increase rail traffic and, therefore, the port did not run at a profit, but this was not seen as a problem as long as railway transport kept increasing. Further improvement of the port would have been too costly for DSM, and in 1912 the DSM agreed to transfer the ownership of the port to the government for nearly half a million guilders. Belawan would later develop into the most important port of North Sumatra.⁵⁴

⁵⁰ Ravesteijn and Kop, *For profit and prosperity*, 125; NL-HaNa: DSM, 117, Annual reports; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 172–173.

⁵¹ Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 42–62; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 32–38, 55, 69, 72.

⁵² Thee, *Explorations in Indonesian economic history*, 98; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 13–15, 26–44, 62, 97; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 18–21; Touwen, *Extremes in the archipelago*, 127; Lindblad, 'Business strategies in late colonial Indonesia', 222; Airriess, *A port system in a developing regional economy*, 64, 107–108; NL-HaNa: MvO, 182, Oostkust van Sumatra, 1917.

⁵³ NL-HaNa: DSM, 117, Annual report 1883–1884, 19–23; Airriess, *A port system in a developing regional economy*, 62, 103–110.

⁵⁴ NL-HaNa: DSM, 118, Annual report 1912, 9; Departement der Burgerlijke Openbare Werken. Afdeling Havenwezen, *Belawan oceaanhaven, Deel I: Tekst*

However, due to its close proximity to Penang and Singapore, across the Strait of Malacca, Belawan experienced competition from these ports in attracting large ocean-going steamships. Singapore benefitted significantly from the expanding rubber industry, and large amounts of unprocessed rubber were milled in Singapore instead of in the Netherlands Indies.

Despite many improvements in the early twentieth century, the facilities of Belawan were insufficient to accommodate large vessels. H. Blink argued that the government should spend more money on dredging and improving facilities, and he claimed that such outlays could easily be covered by the extra income from larger vessels if able to visit the port after expansion.⁵⁵ Compared to Java, overall port investment by the government amounted to far less in North Sumatra. This could have been caused by a stubborn focus on Java, but could equally well have been the result of successful construction of infrastructure by private companies in the past. In the long run, the colonial government realized the value of Belawan and decided to improve the port. During the 1920s, the government invested more than 26 million guilders in port facilities. Consequently, the capacity of Belawan increased, as did the frequency of visiting vessels.⁵⁶

In 1923, only 8% of the exports from the port of Belawan originated from indigenous suppliers, whereas elsewhere in Sumatra, indigenous exports amounted to more than one-half of total exports. However, in 1918, Belawan was responsible for 45% of the total export value of North Sumatra and by 1938 this share had risen to 80%. Without the presence of the railway network of DSM, this percentage would have been much lower.⁵⁷ By 1938, Belawan was visited regularly by vessels from eleven different foreign steamship companies. Coffee and tea were shipped to Europe. Palm oil required shipment through Belawan since only this port possessed adequate liquid

(Batavia: Departement der Burgerlijke Openbare Werken, 1917) 1–14; Airriess, *A port system in a developing regional economy*, 67–73; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 54–56; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 28–30; Thee, *Explorations in Indonesian economic history*, 100.

⁵⁵ Blink, 'Sumatra's Oostkust in hare opkomst en ontwikkeling als economisch gewest', 147–148.

⁵⁶ Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 30, 54–59; Airriess, *A port system in a developing regional economy*, 79–97; Booth, *The Indonesian economy in the nineteenth and twentieth centuries*, 235; Thee, *Plantation agriculture and export growth*, 125–126.

⁵⁷ Airriess, *A port system in a developing regional economy*, 111, 117.

storage facilities; therefore, palm oil from Labuhan Batu and Asahan was transported by ship and rail to Belawan for export.⁵⁸

Although the DSM did benefit from the foreign shipping activities of KPM in Belawan, KPM remained a competitor in the firm's regional transport. DSM was afraid that further expansion of KPM would slow growth. In 1925, a compromise was reached. KPM would limit its transport in North Sumatra and DSM would not sign agreements with other shipping companies in areas where the two companies competed. The good river connections and coastal shipping opportunities in the south were another reason for DSM not to expand further south than Rantau Prapat. With the development of accessible roads, cars as well as buses and trucks started competing with the railway. The company roads of the Deli Company formed the basis for the network of roads connecting plantations and towns in North Sumatra. The main roads were later maintained by the government, eventually connecting Aceh in the north with the southern regions. In 1933, a total of 930 kilometres of road was present in the estate area, of which 260 kilometres was paved.⁵⁹

In 1914, DSM also began a motor car service after a road had been constructed from the Karo mountain area to Deli and trucks were purchased to transport goods between estates and the railway. In 1921, DSM started a bus line from Pulo Brayan – around six kilometres north of Medan – to Medan. Then competition intensified between car, bus and rail transport. The relatively good and flat roads and the sparse population proved good conditions for road transport, while railway transport was bound by more regulations.⁶⁰

Another network set up by DSM was a telephone service. It was initiated in 1886, as several areas were difficult to reach by road. The area of the telephone service was larger than the area for the railways. Apart from Deli, Langkat and Serdang were also included and other companies could make use of the telephone service as well. From 1890 onwards, telegraph connections with other countries were made possible. Meanwhile, other companies acquired telephone licences and sometimes asked for help from

⁵⁸ Airriess, *A port system in a developing regional economy*, 110; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 46.

⁵⁹ Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 28, 97; Airriess, *A port system in a developing regional economy*, 108; Thee, *Explorations in Indonesian economic history*, 100; Thee, *Plantation agriculture and export growth*, 123; Touwen, *Extremes in the archipelago*, 156.

⁶⁰ NL-HaNa: DSM, 118, Annual report 1916, 89–90; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 97–99.

DSM in order to construct phone lines of their own.⁶¹ In 1910, DSM acquired licences for telephone lines and in 1911 bought the Langkat en Tamiang Telefoon-Maatschappij (Langkat and Tamiang Telephone Company) for f50.000. The government asked DSM to construct phone lines as well, for instance one from Medan to Seribu Dolok and in the sub-district from Karo to Simalungun. Following this expansion, the government became reluctant to approve more requests from DSM, since the firm's telephone network had more subscribers than all government networks in the region taken together. In 1928, an agreement was reached between the government and DSM. The government would not take over any lines and DSM would modernize its network.⁶²

The chief backward linkage that occurred was the network of railways, roads and ports serving the estates. Other backward linkages, such as the production of capital goods were of less importance. Such production industries which produced equipment for railways, for instance, required large markets and the one in North Sumatra at that time was too small to warrant local production. Therefore, equipment for railways were by and large imported. Nevertheless, some small-scale industries were founded in order to serve the needs of the plantations, for instance, brick, cement and ice factories and repair workshops. These flourished since they did not require much skilled labour or any import of raw materials.⁶³ DSM even had its own forests to produce fuel for its locomotives.⁶⁴

Fiscal linkages

The Deli Company made substantial contributions to colonial tax revenues. Annual tax payments reportedly averaged more than one million guilders during the 1920s and 1930s. It is not always clear who actually benefitted from these revenues. It is likely that a proportion of these revenues went to the Netherlands and into the pockets of the Dutch state. Nevertheless, in 1920 an

⁶¹ NL-HaNa: DSM, 117, Annual report 1886–1887, 19–20; Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 139–140.

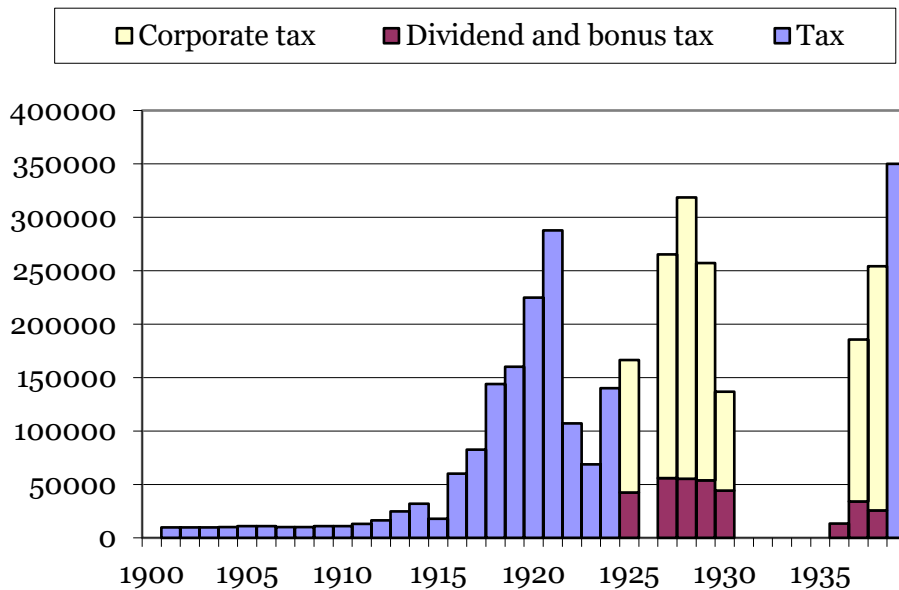
⁶² Weisfelt, *De Deli Spoorweg Maatschappij als factor in de economische ontwikkeling van de Oostkust van Sumatra*, 142; Meijer, *De Deli Spoorweg Maatschappij: Driekwart eeuw koloniaal spoor*, 25–27; NL-HaNa: DSM, 118, Annual report 1910, 61–64, 1911, 70.

⁶³ Thee, *Plantation agriculture and export growth*, 131; Thee, *Explorations in Indonesian economic history*, 101; Lindblad, 'Business strategies in late colonial Indonesia', 222.

⁶⁴ Touwen, *Extremes in the archipelago*, 148–154; Ravesteijn and Kop, *For profit and prosperity*, 125; see also: NL-HaNa: DSM, 117, Annual reports.

amount of f1,340,000 was reserved exclusively for income tax and profit tax in the Netherlands Indies, f2 million for product tax in the Netherlands Indies as well and another f226,489 for dividend tax in the Netherlands. This shows that a substantial proportion of total tax revenue did indeed stay in the Netherlands Indies.⁶⁵ The peak in 1920 also reflected war profit tax; in 1924 the company received a restitution payment of f201,510.⁶⁶ Tax payments by DSM show the same trend compared to the total company tax paid by all companies combined. Payments increased after the First World War, fell in the first half of the 1920s and increased again until the start of the economic depression, and finally recovered at the end of the 1930s (Figure 5.7).

Figure 5.7. Taxes paid by DSM, in guilders, 1900–1939.



Source: NL-HaNa: DSM, 117–120, Annual reports.

Note: For the years 1900–1914 and 1939, tax data is given without specification, 1915 is income tax in the Netherlands, 1916–1924 is income tax in the Netherlands Indies, 1925–1938 is dividend and bonus tax in the Netherlands, and *vennootschapsbelasting* in the Netherlands Indies. For the year 1926 no data is available.

⁶⁵ NL-HaNa: Deli Maatschappij, 39, Annual report 1919–1920, 12–13.

⁶⁶ NL-HaNa: Deli Maatschappij, 39, Annual report 1923–1924, 10–11.

Assessment of the Deli Company

The Deli Company was a highly profitable company. During the 1920s it paid out nearly all its profits in dividends, which shows that the company had sufficient means to attract capital for further expansion. This was at a time when it had matured and was operating efficiently. Although the company was at first reluctant to give up the penal sanction, it was eventually forced to do so and had to hire more than 30,000 labourers under contract without penal sanction. The high profits were beneficial at any rate for the colonial government as they generated a great deal of tax revenue. As mentioned, the Deli Company was largely responsible for the construction of a railway network that connected various towns and ports in North Sumatra. Although the Deli Company suffered losses during the economic depression of the 1930s, it did recover somewhat in the latter half of the decade.

5.3 The Billiton Company: A private-public partnership

Investment

This section is about the tin mining company Billiton. First we take a look at investment, then profitability, and finally linkages and social expenditure. Tin mining had a long history in colonial Indonesia. Indigenous and Chinese tin miners had already been active on Bangka – off the east coast of Sumatra – in the Vereenigde Oostindische Compagnie (Dutch East India Company) era. In 1852, the Billiton Company was founded as a private enterprise for tin mining on the neighbouring island of Belitung. In the same year, the company acquired a mining concession for forty years. The Dutch entrepreneurs were supported by Prince Willem Frederik Hendrik, younger brother of King Willem III. Mining operations began in 1860 with an equity of £5 million, but this was later reduced to £1 million in favour of accelerating depreciation of the tin mining concession. This was inspired by the uncertainty as to whether the tin mining concession would be renewed.⁶⁷

⁶⁷ J. Thomas Lindblad, 'The Outer Islands in the 19th century: Contest for the periphery', in: Howard W. Dick, Vincent J.H. Houben, J. Thomas Lindblad and Thee Kian Wie, *The emergence of a national economy. An economic history of Indonesia, 1800–2000* (Crows Nest, NSW: Allen and Unwin, 2002) 82–110, in particular 95; Somers Heidhues, *Bangka tin and Mentok pepper*, xiv, xv, 7, 54; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 69–72; Touwen, *Extremes in the archipelago*, 58, 133–134; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48–57; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Lindblad, 'Business strategies in late colonial Indonesia', 219; Van Zanden and

In 1882, a conflict arose with the Dutch state about the renewal of the concession, as it wanted a larger share of the profits. Eventually, the concession was extended, but instead of up to 10% of the profits the company had to surrender a much larger share of profits to the state. With the renewal of the concession in 1892, which remained valid until 1927, this share increased to 62.5% of gross profits.⁶⁸

During the 35-year period from 1892 to 1927, the Billiton Company accumulated large reserves but also succeeded in paying lavish dividends. In 1914, the company would have been able to restore its equity to the initial f5 million, but chose to do so only in 1917. The strategy of accumulating reserves was continued up to 1920. At that time, the board expected that the concession would not be extended beyond its expiry in 1927. Therefore, it was argued that the most easily accessible tin should be extracted as soon as possible, and that new exploitation should only be undertaken if profitable in the short run.⁶⁹

The company's desire to accelerate the renewal of the concession created another conflict with the Dutch state in the early 1920s. The government accused the company of paying out lavish dividends without a long-term strategy or long-term investment in the company itself. The government now went one step further and became a major shareholder and partial owner of a new concern that was created in 1924. From that moment there were two companies. The new concern was called the *Gemeenschappelijke Mijnbouwmaatschappij Billiton* (GMB, Billiton Joint Mining Company). The equity of this newly founded company was f16 million in 1924, divided into 16,000 shares. This consisted of 10,000 shares of category A, owned by the state, and 6,000 shares of category B, held by the Billiton Company. The Dutch state now held a stake of 62.5% and received a corresponding share of profits. Tin mining in the Netherlands Indies became

Marks, *An economic history of Indonesia 1800–2010*, 85; NL-HaNa: Billiton Maatschappij en Dochtermaatschappijen: Nederlands-Indische en Indonesische Aktiviteiten N.V., 1860–1985, 30, Report shareholders meeting 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918.

⁶⁸ Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48–49; Van Zanden and Marks, *An economic history of Indonesia 1800–2010*, 86.

⁶⁹ NL-HaNa: Billiton Maatschappij, 88, Report concession claim 10–12–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 54–55; NL-HaNa: Billiton Maatschappij, 342, Documents regarding issue of shares 9–6–1920; NL-HaNa: Billiton Maatschappij, 30, Meetings of shareholders, 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 53; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 68.

dominated by the government. It already owned the Bangka tin mining company and the GMB was majority-owned by the government. Initial hopes of shareholders of the Billiton Company that the share of profit destined for the state would be reduced proved false. The board of the GMB consisted of five members, three appointed by the government and two by the Billiton Company. The latter also chose the director who would be in charge of management for a period of five years.⁷⁰ The GMB operated the tin mines but the Billiton Company was responsible for the management of the GMB.

After renewal of the concession in 1927 and participation in the holding concern GMB, the Billiton Company doubled its equity to f10.5 million in 1928. In the period after the renewal of the concession, share prices of the Billiton Company increased rapidly and in 1928 they were valued at nine times the initial stock value. By comparison, the stock value of the Deli Company had reached its peak in 1914 and performed worse during the 1920s. At the beginning of the economic depression of the 1930s, the share price of the Billiton Company dropped faster compared with the Deli Company. In the second half of the 1930s, shares of both companies recovered, but remained below their previous peak.⁷¹

The Billiton Company purchased other companies, such as the mining company Stannum. New areas were explored, for instance in Sulawesi where nickel was mined. Several companies were owned by both the GMB and the Billiton Company, for instance, Singkep Tin Exploitatie Maatschappij (SITEM, Singkep Tin Exploitation Company), Nederlandsch-Indische Tin Exploitatie Maatschappij (NITEM, Netherlands Indies Tin Exploitation Company), the Nederlandsche Tinhandel Maatschappij (Netherlands Tin Trading Company) and the Nederlandsch-Indische Bauxiet Exploitatie Maatschappij (NIBEM, Netherlands Indies Bauxite Exploitation Company)

⁷⁰ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 11–12–1923; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 5; NL-HaNa: Billiton Maatschappij, 43, Annual report 1925, 5–6; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 5; Lindblad, 'Business strategies in late colonial Indonesia', 217–219; Kamp, *De standvastige tinnen soldaat*, 282–283; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 70, 116–117, 234; Touwen, *Extremes in the Archipelago*, 135; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 168–171; Broersma, *Eene zaak van regt en billijkheid*, 28–31; Taselaar, *De Nederlandse koloniale lobby*, 87; Lindblad, *Foreign investment in Southeast Asia in the twentieth century*, 48; A. Groothoff, *De tinfusie in Nederlandsch-Indië* ('s-Gravenhage: Martinus Nijhoff, 1937) 11–12; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 71.

