

## Two Structural Problems of the Korean Economy since the Asian Financial Crisis

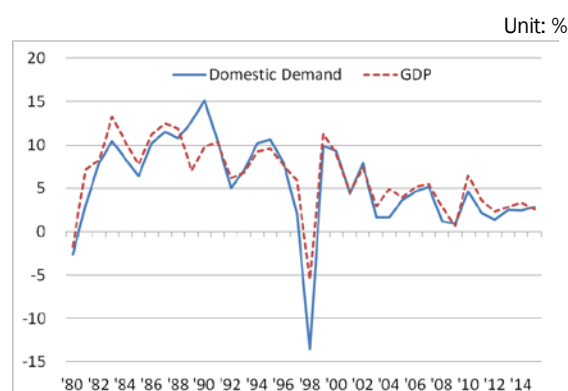
WHANG Un Jung Associate Research Fellow, Regional Trade Agreement Team, Department of International Trade  
(ujwhang@kiep.go.kr)

KIM Subin Researcher, International Macroeconomics Team, Department of International Macroeconomics and Finance  
(sbkim@kiep.go.kr)

### The Slowdown in the Korea's Economic Growth

Economic growth in Korea has slowed down dramatically after the Asian financial crisis in 1997. The average growth rate of Korean real GDP before the crisis (1981-1996) was 9.3%, but fell to 3.6% during the period (2003-2015) after the credit card lending boom following the financial crisis. Coincidentally, the patterns of domestic demand growth before and after the crisis were similar to GDP growth: the average growth rate of Korean real domestic demand was 9.3% and 2.9%, in the respective periods. This dramatic decline in both growth rates should not be attributed to the elements that are linked to short-run economic fluctuations, because this phenomenon has lasted more than 10 years. Instead, structural factors are likely to induce the significant decline in the growth of the two variables.

Figure 1. Korea's Economic Growth



Source: European Commission, Annual Macroeconomic Database (accessed December 23, 2016).

### Structural Problems of the Korean Economy since the Asian Financial Crisis

Since GDP is the sum of domestic demand for domestic goods and foreign demand for domestic goods (that is, exports), a good starting point is the inspection of the growth pattern of Korean exports. Also, the second focus is on the growth of household disposable income. If the growth of household income decreases, both real consumption growth and household

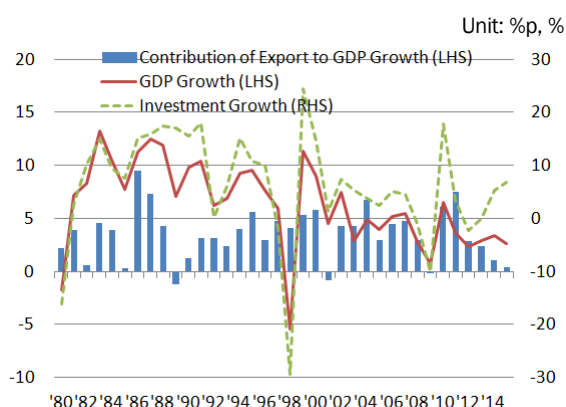
saving rates can decrease. In addition, the decline of disposable income often causes household debt to increase, and would further restrict consumption growth, subsequently curbing domestic demand growth.

In this context, we consider two structural problems that the Korean economy faced after the Asian financial crisis: one is the dampened ripple effects of exports on domestic demand and thus on GDP, and the other is the decrease in the growth of household disposable income.

### 1. Dampened Ripple Effects from the Export Sector

In general, growth in the export sector can contribute to economic growth via the following two channels: one is the direct contribution of exports to GDP, that is, the more exports, the more GDP. The other is indirect contribution. As firms export more, they use more production input and thus are more likely to increase investment and employment. In turn, this results in the increase of domestic demand. We call this channel the ripple effects of the export sector.

Figure 2. Ripple Effects from the Export Sector



Source: European Commission, Annual Macroeconomic Database; Bank of Korea, Economic Statistics System (accessed December 23, 2016).

