THE SOUTH KOREAN ECONOMY AFTER THE FINANCIAL CRISES IN 1997 AND 2008

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Abstract
Korea’s development in the last four decades of the 20th century was astonishing. The growth rate of GDP per capita was even the highest in the world during the period 1965 to 1990. After the World War II, Korea was one of the poorest countries in the world, however, it gradually transformed into an advanced economy. In the late 1990s, Korea was heavily affected by the Asian financial crisis. The crisis revealed longstanding weaknesses in Korea’s development model. After this crisis, Korea managed to implement broad structural reforms. The country started to build a knowledge economy and we can claim that it has been successful. Nowadays, we often hear that a crisis represents an opportunity. Korea is an example of a country that was truly able to utilize such an opportunity. Therefore, the Korean transition to the knowledge economy that was initiated after the financial crisis 1997 – 1998 could be an inspiration for Central European countries.

Keywords: Korea, financial crisis, reforms, knowledge economy

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1. Introduction
In the 21st century, Korea has become one of the most important world economies; No. 13 as far as the economic power is concerned. The development in the last four decades of the 20th century was astonishing. The growth rate of GDP per capita was even the highest in the world during the period 1965 to 1990. After the World War II, Korea was one of the poorest

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countries in the world, however, it gradually transformed into an advanced knowledge economy. Nowadays, Korea is an important technological hub where leading world technological companies such as Samsung or LG operate. After Sweden, United States and Finland, Korea has fourth highest investments in knowledge as a percentage of GDP (almost 6 percent). In 2004, Korea was the world No. 1 in terms of the proportion of broadband internet subscribers with a distinct advantage over other highly developed countries.

The Czech Republic and Korea have a lot of common features. Surveying the economic rankings, we can find that both countries are neighbours in the fourth ten with almost the same GDP per capita. Both countries became democracies in the late 1980s after a long period of totalitarian regime and then proceeded to do fundamental economic reforms. Therefore, both countries have still been rated among transition countries, emerging market and similar. After 2000, we can observe increasing mutual relationships (investment, trade). In spite of it, our acquaintance with the Korean economic development and prospects has remained modest.

The aim of the paper is to characterize in more detail the Korean economic situation after two financial crises, which affected the Korean economy during the last 12 years. It is also interesting to compare reactions of the Korean and Czech government to these events.

The introductory part of the paper defines theoretical terms used in subsequent text. After a brief overview of the successful post-war era, the paper focuses on the causes, course and consequences of the Korean financial crisis in 1997 – 1998. The final part outlines the current economic situation in Korea and states some implications from the evolution of the last two decades.

2. Key Theoretical Terms: the Asymmetric Information Analysis of the Financial Crises and the Knowledge Economy

F. Mishkin (1997) characterizes a financial crisis to be a nonlinear disruption of financial markets when the asymmetric information result in moral hazard and adverse selection problems; as a consequence of them, financial markets are no longer able to efficiently channel funds to those who need them to engage in productive investment opportunities.
The periods of uncertainty at the financial market can make adverse selection and moral hazard worse. The credits become inaccessible even for many companies that dispose of perspective investment projects because at the time of market fluctuations it is difficult to separate good and bad opportunities. And the shortage of credits forces companies to reduce their spending, which causes a decline of economic activity.

J. Hahm and F. Mishkin (2000) state four factors that can lead to worsening of asymmetric information problems and thus to financial instability:

- deterioration in financial sector balance sheets
- increases in interest rates
- increases in uncertainty
- deterioration of nonfinancial balance sheets

Hahm and Mishkin also distinguish two stages of financial crises. The first stage (“The Runup to the Currency Crisis”) is typically a financial liberalization resulting in a dramatic rise of lending that is supported by the inflow of foreign capital. Excessive risk-taking is the consequence brought about primarily by the weak financial regulation that is characteristic of emerging market countries.

Subsequently, an unsafe dynamics emerges. Domestic banks offer high returns in order to attract international funds to increase their lending. They are highly successful because foreign investors consider the investments that local government protect. A subsequent credit boom leads to excessive risk-taking of some banks and it leads to serious loan losses and deterioration in financial sector balance sheets. Consecutively, banks respond with restrictions in their credit policy. The resulting credit crunch can significantly harm the condition of economy.

The deterioration in financial sector balance sheets is a crucial factor causing the second stage – a currency crisis. Domestic banking sector becomes weaker and for the central bank, it is more and more difficult to protect the currency against speculative attacks. The central bank can´t sufficiently increase interest rates because there is a danger that the banking system may break down. When investors reveal the powerlessness of central authorities, they are even more stimulated to carry out a speculative attack.

