Asia Research Institute

Working Paper Series

No. 43

Did It Really Help to be a Japanese Colony?: East Asian Economic Performance in Historical Perspective

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June 2005

The **ARI Working Paper Series** is published electronically by the Asia Research Institute of the National University of Singapore.

Citations of this electronic publication should be made in the following manner: Author, "Title," ARI Working Paper, No. #, Date, www.nus.ari.edu.sg/pub/wps.htm. For instance, Smith, John, "Ethnic Relations in Singapore," ARI Working Paper, No. 1, June 2003, www.ari.nus.edu.sg/pub/wps.htm.

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Did It Really Help to be a Japanese Colony?: East Asian Economic Performance in Historical Perspective[1]

> "Japan has always been growth-oriented, in colonial areas as well as at home; and it is clear that Japanese rule helped to initiate intensive growth in both Korea and Taiwan" (Reynolds 1983: 956)
>
> "However much it may pain the majority of Korean nationalists and the minority of Taiwanese nationalists, the place to begin in comprehending the region's economic dynamism is with the advent of Japanese imperialism" (Cumings 1984b: 8).
>
> Japanese colonialism was more developmental than that of other countries because it involved a greater effort to transfer and develop technology, higher physical investment, and better development of local education and human capital (Maddison 1990: 365).

In the second part of the twentieth century, the two former Japanese colonies of Taiwan and the Republic of Korea have 'forged ahead' in the race for economic growth, and have achieved considerable success in narrowing the gap in per capita GDP between themselves and both the USA and Japan. Aside from the two city states of Hong Kong and Singapore, no other former colony in Asia has achieved the same success in catching up. In several, including India, Indonesia and the Philippines, per capita GDP was lower in relation to that of the USA (and in the case of India and Indonesia in relation to that of their former coloniser) in 2000 than it had been in 1913 (Tables 1 and 2). Until the 1980s, most scholars wishing to explain the post-1950 growth of both Taiwan and the Republic of Korea stressed the policies adopted by the governments which had obtained power after the end of Japanese colonialism. Most Korean scholars viewed the Japanese era with

[1]Versions of this paper have been presented in seminars in London, Melbourne, Canberra, Singapore and Tokyo. I am very grateful to participants for many helpful suggestions; I accept full responsibility for all remaining errors of fact and interpretation.

abhorrence, and while this was less the case in Taiwan, those seeking reasons for the remarkable growth and transformation which occurred after 1950 in the Republic of China were inclined to stress post-1950 policy changes, especially in land reform and trade policy, although several writers did emphasize the Japanese record in promoting technological change in rice agriculture (Myers and Ching 1964; Myers 1969; Myers 1970; Hayami 1973; Carr and Myers 1973).

By the early 1980s, a 'revisionist' school was becoming more influential, which tried to analyse in more depth the policies followed by the Japanese in both colonies and the extent to which they laid the foundations for the rapid growth and structural transformation which occurred after 1950[2]. The seminal collection of essays edited by Myers and Peattie (1984) had a particularly important impact in the English-speaking world. In his introductory chapter, Peattie pointed out that Japanese colonial officials tended to model their policies on the 'superbly successful modernization effort which Japan itself had undertaken in the three decades after the Meiji leadership had overthrown the Tokugawa feudal order' (Peattie 1984: 23). According to Peattie, the conditions in both Taiwan and Korea when the Japanese took over were not greatly different from those in Japan in the late 1860s; they were static peasant societies whose small ruling elites were corrupt and inefficient and largely resistant to change. Apart from consolidation of military and political power in their hands, the colonisers set themselves the twin goals of agricultural expansion and transformation of social attitudes through expanding the educational system. By the 1930s, as Japanese imperial ambitions expanded to take in much of China, and ultimately Southeast Asia as well, the industrial sectors of both colonies were also developed to provide essential inputs into the Japanese war economy.

To many subsequent scholars seeking to find a reason for the superior performance of Taiwan and the Republic of Korea, Japanese colonialism did indeed appear more developmental in both its aims and achievements, in comparison with colonial regimes in other parts of Asia. In the case of Taiwan, Amsden (1985: 79-80) continued the emphasis of earlier authors such as Myers on the agricultural transformation brought about by the Japanese, as well as achievements in primary education and the development of infrastructure. Ranis (1999: 115) also emphasised the

[2]The collection of essays edited by Galenson (1979) on Taiwan, while continuing the emphasis of the earlier literature on trade reform, also emphasised the colonial legacy, especially in the agricultural sector.

Japanese achievement in Taiwan in building both physical and institutional infrastructure. On Korea, Cumings put forward the view that 'the colonial period played an undeniable role in placing Korea above most Third World nations by 1945' (Cumings 1984a: 481; see also Cumings 1984b), while Kohli (1994) argued that by sweeping aside the rapacious and predatory Yi state, the Japanese were decisive in shaping a political economy that later evolved into the high-growth South Korean path to development. Kohli stressed the reforms in both the civilian bureaucracy and the police which laid the foundations for the post-1945 state. In addition, he discusses the role of the state in industrial development under the Japanese and also Japanese policies aimed at controlling the 'lower classes' including both the peasantry and the industrial working class. In fact, according to his analysis there was a striking degree of institutional continuity between colonial Korea and the South Korean state under Park Chung-Hee (Kohli 1994: 1285).

The arguments of Kohli, and those of other revisionists on Korean development, were subjected to critical review by Haggard, Kang and Moon (1997). They pointed out that there were serious questions about the enduring nature of the Japanese legacy; that the belief in the continuity of the Japanese colonial administrative system displays a 'technocratic bias' in that it ignores the importance of the political elites who control the administration; that the evidence that the Korean firms and entrepreneurs who rose to prominence after 1960 had roots in the colonial era was questionable, and that the post-1960 growth performance in Korea was made possible, in part at least, by a reversal of Japanese colonial policies, especially those regarding agrarian reform and education. Other scholars have pointed out that Japanese policies in both Korea and Taiwan were intended first and foremost to serve Japanese interests, and in this respect did not differ from those of colonial powers in other parts of Asia (Howe 2001: 43; see also Chang and Myers 1963: 436).

It is not the purpose of this paper to enter into the debate on the causes of the rapid growth in both Taiwan and South Korea after 1960. My purpose is rather to look at the record of other colonial regimes in Southeast Asia and to place the debate over Japanese colonialism in a wider perspective. By reviewing the record in British, Dutch, French and American colonial possessions, I argue that we are in a better position to

assess the colonial legacies bequeathed to independent states[3]. The key question posed in the paper is the following. Was the difference in economic performance, and in broader development indicators, between the various colonies in East and Southeast Asia sufficiently striking at the end of the 1930s to provide a clear indication of their post-1950 economic trajectories? If the answer is no, then that would support those who argue that it was the process of decolonisation itself, or the policies adopted by post-independence regimes (some of them intended to reverse rather than sustain colonial policies) that have determined the post-1950 outcomes. On the other hand if the evidence suggests that the Japanese colonies were obviously ahead in terms of several development indicators in the late 1930s, then the case for Japanese 'developmental colonialism' is supported.

I begin by examining the evidence on economic growth and structural change across colonial territories in East and South East Asia in the first four decades of the 20th century. I then discuss policies relating to government revenue and expenditure and to trade, exchange rates and the balance of payments. I also look at some non-monetary indicators relating to living standards, including mortality rates and educational enrolments. The final section draws conclusions on the nature of the colonial state in East and Southeast Asia and the legacies bequeathed by these states to post-colonial governments.

