

## **FACTS AND MYTHS ABOUT KOREA'S ECONOMIC PAST**

BY MYUNG SOO CHA\*  
*Yeungnam University, South Korea*

**The orthodoxy in South and North Korean historiography states that Japan's annexation of Korea in 1910 wrought havoc on indigenous economic development and started an era of exploitation lasting until 1945. Recent studies show the claim to be based less upon facts than upon Marxist dogma and nationalist sentiment. During the nineteenth century, Korea was not on the verge of modern economic growth, but in demographic and economic decline. Living standards improved and industrialisation occurred in the context of rapid population growth during the colonial period due to transfer of capital and advanced technology from Japan.**

### INTRODUCTION

A set of poorly verified claims about Korea's economic past emerged rapidly to become orthodoxy in post-colonial Korea. According to the highschool textbooks certified by the governments of both South and North Korea, Japan's annexation of Korea in 1910 dealt a fatal blow to indigenous economic development during the late dynastic period and started three and half decades of economic exploitation. Since the 1980s, historians, economists and economic historians of South Korea and Japan have begun to scrutinise the accepted view to replace it with a very different representation, which has a more consistent and factual basis.

I begin in the next section by summarising the prevailing belief and explain in the following two sections why it is hardly more than a marriage of convenience between Marxist dogma and nationalist sentiment. The third section presents indicators of aggregate performance, which show that the late dynastic economy was collapsing, rather than nurturing 'sprouts of capitalism'. In the fourth section, I introduce new evidence and fresh readings of old evidence, which suggest that

\* I am grateful to Nak Nyeon Kim, Hunchang Lee and Kate Yoon for correcting errors and offering useful suggestions. All remaining errors are mine. My thanks are also due to the Naksungdae Institute of Economic Research for allowing me to use preliminary results from its colonial GDP/GDE project.

the colonial rule ended the economic decline and started modern economic growth. The final section identifies main areas for further research.

### THE MARXIST-NATIONALIST MYTHS

In 1942, Takeo Suzuki, an economics professor at Tokyo Imperial University, declared that Korea was undergoing an 'industrial revolution'.<sup>1</sup> This was a clever way of expressing the belief, widely held among contemporary Japanese scholars, journalists and bureaucrats, that Korea had suffered a long history of chaos and stagnation, which Japan ended by annexing the country in 1910. Historians of post-colonial Korea denounced this claim as a story invented to justify Japanese colonial rule and countered by arguing that Korea had been germinating seeds of capitalism, which Japan destroyed by annexing and exploiting the country beginning in 1910.

The post-colonial narrative begins with the labour scarcity due to the wars with Japan (1592–8) and China (1627 and 1636). Peasants and landlords responded to the altered factor endowment by introducing labour-saving technologies, in particular transplanting in rice farming. The new farming methods raised per capita income, which expanded demand for handicraft and specialised crops, such as tobacco and ginseng. As a result, proto-industrialisation occurred and farming became commercialised and diversified. While self-sufficient peasants dominated the pre-war economy, commercialised farming developed in the eighteenth and nineteenth centuries. The pre-war handicrafts consisted largely of items produced by peasants for their own consumption and artisans producing under command from the government; the post-war prosperity led an increasing number of merchants to organise the putting-out system.<sup>2</sup> In response to the thriving market activities, the government started to mint copper coins in 1678 and lifted restrictions on commercial activity in 1791.

The new farming techniques brought about important changes in the way in which labour and land were combined in the Korean countryside. Traditionally, a hereditary ruling class called *yangban* controlled much of the arable acreage and entered into sharecropping contract with small peasants. After the wars with Japan and China, the new agricultural technology made it possible for innovative peasants to farm on a large scale for the market and to hire wage workers.<sup>3</sup> Also, peasants started to conclude fixed-rent tenancy contracts with landowners in order to reap the benefits of improved farming methods at the cost of taking the risks of harvest fluctuations.<sup>4</sup> Thus new classes of 'commoner landlords' and

1 Suzuki, *Chōsen no keizai*.

2 See Kang, *Chosŏn hugi sangŏp chabon* and Song, *Ijo hugi sugongŏp*.

3 See Song, *Chosŏn hugi non-g'ŏp e issŏsŏ ūi kwangjak undong* and Kim, *Chosŏn hugi non-gŏpsa yŏn'gu*.

4 See Heo, *Chosŏn ponggŏn malgi ūi sojakche yŏn'gu*.

landless peasants emerged, stratifying rural society along economic lines and throwing traditional status order into disarray.<sup>5</sup>

According to the Marxist-nationalist interpretation, Korea's indigenous development faced a formidable challenge in 1876, when Japan forced Korea open to international trade following the example of Commodore Perry two decades earlier. As the treaties with Japan and Western countries did not acknowledge Korea's right to impose protective tariffs, cheap cotton textile imports (initially from England and later from Japan) flooded the Korean market, destroying the indigenous textile handicrafts.<sup>6</sup> As agricultural prices converged with higher world market prices, agricultural production and exports boomed, benefiting not only *yangban* landlords, but also innovative peasants and commoner landlords.<sup>7</sup>

Annexing Korea in 1910, Japan incorporated the country into the yen bloc, removing exchange rate fluctuations between the two countries. This encouraged bilateral trade and boosted the de-industrialising impact on Korea. Then the colonial government launched two expensive projects, which not only further stimulated agricultural growth, but also promoted sharecropping landlordism at the expense of capitalist farming.<sup>8</sup>

One was the Cadastral Survey (1910–18), which according to the colonial authorities was aimed at legalising and modernising property rights to land. However, to Marxist-nationalist historians the true motive seemed to lie in grabbing land from Koreans and offering the seized land at bargain prices to Japanese immigrants. As the accepted view goes, the colonial power confiscated land mostly from smallholders, rather than large landowners, making land distribution unequal and further propping up sharecropping land tenancy. This was an exercise in divide-and-rule: by supporting landlords, the colonial rulers intended to co-opt them as collaborators.<sup>9</sup>

The other was the Rice Production Development Program (1920–33), an ambitious project launched by the Japanese government in response to the nationwide protest against surging rice prices in Japan in 1918 (known as the Rice Riot). The government sought to stabilise rice prices by increasing the rice-producing capacity of the Japanese empire through acreage expansion, investment in water control and transfer of advanced farming technology from Japan. Acknowledging that the Rice Program brought about output expansion, Marxist-nationalist historians claimed that the growth was impoverishing: the output expansion depressed rice prices and worsened the agricultural terms of trade and as a result rural incomes fell in real terms.<sup>10</sup> As a consequence, rice exports (mostly to Japan) increased more rapidly than output, resulting in declining per capita rice con-