The collapse of the currency results in increases in indebtedness of the firms that have debts denominated in foreign currencies (this is frequent in emerging-market countries) and
can lead to higher inflation. Increased interest rates further aggravate household and firm balance sheets. Consecutively, some of them are no longer able to pay off their repayments, resulting in further significant losses for the banks.

Both acts: banking and currency crises reduce the possibilities of the banks to lend and also make adverse selection and moral hazard problem more serious. Hahm and Mishkin claim that financial crises cause deterioration in financial and nonfinancial firm balance sheet; the result is a sharp restriction on lending and a severe economic fall.

The World Bank (Korea as a Knowledge Economy, 2006) defines a “knowledge economy” as an economy when the sustained use and creation of knowledge are at the centre of its economic development process. The prosperous transition to a knowledge economy involves elements such as making long-term investments in education, developing innovations capability, modernizing the information infrastructure and having an economic environment that is conducive to market transactions. The result will be higher-value-added products, which increases the probability of prosperity in the current highly competitive and globalized world economy.

3. Overview of the Korean Rapid Development after 1960

The overview is based on following papers: Korea's Economy (2000) and Lee (2008). Information and data concerning the development of human capital and technological progress were obtained from Korea as a Knowledge Economy (2006).


However, the admirable way to industrialization and rapid growth of the living standard began in the early 1960s with the introduction of the First Five-Year Economic Development Plan. The government policy shifted from import substitution to export orientation. The substance of the pro-export policy was to promote export of labour-intensive light industry products (textiles, bicycles) because these branches were competitive due to cheap labour costs. The government uses steps such as maintaining high interest rates to support savings or enacting the Foreign Promotion Act to stimulate foreign investors to come.
Exporters were encouraged with direct export subsidies, tax exemption or export loans with lower interest rate. We can mention devaluation of the Korean Won by almost 100 percent in 1964, which was an extraordinary incentive for Korean export.

Although many domestic conservative economists disagreed with this strategy, the results came soon and were impressive. The average growth rate at this period reached 8.7 percent. The real value of Korean exports increased by 30 percent per year and the share of export in GNP grew from 6 percent to 30 percent in 1973. Another important feature of the Korean upturn at this period was a dramatic structural change: the share of agricultural sector decreased from 37 to 25 percent, the share of the mining and manufacturing grew from 16 to 26 percent. The Korean government managed to solve the problem of post-war inflation; the inflation rate dropped under 10 percent and after 1965 stayed in single-digits.

We can say that the 1960s was the crucial period of the Korean way into the category of developed countries. Nevertheless, after this successful stage, Korea got into difficulties in the early 1970s. The collapse of the Bretton Woods system and subsequent fluctuation in exchange rates had a devastating impact on the Korean balance of payment. The economic situation was further aggravated as a consequence of commodity shortage and the oil shock during 1972 – 1974. The inflation rate jumped to 20 percent in 1974, Korea had a persistent deficit in current account and foreign debt rose very quickly.

The Korean government reacted to adverse international conditions with the Third Five-Year Plan (1972 – 1976). This new strategy redirected the economy to the heavy and chemical industry. The technologically sophisticated industries were strongly supported. As a consequence, extensive investment programs were introduced to encourage branches such as shipbuilding, steel, petrochemicals and electronics as well. The results of this strategy are disputable: on the one hand new perspective products were developed, on the other hand, excessive corporate debts and nonperforming loans were accumulated.

In spite of some positive aspects and a recovery in the second half, the 1970s aren’t valued as a particularly successful stage. Moreover, this period was ended with the unfavourable year 1980, when the Korean economy declined by 2.7 percent. The worst GDP result since 1957 was caused by external (the second oil shock) and internal (murder of President Park in October 1979) factors.

After the critical year 1980, Korea reached fast recovery and stabilization of the price level. The GDP growth rate was 6.2 percent a year later and 12 percent in 1983. The highly
valued economic adjustment was connected with a shift in policies from the strategy of direct intervention to indirect guidance. So the 1980s can be labelled as the period of liberalization. Within the liberalization program commercial banks were privatized, entry barriers into the financial sector were lowered, restrictions on foreign direct investments were loosened etc. Simultaneously, the system of higher education expanded thanks to investments in Korean research and development through the establishment of the National Research and Development Program.

