

KERI **E**CONOMIC **B**ULLETIN

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Korea Economic Research Institute

Executive Summary

Korea's growth outlook downgraded to 3.4% from 3.7%

There are two main reasons for revising growth outlook for the Korean economy down by 0.3%p. First, global growth forecast was revised downward from 3.8% (in late 2014) to 3.5% (in January 2015). In addition, risks of exports to China have been widened due to several factors; the slowdown of the Chinese economy, China's improved self-sufficiency rate of intermediate goods and curtailed competitiveness gap between China and Korea.

Consumer price growth revised down to 1.4% from 1.7%

The Tobacco price hike, the rise of USD/KRW and increase in prices of public utility services put upward pressure on consumer prices, whereas falling international oil prices and sluggish recovery in demand send the prices down further, implying that consumer price growth is forecast to drop slightly.

Current account surplus expected to reach a record US\$110 billion; USD/KRW projected at 1,095 won for 2015

Despite a decline in export volume, current account surplus for 2015 is forecast to reach a record US\$110 billion boosted by minus import growth led by a drop in unit price. USD/KRW is expected to show a gradual depreciation at a yearly average of 1,095 won, as the ascending pressure from strong-dollar is mitigated by a large current account surplus.

Enhancing the consumption propensity through improving domestic consumption conditions is very effective to boost domestic demand

One of a main reason for sluggish household income is weak business income of individual proprietor. An increase in tax and social security expenditure, expenditure for debt reduction also explains that consumption expenditure would hardly rise only by raising wages. When the income of lowest 20% income group, whose consumption scale is smaller, increases, the total consumption rises only by 1.02%; while the total consumption enhances by 2.63% if the propensity to consume of highest 20% income group climbs up 5%p. Thus, effective measures to boost domestic demand are increasing consumption propensity of upper - income group and turning overseas credit card usages to domestic, which all improve the domestic consumption conditions.

Recent Developments

Korea GDP growth slightly declines to 0.4% (QoQ) in 4Q 2014; growth below 1% for 4 consecutive quarters

Growth over the same period in the previous year consecutively dropped – 3.9% in Q1, 3.5% in Q2, 3.2% in Q3, and 2.7% in Q4. This is ascribable to weak recovery in private consumption and a drastic downturn in construction investment, as well as a decrease in exports.



Source: The Bank of Korea

Amid the growing global uncertainties, domestic demand continues a downward trend

The contribution to GDP by net export has taken a favorable turn by 0.1%p compared to the previous quarter (-0.9%p); however is yet low helped by the global uncertainties including a sharp drop in oil prices, strong dollar and weak yen. Contribution to GDP by domestic demand also decreased to 0.2%p from 1.8%p in the previous quarter affected by the external conditions. Contribution to GDP by private consumption declined to 0.2%p in 4Q from 0.5%p in 3Q, and contribution to GDP by construction investment plunged to -1.4%p in 4Q from 0.4%p in 3Q. In the midst of facing multidirectional and structural problems including aging, low fertility, labor market issues such as extension of retirement age, household debt and real estate problems, overall contributions to GDP remain weak, as the deterioration of external environments worsened the consumer survey index and business survey index.

Contribution to GDP by expenditure

(Unit: %p)

	2013				2014			
	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4
Final consumption expenditure	0.0	0.6	0.6	0.4	0.1	-0.1	0.8	0.3
Private	-0.1	0.3	0.5	0.3	0.1	-0.1	0.5	0.2
Government	0.1	0.2	0.1	0.1	0.0	0.0	0.3	0.1
Gross capital formation	0.8	-0.1	1.0	1.3	-0.3	0.1	1.0	-0.1
Gross fixed capital formation	1.6	0.7	0.3	-0.2	0.9	-0.1	0.4	-0.9
Construction	0.9	0.7	0.0	-0.8	0.7	0.1	0.4	-1.4
Facilities investment	0.1	0.1	0.2	0.5	-0.2	0.1	0.0	0.5
Intellectual property products	0.5	-0.1	0.1	0.1	0.4	-0.2	0.0	0.0
Changes in inventories and acquisition	-0.8	-0.8	0.6	1.5	-1.3	0.2	0.6	0.8
Exports of goods and services	0.1	1.5	-0.6	0.8	0.8	0.9	-1.2	-0.1
(less)Imports of goods and services	0.3	0.9	-0.2	1.5	-0.4	0.5	-0.2	-0.3

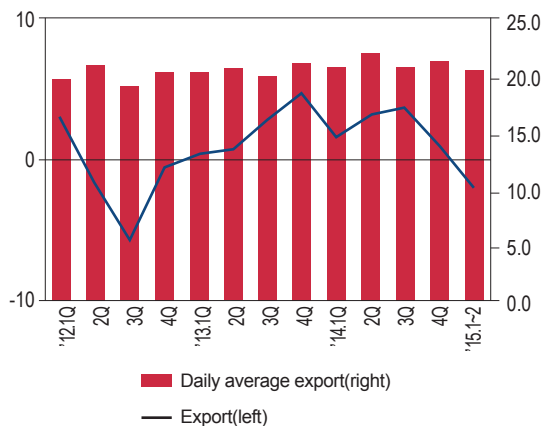
Source: The Bank of Korea

Exports growth (on a custom clearance basis) shows a slowdown as it records a monthly average of -2.0% between January and February 2015 from 0.9% in 4Q 2014

The daily volume of exports decreased from US\$2.13 billion in 4Q 2014 to a monthly average of US\$2.04 billion between January and February 2015. By region, the positive effect of rapidly growing exports to US was offset by contraction in exports to EU and Japan. Exports to US maintained a favorable tendency, jumped 21.9% in 4Q 2014, and 11% between January and February 2015; while exports to EU and Japan recorded a sharp drop of -26.9% and -21.5% respectively for the same period.