5 Chōng, *Chosŏn hugi sahoe pyŏndong yŏn'gu*.

6 See Kajimura, *Richō goki mengyō*.

7 See Kim, Hanmal ilchehaui chijuje; Hong, Hanmal ilcheha ui chijuje yŏn'gu.

8 See Miyajima, *Chōsen kabo kaikaku*.

9 Kim, Sut'al. See also Shin, *Chosŏn t'oji chosa saōp yŏn'gu*.

10 Kondo, *Nihon teikokushugi*, p. 89. See also Hayami and Ruttan, Korean rice.

sumption.<sup>11</sup> The falling rice prices raised the share of land under sharecropping tenancy out of total acreage: as real income contracted with falling rice prices, many smallholders had to sell their plots to service debts incurred to finance investment in irrigation.<sup>12</sup>

Marxist-nationalist historians also blamed the colonial authorities for being irrational and unfair in implementing the Rice Program. Frequently, landowners were coerced to build dams and waterways in those areas, where expected benefits did not justify costs. Also the colonial government favoured large Japanese landowners at the expense of Korean smallholders. Having purchased extensive areas of infertile land lacking access to irrigation, Japanese landowners could ask the colonial government to force Korean owners of irrigated plots to join irrigation associations.<sup>13</sup> Finally, the colonial power excluded Korean smallholders from the benefit of low-interest loans.<sup>14</sup> As a consequence, in a number of villages, peasants and landlords acted collectively to protest against the government enforcing wasteful investment and discriminating unfairly against Koreans.

Developing Korea as a food supplying region for Japan, the colonial government made efforts to maintain the colony as a market for Japanese industrial firms. To prevent Korean industrial firms from emerging to compete with Japanese manufacturing imports, colonial rulers introduced the Company Law in 1911 requiring Korean entrepreneurs to get permission from the colonial government before setting up industrial firms. Although the law was repealed in 1920, the colonial authorities were not keen on taking measures to promote indigenous industrialisation in colonial Korea, in contrast to the British rulers allowing tariff protection for Indian industrialists. True, substantial industrialisation did take place in the 1930s, but it had more to do with Japan's plan to use Korea as a launching pad for an invasion into China than with the colonial government's intention to foster sustained economic growth through industrial development. The rapidly expanding industrial sector of the 1930s was an enclave, which had little growth-promoting impact upon the rest of the colonial economy, but competed with and sometimes destroyed small and medium-sized firms run by Koreans.

### BUDDING CAPITALISM OR COLLAPSING DYNASTY?

Perhaps the most interesting part of the story of 'sprouts of capitalism' emerging out of late-dynastic Korea is the unusual flimsiness of its supporting evidence. No

11 This phenomenon, known as 'starvation exports', is probably the most frequently cited fact to show that Japan exploited colonial Korea.

12 Kawai, *Sanmai zōshoku keikaku*, pp. 24–7.

13 Lee, *Ilche ha suri chohap ūi sōllip kwa unyōng*, pp. 336–40; Jun, *Ilche ha suri chohap saōp i chijuje chōngae e mich'in yōngnyang*, p. 160.

14 Kawai, *Sanmai zōshoku keikaku*, pp. 28–9.

one has ever proved either the advance in agricultural productivity or the consequent improvement in living standards during the eighteenth and nineteenth century. Neither has the trend of agricultural *vis-à-vis* non-agricultural prices been made clear, which would have been downward, had agricultural revolution caused proto-industrialisation. Instead, Marxist-nationalist historians spent much effort digging out anecdotal evidence showing the presence of capitalist farmers and commoner landlords.<sup>15</sup> However, time series evidence from dynastic land registers indicates that small peasants accounted for an increasingly large portion of rural population during the final two centuries of the dynastic period.<sup>16</sup>

Quantitative information available at the moment is by no means sufficient for an accurate measurement of the growth performance of Korea during the last two centuries of its dynastic period. Nevertheless, an accumulation of disconnected pieces of evidence make it look increasingly absurd to compare late-dynastic Korea to north-western Europe of the early modern period. On the contrary, they suggest that dynastic Korea had remained firmly in the grip of the Malthusian trap, before the Japanese colonialism freed the country from it.

Demography remains one of the least researched areas in Korean history before 1925, when the colonial government carried out the first modern census.<sup>17</sup> Several scholars attempted to estimate population size for dynastic Korea by inflating the total number of households as counted by the dynastic bureaucracy, using a constant (or a virtually constant) multiplier representing the average size of households.<sup>18</sup> However, there were good reasons to be skeptical of the reliability of population numbers thus derived. First, the whole purpose of household registration under the Yi dynasty lay in collecting taxes, and therefore, strong incentives existed for people to avoid registration. Moreover, the last pre-colonial century saw central control weaken significantly, making it easier to avoid registration. Finally, during the late dynastic period slavery underwent gradual disintegration, probably affecting both the average size and number of households.

These concerns prompted scholars to tap an alternative source of demographic information: genealogies, providing birth and death years of *yangban* males surviving into adult life. The vital data allow one to calculate a simple indicator of population size: the number of adult males alive in a clan for a given year, which genealogical demographers call male population index (MPI). Then, dividing the incidence of death in a year with the MPI of that year gives an index of mortality. Given that early deaths are not recorded in genealogies, the index significantly underestimates the true crude death rate. However, assuming that age-specific death rates move in parallel and that age composition of the population does not vary too much, the two ratios would rise and fall together.

15 The best known example of such studies is Kim, *Chosŏn hugi nongŏpsa yŏn'gu*.

16 See Rhee, *Chosŏn hugi sahoe kyŏngjesa*, pp. 94–5, 436–559.

17 The reports from this and the following censuses are one of the main data sources for Kwon, *Demography*, the authoritative study on the demographic change in Korea from 1925 to 1966.

18 Better known studies of this sort are Kwon and Shin, *Chosŏn sidae ingu ch'ujŏng* and Michell, *Facts and Hypothesis*.

