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**Working Paper**

## The Republic of Korea's economy in the swirl of global crisis

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**ADB Working Paper Series**

**The Republic of Korea's Economy  
in the Swirl of Global Crisis**

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**Abstract**

This paper argues that the Republic of Korea (hereafter Korea) is not immune to global crises, but that a more than proportional response of gross domestic product to global crises does not seem to be the general case either. Along this line of reasoning, Korea's extreme response to the current crisis in the fourth quarter of 2008 was attributed not only to the crisis in the United States, but also to additional idiosyncratic components, such as the extraordinary collapse of the People's Republic of China's (PRC) imports and the drastic capital outflow from Korea.

The paper also emphasizes the differences between the current recession and the currency crisis period. The currency crisis was mainly attributed to the internal fragility of Korea's financial market, but the current recession was caused mostly by external shocks. This difference was clearly reflected in the different responses of private consumption and exports, and hence employment. In the dimension of macroeconomic policy reactions, monetary policy was far more flexible this time than during the currency crisis period.

From this analysis, two implications are drawn. First, as far as the economic response of the fourth quarter of 2008 being more extreme than necessary to rebalance the macroeconomic fundamentals in Korea, it is expected that those economic losses can be recovered relatively soon. Yet, for a more visible recovery of the Korean economy, the recovery of the PRC's domestic demand seems necessary, and a full-blown recovery will be in line with the global recovery. A second implication is that structural aspects are critical for maintaining economic stability as well as employing flexible macroeconomic policies. While the Korean economy plunged into a historic crisis in 1997—triggered by the relatively small external shock of the Thai baht crisis—the economy is expected to remain relatively robust this time, even in the midst of the most serious global crisis since the Great Depression.

**JEL Classification: E32, E44, F41**

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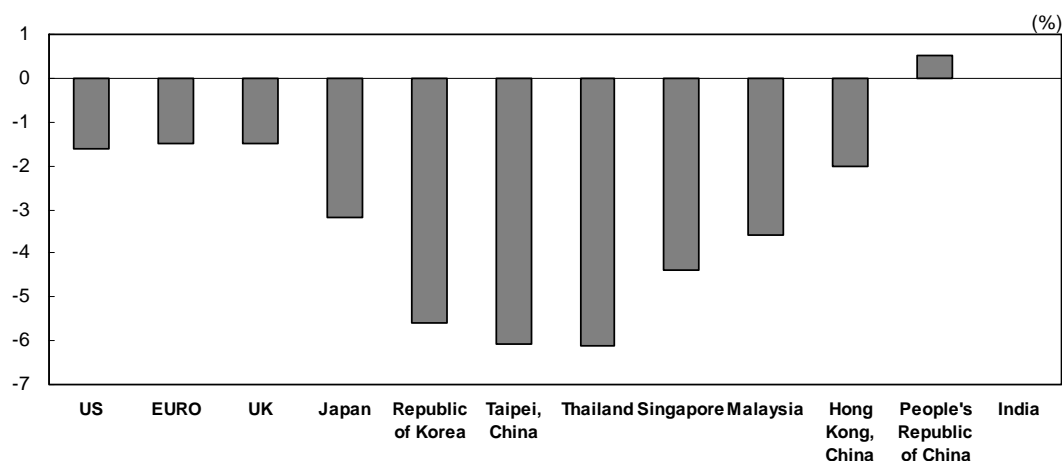
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## 1. INTRODUCTION

The financial crisis that began in the United States in the summer of 2007 has turned into the most far-reaching international financial and economic crisis since the Great Depression. Following the September 2008 bankruptcy filing by Lehman Brothers, the global financial market plunged into a panic. Not one country was immune to the negative effects arising from this global financial turmoil and the resulting contraction in demand. The Republic of Korea (hereafter Korea) was no exception.

More precisely, Korea was one of the countries that were most severely hit by the global shock during the fourth quarter of 2008. Figure 1 compares the fourth quarter growth rates (quarter-to-quarter) of major advanced economies and several Asian economies. A casual look at this figure is likely to give the impression that a devastating crisis broke out in Asia centering on Korea; Taipei, China; Thailand; and Japan, and the adverse effects then spread to other regions such as the United States (US) and Europe. However, the truth is quite the opposite: the current crisis originated in the US, not the Asian economies.

**Figure 1: (Quarter-to-Quarter) Growth Rates of the Fourth Quarter of 2008**



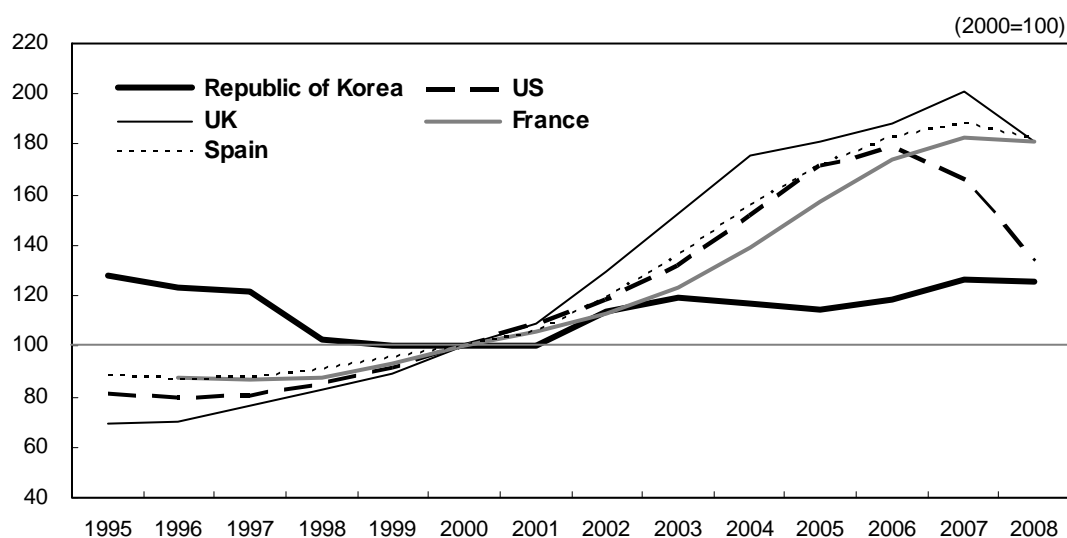
Note: For the countries (Taipei, China; Thailand; Malaysia; Singapore; People's Republic of China (PRC); and India) in which official quarter-to-quarter growth rates are not available, estimations were made by the formula,

$$g_t = G_t - G_{t-1} + \bar{g}_{t-4},$$

where  $g_t$  is quarter-to-quarter growth rate,  $G_t$  is year-on-year growth rate, and  $\bar{g}_{t-4}$  denotes the average quarterly growth rate of the past three years.

Source: Bureau of Economic Analysis (US), EUROSTAT (EURO, UK), Cabinet Office (Japan), Bank of Korea (Republic of Korea), Bloomberg (Taipei, China; Malaysia; India), Singapore Department of Statistics (Singapore), Census and Statistics Department (Hong Kong, China), National Bureau of Statistics of China (People's Republic of China).

These recent events surprised many commentators who believed that the adverse impacts from the developed countries on Asia would be contained within a manageable range. Asian economies experienced painful restructuring processes during the recovery from the crisis that broke out in the late 1990s, and their economic structures were believed to have become sounder as a result. For example, the large foreign currency reserves in the region have often been referred to as comfortable safeguards against external shocks. As for the housing price bubble, which directly caused the current global crisis, the problem was far milder in Asia than in the US and Europe. Figure 2 shows that house prices in Korea have been far more stable than those of developed countries, excluding Japan.

**Figure 2: Real House Prices**

Source: Kookmin Bank (Republic of Korea), Standard and Poor's, S&P/Shiller Case (US), National Institute for Statistics and Economic Studies (France), Banco de Espana (Spain), Nationwide (UK).

Having observed the current collapse of Asian economies some experts, for example Takatoshi Kato (2009), have declared that myths about Asian economies like “business cycle decoupling” have been dismantled. For the Korean economy in particular, the worse than expected performance of the fourth quarter of 2008 raised many issues. Should this collapse of economic activities be interpreted as a signal of another crisis like the one that hit Korea 10 years ago? Has Korea learned any lessons from the previous financial crisis? If so, why was Korea hit so severely by this global shock? How different are the policy responses this time from the previous crisis? What are the short-term prospects for the Korean economy? Will it be affected by the global rebalancing process?

It is impossible to rigorously answer all of these questions in a single paper. However, this paper will attempt to sketch the arguments related to these important issues with some circumstantial evidence. Following this introduction, Section 2 briefly explains the current situation of the Korean economy, focusing on what happened in the fourth quarter of 2008. Section 2 also discusses several factors that can help explain why Korea was hit so severely. Next, Section 3 compares the current recession with the currency crisis period from various perspectives, such as the depth of the recession, the structural aspects of the economy, and macroeconomic policy reactions. Section 4 discusses the prospects for the Korean economy, including the issue regarding exports vs. domestic demand and domestic savings rate. Section 5 summarizes the paper with some comments.

