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A Shrimp between Fighting Whales: Lessons from the Economic Convergence of South Korea*

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Having started as a poor, war-worn agricultural country in the mid-20th century, South Korea is now the world's 12th largest economy. The lesson from the country's economic convergence is that export-led growth, strong corporate competitiveness and significant research and development expenditure are essential to avoiding the middle-income trap. Relying on its strong education system, South Korea managed to become a key player in many high-tech industries. However, the challenge for the future is that income inequalities exceed the average of developed countries, and the persistently low fertility rate results in an ageing society. In addition, household indebtedness exceeds 100 per cent of GDP and around half of the housing loans are variable rate loans, which jeopardises the stability of the financial system.

1. Geopolitical situation

Korea's situation is well summarised by the Korean adage referring to it as 'a shrimp between fighting whales'. Traditionally, this refers to the geopolitical position where the neighbouring China and Japan may be regarded as great powers compared to it, with considerable influence over it. Korea's centuries-long isolation was broken by foreign powers. Between 1876 and 1905, it fought with three great powers, i.e. with China, Japan and Russia, which intervened in its internal affairs while at the same time battling with each other. In 1905, Korea became a protectorate of Japan, and then a colony of Japan between 1910 and 1945. In 1945, the United States and the Soviet Union agreed to occupy Korea jointly, and the boundaries of the zones were drawn at the 38th parallel: the northern part became a Soviet sphere of influence, while the southern part was under the control of the USA. China also participated in the conflict of the great powers, and the devastating Korean War between 1950 and 1953 preserved the division. South Korea established economic relations with Japan in 1965, receiving compensation for its colonial past. South Korea joined the Vietnam War in support of the United States. In 1992, a turning point was also reached with China, with the establishment of diplomatic and economic relations (for an overview of this, see *Muraközy 2020*.)

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* The papers in this issue contain the views of the authors which are not necessarily the same as the official views of the Magyar Nemzeti Bank.

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Korea's geopolitical role has strengthened since World War II. The USA provided USD 12.7 billion, at current prices, in economic and military aid to South Korea over 30 years (1946–1976), which is of similar magnitude as the Marshall Aid to 17 European countries over 4 years (1948–1952) in the amount of USD 14 billion.

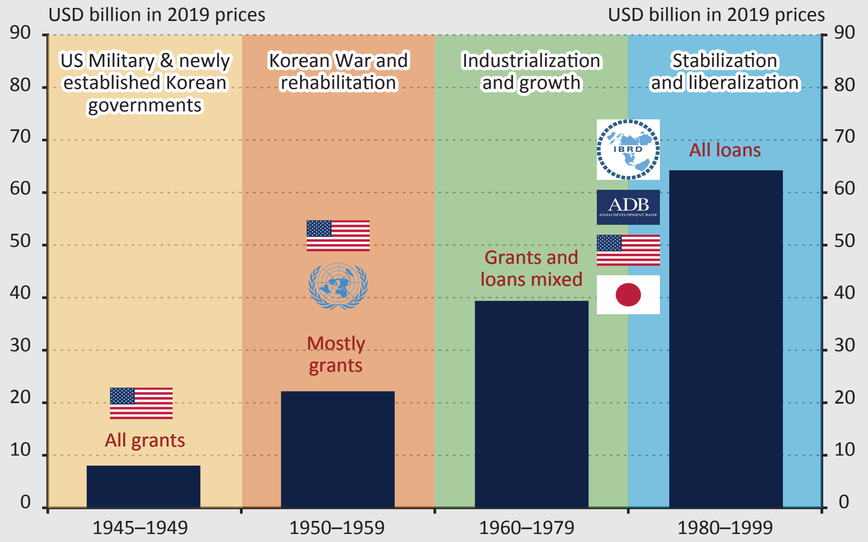
2. From development state to market economy

South Korea's economic policy developments can be divided into three phases; the first lasted from the wars to 1980 with the predominance of the state, the second between 1980 and the 2000s – a period of liberalisation and crisis, and the third, post-2000s period, characterised by the gradual development of a market economy and welfare state after the Asian financial crisis.