The mortality indices calculated from the genealogies of two unrelated clans started to rise together from the late eighteenth century, ending the growth of the MPIs of the two clans during the eighteenth century and causing them to stagnate for most of the following century. From the end of the nineteenth century, not only the level, but also the volatility of the mortality index fell sharply in each of the two clans. The beginning of mortality transition appeared to coincide with the introduction of the smallpox vaccination around 1890.<sup>19</sup>

Patchy evidence on factor incomes exists to suggest that the higher mortality rate in the nineteenth century had to do with falling living standards. Although unsatisfactory, rice wage – nominal wage standardised by rice price – is the only index of the real wage available for the late dynastic period. One study found that the rice wage earned by agricultural labourers in a village in south-eastern Korea fell consistently during the second half of the nineteenth century, which was followed by a recovery during the first decade of the twentieth century.<sup>20</sup> Another study discovered rice wages of unskilled workers employed by the government during the eighteenth century to be significantly higher than that in the following century.<sup>21</sup> Finally, rice wages calculated using wage data published by colonial and South Korean authorities show a strong upward trend during the twentieth century.<sup>22</sup> In all, the rice wages followed a long swing, starting with a downswing in the nineteenth century to be followed by an upswing in the twentieth century.

Different scholars found a similar pattern of secular movement in rental income (measured as the amount of rice) from an acre of paddy field.<sup>23</sup> As landlords typically took half of gross output, the long swing implies falling paddy land productivity until 1900 and recovery in the twentieth century. This is consistent with the trend found in the national average of real paddy land prices as estimated by running a hedonic regression using more than 10 000 observations.<sup>24</sup> During the nineteenth century, when the interest rate hardly changed, the national average trended downwards, reflecting falling land productivity.<sup>25</sup> Then the average land price rose sharply after 1900 in line with rapidly improving land productivity; although the interest rate fell during the twentieth century, simple arithmetic shows that the falling interest rate accounts for only a fraction of the rise in real paddy land prices.<sup>26</sup>

19 See Cha and Park, *Chosŏn hugi*. In 1925 the two clans analysed in this study included 472 legitimate adult males, which are equal to 0.005 per cent of total male population as counted by the first national census of the year. Also, the mortality index of each of the two clans was found to be positively correlated with rice prices.

20 Lee, *Nongŏp imgŏm ūi ch'ui*, p. 62.

21 Cha, *Urinara*, p. 5.

22 *ibid.*

23 Ahn, *Chŏsen kindaikeizaiishi kenkyū*, chapter 2; Chŏng, 19–20 *segi chŏnban*; Kim, 16–18 *segi*; Park, 19, 20 *segi*; Rhee, *Honam komunsŏ*.

24 Cha and Lee, *Non-kagyŏk*, p. 136. Real paddy land price refers to nominal paddy land price standardized by rice price.

25 On the level of the interest rate during the eighteenth and nineteenth centuries, see Kim, *Nongch'on ijayul*, p. 118.

26 Cha and Lee, *Non kagyŏk*, p. 136. Real dry farm price refers to nominal dry farm price divided by dry farm product price, such as barley and wheat.

Falling rural wages and rents in nineteenth century Korea, a predominantly agrarian economy, imply a shrinking pie of national income due to declining total factor productivity. Both time series based evidence and general equilibrium reasoning point to the rice farming sector as a major source of the negative supply shock. In contrast to the falling real paddy land prices, real dry farm prices rose during the nineteenth century.<sup>27</sup> Second, peasants appeared to respond to the worsening productivity of rice farming by converting paddy fields into dry farms.<sup>28</sup> Third, as the productivity decline raised marginal cost in rice farming, rice prices became more expensive relative to dry farm product prices.<sup>29</sup> Finally, rice prices rose relative to non-agricultural prices as well, as handicraft output expanded with workers leaving rice farming to join the more rewarding handicraft industry.<sup>30</sup> The proto-industrialisation occurring in late dynastic Korea appeared more as a symptom of economic decline, rather than as an element of nascent capitalism.

As national income contracted during the nineteenth century, public finance deteriorated, as is revealed by the rapidly falling cash balance in the government's coffers.<sup>31</sup> The worsening budget deficits forced the dynastic government to resort to debasing the currency, creating inflation from the mid-nineteenth century.<sup>32</sup> The state granary system, introduced as a famine relief institution, turned into a device for raising public revenue when the impoverished government forced peasants to borrow grain at usurious interest rates even at times when they did not need access to the credit facility.<sup>33</sup> As agricultural productivity deteriorated during the nineteenth century, severe famines did occur frequently, raising mortality and providing a background to frequent peasant uprisings of the nineteenth century. Local authorities responded to the unrest by imposing embargoes on grain exports to other provinces, leading to disintegration of markets and thus magnifying the impact of famine.<sup>34</sup>

In all, the available quantitative evidence indicates that the nineteenth century, if not the eighteenth century, was a period of economic failure due to faltering efficiency. The productivity decline appeared to have much to do with the decaying system of water control, which in turn seemed a symptom of institutional failure. For one thing, property rights to forests remained poorly defined, which accelerated deforestation triggered by the eighteenth century population growth, rendering peasants increasingly vulnerable to the risks of floods and droughts.<sup>35</sup> The deforestation and the consequent increase in the incidence of flooding seemed to be responsible for the decline in the number of working reservoirs.<sup>36</sup>

27 Cha, *Colonial transition*, p. 6.

28 Rhee, *Chosŏn hugi sahoe kyŏngjesa*, p. 489.

29 Lee and Park, *Nongch'on ūi chae-hwa kagyŏk*, p. 160.

30 Lee and Park, *Nongch'on ūi chae-hwa kagyŏk*, p. 159.

31 Park and Park, *Chosŏn hugi chaejŏng*, p. 147.

32 June, *Chosŏn hugi migasa*, pp. 92–5; Lee, 1678–1865 *nyŏn kan*, p. 41.

33 See O, *Chosŏn hugi kukka chaejŏng*; Song, *Chosŏn hugi hwangokche*.

34 Park and Rhee, 18–19 *segi migok sijang*.

35 See Lee, 18, 19 *segi*.

36 Miyajima, *Richō goki*; Choi, *Chosŏn hugi surigigu*.

Central control weakened and rent-seeking activities flourished after 1800, making it increasingly difficult for the system of government to deal effectively with the deteriorating water control system. Not only did local governments neglect to repair reservoirs damaged by floods, but they also connived at farming on the rich soil inside reservoirs, which aggravated the destruction. Peasants responded to the worsening situation by developing new rice seed varieties, more resistant to droughts but yielding less.<sup>37</sup> They also tried to counter the increasingly unstable water supply by building waterways to draw water from rivers, which generated numerous water disputes, as building waterways in an upstream village reduced the amount of water available for downstream villages.<sup>38</sup> The government failed to mediate the disputes, discouraging the private efforts to improve irrigation.