In Figure 2, the direct contribution of exports to GDP growth is stable, at 4 percentage points over the entire sample period. Then, the difference between GDP growth and the contribution of exports to GDP growth is the contribution of domestic demand to GDP growth. It was large before the Asian financial crisis (or the mid-1990s), while it becomes smaller after the crisis. The average contribution of domestic demand to GDP growth before the crisis (1981-1996) was 9.0%p, and levels after the crisis have decreased steadily, in particular after the credit card lending boom. These facts, together with the decline in investment growth, suggest that the channel that generated the ripple effects of export growth appears to have broken after the financial crisis.

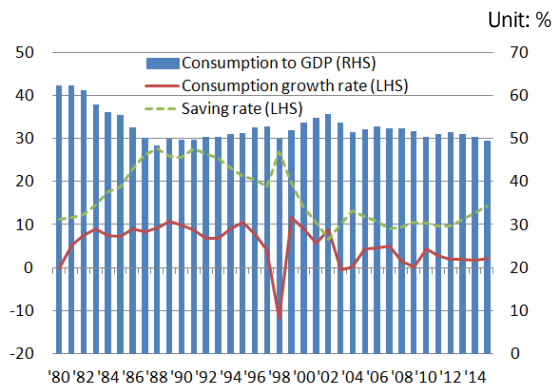
Two potential reasons for the dampened ripple effect from the export sector are closely related to the change in the investment behaviors of Korea's larger exporting firms before and after the Asian financial crisis: i) they no longer make aggressive investments to create new industries ii) they tend to use more foreign value added contents for their exports and to increase outward FDI by participating in global value chains.

### 2. Decrease in Growth of Household Income

Figure 3 shows how the ratio of private consumption to GDP evolves since 1980. In the beginning of the 1980s, the ratio was about 70%. However, the ratio has continuously fallen, and there has been no sign of reversal since the credit card lending boom. For example, the ratio is even less than 50% in 2015. The downward trend of the consumption to GDP ratio after the Asian financial crisis implies that consumption growth rates have been lower than GDP growth rates, and have actually decreased after the crisis. Figure 3 also

demonstrates the ratio of individual savings to the national disposable income, which approximates that the household saving rate has significantly decreased after the financial crisis.

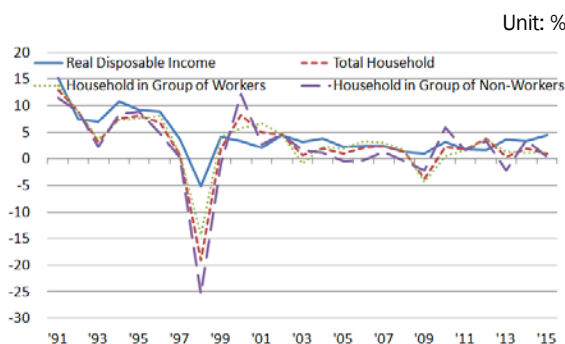
**Figure 3. Private Consumption and Individual Savings**



Source: Bank of Korea, Economic Statistics System (accessed December 23, 2016)

These two phenomena are likely to occur simultaneously when household income decreases. Indeed, as shown in Figure 4, the downward trends of the growth rates of household disposable income data from both the Bank of Korea and Survey of the Korean Statistical Information Service (KOSIS) are clearly apparent after the Asian financial crisis.

**Figure 4. Disposable Income Growth Rates**



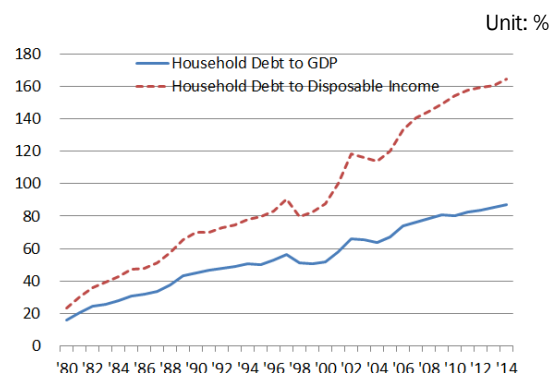
Note: Household real disposable income means the nominal disposable income deflated by inflation rates.

