

# **The Colonial Origins of Korea's Market Economy\***

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Myung Soo Cha

Department of Economics,  
Yeungnam University,  
Kyungsan, Kyungbuk,  
712-749, SOUTH KOREA

[mscha@ynucc.yeungnam.ac.kr](mailto:mscha@ynucc.yeungnam.ac.kr)

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Rudimentary markets “embedded” in social relations have long existed in Korea, but it has been only during the last hundred years that markets could come to the fore to encompass social relations. How did this “Great Transformation” come about?<sup>1</sup> This paper argues that South Korea’s contemporary market economy has its origin in the colonial period (1910-45). Not only did goods and labour markets become integrated in this period, but also a repressed and dual capital market first appeared in the final years of the Japanese rule.

Market development entails increasingly efficient arbitrage, which raises the degree of parallelism in the variation of prices observed in different regions and lowers interregional price differentials. This paper uses interregional and intersectoral price and wage differential evidence to outline the course of the evolution of national markets for goods and labor in Korea. Price and wage differentials, as measured by coefficient of variation, are preferred to price correlation as an index of market integration, because the latter may reflect the incidence and intensity of aggregate shocks as well as the degree of market integration (Cha(1997)). To chart the evolution of the capital market, this paper relies on the idea that improving financial intermediation lowers interest rates, as railroadization reduces goods prices by shifting the supply schedule to the right.

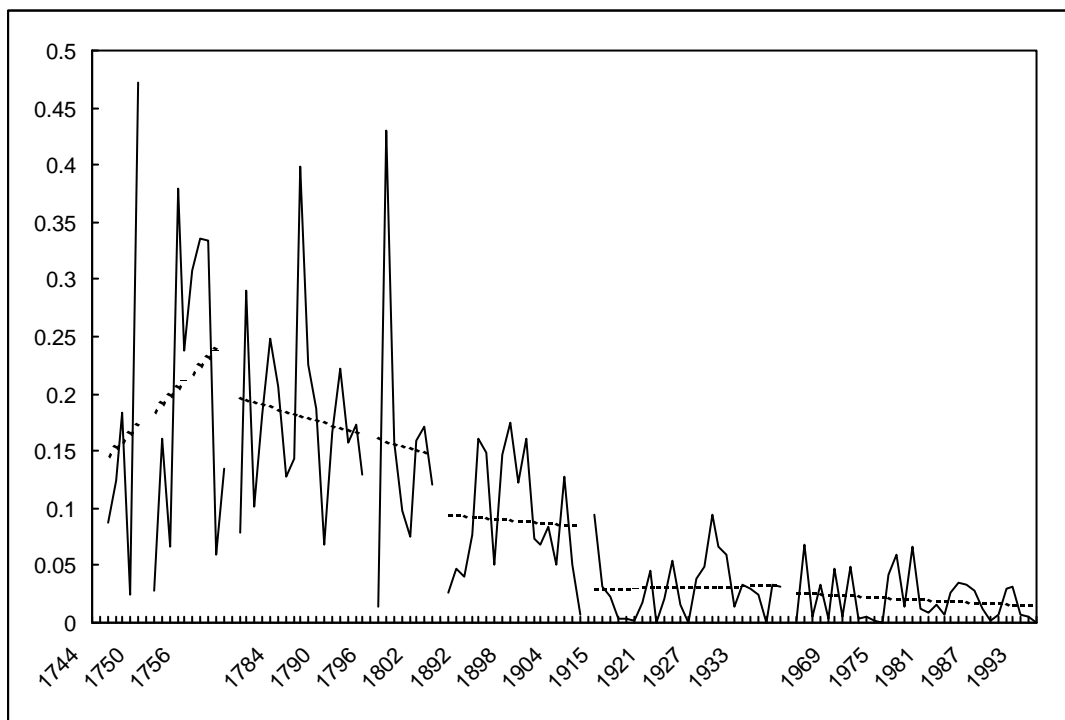
Goods, as represented by the rice market is dealt with in section 1. Section 2 turns to labor market integration, and section 3 discusses the evolution of the capital market in Korea. Each of these three sections includes some international comparisons. The final section summarizes and concludes.

## **1. Goods Market: Rice**

Rice has long been one of the most important food items in Korea, and it was also widely used (together with cotton textile) as a means of payment before the modern currency system was introduced with the beginning of the Japanese colonial rule in the 1900s. The rice market is likely to have emerged earlier than markets for other commodities, a conjecture supported by the fact that rice prices provide the longest available time series data in Korea. Figure 1 shows the coefficient of variation calculated using rice prices observed in two places, one located in the southwestern (Cholla) and the other in the southeastern (Kyongsang) region of the Korean peninsula from the mid-eighteenth century to the present. This long period consists of five shorter disconnected periods: 1744-1761, 1779-1804, 1890-1907, 1914-1938, 1964-1995. Places vary from one sub-period to another, but the distance between the two places remain around 200km (125 miles) throughout. The only exception is from 1890-1907, when rice prices in the central-eastern region were substituted for those in

southwestern regions, for which data is not available. Another difficulty with this sub-period is that the prices used are those observed in the Treaty Ports. Such prices are likely to overstate the degree of market integration: because these prices are likely to have been influenced by rice prices in Japan (the predominant rice market for Korea in this period), coefficients of variation of the Treaty Port prices would be lower than those calculated using rice prices observed in different inland regions.