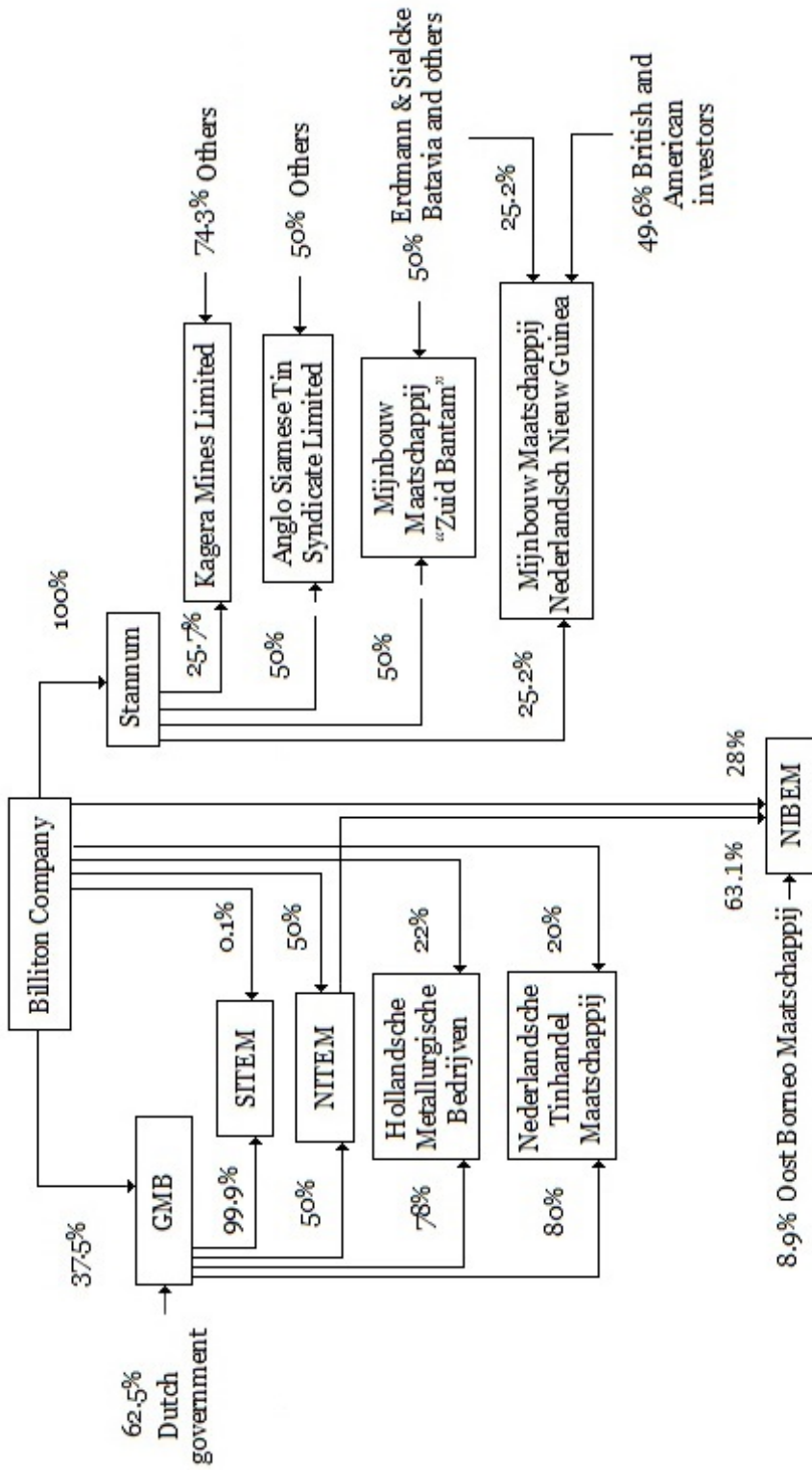
⁷¹ Capital Amsterdam, *Prijscourant uitgegeven door de Vereeniging voor den Effectenhandel te Amsterdam. Stichting Capital Amsterdam: 'Prijscouranten' 1910–1940*.

(Figure 5.8). In 1939, Billiton increased its equity to f14 million. By this time, stock prices had recovered slightly from the economic depression of the 1930s and the aluminium companies Nederlandsch-Indische Aluminium Industrie (Netherlands Indies Aluminium Industry) and the Nederlandsch-Indische Aluminium Verwerkings Industrie (Netherlands Indies Aluminium Processing Industry) were financed by Billiton. A hydroelectric power plant and an aluminium investment syndicate were also financed.⁷² In 1940, a bauxite mining facility was set up in Suriname which proved beneficial when the Second World War broke out. In May 1940 headquarters of Billiton were moved to Batavia but in 1942 headquarters had to be moved to Paramaribo in Suriname as a result of the Japanese occupation of the Netherlands Indies.⁷³

⁷² NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 11–12–1917, 11–12–1923, 29–11–1928, 7–6, 1933; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 5–6; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 30–9–1918, 12–6–1940; NL-HaNa: Billiton Maatschappij, 59, Organisation scheme; Kamp, *De standvastige tinnen soldaat*, 194–195, 279–283; Lindblad, 'Business strategies in late colonial Indonesia', 217–218; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 70; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century*, 53.

⁷³ NL-HaNa: Billiton Maatschappij, 31, Report shareholder meeting, 30–5–1940, 25–3–1942; NL-HaNa: Billiton Maatschappij, 44, Annual report 1940–1948, 10; NL-HaNa: Billiton Maatschappij, 44, 361, Annual report 1940, 5.

Figure 5.8. Overview of ownership of Billiton and affiliated companies, 1936, with equity participation by subsidiary.



Source: NL-HaNa: Billiton Maatschappij, 59, Organisation scheme.

Production

Billiton's tin output increased steadily in the late nineteenth century before stagnating around 1900 at an average of some 5,000 tons. In the beginning of the twentieth century, output even dropped below 4,000 tons, but from 1910 onwards a steady increase took place. In 1921 the company produced nearly 6,000 tons. The enlargement of output at the beginning of the 1920s was motivated by the pending expiration of the concession. In the meantime, market prices dropped but cost prices failed to decline.⁷⁴

During the brief economic slump in the early 1920s, tin producers sought to regulate the tin market by creating the Bandung Pool, in which producers in British Malaya also participated. Output remained stable, but supplies were not brought immediately to the market so as to keep prices at a high level. The situation improved after the establishment of the GMB in 1924. Output increased rapidly and more than 10,000 tons were produced annually by the second half of the 1920s.

Cost prices increased due to a lack of technological improvement and due to exploitation of new tin mines. Fortunately for Billiton, market prices rose even faster, in particular during the second half of the 1920s.⁷⁵ The market price was high at f221.98 per picul in 1927 and output increased to 13,000 tons in 1929 before the economic depression struck.⁷⁶

An international agreement of the International Tin Committee was signed in 1931 in London, in order to restrict the production and export of tin. The original four main tin-producing countries who signed the February 1931 agreement were British Malaya, Bolivia, the Netherlands Indies and Nigeria. Siam signed in September 1931. After the agreement was renewed in 1933, the Belgian Congo and Indochina, among others, joined in. Output was regulated and new quotas were introduced in the following years. For GMB this meant

⁷⁴ NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, Annual reports 1910–1946; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 235.

⁷⁵ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–6–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; Kamp, *De standvastige tinnen soldaat*, 192, 248.

⁷⁶ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 29–11–1928; NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 5–6–1940; Kamp, *De standvastige tinnen soldaat*, 194–195; Lindblad, 'Business strategies in late colonial Indonesia', 218; Note: 1 picul is 62 kg.

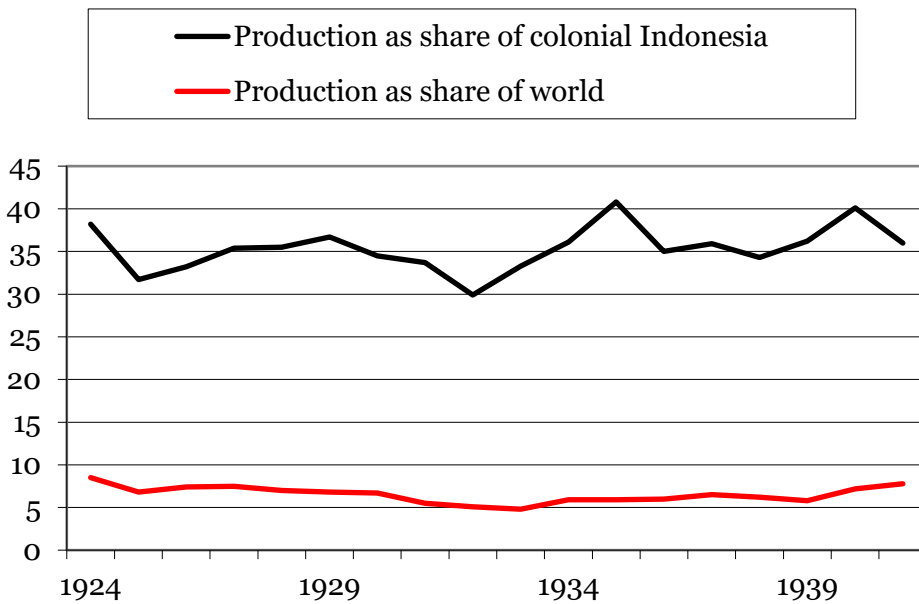
that production levels for 1931 had to be 25.15% lower than in 1930. In practice, this implied that total output of the company was restricted to less than 10,000 tons, whereas for Bangka an output of 19,000 tons was still possible.

As a result of the restriction by the international tin pool, world supplies fell from 58,000 tons in 1932 to 22,400 tons in 1934, which pushed the tin price up. Output at the GMB reached its minimum at less than 4,300 tons in 1933 but recovered afterwards. Output increased slightly again in 1934 and 1935, exceeding 10,000 tons in 1936. Between 1937 and 1941, selling prices recovered and the GMB maintained its high level of production, aided by increasing demand as a result of the start of the Second World War in Europe. In 1941 the GMB reached a new record producing 19,000 tons, but during that year increasing numbers of mine workers had to take part in military service. On 31 January 1942 tin mining operations were halted. Nevertheless, during war, new agreements were made about the restriction of tin production.⁷⁷ Overall, the output of the GMB as a share of total production remained stable. The GMB produced between 30% and 40% of all tin in the Netherlands Indies while the rest came from Bangka. The share of the GMB in world supply fluctuated between 5% and 10% (Figure 5.9).⁷⁸

⁷⁷ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920, 9–6–1931, 7–6–1934; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 10–6–1938, 9–6–1939, 29–9–1939; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; NL-HaNa: Billiton Maatschappij, 360, Annual report 1930, 5–11, 87–92, Annual report 1932, 5–6, Annual report 1933, 7; NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 5, Annual report 1941, 5; Touwen, *Extremes in the Archipelago*, 136; Somers Heidhues, *Bangka tin and Mentok pepper*, 131; William L. Baldwin, *The World Tin Market: Political Pricing and Economic Competition* (Durham, NC: Duke University Press, 1983) 65–67; John Hillman, *The international tin cartel* (Hoboken: Taylor & Francis, 2010) 137–142; Kamp, *De standvastige tinnen soldaat*, 203–205.

⁷⁸ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting, 30–12–1913, 29–11–1928; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting, 9–6–1939; NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 23; NL-HaNa: Billiton Maatschappij, 44, Annual report 1939, 5, 9, 11; NL-HaNa: Billiton Maatschappij, 51, Report financial commission 12–6–1940; Kamp, *De standvastige tinnen soldaat*, 203 194–195; Lindblad, 'Business strategies in late colonial Indonesia', 218.

Figure 5.9. Tin production by GMB as a proportion of production in colonial Indonesia and world production, 1924–1941.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, Annual reports 1910–1946.

Profits

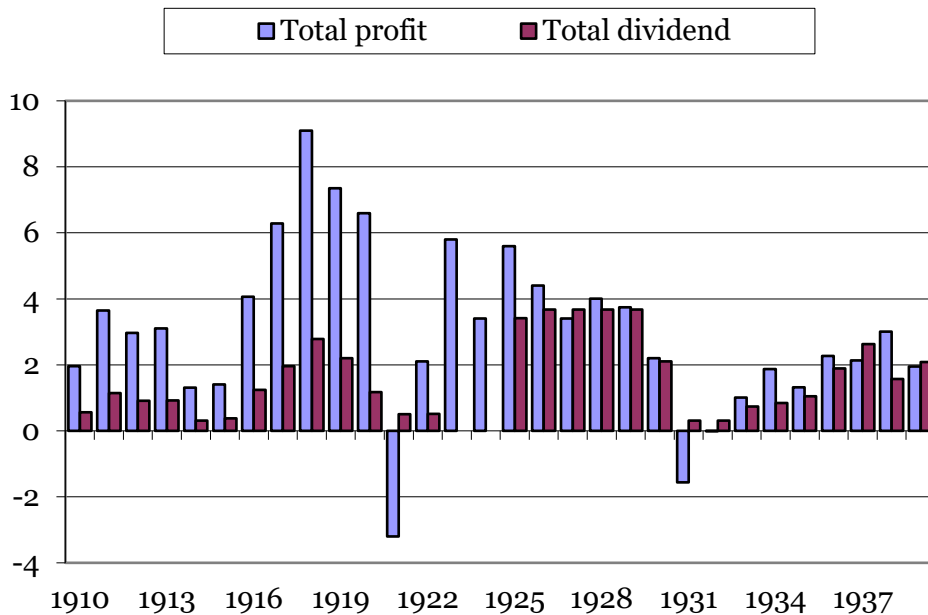
Billiton was widely renowned for its profitability. It generated substantial revenues for its shareholders and for the Dutch state. Already from 1892 onwards, 62.5% of the profits of the Billiton Company went to the state.⁷⁹ Nevertheless, the company still managed to pay large sums of dividend to its shareholders, often as a result of higher market prices. This was the case in the early and late 1910s. Large reserves were accumulated and equity was kept artificially low. This means that a relatively large share of profits was reinvested in expanding production facilities and increasing the capital stock. Between 1910 and 1915, dividend paid out averaged at around f700,000 per

⁷⁹ NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 5; Baldwin, *The World Tin Market*, 65–67; Somers Heidhues, *Bangka tin and Mentok pepper*, 131; Touwen, *Extremes in the Archipelago*, 135; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 168–171; De Ruiter, *Het mijnwezen in Nederlands-Oost-Indië 1850–1950*, 116–117, 234; Broersma, *Eene zaak van regt en billijkheid*, 30.

Profitable pioneers

year, while average profits nearly reached *f*3 million per year (Figure 5.10). Compared with the Deli Company, Billiton was more profitable but initially paid out a lower share of its profits.

Figure 5.10. Total profits and paid-out dividends at the Billiton Company, 1910–1940, in million guilders.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.

Note: For 1923 and 1924 no dividend data available.

Still higher profits in the second half of the 1910s allowed the restoration of equity to *f*5 million in 1917. Yet assets remained undervalued even after this increase. This resulted in a high profit/equity ratio in the later years as well. During the short-lived economic crisis in the early 1920s, dividend rates were still kept at 10%, but reserves dropped from *f*7.7 million in 1920 to *f*4.5 million in 1921 and the company even took up a bond loan of *f*5 million with 7% interest.⁸⁰

Such high dividend rates could either indicate that reserves were already large enough or that the company was conceived primarily as a source of revenue rather than as a long-term investment. The fear of losing

⁸⁰ NL-HaNa: Billiton Maatschappij, 88, Report concession claim 10–12–1920; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 68.

concessionary rights in the future or facing more governmental interference can explain this dividend policy.⁸¹ New investments were not made until the renewal of the concession.⁸² When the concession was renewed and the GMB was established in 1924, dividend rates shot up to 70% with annual dividend payments of £3.675 million in the late 1920s for Billiton and 75% or £12 million per year for GMB between 1924 and 1929 (Figures 5.11). Paying out dividend was preferred above accumulating reserves after the renewal of the concession (in 1927, dividend payments were so large that they partly had to be paid from reserves).⁸³

In 1928, Billiton doubled its equity and, as a result, dividend rates were reduced to half in that year (Figure 5.11). During the economic depression, Billiton still paid out a dividend of 3% in 1931 and 1932, despite the fact that the company actually made losses in these years. By contrast, the GMB paid no dividend at all in these years. Production costs were still slightly higher compared to Bangka. It was estimated that the amount of tin per cubic metre of soil was higher on Bangka, which made it cheaper to produce on Bangka. From 1933 until 1937, dividend rates rose again and large dividend payments were made in 1941 when the company benefitted from more production during the war.⁸⁴ As a raw material, tin was vulnerable to price dips, yet generated a steady profit for the shareholders of Billiton and the GMB during most years, in particular during the boom periods of 1916–1919 and 1925–1930.