Export Growth and Daily Average Export Volume

(Unit: left - oya%, right - US\$100mil)



Source: MOTIE, Korea Customs Service

Export Growth by Destination

(Unit: oya%)

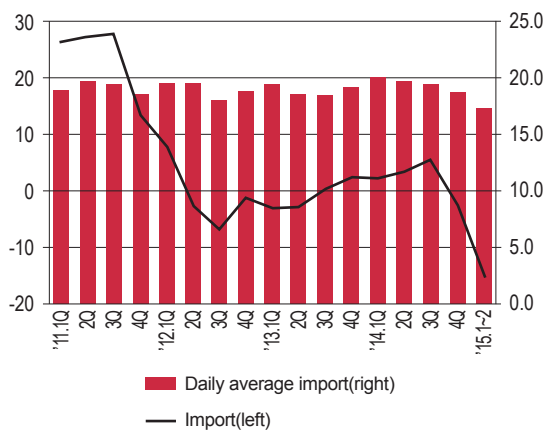


Source: Korea Customs Service

Imports growth (on a custom clearance basis) takes a nosedive as it records a monthly average of -15.2% between January and February 2015 from -2.8% in 4Q 2014

The daily volume of imports between January and February 2015 reduced to US\$1.73 billion, a 13.4%(oya) decrease from US1.86 billion in 4Q 2014, mainly attributable to slashing raw material imports, which constitutes the largest share of total imports, following a harsh drop in oil prices. Raw material imports drastically declined, -29.5% between January and February, owing to falling oil prices and import volume of crude oil and petroleum products.

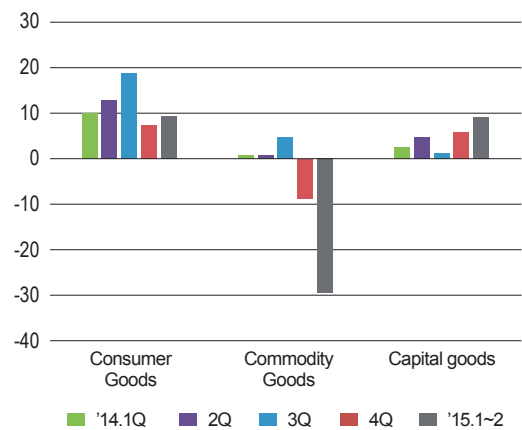
Import growth and daily average import volume
(Unit: left - oya%, right - US\$100mil)



Source: MOTIE, Korea Customs Service

Import growth by use

(Unit: oya%)



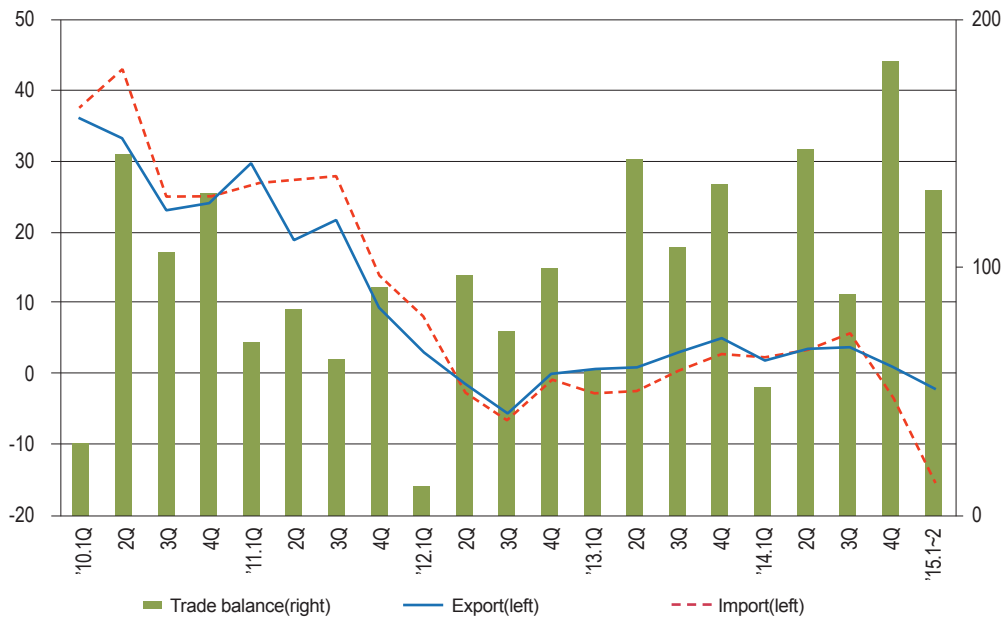
Source: Korea Customs Service

Korea's trade balance records a US\$42.7 billion surplus in 2014, US\$13.1 billion surplus between January and February (a US\$11.4 billion increase, oya)

The declining magnitude of import growth led by the plummeting oil prices outpaced that of export growth owed by weak yen and strong dollar. In fact, export growth was -2.0% between January and February; while import growth marked way lower figure of -15.2% on same period.