In 1945, the Japanese industrial capital (defence industry together with metallurgy, extractive industries, chemical industry and power generation, satisfying the needs of the first) on Korean territory was taken over by the state. This was gradually privatised by keeping in national ownership, creating the privately-owned Korean groups of companies known as the 'chaebols'. The double-digit twin deficit of the initial period was funded by foreign aid and loans (*Figure 1*). In 1961, the Economic Planning Board with broad budgetary powers was established, which lined up capitalist planning for conscious economic development. The state levied very low taxes,[1] and subsidies were realised not so much on the traditional expenditure side, but rather through preferential, targeted lending, the real cost of which appeared much later. In 1954, the Korean Development Bank was established under the Ministry of Finance, the lending activity of which was financed by the Korean central bank. During the period of great development, the central bank actively cooperated with the government and played a role in the development of the economy through loans provided in cooperation with the banking sector. Opening to foreign countries commenced from 1967, setting the steady objective of "exports first". As the weight of large state-owned enterprises declined, the role of the chaebols became increasingly important from the 1970s.[2] They were also involved in the realisation of government objectives, rewarding good performers through funding and punishing bad ones. The possibility of state-owned enterprises going bankrupt made all the difference compared to the socialist planned economy, which also applied the soft budget constraint.

[1] In the late 1950s and early 1960s, tax revenue was 8–11 per cent of GDP. This rate rose to 13–15 per cent in the next ten years.
[2] For example, Samsung, which is now the 3rd largest company in the consumer electronics sector.

Figure 1
Official foreign assistance and loans granted to Korea



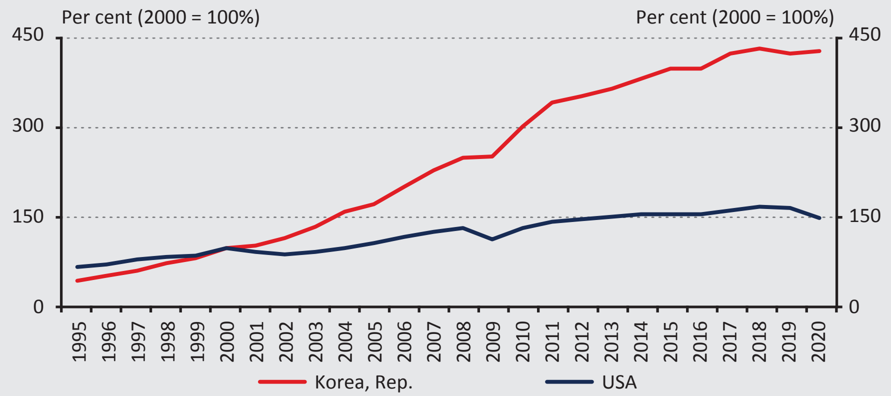
Source: Calculated on the basis of KEI-KIEP (2015)

From 1980, there has been gradual financial and trade liberalisation. Official development assistance[3] has been transformed into preferential public[4] and commercial loans (*Figure 1*). The budget balance turned from the former persistent deficit into a persistent surplus. The government remained active, but tried to operate in a sector neutral way, and in 1994 the Economic Planning Board was abolished. In 1994, the central bank launched a credit incentive programme, providing credit institutions with a preferential credit line for financing SMEs at an interest rate of 0.25 per cent. The seeds of a welfare state appeared. While in 1978 only one tenth of the population held a health insurance policy, by 1990 almost the entire population was covered, but private healthcare had a significant weight.

[3] According to the OECD's definition, this includes ODA (Official Development Assistance) and to a lesser extent OOA (Other Official Assistance). (See: https://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/officialdevelopmentassistancedefinitionandcoverage.htm. Downloaded: 5 May 2022.)

[4] Mainly OOA-type loans with grant (non-reimbursable) elements less than 25 per cent.

Figure 2
Changes in the export volume index between 1995 and 2020



Source: World Bank

Although liberalisation proceeded at a rapid pace, the combination of the poorly regulated and partially government-controlled banking sector and liberalised capital inflows during the 1997 Asian financial crisis led to swift capital outflows. This was counterbalanced by a crisis package of the International Monetary Fund (IMF), which was conditional on the usual tight fiscal and monetary policies. The crisis and the austerity measures resulted in a wave of bankruptcies. With a view to achieving stabilisation, nominal and real wages were significantly reduced. As part of financial system reform, state control of the interest rate and the exchange rate was abolished between 1998 and 2000, and the central bank moved to inflation targeting with a floating exchange rate from 1998.

In 2000–2001, 21 per cent of GDP was allocated to stabilising the financial institutional system.[5] The loss suffered by the banking sector as a result of the crisis was so high that the state asset manager spent one-quarter of GDP on the buy-out of bad debts after the crisis (*Akama et al. 2003*).