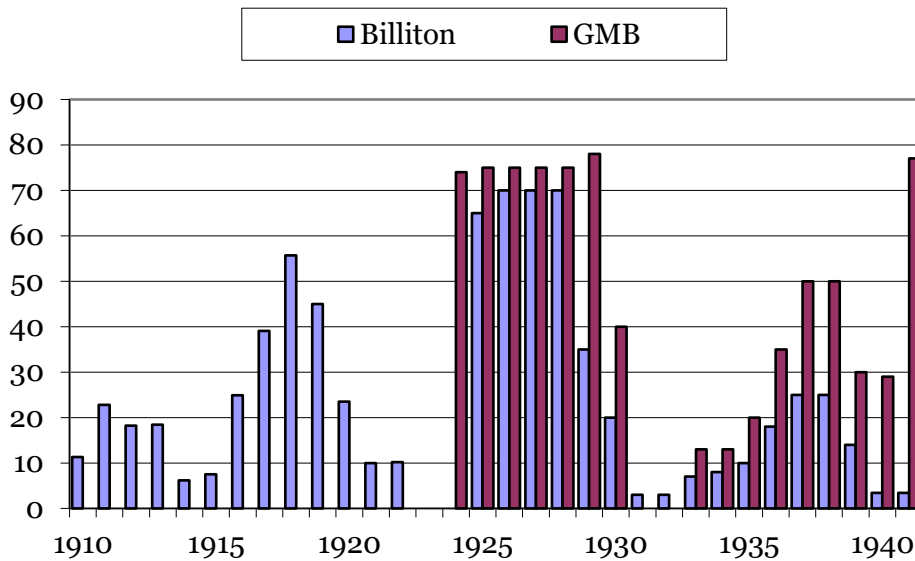
⁸¹ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1914, 11–12–1917; NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 6, 20; Lindblad, 'Business strategies in late colonial Indonesia', 218–219.

⁸² NL-HaNa: Billiton Maatschappij, 42, Annual report 1917, 20; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century*, 53–54; Lindblad, 'Business strategies in late colonial Indonesia', 218–219; Kamp, *De standvastige tinnen soldaat*, 278.

⁸³ NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946, Note: For 1923 no dividend data available.

⁸⁴ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922; NL-HaNa: Billiton Maatschappij, 89, Report financial situation 26–4–1937; Touwen, *Extremes in the Archipelago*, 137; Lindblad, 'Business strategies in late colonial Indonesia', 219–220; Groothoff, *De tinfusie in Nederlandsch-Indië*, 16.

Figure 5.11. Dividend rates at Billiton and GMB, 1910–1941.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.

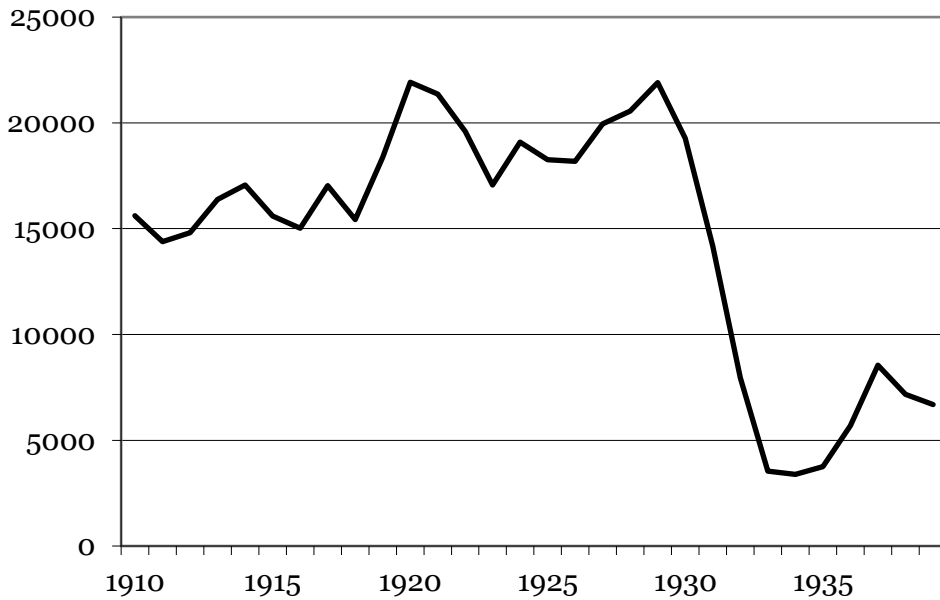
Note: Data for GMB starts at 1924. No data for Billiton for 1923 and 1924. Years 1940 and 1941 for Billiton is based on average for the period 1940–1946. In 1928 Billiton doubled its equity and as a result dividend payments corresponded to one half of total equity.

Linkages

We now turn to the various effects generated by tin mining in the local economy. First, the influx of workers. The vast majority of the workers in the Billiton mines in Belitung were Chinese. They started arriving in 1851 from Singapore. The Chinese mineworkers were recruited by the company overseas, notably in British Malaya and South China. From 1908, they were mostly shipped directly from China. In 1910, around 15,000 people worked at the Billiton Company, including 627 women and 1,113 children. In 1929, more than 21,000 labourers were employed (Figure 5.12). The workforce grew steadily until the economic depression of the 1930s, with fresh workers arriving from China every year. The number of European staff members fluctuated between 1% and 3% of the total workforce. A similar share of Chinese and Indonesian staff members worked as supervisors or assisted

during mining operations.⁸⁵ In the 1930s, the number of indigenous Indonesian workers grew. Compared with the Deli Company in North Sumatra, the number of Chinese workers remained much higher at the Billiton Company. By 1939 around one-quarter of the total workforce consisted of indigenous Indonesians, mostly Javanese.⁸⁶

Figure 5.12. Total workforce at the Billiton Company, 1910–1939.



Source: NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946.

Just as on Bangka (whose mines were state run), the Chinese mineworkers at Billiton in Belitung were initially divided into groups called *kongsi* in Bangka and *numpang* at Billiton. These groups were in charge of operating a mine and paid its workers directly. At Billiton, these groups were developed further, which made it possible for workers to take up additional employment after the

⁸⁵ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920; NL-HaNa: Billiton Maatschappij, 31, Report shareholders meeting 4–6–1937; NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 20–21, Annual report 1927, 12–13; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, 151–152; Mollema, *Gedenkboek Billiton, 1852–1927. I*, 72; Kamp, *De standvastige tinnen soldaat*, 192, 248.

⁸⁶ NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 34–35.

first year of the contract had expired. Profits from tin production were shared and the workers selected their own boss.⁸⁷

In the Billiton Company, around one-third of the total workforce was part of one of these *numpang*, but this proportion fell rapidly during the economic depression of the 1930s. In 1932, only 3% of the workers belonged to a *numpang*. The total workforce had at that time already declined to less than 8,000 workers. Two years later, in 1934, the bottom was reached with less than 3,500 workers. During this time there were no workers in a *numpang* anymore and the remaining workforce consisted only of free workers and part-time labourers. Although the penal sanction was officially abolished in 1931, in 1933 14.7% of the total workforce of the Billiton Company still fell under the penal sanction.⁸⁸

Average wages for workers in a *numpang* rose from f266 per year in 1910 to f402 in 1931. Compensated for inflation, however, real wages declined during the 1920s, but workers who did keep their jobs during the 1930s economic depression experienced an increase in purchasing power. Total payments by these *numpang* fluctuated between f600,000 and f1 million a year.⁸⁹ Chinese coolies working in the Netherlands Indies did send money back to China and the Chinese miners at the Billiton Company were no exception. A tragic example is an accident in 1920 when 33 miners died after a mine had been flooded with mud and water. A compensation was sent to relatives of these miners in China, but sources do not specify how much.⁹⁰ The miners themselves usually had saved money when they returned to China as well. It was possible to save around f200 in five or six years, but only if the miners lived very frugally. An example is documented in the annual reports, telling how in 1921, 974 miners went back to China and taking f386,388 with them, nearly f400 per person. Sending money to relatives abroad while still working in the tin mines also happened. This demonstrated that workers were

⁸⁷ Van den Berg, 'Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries', 213–217; Somers Heidhues, *Bangka tin and Mentok pepper*, 125.

⁸⁸ NL-HaNa: Billiton Maatschappij, 360, Annual report 1933, 26–27, Annual report 1934, 24–25;

NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 18–19.

⁸⁹ NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 30–6–1920;

NL-HaNa: Billiton Maatschappij, 41, Annual report 1910–1911, 39; NL-HaNa: Billiton Maatschappij, 42, Annual report 1922, 5–7; Somers Heidhues, *Bangka tin and Mentok pepper*, 79, 125–126; Mary Somers Heidhues, 'Company island: A note on the history of Belitung', *Indonesia*, Vol. 51 (1991) 1–20, in particular 7.

⁹⁰ NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 14–15; Leenarts, 'Coolie wages in Western enterprise in the Outer Islands', 137; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 30; Booth, 'Exports and growth in the colonial economy, 1830–1940', 80.

able to save some money during their contract at Billiton. In the macro economy, the flow constituted a drain of funds flowing back to China.⁹¹

In 1920, the company created a pension fund for its Chinese and indigenous employees, whereas for Europeans a similar fund had already been set up in 1905. A total of f500,000 was put aside for this fund, less than half of the fund for Europeans.⁹² The Billiton Company distributed rice to its workers at a discount. In 1910 the company bought 120,000 picul for f5.90 per picul and sold it for f5 each. Prices increased to f7.81 per picul in 1924, but the company continued to sell at f5. Subsidies on rice and other foodstuffs cost the company around f100,000 to f200,000 each year. For the year 1925, an estimated f49.94 per worker was provided by the company in the form of food and other goods. Rice was bought from Chinese traders who also provided salt and sugar. Sometimes, rice was imported from Burma as well.⁹³

The Billiton Company provided housing and healthcare for its workers. In 1907, for instance, 76 dwellings for workers had been constructed or repaired.⁹⁴ Since workers in a *numpang* often had to relocate when the soil was exhausted and a new spot found, housing facilities were often temporary.⁹⁵ Sometimes the population was forced to move when tin was found in a settlement or village and the company wished to start mining operations there.⁹⁶ As long as the company paid a compensation to the state and the area measured less than 5 hectares, it was possible to occupy areas not needed for indigenous agriculture.⁹⁷ Houses were regularly built by the company. In 1910 houses were constructed for European staff in Manggar and Tanjung Pandan, but workers had to do with 5 newly constructed sheds. Near

⁹¹ NL-HaNa: Billiton Maatschappij, 42, Annual report 1921, 8–9, 'This flow of money back to China has been described by Booth and Maddison as a double drain. Since profits not only flowed back to the Netherlands, but money went back to China as well, see: Lindblad, 'The late colonial state and economic expansion, 1900–1930', 151; Maddison, 'Dutch income in and from Indonesia, 1700–1938', 79; Maddison, 'Dutch colonialism in Indonesia', 322; Somers Heidhues, *Bangka tin and Mentok pepper*, 125.

⁹² NL-HaNa: Billiton Maatschappij, 42, Annual report 1919, 32–33; NL-HaNa: Billiton Maatschappij, 360, Annual report 1925, 10–11; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, 36–38.

⁹³ NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 30–31, Annual report 1910–1911, 30–31; NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 18–19, Annual report 1925, 14–15.

⁹⁴ NL-HaNa: MvO, 251, Billiton, 1908.

⁹⁵ NL-HaNa: MvO, 253, Billiton, 1913.

⁹⁶ NL-HaNa: MvO, 255, Billiton, 1918.

⁹⁷ NL-HaNa: MvO, 248, Banka en onderhorigheden, 1934; NL-HaNa: MvO, 971, Banka en onderhorigheden, 1934.

the 29 mines of the company, 35 houses were built for *numpang* workers.⁹⁸ In 1910 the company maintained that housing for workers was of a 'decent level' and, therefore, less money needed to be spent on housing.⁹⁹ Nevertheless, one year later, in 1911, the company withdrew that statement and expenditures for housing were again increased.¹⁰⁰ In that year 39 houses were constructed close to the mines and in 1913 another 29 houses were built.¹⁰¹ The number of constructed houses varied over the following years, but until 1940 homes were still being constructed for the workers.¹⁰²

Healthcare was a recurring issue for the company. A healthy workforce meant a higher productivity, which was reflected in lower costs of production. In 1912 two hospitals for the indigenous population living on the island in Manggar and Tanjung Pandan were renovated. One year later a hospital with six barracks was constructed in Tanjung Pandan for the workers of the company.¹⁰³ Overall, the health of the workers fluctuated subject to outbreaks of influenza, malaria and other recurring diseases. Nevertheless, the Billiton Company argued that in Deli, mortality among Chinese workers was higher than at Billiton. Also, the company argued, hospital visits were less frequent compared to Deli. At any given moment in the 1910s, 0.5–1% of its workers were in a hospital, whereas in Deli this was around 4–5%, which seems improbably high. Nevertheless, at Billiton an annual average of more than 20% of its workers visited a hospital with an average stay of 22 days. The number of hospitalized patients fluctuated between 629 in 1911 to a maximum of 7,692 patients in 1920. At Billiton, mortality among its workers fluctuated as well. The lowest figure was reported in 1934 with 19 deaths, but in 1920 it had been 229, corresponding to an annual average of 0.68% of the workforce, or around 100 workers (Appendix 28).¹⁰⁴

The company had difficulties in attracting sufficient numbers of workers to construct roads, collect firewood and provide construction materials.¹⁰⁵ Although smelting did not take place in Belitung, firewood was essential as fuel for the increasing number of steam engines used in tin mining.¹⁰⁶ Agreements were made between the Billiton Company and the

⁹⁸ NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 20–23.

⁹⁹ NL-HaNa: Billiton Maatschappij, 157, Financial statement 1909–1911.

¹⁰⁰ NL-HaNa: Billiton Maatschappij, 157, Financial statement 1910–1912.

¹⁰¹ NL-HaNa: Billiton Maatschappij, 42, Annual report 1911–1912, 24–25, Annual report 1913–1914, 16–17.

¹⁰² NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 12–13.

¹⁰³ NL-HaNa: Billiton Maatschappij, 42, Annual report 1912–1913, 16–17.

¹⁰⁴ NL-HaNa: Billiton Maatschappij, 254, Annual report medical department 1911–1912, 2–6; NL-HaNa: Billiton Maatschappij, 42, Annual report 1918, 16–17.

¹⁰⁵ NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 25–1–1926.

¹⁰⁶ NL-HaNa: MvO, 248, Banka en onderhorigheden, 1934.

colonial authorities that allowed the company to get firewood from areas outside the concession. For this, the company paid a compensation of f1,800 to the state.¹⁰⁷ Steam engines and other equipment used in mining, but not locally produced, came largely from the Netherlands.¹⁰⁸

Attempts by the company to employ the indigenous population for jobs other than tin mining proved futile. Only small numbers of indigenous Indonesian workers had a supporting role in the tin mining industry or were active in construction work. The company argued that this was the result of the mentality of the island's indigenous population, calling them 'lazy'. The company thus had a strong preference for Chinese workers. More could most likely have been done by the company to engage the indigenous population in production and to strengthen backward linkages.¹⁰⁹ If the indigenous inhabitants wished to use wood from forests on the Belitung concession, they had to pay compensation to the colonial state. The Billiton Company had to make such payments as well. In total f30,392 was paid in 1912 and f15,082 in 1913, although it is not specified how much of it originated from the indigenous population.¹¹⁰

The Belitung population was in the 1920s eager to plant rubber trees, stimulated by rising world prices of rubber. This development was not encouraged by the Billiton Company. The company argued that planting rubber trees would come at the expense of rice production by the local population. If there was a crisis in the rubber market the population would have insufficient means to buy rice. Since there was not enough space available on the island for large-scale rice production, a significant part had to be imported from elsewhere in Indonesia or abroad. This rice was provided by the company at a reduced price and therefore, it would be more cost effective for the company if the local population could produce its own food instead of producing rubber.¹¹¹ During the economic depression of the 1930s, it became more difficult for the indigenous inhabitants to get a side job at the Billiton Company. Collecting firewood and construction materials was done more often by employees of the company since there was not enough work available for them in the mines and unemployment was increasing.¹¹²

¹⁰⁷ NL-HaNa: MvO, 250, Billiton, 1907.

¹⁰⁸ NL-HaNa: Billiton Maatschappij, 360, Annual report, 1925, 25–29.

¹⁰⁹ NL-HaNa: MvO, 257, Billiton, 1928.

¹¹⁰ NL-HaNa: MvO, 254, Billiton, 1914.

¹¹¹ NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 25–1–1926; P., Creutzberg, 'De prijs van de rijst in het verre verleden. Een vondst bij de Billiton Maatschappij', *Erts: Maandblad der Billiton bedrijven*, Vol. 21 (1969) 27–30, in particular 27–29.

¹¹² NL-HaNa: MvO, 259, Billiton, 1932.