The economic liberalization and deregulation was accompanied by a relaxation of the political regime. The gradual democratization process culminated in 1987 when the new constitution was adopted and free elections were held. The democratic Korea experienced an exceptional economic prosperity. During the period 1986 – 1992, the average growth rate was 9.2 percent, the average rate of inflation remained under 6 percent and the unemployment rate sank to the level of 2.5 percent in 1988. In spite of some troubles in the early 1990s (a slightly higher inflation, repeated deficit of current account), the Korean economy continued in its rapid development. The growth reached almost 9% rate in 1994 and 1995, the inflation rate stayed at a 4% level and the unemployment rate amounted to unprecedented 2 percent. Korea also went on to pursue high-value-added manufacturing by promoting high-technology innovation. The completion of the Korean journey into the society of advanced economy was confirmed with the accession to the OECD in 1996.


From one point of view, in the 1990s Korea had an advanced competitive market economy with a four-decade-long tradition of rapid sustainable growth.

At the beginning of the crisis, the macroeconomic data indicated that the Korean economy was found in a rather good condition. In 1996 and 1997, the public finance was almost in balance. The current account deficit was improved to less than 2 percent of GDP. The rate of inflation remained below 5 percent, the 6% growth rate was expected, the rate of savings exceeded 30 percent etc. From this – macroeconomic – point of view, Korea seemed to be a well-managed economy and for that reason, the financial crisis in Korea was such a big surprise to the markets (Hahm and Mishkin, 2000).
From another point of view, there were hidden quite a lot of potentially problematic issues in the Korean economy. These seamy sides were revealed during the financial crisis that hit Korean economy in 1997 and 1998.

This point of view could be found for example in the World Bank report *Korea as knowledge economy* (2006). The text points out limitations of the Korean model in the era of globalization and dynamic technological changes. The Korean mechanism of resource allocation with the strong and discretionary power of the government had been effective when the economy started its rapid development. However, when the economy became larger and more complex, it neared its limits. The crisis demonstrated the limitations of discretionary resource allocation and highlighted the necessity for comprehensive reforms. The old institutions and policies that had been so convenient in the early high-growth period turned out to be bottlenecks for a successful development in the new economic environment.

Naturally, it is also possible to find some external factors that had an impact on Korean difficulties during the crisis. Japan, Korea’s most important export market, fell into a recession in 1996 and the Japanese yen depreciated strongly against dollar (and therefore against won). It was one of the reasons for a worsening of the Korean export in 1996 (Noland, 2005). And obviously, there was a momentous influence of a crisis developing in other countries in the region. Nevertheless, the most important causes originated in the Korean economy.

During the 1990s, the Korean economy became vulnerable to adverse shocks. Main sources of the increased vulnerability were an excessively short-term oriented external debt structure combined with inadequate foreign exchange reserves and a highly leveraged corporate financial structure (*Korea’s economy*, 2000). The official data presented by Ministry of Finance show the problem of Korea’s external liabilities.
M. Noland (2005) points out an investment boom between 1994 and 1996 that was increasingly financed by foreign borrowing as a result of the financial liberalization in the 1990s. A significant share was invested in industries with excess capacity and in the mid 1990s, Korea recorded a decelerating total factor productivity growth, a deterioration of trade and decreasing profitability.

Hahm and Mishkin (2000) offer an elaborate survey of causes of the Korean financial crisis using the above mentioned asymmetric information analysis. According to their approach, the deterioration in financial sector balance sheets is probably a significant factor causing financial crises. The Table 2 shows three officially published indicators of balance sheets. The official data demonstrate a moderate deterioration in bank balance sheets before the crisis. They got worse rapidly as late as in 1997: below the minimum 8% BIS and 4% capital to asset ratio. However, the Table 3 presents more realistic author’s calculations that include latent non-performing loans. These calculations indicate that the total bank asset ratio was at a lower level than according to official statistics.
Similarly, both the return on assets (ROA) and return on equity (ROE) of domestic commercial banks decreased during 1994 – 1997. It also implies that the profitability of the banking sector had a declining tendency at the beginning of the crisis.

It is interesting that unlike the forecasters, the stock market managed to become aware of the long-lasting latent bad loan problems in the balance sheet. The aggregate index and index for banking industry was developing in a very similar way until 1993 but from 1994, the bank stock price index started to fall behind very significantly.

As we mentioned above, the highly leveraged corporate financial structure was another important source of structural vulnerability. Hahm and Mishkin analyse this problem elaborately as well. We can summarize that similarly as in the banking sector, the debt and profitability indicators worsened during the 1990s and especially in 1996, there was a sharp decline in corporate profitability.