Source: Bank of Korea, Economic Statistics System; Korean Statistical Information Service (KOSIS), Household Income and Expenditure Survey (accessed December 23, 2016)

To be more specific, we point out three potential factors that are closely linked to the decrease in the growth of household disposable income. These reasons are related to the labor market reforms after the Asian financial crisis: i) a sizable number of necessity-driven entrepreneurs (i.e., self-employed households) whose income are relatively low, ii) a large proportion of temporary workers whose wages amount to about 70-80% of regular workers, and iii) relatively low wages in small and medium-sized enterprises (SMEs), which employ a large portion of the total workforce.

Furthermore, the decrease in the growth rate of household disposable income can be related to the significant increase in the ratio of household debt to disposable income. Figure 5 shows that the ratio of household financial debt to household disposable income has been growing since 1980. In particular, after experiencing the Asian financial crisis, this ratio has increased substantially, implying that households have been accumulating their debts much faster than their disposable income.

**Figure 5. Korea's Household Debt**



Source: Bank of Korea, Economic Statistics System (accessed December 23, 2016)

There may be a nonlinear relation between the household debt to income ratio and consumption growth, because households with a high debt to income ratio beyond a certain threshold are likely to face a borrowing limit or tight liquidity constraints. According to the database of the Survey of Household Finance and Living Conditions (SFLC), the financial liabilities of self-employed households are about 1.53 times of disposable income in 2015, which is nearly 1.45 times higher than those of households with regular income. In addition, the amount of debt service as a proportion of disposable income rises over the last five years (2011~2015) throughout all households, but the burden of debt repayment across self-employed households is notably higher than other types of households.

**Table 1. Financial Liabilities and Repayments**

Unit: %

	Wage worker		Self-employed	
	Financial debt-to-income ratio	Ratio of repayments to disposable income	Financial debt-to-income ratio	Ratio of repayments to disposable income
2011	78.9	14.7	159.2	26.6
2012	86.6	14.9	148.8	23.1
2013	88.3	16.8	154.8	26.3
2014	90.7	21.5	146.8	30.6
2015	95.7	24.3	152.9	35.5

Source: Korean Statistical Information Service (KOSIS), Survey of Household Finance and Living Conditions (accessed December 23, 2016)

In light of these findings, we examined the different pattern of household consumption behavior in response to changes in financial liabilities between the self-employed and wage workers. By using ordinary least squares (OLS) regression with the database of the Korean Labor and Income Panel Study (KLIPS), we capture the within-household average effect of financial debt on consumption expendi-

ture. The key finding is that the financial debt of self-employed households is negatively associated with consumption expenditure, whereas this relationship is positive for wage workers. That is, self-employed households tend to take out loans (i.e., business loans) that are not directly related to consumption itself. Rather, they tend to reduce their consumption due to a heavy debt burden from business loans.

## Policy Implications

To the extent that the dampened ripple effects from the export sectors after the Asian financial crisis are mainly due to the changed investment behaviors of large-sized exporting firms, policymakers should develop policies which aim at providing a better environment where small and medium-sized firms can participate in global value chains more actively. Those firms are not likely to use more foreign value added contents or to invest in foreign countries, because of their small sizes and limited capabilities. Instead, they may participate in global value chains by attracting multinational firms.

To do this, these firms should develop better technologies or produce high-quality goods and/or services which can be differentiated from foreign small- and medium-sized firms, in order to gain comparative advantages. Also, policies should be able to encourage small and medium-sized firms to develop those technologies and to produce those goods and services. Most importantly, policies should be aimed at attracting foreign multinational firms so that domestic firms benefit from active participation in global value chains.

Since the decrease in the growth of household

disposable income is due to the presence of a significant share of necessity-driven entrepreneurs and non-regular workers, and their relatively low income, policymakers should reform labor markets to deal with these issues.

In particular, policies should be aimed at reducing the use of temporary workers by raising the conversion rate from temporary to permanent employment. In addition, alternative job opportunities which may absorb those self-employed workers should be created. There is a large degree of human capital mismatch: retired workers, in general, are more likely to fit with new businesses such as food and beverage franchises and agencies for selling mobile phones. If there exist jobs where they can take advantage of their human capital, they would have less incentive to open those businesses which contribute to reducing labor productivity in the service sector. **KIEP**