## 2. CURRENT RECESSION OF KOREA'S ECONOMY

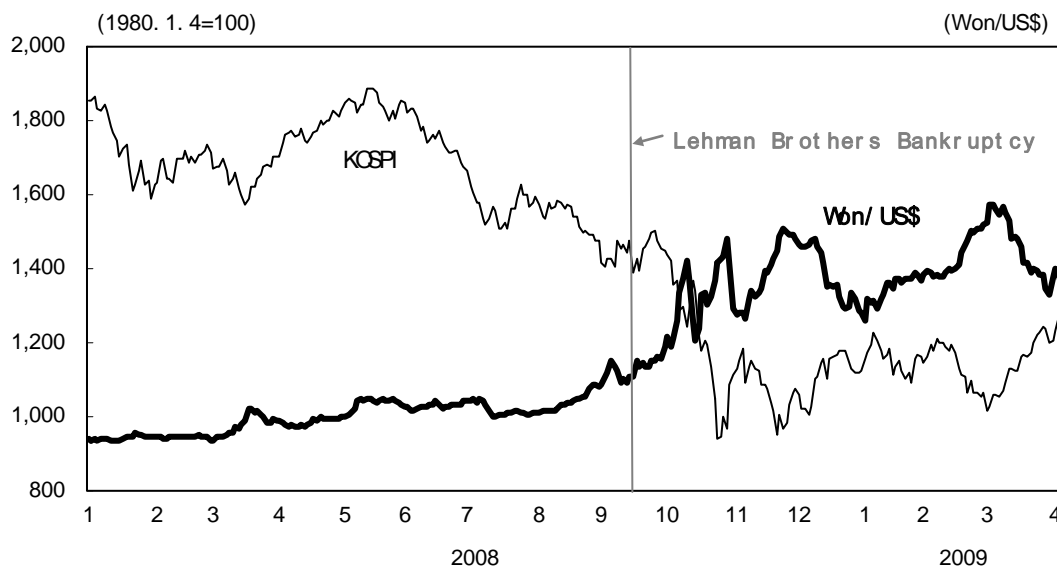
### 2.1 Collapse of Economic Activities in the Fourth Quarter of 2008

Despite the global slowdown caused by the US sub-prime mortgage crisis, the Korean economy maintained a reasonable pace of growth until the third quarter of 2008. Domestic demand gradually slowed in the third quarter, mainly due to soaring oil prices and the resulting loss of purchasing power, but exports had maintained a solid expansion rate. In fact, third quarter exports increased by 27% compared to the same quarter of the previous year.

However, the Korean economy plunged into a severe recession in the fourth quarter, following the panic in the global financial market. From the second half of September 2008,

stock prices collapsed and the won/dollar exchange rate soared (expressing a sharp currency depreciation of the won). Credit markets became significantly crunched and the resulting impacts on domestic demand began to appear in October. Equipment investment collapsed and private consumption declined by a substantial margin.

**Figure 3: Stock Prices and the Won/Dollar Exchange Rate**

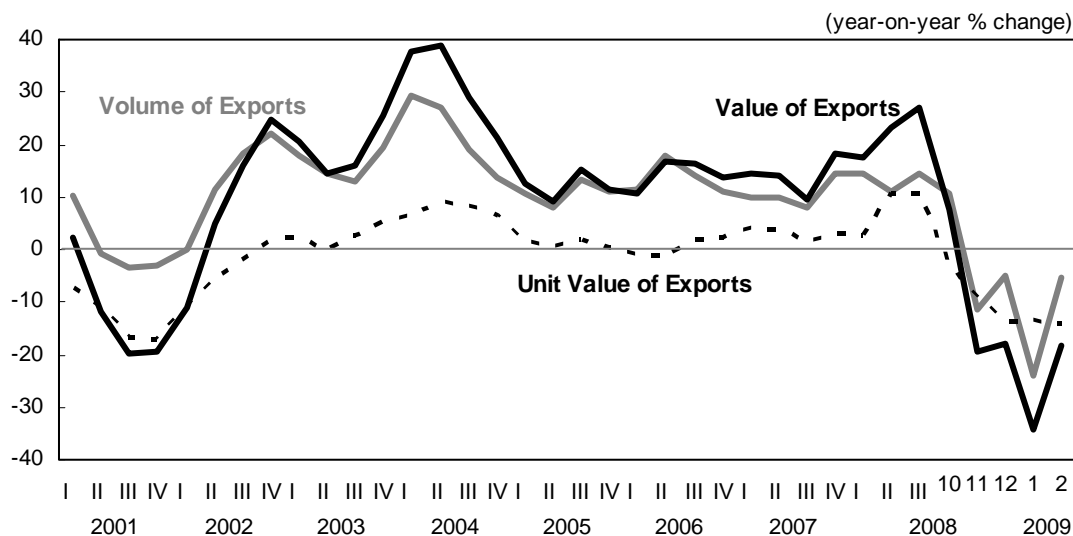


Source: Bank of Korea (Republic of Korea).

On top of the contraction in domestic demand, exports also began to collapse in October 2008. Though export demand was expected to contract due to the global crisis, its rate of contraction during the fourth quarter was truly shocking. The year-on-year (month-to-month) growth rate of exports collapsed from 27.6% (-3.1%) in September to 7.8% (-2.6%) in October and further to -19.5% (-22.2%) in November. Although a substantial portion of the export collapse was due to the global deflation in the prices of traded goods, this collapse in export revenue raised concerns about Korea’s capability to earn hard currencies and aggravated already unstable investor sentiment in the currency market. As a result, in the fourth quarter the Korean economy recorded a growth rate that was much worse than expected.



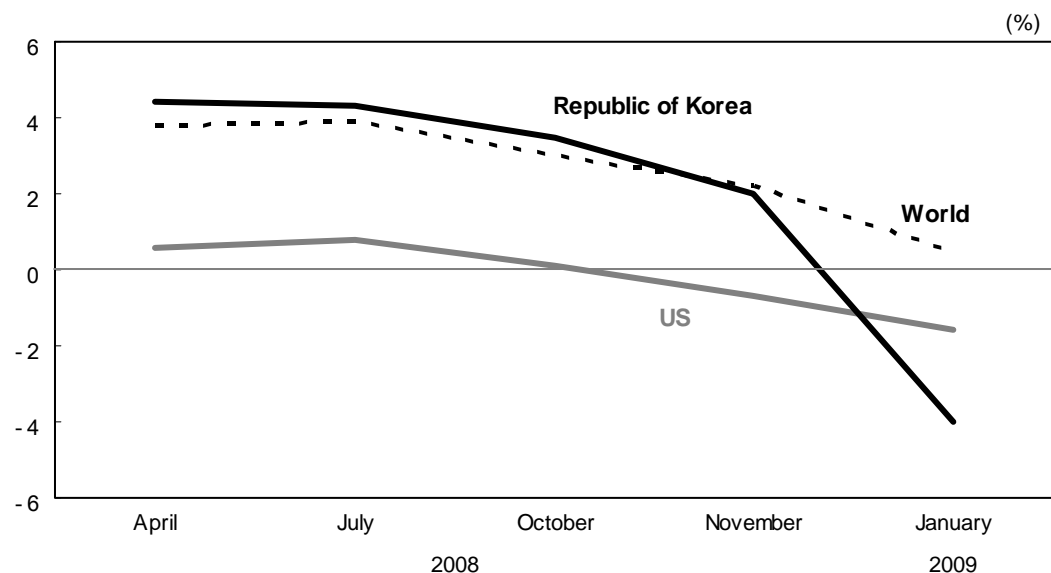
**Figure 4: Export Growth Rate**



Source: Korea Customs Service, Ministry of Knowledge Economy, Bank of Korea (Republic of Korea).

Upon the announcement of the fourth quarter growth rate (-5.6% quarter-to-quarter), the International Monetary Fund (IMF) substantially downgraded the forecast for Korea's 2009 growth rate from 2.0% in November 2008 to -4.0% in January 2009, while downgrading other countries' growth rates more mildly. The drastic downgrade of Korea's growth forecast showed the surprise with which the Korean fourth quarter growth rate was received.

**Figure 5: Revisions of IMF's Forecasts on 2009 Growth Rates**



Source: IMF World Economic Outlook April, July (update), October, November (update), January (update).

## 2.2 Factors for the Collapse in the Fourth Quarter of 2008

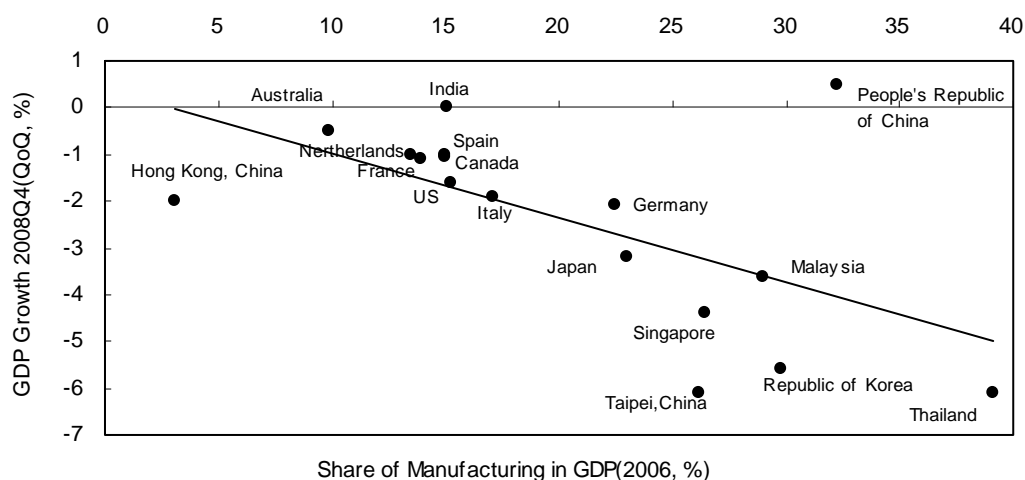
### Korea's High Dependence on Trade Sectors

The most plausible explanation for the Korean economic collapse in the fourth quarter of 2008 is the economy's heavy reliance on exports, or more precisely, trade sectors. A leading example for this line of explanation is the IMF's position note written by Martin Sommer (2009). Using the portion of (high-tech) manufacturing industries in a country's gross

domestic product (GDP) as a proxy variable for the country's dependence on exports, he established a strong negative relationship between this variable and the fourth quarter growth rate, and provided a straightforward but convincing interpretation.