Figure 1 Coefficient of Variation, 1744-1995: Korean Rice Prices



*Source:* 1744-1761 & 1779-1804 - Chun (1996a, 1996b, 1997); 1890-1907 - Kimura & Uranagase(1987); 1914-38 - Chosen Sotokufu, various years; 1964-1995 - Economic Planning Board of Korea, various years.

The figure also shows trends of the coefficient of variation by sub-period, fitted by ordinary least squares regression. Although the slope of the time trend is not significantly different from zero at 5% level, the direction of the slope in the first three sub-periods suggests several episodes in pre-modern Korean monetary history. In the mid-eighteenth century Korea was frequently buffeted by adverse regional climatic shocks. As a means of relieving famines, central government granted provincial governments in the afflicted areas the privilege of minting bronze coins to be paid for grain imports from other regions. Hence regional

productivity shocks led to regional monetary shocks, which widened price differentials between regions. Weather became more favorable in the late eighteenth and early nineteenth century, so there were less frequent and weaker regional monetary shocks (Chun(1996, 1997), Palais(1996: chapter 25)), and the price differential decreased in 1779-1804. Finally, during the third sub-period (1890-1907) the coefficient of variation first rose and then fell, showing the impact of fiscal and monetary reforms imposed upon by Japan in the early 1900s. The reforms put an end to fiscal deficits by separating royal household and government budgets and introducing new taxes. This fiscal rectitude enabled the Japanese-controlled government to issue new coins in exchange for debased coins.

The level of coefficient of variation in Dynastic Korea was about 0.2. How does this compare with those in other countries? Surprisingly, as early as the mid-seventeenth century, Tokyo and Nagoya rice markets (about 200 km apart) appeared much better integrated than in pre-modern Korea and as well integrated as in modern Korea, with the coefficient of variation fluctuating around 0.05. On the other hand, the coefficient of variation of rice prices in Tokyo and Aizu (again about 200km apart) was about 0.3, which was much higher than between Tokyo and Nagoya:. This is in line with Miyamoto(1981)'s conclusion based upon price correlation evidence that Tokugawa rice markets remained regionally segmented. Regions along the bakufu-controlled Tokyo-Osaka trade route seemed significantly more closely integrated between themselves than with the rest of Tokugawa Japan. Coefficients of variations for the two pairs of cities display trends moving in opposite directions in the following two centuries, rising slowly in Tokyo-Nagoya and falling in Tokyo-Aizu. By the early 1840s, coefficients of variation for the two pairs of cities nearly converged at 0.2, indicating the emergence of a national market as domains(*hans*) began to infringe upon the bakufu trade monopoly (Crawcour(1989: 587-600)). The coefficient of variation rose sharply for both pairs in the 1840s and 1850s, only to decline sharply below .05 after the the arrival of Admiral Perry.<sup>2</sup>

The coefficient of variation of rice prices observed in two cities in the Yangzi delta, Suzhow and Hangzhou (again about 200km apart), ranges from 0.1-0.2 in the early eighteenth century (Chuan and Kraus(1975: chapter 3)). This is somewhat lower than in Korea, but similar to that between Tokyo and Nagoya in the early eighteenth century. Grain markets remained far less developed in Gansu, a landlocked frontier region in the far west. The coefficient of variation for Gansu millet prices was as large as 0.5 in the mid-eighteenth century, which with the end of famine and military campaigns fell rapidly to 0.2 by the time of the Opium War (Perdue(1992: 124)). As in both Korea and Japan, the opening of the ports following the war provided a powerful stimulus to market integration, while the Taiping Rebellion in the following decade dealt an enormous blow to market activities.

In Indian rice and wheat prices, the coefficient of variation was as high as 0.4-0.5 until as late as mid-nineteenth century, then fell to 0.1-0.2 half a century later as a result of the building of the railways (Hurd(1975)).

The coefficient of variation of wheat prices in Eaton College and Exeter (again about 200km apart) in the seventeenth century tended to fluctuate within 0.1-0.2.(Mitchell(1988)). The coefficient of variation fell rapidly during the first half of the eighteenth century to reach 0.05 on the eve of the Industrial Revolution.

The time trends in Figure 1 (dotted lines) convey an impression that price differentials fell did not fall smoothly during the past two and half centuries, but in two downward shifts, the first one sometime in the nineteenth century and the second one in the early twentieth century. The first shift may seem apparent than real, as most of the nineteenth century is not represented in Figure 1. But it probably did occur, as the nineteenth century is known for recurrent peasant uprisings and fiscal crises. They led to debasement, inflation, and fragmented currency areas, where different types of debased coins circulated. This political and economic chaos may have discouraged market activities and widened price differentials. What caused the first sharp contraction of the price differential was probably the port-opening in 1876 imposed by Japan, which allowed foreign merchants to travel around the country and introduced modern communication and transportation technology to Korea.