Economic growth and structural change

By 1913, the USA had already become the world leader in terms of both total and per capita GDP (Maddison 2003: Tables 8b, 8c). Of all the major Asian economies, only Japan had a per capita GDP which was more than one quarter of that of the USA; in most of the colonial territories and in China, per capita GDP was well below 20 per cent of that in the USA (Table 1). After Japan, the highest per capita GDP in 1913 was in Hong Kong and Singapore, followed by the Philippines, Indonesia, Malaysia and Thailand. South Korea and Taiwan were below all these countries, and above only Burma (Table 3). By 1929, Taiwan and South Korea had overtaken Thailand, but were still below the other

[3] I cannot claim to be the first to have compared Japanese colonialism with that in other parts of Asia. Cumings (1999) examines the Japanese legacy in Korea with that of the French in Indochina while Kang (2002) compares Korea and the Philippines. I try to look at both Korea and Taiwan in a broader South East Asian perspective.

three Southeast Asian economies. It was only during the 1930s, a period of slow or negative growth in most parts of Southeast Asia that the two Japanese colonies grew much faster than in other parts of Southeast Asia, although by 1938 the Philippines still had a per capita GDP above either of them[4].

As would be expected given the generally low levels of per capita GDP in 1913, most Asian economies were predominantly agricultural, with more than 40 per cent of GDP coming from the agricultural sector, except in Japan where the share had already fallen to under 30 per cent (Table 4). In Korea almost 60 per cent of GDP accrued from agriculture and forestry, which was a higher share than in those Southeast Asian countries for which we have estimates, with the exception of Burma (Table 4). Agricultural growth was certainly rapid in both Taiwan and Korea after 1913, and by 1938 value added in agriculture had doubled in Taiwan and almost doubled in Korea. The performance in Thailand, Indonesia and Burma was not as impressive, mainly because of the very slow growth in the 1930s. But in most parts of Asia over these years, the non-agricultural sectors were growing faster than agriculture, so that by 1938 the agricultural share of GDP had fallen everywhere except in Thailand. In Indonesia by 1938, agriculture accounted for about one third of total GDP, compared with 35 per cent in Taiwan and 41 per cent in Korea. By the 1930s, non-agricultural employment had also become significant in several parts of Asia. In Japan, over half the economically active population was working outside agriculture; in Indonesia, Burma and the Philippines the proportion was around 30 per cent. This was a higher ratio than in Taiwan and Korea (Table 5).

The rapid agricultural growth in both Korea and Taiwan after 1913 was entirely based on smallholder agriculture. Estate agriculture was unfamiliar to the Japanese, and the colonial officials felt comfortable with the landlord tenant regimes which existed in both colonies, and saw little reason to change them (Ho 1984: 385). After the serious shortages and rice riots of 1918, the Japanese government began to facilitate the transfer of Japanese high yielding rice varieties to both Taiwan and Korea, in the hope that both colonies could provide Japan with rice. The *ponlai* variety in particular diffused rapidly, and fertiliser use increased in both colonies (Hayami 1973: Table 2.1; Myers and Yamada 1984: 437-9). Government investment in irrigation also grew, which led to an increase in

[4]It should be noted that the Maddison data have been challenged by Fukao, Ma and Yuan (2005) who argue that his method of adjusting GDP data for differences in purchasing power was faulty for Japan, Taiwan and Korea. They argue that Korean real per capita GDP was lower in relation to that of Japan, and Taiwan real per capita GDP higher, than is indicated in Table 2.

double cropping especially in Taiwan. By 1925, Korea was supplying Japan with over five per cent of its total rice consumption, and Taiwan a further 2.8 per cent (Ka 1995: 135). Taiwan also became an important supplier of sugar to Japan, displacing imports from Java, although the development of the Taiwanese sugar industry was assisted by a variety of direct and indirect subsidies (Schneider 1998: 164). There can be little doubt that the introduction of a "Meiji agrarian strategy", including considerable investment in irrigation and rural infrastructure, and the large market in metropolitan Japan all served to accelerate the pace of agricultural growth in both Korea and Taiwan, and by the late 1930s, rice yields were much higher than in other parts of Asia (Table 6). The impact of Japanese agrarian policies on the welfare of the rural populations in both colonies was more controversial, and will be discussed below.

In much of Southeast Asia after 1900, colonial governments were also actively seeking to promote agricultural growth, both for home and foreign markets. The growth of rice production was quite rapid in the decades after 1910 in land abundant parts of Southeast Asia such as the Philippines, Malaya and Thailand, and in southern Vietnam (Cochinchina), although nowhere was it faster than in Taiwan (Table 6). Much of this growth was due to the reproduction of traditional varieties over more land, but some colonial governments, notably the Dutch in Java, did try to develop new varieties which increased double cropping, and thus production (Barker and Herdt 1985: 58; van der Eng 1996: 81-91). In Peninsular Malaya, in Sumatra, and in southern Vietnam, the English and the Dutch colonial authorities facilitated the acquisition of land by large estate companies to grow crops such as tobacco and rubber. The rapid expansion of rubber estates after 1900 in Sumatra and Malaya in turn led to an even more rapid growth in smallholder production, so that by the late 1930s almost half of all rubber production came from small producers (Booth 2004: Table 10). Much of the rubber went, not to markets in the metropolitan powers but, to the USA. This rapid growth of both estate and smallholder export production in response to the opportunities offered by world market demand had no counterpart in either Taiwan or Korea, where export growth was tightly geared to the requirements of the Japanese market.

Turning from agricultural to industrial growth, there were differences between the two Japanese colonies both in growth of the manufacturing between 1911 and 1938, and in the size of the sector by the late 1930s. From a very small base in 1911, industrial growth in Korea was more rapid than in mainland Japan; between 1911 and 1938, there was an almost ten-fold increase in value added from the mining and manufacturing

sectors. Growth was particularly rapid over the 1930s, and by 1938, manufacturing and mining accounted for around 16 per cent of Korean net domestic product. In Taiwan, industrial growth was slower, especially over the 1930s, but because the manufacturing and mining sector was larger to begin with, it accounted for a greater share of net domestic product than in Korea, around 24 per cent by 1938 (Mizoguchi and Umemura 1988: 231-39). In Korea, the growth in the 1930s has been attributed to the establishment of large capital-intensive plants by Japanese *zaibatsu* including Mitsui, Mitsubishi and Sumitomo in sectors such as chemicals, metals and textiles (Grajdanzev 1944: 152-171; see also Ho 1984: 364-69 and Woo 1991: 35). Industrial development appears to have been more capital intensive in Korea, so that the percentage of the labour force employed in industry was lower (Table 5). Suh (1978: 47-51) argues that total employment in manufacturing actually fell in absolute terms over the 1930s; this was entirely due to a very sharp decline in the employment of women[5].

It is often asserted that, right up until 1940, the industrialisation which took place in South East Asia was largely restricted to agricultural and mineral processing. British, French and Dutch colonial regimes were supposedly intent on preserving colonial markets for their own manufactures, and had little interest in encouraging either their own nationals or anyone else to establish industrial plants in their colonies. In fact the evidence does not support these rather crude generalisations, especially in the inter-war era. The increase in national income which undeniably took place between 1900 and 1930 in British Malaya, Indonesia and the Philippines, and to a lesser extent in Burma and Indochina did lead to increased demand for a range of manufactures, some of which by reasons of high transport costs or perishability, could profitably be produced in the home market, even without tariff protection. In addition the Japanese quickly realised that the consumers of South East Asia represented a large market for the cheap manufactures which their own industries were producing in vast quantities, and Japanese exports to many parts of South East Asia increased rapidly after 1920 (Booth 2003: Table 9).