Health care and education

In 1926 the company created the *Billiton Bevolkingsfonds* (Billiton People's Fund). Its main purpose was to improve the economic and hygienic condition of the entire population of the island. This was not limited to people employed by the company, but in particular served to freely aid the indigenous population on the island. An important assumption was that if the health of the indigenous population was good, this would have a beneficial effect on the wellbeing of the Chinese and European employees as well. Chances of spreading contagious diseases were reduced. This meant lower costs and a higher productive workforce for the company.¹¹³

The fund received a sum of f500,000 from the company and was particularly successful in creating polyclinics and setting up a vocational education centre. An ambulance was bought to visit and treat patients all over the island. To drive this ambulance, an indigenous Indonesian was employed. Of the eight candidates to drive the ambulance, only one was deemed suitable and the political orientation of the employee was an important criteria when selecting the candidate. The company feared unrest among the population at a time when people were becoming politically more aware.¹¹⁴ In order to finance the expansion of the healthcare activities in 1928, another f250,000 was put in the fund. Polyclinics were established at various locations on the island and at the end of the 1930s 22 of these polyclinics were frequented by patients who had various diseases, among which malaria was the most persistent, followed by skin diseases. Medical staff from the company hospital and the polyclinics worked together. Other plans, for instance the erection of a central hospital for the indigenous population, were considered too ambitious by the company. Nevertheless, the medical facilities provided by the fund reached a large number of people. In 1928 a total number of 10,246 patients visited the polyclinics and by 1940 this had increased to 31,089 out of a total population of between 70,000 to 80,000 inhabitants. The number of visits was even higher, exceeding 45,000 in 1940 (Figure 5.13).¹¹⁵ Although the

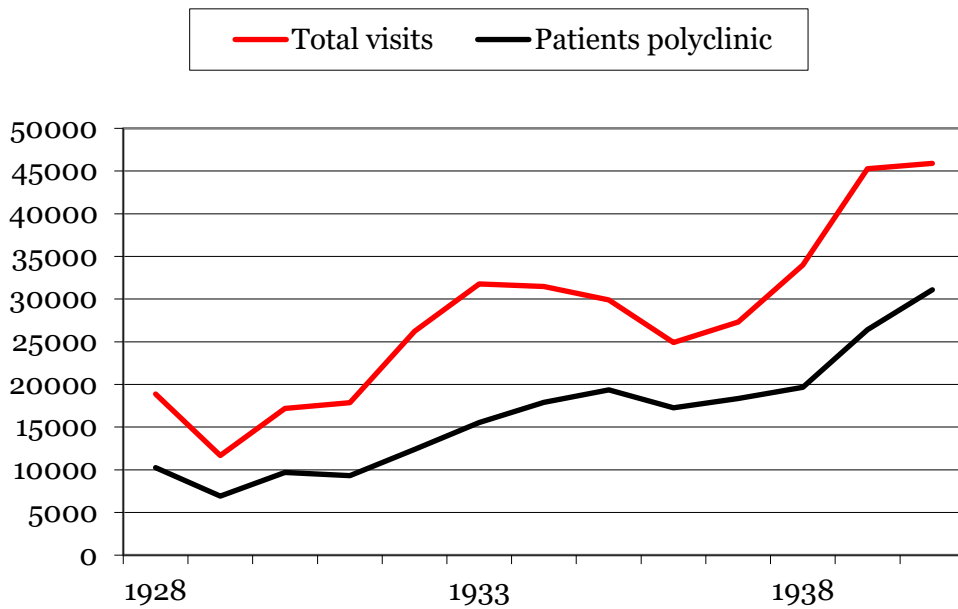
¹¹³ NL-HaNa: Billiton Maatschappij, 360, Annual report 1926 10–11; Ochsendorf, 'Colonial corporate social responsibility', 91–93.

¹¹⁴ NL-HaNa: Billiton Maatschappij, 360, Annual report 1928, 10–11; NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 12–10–1926, 15–3–1957; NL-HaNa: Billiton Maatschappij, 490, Bevolkingsfonds Billiton, Annual report 1927–1928.

¹¹⁵ NL-HaNa: Billiton Maatschappij, 360, Annual report 1929, 12–13; NL-HaNa: Billiton Maatschappij, 489, Bevolkingsfonds Billiton, 5–10–1930; Ochsendorf,

number of patients and visits increased, expenditures dropped. In 1930 expenditures peaked at f30,000, but by 1938 they were only f21,000 (Figure 5.14).

Figure 5.13. Numbers of visits and patients for polyclinics provided by the Billiton People's Fund, 1928–1940.

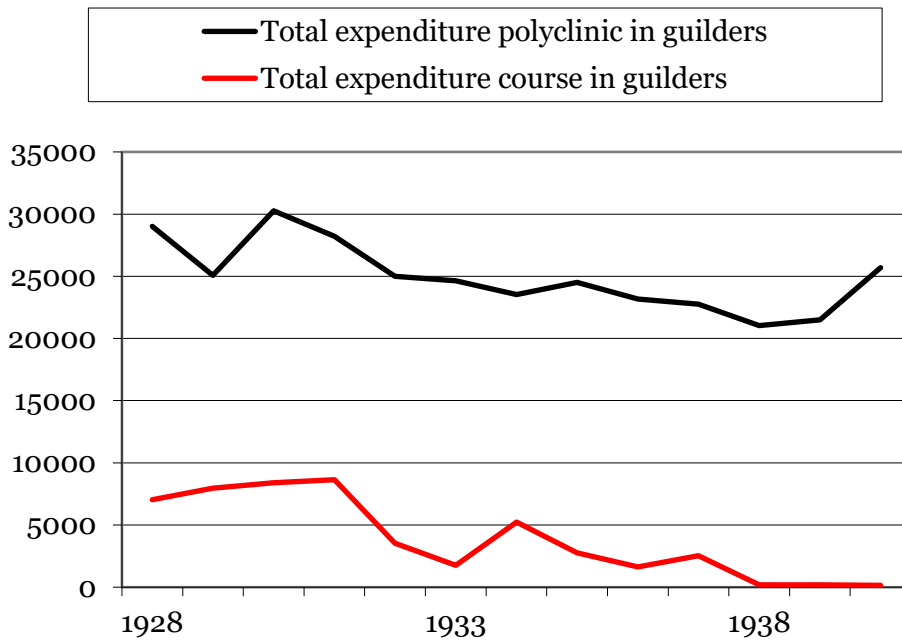


Source: NL-HaNa: Billiton Maatschappij, 42, 360, 361, 490.

'Colonial corporate social responsibility', 93; Mollema, *Gedenkboek Billiton, 1852–1927. I*, appendix 5.

Profitable pioneers

Figure 5.14. Expenditures for polyclinics and training provided by the Billiton People's Fund, 1928–1940, in guilders.



Source: NL-HaNa: Billiton Maatschappij, 42, 360, 361, 490.

Note: The income the workers earned as a result of the employment the course created is deducted from the costs of the course.

The second target of the fund was providing education. The courses set up aimed mainly to recruit local workers for the Billiton Company by teaching relevant skills to be of use in the company. But the training the workers received was only relevant for manual labour in mining operations, whereas no initiatives were taken to prepare workers for higher staff positions. There were six classes of different levels and in total 269 apprentices completed the training. Expenditures on training dropped over time. However, it needs to be mentioned that the income the workers earned in work available after completing training was deducted from the total costs of the course.¹¹⁶ In total, 2.4% of net profits was invested in the Billiton People's Fund between 1928

¹¹⁶ NL-HaNa: Billiton Maatschappij, 360, Annual report 1927, 10–11, Annual report 1930, 20–21, Annual report 1931, 18–19, Annual report 1932, 14–15, Annual report 1934, 14–15; NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 10–11, Annual report 1936, 14–15, Annual report 1937, 12–15, Annual report 1938, 14–17, Annual report 1939, 10–13; NL-HaNa: Billiton Maatschappij, 490, Bevolkingsfonds Billiton, 1929–1930

and 1941, whereas funds for European employees were more than twice as large.¹¹⁷

Could the establishment of this fund be construed as an indication that labour conditions were better at Billiton and that the indigenous population on the island was better off than the inhabitants of Bangka? There are some indications that this was indeed the case. There were more complaints to the Labour Inspectorate by workers from Bangka than from Belitung. Sickness and mortality were lower in Belitung, whereas desertion rates were higher on Bangka. Between 1924 and 1927 the desertion rate was around 1% in Belitung, but on Bangka it was almost 8% in 1927. Also, workers on Bangka moved more earth than their colleagues in Belitung. This could be a sign that work was harder on Bangka, but it could also indicate that productivity and efficiency was higher on Bangka compared to mining in Belitung.¹¹⁸

Whether better, or less worse, conditions of labourers in Belitung derived from the difference between a (partly) private company such as Billiton and a purely state-owned enterprise as Bangka, remains difficult to determine. However, in the literature it is argued that the systems of *kongsi* and *num pang*, and the recruitment of workers, was different on the two islands. There was more cohesion in Belitung and the ties between management and workforce were stronger. This resulted in more freedom for workers in Belitung and a greater ability to save money.¹¹⁹

If we look at aspects such as healthcare, housing and recreational facilities, the situation was similar. Conditions of housing on Bangka and Belitung were about the same. On Bangka there were slightly more hospitals, which suggests that final demand linkages generated by (partly) private companies did not necessarily differ much from those provided by government-run operations.¹²⁰

¹¹⁷ NL-HaNa: Billiton Maatschappij, 360, Annual report 1925, 10–11; NL-HaNa: Billiton Maatschappij, 360, Annual Report 1919, 32–33. See also: Ochsendorf, ‘Colonial corporate social responsibility’, 94, between 1928 and 1941 f930,178 had been invested in the Billiton People’s Fund whereas total profits in the same time amounted to f38.5 million.

¹¹⁸ Somers Heidhues, *Bangka tin and Mentok pepper* 79, 125–126.

¹¹⁹ Van den Berg, ‘Tin island: Labour conditions of coolies in the Billiton mines in the nineteenth and twentieth centuries’ 208–229.

¹²⁰ Lindblad, ‘New destinations: Conditions of coolie labour outside East Sumatra, 1910–1938’, 88–89; Leenarts, ‘Coolie wages in Western enterprise in the Outer Islands’, 146–147.

Infrastructure

In Belitung, a telephone network, roads and tramways were created by the Billiton Company. Waterworks were established and electricity became more widespread at the beginning of the twentieth century. The development of infrastructure benefitted the indigenous population, whilst also stimulating the local economy, quite similar to the situation at the Deli Company. The colonial government benefitted the most, in particular from the telephone networks. In addition, government officials could make free use of cars owned by the company.¹²¹ Belitung was visited by vessels from KPM and other shipping companies sailing between Batavia and Singapore. The ports at Tanjung Pandan and Manggar were connected with rails to the tin mines.¹²² From 1910 onwards, shipping companies and the Billiton Company worked together to distribute mail for the government on the island, for which Billiton received a compensation of f1,500 each year. The company began distributing mail with wheelbarrows, but after one month Billiton found this too inefficient and a postal car was acquired to transport the mail.¹²³

Initially, footpaths were constructed on the island by the company. These roads were kept up by the indigenous population. In later years, the Billiton Company improved many roads that had been constructed by the government. In 1910, for instance, a road from Tanjung Pandan to Manggar was improved at a cost of f46,900. Plans were then made to improve the overall condition of roads on the island. One truck was bought to transport materials for paving the roads. At this time, many roads were still unpaved, which made access with heavy equipment and car transport difficult.¹²⁴ The increase in traffic, however, must not be exaggerated. In 1915 there were only 45 cars on the island and 57 motorcycles, but an estimated 1,000 bicycles were used as well.

Gradually, wooden bridges were replaced with stone and concrete ones in order to make traffic by tram possible and roads were widened. The Billiton Company reserved f10,000 annually for the improvement of roads.¹²⁵

¹²¹ NL-HaNa: MvO, 252, Billiton, 1910; NL-HaNa: MvO, 253, Billiton, 1913.

¹²² Lindblad, 'Business strategies in late colonial Indonesia', 219; NL-HaNa: MvO, 251, Billiton, 1908.

¹²³ NL-HaNa: MvO, 252, Billiton, 1910, In 1914 the agreement of transporting mail for the government was extended and the Billiton Company would receive a compensation of f225 per month, NL-HaNa: MvO, 254, Billiton, 1914.

¹²⁴ NL-HaNa: Billiton Maatschappij, 41, Annual report 1909–1910, 6–7; NL-HaNa: MvO, 256, Billiton, 1924.

¹²⁵ NL-HaNa: MvO, 256, Billiton, 1924; NL-HaNa: MvO, 253, Billiton, 1913; NL-HaNa: Billiton Maatschappij, 42, Annual report 1911–1912, 6–7, Annual report 1915,

Nevertheless, the indigenous population also had to maintain the infrastructure as part of the *heerendiensten* (services for the government).¹²⁶ The Billiton Company in its turn paid money to the government for the use of public roads but could also receive compensation if the company repaired or constructed such roads.¹²⁷ Some roads, such as the one near the Kelapa Kampit mine, were constructed entirely for the purpose of serving the company and, therefore, fully paid by Billiton.¹²⁸ In the early 1930s there were around 600 km of roads in Belitung; 430 km of these were constructed specifically for the company.¹²⁹ In addition, there were 53 km of tramline in 1935.¹³⁰ The construction of the phone network, roads and tramways can be seen as important backward linkages created by the Billiton Company.

Smelting

Tin smelting in Belitung was less successful than on Bangka. On Bangka, numerous smelters were active at the beginning of the twentieth century. Gradually, the number of them dropped to only three in the 1930s. By contrast, experiments with smelters in Belitung did not lead to sustainable smelting facilities.¹³¹ When the Billiton Company started its operations, each mine had its own smelting facility, but already in 1897 tin was shipped to Singapore for smelting. In 1906, more than half of the tin was smelted in Singapore.

Several years later, in 1910, a smelter was set up at Lipat-Kajang near Manggar. This smelter operated until 1921 when the company decided to process all its tin in Singapore.¹³² For Billiton, it proved difficult to attract the appropriate staff and engineers required for the specialized operations in smelting. The provision of coal was complicated too and the quantities needed was more than expected. New plans were made to establish smelting facilities near Batavia, but after experiments in Germany with electricity instead of coal as fuel for smelting proved successful, GMB decided that a similar smelting

6–7, Annual report 1916, 12–13; NL-HaNa: Billiton Maatschappij, 30, Report shareholders meeting 27–6–1917.

¹²⁶ NL-HaNa: MvO, 251, Billiton, 1908.

¹²⁷ NL-HaNa: MvO, 251, Billiton, 1908; NL-HaNa: MvO, 253, Billiton, 1913.

¹²⁸ NL-HaNa: MvO, 253, Billiton, 1913.

¹²⁹ NL-HaNa: MvO, 258, Billiton, 1931.

¹³⁰ NL-HaNa: Billiton Maatschappij, 361, Annual report 1935, 16–17.

¹³¹ Touwen, *Extremes in the Archipelago*, 134; Lindblad, *Foreign Investment in Southeast Asia in the Twentieth Century*, 57; Sluyterman, *Dutch enterprise in the twentieth century*, 102; Lindblad, 'Business strategies in late colonial Indonesia', 219.

¹³² NL-HaNa: Billiton Maatschappij, 360, Annual report 1924, 22–23.

facility had to be constructed in the Netherlands. A separate company was founded for this purpose in 1928.¹³³ The *Hollandsche Metallurgische Bedrijven* (Dutch Metallurgical Companies) in Arnhem was founded jointly by the GMB and the Billiton Company. In 1930 the GMB shipped its first 200 tons of tin to Arnhem in order to smelt it there and from 1931 the smelter was fully in possession of the GMB after all remaining shares had been acquired. By 1933 this smelter had become so successful that all tin from Belitung and Singkep Island was smelted in Arnhem, and in 1938 half of the tin from Bangka as well.¹³⁴

In total, Billiton produced around one-fifth of the world's tin production. In the meantime, the facilities in Arnhem had been enlarged. However, it proved too expensive to acquire the required electricity for this process and therefore oil was used as fuel for the furnaces. When the Second World War broke out in Europe, tin from Belitung was smelted in Singapore again.¹³⁵ But Singapore was occupied by the Japanese in the beginning of 1942 and tin smelting was halted. In the United States, plans were made to build a smelter in order to meet the local demand for tin. Supported by initiatives by Billiton, this led to the foundation of the Tin Processing Corporation in 1941. In April 1942 it started its operations in Texas City, becoming the largest tin smelter in the world, with a production of 45% of the world's tin in 1946, and also smelting tin from Belitung.¹³⁶

Taxes

Billiton was a highly profitable company and from 1892 onwards the Dutch state received five-eighths of its profit. The income accruing to the state amounted to more than *f*800,000 in 1914 and reached its maximum in 1918 at nearly *f*5.7 million. This amount increased further after the foundation of the GMB to *f*13 million in 1927, dropping to *f*4 million in 1930. During the economic depression, losses were incurred, but in 1938 more than *f*6 million was made by the Dutch state.

Revenue from excises and taxes from the island of Belitung were substantial as well. In 1913 such revenues surpassed *f*1 million; they doubled by 1925, although not all can be ascribed to activities of the company. Import

¹³³ NL-HaNa: Billiton Maatschappij, 43, Annual report 1928, 9–11.

¹³⁴ NL-HaNa: Billiton Maatschappij, 43, Annual report 1930, 9; NL-HaNa: Billiton Maatschappij, 360, Annual report 1929 48–49; Kamp, *De standvastige tinnen soldaat*, 175–178.