Japan annexed Korea in 1910, after defeating her two main competitors in the Sino-Japanese and Russo-Japanese wars. Integration into the Japanese empire gave a further stimulus to market evolution by expanding railways, telegraphs and telephone lines, and establishing market institutions including land property rights and a modern currency system. In short, Japanese colonisation was of critical importance in the evolution of internal rice markets. Japan's invasion (1592-98) (and the war with Ch'ing China (1627 and 1636)) had also expanded markets dramatically in Dynastic Korea. These wars caused an "emergency conversion" from a tribute to a market economy by destroying the bureaucratic machinery of the command system. This is shown by the fact that the government began to mint and circulate bronze coins from 1678.<sup>3</sup>

### **3. Labor Market**

In Dynastic Korea (i.e. Korea before 1910) both free and slave labor existed side by side. Around one-third of the rural population could be bought, sold or inherited, which led Palais(1996) to describe Dynastic Korea as a "slave society." Free peasants, although poor, were not tied to the soil by the landowning elite as in medieval Europe. Given paucity of

quantitative information, it is difficult to know how efficiently slave markets functioned or how well regional labour markets were integrated before 1910.

Figure 2 Coefficient of Variation: Unskilled Nominal and Real Wages in Southern Korea, 1915-90



*Source:* 1914-38 from Chosen Sotokufu, various years; 1954-63 from Bank of Korea, various years; 1985-91 from Korea Institute of Labor Research (1996).

*Notes:* solid and dashed lines represent, respectively, the coefficient of variation of nominal and real wages; regional real wages were calculated by deflating regional nominal wages with regional rice prices; regions include Seoul, Taegu, Pusan, Mokpo until 1962 and Seoul, Taegu, Pusan Kwangju in 1984-90; Kwangju and Mokpo are about 70 km apart; unskilled labor is represented by male servants until 1937 and by coolies after 1954.

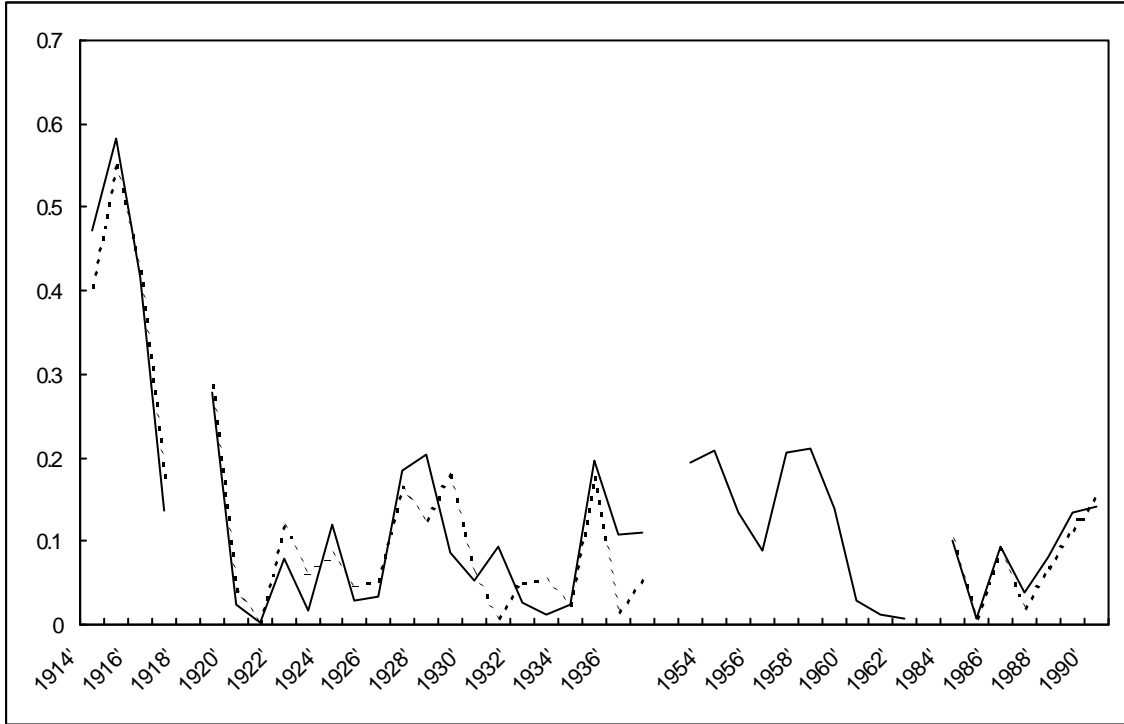
Regional wage data collected at the beginning of Japanese rule provide a window on traditional Korean labor markets. Figure 2 shows that in the 1910s the coefficients of variation of nominal wages of unskilled workers in different parts of the southern half of the Korean peninsula were about 0.4. This implies an interregional nominal wage gap substantially larger than in Meiji Japan. In the 1880s, the coefficient of variation of unskilled wage in Tokyo, Osaka, and Kyoto remained between 0.1-0.2 (*Nihon Teikoku Tokei Nekan*,

various years).<sup>4</sup> The nominal wage gap in 1910s Korea was greater than in pre-W.W.I colonial India as well: the average coefficient of variation of nominal wages for agricultural workers in six regions of Bombay district was 0.25 from 1873-1906.<sup>5</sup> In the mid-nineteenth century, the coefficient of variation of unskilled wages in different regions of both France and Sweden was slightly larger than 0.2 (Boyer and Hatton(1994)). The coefficient of variation of wages received by both artisan and unskilled workers between four regions in the antebellum U.S. fluctuated around 0.1 and 0.15, respectively.<sup>6</sup>

What about the real wage gap? Real wage gap may be greater or smaller than the nominal wage gap depending upon how the nominal wage and the cost of living index are correlated across regions. When the two nominal variables are positively correlated, the coefficient of variation of nominal wages will be larger than that of real wages. When the variables are negatively correlated, the coefficient of variation of nominal wages will be smaller. When nominal wage and price level vary independently of each other across regions, the two coefficients of variation are not likely to differ significantly. Cross-sectional positive correlation will result, only if all regional shocks generating price and wage differentials come from the demand side of the economy. Negative correlation will result, if regional shocks are supply shocks.<sup>7</sup> When shocks are equally likely to be supply or demand shocks, nominal wage and price levels vary independently of each other across regions, and the coefficient of variation of nominal and real wage should be roughly comparable.