#### INSTRUMENT OF EXPLOITATION OR PIONEER OF CAPITALISM?

The Japanese colonial government in all likelihood was more effective than the defunct dynastic government. Nevertheless, the first ever modern state to rule Korea appeared either unwilling or unable to force Korean smallholders to transfer a substantial part of their holdings to the colonial government during the Cadastral Survey. Recent studies unanimously reject the Marxist-nationalist 'land grab' thesis and indicate that the survey authorities by-and-large acknowledged and legalised traditional rights as declared by Korean landlords and peasants. Tracing shifts in land ownership in five Korean villages during 1900–35, one study found that most ownership changes occurred during the Great Depression, that is, about a decade after the completion of the Cadastral Survey.<sup>39</sup> Subsequent investigations into ownership changes in other regions reached the same conclusion.<sup>40</sup> This is consistent with a fact which Marxist-nationalist historians preferred not to highlight: the number of plots generating property right disputes as a proportion of the total number of plots surveyed was as low as 0.5 per cent.

Remaining authoritarian throughout the colonial era, the colonial government relied far more on markets than on commands to allocate resources, at least before the outbreak of the Second World War. In fact, by improving communication and extending railways and roads, it expanded enormously the sphere of markets and as a result, on the eve of the Second World War, colonial Korea appeared more market-orientated than South Korea in the 1960s. Coefficients of variation calculated using regional price data show that commodity and labour markets became integrated rapidly during the colonial period. While evidence is not sufficiently available to prove on-going capital market integration during the colonial period, the pre-Second World War colonial government did not resort

37 Rhee, *Kachanggi chijuje*; Lee, *Chosŏn hugi sudo p'umjong*.

38 Lee, *Chosŏn surisa*.

39 See Gragert, *Landownership*.

40 Bae, *Han mal ilche cho'gi ūi t'oji chosa*; Cho, *Chosŏn t'oji chosa saŏp*.

to financial repression as extensively as the South Korean government of the 1960s and 1970s.<sup>41</sup>

By the inter-war standard, the colonial government did not appear particularly interventionist, with its expenditure accounting for only seven percent of gross domestic expenditure in the 1910s, rising to over 10 percent in the 1930s. To finance growing public expenditure, the colonial authorities consistently raised existing tax rates and introduced new taxes.<sup>42</sup> Drawing attention to the increasingly heavier taxation as proof of the colonial power exploiting Koreans, Marxist-nationalist historians closed their eyes to the other side of the government's balance sheet.<sup>43</sup> Public spending exceeded tax receipts by far and more importantly, more than half of the spending was for public investment, which accounted for approximately 40 percent of gross domestic capital formation.<sup>44</sup> One calculation using a dynamic general equilibrium model indicates that the tax increases accelerated economic growth by speeding up capital accumulation, as the marginal savings rate was higher for the government than private agents.<sup>45</sup> The budget deficits were one important cause of the external deficits, amounting to five percent of aggregate output during 1911–40, which led the colonial government to float bonds in the Japanese capital market and to rely on transfer from the Japanese government.<sup>46</sup> The capital inflows gave a consistent and substantial boost to living standards in colonial Korea throughout the inter-war period.<sup>47</sup>

The expanding public investment reflected not only the government's desire to introduce modern institutions and improve infrastructure, but also its vigorous efforts to transform the structure of the colonial economy. The Rice Production Development Program is an outstanding example of the colonial industrial policy. Marxist-nationalist historians asserted that the policy made peasants worse off by causing rice prices to collapse. However, the price decline occurred in the late 1920s and early 1930s, when most primary product prices fell all over the world at a similar rate – a phenomenon known as the inter-war depression. Given that the Japanese empire produced only a fraction of world agricultural output, one cannot reasonably blame the Rice Program for causing the world-wide depression. Instead, the price decline was an exogenous shock and in the absence of the technological progress and capital accumulation under the Rice Program, Korea would have suffered even more from the inter-war agricultural depression.<sup>48</sup>

41 See Cha, *Colonial origins*.

42 Kimura, *Public finance*; Kim, *Ilche ha chosŏn chajŏngsa nongŏ*.

43 See, for instance, Jong, *Ilche ūi kyŏngje chŏngch'aek*.

44 This ratio was calculated using the unpublished estimate of the gross domestic expenditure of colonial Korea by the Naksungdae Institute of Economic Research.

45 Cha, *Imperial Policy*, pp. 742–44.

46 The source of this ratio is the unpublished estimate of the gross domestic expenditure of colonial Korea by the Naksungdae Institute of Economic Research. Colonial Taiwan generated both budget and external surplus.

47 Cha, *Imperial Policy*, p. 744

48 Cha, *Segye nong'ŏp konghwang*, pp. 73–75; Cha, *Imperial policy*, p. 742. In his study on the impact of colonial rice on Japanese agriculture, Brandt (*Interwar Japanese agriculture*) specified the Japanese empire as a small open economy.

Doubts were cast on the validity of other Marxist-nationalist criticisms against the Rice Program. Several investigations into the financial records of four irrigation associations in different parts of southern Korea could find no evidence of government intervention causing inefficient investment.<sup>49</sup> Second, each landowner paid for improving irrigation in proportion to the benefits he actually reaped, a finding which made it difficult to sustain the claim of Japanese landowners passing the burden of investment costs to Korean smallholders.<sup>50</sup> Third, the rise in land tenancy ratio occurred mostly during the late 1920s and early 1930s, suggesting that the land redistribution was largely a consequence of the inter-war agricultural depression.<sup>51</sup> Finally, an irrigation project was more likely to provoke protests, the larger the area it covered and the more diverse the types of landowners involved in it. Hence, the disputes had more to do with the difficulty of co-ordinating conflicting interests, rather than with the irrationality or unfairness of the Rice Program.<sup>52</sup>