¹³⁵ NL-HaNa: Billiton Maatschappij, 361, Annual report 1940, 14–15; Annual report 1941, 16–17.

¹³⁶ Kamp, *De standvastige tinnen soldaat*, 180–188.

and export taxes taken together increased from around £300,000 in 1910 to more than £900,000 in 1924, amounting to more than £8 million between 1910 and 1924. Annual proceeds from income tax, company tax and war profit tax paid by the Billiton Company exceeded £100,000 from 1910 and reached a peak at nearly £1 million in 1918. Proceeds fluctuated between these two extremes until 1923. Over the period 1910–1923, in total nearly £4.3 million was brought in by these taxes, corresponding to 10% of total profits at Billiton.

The share of dividend and company tax in total revenues rose rapidly in the second half of the 1920s. Before 1924 company tax had generated less than £100,000 annually, but after the introduction of the new company tax in 1925 this share rose substantially. Later in the 1920s, an annual average of £2 million went to the Dutch state from this tax alone and in the late 1930s, after the recovery from the economic depression, a similar amount was collected, with a peak at £4.6 million in 1940. Revenues from the dividend tax were lower, but still at £200,000 per year between 1925 and 1940.¹³⁷

Assessment of Billiton

The Billiton case study demonstrates that much happened on the island of Belitung. The Billiton Company attracted large numbers of workers from China, but during the 1930s it became necessary to reduce the workforce to half, even though production rose to unprecedented levels. Billiton was responsible for the construction and maintenance of a significant part of the physical infrastructure on the island. The company also provided housing and medical care for both its workers and the island's population in general. It can therefore be seen as a pioneer comparable to the Deli Company. Unfortunately, forward linkages such as tin smelting on the island of Belitung did not materialise. Just like the Deli Company, the Billiton Company was highly profitable, but Billiton did better than the Deli Company during the 1920s and the 1930s.

¹³⁷ Jarig Cornelis Mollema, *Gedenkboek Billiton, 1852–1927. II*. (Den Haag: Nijhoff, 1927) appendix 13; Mollema, *De ontwikkeling van het eiland Billiton en van de Billiton-Maatschappij*, bijlage 4; NL-HaNa: MvO, 256, Billiton, 1924; NL-HaNa: Billiton Maatschappij, 41, 42, 43, 44, 360, 361, Annual reports 1910–1946, the export tax on tin was partly paid by the Billiton Company and partly by the tin buyers. Income tax, company tax, war profit tax 1918 and 1919 also includes taxes paid by workers and staff.

5.4 HVA: A tale of sugar

Investment

The third and final case study concerns HVA, which started as a general trade company but later became an important player in the production of export crops, in particular sugar. In 1878 the trading company Van Beek, Reineke & Co. in Batavia, was dissolved. The operations of this firm and those of two other firms, H. Reineke in Amsterdam and Wille, Gans & Co. in Surabaya, were converted into a new company, Handelsvereniging 'Amsterdam'. Operations began on 1 January 1879 with a total equity of f1.25 million divided into 2,500 shares of f500 each. The list of founders mentioned 144 names and varied from the engineering company Stork to gin distillers Blankenheym & Nolet. H. Reineke and J.L. Kuinders were the first directors of the new company with headquarters in Amsterdam. In Java, branch offices were set up in Batavia, Semarang and Surabaya. Activities were initially described as trade in general, including import and export, but excluding commercial plantations. The last-mentioned were deemed too risky.¹³⁸ The main customers of HVA included Chinese businessmen in particular and also a few Arab traders.¹³⁹

Already in its first year of operation a consignment agreement was concluded with one sugar company in East Java. In 1880, similar agreements were made with other sugar companies and with a coffee estate as well. In 1881, equity was raised to f2.5 million, and in 1882 the statutes made it possible to engage in estate agriculture. If debtors possessed agricultural estates but became insolvent, their estates could be taken over by HVA. There was a preference for providing short-term credit instead of longer commitments in order to guard against fluctuations and exposure to the world market. Therefore, it was no surprise that at a given moment HVA would become involved in the operations of several agricultural companies. This was accelerated due to the sugar crisis from 1884 and lasted until the 1890s. HVA then had to take up a bond loan of f1.5 million in 1885, but running

¹³⁸ Goedhart, *Eerherstel voor de plantage*, 16–17; Joost Jonker and Keetie E. Sluyterman, *Thuis op de wereldmarkt* (Den Haag: SDU Uitgevers, 2000) 202–203; Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 5; Claver, *Dutch commerce and Chinese merchants in Java*, 66; Allen and Donnithorne, *Western enterprise in Indonesia and Malaya*, 190–191; NL-HaNa: HVA, 11, Annual report 1910, 7–8; W. Brand, *1879 HVA 1979: Honderd jaar geschiedenis der Verenigde HVA Maatschappijen NV* (Amsterdam: Verenigde HVA-Maatschappijen, 1979) 35.

¹³⁹ Claver, *Dutch commerce and Chinese merchants in Java*, 69–71.

agricultural activities became now part of the official company policy. HVA became more strict with lending money out of fear of bankruptcies. The average credit limit of its Chinese customers was reduced from f10,000 to f7,000. In 1884, the agricultural activities of HVA amounted to f1,150,000 and by 1891 it had increased to f3,690,000. In the meantime, 11 consignment agreements had been made with sugar companies, six with coffee estates, two logging concessions and one with an indigo and tobacco producer. One year later, in 1892, equity was further increased to f3.5 million in order to enable an expansion of agricultural activities.¹⁴⁰

In 1893 seven-eighths of the sugar company Minggiran was in the hands of HVA, while HVA gained full possession of Kentjong and Kawarasan when its Chinese owners failed to pay their debts to HVA. Kawarasan was sold right away for f200,000, since HVA was not keen on running it, but in 1894 it was again acquired by HVA. After a fruitless attempt to sell it, in 1896 it was decided to erect a new factory for this company and in the same year the sugar interests of HVA expanded with another company, Sroenie. In 1896 HVA produced sugar on an area of 1,562 hectares (2,200 bouw) with a production of 11,520 tons (192,000 picul). In the meantime, some coffee estates had been acquired as well. In 1896 they covered 3,550 hectares (5,000 bouw) with a production of 1,080 tons (18,000 picul). Gradually, production levels increased and at the turn of the century the cultivation company Menang came fully into the hands of HVA, whereas two indigo estates in Kediri were bought and converted for use in the sugar industry. In order to finance all these activities, equity was once more increased in 1899 to f5 million. By that time HVA possessed six sugar estates and nine coffee plantations.¹⁴¹

Although the agricultural activities of HVA expanded rapidly, its import and export activities were far from neglected. Imported items varied from bibles to matches and lightbulbs, but products from Dutch textile producers became increasingly important. Between 1896 and 1901, total turnover at the trade branch in Java increased by 40%, and in 1904 new offices were opened in Manchester and Singapore. The willingness of HVA to invest

¹⁴⁰ NL-HaNa: HVA, 11, Annual report 1910, 7–8; Claver, *Dutch commerce and Chinese merchants in Java*, 67–72, 104; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 123; J.A.M. Goedkoop, 'Handelsvereniging 'Amsterdam' 1945–1958, herstel en heroriëntatie', *Jaarboek voor de Geschiedenis van Bedrijf en Techniek*, Vol. 7 (1990) 219–240, in particular 221; Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 9.

¹⁴¹ Goedhart, *Eerherstel voor de plantage*, 20–21, 32; Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 6–9.

in the sugar industry was strongly motivated by the termination of the protection of the beet sugar industry in Europe in 1902. When both import duties on sugar cane from Java and the subsidy of beet sugar in Europe were reduced, it became more profitable to produce sugar in Java.¹⁴² In 1904, HVA acquired another sugar factory, Garoem, while six coffee estates in Kediri were transformed into tapioca and fibre producers. Plots of land between Jember and Lumajang in East Java were purchased and the single largest sugar factory in Java, Djatiroto, was built. In the meantime, equity was increased from f5 million to f6.25 million in 1905.

The construction of Djatiroto was an ambitious project. In 1906 construction started and eventually the area on which this factory operated covered around nearly 10,645 hectares (15,000 bouw), more than ten times the size of the average sugar factory. In 1909 it was ready to start producing but this required increasing equity on two occasions in order to finance the operations. First to f7.5 million in 1908 and one year later to f10 million. Moreover, a bond loan of f4.5 million and reinvestment of profit proved necessary to finance these expenditures.¹⁴³ However, in 1909 and 1910 losses at the Djatiroto factory amounted to around f1 million each year. Various problems such as cane fires, low fertility of the virgin soil and difficulties due to its sheer size had to be tackled. The vast administration, irrigation, the large size of the required labour force and the power supply of the machines also offered unexpected challenges.¹⁴⁴

The construction of the factory cost a lot of money. Reineke argued that by 1910 roughly f10 million had been spent on Djatiroto, and operating costs would eventually increase to around f8–9 million each year.¹⁴⁵ In the meantime, doubts were voiced about the future profitability of the import and export activities. Debtors were slow in paying off loans; a problem deemed to be less serious if HVA owned and operated agricultural activities. Moreover, it was considered that the activities of HVA had become too extensive.

The import trade required funding, but equity was vital for the expansion and operation of the agricultural estates. By 1910 the value of the agricultural branch of HVA was estimated to be more than f20 million, which

¹⁴² Claver, *Dutch commerce and Chinese merchants in Java*, 261.

¹⁴³ NL-HaNa: HVA, 11, Annual report 1909, 4–8, Annual report 1910, 9, Annual report 1919, 5; Claver, *Dutch commerce and Chinese merchants in Java*, 255; Knight, *Commodities and colonialism*, 185.

¹⁴⁴ NL-HaNa: HVA, 11, Annual report 1909, 8, Annual report 1910, 9; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71; Van der Zwaag, *Verloren tropische zaken*, 106.

¹⁴⁵ Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

was more than three times the estimate for 1904. Trading activities were valued at no more than £5 million in 1910. Prospects looked more promising in estate agriculture whereas the picture for the import trade was bleak.¹⁴⁶ The initial failure of Djatiroto in 1910 was a major drawback and HVA ended up in a liquidity crisis needing capital at short notice. At the end of 1910, 42% of the money invested in Djatiroto had been written off. Thanks to other profitable sugar plantations, the company managed to survive.¹⁴⁷

This experience led the management to conclude that it had to discontinue other trading activities and put the money into estate agriculture. After a fruitless attempt by HVA to set up its own trade company, it was eventually decided in 1910 to terminate the import trade. Goods and equipment imported from then were solely linked to the expanding agricultural activities of the company. Exports of these crops, in particular sugar, became the core activity of the company. The decision to change the company policy was not without disagreement. This change of strategy was done without consulting shareholders and led to objections. Still, decisions of the board were accepted since its position was very powerful, with directors holding around half of total equity. Therefore, the directors did not find it necessary to inform or discuss their plans with all shareholders. The new strategy was only briefly raised at the shareholder meeting of 1911, where the board stated that it was in the best interest of the company and of the shareholders.¹⁴⁸

Internatio was immediately asked whether it was interested in taking over the trade activities of HVA for the sum of £500,000; it was in reality,

¹⁴⁶ NL-HaNa: HVA, 1, Board Meeting, 7–2–1908; Goedhart, *Eerherstel voor de plantage*, 23; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 9–10; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 123–141; Knight, *Commodities and colonialism*, 177; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

¹⁴⁷ NL-HaNa: HVA, 11, Annual report 1910, 7–8; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 131; Claver, *Dutch commerce and Chinese merchants in Java*, 255–259; Brand, *1879 HVA 1979*, 13–14.

¹⁴⁸ NL-HaNa: HVA, 13, Report shareholders meeting 21–6–1911; NL-HaNa: HVA, 11, Annual report 1910, 5–8; Claver, *Dutch commerce and Chinese merchants in Java*, 253–254; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 122–123. Compared with other large enterprises, for instance the Deli Company, staff members of HVA did usually not hold high positions in other companies. The management did not consist of people from the nobility but self-made men. HVA was also one of the few companies that was not part of the Java Suiker Vereniging (Java Sugar Association) but in 1918 it became a member of the Verenigde Java-Suiker Producenten (United Java Sugar Producers Association), Taselaar, *De Nederlandse koloniale lobby*, 69, 106; Goedhart, *Eerherstel voor de plantage*, 171–172.

valued at f250,000. Internatio was reluctant and argued that the price was too high and that there was also an issue of conflicting interests.¹⁴⁹ HVA was now running out of options and decided to resume negotiations with Internatio. In December 1910 they succeeded in making an agreement and Internatio took over all trade in bulk goods such as ammonia, cement, iron, phosphates and wood. On the last day of 1910, the trading firm Geo. Wehry was willing to take over the trade of beverages and food. Eventually, HVA received f352,000 for the sale of its trading activities. The approximately f4–f5 millions of capital earned annually from trading activities and obligations was directly invested in the agricultural branch. The ending of trading activities ushered in a new start for HVA. From then onwards, it could fully focus on the production of agricultural crops. Hopes were high for Djatiroto.¹⁵⁰ Gradually, the situation improved. In 1913 directors admitted that mistakes had been made when constructing Djatiroto. Now the future looked brighter, due to rising sugar prices.¹⁵¹

In the meantime, HVA explored areas outside Java as well in order to spread risks and not become dependent on the production of one single crop. Whilst another four sugar plantations were purchased in Java, large areas were acquired in North Sumatra for the production of palm oil, rubber, tea and sisal. This required yet another increase of equity to f15 million in 1916 and a bond loan of f4 million, topped by another bond loan of f4.8 million in 1917. The share of equity held by the directors declined from one-half in 1911 to one-quarter in 1917.¹⁵² By 1919, when at least f10 million had already been invested in Sumatra, issued equity reached f17.5 million, and at the beginning of the 1920s, HVA made plans to expand into Sulawesi and Kalimantan. Yet none of these ambitions materialized. Various reasons were given for this, such as infertile land, wrong rainfall, poor infrastructure and lack of a labour

¹⁴⁹ Claver, *Dutch commerce and Chinese merchants in Java*, 258; Goedhart, *Eerherstel voor de plantage*, 23.

¹⁵⁰ NL-HaNa: HVA, 11, Annual report 1912, 25; Claver, *Dutch commerce and Chinese merchants in Java*, 103, 257–259.

¹⁵¹ Knight, *Commodities and colonialism*, 183–184; Claver, *Dutch commerce and Chinese merchants in Java*, 260; Goedhart, *Eerherstel voor de plantage*, 40; NL-HaNa: HVA, 11, Annual report 1913, 10.

¹⁵² NL-HaNa: HVA, 11, Annual report 1916, 4, 26, Annual report 1917, 9; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 10; Knight, *Commodities and colonialism*, 148–151; Robin Murray, ‘Drakentanden. HVA en de ontwikkeling van het imperialisme’, in: Ferd Crone and Henk Overbeek (eds), *Nederlands kapitaal over de grenzen. Verplaatsing van produktie en gevolgen voor de nationale ekonomie* (Amsterdam: SUA, 1981) 94–115, in particular 94–96.

force. The last mentioned factor was particularly relevant for the failure of expansion to New Guinea.¹⁵³

Production of sugar, therefore, remained the vital activity of HVA and the 1920s proved to be the best decade for this crop. The company continued to expand. In 1920 equity was increased to £20 million and by the end of this decade it had reached an impressive £40 million. However, even this equity of £40 million was less than the real value of the assets. Already at the beginning of the 1920s, director P. Reineke argued that the real value of the company exceeded £90 million.¹⁵⁴ Many estates and offices – including more than 1,000 homes for employees and even more dwellings for labourers – had a symbolic book value of only £1. Assets were written off fast. The reduction of the value of assets stemmed from a conservative financial policy and was also undertaken for fiscal reasons.¹⁵⁵ In 1919, for instance, buildings and offices were bought at a price of £388,648 and valued in the books at only £3.¹⁵⁶

Initially, capital was mobilised through issuing shares and bond loans. In the course of time, retained earnings and reinvestment of profit became more important for financing expansion. The company also had a preference for bond loans for which the company was not required to pay any dividend. As a result it could maintain its high rate of dividend for shareholders. Between 1910 and 1930, at least £150 million was invested in HVA. On top of total equity, another £100 million was obtained through reinvestment of profits.¹⁵⁷ Goedhart argues that from 1879 until 1925 £100 million was invested, between 1925 and 1929 another £110 million, and between 1930 and 1940 another £50 million. This calculation brings the total to £260 million. By the end of the 1920s £60 million was invested in East Java, mainly in Djatiroto, but also in an adjacent factory and three other factories located to the south and east of Djatiroto. Goenoengsari and Semboro began producing

¹⁵³ NL-HaNa: HVA, 11, Annual report 1909, 4; NL-HaNa: HVA, 12, Annual report 1919, 5; Goedkoop, 'Handelsvereniging 'Amsterdam'', 219–240, 234; Knight, *Commodities and colonialism*, 145; NL-HaNa: HVA, 2, Board meeting, 4–4–1919.

¹⁵⁴ NL-HaNa: HVA, 11, Annual report 1920, 5; NL-HaNa: HVA, 12, Annual report 1925, 5, Annual report 1926, 5; Annual report 1927, 5; Knight, *Commodities and colonialism*, 144; Taselaar, *De Nederlandse koloniale lobby*, 252.