For the lack of a better regional cost of living index, regional real wages are derived by deflating regional nominal wages with regional rice prices. The coefficient of variation of real wages obtained is shown in Figure 2 alongside with the coefficient of variation of nominal wages. The proximity of the two series indicates that regional shocks were equally likely to be generated by the demand and supply sides. Assuming regional shocks in other countries in pre-industrial stage too were not predominantly from either supply or demand side, the larger coefficient of variation of *nominal* wage in 1910s Korea would imply higher *real* wage gap in Korea.<sup>8</sup> Although labour was sufficiently mobile for the terms of trade shock during the treaty-port period to cause both specialization of agriculture towards export commodities (including rice and bean) and the decline of handicraft industry (Kajimura(1968), Miyajima(1974)), labor markets in early twentieth century Korea remained characterized by a high degree of regional segmentation. Figure 2 shows that this unusually large interregional wage dispersion in Korea shrank rapidly during the colonial period. Only from the second decade of Japanese colonial rule did a national market for unskilled labor begin to emerge. The steady decline in the unskilled wage gap among different regions also suggests that the Lewisian model of unlimited labor supply is not applicable to colonial Korea.<sup>9</sup>

Figure 3 Coefficient of Variation: Nominal and Real Wages of Bricklayers in Southern Korea, 1914-90



Source: 1914-38 - Chosen Sotokufu, various years; 1954-63 - Bank of Korea; 1985-91 - Korea Institute of Labor Research(1996).

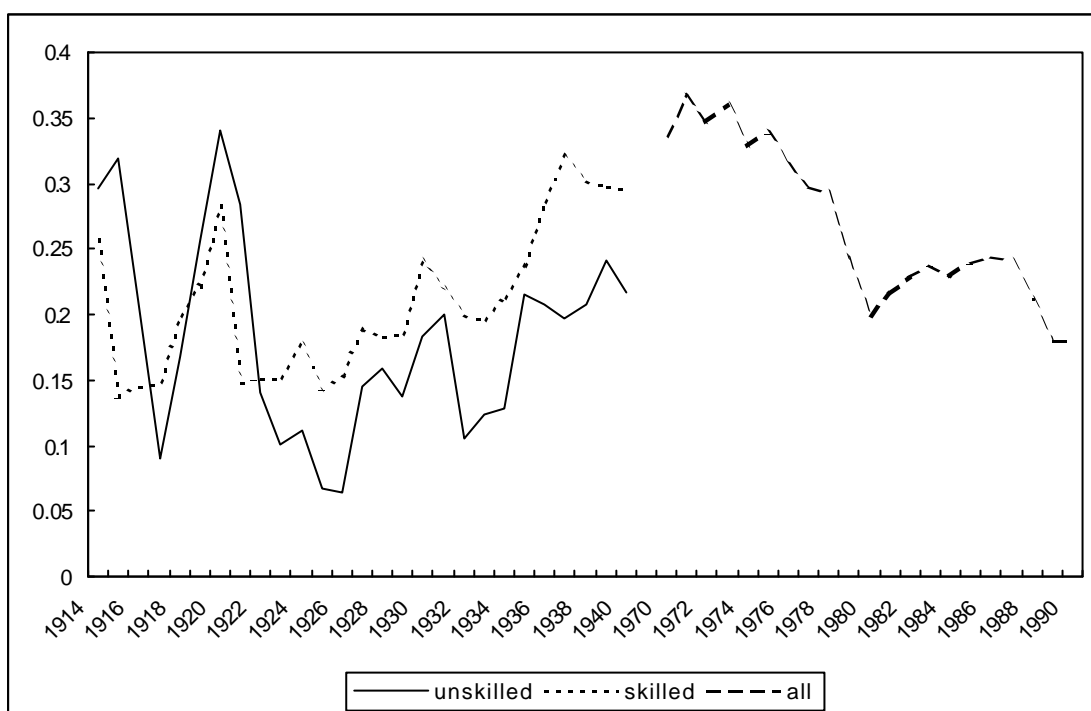
Notes: solid and dashed lines represent, respectively, coefficient of variation of nominal and real wage; regional real wages were calculated by deflating regional nominal wages with regional rice prices; regions include Seoul and Taegu.

Figure 3 shows the coefficients of variation of nominal and real wages of bricklayers, chosen to represent skilled workers. As in unskilled labor, coefficients of variation of nominal and real wages remain close to each other throughout the period. Coefficient of variation of skilled wages, which was as high as that of unskilled wages in the early 1910s, fell rapidly a decade later to a low of about 0.1, a level maintained in the following seven decades. This is in contrast to unskilled labour markets, which became integrated in a more gradual manner during the colonial period. Skilled labour markets emerged before unskilled labour markets in both nineteenth century England and Meiji and Taisho Japan as well (Hunt(1981: 155), Boyer and Hatton(1994: 94), *Nihon Teikoku Tokei Nenkan*, various years): both better educated and better informed, skilled workers tend to be more mobile than unskilled workers.