Trend of Export, import and trade balance

(Unit: left - oya%, right - US\$100mil)



Source: MOTIE

Korea's current account reached a historical - high, with an accumulative surplus of US\$89.22 billion in 2014, and US\$6.94 billion surplus in January 2015

Korea's current account surplus increased by US\$8.07 billion(oya) compared to US\$81.15 billion in 2013. In January 2015, the surplus increased by US\$3.62 billion(oya) compared to US\$3.32 billion in January 2014.

Trend of current account

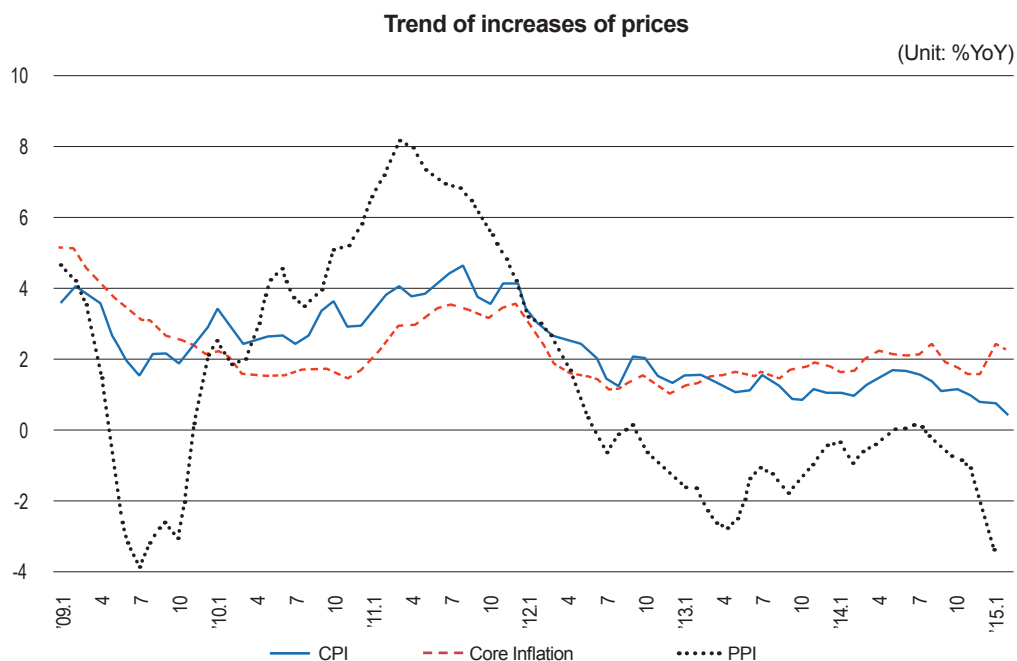
(Unit: US\$100mil)

	2013		2014		2015	
	1H	2H	1H	2H	Jan	Jan
Current Account	349.6	461.9	394.3	498.0	33.2	69.4
Bal of Goods	348.9	479.0	441.8	485.2	43.7	70.9
Bal of Services	-20.2	-44.8	-53.4	-28.2	-18.7	-24.3
Bal of Primary Income	34.7	55.9	32.4	69.6	12.1	29.0
Bal of Secondary Income	-13.8	-28.1	-26.4	-28.6	-3.8	-6.2

Source: The bank of Korea

Consumer prices trimmed to 0.5% in February 2015; yet tumbling below 1%

Prolonged low inflation is ascribable to the downward pressure of falling oil prices from the supply side, which was accentuated further by lack of upward pressure from the demand side. The demand side continues to pull the inflation pressure downward, resulted from weakening domestic investment sentiment caused by global unfavorable conditions including strong dollar and weak yen. The downward pressure from the supply side was strengthened due to plunging oil prices which lowered import prices. On the other hand, producer prices had a reactionary fall, dipping at -0.2% in August 2014 and dropped further to -3.6% in February 2015.



The overall job growth pace slowed down between January and February 2015; employment rates of certain age group and sector worsen

The number of employed persons rose by 376,000 in February 2015 indicating a slowdown in quantitative expansion momentum since Q3 2014. Worries are gradually looming about the declining employment rate of age group between 40-49, of which workforce is the major pillar for our nation. It is important to monitor the changes in number of employed by ages and sectors keenly since a large number of jobs have been adjusted downwards especially in wholesale, retail trade, hotels and restaurant as well as sectors in electric, transportation, communication and finance.