The world slump of the 1930s had a serious impact on agricultural exports (both in terms of quantity and price) in most parts of South East Asia, and forced many colonial officials to consider economic diversification as a means of insulating their populations

[5]Eckert (1996: 14-27) examines the evidence on economic and social change in Korea after 1930, which he argues is little researched and still very controversial. He points out that the opportunities for Korean workers to climb the skill ladder in industry were very limited, but does not address the employment of women.

against the vagaries of world markets. "Among the solutions offered none was seized upon with more enthusiasm than industrialisation" (Shepherd 1941: 4). The flood of exports from Japan only served to increase official support for colonial industrialisation; after all if Japan could industrialise using its abundant supplies of cheap labour, why not Java or Vietnam? Already by 1930, the industrial labour force accounted for more than ten per cent of total employment in British Malaya, Burma, Indonesia and the Philippines (Table 5). Much of this employment was in small-scale and cottage industry, but the estimates of van der Eng (2002: 171) indicate that value added in the industrial sector (manufacturing, utilities and construction) comprised around fifteen per cent of GDP in 1930. During the 1930s, the Dutch made great efforts to attract foreign investment into the large-scale manufacturing sector, with considerable success. Companies such as Goodyear, National Carbon, Unilever and Bata all built Indonesian plants during the decade, and in addition breweries, paper mills, canneries and several large weaving and spinning mills were established (Booth 1998: 44). By 1941, the industrial sector (manufacturing, utilities and construction) accounted for around 20 per cent of GDP (van der Eng 2002: 172).

Although French policies in Indo-china were not supportive of industrialisation which might compete with French imports, official attitudes began to change in the inter-war years, especially with regard to yarn and textiles. In densely settled Tonkin, concern about rural unemployment led to some support for both the spinning and weaving industry, which also assisted small producers. A government survey of 1940 found that Tonkin had 55,000 weavers, and a total of 120,000 textile workers (Norlund 1991: 86-89; see also Shepherd 1941: 30-31). In the Philippines, much of the industry which emerged in the American period was based on agricultural and mineral processing, although the manufacture of clothing and embroideries, together with "native textiles" employed almost 170,000 workers according to the 1939 Population Census, the great majority women. Manufacturing industry as a whole employed over 11 per cent of all workers (Kurihara 1945: 16-17). By the 1930s, Philippine officials were arguing that only complete autonomy in tariff matters would allow the Philippines to industrialise (Espino 1933: 11-12). But even under a tariff system which gave most American manufactures duty-free access to the local market, manufacturing industry accounted for around 21 per cent of gross value added in 1938 (Hooley 1968: Tables 1 and 3).

The evidence would hardly seem to constitute an overwhelming case for "Japanese colonial exceptionalism" on grounds of economic growth leading to rapid

structural change away from agriculture and towards industry and the modern services sector. Per capita GDP growth was quite rapid in both Taiwan and Korea in the twenty five years from 1913 to 1938, but it only outpaced that in Southeast Asia after 1929, where the effects of the world crisis of the early 1930s were more severe. Certainly the growth in rice yields was impressive, especially in Taiwan, but rice production also grew rapidly in some of the land abundant parts of South East Asia. Neither does it appear that industrial growth was more rapid in Taiwan and Korea than in some parts of South East Asia. In fact Taiwan resembled economies such as the Philippines, Indonesia and British Malaya in that industrialisation was very largely based on agricultural processing, at least until the 1930s. In Korea, industrial growth was rapid, but from a very low base, and the acceleration during the 1930s was largely the result of investment in heavy industry by Japanese conglomerates. There were parallels with Indonesia, where there was also quite rapid growth in manufacturing industry based on investment from foreign multinationals in the latter part of the 1930s. It seems probable that by 1940, industry accounted for roughly the same share of gross domestic production in both Korea and Indonesia, although it employed a higher share of the labour force in Indonesia. One historian of Korea has claimed that "colonial industrial growth was a powerful historical earthquake" (Park 1999: 158). If that was the case, earthquakes of a similar or stronger force were also felt in parts of South East Asia.

What were governments doing?: The myth of the nightwatchman state

One of the enduring concepts of colonial states in many parts of Asia is that they were almost entirely concerned with maintaining law and order, and with raising the revenues necessary to support the costs of such activities. Colonial states were considered to be 'nightwatchman states' with 'no self-conscious programme of active economic development' (Morris 1963: 615). Those writers who support Japanese exceptionalism argue that the Japanese colonies were characterised by more activist governments; in the case of Korea, Kohli (2004: 40) argues:

> The colonial state in Korea was a busy state. While pursuing the imperial interests of Japan, it evolved a full policy agenda, including the goal of Korea's economic transformation. The broad strategy of transformation was two-pronged: The state utilized its bureaucratic capacities to directly undertake numerous economic tasks, and, more important, the state

> involved propertied groups- both in the countryside and in the cities, and both Japanese and Koreans- in production-oriented alliances aimed at achieving sustained economic change.

But was such a policy agenda unique to Korea? In fact, by the first decade of the twentieth century, all the colonial powers in South East Asia had established effective administrative structures which prioritised the centralisation and reform of fiscal systems. Independent Thailand also carried out reforms of government revenue policy after 1892 (Ingram 1971: Chapter 8). The metropolitan powers wanted tax systems under the direct control of colonial administrations, which would be sufficiently buoyant to fund both current expenditures and provide a surplus for investment. Old practices of revenue farming were eliminated over the last decades of the nineteenth century, in favour of more diversified systems relying not just on land taxes but also on export and import duties, excises, sales taxes and in some cases corporate and individual income taxes[6]. Both Ho (1984: 357-8) and Kohli (2004: 42-43) have discussed the reforms of revenues systems which followed upon the Japanese occupation of Taiwan and Korea, including reformed land taxes following the Meiji model. But in other parts of Asia, colonial regimes were going even further in increasing total revenues and diversifying revenue sources.

By 1910, government revenues per capita were highest in the Federated Malay States, where export duties already accounted for around 30 per cent of total government receipts and land taxes a further eight percent (Fraser 1939: Appendix A). Revenues from monopolies including the sale of opium were also important as they were in the Straits Settlements, where by 1910, per capita revenues were roughly the same as in Taiwan, and much higher than in Korea. Revenues per capita in Korea did increase quite rapidly after 1910, and were around the same (in dollar terms) as in the Philippines and Burma by 1929 (Table 7). The proportion of revenues derived from the land tax and from import duties fell in Korea after 1911, as other forms of taxation and non-tax revenues including monopoly profits increased (Kimura 1989: Table 5). Kimura argues that the lack of progessivity in the revenue system favoured higher income groups including industrialists

[6]On the demise of revenue farming across South East Asia, see the various essays in Butcher and Dick (1993). It should be noted that the Philippines was a partial exception to the trend towards centralisation, in that the American administration wished to encourage the emergence of strong local government (Hutchcroft 2000). Luton (1971) argues that in some respects the fiscal system became more centralised after 1900.

and senior officials, most of whom were Japanese. By the latter part of the 1930s, both Taiwan and Korea were still dependent on non-tax revenues, including revenues from monopolies for around half of government revenues (Table 8). Several Southeast Asian colonies, including the Philippines, Burma and Indonesia were more dependent on tax revenues. This did not necessarily mean a more progressive tax system, although it is probable that in those economies where around half of all government revenues were derived from income and land taxes and customs duties, the overall impact of the revenue system was more progressive[7].