What is unusual about Korea is the compression of the unskilled wage gap in the early stage of economic development (Figure 2). In late nineteenth and early twentieth century interregional nominal wage gaps did not fall in Bombay district. Although grain markets were being rapidly integrated due to the building of the railways(Hurd(1975)), this did not lead to real wage convergence (Collins(1997)). Regional unskilled wages in France and Sweden did not converge from 1860-1910 (Boyer and Hatton(1994)). In the U.S., substantial wage gaps existed and were sustained between regions and even among different areas in the same region until the late nineteenth century.<sup>10</sup> In Britain, nominal wages of farm laborers in different regions did not converge during the Industrial Revolution and the following half a century: the standard deviation of farm laborers' wages county to county did not change from 1767-1870 (Hunt(1986: 951, Table 1)). The coefficient of variation of wages between regions remained in the range of 0.11-0.14 during 1860-1910.<sup>11</sup>

Outside Korea the convergence of unskilled nominal wages occurred during the transition to modern economic growth only in Prussia and Meiji Japan. The coefficient of variation of unskilled wages fell from 0.23 in 1870 to 0.17 in 1910 in Prussia, and in Japan from around 0.2 in the 1880s to 0.1 in the early 1920s (Boyer and Hatton(1994), Taira(1970), *Nihon Teikoku Tokei Nenkan*, various years). Japan, Korea, and Prussia were later-industrializers undergoing relatively faster growth and structural change, driven by productivity advances, which were unbalanced probably to a greater extent than in earlier industrial revolutions. The larger difference in sectoral rates of technological progress led to wider interregional wage gaps, providing stronger incentives for workers to move. Second, coefficients of variation cited above seem to indicate that that pre-industrial labor markets in both Britain and U.S. were already better integrated than in the late-industrializers. Finally, Song(1990) has argued that the "authoritarian" state in post-colonial South Korea developed a labor market functioning like a commodity market by repressing the growth of trade unions.<sup>12</sup> Similarly, autocratic political systems in Prussia, Meiji Japan, and colonial Korea aided labor market integration by preventing workers from acting together.

Figure 4 Sectoral Nominal Wage Coefficient of Variation, 1914-90



Source: 1914-40 - database compiled and maintained by Institute of Economic Research of Hitotsubashi University ; 1970-90 - Bank of Korea, *Economic Statistics Yearbook*, various years.

As labor markets mature, regional and sectoral wages will equalize. Figure 4 shows the coefficient of variation of wages in different nonagricultural sectors.<sup>13</sup> During the colonial period, wage convergence is observed only among industries drawing largely upon unskilled labor, including spinning, food processing, and construction. It is not seen among industries where skilled workers predominate, such as metal, machinery, transportation, and woodworking. Non-convergence among skill intensive industries may be explained by industry-specific skills, which impede intersectoral labor mobility. The coefficient of variation of nominal wages in all sectors (not shown in Figure 4) tends to rise during the colonial period, much like the coefficient of variation calculated among the skilled labor intensive sector. For the post-1970 decades, the coefficient of variation over *all* nonagricultural sectors is shown in Figure 4, because the industry classification for this period does not allow one to separate skill-intensive sectors from those using mainly unskilled labor. In contrast to the colonial era, nominal wages in different industries were equalized in the 1970s and 1980s. This is probably another evidence of the fluidity of the post-colonial South Korean labor market, where “virtually all of manufacturing’s growth was accompanied by hiring ever higher numbers of new entrants to the labor force (Kim and Topel(1995: 229)).”

#### 4. Capital Market

In pre-modern economies, high nominal rates of interest ranging from 30-40 percent per year normally prevail in rural areas, while the rate of return to riskless capital is about 10 percent (Perkins(1969: 92), McCloskey and Nash(1984: 179), Clark(1989)). The rate of return to capital began to fall from this high level first in the Netherlands after 1600 and then in England after 1700, declines which were delayed in other parts of Europe until after 1800 (Pressnell(1960), de Vries(1976: 211-12), Clark(1989), Hart(1997)).

What caused the rate of interest to fall in early modern northwestern Europe? Either rightward shifts in the savings supply schedule or leftward shifts in the investment demand schedule or both. While demand shifts represent changing productivity of capital, resulting from both labor force growth and technological progress, prominent causes of supply shifts include changes in dependency ratio and financial development.<sup>14</sup> To simplify, possible causes of the falling interest rate are demographic, technology shocks, and financial development.