Figure 6 reproduces the negative relationship found in Sommer (2009) with the portion of high-tech manufacturing industries substituted by the whole manufacturing sector. Clearly, Korea, along with other Asian countries, was heavily reliant on the manufacturing sectors and was most severely hit in the fourth quarter of 2008.

**Figure 6: Growth Rates in the Fourth Quarter of 2008 and the Share of Manufacturing**

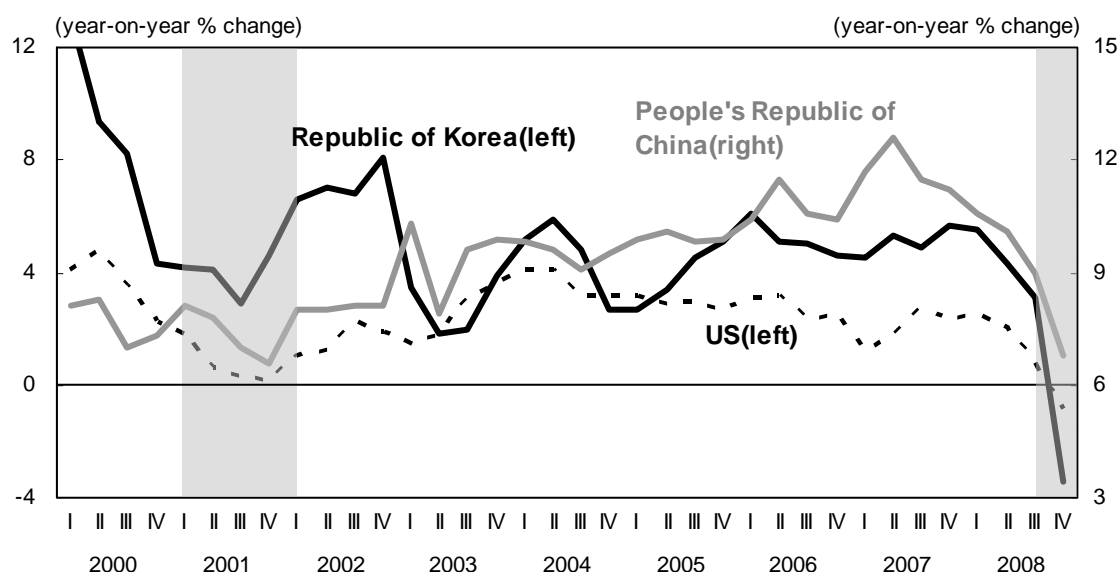


Source: OECD (Canada, France, Germany, Italy, Japan, Netherlands, Republic of Korea, Spain, US), Cabinet Office (Japan), Census and Statistics Department (Hong Kong, China), Singapore Department of Statistics (Singapore), Bloomberg (People's Republic of China; India; Malaysia; Taipei, China; Thailand).

Nevertheless, the question still remains: could it be expected, *ex ante*, that Korea's GDP would contract three times as much as the crisis-originating countries, considering its heavy dependence on exports? Formal analyses indicate that there are no clear reasons to expect developing countries to respond more than proportionally with respect to the crisis of developed countries through trade channels alone. An estimate by the IMF (2001: 80) shows that "a 1.0% change in real GDP growth in the G-7 countries is associated with a 0.4% change in growth in developing countries." As for Korea, simulation exercises conducted by the Korea Development Institute (KDI) using a macro-econometric model produced the result that Korea's GDP shrunk by approximately 0.8% when world GDP declined by 1.0% (KDI 2008). If Korea is twice as exposed to tradable manufacturing sectors as the average developing country, then this result appears to be consistent with the conclusions of the IMF report. In fact, the regression coefficient is close to one for the data set in Figure 6, indicating that the growth response to a trade shock doubles when the share of manufacturing sectors doubles. Nonetheless, past experiences do not seem to systematically explain the more than proportional response of the Korean economy to the global financial crisis.

A simple reading of Figure 7 also does not yield the impression that Korea should respond more than proportionally to the US recession. In fact, Figure 7 shows that the recession in 2001 seems to be relevant to the current situation. The recession in 2001 was triggered by the information technology (IT) bubble bust in the US, while the housing price bubble bust in the US triggered the current recession. The recession in 2001 was also accompanied by a contraction of global trade that severely affected Korea's export sector. More specifically, the 2001 recession saw a deep contraction in demand for IT products, a major export item of Korea as well as other Asian countries. Nevertheless, in 2001, Korea managed to maintain a reasonable 4.0% growth rate in spite of the sharp contraction in exports, which was far higher than those of advanced countries.

**Figure 7: Growth Rates of Korea, the People’s Republic of China, and the US**

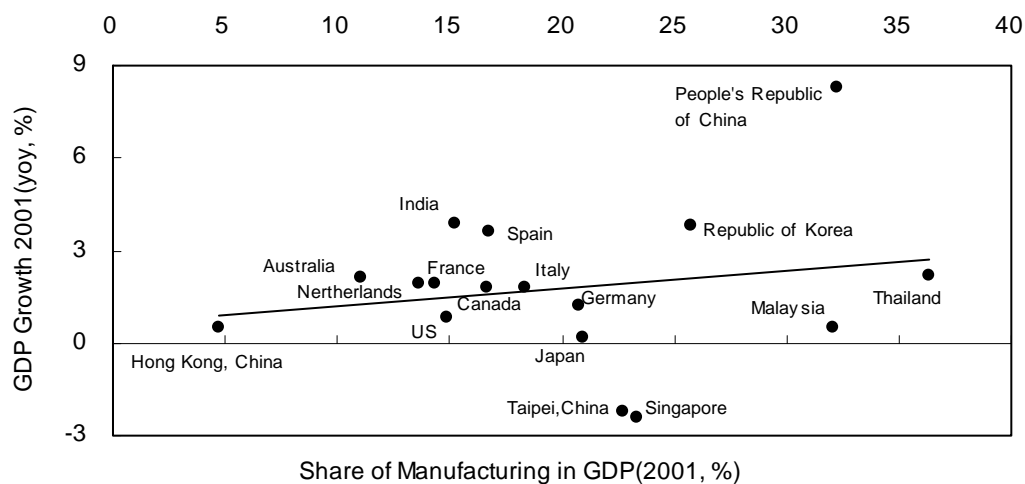


Source: Bank of Korea (Republic of Korea), Bureau of Economic Analysis (US), National Bureau of Statistics of China (People’s Republic of China).

**2.2.1 Additional Factor #1: The Collapse of the Chinese Economy**

So why was Korea hit so severely this time? Figure 7 provides a potential clue to this question, namely the factor of the People’s Republic of China (PRC), which is by far the largest trading partner of Korea and most Asian economies. The Chinese growth rate was not greatly affected by the global recession in 2001. However, with the current crisis the PRC’s growth rate collapsed along with its trade, and the adverse effects spread to the neighboring Asian economies, including Korea.

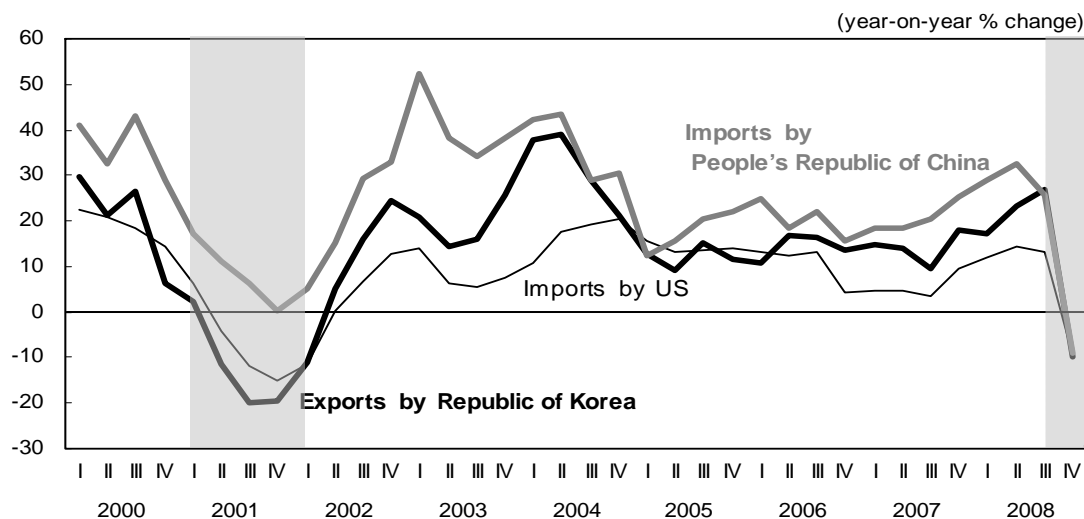
A casual explanation for the sharp contraction of the Chinese economy in the fourth quarter of 2008 is that the recession in the US triggered the collapse of the PRC’s export sector, which in turn caused the collapse of the PRC’s growth as well as imports. This explanation, however, can hardly answer the same question—why not in 2001? Figure 8 reproduces Figure 6 with the growth rate in the fourth quarter of 2008 against that in 2001. This figure shows that it is not a general rule for Asian countries to respond more than proportionally to a US recession, even though their portions of GDP from manufacturing sectors are relatively large.

**Figure 8: Growth Rates in 2001 and the Share of Manufacturing**

Source: OECD (Canada, France, Germany, Italy, Japan, Netherlands, Republic of Korea, Spain, US), Cabinet Office (Japan), Census and Statistics Department (Hong Kong, China), Singapore Department of Statistics (Singapore), Bloomberg (People's Republic of China; India; Malaysia; Taipei, China; Thailand).