In discussing the overall incidence of the fiscal system, it is essential to look at expenditures as well as revenues. Broadly speaking, expenditures rose and fell with revenues, reaching a peak in 1929, and falling thereafter in both South East Asia and Taiwan and Korea (Tables 7 and 9). But in most cases, the match was not perfect with expenditures above or below revenues for several years. In the case of Taiwan, expenditures tended to be lower than revenues for most years, and the budget surplus was one factor in the large balance of payments surplus in Taiwan after 1920 (Mizoguchi and Yamamoto 1984: 408-12). In Korea, expenditures and revenues were broadly in balance. In several South East Asian colonies, such as Indonesia, the FMS and the Philippines, budgets swung into deficit in the early 1930s, as revenues fell with falling export receipts and governments found it difficult to cut expenditures at the same rate (Booth 2003: 436-38).

What sorts of expenditures were accorded priority by the different colonial regimes? During the first three decades of the twentieth century, most colonial regimes in South East Asia were devoting a considerable part of their budgets to education, health, agriculture and public works, including irrigation. The comparative study carried out by Schwulst (1932: 57) in 1931 found that the Philippines, the FMS and French Indochina were all spending more than 40 per cent of total budgetary outlays on these sectors (Booth 2004: Table 8). Administrative expenditures, together with defence and debt service, accounted for much of the rest. In Taiwan, expenditures on agriculture, education and public works accounted for over 60 per cent of budgetary outlays for most years from 1910 to 1938. In Korea by contrast, expenditures on public order and administration took

[7] Kimura (1989: 303) argues that the land tax in Korea was in theory a proportional tax, but in practice "fundamentally regressive". This contrasts with the situation in Java, where by the inter-war years the land tax was a tax on the presumptive income from agricultural land and broadly progressive in its incidence (Furnivall 1934)

up a larger share of budgetary expenditures for much of the period from 1911 to 1938, although government expenditures on transport accounted for around one third of total expenditures by the late 1930s (Mizoguchi and Umemura 1989: 289-93).

It is difficult to generalise about government expenditure priorities in any of the colonial territories in East and South East Asia over the decades from 1900 to 1940. They changed with changing external circumstances, and changing pressures from the metropolitan powers. Certainly the evidence does not support any facile argument that expenditures in the Japanese colonies were more 'developmental' in the sense that sectors such as infrastructure, education, or agricultural development were consistently allocated higher shares of total expenditures than in other colonial territories. The record on education and health is examined below. Here it worth noting that, while by the late 1930s both Taiwan and Korea had high endowments of both roads and railways (relative to area) in comparison with most parts of South East Asia, neither colony was better served than Java, which compared favourably with Taiwan in terms of transport infrastructure (Table 10). British Malaya did well in terms of both roads and electric power capacity. Nowhere in South East Asia was irrigation as extensive as in Korea and Taiwan, although colonial governments in both Indonesia and Vietnam did give irrigation development high priority, and devoted substantial budgetary resources to it until the 1930s.

Trade and exchange rate policies

An influential model of a colonial economy which was developed in the 1960s and 1970s emphasized an open economy which is tightly tied via both trade and investment flows to the metropolitan power, "so that bilateralism may be a more appropriate description than openness" (Ho 1984: 381; see also Paauw and Fei 1973: Chapter 1). In such a model, exports were entirely agricultural and mineral and supplied from enclaves which were not tightly linked to the rest of the "hinterland", where the great majority of the population lived. Imports were constrained by the needs of the export industries for both consumption and capital goods, and were usually well below exports in value, so that a large export surplus could be used to finance outward remittances of profits; part of the export surplus was accumulated as foreign reserves in the metropole. Such reserves were then used to maintain strict parity between the colonial currency and that of the colony via a currency board arrangement. Ho (1984: 382) argues that "in many respects the Japanese colonies developed in the manner suggested by the

model". In the case of Taiwan, exports to Japan only comprised around 20 per cent of total exports immediately after the Japanese occupation, but by the late 1930s this had risen to 88 per cent. Taiwanese exports were dominated by rice and sugar almost all of which went to Japan. Korea was already quite tightly tied to the Japanese economy in terms of both exports and imports by early in the twentieth century, and these tight links remained until 1940 (Table 11).

But other aspects of the colonial model fit the Korean experience less well. In particular, Korea never ran large export surpluses, either before or after the imposition of Japanese rule. Imports often exceeded exports by fifteen per cent or more. Given that the balance of trade in services was also negative, Korea was running current account deficits for most years from 1911 to 1938. These deficits were funded by transfers from the Japanese government, and after 1927 by increasing long-term capital inflows. Taiwan by contrast ran export surpluses consistently after the early twentieth century; after 1916, exports often exceeded imports by more than 30 per cent (Table 11). The current account of the balance of payments was in surplus in all years from 1915 to 1938; these surpluses funded outward capital flows back to Japan, either through loans from the Taiwanese central bank to firms in Japan, or through flows of reserve funds from the Taiwan government back to Japan (Mizoguchi and Umemura 1988: 295-98; Mizoguchi and Yamamoto 1984: 408-11).

Elsewhere in colonial South East Asia, most economies were running large surpluses on the balance of trade from the 1890s onwards. The main exceptions were the Philippines and French Indochina where, until 1915, the trade balance was frequently in deficit (Tables 12 and 13). However a surplus of exports over imports did not mean that the current account was necessarily in surplus, as the balance on services was almost always in deficit. We only have complete balance of payments estimates for two colonies for the period from 1890 to 1940, Indonesia and French Indochina. In both cases, when the balance of trade was large and positive, the current account balance was substantially lower. In Indonesia, on average the current account balance was positive for much of the period from 1901 to 1939 (Korthals Altes 1987: Table 1; Booth 1998: Table 5.5). In Indochina, the record was much more mixed. There were large inflows of capital in the late nineteenth and early twentieth centuries on both government and private account, mainly to develop infrastructure and to support the growing French bureaucratic presence (Bassino 2000a: Tables 2 and 3a). Current account surpluses were consistently positive and large only for the years from 1936 to 1944. It is probable that over these years

outward remittances by the Chinese were an important factor driving the large surpluses (Bassino 2000a: 335).

The surpluses on the trade account recorded in the Philippines after 1915 were not as large as in Taiwan, and were probably largely offset by negative balances on services. Balance of payments estimates prepared by the American government for the decade from 1925 to 1934 indicate that for most years the deficit on services together with interest and dividend movements offset the positive balance of trade (United States Tariff Commission 1937: Table 8). In the Federated Malay States, large export surpluses were recorded for most years after 1900, but they were to some extent offset by deficits in other parts of British Malaya. When consolidated export and import data for all of British Malaya were published in the 1930s, the export surplus was much lower, and as in the case of the Philippines, it was probably largely offset by deficits in services. In the case of Burma, where commodity export surpluses were consistently above 40 per cent from 1906 onwards, the current account was in all likelihood positive and used to finance outward remittances of Indian workers, and subventions by Burma to the British Indian government in Delhi[8].

Just as there was considerable variation in export surpluses across East and South East Asia after 1900, so was there variation in the degree of dependence of the colony on the metropole for imports and exports. While the two Japanese colonies were very dependent on Japan for both imports and exports by the late 1930s, only one colony in South East Asia demonstrated similar dependence. That was the Philippines, where exports of sugar in particular benefited from preferential access to the American market (Table 11). Elsewhere the degree of dependence on the metropole was not as high, and in Indonesia it fell over the last four decades of Dutch colonial rule. The reason for the low dependence on metropolitan markets in both Indonesia and British Malaya by the late 1930s was the rising importance of other markets, especially the USA for two of their principal exports, rubber and tin. In the case of Burma, rice exports went largely to British India and to other parts of Asia.