¹⁵⁵ Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13; Goedhart, *Eerherstel voor de plantage*, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11, Annual report 1927, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

¹⁵⁶ NL-HaNa: HVA, 12, Annual report 1919, 10.

¹⁵⁷ NL-HaNa: HVA, 11, Annual report 1916, 7; NL-HaNa: HVA, 12, Annual report 1917, 40, Annual report 1928, 9; NL-HaNa: HVA, 13, Report shareholders meeting 21–3–1928; Knight, *Commodities and colonialism*, 137–145.

in 1928 and Bedadoeng in 1929. Finally, in Kediri, to the west of Djatiroto, the last sugar factory of HVA was constructed in 1930.¹⁵⁸

HVA truly had become a dominant player in the field. In total, HVA managed 36 agricultural estates. The majority was in Java but investment in Sumatra must not be overlooked. Twenty-one of the estates were located in Java and 15 in Sumatra. In Java the company had 15 sugar factories, four tapioca factories, of which three also produced sisal, and two rubber estates, of which one also produced coffee. In Sumatra there were five tea plantations, four sisal factories, four rubber estates and two palm oil factories. In Java the area cultivated for sugar amounted to 13,500 hectares of leased land in Kediri and another 12,500 hectares in East Java. The estates growing cassava covered 17,000 hectares and the sisal estates 5,000 hectares. For rubber, another 1,000 hectares was used and for coffee 400 hectares. In Sumatra 25,000 hectares was used for sisal, 20,000 hectares for palm oil, 10,000 hectares for tea and 9,000 hectares for rubber. In total, the company operated a vast area of 113,400 hectares.¹⁵⁹ During the economic depression of the 1930s, the company suffered severely and had to call a halt to long-term investments, whilst also reducing output levels.¹⁶⁰ At the start of the Second World War the administration moved from Amsterdam to Surabaya. HVA then still produced around 25% of all palm oil in the Netherlands Indies. Production of cassava and sisal for England and the United States continued until the Japanese invasion.¹⁶¹

¹⁵⁸ Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11–13; Goedhart, *Eerherstel voor de plantage*, 42, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11; NL-HaNa: HVA, 12, Annual report 1925, 12; Annual report 1927, 11–12; Annual report 1929, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

¹⁵⁹ Taselaar, *De Nederlandse koloniale lobby*, 40; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11; Helfferich, *Die Niederländisch-Indischen Kulturbanken*, 130; Theophile George Emil Hoedt, *Indische bergcultuurondernemingen voornamelijk in Zuid-Sumatra: Gegevens en beschouwingen* (Wageningen: H. Veenman & Zonen, 1930), 12–13; Goedhart, *Eerherstel voor de plantage*, 326–327; Goedkoop, ‘Handelsvereniging “Amsterdam”’, 221; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12.

¹⁶⁰ NL-HaNa: HVA, 12, Annual report 1930, 12; Annual report 1931, 10, Annual report 1932, 11–12; Brand, *1879 HVA* 1979, 37, 71.

¹⁶¹ Goedkoop, ‘Handelsvereniging “Amsterdam”’, 223.

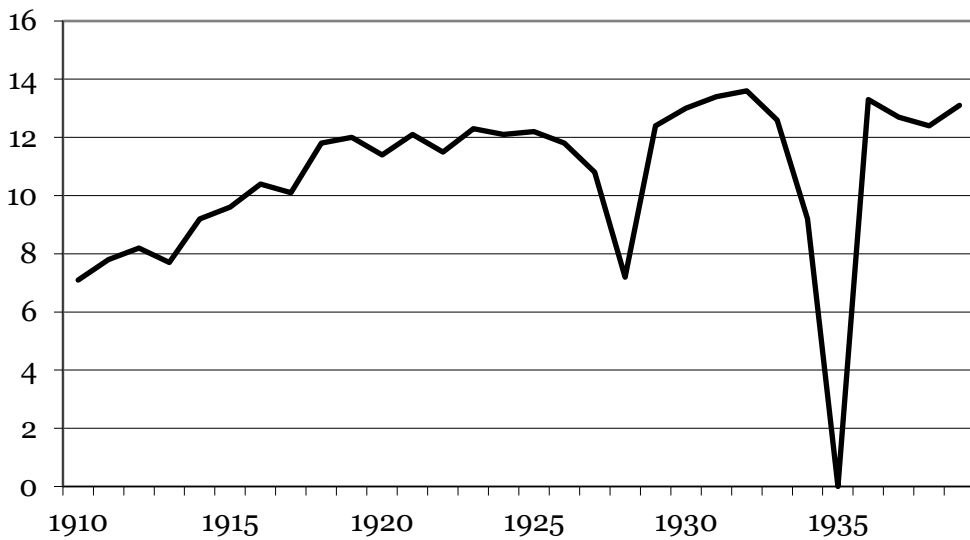
Output

HVA's total sugar production increased rapidly from 1910, when output was less than 100,000 tons until it reached its peak in 1930, when 390,000 tons of sugar were produced.¹⁶² By contrast, in 1930 a total of 3 million tons of sugar was produced in the Netherlands Indies. HVA expanded into becoming the largest single producer in the sugar industry. In 1910, HVA produced 7% of the total sugar production in Java, but in 1932 it reached nearly 14% (Figure 5.15). The share of the sugar production by HVA corresponded to the total acreage used for sugar in Java. Total area under cultivation increased rapidly up to the early 1930s. Roughly 200,000 hectares in Java were used for sugar production, whereas HVA occupied a total of around 26,000 hectares, which translates into a share of 13%. In terms of productivity, HVA was average. During its entire period of operations, productivity at Djatiroto was below average. In 1930, the average sugar yield per hectare was around 148 quintals or 14.8 tons. For Djatiroto, however, this was only 126 quintals. It is possible that over time Djatiroto could have managed to reduce production costs and become more competitive despite the lower productivity per hectare, but this is speculative, as in 1914 the total cost price of sugar per picul produced by HVA increased precisely because Djatiroto was included in the company's calculations from that year onwards. Djatiroto's productivity was clearly compensated for by HVA's other sugar factories in Kediri. During the economic depression only four of its sugar factories maintained operations, and in 1935 no sugar was produced at all. After the economic depression of the 1930s output figures were only half of the levels achieved during its peak. Only in 1939 did output again exceed 200,000 tons. Nevertheless, HVA managed to maintain its high share in total sugar production, a sign that the company did not fare worse than other producers.¹⁶³

¹⁶² NL-HaNa: HVA, 11, Annual report 1910–1918, NL-HaNa: HVA, 12, Annual reports 1919–1939.

¹⁶³ NL-HaNa: HVA, 11, Annual report 1914, 8; NL-HaNa: HVA, 12, Annual report 1935, 9, Annual report 1948, 8; Knight, *Commodities and colonialism*, 185–187; Goedhart, *Eerherstel voor de plantage*, 78, 95–103.

Figure 5.15. Sugar production of HVA as proportion of the total sugar production in Java, 1910–1939.



Source: NL-HaNa: HVA, 11, Annual reports 1909–1939; Creutzberg and Van Dooren, *CEI*. Vol. 1, 75–76.

By 1930 sugar prices had dropped significantly from their peak in 1920. During the peak, HVA had managed to sell at an average of *f*33 per picul, but by the early 1930s market prices had dropped to less than *f*5 per picul. They never fully recovered. Fortunately for HVA, cost prices had declined during the 1920s as well, yet not far enough to make the sugar business as profitable as it had been in the 1920s.¹⁶⁴ Next to sugar, HVA produced up to 60,000 tons of sisal, 60,000 tons of palm oil, 12,000 tons of rubber and 10,000 tons of tea each year, which helped to compensate for the declining revenue from sugar.¹⁶⁵

¹⁶⁴ Goedhart, *Eerherstel voor de plantage*, 79–81; Creutzberg and Van Dooren, *CEI*. Vol. 1, 75–76; Knight, *Commodities and colonialism*, 191–192; NL-HaNa: HVA, 11, Annual report 1909–1918; NL-HaNa: HVA, 12, Annual report 1919–1939. Note: cost price data available until 1927.

¹⁶⁵ Goedkoop, 'Handelsvereniging 'Amsterdam'', 221; Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12.

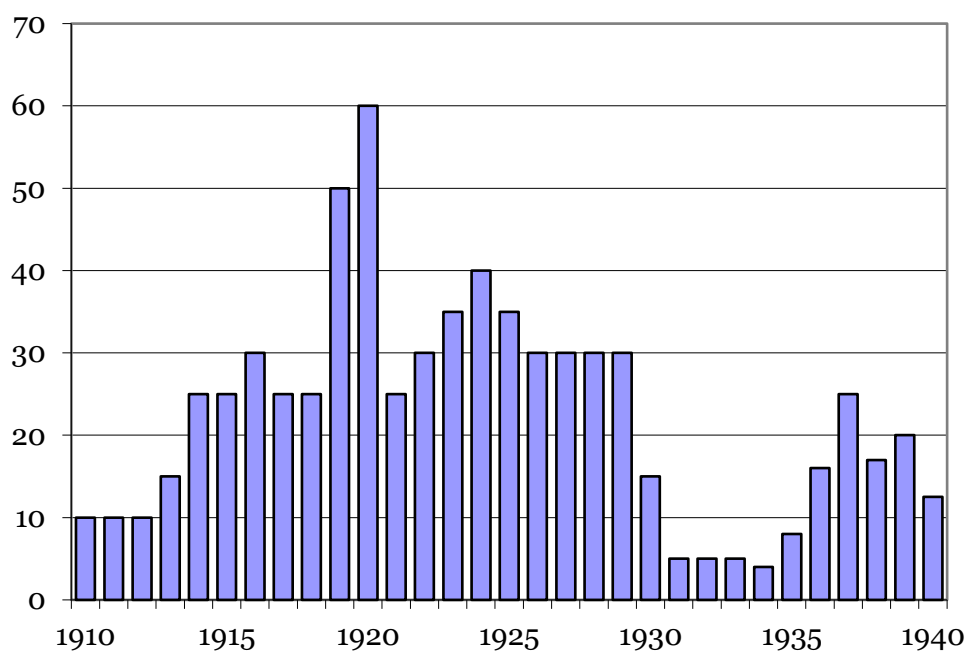
Profits

Net profits at HVA displayed a rapid growth during the 1910s. Although in 1910 *f*1 million, or slightly less than one-third of profits, were still made in trading non-agricultural products, the exports and profits from sugar and other crops were necessary and became the primary source of income. After 1910 the trade of non-agricultural products was abandoned.¹⁶⁶ Sugar was the major source of income during the 1910s. Although the large sugar factory Djatiroto made losses until 1912 of around *f*1 million per year, the other sugar factories offered compensation.¹⁶⁷ Net profits rose from *f*2 million in 1910 to nearly *f*14.5 million in 1920. During the sugar crisis of the early 1920s, profits declined but in 1927 a new peak was reached, generating a profit of *f*15.5 million. Dividends increased accordingly. In the early 1910s *f*1 million was paid to shareholders, but this amount increased to *f*12 million in 1920 when a dividend rate of 60% was paid out. Dividend payments fell during the sugar crisis of the early 1920s but recovered again to *f*12 million in the late 1920s. By that time, dividend rates were 30% and equity had doubled between 1920 and 1927 (Figure 5.16 and 5.17).

¹⁶⁶ Claver, *Dutch commerce and Chinese merchants in Java*, 252–254.

¹⁶⁷ NL-HaNa: HVA, 11, Annual report 1909, 8, Annual report 1910, 9, Annual report 1911, 8; Annual report 1912, 8.

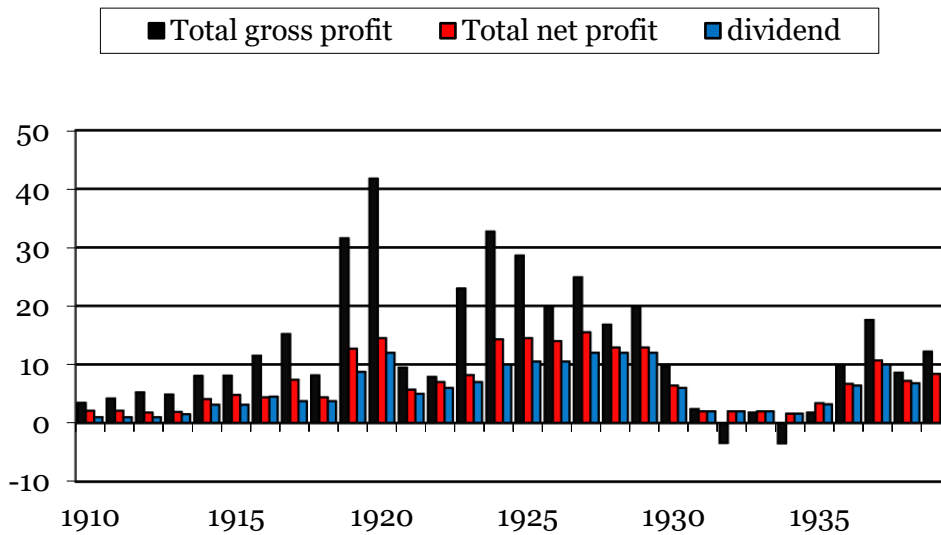
Figure 5.16. Dividend rates at HVA, 1910–1940.



Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.

Profitable pioneers

Figure 5.17. Total gross and net profits and dividends at HVA, 1910–1939, in million guilders.



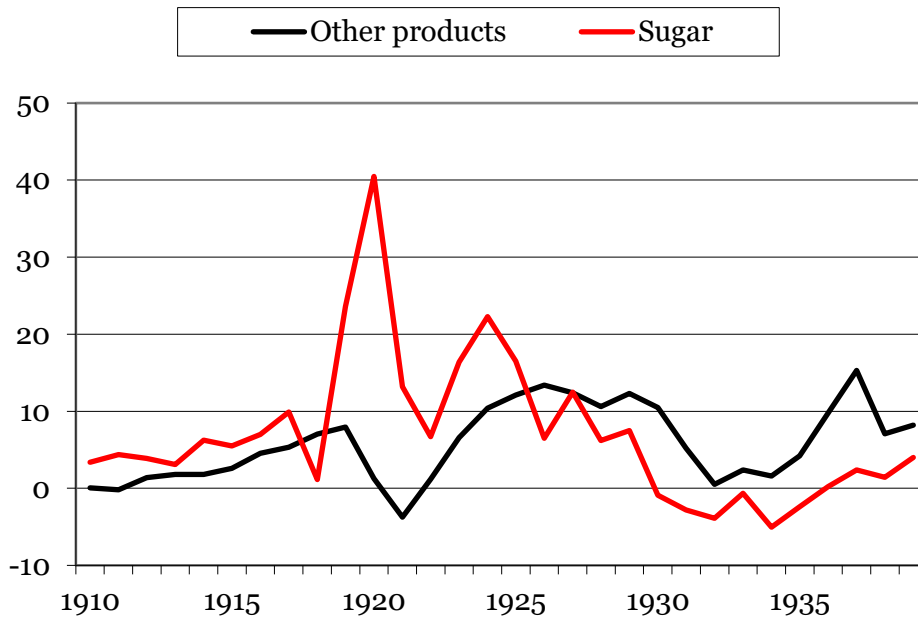
Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.

Note: During the economic depression of the 1930s net profit contains dividend paid from reserves.

The economic depression of the 1930s was far worse than the sugar crisis of the early 1920s. In the early 1920s profits from sugar had dropped rapidly, but during the 1930s actual losses were made. Whereas in 1921 exports of non-sugar crops made a loss, the still profitable sugar industry kept the company out of the red. During the 1930s, however, losses in the sugar industry were too large to be compensated for by profits from the other crops (Figure 5.18).

Profitable pioneers

Figure 5.18. Gross profit of HVA from sugar and other products, 1910–1939, in million guilders.



Source: NL-HaNa: HVA, 11, 12, Annual reports 1909–1939.

Dividend rates took a hit only once, in 1934, when a dividend of only 4% was paid out. In the early 1920s this had been 5%. In 1935 dividends rose to 8% and in the next year it doubled and remained at that level until the start of the Second World War.¹⁶⁸ It is important to note that profits were being reinvested. This was absolutely vital for the operations of the company. It is calculated that a total of f260 million was invested in the company between 1879 and 1940.¹⁶⁹ Between 1910 and 1930 at least f150 million was invested, of which more than f100 million was acquired through reinvestment of profit. Between 1910 and 1930 net profits amounted to f171 million and paid-out dividends f134 million. The difference between net profits and paid-out dividends during this time was only f37 million, which could be reinvested in

¹⁶⁸ Goedhart, *Eerherstel voor de plantage*, 93; Brand, 1879 HVA 1979, 37, 71.