If the sharp decline of the PRC's growth rate in the fourth quarter of 2008 was not entirely induced by the recession in advanced countries, there must be an autonomous factor for it. The trend of the PRC's growth rate suggests a possible hypothesis, namely the overheating of the PRC (Figure 7). While there was no symptom of overheating in the PRC before the 2001 global recession period, it appears that the Chinese economy had overheated before the current global recession, particularly in 2006 and 2007 when the growth rates were over 10%. It may then be conjectured that, having accumulated internal fragility due to the overheating, the Chinese economy hysterically responded to the global shock this time, while it did not in 2001. The hysteric response of the Chinese economy provided an additional factor for the collapse in Asia's intra-regional trade in the fourth quarter of 2008. In fact, with respect to the basically same sort of trade shock from the US in 2001, the PRC's trade did not contract as rapidly as that of the US. However, it did contract even more rapidly this time, suggesting a correction of the PRC's domestic economy from an overheated state (Figure 9). As a reference, the export volume of the US contracted by 5.4% in 2001, but the PRC's export volume in the same year expanded by 9.6%.

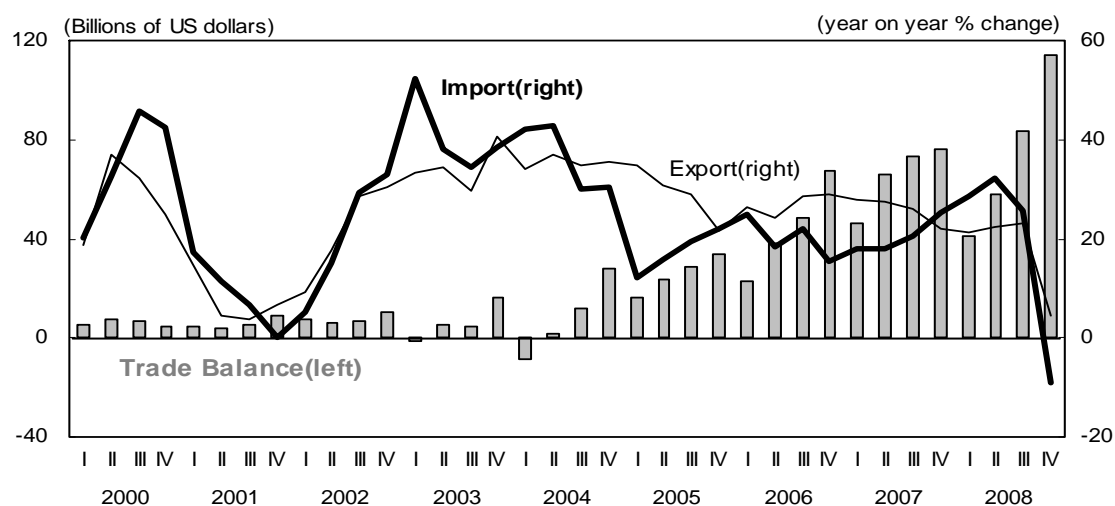
**Figure 9: Growth of Exports by Korea and Imports by the US and the People’s Republic of China**



Source: Korea Customs Service (Republic of Korea), Foreign Trade Statistics (US), National Bureau of Statistics of China (People’s Republic of China).

Another piece of evidence for this hypothesis is the expansion of the PRC’s trade surplus in the fourth quarter 2008 (Figure 9). While the PRC’s exports collapsed, its imports declined even more rapidly, boosting its trade surplus to its largest size ever during the fourth quarter. Apart from a terms-of-trade gain, the widening of a trade surplus is usually interpreted as a sign that domestic demand sectors have contracted more rapidly than export sectors. Thus, the increase in the PRC’s trade surplus may have been surprising to many economists since the PRC, as an important counterpart to the US in terms of the global imbalance, was expected to experience a reduction in the trade surplus.

**Figure 10: Growth Rates of Export and Import, and Trade Balance of the People’s Republic of China**



Source: National Bureau of Statistics of China (the People’s Republic of China).

If there were an autonomous factor for the sharp decline of the PRC’s growth rate and imports, it would help explain the more than proportional contraction of the growth rates in Asian economies, including Korea. A simple reduced-form regression of the Korea’s export growth rate (year-on-year) shows that, even after controlling for US imports, the PRC’s

imports maintain independent explanatory power, while those of the Eurozone and Japan do not:

$$EX_{Korea} = 0.98IM_{US} - 0.20IM_{Euro} - 0.05IM_{Japan} + 0.41IM_{China} + residual$$

(7.66)      (-1.94)      (-0.52)      (7.49)

In the above equation,  $EX_i$  and  $IM_i$  are exports and imports of economy  $i$  (year-on-year growth rate), and numbers in parentheses are t-ratios. This result seems to suggest that at least the PRC's imports are not entirely induced by the economic fluctuations of the US. Also, the coefficient estimate for the PRC's import growth rate appears to be sizable in determining Korea's exports, in that it is almost a half of that for the US. All in all, the surprisingly drastic collapse of Korea's growth and exports in the fourth quarter of 2008 seem to be attributable not only to the import contraction of the US, but also to that of the PRC.

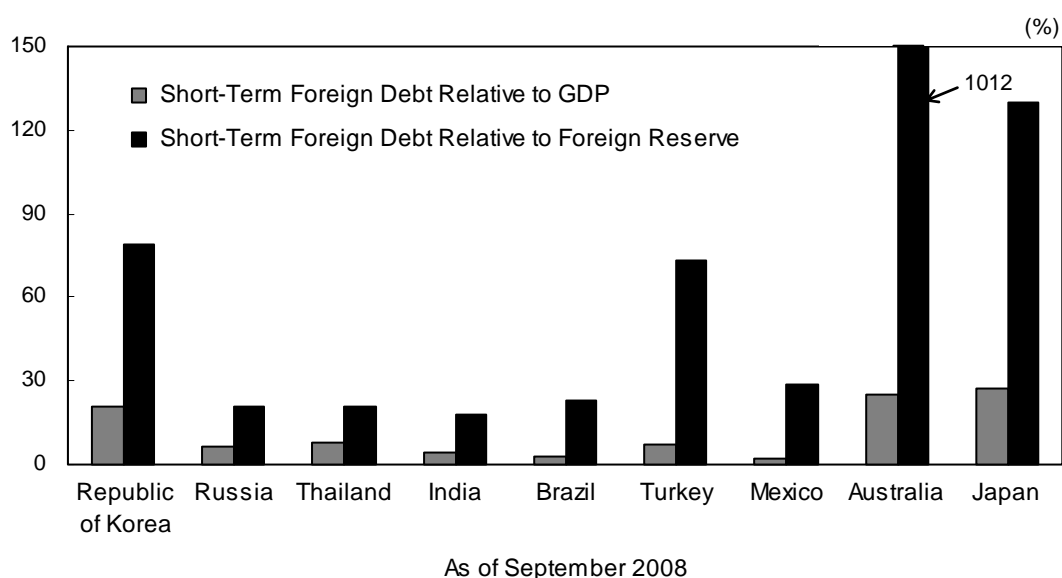
## 2.2.2 Additional Factor #2: Massive Capital Withdrawal from Korea

While the PRC factor may help explain the hysteric response of Asia's trade to the US crisis, it does not seem to be sufficient in explaining why Korea in particular was hit so hard. For this question to be answered, Korea-specific factors accounting for the collapse in the fourth quarter of 2008 need to be identified, in addition to the aforementioned PRC factor.

The abrupt capital withdrawal through the financial channel appears to be a plausible candidate for the Korea-specific factor. An enormous amount of foreign capital flowed out from Korea in the fourth quarter of 2008, depreciating the Korean won by more than 30% vis-à-vis the US dollar. This magnitude of depreciation was the largest among the Asian currencies.

The main reason for this drastic withdrawal of financial capital seems to be the Korean economy's heavy reliance on short-term foreign debt. While Korea holds the sixth largest official foreign reserves in the world, the size of short-term foreign debt is so large that its ratio to foreign reserves is greater than those of other emerging economies (Figure 11).

**Figure 11: Short-Term Foreign Debt Relative to GDP or Foreign Reserve**



Source: Joint External Debt Hub (BIS, IMF, OECD, World Bank), Global Insight.

With this relatively fragile foreign liquidity front, the panic of the global financial market was directly transmitted to the Korean market through the abrupt reversal of foreign capital flow since October 2008. In fact, the size of financial capital withdrawn on net for just October

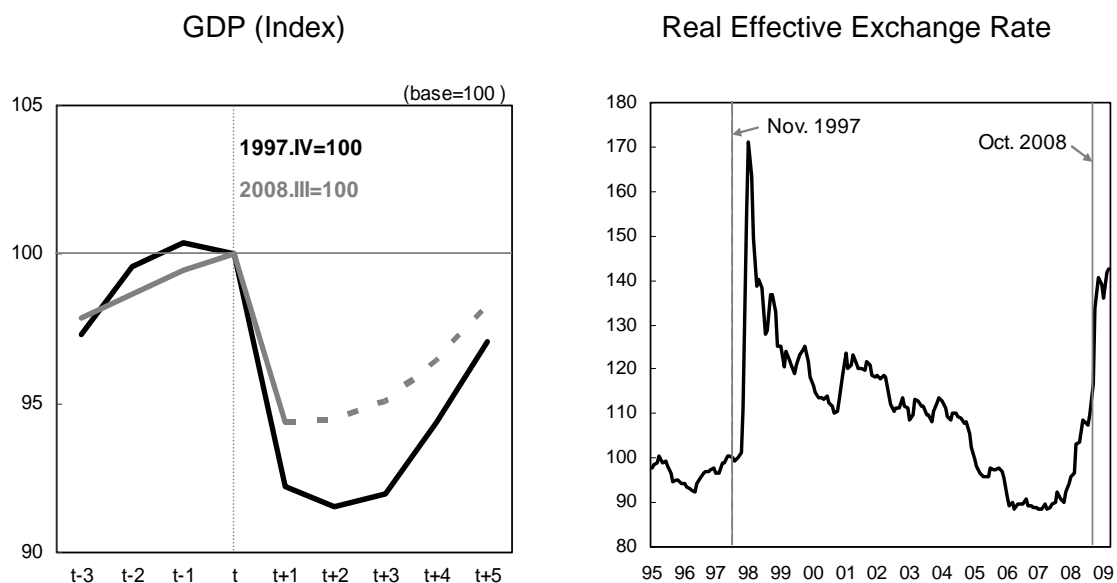
2008 was US\$25.5 billion (more than 3% of annual GDP) which was far larger than the US\$6.4 billion in December 1997, the worst month during the Asian crisis. This flight of capital caused Korea's asset prices to collapse and credit to become severely crunched. Apart from the collapse of exports, disturbances in the financial market provided an additional shock to the Korean economy, particularly with respect to domestic demand such as private consumption and equipment investment.