Employment-related Indicators

(Unit: thousand persons change over year ago, %)

		2013	2014		2015		
		Year	Year	3Q	4Q	Jan	Feb
Changes in number of employed persons		386	533	517	422	347	376
Age	- 15 ~ 29	-50	77	102	56	27	30
	- 30 ~ 39	-21	-21	-7	-29	-17	18
	- 40 ~ 49	22	38	15	4	-27	-48
	- 50 ~ 59	254	239	215	190	191	183
	- 60 years and older	181	200	192	201	174	193
Industry	- Agri., Forestry & Hunting	-8	-68	-121	-109	-104	-87
	- Manufacturing	79	146	194	129	141	159
	- Construction	-19	42	57	72	70	68
	- Wholesale & retail trade, hotels & others	35	259	278	241	165	142
	- Business, personal, public service & others	235	176	187	134	124	127
	- Electricity, transport, communication & finance	62	-18	-76	-39	-42	-27
Unemployment rate (%)		3.1	3.5	3.3	3.2	3.8	4.6

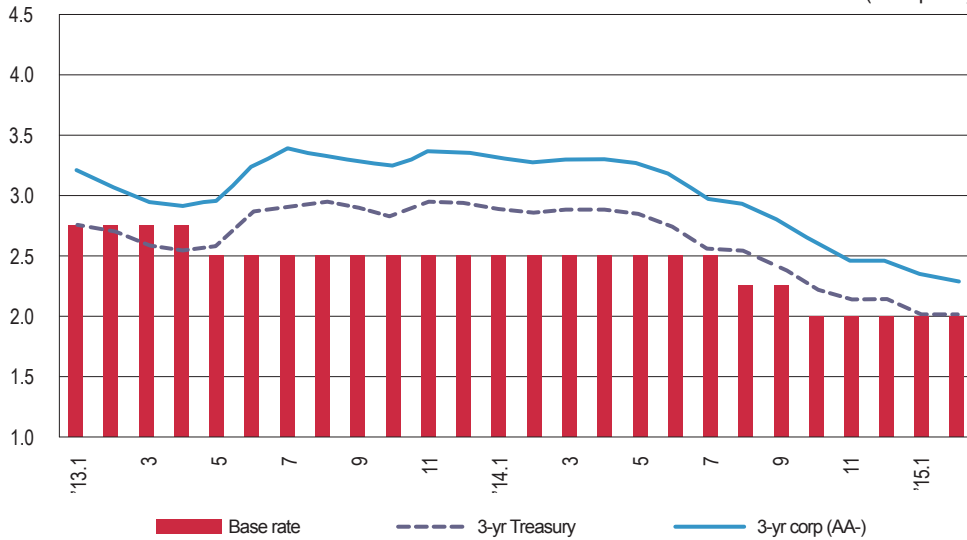
Source: Economically Active Population Survey (Statistics Korea)

Market interest rates drop in line with BOK's decision to cut its benchmark base rate in March

Central banks in more than 20 nations including Russia, Australia and emerging market economies have cut base rates since the beginning of this year. Especially, as economic indicators worsened following global unfavorable conditions and weak domestic demand, further benchmark base rate cut was predictable domestically. In this manner, Korea's market interest rates started to tumble down before the Monetary Policy Committee's announcement released. As the BOK has decided to cut base rate by 25 basis points on March 12th which was preemptive action to support recovery, market interest rates continues a downward trend.

Interest rates

(Unit: p.a%)



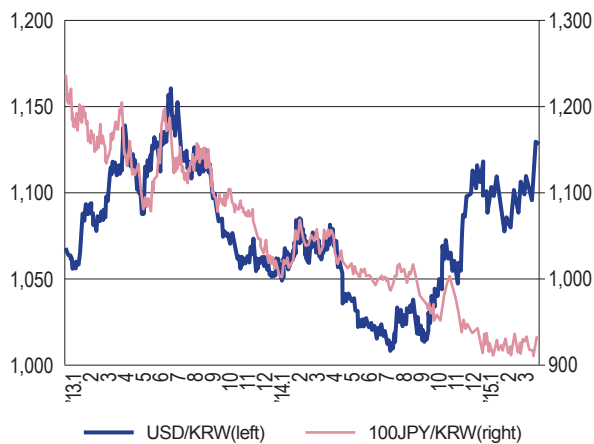
Source: The Bank of Korea

USD/KRW continues an upward trend led by the solid recovery of the US economy while JPY/KRW remains low

The US Dollar intensified helped by the improving US labor market, which has been careened hither and thither followed by the latest US economic indicators based on the strong dollar trend. At the same time, foreign investors dumped shares in December 2014 and January 2015 which led the dollar to strengthen even more. A risk-on mood propels foreign investors turn into net buyers in February 2015, but it was insufficient to snap the strong dollar.

Exchange Rate Trend of the Korean Won

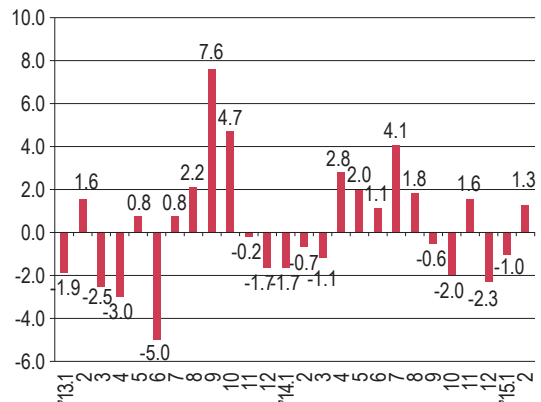
(Unit: USD/KRW)



Source: The Bank of Korea

Net Foreign Purchase of Korean Equities

(Unit: Tril Won)



Source: The Bank of Korea

Outlook for 2015

1. External Environments

(World Economy) Overall global economy is projected to grow by a small margin. Effects of growth engine reinforcement in crude oil-importing countries following falling in oil prices are offset by sluggish investment and slowdown in crude oil-exporting countries.