In contrast to the Japanese colonies, where the export sectors were tethered tightly to the requirements of the metropolitan economy, the capitalist enterprises which

[8]See Shein Maung et al (1969) for an analysis of the provincial contract system and its implications for Burma.

controlled the main export industries in Indonesia, Malaya and French Indochina were concerned with selling to those markets where demand was highest. This was a risky strategy in that when there was a downturn in world demand for staples such as rubber, tin and petroleum products as a result of the industrial slump of the 1930s, together with a rise in protectionism, many markets were lost or severely curtailed. The worst affected colony was Indonesia. The Dutch market was small and there was not a large Dutch empire in other parts of the world to absorb Indonesian exports of sugar, rubber, tin and petroleum products. The Philippines, which had quotas for its sugar exports in the American market was more fortunate, and in this respect resembled the two Japanese colonies.

Trends in living standards in colonial Asia

A frequent criticism made of many colonial economic systems in Asia and elsewhere is that the economic growth which occurred did not benefit the great majority of the population. While exports may have boomed, and government revenues expanded, nutritional intakes for the mass of the population did not improve, access to health care and secular education was severely limited, and as a result mortality rates were high, and many people were illiterate. Wage labour opportunities were limited, and wage rates were low. In Korea where criticism of the impact of colonial policies on welfare has been especially strong, it has been argued that by the 1930s, “pauperization among Korean farmers was becoming increasingly a pressing problem even for the colonial policy makers" (Chang 1971: 176). In spite of some progress in the adoption of new production technologies, rice consumption per capita fell steadily from 1912 to 1930, forcing the great majority of the population to eat more inferior foods such as millet (Lee 1936: 275). Although there was some improvement in rice availability towards the end of the 1930s, total grain availability per capita was still in 1937-41 well below the average for 1912-16 (Johnston 1953: 55).

The fall in domestic rice availability in Korea after 1910 has been explained by the increase in the proportion of arable land controlled by large-scale commercial owners, many of them Japanese. Rents were often paid in kind, so that a high percentage of the rice crop passed to landlords and then into the export market (Johnston 1953: 55). By 1938, over half of all farmers in Korea were tenants who did not own any land (Grajdanzev 1944: 109: Myers and Yamada 1984: 451-2). Myers and Yamada argue that

the "dysfunctions" in Korean agriculture (especially regarding access to land) were much greater than in Taiwan, where rural living standards appear to have been higher by the late 1930s. Certainly rice availability per capita was higher in Taiwan (Table 6). However Gill (1998: 133) suggests that it was not so much coercion as the well organised export marketing networks which encouraged both landlords and tenants in Korea to sell rice to the Japanese rather than the local market. He also argues that changing relative prices might have induced Koreans to switch from purchases of calories to other goods.

Several authors have used anthropometric evidence to examine trends in living standards in both Korea and Taiwan during the Japanese colonial period. In Korea, Gill (1998: 124-6) claims that the Korean population became shorter beginning with the birth cohorts of the late 1920s, and a secular growth in height only began with birth cohorts from the early 1950s. He argues that reduced grain consumption explained at least part of the decline in the colonial period. In Taiwan by contrast, Morgan and Liu (2003) argue that rural food intake and per capita incomes improved from the 1910s to the 1940s, and this in turn led to an increase in male heights. Ka (1995: 144) argues that rural living standards in the 1930s in Taiwan underwent "substantive growth"; he cited the estimates of Mizoguchi (1972: Table 3) on rising real wages, in both manufacturing and agriculture. On the other hand, Chang's analysis of farm household surveys in Taiwan over the 1930s indicated some decline in rice consumption per capita between 1931 and 1937, although there was a sharp increase in intake of sweet potatoes (Chang 1969: Table 14). He explains this switch in terms of movements in relative prices; real per capita expenditures of farm families between 1931 and 1937, according to his estimates, increased by around 12 per cent.

Turning to South East Asia, it is striking how much variation there was by the end of the 1930s in per capita rice availability (Table 6). In Java, per capita availability of rice was only 85 kg by 1937-39, and in the Philippines 97 kg, which was slightly higher than in Korea. This contrasts with 181 kg in Thailand, and 169 kg in Vietnam. In both Java and the Philippines, calorie intake was augmented by other foods including corn, cassava and sweet potatoes. The time series produced by Mears (1961: 248) on rice availability in Java shows some fluctuation between 1921 and 1941, but no discernible upward trend. In the Philippines, the series on rice and corn availability produced by Mears et al (1974: 355-57) showed increases in per capita terms until the mid-1920s, and then some decline. A study of living standards in the Ilocos region of northern Luzon in the 1930s by Lava (1938: 24) found that families of five (three adults and two children) were subsisting on

5,700 calories per day, which was well below minimum recommended intakes. Runes examined living standards among sugar workers and found that the typical family "spends almost the entire income for food and clothing of the lowest quality and quantity" (Runes 1939: 30). Although Lava (1938: 81) conceded that "actual stark starvation does not exist in the Philippines except in isolated cases" and that living standards in the Philippines could have been higher than in parts of Japan, both his study and that of Runes cautioned against any casual assumption that the population of the Philippines had shared equally in the fruits of the economic development which had occurred in the American era. Indeed Kurihara (1945: 40) quotes some authors who argued that, for many Filipinos, living standards in the late 1930s were little better than in the last phase of Spanish rule.

These arguments contrast with the assertion of Williamson (2000: 23) that living standards in the Philippines doubled under the American occupation. The only evidence adduced to support this claim is a series on real wages which shows a steady rise from the latter part of the 1890s to the early 1920s, and then some decline, but real wages more than doubled between 1895-99 and 1935-39. (Williamson 2000: Table 1.2). He argues that real wages in the Philippines were 80 per cent higher than those in Japan in 1920-24, and more or less the same as in Japan by 1935-39. After 1910, real wages in the Philippines were higher than in either Korea or Taiwan, or in Thailand and Indonesia. Space precludes a thorough critique of these data here; the main point to make is that it is very difficult to compare real wages across countries, partly because labour markets operate in different ways, partly because series on for example agricultural wages are not always comparable and partly because inadequate attention is paid to differences in purchasing power of currencies, across countries and over time.

Demographic indicators are probably a more reliable guide to changes in living standards over time than wage data. We do not have long time series on, for example, infant mortality rates for all parts of East and South East Asia for the early part of the twentieth century, but we do have figures for most countries by the 1930s. It seems clear that infant mortality rates were lower in Taiwan, the Philippines and British Malaya than in Indonesia, Indochina and Burma (Table 14). The data on crude death rates (which are probably less reliable, as they are derived from registration data) tell a similar story. There can be little doubt that infant mortality rates and crude death rates fell in Taiwan over the Japanese period, and life expectancy increased (Barclay 1954: Tables 36, 37 and 39). Kimura (1993: 643) argues that there was also a decline in death rates in Korea after

1920. In the Philippines there was also some decline in both indicators over the American period (Zablan 1978: Tables 79 and 90). Banens (2000: Table 7) shows a decline in infant mortality rates among the Vietnamese population in Hanoi between 1925 and 1938, admittedly from a very high level. No doubt in all cases, colonial governments would have attributed these declines to better access to modern health facilities, and especially in urban areas, to better provision of sanitation and clean drinking water[9].