### 3. COMPARISON WITH THE CURRENCY CRISIS PERIOD

#### 3.1 Major Macroeconomic Indicators: Similarities and Differences

On surface, the current recession in Korea appears to be similar to the currency crisis period: in both periods, the growth rate and the currency value collapsed simultaneously. Figure 12 compares the recent fluctuations of the GDP level (in terms of the indexes that normalize the pre-crisis level at 100) and currency value (in terms of real effective exchange rate) with those during the currency crisis period. The quarter-to-quarter growth rate in the fourth quarter of 2008, -5.6%, was the second worst in the economic history of Korea since 1970 which was approximately two thirds of the worst record, -7.8%, in the first quarter of 1998. The degree of recent currency depreciation was also approximately two thirds of that during the currency crisis period.

**Figure 12: Similarities of the Current Recession with the Currency Crisis Period**

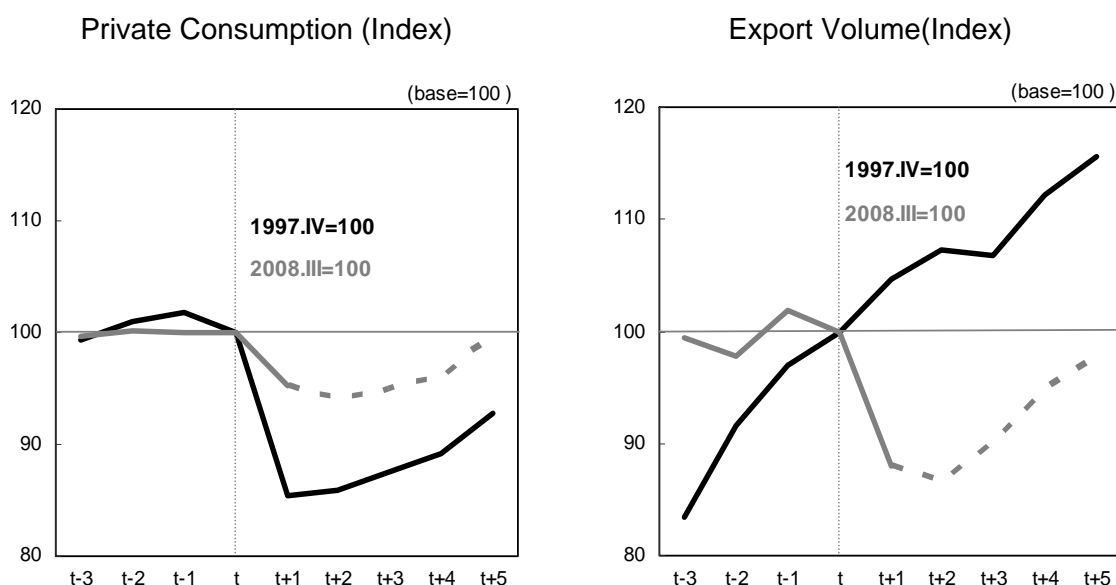


Note: Dotted line denotes author's projection.

Source: Bank of Korea (Republic of Korea), Korea Development Institute.

Though the fluctuations of GDP and currency value appear to be similar, the current recession is qualitatively very different from the currency crisis period in many respects. Above all, the responses of domestic demand and exports are totally different (Figure 13). During the currency crisis period, domestic demand drove the collapse of GDP, while export demand continued to expand. This time, however, it was export demand that drove the economic recession, while the contraction in domestic demand was relatively mild. This sharp contrast in the response of the economy clearly reflects the difference in the source of shocks. While the currency crisis was triggered by the implosion of the internal financial market, the current recession was mainly triggered by the explosion of the external financial market.

**Figure 13: Differences of the Current Recession from the Currency Crisis Period**

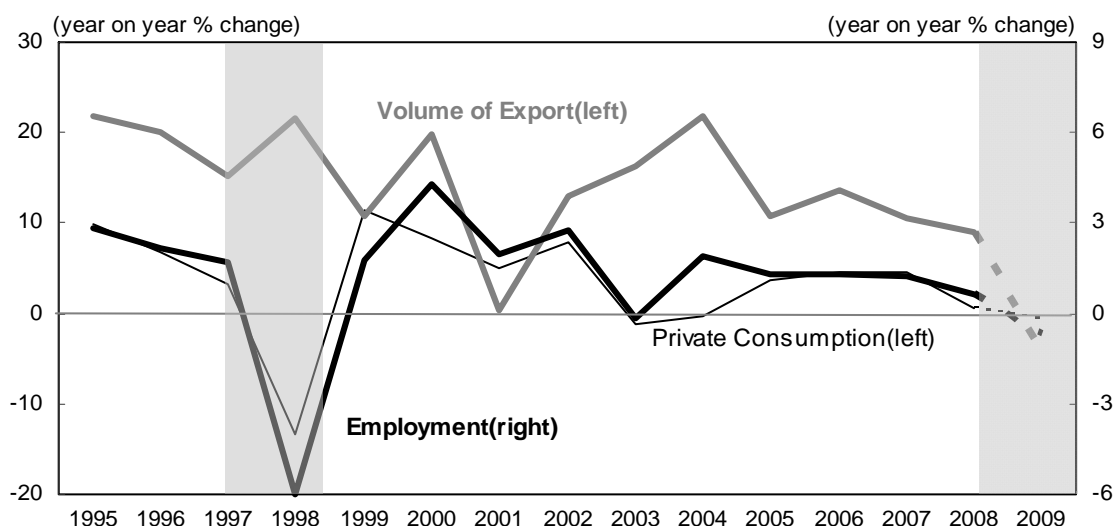


Note: Dotted line denotes author's projection.

Source: Bank of Korea (Republic of Korea).

The difference in the responses of demand components has many important implications. Among them, probably the most important is its implication regarding employment. Previous research, for example Shin and Kim (2008), showed that most short-term employment fluctuation is determined by domestic demand, particularly private consumption, while the effect of export fluctuation is minimal or almost non-existent. Figure 14 clearly shows this pattern. This seems to be the main reason that the loss of employment remains within a manageable range in the current recession, while it explosively expanded during the currency crisis period.

**Figure 14: Employment in Relation to Private Consumption and Export**



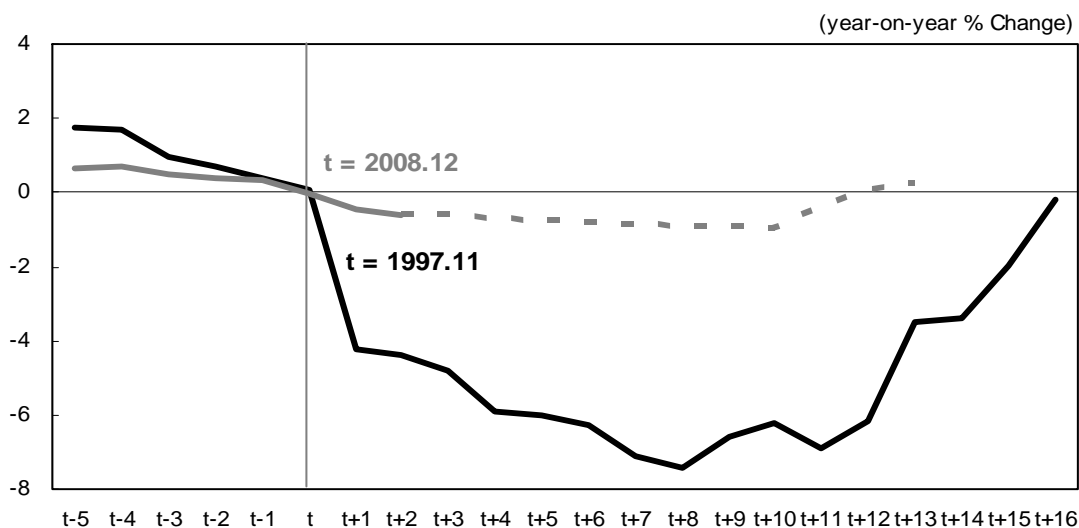
Source: Bank of Korea (Republic of Korea), National Statistical Office.

For example, right after the currency crisis broke out, approximately 870,000 jobs (more than 4% of the total number of workers) were lost during the month of January 1998. The



employment situation continued to be worsened until August 1998 when approximately 1.6 million jobs (7.4% of the total) were lost compared to the same month of the previous year. During the current recession, however, the loss of jobs has been relatively mild (Figure 15).

**Figure 15: Employment Growth, Current Recession and Currency Crisis Period**



Note: Dotted line denotes author's projection.

