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Abstract

The paper examines the economic consequences of Japanese colonialism in Taiwan, Korea and Manchuria in the years from 1910 to 1945, and compares Japanese policies with those implemented by other colonial powers in Southeast Asia. In particular it addresses the writings of an influential group of American scholars who have published widely on Japanese colonial policies over the last fifty years. Their work has been used to support the argument that Japanese colonial policy was more developmental than that of other colonial powers, and laid the foundations for the stellar economic performance of Taiwan and the Republic of Korea in the decades after 1950. The paper challenges this argument by comparing a number of economic and social indicators in Korea, Taiwan and Manchuria with those from other Asian colonies and also from Thailand. The main conclusion is that while the Japanese colonies, especially Taiwan, score well on some indicators, they do less well on others. The idea of Japanese exceptionalism cannot be accepted uncritically.

Keywords: Japan, West, colonies in Asia, state policies, growth and development.

JEL Codes: N15, N35, O53

This paper seeks to examine the economic consequences of Japanese colonialism in Taiwan, Korea and Manchuria in the years from 1910 to 1945, and to compare Japanese policies with those implemented by other European powers, especially in Southeast Asia. In particular it addresses the writings of an influential group of American scholars, several based at Stanford University, who have published widely on Japanese colonial policies over the last fifty years. They contributed to several edited volumes and also authored a number of journal articles examining the economic consequences of Japanese colonialism in Taiwan, Korea and Manchuria, as well as examining Japan's informal empire in Asia. These writers were not for the most part Japanese, although most had a deep knowledge of Japanese language as well as Western sources. To some extent, they were reacting against the work of Japanese scholars writing after 1945, who tended to be critical of aspects of Japanese colonialism (Myers 1984).

By the 1980s, when rapid economic growth in both Taiwan and the Republic of (South) Korea (ROK) was attracting attention from around the world, these scholars stressed the more positive aspects of the Japanese legacy, including the agricultural transformation, and especially the successful transfer of higher-yielding rice varieties, as well as the development of industry and transport infrastructure. They also discussed the Japanese emphasis on expanding access to education. Gradually, this work has been used to support a 'new orthodoxy' which has stressed Japanese colonial exceptionalism. This orthodoxy has been propagated by scholars who are not themselves authorities on Asian economic development. For example, Landes (1998: 437) has argued that 'the best colonial master of all time has been Japan, for no ex-colonies have done so well as

(South) Korea and Taiwan'. The assumption of Landes, and indeed other writers who are better known authorities on the economic history of Asia is that the stellar performance of these two economies since 1960 must be due, in part at least, to the Japanese legacy.¹

There are some obvious criticisms of the arguments put forward by Landes and other authors who stress the developmental legacy of Japanese colonialism. One is that North Korea and Manchuria, which accounted for around 70 per cent of the total population of Japanese colonies in 1938, have not performed nearly as well as Taiwan and South Korea (ROK) in the second half of the 20th century. While it is true that the three Manchurian provinces still had a higher per capita GDP than the average for the rest of China in the early years of the 21st century, they had not achieved the level of development of Taiwan or the ROK. North Korea, now ruled by the third generation of the Kim family, has become a development disaster. So Japanese 'developmental colonialism' seems to have left a much more positive legacy in some parts of the former Japanese empire than in others. Another problem is that much of the writing by mainstream economists on the economic miracle in both Taiwan and ROK has taken the 1960s as the starting point. It ignores the very difficult decades from the late 1930s to the late 1950s, when there were steep declines in real GDP, and a slow recovery. According to recent estimates, Taiwan only regained the 1938 level of per capita GDP in 1962. The ROK had a lower per capita GDP than Taiwan in the late 1930s, and regained the 1938 level by 1953, although the absolute level was below Taiwan, and growth through the rest

¹ See for example Cumings (1999) who compares Korea with Vietnam, and Kohli (2004) who compares Korea with India, Nigeria and Brazil.

of the 1950s was not very fast.² Arguably, the growth miracles which occurred post-1960 in both countries were more influenced by the policy responses to the problems of the late 1940s and 1950s than by the period of Japanese control.

A further reason for revising the writing on Japanese colonialism is that it does not engage with the rapidly growing literature on colonialism in other parts of Asia, or only in a very superficial way. A common assumption seems to be that British, Dutch, French and American colonial regimes in Asia did not promote economic growth and structural diversification, left behind institutions which were extractive rather than inclusive, and did very little to improve living standards. This paper challenges these views by examining the evidence on economic growth and structural change in the major colonies of East and Southeast Asia. It also looks at the role of government, the emergence of indigenous entrepreneurs, and changes in education and living standards. Finally the paper asks whether the Japanese colonies were more profitable to the metropolitan economy than those in other parts of Asia.

1. Growth and Structural Change in Asia: 1900-1940

In 1913, the estimates given by the Maddison Project show that per capita GDP in colonial Asia (in 1990 international dollars) varied from \$673 in India to \$988 in the Philippines, and \$1367 in Singapore.³ There was considerable variation in growth rates between 1913 and 1941. In per

² These figures are taken from the Maddison Project update of the data on per capita GDP given in Maddison (2003). See the website of the Maddison-Project <http://www.ggdc.net/maddison/maddison-project/home.htm>, 2013 version. For further discussion of the aims of the project, see Bolt and van Zanden (2014).

³ These figures are taken from the revised figures given in the Maddison Project website; see <http://www.ggdc.net/maddison/maddison-project/home.htm>, 2013 version. Singapore did not exist as a separate entity

capita terms, growth was positive between 1913 and 1929 in most parts of colonial Asia, with Taiwan having the fastest growth and India the slowest. Korean growth until 1929 was no faster than in the Philippines, and not much different from Burma or Indonesia (Table 1).

Table 1: Growth in Per capita GDP, Selected Asian Colonies, 1902-40 (1929=100)

Country	1902	1913	1929	1934	1940*
Korea	n.a	77	100	112	145
Taiwan	54	65	100	101	100
Manchuria	n.a	90**	100	81	121
Philippines	47	74	100	95	106
Indonesia	64	80	100	86	104
India	90	92	100	96	94
Burma ***	77	68	100	93	82
Thailand	93	106	100	n.a	104
Singapore	58	59	100	81	102

Note: * 1938 for Thailand; 1939 for Singapore. ** 1924. *** Figures refer to 1901/02, 1911/12, 1931/32, 1936/7 and 1938/9.

Sources: Korea: Kim et al (2008: 406-11); Taiwan: Sato et al (2008: 231-3); Manchuria: Chao (1983; Table A-3); the Philippines: Hooley (2005: Table A.1); population data from Bureau of Census and Statistics (1941: 13). Indonesia: van der Eng (2013); India: Sivasubramonian (2002: 136); Burma: Aye Hlaing (1965: 289); Thailand: Sompop (1989: 251); Singapore: Sugimoto (2011: 49, 185).

After 1929, there was a more obvious divergence between Korea and Manchuria compared with other parts of colonial Asia. All the European colonies in Asia, and in the Philippines, experienced a fall in per capita GDP between 1929 and 1934, although there was some recovery in Indonesia and the Philippines after 1934. Taiwan experienced little growth in per capita terms over the 1930s.

in the 1930s; it was part of the larger territory known as the Straits Settlements, which in turn was one component in British Malaya. Estimates of national income for Singapore alone from 1900 to 2000 are given in Sugimoto (2011).

Manchuria, which had become the state of Manchukuo in 1932, under strict Japanese control, suffered a severe economic downturn in 1934. This was in part the result of the change of regime, although Chao (1979: 257) argued that the main reason for the poor performance was that Manchuria had fallen into a staple trap when the world market for its main export crop, soybeans, collapsed after 1930.⁴ Both production and exports fell sharply.⁵ The Japanese response was to implement a policy of economic diversification into mining and industry. This was also their strategy in both Korea and Taiwan. The result was accelerated economic growth after 1934, especially in Korea, but also in Manchuria. In Taiwan, per capita GDP reached a peak in 1938. But after that there was a decline, and by 1940, per capita GDP was about the same as the 1929 estimate. In British India, per capita GDP in 1940 was still below the 1929 level, although in both Indonesia and the Philippines the estimate for 1940 was above those for 1929. Perhaps the most surprising result of all was from independent Thailand, where there was virtually no growth in per capita terms between 1913 and 1938.⁶

What explains the better growth performance in the Japanese colonies, especially in Korea and Manchuria, over the 1930s? The main reason was that their trade and investment were tightly linked to the Japanese economy which experienced faster growth over the 1930s compared with the major economies in West Europe and America. Over the 1930s the Japanese colonies

⁴ Bix (1971: 178) argued that the reliance on one staple crop was an important reason for the widespread poverty in Manchuria even before prices fell in the 1930s. But it is also probable that the monetary crisis in China in the early 1930s, which was caused by the fall in the international price of silver had some impact on Manchuria, and led to the full integration of Manchuria into the yen bloc. See Shiroyama (2008: 170-1) and Nish (2016: 176-7).