The final set of welfare indicators relate to education. Here the differences between colonies were quite stark by the 1930s. In spite of the assertions of authors such as Maddison (1990: 365) that the Japanese were more successful in increasing access to education than the other colonial powers, the evidence indicates that neither in Taiwan nor in Korea did the Japanese surpass the American achievement in the Philippines. By 1940/41 it was estimated that just over two million students were enrolled in public schools in the Philippines, and a further 180,000 in private schools. Of these a remarkable 40,000 were in tertiary institutions, a much larger figure than in Korea or Taiwan, or in any European colony (Bureau of Census and Statistics 1960: 21-29). In Korea, tertiary enrolments were much lower, and a high proportion of the students were Japanese (Kim 1985: 168). In Taiwan, the Taihoku Imperial University was established largely for research purposes, and few Taiwanese students were accepted. The ten specialised middle schools, which were located in the cities and large towns, were open to all Japanese boys, but only a few carefully selected Taiwanese (Kerr 1942: 53). The Japanese government in Taiwan did much more in developing primary education, but until the end of Japanese rule, almost all Taiwanese were denied access to higher education, and the jobs which required tertiary qualifications. In both Korea and Taiwan, the goal of the Japanese educational system was only to "fashion the lower track of the two-track Meiji education system" (Tsurumi 1984: 308).

The Philippines and Taiwan were well ahead of most other parts of East and South East Asia in terms of the ratio of educational enrolments to total population by the end of the 1930s (Table 14). At the other end of the scale was Indochina; both here and in the Netherlands Indies, provision of education to the indigenous population was very

[9]Infant mortality rates were often higher in urban than rural areas, probably due to lack of clean water, and poor sanitation. Gooszen (1999: 192-3) cites Dutch research which found very high infant mortality of more than 400 per thousand in parts of Batavia (Jakarta) in 1917-19, which were similar to those reported by Banens (2000: 36) for Hanoi. Vlieland (1932:110) found that infant mortality rates in urban Singapore were higher than in the more rural Federated Malay States.

limited. In British Malaya the ratio was above that of Korea, although there a disproportionate number of students were Chinese and Indian rather than Malay. The "plural society" which had been created by large-scale in-migration from China and India to Malaya, Burma and Indonesia had led to a skewed access to education by race. Correcting this bias proved to be a major challenge for post-independence governments.

Conclusions

To return to the question posed at the beginning of this paper, was there already clear evidence by the late 1930s that Korea and Taiwan had benefited from Japanese "developmental colonialism" to a greater extent than elsewhere in Asia? In fact, it would appear from Table 14 that if a composite index of human development were to be constructed for 1938 on the basis of per capita GDP, demographic data and educational enrolments, the Philippines would have come out on top[10]. Taiwan would probably have been second; although both Korea and Malaya had higher per capita GDP, and similar demographic data, they scored less well on educational enrolments. It is likely that French Indochina would have been at the bottom followed by Burma and Indonesia. Although per capita GDP was relatively low in Thailand, crude death rates were lower and enrolments higher than in French Indochina, Burma, or Indonesia[11].

It may well have surprised the Philippine government in the late 1930s to have learnt of its top slot. Senior officials were conscious that in several sectors, especially agriculture, other parts of South East Asia were technically more advanced[12]. As we have seen, surveys carried out in the late 1930s showed that many Filipinos were very poor, and that only a small urban middle class had gained materially from American rule. It was their children who had benefited from the rapid expansion of secondary and tertiary education. Critics of American rule have pointed out that the result of American

[10] If the Maddison data understate per capita GDP in Taiwan relative to Korea, then Taiwan would probably be first equal with the Philippines.

[11] The lack of reliable data on life expectancies and literacy for several parts of Southeast Asia make the computation of a Human Development Index for the late 1930s difficult. One has been computed by Metzer (1998: 57) for 36 countries in the late 1930s which puts the Philippines at 22, above most Latin American countries, with the exception of Chile. Thailand was ranked at 26 and India bottom at 36. No other Asian country was included.

[12] Davis (1932: 23-8) stressed the gap in yields of rice and sugar between Luzon and Java, and the more advanced development of experimental stations for sugar in Java, and rubber in Sumatra and Malaya. He also stressed that the Philippines was “backward in adopting a definite plan of development extending over a period of years and in consistently carrying out that plan". Davis was a Republican appointment as governor general, made by President Hoover.

policies was to entrench this class in business, the professions, in senior government positions and in politics, where they remain dominant to the present day. American rule "did little to transform the existing Philippine power structures" (Kang 2002: 27). Elsewhere in East and South East Asia the colonial legacy may have been more meager, and the process of decolonisation more violent and prolonged, but the new elites which have assumed power have in several cases proved more effective in promoting rapid economic development.

Those who want to defend Japanese "developmental colonialism" can point to the achievements of the Japanese in transferring Japanese rice technology to both Taiwan and Korea, and to the impressive improvements in physical infrastructure in both colonies. But were these achievements really were enough to establish the foundations for the transformation of both Taiwan and the Republic of Korea after 1950? My view is that the case is far from proven. Those who argue that it was the post-colonial policies which were crucial in transforming both states and in holding back the South East Asian countries would still seem to be on stronger ground.

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Table 1: Per Capita GDP in East and Southeast Asia as a Percentage of Per Capita GDP in the USA, 1913-2000

Year	China	India	Burma	Taiwan	South Korea	Thai-land
1913	10.4	12.7	12.9	14.1	15.5	15.9
1929	8.1	10.6	n.a	16.6	14.7	11.5
1938	9.2	10.9	12.1	21.3	23.8	13.5
1950	4.6	6.5	4.1	9.7	8.1	8.5
1960	5.9	6.6	5.0	13.2	9.8	9.5
1970	5.2	5.8	3.8	19.8	13.0	11.3
1980	5.7	5.0	4.4	31.6	22.1	13.7
1990	8.0	5.6	3.4	42.6	37.5	20.0
2000	12.2	6.8	4.8	59.2	51.0	22.5

	Malaysia	Indo-nesia	Philip-pines	Hong Kong	Singa-pore	Japan
1913	17.0	17.1	19.9	24.1	24.1	26.2
1929	24.4	17.0	21.8	n.a	n.a	29.4
1938	22.2	19.2	24.8	n.a	n.a	40.0
1950	16.3	8.8	11.2	23.2	23.2	20.1
1960	13.5	9.0	13.0	27.7	20.4	35.2
1970	13.8	7.9	11.7	37.9	29.5	64.6
1980	19.7	10.1	12.8	56.5	48.8	72.3
1990	22.1	10.8	9.6	75.6	61.9	81.0
2000	28.0	11.4	8.5	76.4	78.9	74.9

Source: Maddison (2003)

Table 2: Per Capita GDP in East and Southeast Asia as a Percentage of Per Capita GDP in the Metropolitan Power, 1913-2000

	British colonies:				
Year	India	Burma	Malaysia	Hong Kong	Singa-pore
1913	13.7	13.9	18.3	26.0	26.0
1929	13.2		30.6	n.a	n.a
1938	10.7	11.8	21.7	n.a	n.a
1950	8.9	5.7	22.5	32.0	32.0
1960	8.7	6.5	17.7	36.3	26.7
1970	8.1	5.2	19.3	52.9	41.2
1980	7.3	6.4	28.3	81.2	70.0
1990	8.0	4.9	31.2	106.8	87.4
2000	9.6	6.8	39.7	108.5	112.1

	Japanese colonies			**Dutch**	**USA**
	China	Taiwan	South Korea	Indo-nesia	Philip-pines
1913	39.8	53.9	59.1	22.3	19.9
1929	27.7	56.6	50.0	20.6	21.8
1938	22.9	53.2	59.6	22.4	24.8
1950	22.9	48.1	40.1	14.0	11.2
1960	16.9	37.4	27.7	12.3	13.0
1970	8.1	30.7	20.1	10.0	11.7
1980	7.9	43.7	30.6	12.7	12.8
1990	9.9	52.6	46.3	14.6	9.6
2000	16.3	79.0	68.1	14.8	8.5

Source: Maddison (2003)

Table 3 Per Capita GDP for Japan, Thailand and Colonies in East and South East Asia, 1913, 1929 and 1938