¹⁶⁹ Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 11–13; Goedhart, *Eerherstel voor de plantage*, 42, 93; NL-HaNa: HVA, 11, Annual report 1917, 10–11; NL-HaNa: HVA, 12, Annual report 1925, 12, Annual report 1927, 11–12; Annual report 1929, 12; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

the company. This is in line with other large sugar companies which had a pay-out ratio of 74% between 1910 and 1930. This suggests that the remainder of the £100 million was reinvested before net profits were calculated by the company. Reinvested profits in reality amounted to far more than one-quarter of net profits. Arguably, HVA reinvested more than other sugar companies, whilst also raising more funds on the capital market in Amsterdam than competitors.¹⁷⁰

This argument makes sense if we examine the reserves of the company. In 1930 statutory and extraordinary reserves were £20 million, half of the company's equity. Reserves dropped to £15 million in 1932. Between 1910 and 1930 in total more than £120 million was added to various reserves of which a considerable part was reinvested in the company. In particular, reserves for the estates received significant sums, since depreciation rates were high. Each year the operations of the estates required vast amounts of capital, and since investments were written off fast reserves had to be replenished regularly. Other sugar companies did not do it differently.¹⁷¹ The difference between gross profits – from which depreciation and taxes are not yet deducted – and net profits was nearly £164 million between 1910 and 1930. During this period, more than £130 million was written off. Assets were written off fast, especially during the 1910s and 1920s, which required the reinvestment of large sums.¹⁷²

The amounts of capital flooding in and out of the company were truly impressive. Issued equity and net profits show only part of the results. The increase in the company's worth is also reflected in the share prices. Director Reineke stated that the company's worth was estimated at £92 million in 1923 when issued equity amounted to £20 million. With a share price in 1923 at 460% of initial stock value, this is a realistic estimate. During the second half of the 1920s share prices continued to increase, reaching an impressive peak at 830% in 1927, which was similar to the Billiton Company. The share price of the Deli Company, on the other hand, had peaked in 1913 and dropped to one-fifth of that level by the end of the 1920s. During the economic depression of the 1930s, share prices of HVA collapsed just as it did for the Billiton Company and the Deli Company. At the end of the 1930s, share prices recovered for all three case studies. Yet, overall a decline occurred for all of them from the 1920s until the beginning of the 1940s.

¹⁷⁰ NL-HaNa: HVA, 12, Annual report 1930, 9; Knight, *Commodities and colonialism*, 142–147.

¹⁷¹ NL-HaNa: HVA, 2, Board meeting 22–5–1913; NL-HaNa: HVA, 12, Annual report 1933, 5; A. Paets tot Gansoyen, 'Winsten der Suikerfabrieken', *Archief voor de suikerindustrie in Nederlandsch-Indië*, Vol. 21 (1913) 1447–1479, in particular 1454–1455.

¹⁷² Knight, *Commodities and colonialism*, 145.

Based on share prices alone, HVA performed far better than the Deli Company at any rate between 1909 and 1942. If we take into account dividend payments, it is clear that the Deli Company performed strongly during the 1910s, paying an average dividend of 34%. The Billiton Company performed even better in that decade with an average annual dividend of 45%, whereas HVA settled for an average of 22.5%. The performance of all three during the 1910s was much better than for the average private company in the Netherlands Indies where average dividend rates did not exceed 15%. During the 1920s, the situation changed. Then the profitability of tobacco estates exceeded that of the tin mines and sugar factories. In this decade the Deli Company paid an average annual dividend of 24.2%, while for the Billiton Company and HVA the average was 53.3% and 34.5%, respectively. This was again much higher than the dividend payment rate of the average firm in the Netherlands Indies. Finally, during the 1930s, the Billiton Company and HVA did better in coping with the depression. Even though the Deli Company paid an average dividend rate of 6.8% during the 1930s, the Billiton Company and HVA outperformed the Deli Company with average dividend rates of 13.3% and 12%, respectively. Only during this period did the Deli Company perform slightly worse than the average company. This was not the case at the Billiton Company or HVA. Even during the 1930s they performed better than other dividend paying companies.¹⁷³

A hypothetical shareholder who had bought stock in the three companies could receive a total dividend of 436% from the Deli Company, 498% from the Billiton Company, but an impressive 690% dividend in the period 1909–1942 from HVA (Appendix 5.1). On top of this, shareholders with HVA could make an additional profit when selling their shares in 1942. By that time, share prices were nearly 70% higher than in 1909. Share prices of the Deli Company, on the other hand, were more than 60% lower in 1942 compared with 1909. HVA truly was a highly profitable company during this period. With the benefit of hindsight it is easily argued that share prices were overvalued in the late 1920s. Considering issued equity of HVA at *f*40 million in 1927, this was commensurate with *f*328 million, which seems not grossly overestimated given the fact that between 1879 and 1940 *f*260 million had been invested in the company.¹⁷⁴

¹⁷³ Figure 5.4, 5.5, 5.10, 5.11, 5.16, 5.17; Appendix 26.

¹⁷⁴ NL-HaNa: HVA, 3, Board meeting 27–6–1923.

Linkages

HVA was the single largest sugar producer, accounting for nearly 14% of total sugar production in Java in the early 1930s. The size of the workforce was impressive. In total the company employed around 155,000 workers at the end of the 1920s, of whom 50,000 were active in the sugar industry. This figure is likely to include seasonal workers as well.¹⁷⁵ Besides the sugar industry, HVA employed 55,000 workers in the sisal and cassava industry, 20,000 workers in palm oil, 20,000 workers in tea plantations and 10,000 in rubber. In 1940 the total number of workers was about 170,000. A marked shift had taken place from the sugar industry to other industries.¹⁷⁶ The European staff members, on the other hand, had decreased in number from 1,300 in 1930 to less than 1,000 in 1940, meaning that a smaller number of staff members was responsible for managing an area that remained unchanged in size. Until 1940 the only Indonesian staff members were doctors in the company hospitals.¹⁷⁷ The Djatiroto sugar factory employed around 15,000 indigenous Indonesians; 1,750 factory workers and 1,400 planters were required for daily operations, but during the harvest another 8,500 planters and 3,500 cane cutters were mobilised. These figures include seasonal workers who were not housed by the company. They would receive a free meal, but no medical care.¹⁷⁸ In order to build the factory, workers had to be brought in from other areas. Canals, railways and roads had to be constructed as well.¹⁷⁹ We turn to such linkages after discussing the demand linkage from payment of wages.

Workers employed by the company on a permanent basis received a daily or weekly wage, whereas part-time and seasonal workers received piece wages. Their income fluctuated more. Information about wages paid by HVA is scarce. During the 1920s, sugar cane cutters on a temporary basis and

¹⁷⁵ Bosma, *The sugar plantation in India and Indonesia: Industrial production, 1770–2010*, 159. In 1930 60.7 million people lived in the Netherlands Indies. In Java and Madura this number was 41.7 million and 98% can be considered as indigenous Indonesian: Departement van Landbouw, Nijverheid en Handel, *Volkstelling 1930, Deel VIII*, 1–5; Van der Eng, *Agricultural growth in Indonesia*, 212.

¹⁷⁶ Goedkoop, 'Handelsvereniging 'Amsterdam'', 221; Handelsvereniging "Amsterdam" (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 12; Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8.

¹⁷⁷ Goedhart, *Eerherstel voor de plantage*, 108–109.

¹⁷⁸ Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

¹⁷⁹ Goedhart, *Eerherstel voor de plantage*, 38; Brand, *1879 HVA 1979*, 13–14.

working for piece wages would earn around 75 cents per day. This was 30% more than workers earning daily or weekly wages, but the latter also received free housing and medical care. Food was provided for free to both groups of workers. Wages at HVA were slightly higher than the average in the Java sugar industry, but compared with other industries wages in the sugar industry remained relatively low.¹⁸⁰

As at Billiton, HVA had a pension fund for its permanent non-Western employees. And similarly, this fund was only initiated several years later than the creation of a pension fund for its European staff. In 1912 the pension fund for the European staff became active, and from 1918 plans were made to include indigenous staff as well. In 1924 f500,000 was reserved for this purpose and in 1927 designated reserves increased to f1.3 million. By this time, both pension funds of HVA were around the same size in terms of money. Only in 1929, fifty years after HVA had been founded, did the pension fund for indigenous employees start its operations.¹⁸¹ Contract coolies in Sumatra were also included, provided they had worked for at least 30 years for the company. HVA argued that the situation for contract workers in Sumatra was different than in Java where workers did not live in a foreign environment far away from family and relatives.¹⁸² HVA argued that the penal sanction in Sumatra was one important reason that made expansion of the company easier and made the supply of labourers more stable.¹⁸³

HVA also leased land from the indigenous population in Java for sugar production and other crops. For the construction of Djatiroto HVA would mainly use land that was not cultivated before. The company leased this land under *erfpacht* (free state domain) from the government. This land consisted of different plots and not all of them were connected. In 1913 HVA returned some of these scattered plots to the government. The government then made such land available to the indigenous population, in return HVA had the option of renting this land again as long as it was willing to construct irrigation works in this area. On wages and land lease combined, the Djatiroto factory

¹⁸⁰ Goedhart, *Eerherstel voor de plantage*, 95–103; NL-HaNa: HVA, 12, Annual report 1948, 8.

¹⁸¹ NL-HaNa: HVA, 11, Annual report 1912, 6, Annual report 1918, 10; NL-HaNa: HVA, 12, Annual report 1924, 21, Annual report 1927, 10, 33; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 14.

¹⁸² NL-HaNa: HVA, 4, Board meeting 3–8–1928, 7–9–1928; NL-HaNa: HVA, 5, Board meeting 3–2–1933.

¹⁸³ NL-HaNa: HVA, 12, Annual report 1922, 12; NL-HaNa: HVA, 12, Annual report 1923, 12.

spent an average of f4 million each year.¹⁸⁴ During the economic depression of the 1930s and as a consequence of declining output, HVA had to cancel contracts for land lease for various sugar factories. In 1932 the indemnification for landowners totalled f5.2 million, in 1933 f750,000 and in 1934 HVA had to pay landowners f100,000.¹⁸⁵ The economic depression also meant a cutback of security forces on the estates of HVA.¹⁸⁶

Infrastructure. Irrigation, railways and roads.

Since the Djatirotto sugar factory was constructed in an isolated area, irrigation systems and roads had to be constructed as well. HVA took advantage of drainage and irrigation schemes financed by the colonial government. HVA paid for all of the irrigation in West Djatirotto, which was more than f1.3 million and in East Djatirotto costs for HVA for irrigation and construction of roads were estimated at f400 per bouw, in total more than f1.75 million. On top of this sum, the government contributed a similar amount of money for irrigation works in East Djatirotto, which were also used by the indigenous population. By 1912 the irrigation works initiated by HVA were already finished, but in 1920 the board expressed disappointment by the progress of irrigation works constructed by the government. In 1922 the works in East Djatirotto were completed as well. The claim that foreign private companies used the best soil available in the Netherlands Indies did not hold true for Djatirotto. Technological improvements and irrigation systems were necessary to increase the output, especially for Djatirotto. So-called *proefstations* (research institutes, of which HVA had its own one in Kediri) also helped to increase the productivity of crops and soil, stimulating the use of fertilizer and crop adjustments.¹⁸⁷

¹⁸⁴ De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 80; Goedhart, *Eerherstel voor de plantage*, 33–43; Van Geuns, *De suikeronderneming Djatirotto en de regeling van het werkcontract op Java*, 1; Van der Zwaag, *Verloren tropische zaken*, 102–103; Van der Mandere, *De Javasuikerindustrie in heden en verleden*, 70–71.

¹⁸⁵ NL-HaNa: HVA, 12, Annual report 1932, 11–12, Annual report 1933, 11, Annual report 1934, 11; NL-HaNa: MvO, 121, Besoeki, 1925.

¹⁸⁶ NL-HaNa: MvO, 84, Oost-Java, 1933; NL-HaNa: MvO, 115, Probolinggo, 1932; NL-HaNa: MvO, 121, Besoeki, 1925.

¹⁸⁷ NL-HaNa: HVA, 12, Annual report 1919, 12; Van der Zwaag, *Verloren tropische zaken*, 103–106, 210; Goedhart, *Eerherstel voor de plantage*, 36, 42, 95–103; Knight, *Commodities and colonialism*, 191–192; De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 78; Clason, 'Economische beschouwingen over de irrigatie op Java en Madoera', 17; Van Geuns, *De suikeronderneming Djatirotto en de regeling*

In the second half of the 1920s, HVA became more reluctant to invest in less fertile areas where expensive irrigation systems would have to be constructed. From then on, private companies had to pay a larger share for new irrigation works and could expect less support from the government.¹⁸⁸ New land was acquired from the government east of Djatiroto. In the second half of the 1920s, the sugar estates Goenoengsari and Semboro were set up in this area and a new concession was acquired for the development of Bedadoeng which was finished by the end of the 1920s. Costs for irrigation at these three factories were around f1.75 million.¹⁸⁹ In Bedadoeng the estate area was around 3,000 bouw and the contributions for irrigation cost f300 per bouw, or f900,000 in total. It was common to make agreements with the colonial government about infrastructure if companies wanted to expand or construct new factories. At the start of the 1920s the government was willing to grant HVA a concession to construct a sugar plantation in Tanggul near Jember where the infrastructure was poor. In exchange, HVA was expected to provide funding for the construction of roads.¹⁹⁰

HVA was not always lucky and expansion was not permitted every time. In the mid-1920s HVA asked permission for a concession in South Banyuwangi, in East Java. One-half of the area of the concession would be used for sugar, while the other half could be used by the indigenous population. The necessary irrigation works would be funded and constructed by HVA. However, the colonial government argued that in this region the total area of land available to the indigenous population and its agricultural activities was too small. As a result, the concession was not granted.¹⁹¹ The local situation was important when deciding whether a concession would be granted or not.

Like the Deli Company, HVA also constructed railways. These connected the sugar cane fields to the huge Djatiroto processing factory, with

van het werkcontract op Java, 8; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 184–188.

¹⁸⁸ NL-HaNa: HVA, 12, Annual report 1922, 11, Annual report 1923, 12.

¹⁸⁹ De Wilde, *Een en ander omtrent den welvaartstoestand der inlandsche bevolking in de gouvernementslanden van Java en Madoera*, 188; Booth, *Agricultural development in Indonesia*, 78; Clason, 'Economische beschouwingen over de irrigatie op Java en Madoera', 17; Goedhart, *Eerherstel voor de plantage*, 36, 43; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 8; Tichelaar, *De Java-suikerindustrie en hare beteekenis voor land en volk*, 184–188.

¹⁹⁰ NL-HaNa: MvO, 121, Besoeki, 1925; NL-HaNa: HVA, 12, Annual report 1926, 11–12.

¹⁹¹ NL-HaNa: MvO, 121, Besoeki, 1925; NL-HaNa: MvO, 104, Kediri, 1924; NL-HaNa: MvO, 110, Pasoeroean, 1919.

steam locomotives pulling long trains of flatbed wagons piled high with the cut cane intended for processing. Before 1940, the Djatiroto factory had more than 40 such locomotives and some 270km of track. The rails also carried small open-sided 'inspection cars' with seating for staff, officials or others who wanted to visit the cane fields. State-owned railway companies received around f600,000 per year for the transport of sugar cane from Djatiroto.

Just like the machines of the factory, which originated from Germany, Scotland and the Netherlands, the railway equipment came partly from Germany as well. The two factories Orenstein & Koppel in Berlin and J.A. Maffei in Munich, together with Du Croo & Brauns in Amsterdam, produced numerous engines for these operations. In Kediri a railway network was present too and five sugar factories were connected by a railroad. In Deli in Sumatra, an interconnecting network with 700mm gauge and 100 steam locomotives linked HVA's palm oil plantations with each other.¹⁹² In total, HVA owned between 2,000 and 2,500 km of narrow-track railway in 1929, with around 200 locomotives and 19,000 wagons. Railroads constructed by the government in Java and Sumatra amounted to 7,250 km at that time, although not all rails constructed by HVA were suitable for transporting large numbers of passengers and goods.¹⁹³

The conditions of the roads deteriorated quickly when the sugar companies harvested sugar cane. This situation persisted until the roads were gravelled again in the new season. Due to the construction of more rail lines, normal roads remained in better condition for a longer time. With the construction of Djatiroto, two villages were disconnected from each other and came to depend on the company's roads. The construction of decent roads was a prerequisite in order for HVA to obtain the concession, and HVA contributed to the construction of government roads in Java and Sumatra. HVA agreed to construct a road from Nogosari to Rojopolo in the residency Lumajang, pay the largest part for this road and connect it to other main roads. However, only after 1920 was progress visible in the construction of these roads.¹⁹⁴ As a result, a denser network evolved and Djatiroto could be accessed from various directions. Moreover, the Probolinggo Stoomtram Maatschappij (Probolinggo Steam Tram Company) had a bus service that went to Djatiroto after the new

¹⁹² Ravesteijn and Kop, *For profit and prosperity*, 111; Knight, *Commodities and colonialism*, 171, 173, 177, 179, 183, 192, 194; Van der Mandere, *De Javasuijkerindustrie in heden en verleden*, 70–71; Goedhart, *Eerherstel voor de plantage*, 35.

¹⁹³ Brand, *1879 HVA* 1979, 60; Goedhart, *Eerherstel voor de plantage*, 83.

¹⁹⁴ NL-HaNa: MvO, 112, Pasoeroean, 1924; NL-HaNa: HVA, 12, Annual report 1928, 13.

road was constructed.¹⁹⁵ Thanks to these roads the area became less isolated and more companies were connected with each other.