⁵ An analysis of the impact of the creation of Manchukuo on agricultural output is given by Sun (1969: 57ff). He argues that, after adjustments to the official data, the production of the main agricultural crops never regained the level of the late 1920s.

⁶ For a detailed discussion of growth in Thailand from 1870 to 1950 see Sompop (1989), and Booth (2016).

continued to invest in both infrastructure (especially transport) and in directly productive activities, including agriculture, mining, and manufacturing. By 1938, gross domestic capital formation in Manchuria was 23.5 per cent of GDP, although the proportion was lower in Taiwan and Korea⁷. In all parts of the Japanese empire, government played a key role in promoting investment in both infrastructure and in productive activities, offering considerable subsidies to the private sector. Comparative data show that length of road and railways in relation to area were higher in Taiwan and Korea than in any of the Southeast Asian colonies except Java (Booth 2007: 80).

While Dutch, French, British and American colonial administrations were all aware of the importance of investment in infrastructure, government investment was constrained by conservative fiscal policies, especially after 1930. Over the 1930s, the world slump had an adverse impact on export revenues, which in turn affected government revenues. In Indonesia, government spending on public works, including irrigation, harbor works, transport and railways reached a peak in real terms in 1921, and fell thereafter. In the 1930s spending on new projects was negligible (de Jong and Ravesteijn 2008: 66). But in spite of these cutbacks, in 1938 road and rail densities in Java compared favourably with those in Taiwan and Korea, although outside Java there was much less development, with the exception of those regions where there were agricultural estates, or large-scale mining operations. In Manchuria, a rail system had been developed by the Russians, and taken over by the Japanese early in the 20th century. The Japanese also developed the road system although by the late 1930s, the road density (36 kilometers per thousand square kilometers) was about the same as in Indochina, and less than in Burma or the

⁷ The Manchurian figure is taken from Chao (1979: 258-61). Those from Taiwan and Korea are taken from Mizoguchi and Umemura (1988: 226-38).

Philippines. Investment in electricity generation in Southeast Asia was left to the private sector, and, with the exception of British Malaya, installed capacity was much lower in the Southeast Asian colonies than in Taiwan and Korea (Booth 2007: 80). In the Japanese colonies links between the government and private investors was much tighter, to the extent that it was often difficult to disentangle public and private initiatives.

As would be expected, the economic growth which occurred across most of colonial Asia from 1913 to 1940 led to some structural change in the composition of both output and employment. The share of agriculture fell as a percentage of total output, and that of industry (mining, manufacturing, construction and utilities) increased. The sharpest fall in the share of agriculture occurred in Korea and Manchuria, while in the Philippines and Thailand there was little change (Table 2).

Table 2: Proportion of GDP from Agriculture: Selected Colonies, 1913-1941

	1913	1924	1929	1934	1938/41*
Korea	66.9	56.9	52.3	49.7	36.0
Taiwan	45.2	47.2	42.2	45.6	39.1
Manchuria**	n.a	49.7	50.7	36.2 (52.7)	33.9 (31.3)
Philippines	38.5	37.8	39.1	40.8	37.3
Indonesia	38.3	36.6	32.5	34.3	32.4
India	60.0	59.9	56.1	54.7	50.3
Burma***	68.6	55.6	55.6	59.9	54.3
Thailand	44.6	n.a	43.8	n.a	44.3

Note: *1938 data for Thailand; 1940 data for Korea and the Philippines; 1941 for all others except Burma.
 ** Figures in brackets are estimated from Yamanata et al (2008). ***Burma percentages refer to 1911-12, 1921-22, 1926-27, 1931-32, 1938-39.

Sources: Korea: Kim et al (2008: 406-9); Taiwan: Sato et al (2008: 233, 326); Manchuria: Chao (1983: 16); the Philippines: Hooley (2005: Table A.1); population data from Bureau of Census and Statistics (1941: 13). Indonesia: van der Eng (2013); India: Sivasubramaniam (2002: 136); Burma: Saito and Lee (1999: 7, 214); Thailand: Sompop (1989: 251).

The decline in the share of agriculture in the Japanese colonies was accompanied by an increase in the share of the industrial sector; by 1938 industry accounted for around 28 per cent of total GDP in Korea, 24 per cent in Taiwan and 20 per cent in Korea (Table 3). Industry accounted for around 20 per cent of total GDP in the Philippines, but a lower proportion in Indonesia, India and Thailand. The reason for these outcomes will be discussed further below.

Table 3: Proportion of GDP from Industry*: Selected Colonies, 1913-1941

	1913	1924	1929	1934	1938/41**
Korea	6.4	10.4	12.3	15.6	27.9
Taiwan	12.1	15.7	21.3	20.6	23.7
Manchuria***	n.a	14.7	12.9	19.8 (9.5)	20.3 (19.5)
Philippines	16.1	18.8	18.5	23.8	19.6
Indonesia	16.1	14.3	15.6	13.1	17.6
India	12.3	11.5	13.5	14.6	13.7
Thailand	17.1	n.a	17.1	n.a	17.3

Note: *Mining, manufacturing, construction and utilities. **1938 data for Thailand; 1940 data for Korea and the Philippines; 1941 for all other countries. ***Figures in brackets from Yamanata et al (2008)

Sources: Korea: Kim et al (2008: 406-9); Taiwan: Sato et al (2008: 233, 326); Manchuria: Chao (1983: 16); the Philippines: Hooley (2005: Table A.1); Indonesia: van der Eng (2013); India: Sivasubramaniam (2002: 136); Thailand: Sompop (1989: 251).

What impact did the growth of output in the various colonies have on patterns of employment? By the late 1930s, the available data, mainly from population censuses, showed that around 25 per cent of the labour force was employed outside agriculture in Korea and Manchuria, and 36 per cent in Taiwan. In the Philippines, the 1939 Population Census showed that 31 per cent of the working population was employed outside agriculture.⁸ Population censuses held in Burma in 1931, and in Indonesia in 1930 both found that around 30 per cent were employed outside agriculture; this proportion probably increased over the 1930s.⁹ In British Malaya, the 1931 Census found that the percentage was close to 40 (Booth 2007: 30). In all these colonies, the majority of workers employed outside agriculture were in wholesale and retail trade and other services with a smaller proportion in manufacturing industry, construction and mining. But growing numbers were also employed in government administration and the professions. By the 1930s, indigenous workers comprised the great majority of those employed in government and the professions in the Philippines, Indonesia, Thailand and Burma. The percentage was lower in Taiwan and Korea where Japanese workers were more numerous (Booth 2007: 127).

Growth of Agriculture and Industry

Most studies of agricultural development in both Taiwan and Korea in the decades from 1910 to 1940 have stressed the successful transfer of Japanese high-yielding rice varieties, although in both colonies the period of accelerated agricultural growth was quite short. Lee and Chen (1979:

⁸ The 1939 labour force data for the Philippines included workers in domestic and personal services including housekeepers and housewives. As these workers were not included in other censuses carried out in the 1930s, the Philippine census is not strictly comparable. The inclusion of domestic workers has more impact on the female labour force data; the male data show that 29 per cent of workers were in non-agricultural occupations. See Commonwealth of the Philippines (1941: 505).

⁹ A population census, planned for 1940 in Indonesia, never took place; the 1941 census in Burma did go ahead but the data were lost in the Japanese invasion.

60-62) found that there were three distinct phases of growth in Taiwanese agriculture during the Japanese era. In the first, from 1913 to 1923, growth in gross value added in agriculture was quite modest at 1.9 per cent per annum; in these years expansion of cultivated area was the main factor contributing to the growth in output. The second phase, from 1923 to 1937, was marked by accelerated growth in output and value added to around four per cent per annum, which resulted from both yields growth and further growth in cultivated area. This was the period when production of the *ponlai* rice variety took off, mainly for export to the Japanese market (Barker and Herdt 1985: 56-7). Sugar production, entirely for the Japanese market, also grew rapidly. The third phase from 1937 to 1945 saw a decline in output, as a result of bad weather, and wartime dislocation, which meant that Japan could no longer supply crucial inputs such as fertilizer. It also became increasingly difficult to transport rice, sugar and other products to the Japanese market.