Despite the efforts to boost agriculture, its share in GDP was nearly halved from 76 to 41 percent during 1911–40, while the share of the manufacturing sector in GDP rose continuously from six to 28 per cent.<sup>53</sup> This unusually rapid and uninterrupted shift in economic structure away from agriculture is consistent with revisionist views on the colonial policy toward industrialists. According to an inquiry into the effects of the Company Law, as the regulation affected Japanese, as well as Korean entrepreneurs, the Japanese business community criticised the law as being unconstitutional. In response, the colonial authorities watered down the law significantly in 1914 and eventually repealed it in 1920, with the result that 82 percent of all applications made during 1911–20 were approved.<sup>54</sup> As to the 1920s, one investigation into the financial records of the Kyongsong Spinning and Weaving Company, a symbol for nationalist historians of 'national capital' growing up in defiance of colonial discrimination, discovered that the company would have gone bankrupt without the subsidy extended by the colonial government.<sup>55</sup>

What factors then shifted the structure of the colonial economy toward manufacturing? So far, several tentative answers have been offered to this question deserving a systematic investigation. One conjecture is that the integration into the Japanese empire brought about rapid expansion of capital inflows and manufacturing imports from Japan, accelerating the transmission of modern manufacturing technology to Korea.<sup>56</sup> Another speculates that the Rice Production

49 See papers included in Chang *et al.*, *Kūndae chosŏn suri chohap yŏn'gu*.

50 Matsumoto, *Shokuminchi chōsen no suiri kumiai jigyō*, p. 82.

51 Gragert, *Landownership*; Cha, Segye nongŏp konghwang, p. 79.

52 See Joo, Ilche ha suri chohap saŏp chaego.

53 These sector shares, calculated using the recent GDP estimate by Naksungdae Institute of Economic Research, shift in a more rapid and continuous fashion than the ratios derived from the GDP figures published in Mizoguchi and Umemura, *Kyū nihon shokuminchi*.

54 Kobayashi, *Shokuminchi e no kigyōshinshutsu*, chapter 2. At the same time, this study acknowledges that Korean entrepreneurs were discriminated against in early years of the law.

55 Eckert, *Offspring of Empire*, chapter 3.

56 Kimura, *Taiwan chōsen no kōkōgyō*.

Development Program contributed to the growth of the manufacturing sector by expanding markets for industrial products.<sup>57</sup> Finally, the adverse turn in the agricultural terms of trade during the inter-war depression drove resources out of agriculture and into non-agriculture.<sup>58</sup>

How did these policy and non-policy shocks change the standard of living in colonial Korea? For Marxist-nationalist historians, the falling trend in per capita grain consumption seemed to be indisputable proof of worsening living standards and therefore of colonial exploitation. However, per capita real consumption rose 2.3 per cent per year during 1911–40 due to a rapid rise in non-grain food and non-food consumption.<sup>59</sup> Recently, an additional piece of pessimistic evidence was found: Koreans were becoming shorter during the final two decades of the colonial period.<sup>60</sup> However, stature is known to be a partial index of living standards, which may vary differently from other indicators, particularly in the early stages of modern economic growth.<sup>61</sup> Indeed, according to the most pessimistic estimate, real wages for skilled workers rose during the colonial era, while the earnings of unskilled workers showed neither upward nor downward trends.<sup>62</sup> Koreans were also living longer and getting better education under colonial rule.<sup>63</sup>

## CONCLUSIONS

Recent studies suggest that Japanese colonialism in all likelihood was a big push ejecting Korea out of the Malthusian trap onto the path of modern economic growth. Nevertheless, it appeared such a devastating shock for their self-respect that they needed to seek comfort in Marxist-nationalist fiction after the end of the colonial rule. The emerging revisionism may reflect that, as the post-colonial growth restored some of the lost confidence, South Koreans are finding it less painful to come to terms with what actually happened during the last two centuries. Although more coherent and encompassing more facts, the new story as it stands is no more than a broad outline supported by patchy evidence. It includes a number of crucial causal links that need to be clarified. I would like to conclude this article by identifying major areas which deserve further research.

First, aggregate trends of the eighteenth and nineteenth century are frequently estimates likely to be biased due to non-randomness or the small size of samples or both. In particular, given that the degree of market integration was likely to

57 See Kim, *Nihon teikokushugika*, chapter 4.

58 Cha, *Segye nongop konghwang*, pp. 84–95.

59 The growth rate was calculated, using the unpublished estimate of the gross domestic expenditure of colonial Korea by the Naksungdae Institute of Economic Research.

60 Gill, *Stature, Consumption, and the Standard of Living in Colonial Korea*, pp. 125–7.

61 See Steckel, *Stature and the Standard of Living*.

62 Heo, *Ilche ha siljil imgum* (p'yondong) ch'ugye, p. 234, Figure 3. For a more optimistic estimate, see Odaka, *Nihon tōchika ni okeru chōsen no rōdō keizai*.

63 On education, see Furukawa, *Ilche sidae*; on improvement of life expectancy, see Kwon, *Demography of Korea*.

be low in dynastic Korea, goods and factor prices from a larger number of different places are required to more precisely estimate national averages. Regional and sectoral deviations from the average could provide interesting clues about the causes generating macroeconomic trends. In addition, to correctly derive the secular trend in real wages requires adjustment to reflect changes in the way workers were paid during the past three centuries.

Second, it is reassuring to find that trends derived from genealogies of several unrelated clans are very similar. Analysing more genealogies is not very likely to change radically the conclusions drawn so far. However, demographic information provided by genealogies is fundamentally imperfect: in order to have one's name appear in genealogies, one had to be lucky enough to be a male, belong to *yangban* class and then survive into adult life. Therefore, estimating key parameters of fertility, nuptiality, and mortality requires supplementary sources of demographic information, including household registers.<sup>64</sup>

Third, specifying colonial Korea as a small open economy can be appropriate and convenient for many analytical purposes. As a matter of fact, the colony was more open toward other regions of the Japanese empire than toward the world outside the empire. At the same time, the empire as a whole appeared to become increasingly self-sufficient over time. Hence, key forces affecting the economic performance of colonial Korea included not only global shocks and the policies of the colonial government of Korea, but also the actions taken by the Taiwanese and Japanese governments. One way to analyse the intra-imperial interaction would be to construct and simulate a general equilibrium model of the Japanese empire, where Japan, Korea, and Taiwan are linked via trade and factor flows.<sup>65</sup>

Finally, contrary to the popular claim of South Korea growing out of the ashes left by the Korean War (1950–53), it seems undeniable that the South Korean economy rose on the shoulders of the colonial achievement, which included physical and human capital as well as key institutions such as property rights and markets. And one recent study traced the origin of the North Korean command economy to the system of mobilisation imposed upon over the Japanese empire with the beginning of the Second World War.<sup>66</sup> Beyond these broad conclusions, much remains to be clarified about the linkages between colonial and post-colonial development. The origin of the South Korean developmental state, a topic for recent debate, is one such area.<sup>67</sup> Another would be assessing the degree

64 The household registers of Tansōng, a southeastern prefecture, were recently made available in a machine-readable format, prompting investigations on the nature of biases inherent in the dataset. See the papers included in Hojōk Taejang Yōn'gu Tim, *Tansōng hojōk yōn'gu*.