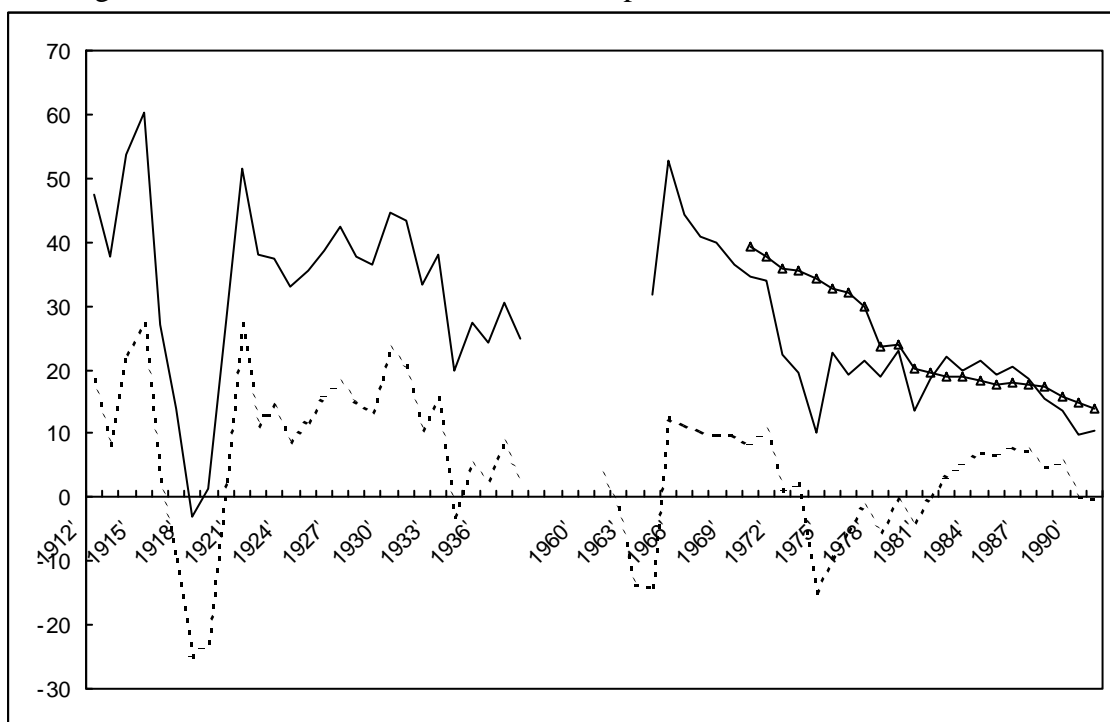
Of these three forces one may reasonably discount the role of productivity shocks on investment demand in early modern England and Holland. Population grew in both seventeenth century Holland and eighteenth century Britain, which would seem to suggest that the rate of interest declined because the population growth expanded savings supply via lowering dependency ratio faster than it boosted investment demand by labor force growth. One objection to this line of explanation is that population grew during the eighteenth century in Britain and in many other parts of Europe, while the interest rate fell only in Britain. It thus appears more likely that the Dutch and British interest rates fell because savings supply increased following “financial revolutions”, which was a consequence of enhanced credit of government and political stability after civil revolutions (Hicks(1969: 94), North(1990: 43), North and Weingast(1989: 819-28), Clark(1996), Hart(1997)).

The improvement in financial intermediation lowered interest rates in other parts of the world in different periods by shifting savings supply schedule to the right. Davis and Gallman(1994) attribute falling rates of interest in antebellum U.S. to financial development. Shimbo(1978: 233-43) presents evidence of falling interest rate in late eighteenth century Japan, which may well have been a consequence of the development of the credit system as documented by Crawcour(1961) and Ohkura and Shimbo(1978).

In the Korean countryside, the nominal rate of interest hovered around an average of 36 percent per year from the mid-eighteenth to the mid-nineteenth century, and rose to as high as 60 percent during the latter half of the nineteenth century (Chun(1998)). This rise probably

reflected expectations of inflation generated by the large-scale debasement, which was introduced to deal with deepening fiscal crises during the mid-nineteenth century. Despite fiscal and monetary reform programs carried out under Japanese control in the 1900s, moneylenders were still charging interests at rates as high as 40-50 percent per year at the beginning of colonial rule (Chosen Sotokufu, various years). Such high pre-modern rates of interest co-existed in the 1910s with much lower rates of interest (11-14 percent) on bank loans. The financial system remained divided into unregulated (traditional or informal) and regulated (modern or formal) sectors, largely because newly established modern financial institutions were not sufficiently well developed to penetrate traditional markets where small- and medium-sized firms and households predominated.<sup>15</sup>

Figure 5 Real Interest Rates and Return to Capital in Korea, 1912-1991



Source: Chosen Sotokufu, various years; Bank of Korea, various years; Pyo(1998)

Notes: solid line – real interest rate (black market); dotted line – real interest rate (bank loan); solid line with triangles – return to capital.

Figure 5 shows that ex post *real* interest rates in the regulated and unregulated financial sectors remained in the range of 10-20 percent and 30-40 percent per year in the 1910s and 1920s, respectively, and that both declined in the 1930s. The decline of interest rates in the 1930s reflected increased savings supply rather than slack investment demand: 1930s Korea

saw an explosion of investment activities in nonagriculture stimulated by rising Japanese militarism and recovery from the Great Depression. The expansion of savings supply did not seem to have much to do with either improvement in financial intermediation or to the falling dependency ratio. The financial intermediation ratio, after rising up to 1932, fell during the following six years.<sup>16</sup> Also the interregional moneylender interest rate differential did not close in interwar Korea (Chosen Sotokufu, various years). Also the falling mortality and rapid population growth *raised* dependency ratio slightly.<sup>17</sup> What probably caused the interest rate to fall was more a surge of capital inflows from Japan to finance a politically motivated industrialization drive in the northern part of the colony. The ratio of current account deficits to gross domestic expenditure doubled from 3% in 1918-31 to 6% in 1932-38.