(Oil prices) The price of oil is expected to turn an increase slightly as the oversupplied problem has been eased, but oil prices could fall again if US strong production and strong dollar continue and Iran nuclear deal is reached.

(United States) Amid the gradual recovery in the US job market and domestic demand, the drop of oil prices serve as a stimulus to the U.S. economy.

(Eurozone) Despite the cheap oil price, quantitative-easing program and weak euro, the growth in the Eurozone remains slow as fear of deflation impedes investments.

(Japan) Continuing quantitative-easing and weak yen boosted Japan's exports which stimulates the slow pace of economic recovery from a recession caused by a sales tax hike.

(China) As China embarked on a comprehensive reform measure aimed to prevent overheated economy, the Chinese economy is expected to manage the slowdown over a prolonged period.

(Supply and Demand) The oversupply of crude oil, partly caused by the US shale boom and OPEC over production, is forecasted to be slackened by a steady recovery in the US economy and China's rebounding demand for oil.

(Geopolitical Risk) Continuing political instability in Libya affected by the Islamic State's control over may cause oil prices to soar while a possible breakdown in Iranian nuclear put downward pressure on the price.

(Speculative factor) Despite increasing US oil in storage put downward pressure on the international prices of crude oil, possibility of hike in prices still lingers high as a trend of buying cheap spot and selling expensive forward continues

**(Foreign exchange rates)
Continuing quantitative easing in Eurozone, Japan and China, versus raising the benchmark base rate in US: the dollar is expected to remain strong.**

(Euro) Growth engine of European economy is forecast to be weak, compared to the US, owing to numerous problems including a heavy debt burden in Greece, implying that euro is expected to remain weak.

(Yen) The yen is expected to stay weak, as BOJ is expected to continue its monetary easing policy to buoy its economy.

(Yuan) In the midst of transition of its growth engine, the yuan is expected to moderate as the authorities may implement an additional benchmark interest rate cut to prevent the hard landing.

2. Outlook for Korean Economy in 2014-2015

Growth: 3.3% in 2014 → 3.4% in 2015

Despite adopting domestic expansionary policies, the growth rate for 2015 was revised down by 0.3%p, from 3.7% (in December 2014) to 3.4%, influenced by poor global economic outlook and growing risks in exports. IMF has lowered global economy forecast from 3.8% (October 2014) to 3.5%. China has also lowered the target growth rate from 7.5% to 7%. When the US raises its benchmark interest rate, risks in financial and foreign exchange markets may grow centering on vulnerable emerging market countries. Korea's price competitiveness has been further weakened, mainly caused by Japan's continuing quantitative easing program and the weakening of Japanese yen.

Private Consumption: 1.7% in 2014 → 2.4% in 2015

Private consumption is expected to improve in 2015, supported by employment growth with quality improvement, a sign of recovery in housing market and an increasing purchasing power led by falling oil prices. On the other hand, worsening quality of employment structure and increased burden on household's debt are pulling factors that keep the private consumption below the economic growth rate.

Facility Investment: 5.9% in 2014 → 4.8% in 2015

As overall economic activity gradually slowing down, facility investment is expected to continue the slowdown shown in the last year (5.9%). Corporate growth and profitability, indicating investment power, both have been greatly worsened. Moreover, possibility of the incremental cost of borrowing exists with a rise of interest rate in the US. However, a recovery in investment sentiment still remains stagnant.

Construction Investment: 1.1% in 2014 → 2.9% in 2015

The government's real estate policies and an expanded SOC budget are forecast to raise the growth rate of construction investment in 2015. The government has passed property market stimulus measures including loosened regulations on LTV and DTI ratios and cut the interest rate to a low of 2 percent in 2H 2014. The SOC budget increased to 24.8 trillion won which is an increase of 4.7% from the last year. The construction order will likely to boost the market after 2H this year, as it takes about 6 quarters to translate construction investment into construction order.

**Export growth (BOP basis):
0.5% in 2014 → 1.9% in
2015**

The gradual recovery in the US economy and strong dollar are positive factors while negative factors such as growing risks in China, weak-yen, and uncertainties of emerging markets pull down the export at a low growth. A slowdown in Chinese economy, its enhanced self-sufficiency in intermediate goods, declined processing trade, contraction of Korea-China competitiveness limit the exports. Moreover, possibility of slashing Korea-Japan exports due to weak yen is high, while the export competitiveness of Korea in the global market is expected to weaken due to the weak yen possessing export price competitiveness of their Japanese exporting goods. Emerging market countries may experience financial and economic instability once the US practices exit strategy in 2H this year which cannot be overlooked.