Conflicts and disagreements between HVA and the government were the order of the day. Arguments varied from finding and keeping a decent workforce to issues related to irrigation and land use. The socialist influence of the government and the *Volksraad* (People's Council) were both seen as hindering and unnecessary by HVA.¹⁹⁶ HVA frequently complained that the government was not cooperative and disadvantaged the company more than competitors. For instance, it was argued that negligence by the government was responsible for an increased damage of cane fires, due to its slow reaction. During the reduction of sugar output in the economic depression of the 1930s HVA was allegedly hurt more than other sugar producers.¹⁹⁷

Another matter that caused disagreement was taxes. HVA argued that the tax policy of the government was unfair and taxes too high. HVA considered they already exceeded the limit of what was acceptable and the introduction of new taxes and regulations led to more uncertainty for companies. It became increasingly difficult to start a profitable enterprise when taking into account the risks of the operation and the share of the profit accruing to the government. This reduced the willingness of HVA to further expand its operations at the start of the 1920s.¹⁹⁸ In 1923 the mood improved slightly after the interests of the company had been subject to discussion with the government. It was concluded that both should take a more positive stand towards further expansion.¹⁹⁹ HVA did indeed contribute to the treasury and each year HVA reserved a significant amount for taxes. Data about actual tax payments by HVA before the First World War is scarce, although the company paid more taxes after the war. In 1915 the company started to reserve money for new taxes proposed by the government. These reserves increased rapidly from £1.5 million in 1915 to £12.9 million in 1919 and £27.8 million in 1920.²⁰⁰ Such large reserves were deemed necessary to pay the war tax. Afterwards, the company argued that too much had been reserved. As a result, reserves were

¹⁹⁵ NL-HaNa: MvO, 115, Probolinggo, 1932.

¹⁹⁶ NL-HaNa: HVA, 11, Annual report 1918, 11–12; NL-HaNa: HVA, 2, Board meeting 7–2–1919.

¹⁹⁷ NL-HaNa: HVA, 11, Annual report 1911, 8; NL-HaNa: HVA, 12, Annual report 1935, 10–11; NL-HaNa: HVA, 1, Board meeting 4–11–1910.

¹⁹⁸ NL-HaNa: HVA, 11, Annual report 1918, 12; NL-HaNa: HVA, 12, Annual report 1920, 13, Annual report 1921, 11; NL-HaNa: HVA, 13, Report shareholders meeting 4–11–1921.

¹⁹⁹ NL-HaNa: HVA, 12, Annual report 1923, 12; NL-HaNa: HVA, 13, Report shareholders meeting 25–6–1924.

²⁰⁰ NL-HaNa: HVA, 11, Annual report 1915, 11; NL-HaNa: HVA, 12, Annual report 1919, 16, Annual report 1920, 17–18.

reduced and by 1930 they were less than f6 million. During the economic depression of the 1930s, reserves for tax continued to drop until it was around f2 million in 1933. In 1934 the introduction of a sugar tax also had repercussions for HVA, and in 1941 the company had to pay f5.2 million for a special dividend tax that became active after the Second World War broke out in Europe.²⁰¹

Healthcare, housing and education

HVA initiated projects related to medical care, drinking water, housing, electricity and education. In total, six hospitals were built and two dozen polyclinics were constructed. In Java there were eventually two hospitals, including the one at Djatiroto. In Sumatra there were four. It was necessary to build a hospital at Djatiroto since it was located in a remote area far away from medical facilities.²⁰² The costs of the hospital were estimated at f20,000 annually, the colonial government providing a subsidy of f8,000. The colonial authorities worried about the high death rate of the workers at Djatiroto even when the medical doctor there argued that there was no need to be concerned. Nevertheless, the high mortality could have been one of the reasons why it was difficult for HVA to attract workers.²⁰³

In 1919 HVA was only one of six sugar companies with a private hospital and full-time doctors of their own. It was more common for several companies to combine efforts and set up a joint hospital. Together with several other companies and a subsidy from the government, HVA founded an ophthalmic clinic in Surabaya. However, when the Red Cross asked for a contribution from HVA the company politely refused, although a modest contribution of f2,000 to stimulate the research into tropical hygiene at the Royal Tropical Institute in Amsterdam was granted.²⁰⁴

²⁰¹ NL-HaNa: HVA, 12, Annual report 1927, 11–13, Annual report 1930, 17; NL-HaNa: HVA, 12, Annual report 1933, 11–13, Annual report 1940, 9; NL-HaNa: HVA, 6, Board meeting 7–11–1941.

²⁰² Brand, *1879 HVA 1979*, 48, 60; Goedhart, *Eerherstel voor de plantage*, 83, 109; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13; Van Loghem, ‘Geneeskundige en hygiënische voorziening op en om suikerfabrieken’, 841–844.

²⁰³ NL-HaNa: HVA, 1, Board meeting 5–11–1909; NL-HaNa: HVA, 2, Board meeting 5–9–1913, 5–11–1915; Knight, *Commodities and colonialism*, 176, 179.

²⁰⁴ NL-HaNa: HVA, 2, Board meeting 14–12–1916, 5–4–1917, 7–12–1917; NL-HaNa: HVA, 12, Annual report 1924, 11; NL-HaNa: MvO, 123, Bondowoso, 1929; Ochsendorf, ‘Colonial corporate social responsibility’, 84–87. In 1916 f5,000 was also given to provide relief for a flood in central Java, NL-HaNa: HVA, 2, Board meeting 24–2–1916.

Things were different after the Kelud volcanic eruption on May 19, 1919 in East Java. The effects were visible in Kediri where HVA had a cassava and sisal factory named Bendoredjo. It had only been constructed shortly before the volcanic eruption occurred and the factory suffered heavily with many Indonesian casualties. Although the effects of this eruption on the factory's productivity received more attention in the annual reports, the company put £100,000 in the Smeroe fund. This fund was founded ten years earlier when the eruption of the Semeru volcano took place and was intended to provide help to victims of natural disasters in Indonesia.²⁰⁵ HVA also agreed to provide £10,000 for establishing an orphanage for victims of the eruption.²⁰⁶

Overall, HVA deemed it necessary to take into account the health of the surrounding villages as the company expanded. This was done in order to avoid the spreading of diseases. Also, if the population of the villages were in good health, they could provide more workers for the factory that was desperately in need of labourers. After 1923 HVA created polyclinics on its estates. In 1924 one polyclinic was established at Djatiroto and in 1925 a second one which would make it more easy for the local population of nearby villages to get medical help. Within three years polyclinics were also built at the new factories of Bedadoeng, Goenoengsari and Semboro. In the polyclinics, indigenous nurses were employed while a European doctor visited the polyclinics on a weekly basis. During the first five years after opening its first polyclinic, 43,000 persons visited the polyclinic and in 1926 the number of visits was 110,832.²⁰⁷

In 1927 the company made plans to build a central hospital near Djatiroto which could also be used by the nearby sugar factories. Costs were estimated at around £400,000. By this time there were 22 polyclinics in total and 137,554 visits were made in 1927. In North Sumatra, in Balimbingan and Laras, central hospitals were built too, costing £350,000 and £450,000, respectively and HVA lent £25,000 for a hospital in Medan. In 1929 the hospital near Djatiroto was completed. It included five wards with space for 28 Indonesian patients each. However, there were eight private rooms for

²⁰⁵ NL-HaNa: HVA, 11, Annual report 1919, 14–17; NL-HaNa: HVA, 3, Board meeting 13–7–1919, 5–9–1919, 5–3–1920; Alicia Schrikker, 'Disaster management and colonialism in the Indonesian archipelago, 1840–1920', in: Greg Bankoff and Joseph Christensen (eds), *Natural hazards and peoples in the Indian Oceanic world. Bordering on danger* (New York: Palgrave Macmillan, 2016) 225–254, in particular 240.

²⁰⁶ NL-HaNa: HVA, 3, Board meeting 7–11–1919.

²⁰⁷ P.W.L. Penris, *Geneeskundige verzorging van arbeiders bij landbouwondernemingen op Java* (Amsterdam: H.J. Paris, 1930) 44, 47; NL-HaNa: HVA, 12, Annual report 1925, 12.

treatment of European patients as well. In the same year the last polyclinic was built for the sugar factory Koenir in Kediri. In Kediri HVA also contributed f100,000 for an indigenous hospital. In total the company had 24 polyclinics and in 1930 the number of visits had increased to 267,733, whereas for the Billiton Company this number was only 17,000 in 1930, increasing to nearly 46,000 in 1940.²⁰⁸

Given the fact that Djatiroto was established in a remote swamp area, it was necessary for HVA to build housing that would improve the health and wellbeing of its workforce. Small villages were built by the company near the estates, and initially workers were housed together in barracks constructed from bamboo. For the construction of the factory, many trees were cut down and some of the wood was used for constructing houses. Later, small one-room dwellings were available and slightly more comfortable houses with a kitchen and bathroom for indigenous workers of higher rank. Numerous small shops were also attracted by the presence of these villages and the local population could find extra employment at one of the brick producers, tile-makers or support with construction works.²⁰⁹ HVA did not want to go as far as creating a cement factory, in order to build houses, although the fundamental ingredients were plentiful in Java.²¹⁰

Unlike other sugar factories, Djatiroto created villages to house the nearby population. The required workforce for the factory was so large that HVA saw no other way to guarantee a stable supply of workers. In order to prevent diseases from spreading, HVA constructed sewers and provided fresh drinking water.²¹¹ Exactly how many dwellings were constructed for HVA's workforce is not clear. One source argues that it was more than 10,000, whereas for its staff 800 houses were built.²¹² It is realistic to assume that areas inhabited by large numbers of workers were seen as company villages.

Schooling was also provided by HVA, but concrete evidence is scarce and the effects for the indigenous population are not very clear. One of the earliest examples of a contribution by HVA dates from 1905. A legal dispute

²⁰⁸ NL-HaNa: HVA, 2, Board meeting 7–12–1917; NL-HaNa: HVA, 4, Board meeting 6–1–1928, 6–9–1929; NL-HaNa: HVA, 12, Annual report 1919, 10–11; Annual report 1926, 11–12, Annual report 1927, 11–13; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 5–6.

²⁰⁹ Van der Zwaag, *Verloren tropische zaken*, 106.

²¹⁰ NL-HaNa: HVA, 2, Board meeting 29–5–1915, 23–6–1915.

²¹¹ Penris, *Geneeskundige verzorging van arbeiders bij landbouwoondernemingen op Java*, 12–17, 85; Van Loghem, 'Geneeskundige en hygiënische voorziening op en om suikerfabrieken', 850–854; Knight, *Commodities and colonialism*, 176; Van Geuns, *De suikeronderneming Djatiroto en de regeling van het werkcontract op Java*, 5–12.

²¹² Goedhart, *Eerherstel voor de plantage*, 98, 108–109.

with Chinese traders was settled by HVA paying a contribution of f25,000 for the construction of a Chinese school (plus f5,000 for legal expenses).²¹³ This case cannot be seen as an example of a voluntary initiative to increase the welfare of the workforce. Two other examples include an annual contribution of f250 for the renovation of a technical school in 1910, which was estimated to cost around f40,000. Another contribution was approved in 1917. HVA contributed f100,000 to a project that would cost at least f2 million. This was the Koninklijk Instituut voor Hooger Technisch Onderwijs in Nederlandsch-Indië (Royal Institute for Higher Technical Education in the Netherlands Indies), which would later become the Bandung Institute of Technology. A plan to construct a craft school in Kediri was not approved by the directors.²¹⁴ It is highly unlikely that children from indigenous labourers would have benefitted from these types of higher education. Only one school is known of that kind, a boarding school for planters' children in Sumatra,²¹⁵ while other sources mention Malay or Javanese schools established at several estates in Sumatra during the 1920s.²¹⁶

Assessment of HVA

The decision of HVA to specialize in the production of sugar proved to be the right one. In particular during the 1920s, when the sugar market was booming, HVA's profits increased. Operations required a large workforce, especially for the sugar factory Djatiroto. Houses were built for its workers and it was necessary to improve the healthcare in the surrounding area. This was done by the company in the first place to improve productivity of the workers and make operations more efficient. The provision of food and drinking water fits in this pattern as well, but more important were irrigation and railroads. Djatiroto made use of modern equipment, but forward linkages were not prominent. The required specialized equipment was produced abroad and local production was only stimulated by providing basic materials.

²¹³ Claver, *Dutch commerce and Chinese merchants in Java*, 218; NL-HaNa: HVA, 2, Board meeting 3–9–1909.

²¹⁴ NL-HaNa: HVA, 2, Board meeting 4–5–1917, 1–6–1917, 7–12–1917.

²¹⁵ Goedhart, *Eerherstel voor de plantage*, 83.

²¹⁶ NL-HaNa: HVA, 12, Annual report 1927, 11–13; Handelsvereniging “Amsterdam” (HVA), *Aangeboden aan de aandeelhouders ter herdenking van het vijftigjarig bestaan op 1 januari 1929*, 13.

5.5 Conclusion

The three case studies discussed here all depict the firms as profitable pioneers. They were successful and expanded in the early twentieth century. Their operations were in different key sectors. Yet, a caveat is needed to the effect that these three firms obviously did not represent the entire colonial economy. All three companies had matured before 1910 and the peak of their operations was between 1910 and 1942, although they remained active also in independent Indonesia. In this chapter I have focused on investment, profitability and linkages. Equity of the companies increased and numbers of production units grew, resulting in a larger output of sugar, tin and tobacco. All three companies were highly profitable during the 1910s and 1920s. Although the companies were active in different industries, they all suffered during the economic depression of the 1930s but managed to recover afterwards. During the economic depression the companies tried to reduce production in order to keep prices high, while at the same time cutting costs.

New investment in the late 1930s was undertaken sporadically and overall, the companies had by that time reached their peak in terms of expansion and production. They counted among the largest firms in their respective industry and were on average more profitable than most other companies. Especially during the 1910s and 1920s they paid out more dividend than average. Despite – or thanks to – their profitability all three companies contributed to the development of the local economy. Infrastructure was one of the most visible aspects. Railroads and roads were constructed by the Deli Company, Billiton and HVA. With the DSM, the Deli Company played a large role in connecting remote locations in North Sumatra, also setting up a telephone service. Infrastructural projects at Billiton were limited to the island Belitung. Next to roads, the company did set up a telephone network and tramways from which the local population as well as the colonial government benefitted. HVA also constructed railways connecting the sugar cane fields to the sugar factories. As a result, normal roads were less densely used by the company, which prevented them from deteriorating fast. Besides these railways which were mainly used for transporting sugar cane, the company also constructed roads connecting villages surround the Djatiroto factory. Ambitious irrigation projects were also initiated by HVA, sometimes supported by considerable funding from the colonial government. Especially for the production at Djatiroto, it was necessary to create a large irrigation system.

The three companies required large numbers of workers. In North Sumatra the Deli Company initially employed a vast number of Chinese

coolies, but from the 1920s onwards the work force increasingly originated from Java. The majority of them were coolies under contract with penal sanction. In total, more than one-tenth of the coolies subject to penal sanction in North Sumatra worked for the Deli Company and the company employed one-third of the total number of coolies without penal sanction. Workers had to be imported since the local population found the wages offered by the companies too low. Moreover, the employers had more control over an imported workforce compared to local labourers. The majority of the workers of the Billiton Company was Chinese. Although from the 1930s onwards more indigenous workers were employed by the company, the Chinese workforce remained dominant. HVA was the largest sugar producer and had an impressive workforce. At the end of the 1920s the company employed 155,000 workers and 50,000 of them were active in the sugar industry. This figure included seasonal workers as well.

The workforce of the companies was supported with healthcare, housing and schooling. Such linkages can be seen as a necessary condition for starting operations. They made the workforce more productive and the surrounding population could also draw some benefit from these services. This was particularly the case with healthcare and housing. The Billiton Company in particular also provided medical aid which was not limited to the workers of the company only, but also beneficial to the other inhabitants of the island. HVA also built a number of hospitals and polyclinics in order to provide care for its workers, since its estates were often located in a remote area. Providing medical care led to a higher productivity of the workers and was directly beneficial to the company. The provision of food, drinking water and housing fits into this pattern as well. With the houses constructed by the companies the workers could live close to the factories, which saved travel time and made operations more efficient for the company.

The provision of education, on the other hand, was likely to affect only a marginal share of the indigenous population. Schools were built by the companies for the children from the labourers and training was provided as well, but the possibilities of getting promoted were small. Wages and compensation for the use of land can be considered moderate, but the opportunity cost and displacement of land also need to be taken into account. Workers were imported from China or brought from Java to North Sumatra because it was cheaper than to recruit local labourers. During certain periods, significant areas of land could be occupied by the companies and it cannot be ruled out that force was used by the companies to move the population or getting access to land.

Profitable pioneers

Next to this, forward linkages were few and far between. Smelting of tin ore did not take place in Belitung and tin was usually processed in Singapore, the Netherlands and later in the United States. The Deli Company did not produce cigars from its tobacco leaves and besides processing the harvested sugar cane, not many forward linkages materialised at HVA. More could also have been done to involve the indigenous population for other work activities, such as construction work. Although the companies and their leaders had good intentions in taking care of their workers, this was mainly done in order to increase efficiency and profitability of the company. It was a welcome addition when the indigenous population benefitted from the activities of the companies, but production levels and profits remained more important. Whether the situation improved or became worse after the Second World War will be discussed in the next chapter.