Ban (1979: 92) also distinguished three phases in the growth of agricultural output in Korea. During the 1920s, growth in agricultural output was slow; gross value added grew at only around 0.3 per cent per annum. Japanese attempts to increase rice production were plagued by problems, including farmer resistance. Output growth did increase over the 1930s, to 2.9 per cent per annum, mainly as a result of increasing fertilizer application in rice production, together with the dissemination of higher yielding varieties. The percentage of rice land under irrigation also increased, permitting more double cropping. From 1930 to 1939, gross value added grew at around 2.6 per cent per annum. But as in Taiwan, agricultural growth was negative in the years from 1939 to 1945. The reasons were similar; less fertilizer was available to Korean farmers and

marketing channels were broken as transport to and from mainland Japan became increasingly disrupted.¹⁰

In Manchuria, gross value added in agriculture fell steeply between 1929 and 1934 (Chao 1982: 32), mainly because of the collapse in world markets for soybean. Myers (1982: 95) argued that from 1932 to 1937, Japanese agricultural policy in Manchuria was ‘vague’, with little attempt to grapple with the rural depression. Cadastral surveys were carried out, mainly to facilitate the implementation of a land tax. An important concern of the Japanese government after 1932 was to settle large numbers of Japanese farmers together with soldiers retiring from the Kwantung army on land in Manchuria. But Japanese were reluctant to move and the targets were never achieved.¹¹ With the implementation of the five-year plan in 1937, agricultural policy became more activist, and government controls over pricing more pervasive. By 1939, output of staple farm crops had increased from the very low level of 1934, but was still below the 1929 figure (Chao 1982: 32). Area under cultivation expanded, but yields per hectare fell, suggesting diminishing returns (Schumpeter 1940: 302).

In Southeast Asia, the forces driving agricultural growth after 1900 were different from those in the Japanese colonies. Especially after 1918, Japanese policy in both Korea and Taiwan

¹⁰ Barker and Herdt (1985: 42) find that the annual average growth rate in rice production in Korea between 1911-20 and 1931-40 was only 1.1 per cent per annum. This was slower than in Taiwan (3.2 per cent) or in the Philippines (3.5 per cent), British Malaya (3.0 per cent), Thailand (1.7 per cent) and Java (1.4 per cent). Only Indochina and Burma had lower growth rates.

¹¹ Lasker (1945: 100) states that in 1936 the Japanese government planned to settle 100,000 families (around 500,000 people) in Manchuria, but by 1943 only around 57,000 households had actually moved. There were also over 100,000 youth volunteer and other workers, but how many were involved in agriculture is unclear. In some districts, both Chinese and Korean farmers were evicted from their land in order to give it to Japanese settlers, and little or no compensation was paid (Yamamuro 2006: 202-6). See also Nish (2016: 190).

emphasized food self-sufficiency within the empire; in practice this meant increased production of rice, sugar and other crops for shipment to the Japanese market. In Southeast Asia, agricultural production was determined to a much greater extent by global market demand. Rice exports from the three deltas (South Vietnam, Central Thailand and Southern Burma) grew rapidly after 1870 (Owen 1971). Most of these exports went to rice-deficit parts of Asia, including eastern and southern India, British Malaya, Indonesia and the Philippines. In Indonesia and British Malaya new staples such as rubber and palm oil were cultivated on large estates, and exported to both European and American markets. Smallholder production of rubber also increased in the 1920s, especially in Indonesia where smallholder production of other export crops such as coffee, pepper and spices also grew. In the Philippines production of sugar and tropical fruits developed rapidly, mainly oriented to the American market. Much of the growth in output of export crops across Southeast Asia came from bringing more land under cultivation, although large estates invested in research into higher yielding varieties of both sugar and rubber. In some parts of Southeast Asia, notably Java, there was substantial government investment in irrigation systems which led to an increase in double-cropping, but little change in yields. By the 1930s, the double-cropping ratio on riceland in Java was estimated to be around 1.4 (Booth 1988: 102).

David and Barker (1979: 119) found that Philippine agricultural output (in 1938 prices) grew at around four per cent per annum between 1902 and 1938. This would appear to be much faster than in either Taiwan or Korea. But when the data are broken into two sub-periods, 1902-18 and 1918-38, there was a very sharp decline in the growth rate (from seven per cent per annum to 1.1 per cent per annum). The very rapid growth in the earlier period was from a very low base. The available evidence suggests that agricultural output in the early 1900s was lower than in the

1890s, because of drought, cattle disease, and the impact of the Philippine-American War. After 1918, their estimates show falling land and labour productivity, which persisted until 1938.

In both Thailand and Indonesia, the national accounts data prepared by Sompop (1989) and van der Eng (2010) both show that value added in the agricultural sector grew at around two per cent per annum between 1900 and the late 1930s. Unlike in the Philippines, there does not seem to have been a marked slowdown after 1918; in Thailand growth over the 1930s was actually higher than in the 1900-38 period as a whole. In Indonesia there was also an acceleration in agricultural growth, to slightly over two per cent per annum after 1920. In Burma, the data on value added in agriculture assembled by Aye Hlaing show an increasing trend from 1901/2 to 1931/2, albeit with fluctuations. The 1930s saw a decline in value added of around 3.1 per cent per annum (Saito and Lee 1999: 214). Although world prices of most export staples fell after 1918, production continued to increase in most parts of Southeast Asia until the late 1920s, and in some cases into the 1930s. Smallholders proved to be more resilient in the face of adverse international market trends than large estates, and gained a greater market share for crops such as rubber.

To sum up, the evidence indicates that there was considerable variation in the Japanese colonies and in Southeast Asia in agricultural performance in the first four decades of the 20th century. While output growth in Taiwan was faster than in most other regions, the performance of both Manchuria and Korea was less impressive. Myers and Yamada (1984: 446-8) argue that Taiwan benefited from an earlier start in the adoption of the Meiji agrarian strategy, together with large investments in agriculture. They stressed the positive impact of greater market exchange

within the colony and greater trade with Japan. But they also drew attention to ‘two dysfunctions, economic in character’ which affected all areas of rural life in both Taiwan and Korea. The first was the unequal distribution of wealth and income in rural areas, which resulted from the very unequal distribution of land, while the second was the low income and purchasing power of rural populations. These problems were not unique to the Japanese colonies; their impact on living standards will be discussed further below.

One consequence of the sustained growth in agricultural output in most colonies in East and Southeast Asia in the early decades of the 20th century was the rapid growth of agricultural processing industries. Rice milling was important almost everywhere, as was saw-milling; these two industries dominated manufacturing output in Thailand and Burma. In Java and the Philippines, the role of sugar refining increased from the late 19th century onwards. The processing of natural rubber into a form which could be exported to the USA and Europe also became important in both British Malaya and Indonesia. By 1925 Singapore had become the main port for the processing and onward shipment of rubber from both British Malaya and Indonesia (Huff 1994: 195-203). In Taiwan, food processing accounted for 70 per cent of manufacturing output in 1914-16, and in spite of some attempt at diversification, the share of food processing increased to 73 per cent in 1938-40 (Ho 1984: Table 3). In Manchuria, the processing of soybean dominated manufacturing until the decline in output and exports in the 1930s.

During the 1930s, there was a rapid acceleration in industrial growth, and particularly manufacturing growth in both Korea and Manchuria, while in Taiwan the growth of mining and

manufacturing slowed after 1927 (Ho 1984: 366).¹² In Korea the growth in manufacturing was from a very low base; as late as 1929, the industrial sector (mining, manufacturing, construction and utilities) accounted for around twelve per cent of GDP, which was low in comparison with most other Asian colonies (Table 3). Some scholars have argued that it was deliberate Japanese policy to keep industrialization to a minimum in this period so that Korea would remain a market for Japanese products (Kim 1973: 103). The growth during the 1930s was based on agricultural processing only to a limited extent; especially in the north the fast growing sectors were wood products, chemicals, ceramics, and machinery (Mizoguchi 1979: Table 7). By 1938-40, almost 62 per cent of total manufacturing output in the north came from chemicals, and a further 17 per cent from metals, machinery and ceramics (Suh 1978: 142).

Most of the investment in the modern factory sector in Korea came from Japan; it has been estimated that 94 per cent of paid up capital in the Korean factory sector was owned by Japanese interests in 1940 (Haggard, Kang and Moon 1997: Table 5).¹³ In sectors such as electricity and gas and ceramics, Japanese firms accounted for 100 per cent of paid up capital. Many of the Japanese firms were owned by large Japanese conglomerates (*zaibatsu*) who were often given monopolies in particular sectors. These firms were closely tied to the Japanese government and pursued the goals set by government, which over the 1930s were determined by the military, rather than civilian interests (Chung 2006: 242-5). As Japan consolidated its power in Manchuria, and Japanese strategy became more oriented to building an empire stretching

¹² From the mid-1930s, Japanese strategy was to promote industrialization in Taiwan through processing raw materials from China and Southeast Asia. Bauxite from Indonesia was to be processed using electricity from the newly constructed facility at Sun-Moon Lake (Schneider 1998: 182). But wartime transport problems prevented most of these schemes from coming to fruition.