The third key period began in the early 2000s and continues to date. This is characterised by a gradual strengthening of the market economy and welfare system and a huge increase in competitive exports (*Figure 2*). Drawing lessons from the Asian financial crisis, the reformed financial system performed well during the 2007–2008 liquidity crisis, with no banking crisis. Currently, South Korea has one of the most developed financial systems in Asia, with a banking sector of more than 150 players and a balance sheet total of EUR 2,411 billion. South Korea's

[5] This was financed by government-guaranteed securities, half of which had to be assumed by the state at maturity, and thus it appeared in the debt with a delay upon maturity.

banking sector has developed dynamically in recent years, and even the coronavirus pandemic did not interrupt the impetus in lending. The concept of the development government is gradually being left behind, but it has not yet fully disappeared. The budget surplus and low public redistribution (around 20 per cent of GDP) remained in place.

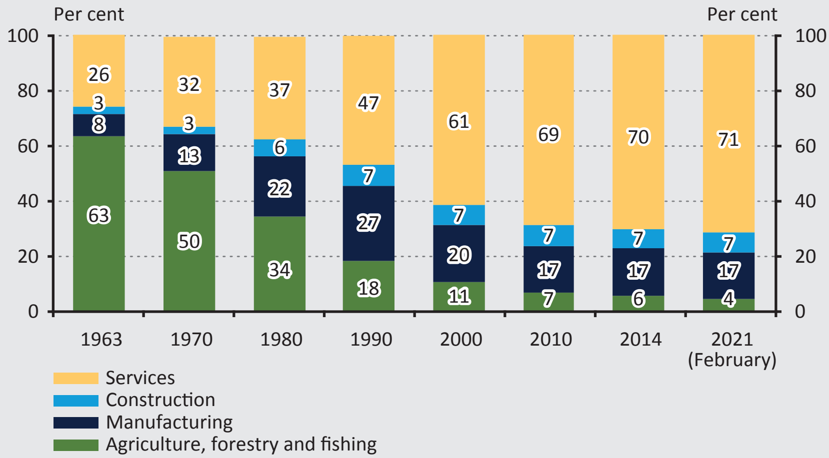
While the ratio of highly skilled labour force was below average in the 1990s, it is now at an outstanding level even by international standards. The high quality of Korean universities is demonstrated by the fact that 15 South Korean universities are included in the top 500, 6 of which are in the top 100: this is the 4th highest figure in the world. Higher education institutions have a high ratio of science graduates, at around 30 per cent in 2018, ranked 3rd among OECD countries. South Korea is among the top 5 countries in all areas of the PISA tests of basic applied skills.

3. Factors of economic development

The development state initially developed in a capital-intensive way, fostered first by large volumes of foreign aid and later by preferential loans, and to a lesser extent, by FDI inflows. Since the mid-1990s (*after the Asian financial crisis*)*, growth has been increasingly based on intensive factors, i.e. on productivity, supported by high R&D expenditure and an advanced education system.* Economic development was fostered by a steady increase in the headcount of the labour force, which, in addition to population growth, was also facilitated by the rise in women's rate of employment from 1985 (*Eichengreen et al. 2012*).

In the period of the development state, until 1980, the ratio of agricultural workers fell by almost 30 percentage points, with half of them flowing to manufacturing and half of them to the service sector. During the decade of liberalisation, the ratio of agricultural workers fell by a further 16 percentage points, and one third of them moved to manufacturing and two thirds to services. Finally, the weight of agriculture has gradually decreased by another 14 percentage points over the period of market economy, while automation also reduced the weight of manufacturing by 10 percentage points, resulting in a combined increase of 24 percentage points in services (*Figure 3*).

Figure 3
Structure of employment by sectors in South Korea (1963–2021)