The division of Korea into industrial North and agricultural South after W.W.II and the destruction during the Korean War (1950-53) caused the South Korean capital/labor ratio to fall sharply, raising the real interest rate back to a level comparable to that in the 1910s. In the regulated sector, the real interest rate (as represented by bank loan rate) fluctuated around zero, a consequence of low interest rate policy aimed at stimulating investment and growth. The financial repression generated excess demands for credit, which had to be met in the unregulated sector. This caused the real interest rate in the unregulated sector (represented by the black market rate) to shoot up as high as 40-50 percent per year in the early 1960s. And interest rate differential between unregulated and regulated sectors came to exceed that in the 1910s, when a more liberal financial regime prevailed.

It is difficult to calculate the level of competitive general equilibrium rate of interest rate in a dualistic financial system. Surely, the hypothetical rate should lie somewhere between bank loan and moneylender interest rates, and its movement is better reflected in the black market, rather than in the bank loan rate controlled by the government. The real black market rate was on the decline in the post-1960 decades (Figure 5). The rate of return to capital, also shown in the figure, also fell following closely the curb market rate in 1970-91, suggesting that the latter – although most likely an overestimate - may be used as a proxy for the hypothetical equilibrium rate of interest.

The declining real interest rate in post-1960 decades was a net effect of various exogenous shocks shifting investment demand and savings supply schedules, which include changing dependency ratio, labor input growth, total factor productivity growth, foreign savings inflow, and development of financial intermediation. To assess the impact of these changes on the interest rate, an equation is estimated, where the real interest rate (proxied by the real curb market rate) is the dependent variable and shifters in the savings-investment market are explanatory variables. The regressors include the foreign savings inflow, labor

input growth, the dependency ratio, and the financial intermediation ratio, but exclude total factor productivity growth, which invariably turned out as insignificant in different regressions using different estimates of the variable.<sup>18</sup> The result using ordinary least squares method for the period from 1965-90 is:

$$RR_t = 21.22 - 0.84 FS_t - 0.59 LF_t + 0.74 DR_t - 7.45 FIR_t$$

(0.68)    (2.29)    (1.38)    (1.13)    (2.94)

adjusted  $R^2 = 0.77$ ;  $DW = 1.14$

*Notes:* RR– real curb market interest rate; FS – current account deficits divided by GNP; LF – labor force growth rate; DR – dependency ratio; FIR – financial intermediation ratio. Parenthetically shown are t-ratios.

All estimated coefficients are of correct signs except that associated with labor force growth. The only significant variables are the foreign savings inflow and the financial intermediation ratio. The latter drove most of the decline in the real interest rate: other variables remaining constant, post-1960 financial development as reflected in financial intermediation ratio would have accounted for nearly four fifths of the estimated fall in the real interest rate.<sup>19</sup>

After increasing in the late 1960s and the early 1970s, the financial intermediation ratio declined slightly from 1972-78 and then started to increase again (Patrick(1994: 326, Fig 8.1)). This indicates that financial development appeared to suffer a setback in the 1970s, which is corroborated by Cho(1988)'s finding that variance of costs of capital facing different types of borrowers started to fall only after 1980. The turning points in the financial intermediation ratio fit nicely with well-known regime shifts in recent South Korean financial history. Interest rate reform in 1965 raised ceiling rates for time deposits and bank loans. There was a return to a low interest rate policy and government control of credit allocation from the early 1970s. Finally there was financial deregulation from the early 1980s onwards (Cole and Park (1983), Cho(1990), and Park(1994)). Government policy towards financial markets appeared to have an important impact upon the development of capital market in post-colonial period.

South Korea's government oscillated between financial repression and liberalization, as its development policy swung between import substitution and a more market-conforming strategy. The country was not alone in starting the postwar period with import substitution, using financial repression as a central policy instrument. Low interest rate policies and

intervention in credit allocation were introduced in Latin American countries as well (Cardoso and Helwege(1995)). It was widely believed that channelling of low interest rate loans to strategic sectors would foster growth, a view which seemed justified by the Great Depression, Keynesian economics, and Soviet experiment (Krueger(1990)).<sup>20</sup>

Apart from the impact of postwar interventionist ideology, financial repression in South Korea had its roots in the command economy placed over the Japanese empire during the Second World War. An important building block of the system included interest rate control and credit rationing, introduced after the Manchurian incident in 1937. Although the war ended and the Japanese left Korea in 1945, colonial mandarins remained much in control, surviving post-colonial campaign to purge collaborators. They would not let the system of command go, because it could conveniently be recycled for the cause of import substitution industrialization.<sup>21</sup>

When the import substitution went to the wall and ensuing political crisis in the early 1960s enforced stabilization, the pendulum swung back towards a more market-oriented regime, which included financial liberalization in 1965 (Haggard, Kim, and Moon(1991)). Another war intervened to help to put an end to the liberal regime. As the U. S. withdrew from the Vietnam war in the early 1970s, Park Chung Hee's confidence in U.S. security assurances declined. His response was to "become self-reliant" by creating heavy and chemical industries capable of producing war materials. Park, who served as an officer in the Japanese Army during the Second World War, reintroduced financial repression as a central instrument in this second import substitution episode. Distortions mounted and inflation worsened in the late 1970s, provoking another political crisis and prompting the stabilization measures of the 1980s (Haggard and Moon(1990)).

In sum, unlike markets for goods or labor, not only did capital market fail to take root under the Japanese rule, but also its development was impeded by intervention in financial markets during the W.W.II period. The legacy of repression persisted after independence, although disrupted by liberalization interludes. The net effect of the policy cycle turned out to be positive in terms of financial development: financial deepening achieved during the liberalization phase had permanent components which could not be undone during the subsequent reversion to repression.