65 One of the few studies on the economic interaction within the empire is Kimura (Economics of Japanese imperialism), which concluded that Japanese colonialism in Korea benefited workers at the expense of farmers in Japan. Chung and Gill made an impressionistic attempt to assess the impact of migration on the level of wages in Korea and Japan but remain inconclusive. Another difficulty with this study is that it fails to take the impact of trade upon wages into consideration. See Chung and Gill, *Ilbon ūi imin chōngch'aek*.

66 See Kimura, *From Fascism to Communism*.

67 See Kohli, *Where do High Growth Political Economies Come From?*; Haggard and Kang, *Japanese Colonialism*; Woo, *Race to the Swift*.

of continuity between the colonial and South Korean growth by calculating the damages of the Second World and Korean Wars and the contribution of US aid during the 1950s, which remains a period of a statistical black hole.

## REFERENCES

- Ahn, B. (1975) *Chōsen Kindaikaizaiishi Kenkyō* [A study in economic history of modern Korea]. Tokyo: Nihonhyōronsha.
- Bae, Y. (1987) Han mal ilche cho'gi ūi t'oji chosa wa chicho kaejōng e kwanhan yōn'gu. [A study on the land survey and tax reform during the late dynastic and early colonial period]. PhD Thesis, Seoul National University.
- Brandt, L. (1993) Interwar Japanese agriculture: Revisionist views on the impact of the colonial rice policy and the labor-surplus hypothesis. *Explorations in Economic History*, 30, 259–293.
- Cha, M. S. (1991) Segye nongōp konghwang kwa ilche ha chosōn kyōngje [The interwar agricultural depression and the economy of colonial Korea]. *Kyungje Sahak*, 15, 67–97.
- Cha, M. S. (1998) Imperial policy or world price shocks? *Journal of Economic History*, 58, 731–754.
- Cha, M. S. (2000) The colonial origins of Korea's market economy. In: Latham, A. J. H., and Kawakatsu, H., eds. *Asia Pacific Dynamism 1550–2000*. (London: Routledge).
- Cha, M. S. (2001) Urinara ūi saenghwal sujum, 1700–2000. [The standard of living in Korea, 1700–2000]. In: Ahn, B. ed. *Hanguk Kyōngje Sōngiangsa* [A history of economic growth in Korea]. (Seoul: Seoul National University Press).
- Cha, M. S. (2002) Colonial transition to modern economic growth in Korea. Paper presented at the pre-conference held in Tokyo for Session 30 of the 13th International Economic History Congress in Buenos Aires.
- Cha, M. S., and Lee, H. (2003) Non kagyōk kwa saengsansōng, 1700–2000. [Paddy land prices and productivity, 1700–2000]. *Proceedings of the Conference on Long Term Economic Statistics of Korea*. (Seoul: Naksungtae Institute Of Economic Research).
- Cha, M. S., and Park, H. (2003) Chosōn hugi wa ilche sidae ūi ingu pyōndong [Demographic change in late dynastic and colonial Korea]. *Kyungje Sahak*, 35, 3–27.
- Chang, S., Matsumoto, T., Miyajima, H., and Rhee, Y., eds. (1992) *Kūndae chosōn suri chohap yōn'gu*. [A Study on the irrigation associations in modern Korea]. (Seoul: Ilchogak).
- Cho, S. (1995) Chosōn t'oji chosa saōp e issōsō kūndaejōk t'oji soyu chedo wa chisu jedo ūi hwangnip. [Introduction of modern property rights and land tax scheme through the Cadastral Survey in colonial Korea]. PhD Thesis, Seoul National University.
- Choi, W. (1992) Chosōn hugi suri kigu wa kyōngyōng munje [Irrigation in late dynastic Korea]. *Kuksakwan Nonch'ong*, 39, 211–263.
- Chōn, S., Hō, C., and Hong, H. (1970) *Chosōn esō chabonjūijōk kwangye ūi palsaeng*. [Development of capitalist relations in Chosōn Korea.] (P'yōngyang: Sahoe kwahakwon).
- Chōng, S. (1983) *Chosōn Hugi Sahoe Pyōndong Y'ōn'gu*. [A Study of the social changes in the late Chosōn period]. (Seoul: Ilchogak).
- Chōng, S. (1998) 19–20 segi chōnban nongmin kyōngyōng ūi pyōndong yangsang. [Changes in peasant farming in Korea during the nineteenth century and early twentieth century]. *Kyungje Sahak*, 25, 3–47.
- Chung, J. S., and Gill, I. (1998) Ilbon ūi imin chōngch'aek kwa chosōnin ūi ilbon imin. [Japanese immigration policy and Korean migration into Japan]. *Kyungje Sahak*, 25, 189–216.
- Eckert, C. J. (1991) *Offspring of Empire: the Kōch'ang Kims and the Colonial Origins of Korean Capitalism, 1876–1945*. (Seattle: University of Washington Press).
- Furukawa, N. (1996) Ilche sidae pot'ōng hakkyoche ūi hyōngsōng. [Introduction of primary schools under the colonial rule]. PhD Thesis, Seoul National University.
- Gill, I. (1998) Stature, consumption, and the standard of living in colonial Korea. In: Komlos, J., and Baten, J., eds. *The Biological Standard of Living in Comparative Perspective* (Stuttgart: Steiner Franz Verlag).
- Gragert, E. H. (1994) *Landownership Under Colonial Rule: Korea's Japanese Experience, 1900–1935*. (Honolulu: University of Hawaii Press).