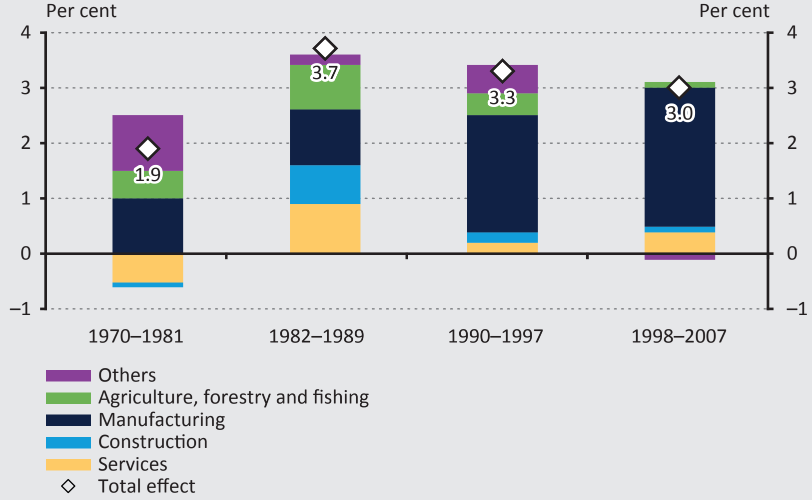


Source: Sakong – Koh (2013), South Korea Bureau of Statistics

This shift in proportions is of particular importance for growth because productivity varies widely between the individual areas (*Figure 4*). As a result of the land reform after the Japanese occupation, large estates were distributed, which led to an agricultural production of lower efficiency. Modernisation and the failure to increase productivity made these small farms unviable. The economy was characterised by indebtedness in the short term and by a major flow from agriculture to services and industry in the long term. However, the structure of the services sector is not optimal, as too many people work in traditional low-productivity service sectors such as retail, wholesale and catering, which prevents the development of high-productivity services such as communications, healthcare, financial intermediation and business services. By contrast, labour productivity in export-led manufacturing has been growing steadily and significantly, reflecting the structural transformation of industry (from light through heavy industry to high-tech).

In the Country Complexity Rankings, which also incorporate the diversity and uniqueness of exported goods, South Korea has steadily maintained its position as the 4th most complex economy in the world. The Country Complexity Rankings intends to capture the knowledge capital present in the countries, for which the trade structure and characteristics serve as tools.

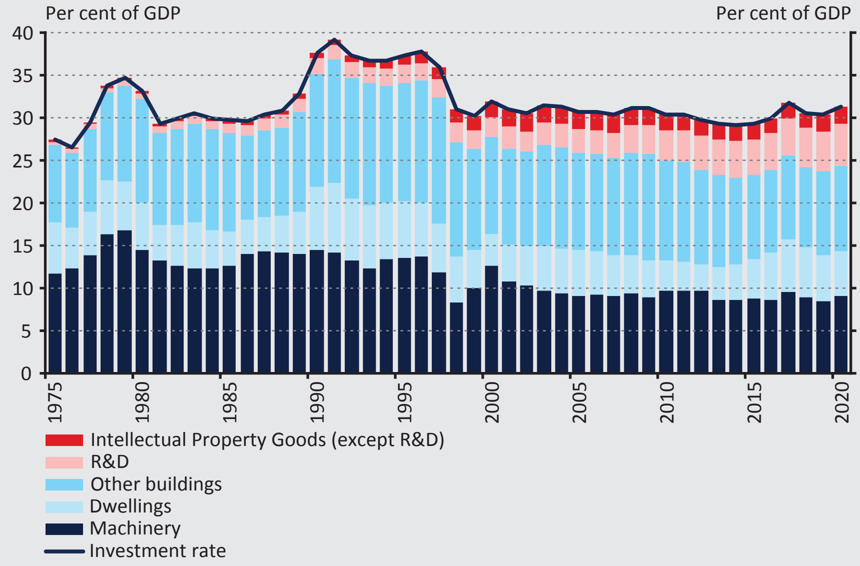
Figure 4
Labour productivity growth by sector



Note: Subtotals and totals in the basic data do not sum exactly due to rounding.
Source: South Korea Bureau of Statistics, Bank of Korea, Eichengreen et al. (2012)

South Korea's investment structure is ready to meet future challenges as it has an increasing ratio of "smart investments". Machinery investment is increasingly being replaced by R&D and the accumulation of intangible assets (*Figure 5*). Research expenditures shifted from the public to the private sector; in 1980 the weight of the public sector was two thirds, while it was only 12 per cent in 2015. Total R&D expenditure as a percentage of GDP has doubled since 1996 and is now one of the highest in the world. In 2021, Korea became the world's most innovative country, according to the Bloomberg Innovation Index.