¹³ This figure has been disputed by Eckert (1991:54) who claims that it ignored the many Japanese-Korean joint ventures.

across northeastern Asia, the goals of Japanese policy in Korea became more tightly linked to development needs in Manchuria. Korea was viewed as a base for advance into the whole of North Asia (Chang 1971: 175). This had important consequences for Korean business ventures in Manchuria and for Korean migration, which will be considered further below.

Between 1934 and 1941, the growth of the modern factory sector in Manchuria was remarkably rapid at almost 20 per cent per annum in real terms (Chao 1983: 32). The whole industrial sector grew more slowly, at almost nine per cent per annum, but this was still a very fast rate in comparison with most other parts of the world at that time. By 1941, mining, manufacturing industry, and construction accounted for 20.3 per cent of GDP (Table 3). The role of heavy industry became more important; in 1938, metal industries, machinery, chemicals, electricity and gas accounted for 69 per cent of paid up capital in the manufacturing sector to sustain Japan's war in Asia. The Japanese government, now running a war economy, had ambitious plans for the further development of Manchuria's industrial capacity after 1942, when the second five year plan was initiated.¹⁴ Output of steel, pig iron and iron ore was to be nearly doubled by 1946 (Myers 1983: 143). Further development of hydro electricity, coal and shale oil was also planned. Had these targets been achieved, Manchuria would have had a more developed industrial sector than any other part of Asia, with the exception of Japan itself. But the Soviet Army's invasion of Manchuria in 1945 led to massive falls in industrial output, from which the

¹⁴ Sun (1969: 79-80) argues that the first five year plan (1937-41) was basically the work of the Kwantung Army who were also in control of implementation. The army distrusted the older industrial groups such as Mitsui and Mitsubishi, and preferred to deal with the Nissan group.

economy was slow to recover. Sun (1969: 88) quotes an American estimate which valued the loss of plant at almost a billion dollars. This was confirmed by a Japanese estimate.¹⁵

The very rapid development of industry in both Korea and Manchuria until the early 1940s can be contrasted not just with Taiwan, but also with most colonies in Southeast Asia. It was only in the 1930s that the Dutch began to encourage the growth of large-scale manufacturing through foreign investment in sectors including automobiles, rubber tires and tubes, soaps and cosmetics, batteries, cigarettes, electrical appliances and brewing (Shepherd 1941: 73). A measure of protection was granted the domestic textile sector, mainly by placing quotas on Japanese imports, and encouragement was given to small-scale weaving through the distribution of improved handlooms. The processing of crude petroleum into a number of refined products also grew rapidly. By 1941, the industrial sector accounted for 17.6 per cent of GDP (Table 3). Shepherd (1941: 110) argued that the severe impact of the world depression forced colonial authorities to take industrial policy more seriously in both Indonesia and Vietnam, whereas in the Philippines, export producers had the advantage of preferential access to the American market. This helped producers of sugar, vegetable oils and other processed agricultural products, in the same way that rice and sugar producers in Taiwan were assisted by access to the Japanese market. But it meant that any serious discussion of industrial policy was deferred until after 1945.

3. Government Policies and the Development of the Private Sector

¹⁵ Further discussion of the damage to basic Manchurian industries inflicted during the Soviet occupation is given in Jones (1949: 227-31). Details of the post-1945 collapse are also given in several Chinese sources; see Ministry of Education (1989: 106-8) and Xu and Wu (1985: 106-8)

By the first decade of the twentieth century, all the colonial powers in East and South East Asia, were trying to establish effective administrative structures which prioritised the centralization and reform of fiscal systems. But there were considerable differences in outcomes of revenue policies in different parts of colonial Asia. Government revenues per capita in 1910 varied between around one dollar per capita in Vietnam to 15 dollars in the Federated Malay States (FMS).¹⁶ Although several of the colonies with low revenues per capita in 1910 improved their revenue performance over the next two decades, none caught up with either the FMS or the Straits Settlements. By 1929, government revenues in Indonesia, the Philippines, Korea and Burma were around five to six dollars per capita, more than in Thailand and Vietnam but still well below Taiwan, the Federated Malay States and the Straits Settlements. With the onset of the world depression, revenues fell in terms of dollars per capita in most colonies, and had not recovered to 1929 levels by 1938 (Booth 2007: Table 4.3).

These differences in revenue performance can be explained partly by differences in taxable capacity, as proxied by per capita GDP, and partly by a reluctance on the part of several colonial regimes to increase taxes on the indigenous populations for fear of provoking unrest. A frequent criticism of colonial revenue systems in Asia was that they were regressive, in the sense that their incidence fell more heavily on indigenous populations than on foreign companies and individuals. Critics pointed to the high reliance on land taxes, excises and export and import duties. Income taxes on both corporations and individuals were either not assessed at all, as in British Malaya, or assessed at low rates with many exemptions. Non-tax revenues including opium, tobacco and alcohol monopolies were also considered regressive. These accounted for at

¹⁶ The very low figure for Vietnam could be partly the result of the exclusion of village-level imposts.

least one third of all government revenues in most Asian colonies in the late 1930s, including Taiwan and Korea (Booth 2007: Table 4.1).

Table 4: Percentage of Budgetary Outlays on Law/Defence, Public Works/Agriculture and Education/Health, 1930s

Country/Year	Law/Police/ Defence	Public Works/ Agriculture	Education/ Health
Manchuria (1934)	32	5 *	3**
Indonesia (1931)	32	7	12
Thailand (1931)	31	15	8
French Indochina (1931)	14	36	4
Korea (1936)	11	31	7
FMS*** (1931)	8	28	20
Philippines (1931)	8	18	36
Taiwan (1935)	7	28	8

Note: *Expenditures on industry and communications. **Expenditures on education only. ***Federated Malay States.

Sources: Korea: Grajdanzev (1942: 218); Taiwan: Grajdanzev (1944: 137); Manchuria (MYB 1941: 203-4); Others: Schwulst (1931: 57).

Grajdanzev (1942: 135) argued that 80 to 90 per cent of all taxes in Taiwan fell on the mass of the population and only 10 per cent on the relatively wealthy, many of whom were Japanese. Kimura (1989: 302-4) also argued that Japanese revenue policies in Korea were regressive, and wealthier people, whether Japanese or Korean, escaped quite lightly.

On the expenditure side, all colonial governments in Asia had by 1913 begun to assume responsibility for a much broader range of activities than simply the maintenance of law and order and the collection of revenues. Kohli (2004: 40) describes the colonial state in Korea as a 'busy state' which became increasingly involved in many developmental activities. But this was true in Southeast Asia as well. Increasingly, it was recognized that ambitious programs of infrastructural development were necessary for economic development, and would have to be funded, or at least subsidized, by government rather than the private sector, with government funds derived in part at least from loan finance. In Indonesia, where government expenditures had grown in real terms continuously after 1870, public works (including railways) accounted for 40 per cent of total government expenditure in 1920 (Booth 1990: Table 10.5). In Burma, civil public works accounted for almost 24 per cent of government expenditures by 1901-4, although the percentage fell somewhat thereafter (Hlaing 1965: Table 22). In Indochina, especially the three provinces comprising what is now Vietnam, public works already accounted for 20 per cent of total government expenditures in 1901; by 1909 the share had risen to over 40 per cent. The concept of '*mise en valeur*', stressed by successive French administrators after 1900, meant in effect increased expenditures on public works, in order to facilitate the exploitation of the colony's natural resources (Doumer 1902: 24; Simoni 1929).

But in spite of the increased emphasis on infrastructure, there were marked differences in spending priorities across colonial Asia. The comparative study carried out by Schwulst (1931) showed that the percentage of total budgetary expenditures on policing and defense varied from over 30 per cent in the Netherlands Indies and Siam to only eight per cent in the Philippines. The percentages in both the Netherlands Indies and Siam were higher than in Taiwan and Korea in

1935 and 1936 respectively (Table 4). The percentage of total expenditures devoted to public works and agriculture also varied considerably although it was lower in most Southeast Asian colonies than in either Taiwan or Korea. The percentage on health and education was under 15 per cent in most colonies; the exceptions were the Philippines and the Federated Malay States. The Philippines spent over a third of the budget on health and education and the FMS around 20 per cent; elsewhere the proportions were much lower. In both Taiwan and Korea, spending on education fell as a proportion of total expenditures after 1920, and never exceeded ten per cent of total expenditures (Booth 2007: Table 4.2). The outcomes in terms of educational and health indicators in various parts of colonial Asia will be examined further below.