- Haggard, S., Kang, D., and Moon, C. (1997) Japanese colonialism and Korean development: a critique. *World Development*, 25, 867–881.
- Hayami, Y., and Ruttan, V. (1970) Korean rice, Taiwan rice and Japanese agricultural stagnation: An economic consequence of colonialism. *Quarterly Journal of Economics*, 84, 562–589.
- Heo, J. (1965) *Chosŏn Pongŏn Malgi ūi Sojakche Yŏn'gu*. [A Study on the sharecropping during late Yi dynasty]. (Pyongyang: Sahoe kwahakwon).
- Heo, S. Y. (1981) Ilche ha siljil imgum (p'yŏndong) ch'ugye. [Estimation of the real wage and its change under the Japanese colonial rule]. *Kyungje Sahak*, 5, 213–246.
- Hojŏk Taejang Yŏn'gu 'Tim (2003) *Tansŏng Hojŏk Yŏn'gu*. [Studies in household registers of Tansŏng]. Seoul: Taedong munhwa yŏn'guso).
- Hong, S. (1981) Hanmal ilche ha ūi chijuje yŏn'gu [A study on landlordism in late dynastic and colonial Korea]. *Hanguksa Yŏn'gu*, 33, 67–115.
- Jŏng, T. (1996) *Ilche ūi Kyŏngje Chŏngch'aek Kwa Chosŏn Sahoe*. [Colonial ilche economic policy and the Korean society]. (Seoul: Yŏksa Pip'yŏng Sa).
- Joo, I. (2000) Ilche ha suri chohap saŏp chaego. [Irrigation projects during the colonial period revisited]. *Kyungje Sahak*, 28, 39–71.
- Jun, G. (1984) Ilche ha suri chohap saŏp i chijuje chŏngae e mich'in yŏnghyang. [The impact of irrigation associations on the landlordism in colonial Korea]. *Kyungje Sahak*, 8, 109–193.
- Jun, S. (1998) Chosŏn hugi migasa yŏn'gu, 1725–1875. [A study in the price history of late Yi dynasty, 1725–1875]. PhD Thesis, Sŏnggyunkwan University.
- Kajimura, H. (1977) Richŏ Makki (kaikokugo) mengyŏ ryŏtsū oyobi seisan kōzō. [Structure of cotton textile trade and production in Yi dynasty after port opening]. In: Kajimura, H., eds. *Chŏsen ni okeru shihonshugi no keisei to tenkai*. [Formation and development of capitalism in Korea]. (Tokyo: Ryukei).
- Kang, M. (1973) *Chosŏn Hugi Sangŏp Chabon ūi Paltal*. [The Development of Commercial Capital in the Late Chosŏn Period]. (Seoul: Korea University Press).
- Kawai, K. (1979) Sanmai zōshoku keikaku to shokuminchi nōgyō no tenkai. [The Rice Production Development Program and agricultural development in colonial Korea]. *Chŏsen Shiso*, 2, 3–56.
- Kim, J. (2002) Nongch'on ijayul ūi changgi pyŏndong. [Long term change in rural interest rates]. *Proceedings of the Conference on Long Term Economic Statistics of Korea*. (Seoul: Naksungdae Institute Of Economic Research).
- Kim, K. (1997) 16–18 segi yangban chijuch'ung ūi nongŏp kyŏngyŏng kwa nongminch'ung ūi tonghyang. [Landlords and peasants in Korea from the 16–18 centuries]. PhD Thesis, Sŏnggyunkwan University.
- Kim, N. N. (2002) *Nihon Tekikokushugika No Chŏsen Keizai*. [The Korean economy under Japanese rule]. (Tokyo: University of Tokyo Press).
- Kim, O. (1994) *Ilche ha chosŏn Chajŏngsa Nongo*. [A study of public finance in colonial Korea]. (Seoul: Ilchogak).
- Kim, Y. (1969) Sut'al ūl wihan ch'ŏknngnyang. [A land survey for exploitation]. In: Shin, H., ed. *Han'guk hyŏndaesa*. [A history of modern Korea], Vol. 4 (Seoul: Sin'gu munhwasa).
- Kim, Y. (1970) *Chosŏn Hugi Nongŏpsa Yŏngu: Nongch'on Kyŏngje Sahoe Pyŏndong*. [Studies in the agricultural history of late. Chosŏn: The village economy and social change]. (Seoul: Ilchogak).
- Kim, Y. (1972) Hanmal ilche ha ūi chijuje, sarye 1: Kanhwa Kimssiga ūi chiju kyŏngyŏng kwa kŏ sŏngsoe. [Korean landlordism during the 19–20th Century: The case of the Kim Family in Kwanghwa]. *Dong'a Munhwa*, 11, 3–86.
- Kimura, M. (1988) Taiwan chŏsen no kōkōgyō [Manufacturing and mining industry in Taiwan and Korea]. In: Mizoguchi, T., and Umemura, M. *Kyū Nihon Shokuminchi Keizai Tōkei*. [Economic statistics of former Japanese colonies, 1895–1945]. (Tokyo: Toyo Keizai Shuppansha).
- Kimura, M. (1989) Public finance in Korea under Japanese rule: Deficit in the colonial account and colonial taxation. *Explorations in Economic History*, 26, 285–310.
- Kimura, M. (1993) Standards of living in colonial Korea: Did the masses become worse off or better off under Japanese rule? *Journal of Economic History*, 53, 629–652.
- Kimura, M. (1995) The economics of Japanese imperialism in Korea, 1910–39. *Economic History Review*, 48: 555–574.
- Kimura, M. (1999) From fascism to communism: Continuity and development of collectivist economic policy in North Korea. *Economic History Review*, 52, 69–86.
- Kobayashi, H. (1994) *Shokuminchie No Kigyōshinshutsu*. [Direct investment of Japanese capital in colonial Korea]. (Tokyo: Kashiwa shobō).