Figure 5
Structure of investments in South Korea



Source: OECD

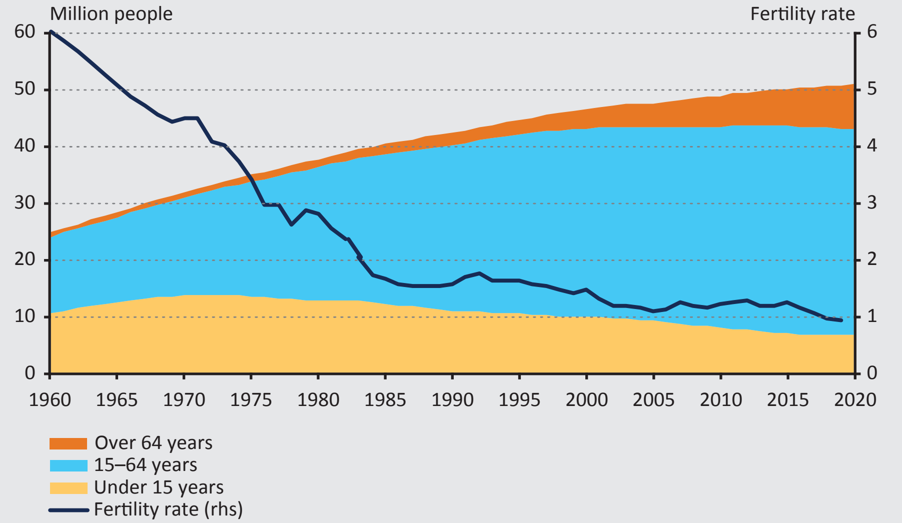
Export-led growth, high corporate competitiveness and significant research and development expenditure are essential for avoiding the middle-income trap. South Korea has built on its strong education system to become a key player in many high-tech industries. The structure of the high investment ratio has gradually shifted towards intangible assets and research and development. Most of the economic convergence was achieved under a balanced budget.

4. Challenges and risks

By now, the chaebols that were once the key drivers of growth, may hinder growth by overshadowing the SME sector. SMEs, which provide a large proportion of the country's employment, are faced with difficulties in growing, as chaebols often use their monopolistic influence to squeeze small and medium-sized enterprises out of the market. The current economic role of the chaebols is well reflected by the fact that they account for more than three quarters of the market capitalisation of all Korean firms, while their ratio in the labour market is only 12 per cent. There is also a significant wage gap, with the average salary of workers in the SME sector at only 63 per cent of those working in chaebols.

Outstanding borrowing of households doubled between 1998 and 2017 (from 86 per cent to 180 per cent of disposable income), mostly burdening the middle class. The high ratio of privately-financed education and healthcare may generate major expenditure for households, as the ratio of those participating in private education in the junior and senior sections of secondary school is 22 and 54 per cent, and at the university and college level is 78 and 96 per cent, respectively. Half of middle-income households become indebted debt month after month, and this accounts for the largest part of the debt (*Lee 2017*). About half of housing loans are variable rate loans, which jeopardises the stability of the financial system.

Figure 6
Population and fertility rate (1960–2020)



Source: OECD, Sakong and Koh (2013), South Korea Bureau of Statistics

Due to the social inequalities exceeding the average of developed countries and rising further, the budget may need a more efficient social system. Whereas in 1990 pension entitlement covered only 15 per cent of workers, it now fully covers permanent employees, while it does not exist for half of part-time workers. Due to the slow expansion of the pension system, as regards elderly people, Korea has the highest proportion of population living below the poverty line among the OECD countries.

The fact the fertility rate has been below the reproduction level for almost 40 years and fell below 1 by 2020 – thereby reducing the proportion of people of working age in the next decades, while pension payments will continue to rise – foreshadows a demographic problem and the ageing of society (*Figure 6*).

References

Akama, H. – Noro, K. – Tada, H. (2003): *Financial and Corporate Restructuring in South Korea*. https://www.boj.or.jp/en/research/brp/ron_2003/data/ron0306b.pdf. Downloaded: 7 March 2022.

Eichengreen, B. – Perkins, D.H. – Shin, K (2012).: *From Miracle to Maturity*. Harvard University Asia Center. https://doi.org/10.1163/9781684175260

KEI-KIEP (2015): *Korea's Economy Volume 30*. Korea Economic Institute of America – Korea Institute for International Economic Policy. https://keia.org/publication/koreas-economy-volume-30/

Lee, J.-W. (2017): *Is This the Asian Century?* WSPC.

Muraközy, L. (2020): *A koreai rejtély – Remetéből világpolgár* (*The Korean Mystery – From hermit to a cosmopolitan*). Akadémiai Kiadó. https://doi.org/10.1556/9789634545682

Sakong, I. – Koh, Y. (eds.) (2013): *The Korean Economy: Six Decades of Growth and Development*. KDI Working Paper, Korea Development Institute. https://www.kdi.re.kr/kdi_eng/pub/11571/The_Korean_Economy:_Six_Decades_of_Growth_and_Development. Downloaded: 7 March 2022.