Some indications of impending difficulties could be seen in 1996, the market stock experienced its peak even in 1994. However, a real turn in economic conditions came with the
fall of Hanbo Steel due to its debts in January 1997. The fourteenth largest chaebol was the first one that went bankrupt in more than a decade. In addition, this collapse was soon followed by the failures of two more chaebol. It was obvious that the long-lasting era of too-big-to-fail policy was just about to end. Consequently, the interest rates in the large corporate bond market went up and a similar process occurred in the government market. It is possible to say that the markets were signalling an increase in Korean country risk (Noland, 2005).

With the vulnerability of the Korean financial system and the situation in other countries in East Asia, Korea started to be threatened by speculative attacks against the domestic currency. The attacks became more serious with the collapse of Asian market stocks and downgrading Korea’s rating. From October until the end of the year won depreciated by 47 percent. With the sharp depreciation of won and with an effort to solve this problem, the market interest rate rose to over 20 percent (Hahm and Mishkin, 2000). This process had a serious negative impact on the economic activity but especially on investment. During the crisis, sales fell by 20 percent while investment fell by nearly 100 percent. (Gilchrist and Sim, 2007).

Korean authorities spent billions of dollars in their effort to defend the currency. However, the foreign reserves of Korea were almost depleted within a few weeks and on November 21, 1997, the government announced that it would seek emergency loan from the International Monetary Fund. (Korea’s economy, 2000).

The IMF and other donors provided a $57 billion package, the largest in history, nevertheless, in return for broad reforms. The agreement was promptly criticised by both Korean politicians and economists: The former refused the interference in internal affairs; the latter were sceptical about eventual implementation of the reforms. In the meantime, the prices of Korean assets fell down. On December 18, Kim Dae-jung was elected the new president who resumed negotiations with the Fund, which led to the second rescue package. On the other hand, the IMF extracted important policy commitments including a restrictive fiscal and monetary policy and a broad spectrum of structural reforms. (Noland, 2005).

### 6. The Korean Reforms after the Crisis

Nowadays, we can hear quite often: the crisis is an opportunity. As regards the Korean financial crisis 1997 – 1998, this claim is valid because Korea managed to realize real long-term causes and above all, Korea approached deep reforms indeed. Generally, we can divide
the Korean reforms into two directions: direct measures in the financial sector and broader structural reforms.

Based on their asymmetric analysis that provides an explanation of the Korean financial crisis, Hahm and Mishkin (2000) speak about implying lessons for policymakers. The lessons are particularly pertinent in the area of prudential supervision. Promoting strong prudential supervision to prevent excessive risk taking which can lead to deterioration in financial sector balance sheets is crucial for preventing financial instability. The authors state eight principles for establishment of a strong regulatory system.

- Adequate resources and statutory authority – without the resources, the bank supervisory agency will not be able to monitor sufficiently the risky activities of banks.

- Prompt corrective action – a regulatory forbearance that lets overextended companies in operation sharply increases moral hazard incentives to engage in risky activities. Therefore, a fast action to stop these activities and possibly to close down insolvent institutions is a key measure.

- Focus on risk management – because of a rapid development of financial innovations, the traditional approach to bank supervision that focuses on the quality of the bank´s balance sheet has been no longer adequate.

- Independence of the bank regulatory agency – the independence from the political process is an important precondition for resolute actions.

- Accountability of bank supervisors – the regulator does not have the same motivation as the taxpayer (who provides money into the system of regulation). The potential principal-agent problem can be solved if bank supervisors are made accountable and have sufficient incentives to do their job properly.

- Use of market-based discipline – two additional measures can help increase market discipline: to require that banks have credit ratings and issue subordinated debt.

- Limiting too-big-to-fail – this policy significantly increases the moral hazard problem. A possible partial solution of this problem is to announce that when there is a bank failure, uninsured creditors will not be fully protected. Another possibility is to work with the presumption that in serious problems, companies will not be treated as too-big-to-fail.
Entry of foreign banks – it presents a chance to strengthen the banking system. Foreign banks have more diversified portfolios and use funds from all over the world. Therefore, they are exposed to fewer risks and are less vulnerable to negative shocks from the domestic economy.

We can claim that many of these recommendations were implemented. The Non-Performing Asset Resolution Fund was set in November 1997. Its aim was to clear bad loans from the accounts of financial institutions. In April 1998, an independent authority, the Financial Supervisory Commission (FSC), was established to integrate supervisory and regulatory mechanism over banking, securities and insurance sector. The FSC and its part, the Financial Supervisory Service (FSS), were equipped with statutory authorities including the power to instruct mergers, write-offs and closures of problematic financial companies.