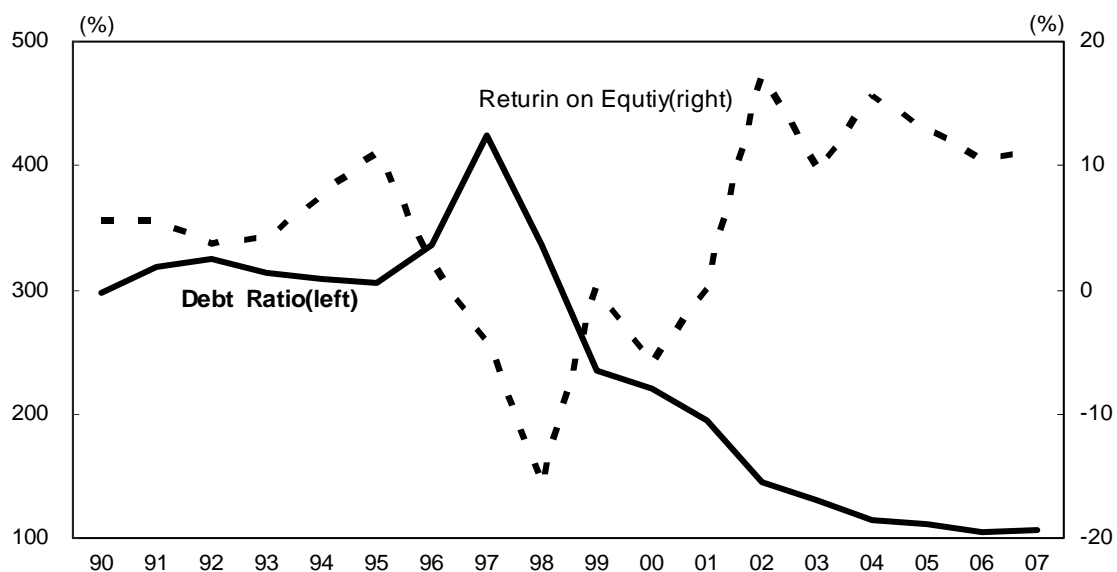
Source: National Statistical Office (Republic of Korea).

### 3.2 Structural Positions of the Economy when the Shock Occurred

Both the currency crisis and the current recession were triggered by external shocks, such as the Thai baht crisis in 1997 and the Lehman Brothers bankruptcy in 2008. However, the severity of the two external shocks is not comparable: the latter was far more severe than the former. Yet despite the disparity in severity, the Korean financial market saw a meltdown in 1997 but not in 2008. For example, in the current crisis no Korean banks have received public money. In fact, this improvement in financial market stability seems to work as a critical element to support domestic demand this time, despite the drastic contraction in export demand.

The improvement of financial market stability can be attributed to the restructuring efforts since the currency crisis. First, the financial positions of the corporate sector were substantially improved in comparison with those during the currency crisis period. The average debt-to-equity ratio of the manufacturing sector was reduced from 424.6% in 1997 to 106.5% in 2008 and profitability of the corporate sector was also greatly improved (Figure 16).

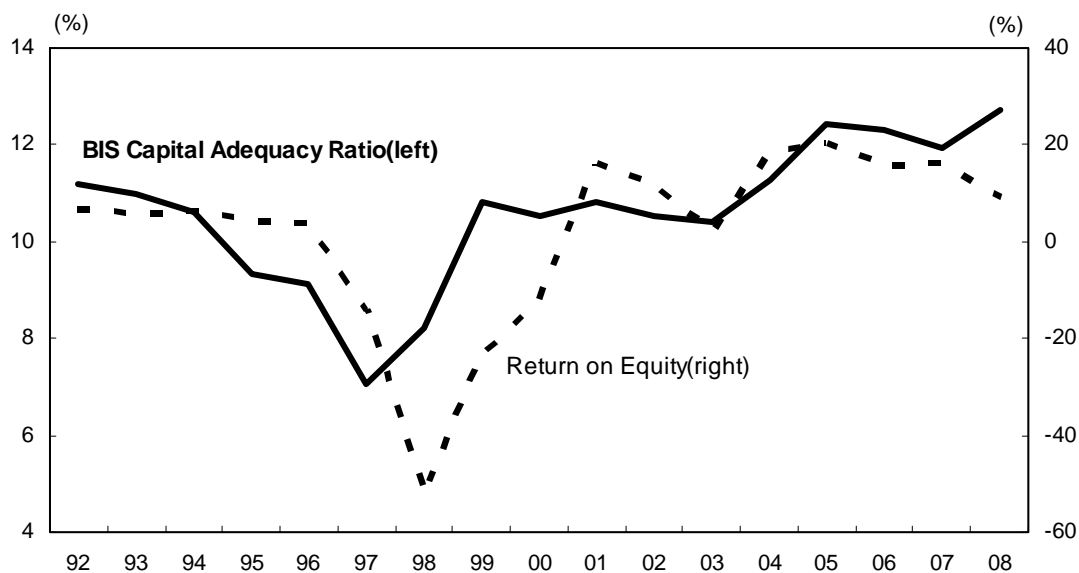
**Figure 16: Debt-equity Ratio and Profitability of the Corporate Sector**



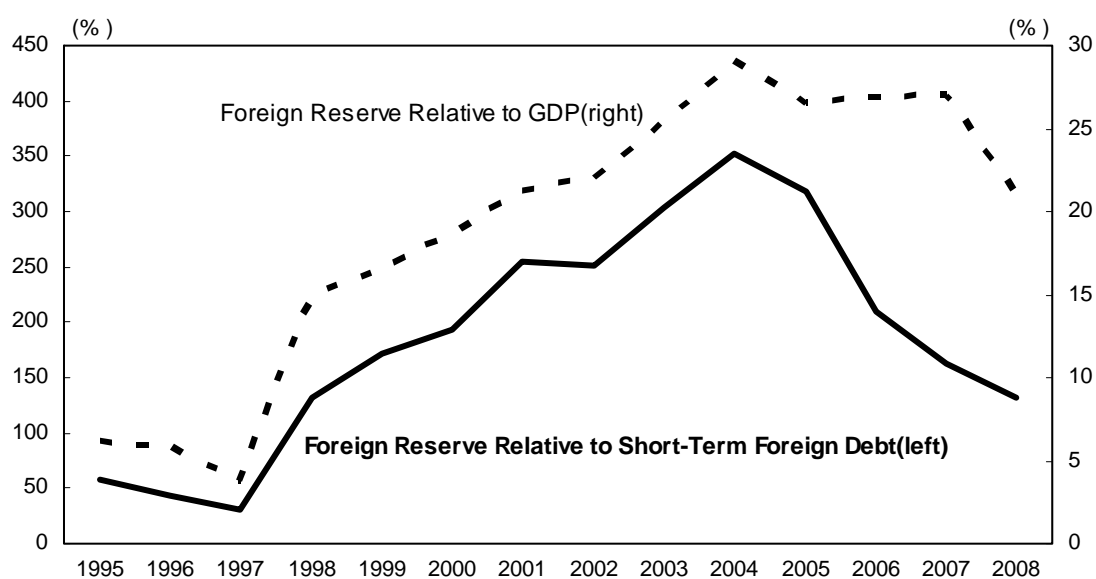
Source: Bank of Korea (Republic of Korea).

Second, the soundness of financial institutions also strengthened. The average capital adequacy ratio (BIS ratio) of the banking sector was greatly improved, providing financial buffers to the system. Although the BIS ratio has been reduced since the global crisis, no Korean banks have yet received public money. There has been much progress in terms of profitability of the banking sector as well (Figure 17).

**Figure 17: BIS Ratio and Profitability of the Banking Sector**



Source: Financial Supervisory Service (Republic of Korea).

**Figure 18: Foreign Reserves Relative to GDP or Short-Term Debt**

Source: Bank of Korea (Republic of Korea), International Monetary Fund.

Third, the foreign reserve position also has improved since the currency crisis period. Although short-term foreign debts had increased rapidly since 2005 and triggered some disturbances in the foreign exchange market in the wake of the global financial panic, the amount of official foreign reserves has substantially increased compared to that in the currency crisis period in both absolute and relative terms (Figure 18).

Fourth, there has been qualitative progress, though it is not readily measured quantitatively. For example, financial market supervision has been strengthened in many respects, and accounting practices and public announcement systems have become more transparent.

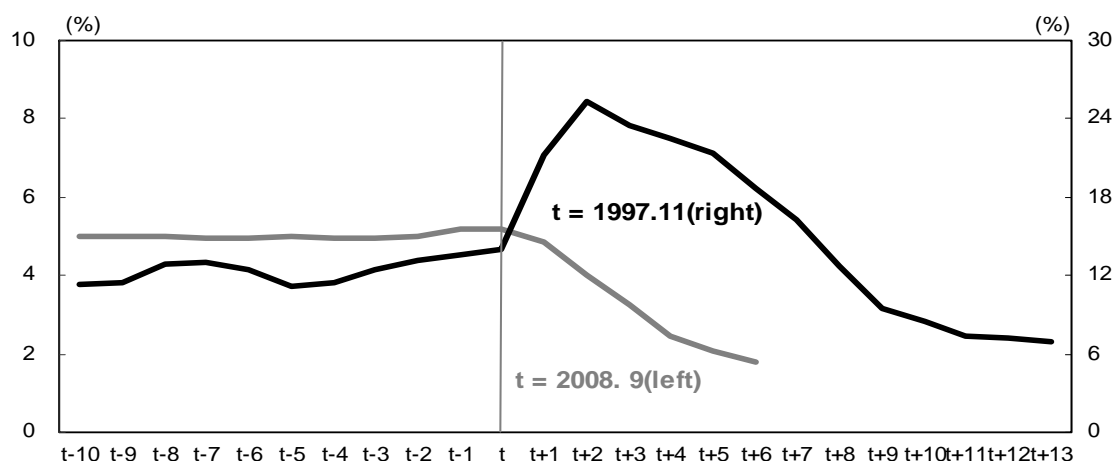
Of course, there are some aspects that have deteriorated. The size of household debt, which was extremely low during the currency crisis period, has increased to a level that concerns investors in the Korean market. The size of government debt has also increased, though it is still in far better shape than that of many advanced countries. Nevertheless, there is no doubt that the overall structure of Korea's financial market has become far sounder than it was 10 years ago, which seems to have greatly helped maintain financial market stability and domestic demand.