In Manchuria, government revenues and expenditures per capita in 1932 were lower than in either Taiwan or Korea in terms of yen per capita, although they increased rapidly after 1933 and by 1938, they had almost caught up with Korea.¹⁷ But they remained much lower than in Taiwan (Tables 5 and 6).

Table 5: Revenues Per Capita: Japanese Colonies: 1925-1938 (Yen)

Year	Taiwan	Korea	Kwantung*	SMR Zone	Manchuria
1925	29	10	12	14	
1929	34	12	11	14	
1932	25	11			4
1934	28	14			9

¹⁷ Sun (1969: 78) points out that historically public finance in Manchuria had been decentralized; the Manchukuo government was determined to reform the system. Kanai (1936: Chapter 5) gives an account of the reforms until 1935 from a Japanese perspective.

1936	33	17	9
1938	42	25	21

Note: *Kwantung leased territory; SMR zone refers to land along the South Manchurian Railway.

Sources; Mizoguchi and Umemura (1988: 256, 291-3). Expenditure figures from Kwantung and the SMR Zone from MYB (1933: 96-8). Population figures for Kwantung and the SMR Zone from Mizoguchi and Umemura (1988: 313-4).

Table 6: Expenditures Per Capita: Japanese Colonies: 1925-1938 (Yen)

Year	Taiwan	Korea	Kwantung*	SMR* Zone	Manchuria
1925	22	9	7	14	
1929	27	11	7	14	
1932	20	10			4
1934	22	12			9
1936	25	15			9
1938	33	22			21

Note: *Kwantung leased territory; SMR zone refers to land along the South Manchurian Railway.

Sources; Mizoguchi and Umemura (1988: 256, 291-3). Expenditure figures from Kwantung and the SMR Zone from MYB (1933: 96-8). Population figures for Kwantung and the SMR Zone from Mizoguchi and Umemura (1988: 313-4).

The share of spending on defence and policing fell from over 40 per cent in 1932 to 27.5 per cent in 1935, which was lower than in either Siam or the Netherlands Indies (Table 4). Much of the military expenditure was for regional pacification (Myers 1982: 237). Most of the rest of the general account budget was devoted to administrative expenditures; expenditures on infrastructure were taken from the special account and from other sources. Myers (1982: 240) argued that dependence on the special account to finance development expenditures continued

throughout the period of Japanese control of Manchuria, but after 1938 reliance on debt to fund special account expenditures grew.

One of the most severe criticisms which has been made of colonial policies in many parts of the world is that colonial governments trapped the great majority of the population in unproductive activities, mainly in small-scale agriculture and in traditional manufacturing and services. This prevented the emergence of indigenous entrepreneurs, capable of managing modern firms. In Southeast Asia, this argument became entwined with the concept of the plural economy, characterized by a marked division of labour along ethnic lines. Furnivall (1948: 304-5) argued that the plural economy characterized most parts of Southeast Asia by the early 20th century. In several Southeast cities, migrant Asians, mainly Chinese and Indian, comprised a significant share of the population, and accounted for the majority of workers in manufacturing, retail trade, construction and transport. In the Federated Malay States and in Indonesia outside Java, over 40 per cent of Chinese workers were in agriculture, mainly as estate labourers, but elsewhere the Chinese tended to work in manufacturing, commerce, transport and personal services with a small number in the professions (Booth 2012a: 74).

As a broad generalization, it was true that no colonial government in Southeast Asia adopted policies which fostered the development of an indigenous entrepreneurial class, although the expansion of post-primary education in the Philippines must have encouraged many graduates to move into professional and administrative occupations. To a greater or lesser extent, many colonial officials tended to view indigenous populations

as lacking any talent for, or interest in, modern industry and commerce. Sometimes, this attitude manifested itself in outright racism. But other officials, both Dutch and British, were aware that at least some of the criticisms made of the business capacities of indigenous populations were unfair. Richard Windstedt, a prominent official in British Malaya argued that because most Malays were independent farmers with little need to work for hire, they had got an underserved reputation for idleness. But Winstedt, like most other administrators in British Malaya, thought that the provision of English-language education to Malays should be restricted, lest they become restless and forsake their traditional way of life for one that would inevitably lead to exploitation and destitution (Booth 2012a: 86).¹⁸

In Indonesia, van Gelderen (1961: 147) stressed that indigenous cultivators were likely to be exploited in their dealings with the market economy because of the great difference in bargaining power between the buyer on the one hand and the seller on the other. Paradoxically, in spite of Dutch concerns about the ability of indigenous Indonesians, and especially the Javanese, to participate in the ‘modern economy’, by 1930 indigenous workers accounted for a higher proportion of the labour force in both Java and the Outer Islands of Indonesia than in the Straits Settlements, the Federated

¹⁸ Historians have contrasted British policy in Malaya with that of the Americans in the Philippines after 1900. The British were mainly concerned with the strategic goals of maintaining freedom of navigation through the Straits of Malacca and the South China Sea; to this end Singapore was developed as an important naval base and commercial entrepot. The Malay states were seen as important for the viability of Singapore, but indigenous Malays had to be protected from modern capitalism. A small number of Malay boys from elite families were given British education, but the rest were to remain in traditional occupations. In the Philippines, the Americans aimed to assimilate Filipinos into a modern state, resembling the western states of the USA. ‘The Americans aimed to cultivate the Filipinos in their own image, while the British sought to conserve Malay society to allow Malays to grow at their own racial pace.’ (Goh 2013: 474)

Malay States, or Burma. The proportion was also higher than in Taiwan, about the same as Korea, and only slightly lower than in the Philippines. In Java, indigenous workers accounted for a higher proportion of workers in non-agricultural occupations than in any other colony except the Philippines (Booth 2012a: 79). Although it was probably true that many jobs occupied by indigenous Javanese required few skills (many were petty traders and homeworkers in cottage industry), they also outnumbered the Chinese and Europeans in professional occupations, and in the civil service. Even in trade where the Chinese were certainly important, indigenous workers comprised the majority of workers both in Java and elsewhere.

In Taiwan, Ho (1971: 323) claimed that the Japanese never encouraged the emergence of an indigenous business class. In fact he argued that the whole policy of the Japanese government 'was directed toward preventing the emergence of such a class'. Until 1924, native Taiwanese were not allowed to organize or operate corporations unless there was Japanese participation. As a result, the modern sector of the economy became a monopoly of the Japanese capitalists. This changed little until 1945. In Korea, Juhn (1977: 48) pointed out that in the 1930s, when the Japanese authorities were trying to attract the large Japanese industrial conglomerates (*zaibatsu*) to invest in Korea, some officials did argue for a strategy that would encourage Korean small and medium enterprises. But there is little evidence that Korean firms received much encouragement. Neither did the activities of the Japanese-established cooperatives have any impact, especially when compared with small producers' cooperatives in Japan (Juhn 1973: 28).

But in spite of unsupportive Japanese policies, some Korean enterprises did emerge and grow during the colonial era. The outstanding example of an indigenous Korean industrial family that rose to wealth in the Japanese era was the Kim brothers who founded the Kyongsong Spinning Company. They managed to withstand competition from better-funded Japanese firms, consolidate their position in Korea and move into southern Manchuria (McNamara 1990: 117). McNamara (1988: 173) argued that the founding of the spinning factory in Manchuria was ‘a dramatic example of Kim’s ability to gain extensive Japanese support for a Korean-owned and managed industrial venture abroad’. Other Korean enterprises also were established in Manchuria, and Koreans also worked for both Japanese enterprises and the Manchurian government. Kohli (2004: 55) argues that, although much of the heavy industry was concentrated in the north, the Japanese left behind a ‘considerable density’ of entrepreneurship in the south which facilitated the post-1950 development of large-scale manufacturing.

Korean as well as Japanese migrants moved to Manchuria; by 1939, there were 642,300 Japanese in Manchuria who occupied senior positions in government and business.¹⁹ Official figures reported another 1.16 million Koreans, comprising 2.9 per cent of the local population. Koreans comprised the same percentage of the population in Manchuria as Japanese did in Korea. The Koreans worked mainly in intermediate occupations, while large numbers of migrants from China moved mainly into unskilled labouring jobs. Indigenous Manchurians were mainly employed in agriculture although small numbers moved into other occupations. Indeed, by the late 1930s, Manchuria was

¹⁹ Yamamuro (2006: 118-9) gives figures for the number of officials in Manchuria, derived from a document dated December 1935. From a total of 7,100 officials, 46 per cent were Japanese.

beginning to take on the characteristics of a plural economy in the Furnivall sense, where ethnicity and occupation were tightly linked. As Yamamura (2006: 201-2) argues, in spite of the substantial in-migration, Manchuria was hardly an ethnic melting pot. The Japanese had little or no contact with the other ethnic groups and lived apart from them. This was probably true of the other migrant groups as well who did not have a common language, and would have found communication with other migrants or with the indigenous population very difficult.