	Per capita GDP (1990 dollars)			Percentage growth rate	
	1913	1929	1938	1913-29	1913-38
Japan	1387	2026	2449	2.4	2.3
Hong Kong	1279	n.a	n.a	n.a	n.a
Singpore	1279	n.a	n.a	n.a	n.a
Philippines	1053	1502	1522	2.2	1.5
Indonesia	904	1170	1175	1.6	1.1
Malaysia	900	1682	1361	4.0	1.7
Thailand	841	793	826	-0.4	-0.1
Korea	820	1014	1459	1.3	2.3
Taiwan	747	1146	1302	2.7	2.2
Burma	685	n.a	740	n.a	0.3

Source: Maddison (2003)

Table 4: Index of Growth of Real Value Added in Agriculture for Japan, Thailand and Selected Colonies, 1913,1929, and 1938

Country	Index of value added in agriculture			Percentage annual growth	Agriculture as a % of NDP/GDP[a]	
	1913	1929	1938	1913-1938	1913	1938
Japan	100	118	129	1.0	28.9	15.6
Korea	100	133	184	2.5	63.3	47.1
Taiwan	100	132	202	2.8	53.8	41.2
Thailand	100	129	168	2.1	44.7	44.3
Indonesia	100	131	148	1.6	40.5	33.7
Burma	100	125	129	0.9	68.6	54.3

a NDP for Japan, Korea, Taiwan and Burma; GDP for Indonesia and Thailand

Sources: Japan, Korea and Taiwan: Mizoguchi and Umemura (1988), pp. 230-39; Thailand: Sompop (1989), p. 251; Indonesia: Van der Eng (2002), pp. 171-2; Burma: Aye Hlaing (1965), p. 289

Table 5 Occupational Distribution of the Employed Population, Japan, Thailand and Colonies, c. 1930

Country/Year	Agriculture	Industry	Other	Total
Japan (1930)	49.6	20.1	30.3	100.0
Taiwan (1930)	73.0	8.6	18.3	100.0
Korea (1930)	79.6	6.3	14.1	100.0
British Malaya (1930)	60.8	12.3	26.9	100.0
Burma (1931)	69.6	11.0	19.4	100.0
Indonesia (1930)	70.0	10.4	19.6	100.0
Philippines (1939)	69.0	12.2	18.8	100.0
Thailand (1929)	84.2	2.2	13.6	100.0

Sources: Japan,Grajdanzev (1944), p. 77; Korea: Suh (1978) Table 2; Taiwan Grajdanzev (1942), p. 33; British Malaya: Vlieland (1931), p. 99; Burma: Saito and Lee (1999), Table 1.6; Indonesia: Mertens (1978), p. 51; Philippines: Kurihara (1945), p. 16; Thailand: Ingram (1971), p. 57, p. 144.

Table 6: Growth of Rice Production, 1916-20 to 1937-39 and Apparent Net Availiability per capita, 1937-39

Country	Output growth 1916-20 to 1937-39 (% per annum)	Yields 1937-39 (ton/ha)	Per capita Availability[a] (Kg per annum) 1937-39	Irrigation ratio[b]
Taiwan	3.4	2.1	129[c]	83.7
Malaya	3.1 (1918-20)	1.1	n.a	n.a
Korea	2.9 (1917-18 to 1937-8)	2.1	91	68.5
Thailand	2.6	0.8	181	9.7
Philippines	2.3	0.8	97	24.8
Indochina	1.6 (1916-18 to 1936-8)	0.7	169	n.a
Java	1.4	1.1	85	30.6
Burma	0.6	0.8	n.a	11.8

a Milled rice
b Irrigated area as a proportion of harvested area of rice in the late 1930s
c Average for 1938/9 and 1939/40

Sources: Rose (1985) with extra data from Mears (1961), p. 246; Mears et al. (1974), p. 355; van der Eng (1996), Table A.6; Saito and Lee (1999), pp. 80-1; Sompop (1989), p. 213. Per capita rice availability for Taiwan and Korea from Johnston (1953), p. 270.

Table 7: Government Revenues per Capita in South East Asia, Taiwan and Korea, 1910-1938 (US$)

Country	1910	1920	1929	1934	1938
Vietnam[a]	1	3	3	3	2
Netherlands Indies	2	5	5	4	4
Philippines	3	6	6	4	5
Thailand	3	3	4	3	4
Burma	3	5	6	6	4
Unfederated Malay [b]	4	6	11	10	10
Straits Settlements	8	21	29	17	16
Federated Malay	15	24	28	19	18
Taiwan	8	16	15	8	12
Korea	1	4	6	4	7

a Data refer to 1913, not 1910. Local and (after 1931) provincial revenues and expenditures are included.
b Data refer to 1911 and 1921, not 1910 and 1920.

Sources: Sources: Vietnam: Bassino (2000b), and Banens (2000), Netherlands Indies: Creutzberg (1976) Table 4; van der Eng (2002). Philippines: Birnberg and Resnick (1975), Table A.38; Thailand: Ingram (1971), Appendices B and C; Burma: Shein, Thant and Sein (1969), Appendix II; National Planning Commission (1960); Andrus (1948), Tables 37 and 38. ; British Malaya (FMS, UMS and Straits Colonies): Emerson (1937), Chapters 4, 5 and 6, with additional data from Lim (1967), Appendix 9.2; Fraser (1939), Appendix A for the Federated Malay States; Exchange rates: van Laanen (1980), Table 8; Direction des Services Economiques (1947), p. 288; Ingram (1971), Emerson (1937), p. 522. Taiwan and Korea: Mizoguchi and Umemura (1988), p. 256, pp. 288-93.

Table 8: Percentage Breakdown of Total Government Revenues, c. 1938

	Customs revenues and direct taxes (incl. land taxes)	Other indirect taxes (incl. excises)	Other revenues[a]	Total
c. 1938				
FMS (1938)	38.2	2.8	59.0 (8.2)	100
Straits S'ments (1938)	0	25.2	74.8 (9.2)	100
Thailand (1938/9)	45.3	6.7	48.0 (8.7)	100
Vietnam (1938)	41.0	17.0	42.0 (17.6)	100
Philippines (1938)	28.1	35.9	36.0	100
Burma (1938/9)	66.8	16.0	17.2	100
Indonesia (1938)	45.0	17.9	37.1	100
Taiwan[b] (1937)	25.8	20.2	54.0 (32.5)	100
Korea[b] (1938)	25.5	27.5	47.0 (16.2)	100

a Includes profits from government monopolies, and government enterprises. Figures in brackets show revenues from opium monopolies; in the case of Vietnam, Taiwan and Korea all government monopolies.

b To ensure better comparability with other data, revenues exclude government loans and carryovers from previous fiscal years.

Sources; FMS and Straits Settlements: Department of Statistics (1939: Chapter 33), Thailand: Central Service of Statistics (1940: 274-79); Vietnam: Bassino (2000b), Table 2; Philippines: Bureau of Census and Statistics (1941: 164-66); Burma: National Planning Commission (1959:); Andrus (1948: Table 37); Indonesia: Central Bureau of Statitics (1947: 127-33); data on total revenues taken from Creutzberg (1976: Table 4); Taiwan: Grajdanzev (1942: 133-35); Korea: Grajdansev (1944: 212-14).