**Current account Surplus:
\$89.2 billion in 2014 →
\$109.9 billion in 2015**

Despite a negative growth of services balance, the total current account is expected to achieve a surplus of around \$110 billion in 2015, supported by a goods balance surplus surge. Regardless of sluggish exports, goods balance is forecast to show an acceleration of surplus as imports falls. Deficit maintained in the cost of intellectual property and service industry, declined surplus in transportation and construction sectors offset positive effects of travel account deficit contraction. In this manner, services balance deficit is projected to widen further.

**Consumer Prices: 1.3% in
2014 → 1.4% in 2015**

Falling oil prices and sluggish domestic demand are forecast to put downward pressure on both supply and demand. On the demand side, continuing deflation gap is expected to pull down the prices further in 1H 2015. Expected inflation rate and core inflation rate are decreasing, and the domestic inflation rate is losing its momentum. Base effect, price increase of tobacco, appreciation of won, and a hike in cost of utilities serve as price-increasing factors.

**Corporate bond yield (3yr,
AA-): 3.0% in 2014 → 2.3%
in 2015**

Global interest rates dropped due to a fall in benchmark interest rate in Korea and US Treasury yield. With a rise of US Treasury yield and a recovery in domestic growth, the global interest rates are expected to rally by a small margin in 2H. An increase in the US benchmark interest rate narrow the real interest rates gap between Korea and the US and it shall put upward pressure on the domestic interest rates.

**USD/KRW: 1,053 won/
dollar in 2014 → 1,095 won/
dollar in 2015**

Korean Won to US Dollar exchange rate is expected to rise following strong dollar, but the speed of increase will slow as current account surplus rises. Strong dollar is projected to continue during 2015, owing to the disparities in growth rates and monetary policies among the US, Japan and Europe. Meanwhile, correlation between the US dollar index and USD/KRW exchange rate has become stronger after the financial crisis, increased to 0.59 after the crisis from 0.04 before the crisis.

Outlook for Korean Economy in 2014 ~ 2015

(Unit: YoY(%), US\$100mil(Balance of Payment))

	2015						2014	2015
	1Q	2Q	3Q	4Q	1 st Half	2 nd Half	Year	Year
GDP	2.5	3.3	3.6	3.9	2.9	3.8	3.3	3.4
(SA, QoQ%)	0.8	1.0	1.3	0.8				
Private consumption	1.9	2.6	2.5	2.5	2.2	2.5	1.7	2.4
Construction investment	0.6	2.1	2.5	5.7	1.5	4.1	1.1	2.9
Facilities investment	4.0	3.9	6.8	4.7	3.9	5.7	5.9	4.8
Export(Goods and Services)	1.2	2.9	5.5	6.1	2.1	5.8	2.8	4.0
Import(Goods and Services)	0.6	2.6	5.2	6.2	1.6	5.7	2.0	3.7
Consumer prices	0.6	1.4	1.6	1.9	1.0	1.7	1.3	1.4
Current Account Bal (US\$ Bil)	239.0	295.5	295.3	269.6	534.4	564.9	892.2	1099.3
Bal of Goods (US\$ Bil)	276.5	336.3	301.2	283.1	612.8	584.4	926.9	1197.2
Export(BOP basis)	1496.3	1611.4	1582.4	1643.1	3107.7	3225.5	6213.0	6333.2
(growth rate, %)	-2.0	1.1	3.1	5.5	-0.4	4.3	0.5	1.9
Import(BOP basis)	1219.9	1275.1	1281.2	1359.9	2494.9	2641.1	5286.1	5136.0
(growth rate, %)	-9.6	-4.1	-2.8	5.5	-6.9	1.3	-1.3	-2.8
Service and other balances*	-37.5	-40.9	-5.9	-13.6	-78.4	-19.5	-34.7	-97.9
FX rate (USD/KRW, avg)	1095.6	1105.0	1092.0	1087.0	1100.3	1089.5	1053.0	1094.9
Corp bond yield (3yrs, AA-)	2.3	2.2	2.4	2.5	2.2	2.5	3.0	2.3
Unemployment rate (%)	3.8	3.6	3.4	3.3	3.7	3.4	3.6	3.5
Employment level chg (000)	373.7	374.0	363.0	347.9	373.8	355.4	532.8	364.6

* Sum of service balance, primary balance, and secondary balance

Policy Issue:

The Weak Private Consumption and its Implications

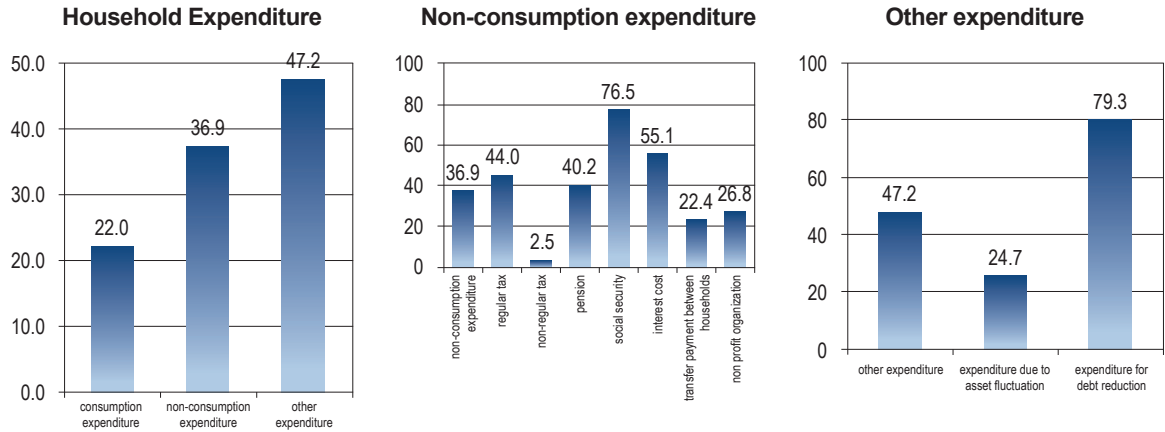
The sluggish household income stem from poor income growth of self – employed workers not from low wage growth