4. Labour Migration and Labour Exploitation

By the early 20th century, large numbers of people were on the move across Asia. Between 1881 and 1910, gross immigration to Southeast Asia from India and China has been estimated at around 3.7 million, rising to 6.8 million in 1911-29. In the 1930s, numbers fell to 4.76 million. From 1911 onwards, gross flows to Southeast Asia exceeded those to the USA by a considerable margin (Huff and Caggiano 2007: Table 1). Net flows were much lower, because many of the migrants returned home; in British Malaya net flows were negative over the 1930s, although in other parts of the region they remained positive. Although most migrants came to Southeast Asia with the aim of saving money and eventually returning home, by the inter-war years many stayed and formed families in their host country. The decision to settle was the result of both adverse conditions at home and improving opportunities for migrant workers in Southeast Asia.²⁰

²⁰ Sugihara (2005: 254) points out that many migrants who arrived in the Straits Settlements did not stay there but moved to both the Malay states and to Sumatra to take advantage of job opportunities in the estates and mining. Some migration flows, such as those from Bangkok to British Malaya were not included in the official data.

But migration from China and India to Southeast Asia was only part of the story of population movement across Asia in the early decades of the 20th century. Migration from the Chinese mainland to Taiwan was small compared to the flows to Southeast Asia, although Schneider (1998: 169) claimed that between 1905 and 1935, the numbers of Chinese workers in Taiwan grew from 4,000 to 40,000. After a pause in the late 1930s, labour recruitment started again in 1940. Many mainlanders were admitted for seasonal work and had to go home after their contracts expired. All Chinese citizens in Taiwan were treated by the Japanese as foreigners, and from 1905 onwards, their numbers were much lower than the numbers of Japanese on the island (Grajdanzev 1942: 25). Lasker (1945: 99) estimated that by 1942, there were 310,000 Japanese in Taiwan, although only a small proportion would have been engaged in farming. A further 1.4 million were estimated to be in Korea and Manchuria.

Koreans were far more mobile than Japanese, moving in large numbers both to mainland Japan and to Manchuria, in search of higher wages and better conditions than were available at home. By 1940, the number of Koreans living outside Korea exceeded 2.5 million, or about ten per cent of the total population in that year (Kimura 1993: 643). The great majority would have been in either Japan or Manchuria. Most were unsponsored (Chang 1971: 182). Yamanata et al (2008: 480) show that 1.36 million Koreans and Taiwanese were living in Manchuria by 1940; the number rose to 1.6 million by 1942. Lasker (1945: 95) stated that the 1939 census in the Soviet Union found that over 180,000 Koreans were living in the Soviet Far East. During the Pacific War, Korean labour crews were found as far south as Papua New Guinea.

While Koreans were probably the most mobile of all the major ethnic groups, relative to their total population, in colonial Asia, other ethnic groups were also on the move in search of employment opportunities. By the late 1930s it is probable that there were around 1.5 million ethnic Javanese living outside Java. Of these the majority were in other parts of Indonesia, particularly Sumatra. Many had gone to work on the estates in Eastern Sumatra as indentured labourers; the 1930 census found that 31.4 per cent of the indigenous population on the East Coast division had been born in Java. Conditions on the estates for migrant workers were often harsh, although the Dutch colonial government did introduce some measures to protect them as their numbers grew²¹. The same census found that there were 1.14 million people from Javan ethnic groups living in other parts of Indonesia (Hugo 1980: 109-10). Numbers of Javanese living elsewhere in the archipelago probably increased over the 1930s, not least because of the official government settlement policy, which moved families from Java over the 1930s.²² In addition some 170,000 Javanese were reported in the 1931 census to be living in British Malaya.

In Manchuria, the Japanese considered that economic development was held back by an acute shortage of labour, and government policy increasingly encouraged immigration from China. Schumpeter (1940: 69) gives a time series from 1926 to 1938 which shows that arrivals peaked at over one million per year between 1927 and 1929,

²¹ A useful summary of the debate on Dutch policies can be found in Breman (2002).

²² Pelzer (1945: 202) estimated that numbers 'colonists', mainly from Java and Bali, living in other parts of Indonesia trebled from 66,600 to 206,000 over the 1930s.

and fell thereafter, although they seldom dropped below 500,000 until 1938. As in Southeast Asia, net migration was lower, but only negative in two years. From 1937 to 1941, migrant workers in the prime working age groups were recruited by Manchuria-based Japanese companies and by the military, and their numbers grew rapidly over these years (Li *et al.* 2009: 8). The accumulated new entries from China Proper to Manchuria from 1932 to 1945 were estimated to be close to nine million (Li *et al.* 2009: 45). They played a key role in the mining and construction sectors.

But labour shortages did not push up the workers' wages despite initial promises made by the Japanese employers. Once inside Manchuria, these migrant workers were subject to systematic coercion, and had little protection. They were forced to live and work in harsh conditions characterized by daily violence, long working hours, inadequate housing, hunger and diseases. Their mortality rate has been put at over 30 percent (Li *et al.* 2009: 660), and their life expectancy after migrating 1.3 years. These were worse figures than for any other group of migrants in colonial Asia. As a result, according to a Japanese report of 1941, less than 20 per cent of the Chinese workers ever returned home (Li *et al.* 2009: 6).

5. The Development of Education and Health Care and Changing Living Standards

The debate over the treatment of migrant workers has become part of a wider debate about the provision of education and health facilities, and changing living standards across colonial Asia. Some scholars have argued that the Japanese placed more emphasis on educational development than other colonial powers in Asia. Kobayashi (1996: 325)

claimed that ‘the most immediate postwar legacy of the Japanese colonial era was the existence of the hundreds of thousands of educated South Koreans and Taiwanese who became the core of the postwar political and economic elites’. Other studies have also emphasized Japanese educational policies and contrasted them with much poorer outcomes in other colonies (Cumings 1999: 89). Does the evidence support such claims? The Japanese were quite successful in increasing school attendance in Taiwan at the primary level; by 1940 close to 60 per cent of school-age children attended primary school. But for the great majority of children in Taiwan, their education ceased after the primary cycle. Ten middle schools were located in the main towns; they were open to most Japanese but only carefully selected Taiwanese could attend (Kerr 1942: 53; Barclay 1954: 68). At the tertiary level there were very few opportunities in Taiwan, although a small number went to mainland Japan. After Taiwan was returned to China in 1945, the ‘Japanese legacy’ was systematically removed by the Republican Government in a campaign of ‘de-Japanisation’ (*qu ribenhua*). All forms of Japanese political, economic and cultural influence were banned, and many Japan-trained bureaucrats, military personnel and teachers were removed from office. As a result, whatever their skills and experience, they had little input into post-1945 government administration.

In Korea, the Japanese modernized primary education, introducing subjects such as geography, arithmetic and the Japanese language. Primary enrollment rates increased to over 70 per cent for boys and 20 per cent for girls by 1940 (Kimura 1993: 641). Many parents objected to the new syllabus, and some changes were made in the 1930s. Students often rebelled against what was seen as indoctrination to become loyal subjects of a

foreign emperor (Kim 1973: 139). The use of the education system to inculcate Japanese values into Korean children, and turn them against Christian and other 'Western beliefs' intensified over the 1930s (Brudnoy 1970: 187). By 1939, 1.3 million children were enrolled in 'short course elementary schools' although numbers in middle and high schools were much lower. At the tertiary level it was estimated that in 1943, there were 28 institutions of higher learning; eleven were government-run and the rest private. They enrolled 4541 students, but only 1337 were Korean and the rest Japanese (Kim 1985: 166-8). Kim argues that the Japanese attitude to higher education in Korea was that it was 'something dangerous and superfluous'. This was, to a considerable extent, the attitude of most other colonial governments in Asia, with one important exception, which will be discussed below.

In Manchuria, the government of Manchoukuo also prohibited the use of textbooks which were considered anti-Japanese, but at the same time, they tried to modernize the curriculum, introduce vocational training, and improve the training of teachers. There was a considerable expansion in numbers of children attending school; as in Taiwan and Korea most of this expansion was at the primary level. Kanai (1936: 66) found that the great majority of children enrolled in school were at the primary level, although there was some growth in post-primary enrollments. In 1939, 3,820 students were enrolled in government and private higher education institutions; compared with Korea a higher proportion were from Manchuria, around 67 per cent. A small number were sent to Japan for higher education (MYB 1941; 677-80). In the late 1930s, only about 4.4 per cent of the Manchurian population was enrolled in school which was a

lower proportion than in Korea and much lower than in Taiwan. But as Tsurumi (1984: 308) argued, Japanese policy in all three colonies was to replicate the 'lower track of the two-track Meiji education system'. Education for eventual self-government was never part of Japanese colonial policy.