### 3.3 Macro-Policy Reactions

Policy reactions to cope with the current crisis also have been very different. Above all, the use of exchange rate policy has completely changed since 1997. In 1997, the Korean government continued futile attempts to defend the currency value through direct market interventions until its foreign reserves became nearly depleted. When the Korean government asked the IMF for a bailout package, its remaining foreign reserves were below US\$10 billion. This time, however, the government did not intervene, even when the exchange rate became extremely volatile right after the Lehman Brothers bankruptcy filing. Instead of clinging to the exchange rate, the Korean government tried to secure overall foreign currency liquidity in the market by negotiating currency swaps with the US, Japan, and the PRC. This policy stance greatly contributed to saving official foreign reserves as well as helping (or forcing) the private sector to quickly adjust itself to a new currency value and generate a current account surplus. In other words, the Korean government honored the floating exchange rate regime, and facilitated the necessary macroeconomic adjustments.

By letting the exchange rate float, the Korean government could maintain a flexible monetary policy this time, which it actually exercised. In response to the financial market panic, the Bank of Korea swiftly lowered the policy interest rate target from 5% to 2% within the 4 months from October 2008 to January 2009. This monetary policy reaction starkly contrasted with that of the currency crisis period when the Korean government (and the IMF) abruptly raised the interest rate target to around 30%. This contrast in the monetary policy reactions was mainly due to the difference in foreign currency liquidity during the crises. In December 1997, faced with the near-depletion of foreign reserves, minimizing the nation's default probability became the foremost policy objective, and all policy measures were aligned accordingly. Monetary policy was also mobilized for this purpose and the interest rate rose drastically. While previous research showed that the high interest rate policy contributed to the early recovery of foreign reserves and exchange rate stabilization, it was clear that this policy significantly deepened the economic recession and worsened employment situations. This time, however, backed by more than US\$200 billion in foreign currency reserves, monetary policy was used for economic stabilization. This experience of sharply contrasting interest rate policy reactions in Korea clearly demonstrates the inseparable connection between monetary policy and exchange rate policy.

**Figure 19: Policy Interest Rate Targets and Overnight Interbank Call Rates**



Source: Bank of Korea (Republic of Korea).

Fiscal policy reactions were not as contrasting as monetary policy reactions. In both periods, expansionary fiscal stances were assumed, *ex post*. The size of the budget deficit, approximately 3% of GDP, is also similar. However, the processes leading to these similar reactions were different. In the crisis of the late 1990s, the IMF initially recommended that the Korean government maintain a balanced budget, but as the economic situation worsened in 1998 it revised its recommendation toward a budget deficit: 0.8% of GDP in the fifth agreement on 7 February, 1.75% of GDP in the sixth agreement on 2 May, 4.0% of GDP in the seventh agreement on 24 July, and finally 5.0% of GDP in the eighth agreement on 27 October. In contrast, the Korean government announced a fiscal expansion as soon as the current global crisis began. After global financial panic was triggered, the Korean government announced a supplementary budget of W11.2 trillion (approximately 1.1% of GDP) in November 2008, which has already been implemented. In addition, the government submitted another supplementary budget plan of W28.9 trillion (approximately 2.8% of GDP) to the National Assembly in March 2009, which should be implemented soon. This difference in policy reaction flexibility may have a meaningful implication on the time lag problem that is typically associated with fiscal policy.

## 4. PROSPECTS FOR THE KOREAN ECONOMY

### 4.1 Short-Term Prospects for Growth Rebalancing

#### 4.1.1 Factors for the Collapse in the Fourth Quarter of 2008, Revisited

If export reliance was the cause of the collapse of Asia as well as Korea in the fourth quarter of 2008, there should not be any expectations for recovery in Korea, or more broadly in Asia, until the US and the Europe begin to recover. In contrast, if the additional factors discussed earlier prove to be important contributors to the collapse of the Korean economy, it is worthwhile to think about the possible impacts of those factors.

First, the severe capital withdrawal pressures are likely to be eased within a relatively short time period, though this easing will rely heavily on the capricious environment of the global financial market. Such a drastic capital withdrawal as seen in October 2008 does not seem to be sustainable: if Korea's short-term foreign debt continues to be withdrawn as much as US\$23 billion a month, it will almost disappear by the end of the first half of this year (the total short-term foreign debt was approximately US\$150 billion at the end of last year). In fact, the pressures have already eased from US\$23 billion in October 2008 to US\$12 billion in November and to US\$6 billion in December. As far as the abrupt capital outflow as an additional factor dragging down Korea's domestic demand, one may hope for a partial normalization process of domestic demand even before global trade begins to recover.

Second, if the current global crisis eventually leads to the unwinding of long-accumulated global imbalances, its corollary should be a relatively small correction of final demand in Asia compared to that in the US. Therefore, it seems natural to expect Asian domestic demand to recover earlier than that of the US. To the extent that Asian intra-regional trade does not entirely rely on the final demand of the US, or as far as Asia's trade is related to its own final demand at least partially, a small correction of Asia's demand is likely to result in a relatively small correction in Asia's trade, though Asia as a whole should reduce the size of its trade surplus.

The major premise of this scenario is the boosting of domestic demand in the PRC, a key component in the global rebalancing process, as well as a critical driver for the revitalization of Asia's intra-regional trade. In this sense, what happened during the fourth quarter of 2008 was a correction of global overheating including the PRC, and the global rebalancing scenario has not yet begun, at least not on the part of the PRC. However, as the PRC begins to rebalance its overheated economy, prospects appear more positive, at least in relative terms, for Asia and Korea. Of course, a full-blown recovery of Korea will be in line with the global recovery in both financial and real sectors.

#### 4.1.2 Policy Reactions, Revisited

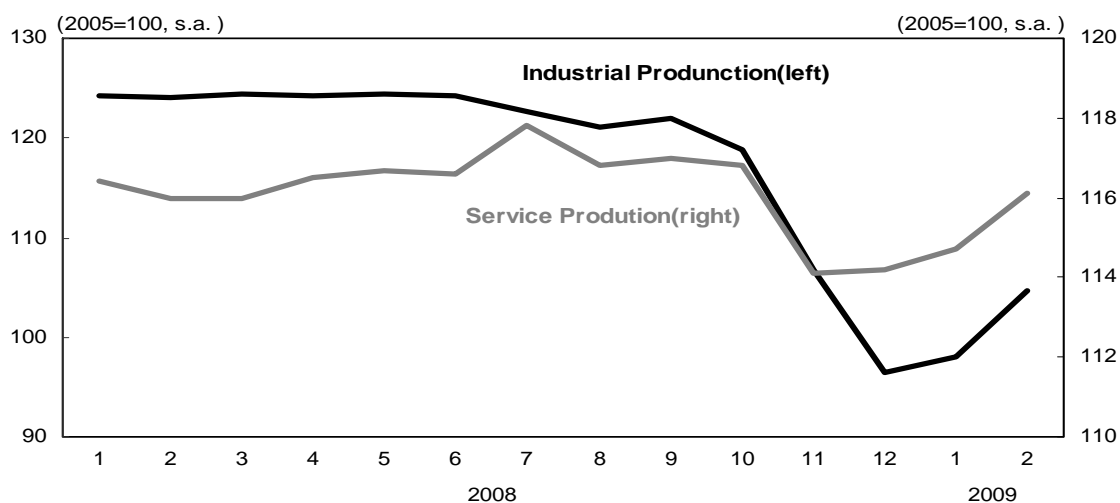
Unlike during the currency crisis period, macroeconomic policies immediately responded to the shock this time. The substantial depreciation of the won in the swirl of global financial crisis will help the profitability of Korean exporters and relieve the deflation pressures from abroad. The policy interest rate target has already been lowered to an unprecedented level of 2%, which will relieve the burdens of debt-ridden households and firms as well as the downward pressures in asset prices. Also, the government proposal for the supplementary budget, which should be approved in the near future, will help alleviate the declining trend of domestic demand. In short, all of the macroeconomic policy tools are consistently aligned for one single goal—boosting the economy.

#### 4.1.3 Recent Economic Indicators

Very recently, there has been some signal that investor sentiment has improved. For example, stock prices are rising and the currency value is appreciating. Both business and

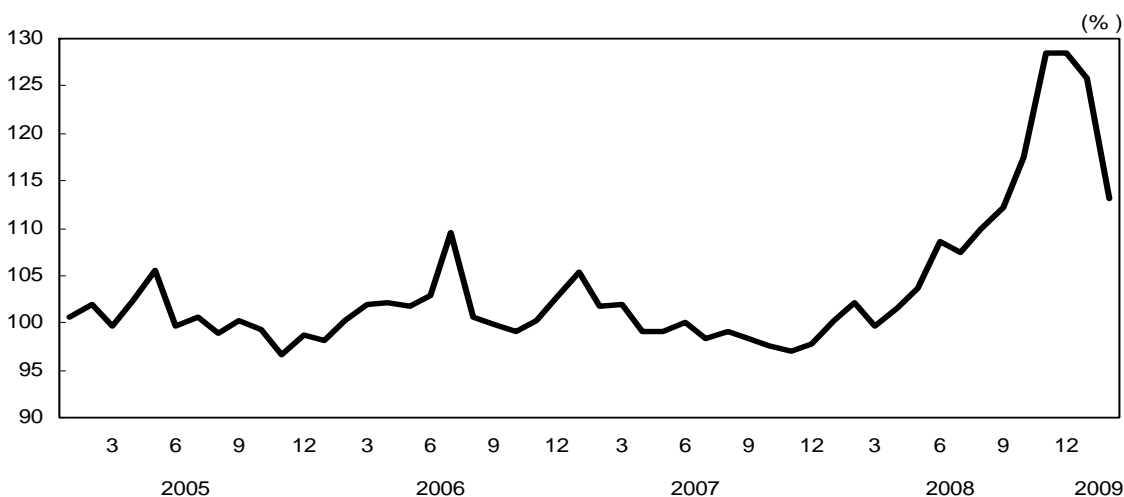
consumer sentiment indexes have turned around since February 2009. More solid signals can be confirmed from the monthly indicators of production. Service production, which takes up approximately 55% of GDP and has close ties to domestic demand, began to increase month-to-month in December 2008, as the drastic capital outflow pressures were gradually eased (Figure 20). Industrial production, which takes up approximately 30% of GDP and closely relates to export demand, also began to increase month-to-month in January 2009, as the collapsing trend of the PRC's imports stabilized. As for industrial sectors, it is also encouraging that inventory has been declining very rapidly despite the collapse in export demand (Figure 21). This implies that industrial production has adjusted promptly to the abrupt contraction in demand, and can rebound early if demand conditions do not deteriorate further in the future.