According to the household survey from Korea Statistics, the total household income increased 30.6% between 2006 and 2013; while business income of self – employed workers only grew 19.2% and earned income rose 32.6% on same period. The claim that asserts low wage growth led to feeble household income growth is proven to lack persuasion. Moreover, analyzing the national accounts after 2000, the main factor for the fragile growth of household income is insufficient growth of business profits of self – employed workers. The earned income, which comprises more than 70% of total household income, enhanced 7.0% every year, while business profit, which constitutes 15~20% of total household income, merely rose 1.4%.

Worse is the current situation that the rise of household income hardly result in improvement of private consumption

From 2006 to 2013, the income increased 31.6% while consumption grew 22.0%. The decline of average propensity to consume has come from the drop of the amount of consumption expenditure out of total expenditure as the non-consumption expenditure and other expenditure rose. The non-consumption expenditure enhanced 36.9% and other expenditure augmented 47.2%, which is way higher than the growth of consumption expenditure 22.0%. Digging into the non-consumption expenditure, social security(76.5%), interest cost(55.1%), regular tax(44.0%), pension(40.2%) has remarkably grew. Other expenditure included other expenditure for debt reduction(repaysment of property debt, other debt and return of security deposit) increased by 79.3%, expenditure due to the asset fluctuation(savings and deposits, funds, purchasing real estates) enhanced by 24.7%.

The growth of household consumption expenditure, non-consumption expenditure, and other expenditure (2006~2013, %)



Source: Korea Statistics "Household Survey" original data

Buoying the household income solely may not arouse domestic demand enough

The policy trying to boost the household income by increasing wage growth is an inadequate approach to solve the lingering weak household income misunderstanding the fundamental factor why it has happened. The sluggish household income growth after the 2000 comes from the feeble business profits of self - employed workers. Also, the growth of non-consumption expenditure and other expenditure outpaced the growth of the consumption expenditure, namely social security expenditure, tax expenditure, and expenditure for debt reduction. Under current circumstances, even the upheaval of wage may not easily result in improvement of consumption expenditure. In addition, the wage - hauling economic development model could result in deterioration of competitive edge as the engine of Korean growth yet oriented in export.

The upgrade of APC among the upper – income group, betterment of domestic consumption conditions may be critical to revitalize the economy

It may be efficient to promote the consumption of the upper – income group as they compose the biggest portion among total consumption. The APC of 1st lowest quintile is the highest among total population; however the portion of the magnitude of consumption is the lowest. In fact, if the income of 1st quintile (lowest 20%) enhances by 10%, total consumption rises only by 1.02%; while the APC of 5th quintile (highest 20%) augments by 5%p, total consumption grows by 2.63%. Meanwhile, the APC of 1th quintile has been consecutively decreased since 2010 recording 65.0.

Household total Income and Expenditure among 5 income quintile(2014)

(Unit: ₩1000, %, %p)

	1 st quintile	2 nd quintile	3 rd quintile	4 th quintile	5 th quintile
Income	1,461	2,866	3,917	5,137	8,130
Consumption Expenditure	1,257	2,023	2,532	2,956	3,987
Disposable Income	1,208	2,387	3,241	4,181	6,472
APC	104.1	84.7	78.1	70.7	61.6
(year on year %)	(-2.7)	(-1.3)	(1.6)	(-1.1)	(-2.7)
Portion among consumption expenditure	9.8	14.9	19.2	23.7	32.4

Source: Korea Statistics "Household Survey" original and press release

Also, it is pivotal to improve the consumption conditions in order to boost the domestic demand. The household consumption expenditure increased 22.0% during 2006 and 2013; while overseas direct purchase rose 190.0% with foreign card usage of domestic resident recording 91.4% growth during 2007 and 2014. In this manner, it may be critical to draw the offshore purchase back to domestic territory by upgrading the recognition about the domestic consumption, improving the import distribution structure, and introducing more competition (expanding parallel import) in domestic market.

Cash holdings of Korean companies: Public and Private firms in 2000s

Research Monograph 14-09

Yun Kyung Kim, Hyun-Han Shin and So Yeon Kim

This paper empirically revisits the determinants of cash holdings in Korean public and private firms during 2001-2012. The results are twofold. First, there is no decisive theory to explain cash holdings, however, the precautionary motive is significant. Also, this paper examines whether firms hold too much cash reserves in comparison to the past. Abnormal cash during 2005-2012 is calculated by the discrepancy between real cash and estimated cash based on the period of 2001-2004. The gap is not significantly different from zero. In addition, an increase of cash holdings compared to trend in the past is worthwhile because firms with higher abnormal cash holdings invest more, especially in R&D, than those with lower abnormal cash holdings.