This was also the case in the European colonies, where colonial regimes shared the Japanese reluctance to expose the indigenous populations to anything more than basic primary education. A partial exception was British Malaya where a number of schools were established by, and mainly for, for the Chinese population, often supported by philanthropists and churches. By the inter-war years, tertiary education was available in British Malaya, Burma, Indonesia, Vietnam and Thailand but only a very small number of students enrolled. The exception was the Philippines; in 1940-41 it was estimated that over two million students were enrolled in the public school system and a further 180,000 in private schools. Of these, around 40,000 were in post-secondary institutions, some of which were religious foundations and some, including the University of the Philippines, established by government (Booth 2007: 139-40).

The American emphasis on education, especially at the secondary and tertiary level, reflected the intention of successive American administrations to grant self-government and eventual independence to the Philippines. It was argued that a substantial number of professional, technical and administrative workers would be required, and that the great majority would have to be educated in the colony. Even so, American educational policy was hardly an unqualified success. Many children, particularly in the

more remote rural areas, either did not enter school at all or dropped out before finishing sixth grade. A commission of enquiry in 1925 found that many classes were badly taught by teachers with little command of English. But in spite of the obvious deficiencies of the system, many bright young people from relatively humble backgrounds did manage to complete secondary and even tertiary schooling and move into employment in government administration or the private sector. By the end of the 1930s, almost all workers in manufacturing, trade and commerce and in public administration and the professions in the Philippines were indigenous, which was not the case in either the European or the Japanese colonies (Booth 2007: Table 6.4).

After 1901, the Dutch government was increasingly concerned about living standards in Java, and initiated several policies to increase food production, improve access to education and encourage migration from Java to Sumatra and Sulawesi. The Dutch were not alone in their concern about the living standards in their colony. In the early decades of the 20th century, most colonial regimes in Asia were aware of the growth of nationalist movements wanting at least a greater measure of self-government, if not complete independence. By the 1920s, in the wake of the Russian revolution, colonial regimes had to deal with the threat of communist infiltration of independence movements, a threat which was present in the Japanese as well as the European colonies. Colonial statistical agencies were established, or expanded, and indicators of changing living standards carefully scrutinized.²³

²³ The work of the Institute of Pacific Relations was particularly important in carrying out research on living standards across the Pacific region (Holland 1995:2).

One widely used indicator was food availability per capita. Although rice yields per hectare were higher in both Korea and Taiwan than in Southeast Asia, per capita availability of rice was lower than in several parts of Southeast Asia, including British Malaya, Thailand, and French Indochina (Booth 2012b: Table 1). Furthermore, the statistics indicated that rice consumption per capita fell in both Korea and Taiwan, particularly over the 1930s, although in Korea the fall was continuous from 1915-19 to the 1930s (Grajdansev 1944: 118-9). The decline in Korea was attributed to the increasing amounts of rice land under the control of landlords, many of them Japanese. Much of the rice they grew was exported to Japan. Many Korean farmers subsisted off pearl millet, barley and wheat. There does seem to have been some improvement in average rice availability per capita in the latter part of the 1930s, although it was still below the average for 1911-13 (Table 7).

In Taiwan, it has also been estimated that rice availability per capita fell steadily from the early 20th century onwards (Table 7). To compensate for falling rice consumption, farmers consumed more sweet potatoes (Ho 1978: Table 6.2). Chang (1969: 51) argued that the substitution of rice for sweet potatoes reflected relative price changes rather than falling incomes. This is supported by the evidence that real per capita consumption expenditures in Taiwan increased steadily from 1911-13 to the end of the 1930s. This was also the case in Korea, although Kimura (1993: 632) argued against reading too much into the average consumption data. Inequalities in consumer expenditure almost certainly increased in both Taiwan and Korea after 1910, although the

average increase over the 1930s must have reflected some improvement in consumption standards for the majority.

Cha (1998: 751) attributes much of the fall in food consumption in Korea in the inter-war years to a ‘population explosion initiated by a health campaign and aggravated by the interwar agricultural depression’. That mortality dropped in both Taiwan and Korea after 1910 is confirmed by the data on crude death rates for both colonies (Table 7).

Table 7: Per Capita Consumption Expenditures, Rice Intake and Crude Death Rates in Taiwan and Korea (Annual Data)

Year	Per Capita Consumption Expenditures (Yen: 1934-6 prices)	Rice Consumption Per capita (Kg)	Crude Death Rates (per 1000)
Taiwan			
1911-13	90*	134	26
1926-28	104*	131	22
1936-38	119*	92	20
Korea			
1911-13	60	106**	34***
1926-28	80	77**	26***
1936-38	89	96**	23***

Note: *Data refer to 1910-14, 1925-29, 1935-39. **Data refer to 1915-19, 1925-29, 1935-39. ***Data refer to 1910-1915, 1925-30, and 1935-1940.

Sources: Population and crude death rates for Taiwan: Sato et al (2008: 233). Data on rice availability for Taiwan: Ho (1978: 94). Data on consumption expenditures for Taiwan and Korea, and population for Korea from Mizoguchi and Umemura (1988: 234, 238-9). Rice Consumption for Korea: Chang (1977: 58). Crude death rates for Korea: Kwon, Lee, Chang and Yu (1975: 23).

Similar falls also occurred in most parts of Southeast Asia, where governments tried to reduce mortality, especially infant and child mortality, through greater use of vaccination, and a variety of public health campaigns, including better education of mothers in child feeding practices. In those colonies for which we have a reliable time series, infant and child mortality, and crude death rates, did fall after 1900.²⁴ By the late 1930s, infant deaths per thousand births were around 140 in the Philippines, Taiwan, and British Malaya, but higher in Java, French Indochina, and Burma. Crude death rates were also higher in both Burma and Java than in Korea and Taiwan, or in British Malaya, Thailand and French Indochina (Booth 2012b: Table 4).

The factors identified by Cha in the Korean case probably also caused the fall in rice and corn availability per capita in the Philippines between 1920-24 and 1935-39 (Booth 2007: 137). Although the American administration tried to increase smallholder agricultural productivity, their policies had only limited success, while population grew rapidly, from an estimated 7.6 million in 1903 to 16 million in 1939. As in other parts of Asia, Filipinos compensated for declining availability of foodgrains by eating more

²⁴ Data from various parts of Southeast Asia are given in Booth (2012b: 1165-70). While there was evidence of declining infant mortality rates in most parts of Southeast Asia, differences between ethnic groups were quite marked. Kimura (1993: 643) argues that death rates in Korea were under-reported in the early 20th century, and reporting improved after 1920, so the actual mortality decline could have been faster than official figures show. This was probably true in other parts of colonial Asia as well.

rootcrops, but studies carried out in the 1930s suggested that malnutrition was widespread in parts of the country (Booth 2012b: 1156-7). Elsewhere in Southeast Asia, the evidence is more mixed, although there was some fall in rice consumption in both Java and British Malaya in the 1930s (Booth 2007: 133).²⁵

6. Were the Japanese colonies more profitable?

An argument frequently made by critics of western colonialism is that large profits were often made by capitalists, usually from the metropolitan country, which were remitted abroad, and did not benefit the local populations. In Southeast Asia, the most notorious example of the colonial drain in the 19th century was Java during the cultivation system. Remittances from Java to the Netherlands amounted to at least six per cent of Java's GDP between 1835 and 1865. Most of these remittances took the form of contributions to the Dutch budget (van Zanden and Marks 2012: 50). Although the budgetary contributions fell after 1870, remittances on private account grew from the late 19th century onwards, and were substantial until the 1930s.²⁶ In other colonies in Southeast Asia, commodity export surpluses were also considerable, and funded the outward flow of capital on the part of both large corporations and migrant workers (Booth 2007: 104-7). Colonial officials frequently defended the repatriation of profits on the grounds that they were a 'fair return' on often risky investments made by capitalists in Europe and elsewhere. But post-colonial scholars have argued that the profits which expatriate firms in many parts of

²⁵ The series compiled by Scheltema (1936: 12) showed that rice availability per capita fell from 117 kg in 1913-17 to 95 kg in 1928-32.

²⁶ An analysis of Dutch income in and from Indonesia from 1700 to 1938 can be found in Maddison (1989). A further analysis of balance of payments surpluses which continued in Indonesia from the early 19th century to the 1960s era is given in Booth (1998: 210-14).

Southeast Asia made were larger than those which were made by firms in the metropolitan countries or in other parts of the world (Marseille 1984; 109-115; Lindblad 1998: 80-81).