- Kohli, A. (1994) Where do high growth political economies come from? The Japanese lineage of Korea's 'Developmental State'. *World Development*, 9, 1269–1293.
- Kondo, Y. (1932/1982) Nihon teikokushugi no chōsen sanmai zōshoku keikaku. [Japanese imperialism and the Rice Production Development Program in colonial Korea]. In: Kondo, Y., ed. *Chōsen keizai no shūteki tanshō* [Historical essays on the Korea economy]. (Tokyo: Nōsan gyoson bunka kyōkai).
- Kwon, T. H. (1977) *Demography of Korea: Population Change and its Components, 1925–66*. (Seoul: Seoul National University Press).
- Kwon, T. H., and Shin, Y. (1977) Chosōn sidae ingu ch'ujōng e kwanhan il siron. [An essay on estimating population size during the Chosōn dynastic period]. *Dong'a Munhwa*, 14, 289–328.
- Lee, A. (1985) Ilche ha suri chohap ūi sōllip kwa unyōng [Formation and management of irrigation associations in colonial Korea]. *Hanguksa Yōn'gu*, 50, 319–362.
- Lee, H. (1995) Chosōn hugi sudo p'umjong ūi punhwa. [Differentiation in rice seed varieties in late Yi dynasty]. *Kyōngje Sahak*, 19, 3–31.
- Lee, H. (1999) 1678–1865 nŷon kan hwap'ye ryang kwa hwap'ye kach'i ūi ch'ui. [Money stock and the value of money from 1678 to 1865]. *Kyōngje Sahak*, 27, 3–45.
- Lee, K. (1961) *Chosōn Surisa Yōn'gu*. [A study in the irrigation history of Chosōn dynasty]. (Seoul: Hanguk yōn'guwōn).
- Lee, W. (2000) Nongōp ingūm ūi ch'ui. [Trends in Agricultural Wages]. *Kyōngje Sahak*, 29, 39–71.
- Lee, W. (2003) 18, 19 segi sallim hwangp'yehwa wa nongōp saengsansōng [Deforestation and agricultural productivity during the eighteenth and nineteenth centuries]. *Kyōngje sahak* 34, 31–56.
- Lee, W., and Park, K. (2001) Nongch'on ūi Chae-hwa Kagyōk [Rural Commodity Prices]. In: Ahn B., and Rhee, Y., eds. *Matchil ūi nongmindūl*. [Peasants of Matchil]. (Seoul: Ilchogak).
- Matsumoto, T. (1991) *Shokuminchi Chōsen No Suiri Kumiai Jigyō*. [Irrigation Associations in Colonial Korea]. (Tokyo: Miraisha).
- Michell, T. (1979/80) Facts and hypothesis in Yi dynasty economic history: The demographic dimension. *Korea Studies Forum*, 6, 65–93.
- Miyajima, H. (1974) Chōsen kabo kaikaku igo no shōgyōteki nōgyō [Commercial agriculture in Korea after the Kabo reform]. *Shirin*, 57, 38–77.
- Miyajima, H. (1983) Richō goki no nōgyō suiri [Water control in late Yi dynasty]. *Tōyōshikenkyū*, 41, 645–695.
- Mizoguchi, T., and Umemura, M. (1988) *Kyūō Nihon Shokuminchi Keizai Tkei*. [Economic statistics of former Japanese colonies, 1895–1945]. (Tokyo: Toyo Keizai Shuppansha).
- O, I. (1984) Chosōn hugi kukka chaejōng kwa hwangok ūi pusejōk kinūng ūi kanghwa. [Public finance and the transformation of the state granary system into a device of raising public revenue in late Yi dynasty]. PhD Thesis, Yonsei University.
- Odaka, K. (1975) Nihon tōchika ni okeru chōsen no rōdō keizai [The labour economy of colonial Korea]. *Keizai Kenkyū*, 26, 145–158.
- Park, I., and Rhee, Y. (2002) 18–19 segi migok sijang ūi t'onghap kwa punyōl [Integration and segmentation of rice market in the eighteenth and nineteenth century Korea]. *Kyōngjehak Tōngu*, 50, 287–313.
- Park, K. (2001) 19, 20 Segi Ch'o Chech'on Yangban Chiju Kyōngyōng ūi Tonghyang. [Trends in the Estate Management of a Rural Yangban Clan in the Nineteenth and Early Twentieth Century]. In: Ahn, B., and Rhee, Y., eds. *Matchil ūi nongmindūl*. [Peasants of Matchil]. (Seoul: Ilchogak).
- Park, K. (2002) Chae-hwa kagyōk ūi changgi ch'use, 1660–1910 [Trend in commodity prices, 1660–1910]. *Proceedings of the Conference on Long Term Economic Statistics of Korea*. (Seoul: Naksungdae Institute Of Economic Research).
- Park, S., and Park, S. (1988) Chosōn hugi chaejōng ūi pyōnhwa sijōm e kwanhan koch'al. [A study on the turning point in the public finance of the late Chosōn dynasty]. *Tongbang Hakji*, 60, 141–168.
- Rhee, Y. (1985) Kaehangi chijuje ūi chōnch'ae hyōngt'ae wa kŭ wigi ūi silsang. [A study in the crisis of estate management during the port opening period]. *Kyōngje Sahak*, 9, 361–429.
- Rhee, Y. (1988) *Chosōn Hugi Sahoe Kyōngjesa*. [An economic and social history of late Yi dynastic period]. (Seoul: Hangilsa).
- Rhee, Y. (1999) Honam komunsō e nat'an an changgi ch'use wa chunggi p'adong [Long and medium term cycles found from archival sources of Honam region]. In: Chōng, K., ed. *Honam Chibang Kōmunsō Kich'o Yōn'gu*. [Basic studies in archival sources of Honam region]. (Seoul: Academy of Korean Studies).

- Shin, Y. (1979) *Chosŏn T'oji Chosa Sāp Yŏn'gu*. [A study on the cadastral survey in colonial Korea]. (Seoul: Hanguk yŏnguwon).
- Song, C. (1970) Chosŏn hugi nong'ŏp e issŏsŏ ūi kwangjak undong [Large scale farming in the late Yi dynastic period]. In: *Ihaenam Paksa Hoegap Kŏnyŏm Sahak Nonch'ong*. (Seoul: Hanguk munhwa yŏn'guso).
- Song, C. (1970) *Ijo Hugi Sugong'ŏp E Kwanhan Yŏn'gu*. [A study on the handicraft industry in late dynastic period]. (Seoul: Hanguk munhwa yŏn'guso).
- Song, C. (2002) *Chosŏn Hugi Hwangokche Kaehyŏk Yŏn'gu*. [A study on the reformation of the state granary system in late Yi dynasty]. (Seoul: Seoul National University Press).
- Steckel, R. (1995) Stature and the standard of living. *Journal of Economic Literature*, 33, 1903–1940.
- Suzuki, T. (1942) *Chōsen No Keizai*. [The economy of Korea]. (Tokyo: Nohon Hyoronsha).
- Woo, J. (1991) *Race to the Swift: State and Finance in Korean Industrialization*. (New York: Columbia University Press).