Table 9 :Government Expenditures per capita in South East Asia, British India, Taiwan and South Korea, 1910-1938 (US$)

Country	1910	1920	1929	1934	1938
Vietnam[a]	1	3	3	3	2
Indonesia	2	7	5	5	4
Philippines	3	6	5	4	6
Thailand	3	6	5	4	6
Burma	2	4	4	3	3
Unfederated Malay[b]	n.a	8	11	7	10
Straits Settlements	6	20	19	15	18
Federated Malay[b]	13	33	29	15	28
India	1	2	3	2	2
Taiwan	6	13	12	6	9
Korea	1	4	6	4	7

a Data refer to 1913, not 1910. Local and (after 1931) provincial revenues and expenditures are included.
b Data refer to 1911 and 1921, not 1910 and 1920.

Sources: Vietnam: Bassino (2000b), and Banens (2000), Netherlands Indies: Creutzberg (1976) Table 4; van der Eng (2002). Philippines: Birnberg and Resnick (1975), Table A.38; Thailand: Ingram (1971), Appendices B and C; Burma: Shein, Thant and Sein (1969), Appendix II; National Planning Commission (1960); Andrus (1948), Tables 37 and 38. ; British Malaya (FMS, UMS and Straits Colonies): Emerson (1937), Chapters 4, 5 and 6, with additional data from Lim (1967), Appendix 9.2; Fraser, *Annual Report*, Appendix A for the Federated Malay States; Department of Statistics (1939), pp 245-46. Exchange rates: van Laanen (1980), Table 8; Direction des Services Economiques (1947), p. 288; Ingram (1971), Emerson (1937), p. 522. Taiwan and Korea: Mizoguchi and Umemura (1988), p. 256, pp. 288-93; India: Reddy (1972).

Table 10: Infrastructure Endowments, Late 1930s

Country/Year	Roads (Km. per thousand square kilometers)	Railways (Km per thousand square kilometers)	Electricity[a] (Installed capacity)
Philippines (1939)	70.5	4.5	4.76
Indonesia (1940)	27.7	3.8	2.97
Java	171.7	40.5	3.01
Outer Islands	17.0	1.1	2.86
Indochina (1936)	38.8	3.9	3.82
British Malaya (1938)	100.1	12.5	36.06
Burma (1938)	45.2	3.4	3.69
Taiwan (1937)	94.4	43.3[b]	38.32
Korea (1938)	107.2	25.7	28.48

a Data refer to installed capacity in kilowatts per 1000 population for the following years: 1938 (Philippines), 1937 (British Malaya) and 1940 (Taiwan). For Burma the data refer to the capacity of the large plants with an estimate for smaller plants.
b. Data exclude 2098 kilometers of special track for the transport of sugar.

Sources: Philippines: Bureau of Census and Statistics (1947), p. 279, pp. 304-7; Indonesia: Department of Economic Affairs (1947), p. 56, p. 94-97; Indochina: Robequain (1944), pp. 94-97, p. 285; British Malaya: Department of Statistics (1939); Burma: Andrus (1948), p.226, p. 237; Korea: Grajdanzev (1944), pp. 72-74, p. 135, pp. 185-92; Taiwan: Grajdanzev (1942), pp. 118-9; Barclay (1954), p. 42.

Table 11: Percentage of Exports and Imports to/from Metropolitan Power

Country/Years	Early 20th century		c. 1939	
	Exports	Imports	Exports	Imports
Korea (1904-6)	84.6	73.3	73.2	88.5
Philippines (1902-4)	40.1	13.5	82.0	68.3
Indonesia (1900-4)	35.4	31.4	14.4	18.7
Indochina (1897-1901)	20.6	44.6	32.3	55.4
Taiwan (1896-1900)	19.6	27.0	86.0	87.6
British Malaya (1938)	n.a	n.a	14.1	18.2
Burma (1904-7, 1938/9)	9.2	26.7	12.7	18.2

Sources: Korea: Bank of Chosen (1920), p. 166-8, Grajdanzev (1944), p. 227; Philippines: Bureau of Census and Statistics (1947), p. 347; Indonesia: Korthals Altes (1991), Tables 1B, 2B, 3B, 4B; Indochina: Doumer (1902), pp. 296-97; Bassino and Huong (2000), pp. 305-23; Taiwan: Grajdanzev (1942), pp. 144; British Malaya: Department of Statistics (1939), p. 114; Burma: Office of the Prime Minister (1958), Andrus (1948), pp. 167-76.

Table 12: Export Earnings as a Percentage of Import Earnings, 1897-1938 in Taiwan, Korea, the Philippines and French Indochina

Year	Taiwan	Korea	Philippines	French Indo-china
1896-1900	80.6	93.7	85.9[a]	107.5
1901-05	94.7	62.7	94.4	69.4
1906-10	107.8	54.8	104.2	95.8
1911-15	105.0	49.4	95.8	114.0
1916-20	133.4	82.3	118.2	148.0
1921-25	150.3	97.3	115.1	122.7
1926-30	134.9	86.8	116.4	114.0
1931-35	140.1	90.1	128.4	111.3
1936-38	130.9	80.5	134.7	160.4

a 1899-1900 only

Sources: Taiwan and Korea: Mizoguchi (1974), Table 3; Additional data for Korea from 1896 to 1910 from Bank Of Chosen (1920), pp. 166-7; Philippines: Bureau of Census and Statistics (1947), p. 347; French Indochina: Bassino and Huong (2000), Table 1.

Table 13: Export Earnings as a Percentage of Import Earnings, 1897-1938 in Indonesia, Burma, Thailand and the Federated Malay States

Year	Indonesia	Burma	Thailand	Federated Malay States[a]
1896-1900	124.1	134.81	126.1	144.4
1901-05	134.0	130.1	136.5	161.5
1906-10	149.1	144.6	139.7	161.8
1911-15	151.0	148.7	124.3	195.1
1916-20	186.7	156.0	115.2	252.9
1921-25	167.3	181.5	127.1	217.1
1926-30	153.3	180.3	121.1	178.6
1931-35	155.6	246.5	154.8	171.6 (118.7)
1936-38	171.8	228.3	158.8	221.8 (120.1)

a Figures in brackets refer to the consolidated data for British Malay for the years 1933-35 and 1936-38, as published in the ***Malayan Year Books***

Sources: Indonesia: Korthals Altes (1991); Burma: Saito and Lee (1999), pp. 177-78; Thailand: Ingram (1971), Appendix C; Federated Malay States: Fraser (1939), Appendix A

Table 14 : Development Indicators: East and Southeast Asia, late 1930s

Country	Per capita GDP, 1938 (1990 inter-national dollars)	Infant mortality rates	Crude death rates	Educational enrolments as % of total population
Philippines	1522	139	23	11.54
Korea	1459	na	23	5.80
Malaya[a]	1361	147	21	7.76
Taiwan	1302	142	21	11.36
Indonesia	1175	225-250	28	4.01
Thailand	826	na	22	10.65
Burma	749	232	30	5.45
Indochina	na	190	24	2.47

a GDP and crude death rate data refer to Malaysia (British Malaya less Singapore). Infant mortality rates refer to the Federated Malay States only. Educational enrolments refer to British Malaya including Singapore.

Sources: GDP data; Maddison (2003), pp. 182-83. Educational enrolments: Furnivall (1943), p. 111, with additional data on Korea from Grajdanzev (1944), p. 264. Data on infant mortality rates and crude death rates for Indonesia: Nitisastro (1970), p. 113 and Table 39 and refer to Java only; Korea: Chang (1966), p. 268; Philippines: Zablan (1978), pp.100-5; Taiwan: Barclay (1954), p. 146, p. 161; Thailand: Sompop (1989), p. 35; Vietnam: Banens (2000), pp. 36-37; crude death rates refer to Cochinchina; infant mortality rates refer to Hanoi only. Burma: Sundrum (1957), p. 20, p.52; British Malaya: Evans (1939), Table XV; crude death rates: Palmore, Chander and Fernandez (1975), Table 4.1.