To what extent did the drain through the balance of payments also occur in the Japanese colonies? In the early years of the Japanese occupation of Taiwan, the balance of payments was in deficit, which was funded by Japanese government transfers to the new colony (Grajdansev 1942; 156-7; Mizoguchi and Yamamoto 1984: 407-411). But after 1909, the Taiwanese balance of payments became positive, and remained so for most years until the end of the 1930s. The surpluses were used to finance remittances on both government and private account to Japan. As Grajdansev (1942: 158-9) has argued, these remittances represented interest and profits on the capital invested by the Japanese in Taiwan. Did this represent a fair return on capital invested? Grajdansev argued that the amounts remitted to Japan were rather more than a legitimate return on Japanese managerial and entrepreneurial ability, and reflected the protection from both local and foreign competition which was granted to Japanese companies in the colony.

In sharp contrast to Taiwan, the balance of payments in Korea was persistently in deficit for much of the period from 1910 onwards (Mizoguchi and Yamamoto 1984: 411). This was the result of the long-term government subsidy and private capital flows from Japan; Mizoguchi and Yamamoto estimate that these flows were large enough to cover government spending on capital formation for most years until 1935. They argued that these flows reflected the inability of the colonial government to mobilize funds from

within the colony, rather than a lack of profits on the part of private investors. Much the same was true of Manchuria, where the balance of payments was also in deficit from 1934 onwards. As in Korea, imports exceeded exports over these years, a tendency which was expected to persist for many years to come (MYB 1941: 311). But critics pointed out that the terms of trade favoured Japanese enterprises: the price level of imports from Japan to Manchuria increased by up to 30 percent while the prices of exports to Japan declined (Xie 2007: 548). In the process, Japanese firms often earned high profits, especially in the mining sector (Li *et al.* 2009: 359). Wu (1955: 93) argued that large sums, worth over a third of Japan's total investment in Manchuria, were remitted back to Japan from 1932 to 1944.

But in spite of the evidence that some Japanese investments in their colonies were profitable, by the 1930s both foreign scholars and Japanese business groups were voicing doubts about the benefits of the colonies to the Japanese economy. An American study of the Japanese economy claimed that, at the end of the 1920s, from a fiscal point of view, 'the colonies as a whole have thus far clearly been a liability rather than an asset' (Moulton 1931: 180). In the early part of the 1930s, the private sector in Japan looked to the colonies, especially Manchuria, as providing relief from slowing growth at home (Young 1998: 201). In addition, the need for new markets for consumer goods exports became more pressing as access to markets in South and Southeast Asia and Africa was curtailed by the protectionist policies of Britain, France, the Netherlands and the USA. But demand in Korea and Manchuria was for producer goods; local populations were too poor to provide a large market for consumer products. Even the growing demand for

capital goods was not viewed as an unmitigated blessing to Japan. Young (1998: 234) quoted a speech by the president of Mitsubishi Heavy Industries in 1940, pointing out that the diversion of plant and equipment to Manchuria was causing shortages at home. Bankers also complained at what were seen as excessive demands for loans in Manchuria which was causing problems in the Japanese financial market.

A complete assessment of the costs and benefits of the empire to Japan has yet to be carried out. It is possible that such an assessment would reach the same conclusion as that of Davis and Huttenback (1986) for the British Empire. These authors concluded that the British economy as a whole did not benefit from the empire, even if individual companies did²⁷. Certainly it is difficult to agree with the assertion of Liberman (1996: 112) that ‘empire paid handsomely for Japan, at least until the invasion of China in 1937’. Only Taiwan, with its relatively high per capita GDP, was profitable to the mother country in the sense that several Southeast Asian colonies were. Korea and Manchuria received considerable direct government support, as well as government subsidies to encourage private firms to invest in mining, manufacturing and services. In the longer run the massive Japanese investment in Korea and Manchuria might have paid off, but the defeat at the hands of the allies in 1945 meant that Japan was unable to reap the benefits.

Conclusions

²⁷ It is likely that British Malaya was of greater benefit to the British economy than most of its other possessions (White 1999). The colony was an important earner of dollars for the sterling area both before and after the Pacific War through its exports of rubber and tin to the USA.

The main purpose of this paper has been to assemble statistical and other evidence on economic and social development across colonies in East and Southeast Asia in the decades from 1900 to 1940. Our main conclusion is that the argument that Japanese policies were uniformly more ‘developmental’ than the policies pursued by other colonial powers in Southeast Asia is not always supported. The strongest case for Japanese exceptionalism can probably be made for Taiwan, although even here access to post-primary education was very limited and other indicators of living standards including food consumption and mortality were little different from the Philippines and most parts of British Malaya. While it is true, as Peattie (1984: 23) argued, that the Japanese administration could have transferred its own successful modernization efforts to Taiwan, in fact Japanese policies came increasingly to resemble those in other parts of colonial Asia. Trade with the rest of the world was severely constrained, while that with Japan was mainly based on the exchange of agricultural products for manufactures. Industrialization was limited to agricultural processing, and for most years after 1910, the balance of payments was in surplus, and substantial sums were remitted back to Japan. Education was restricted to primary schooling, and there were few opportunities for indigenous Taiwanese to occupy skilled jobs in the non-agricultural sector. By the late 1930s per capita GDP in Taiwan was higher than in Indonesia, Burma and Thailand, but probably little different from the Philippines, or British Malaya.

In Korea, per capita GDP was almost certainly lower than in Taiwan, and other indicators including educational attainment, mortality and consumption expenditures were also lower. While it is possible that the massive Japanese investment that took place

in both Korea and Manchuria would have paid off in the longer run, Japan's defeat and subsequent political upheavals in both these regions wiped out much of the progress which occurred during the Japanese occupation. But in Korea there was already a small class of educated Koreans when Japanese colonial control was established. Given that the Japanese dominated the upper echelons of the civil service, some chose to go into business; some moved to Manchuria to pursue commercial opportunities there. When the Republic of Korea was established after the bitter civil war of the early 1950s, there was already an indigenous business class which drove the rapid industrial growth for which Korea has become famous.

The Americans were unique in Asia in their policy of encouraging self-government, and eventual independence in the Philippines, which meant a much greater emphasis on secondary and tertiary education than in other colonies, whether French, British, Dutch or Japanese. By the 1930s, Filipinos occupied almost all the posts in the civil service, and many moved into private business and the professions. American policy in the Philippines has been contrasted with that of the British in Malaya. Here colonial officials felt that the Malays had to be protected from capitalism, which meant keeping them in the traditional occupations while encouraging in-migration from China and India in order to provide wage labour in estates and mines. The Dutch shared the doubts of the British concerning the entrepreneurial abilities of indigenous Indonesians, and limited access to Dutch-language education to a small number of Indonesians from elite families. The French also paid little attention to the development of formal education.

Many studies of Japanese colonial policies have stressed the achievements in building infrastructure. But here there were many similarities with the achievements of the British, Dutch and French colonial regimes in other parts of Asia. In all cases, colonial engineers were able to draw on expertise in the metropolitan countries, built up over many decades, to construct railways, roads and irrigation works. Dutch achievements in Java were broadly comparable to those of the Japanese in Taiwan; the Dutch were able to draw on centuries of experience in managing water in their homeland to build large-scale irrigation works which survive to this day. Railway and road construction was also developed in both islands, at least partly to serve the needs of agricultural processing industries, especially sugar, where cane had to be transported to the mills rapidly after cutting. Critics of infrastructure development in colonial Asia have argued that it was largely developed to serve the needs of investors from the metropolitan power. This was often the case, but it seems to be just as true in Japanese-controlled regions as elsewhere.

We are left with a final, very important question. If indeed it was the case that Japanese policies were not unique in their emphasis on economic development, then how do we explain the remarkable growth performance of Taiwan and the Republic of Korea after Japanese colonialism was ended in 1945? How do we explain the slower pace of economic growth in Indonesia, the Philippines, Burma, Vietnam and Malaysia after these countries became independent? A full answer to these questions is beyond the scope of this paper. But the nature of the decolonization process was of crucial importance. In several cases, notably Indonesia and Vietnam, independence was only conceded after

bitter conflict with the Dutch and French. In Vietnam, the country was divided into two opposing regimes, which triggered two decades of further conflict. Elsewhere the newly independent nations faced regional rebellions, often based on the resentment felt by ethnic and religious minorities against the central government. In Malaysia, the federation put together by the British lasted only two years before Singapore withdrew to become an independent state. Southeast Asia remained turbulent region for more than two decades after the end of the Pacific War. In seeking to explain the stellar growth of at least part of the former Japanese empire, and the slower growth of other Asian colonies, we must focus on developments after 1945.

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