Korea also respected a recommendation of corrective action (although not immediately). In June 1998, two important banks, the Korea First Bank and the Seoul Bank, were recapitalized by the government and then sold off to foreign investors. Five insolvent banks were closed down and other six were merged into three large banks. Sixteen merchant banks were shut down and the remaining fourteen had to carry out clearing of bad loans through an increase in equity capital. The licenses of a few security companies, insurance companies and investment trust companies were revoked. The bankruptcies of large banks and chaebol disturbed rooted expectations of too-big-to-fail policy. From August 1998, a guaranty of deposits was limited as well.

On the contrary, the supervision of risk management in Korean banks and the accountability of supervisors have remained the problematic issues from the list of policy lessons.

Apart from the area of the prudential supervision in the financial sector, there were many reforms in other part of Korean economics. The corporate sector reforms were also relatively closely connected with the financial crisis. They had two main aims: to reduce the oversized corporate debt and to establish a more transparent management. Unlike in the past, the government focused especially on improving the legal and institutional environment and ended with favouring of large companies. And it was important that chaebol agreed with the process of their restructuring. To be specific, we can mention that the FSC set new accounting and auditing rules according to the international standards; legal protections for minority shareholders were strengthened etc. (Korea’s economy, 2000).
Other sets of reforms were related to the liberalization of the Korean rigid labour market and the inefficient public sector. However, we draw our attention to the development of a knowledge economy. The Word Bank’s study “Korea as a Knowledge economy” (2006) states that in 1998, Korea officially started a campaign to make a transition to an advanced knowledge-based economy in which domestic innovations can be a main source of sustaining economic growth. In this sense, the economic reforms since 1997 had three main objectives:

- To transform Korea into a market-oriented economy by deregulating across the sectors and thereby supporting competition, accompanied by a modern regulatory framework,
- To better the institutional system by improving the rule of law and by having higher transparency in Korean economy,
- To continue the transition to the knowledge-based economy by developing a modern legal and institutional infrastructure in areas such as intellectual property rights or valuation of incorporeal assets.

The emphasis on the development of knowledge economy can be seen from the total expenditure on education. Its share of GDP reached 7.1 percent in 2002, a much higher level than the OECD average of 5.8 percent. Korea only fell behind Iceland, United States and Denmark in this regard. As was mentioned in the introduction, Korea has an analogous position in terms of investment in knowledge. Similarly, Korea is a world leader in using internet and computer technology.

7. Conclusion

The current uncertainty in the world economy presents a challenge for the Korean economy. However, compared with the financial crisis 1997 – 1998, the Korean economy faces the challenges from a better position: both the financial and corporate sector is in a relatively good condition and foreign exchange reserves are high (Lall and Eskesen, 2009). We can say that the Korean economy is much less vulnerable to foreign exchange risk than in the 1990s. Despite the uncertainty about the recovery of world economy, we can expect that Korea will be among the first countries that will restore the economic growth when global trends turn.

And the latest data validate these statements convincingly: the Bank of Korea announced that the GDP grew by 2.9 percent in the third quarter compared with the previous
quarter when it expanded by 2.6 percent. It has been the strongest growth since an expansion of 3.8 percent in the first quarter of 2002. Concurrently, the unemployment rate fell in September to a level of 3.4 percent. These results are unrivalled among the OECD countries.

It is obvious that the present Korea’s position has been a consequence of broad structural reforms that were implemented after the previous financial crisis. These reforms strengthened Korea’s flexibility and resilience that are so important for a highly open economy in the era of globalization. Nowadays, we often hear that a crisis represents an opportunity. Korea is an example of a country that was truly able to utilize such an opportunity. A crucial fact is that Korea did not limit itself only to reforms of the affected financial sector. On the contrary, the country started to build a knowledge economy and we can claim that it has been successful.

When we compare this with the current situation in the Czech Republic, we can see an essential difference. The Czech Republic has been successfully solving immediate consequences of the crisis. However, the mid-term perspective is not very optimistic. Only a mild recovery in 2010 and 2011 is expected and more and more voices warn that the Czech Republic and possibly the whole region has to forget the rates of growth of about 5 percent. The procrastination with the reforms is a fundamental argument to these opinions. Therefore, the Korean transition to the knowledge economy that was initiated after the financial crisis 1997 – 1998 could be an inspiration for Central European countries.
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