## **5. Summary and Conclusions**

Grain markets in traditional Korea probably remained less developed than in advanced parts of Ch'ing China and Tokugawa Japan, let alone early modern England. Japan

powerfully expanded the sphere of markets first by forcing Korea to open to external trade in 1876 and then by incorporating the country into its empire in 1910, introducing modern transportation, communication technology, and fiscal and monetary systems.

Although market activities proliferated in the four decades after port-opening, labor markets displayed a high degree of regional segmentation before 1910. Regional labor markets became rapidly integrated during the half a century following the annexation with Japan, aided by new transportation and communication technology and autocratic colonial rule which prevented workers from combining. Industry-specific skills stood in the way of equalization of wage rates across different sectors during the colonial period, which was mitigated by high rates of labor input growth in post-1960 decades.

Colonial government found capital markets more difficult to develop. The interwar financial system was characterized by dualism, with modern financial institutions remaining islands in a sea of traditional moneylenders dealing with small producers and households. The dualism deepened as a consequence of financial repression during W.W.II. Although government intervention persisted in post-colonial South Korea, liberalization intervened to push financial development.

All in all, goods markets appeared to evolve first in Korea after the ports were opened in 1876, and this was followed by labor market integration after 1910, when the country was incorporated into the Japanese empire. Development of the capital market was delayed until after independence from colonial rule. While goods and labor markets were brought to Korea by colonialism, this cannot be said for the capital market. On the contrary, the colonial past – more specifically the Japanese war economy - appeared partly responsible for the persistence of government intervention in post-colonial financial markets, and this hampered financial development after independence.

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To be revised:

- 1) page 11: arguing pop growth was not a cause of falling interest rate, saying tha pop grew not only in England but also in other European countries
- 2) page 14: decomposition of the decline of real rate in Korea 1965-90 – four fifth of the fall was due to financial development.

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## Endnotes

- <sup>1</sup> The expression “great transformation” is borrowed from Polanyi (1957).
- <sup>2</sup> Tokugawa rice price series are available from Iwahashi (1981).
- <sup>3</sup> Palais(1996). “Emergency conversion” is a term first introduced by Bohannon and Galton, quoted in Jones(1993).
- <sup>4</sup> For evidence on labor market integration in Tokugawa period, see Saito(1978).
- <sup>5</sup> I am grateful to William Collins for providing me with Indian regional wage series.
- <sup>6</sup> Calculated from wage data provided in Margo and Villaflor(1987).
- <sup>7</sup> Consider an economy, where prices are flexible, but nominal wages are less so. A negative demand shock will lower price level, raising both real wages and unemployment rate, which in turn will put downward pressure upon nominal wages. Hence the conclusion that demand shocks produce positive correlation between prices and nominal wages. On the other hand, a negative supply shock will raise price level, which alone will put upward pressure upon nominal wages. This is however outweighed by the downward impact due to the increase in unemployment as the supply shock shifts the labor demand schedule to the left.
- <sup>8</sup> In Bengal district, average coefficient of variation of real wages for agricultural workers was .21 in 1873-1906, which is comparable with the above cited average coefficient of variation of nominal wages, .25.
- <sup>9</sup> Taira(1970) made the same point about Meiji Japan.
- <sup>10</sup> Rosenbloom(1990), Goldin and Margo(1992), Margo and Villaflor(1987), and Slaughter(1995).
- <sup>11</sup> Boyer and Hatton(1994). Coefficients of variation from county level wage data are somewhat higher, fluctuating in the range of 0.15-0.18. See also Hunt(1986).
- <sup>12</sup> A similar view is expressed in World Bank(1993: chapter 6). See also Kim and Topel(1995).
- <sup>13</sup> All sectors being nonagricultural, the coefficients of variation of sectoral nominal and real wage are identical.
- <sup>14</sup> Dependency ratio is the share of non-working young and elderly persons in the total population.
- <sup>15</sup> Moneylender rates remained below bank loan rates in interwar Japan, which led Teranishi(1994) to explain the presence of moneylenders in terms of the inability of modern financial institutions adequately to process information generated by agents of traditional types.
- <sup>16</sup> Mizoguchi and Umemura (1988: 305). Financial intermediation ratio is a standard index of

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financial development and defined as the ratio of financial assets to national income.

<sup>17</sup> Another contrast with interwar Japan, where coefficient of variation of regional moneylender rates were not only much lower than in Korea, but also declined as a matter of trend. Also interest rate differential was smaller among moneylenders than among banks in Japan. See Teranishi(1994) and Lewis and Yamamura(1971).

<sup>18</sup> I am grateful to Professor Jongil Kim for kindly making his labor input series available. Dependency ratio and foreign savings ratio are from Economic Planning Board of Korea, various years and Park(1994), respectively.

<sup>19</sup> When the same specification was estimated for the colonial era, coefficients turned out either insignificant or of wrong signs.

<sup>20</sup> In contrast, nineteenth century economic development in the U.S. and European countries was guided by a laissez-faire belief, which explains why more liberal financial regimes evolved in developed parts of the world. Even Japan had a liberal financial markets with easy entry and market-determined interest rates before wartime control began in 1937 (Patrick(1984)).

<sup>21</sup> Ueda(1993) finds the origin of post-1945 intervention of the Japanese government in financial markets in the war economy.