**Figure 20: Service and Industrial Production (Seasonally Adjusted)**



Source: National Statistical Office (Republic of Korea).

**Figure 21: Inventory to Shipment Ratio (Seasonally Adjusted)**



Source: National Statistical Office (Republic of Korea).

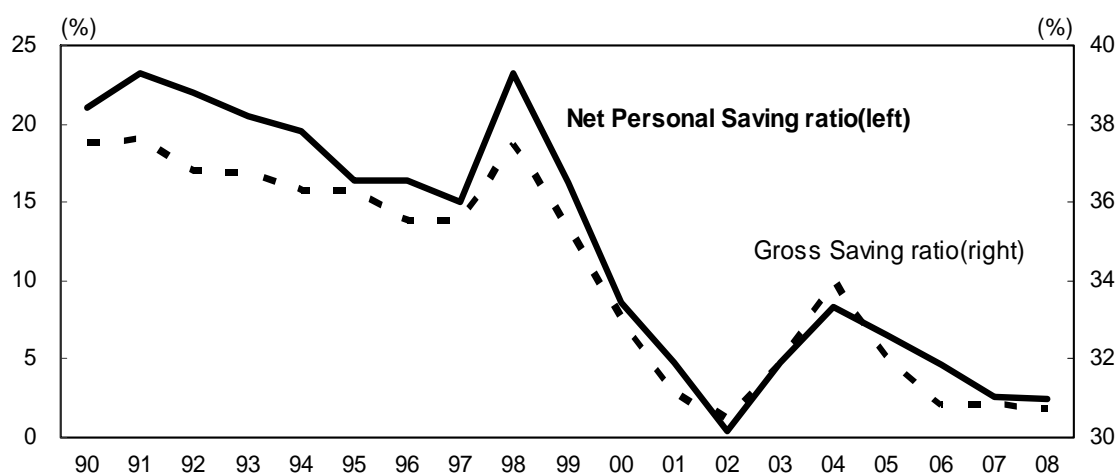
#### 4.2 Domestic Demand vs. Exports, or Services vs. Manufacturing

It is often said that Asia should increase its domestic demand because its growth is too dependent on exports. This assertion may make sense for countries like the PRC that

maintain a huge current account surplus. Faced with the presumably permanent decrease in demand from the US, it is necessary for Asia to seek other demand sources to make up for this gap. In this sense, the recovery of domestic demand in the PRC will play a pivotal role for the recovery of the whole Asia.

However, the same argument does not seem to be warranted for Korea, in which the current account fluctuates around a balanced level. Any permanent and sizable increase in domestic demand, unless accompanied by a parallel increase in exports, would imply a current account deficit that would likely disturb the foreign exchange market as it recently did. The aggregate savings rate of Korea has also been in a declining trend since the currency crisis, as bank credits became readily accessible to consumers (Figure 22). In particular, the net savings rate of Korean households has declined very rapidly from around 20% before the currency crisis to around 3% in 2007. In fact, the current savings rate of the Korean household is so low that many economists are worried about its negative implications on the financial market stability and future consumption potential.

**Figure 22: Savings Rate, Aggregate and Household**



Note: Net personal saving ratio is household personal savings divided by household disposable income.

Source: Bank of Korea (Republic of Korea).

A similar argument from a supply-side perspective, however, seems legitimate—Korea needs to boost service sectors rather than manufacturing sectors. Though this statement appears to be similar to the earlier demand-side arguments because most services are spent domestically, its implications are totally different. First, it does not produce any implication on current account sustainability, while clearly recognizing the fact that the Korean economy relies heavily on manufacturing sectors in relation with exports (Figure 6). Second, typical measures for boosting domestic demand are expansionary macroeconomic policies (in particular, a fiscal expansion), but policy measures for boosting service sectors include microeconomic policies to enhance their productivities. According to the Organization for Economic Cooperation and Development (OECD) (2004), Korea's productivity growth in the service sector relative to the manufacturing sector was the second lowest (next to Poland) among the OECD countries, which was largely attributed to many regulations that hampered service sector productivity, such as entry and exit barriers, mandatory licensing, and policy discriminations in favor of manufacturing. How to reform these regulations into efficient systems will be a key policy agenda for the government of Korea.

## 5. CONCLUDING REMARKS

There has been a debate whether Korea, or more broadly Asia, can be “decoupled” with the business cycles of the US. This paper argues that Korea, as well as Asia in general, is not immune to global crises. At the same time, however, a more than proportional response of GDP to global crises in Korea and Asia does not seem to be the general case either. In this line of reasoning, the extremely hysteric response of Korea during the fourth quarter of 2008 was attributed not only to the crisis in the US, but also to additional idiosyncratic components such as the extraordinary collapse of the PRC’s imports and the drastic capital outflow from Korea.

The paper also identifies similarities and differences of the current recession in comparison with the currency crisis period. The current recession appears to be similar to the currency crisis period in that the growth rate and currency value collapsed simultaneously. However, the paper argues that there are more differences than similarities. First, the currency crisis was mainly attributed to the internal fragility of Korea’s financial market, but the current recession was mostly caused by external shocks. This difference in the causes of the two recessions was clearly reflected in the different responses of private consumption and exports, and hence employment. In the dimension of macroeconomic policy reactions, monetary policy was far more flexible this time than during the currency crisis period.

From this analysis, two implications can be drawn. First, as far as the economic response of the fourth quarter of 2008 being more hysteric than necessary for the rebalancing of macroeconomic fundamentals in Korea, it is expected that those economic losses can be recovered relatively soon. The most recent economic indicators appear to be encouraging in this context. Yet, for a more visible recovery of the Korean economy, the recovery of the PRC’s domestic demand seems necessary, which is also crucial for the global macroeconomic stability. Ultimately, a full-blown recovery of Korea will be in line with the global recovery.

A second implication is that structural aspects are critical for maintaining economic stability as well as employing flexible macroeconomic policies. While the Korean economy plunged into a historic crisis in 1997, triggered by the relatively small external shock of the Thai baht crisis, the economy is expected to remain relatively robust this time even in the midst of the most serious global crisis since the Great Depression. Behind this positive expectation stand the sound institutional fundamentals and flexible macroeconomic policy reactions of the Korean economy.



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	Country	Source
Banco de Espana	Spain	<a href="http://www.bde.es/infoest/htmls/capit25e.htm">http://www.bde.es/infoest/htmls/capit25e.htm</a>
Bank of Korea	Republic of Korea	<a href="http://ecos.bok.or.kr/">http://ecos.bok.or.kr/</a>
Bloomberg	World	<a href="http://www.bloomberg.com">http://www.bloomberg.com</a>
Bureau of Economic Analysis	US	<a href="http://www.bea.gov/national/nipaweb/SelectTable.asp">http://www.bea.gov/national/nipaweb/SelectTable.asp</a>
Cabinet Office	Japan	<a href="http://www.esri.cao.go.jp/index-e.html">http://www.esri.cao.go.jp/index-e.html</a>
Census and Statistics Department	Hong Kong, China	<a href="http://www.censtatd.gov.hk/home/index.jsp">http://www.censtatd.gov.hk/home/index.jsp</a>
Financial Supervisory Service	Republic of Korea	<a href="http://fisis.fss.or.kr/">http://fisis.fss.or.kr/</a>
Foreign Trade Statistics	US	<a href="http://www.census.gov/foreign-trade/www/index.html">http://www.census.gov/foreign-trade/www/index.html</a>
Global Insight	World	<a href="http://www.globalinsight.com/">http://www.globalinsight.com/</a>
International Monetary Fund	World	<a href="http://www.imf.org/external/data.htm">http://www.imf.org/external/data.htm</a>
Joint External Debt Hub (BIS, IMF, OECD, World Bank)	World	<a href="http://www.jedh.org/">http://www.jedh.org/</a>
Kookmin Bank	Republic of Korea	<a href="http://www.kbstar.com/">http://www.kbstar.com/</a>
Korea Customs Service	Republic of Korea	<a href="http://english.customs.go.kr/">http://english.customs.go.kr/</a>
National Bureau of Statistics of China	PRC	<a href="http://www.stats.gov.cn/english/">http://www.stats.gov.cn/english/</a>
National Institute for Statistics and Economic Studies	France	<a href="http://www.insee.fr/en/">http://www.insee.fr/en/</a>
National Statistical Office	Republic of Korea	<a href="http://www.kosis.kr/">http://www.kosis.kr/</a>
Nationwide	UK	<a href="http://www.nationwide.co.uk/default.htm">http://www.nationwide.co.uk/default.htm</a>
OECD	World	<a href="http://puck.sourceoecd.org/">http://puck.sourceoecd.org/</a>
Standard and Poor's, S&P/Shiller Case	US	<a href="http://www2.standardandpoors.com">http://www2.standardandpoors.com</a>
Singapore Department of Statistics	Singapore	<a href="http://www.singstat.gov.sg/">http://www.singstat.gov.sg/</a>