Business Diversification and Financial Performance in Korean Chaebols: 2001~2012

Research Monograph 14-10

Inhak Hwang and Onelack Choi

In this paper we measure various diversification indices of the 30 largest business groups in Korea during the period of 2001~2012. And using the path analysis model and the GMM model we study the effect of the diversification strategy on each business groups' performance. The major finding in this paper includes that the related diversification during 2001~2012 has a positive effect on the ROA, and that the unrelated diversification has a negative effect on the ROA variation over the different years at the statistically significant level. Put it another way, the unrelated diversification is found to contribute to the stability of financial performance over the years. Based on the empirical findings here we claim with some caution that the focusing on the core business may be not the best way to improve the competitiveness and the survival condition of the Korean business groups.

An analysis on the effects of domestic corporate tax policy on firms' overseas direct investment and employment

Research Monograph 14-11

Sanghyng Hwang and Seungrae Lee

This paper analyzes the effects of domestic corporate tax policy on firms' overseas direct investment (ODI) and employment. Apart from the previous tax policy literatures that examine the effects of foreign corporate tax policy on inward foreign direct investment (IFDI), this paper evaluates domestic corporate tax policy as a determinant for firms to invest abroad. Using Korean firm-level data, we measure domestic corporate tax rate as average effective tax rate and marginal effective tax rate for each firm and estimate their effects on firms' ODI and employment. Our results show that both effective tax rates are positively and significantly associated with the amount of firms' investment to their subsidiaries abroad. While firms' ODI do not have significant effects on their domestic employment, we show that firms' ODI induced by domestic tax rates have negative and significant effects on domestic employment. Our analysis implies that domestic corporate tax policy negatively and indirectly affects to firms' employment through ODI.

Estimation of Marginal Effective Tax Rate and Analysis on the Effects of Corporate Tax Burden on Investment and Employment

Research Monograph 14-12

Sanghyun Hwang and Youn Seol

Using Korean firm-level data from 1986 to 2012, this research report empirically analyzes the effect of corporate tax burden on firms' investment and employment and gives policy implications. We estimate an average and marginal effective tax rate and, then, construct an investment model based on Tobin's Q and an employment model which is present in form of an unbalanced dynamic panel regression model. To solve the problem of endogeneity, we apply the first-difference GMM and system GMM suggested by Arellano and Bond (1991) and Blundell and Bond (1998), respectively. Our empirical results are compared to the first-step and the second-step estimation across these two estimation methods. Our results contribute to the existing literature in view of using a marginal effective tax rate. For the various estimation results, we confirm the significant negative effect on investment, and for more concretely if the average or the marginal effective tax rate increases by 1%p., then the ratio of investment to total asset decreases by 1.3%p. for the average effective tax rate and 2.7%p. for the marginal effective tax rate. Also, we find the negative effect on employment although empirical results have more or less difference for statistical significance. For comparison between Large and S&M enterprise, the effects of corporate tax burden on investment are presented for both, however the effect on employment is significant for the Large firms but is not significant for the S&M enterprise.

A Study for Constructing Korea Tax Policy Analysis Model

Research Monograph 14-13

Cho, Gyeong Lyeob and Hwang, Sanghyun and Woo, Kwangho

This study focuses on developing a model that evaluates efficiency and equity of supplying public fund by tax. Tax distorts resource allocation and income distribution, and then, it affects economic efficiency and equity. In addition, the tax affects current and future price system, and thus, it affects intertemporal resource allocation and equity between current and future generation. Considering various effects of tax, analyses should be limited in partial equilibrium models. Hence this study builds dynamic computable general equilibrium model (DCGE) for multisector and multiclass.

Until now, domestic and foreign studies of empirical analysis have been criticized in that, depending on simple models due to data availability, their analysis results are unrealistic and they are unlikely to be applicable. This study overcomes these problems, however. Using data available currently, this study constructs a model that can make timely evaluation on frequent tax revision or fiscal policy change. In this study, the model is composed of 27 industry sectors, 12 consumption goods, 7 capital goods, decile-of-income classes. Subdividing capitals and reflecting taxes related to them according to the feature of Korea's capital taxation, this model constructs the base for evaluating effects of capital taxation policies more reasonably. It reflects income tax and consumption tax as well. The income tax is subdivided into earned income tax, dividend income tax, capital gains tax, business income tax, aggregate income tax. For the consumption tax, the model reflects value added tax, individual consumption tax, cigarette tax, liquor tax, transport, energy and environment tax that can become subject to tax revision. This model has advantage to analyze the effects of tax revision related to corporate tax, income tax, and consumption tax in income distribution as well as efficiency.

Using the model, this study analyzes income redistribution, tax incidence and macroeconomic effects for a 2%p increase in corporate tax. The summary of analysis results is as follows. If the corporate tax increases by 2%p, the surplus is -8,754.7 billion won, the consumer surplus -2,873.9 billion won, and the producer surplus -5,880.7 billion won at annual average for the next three years. Thus, it is predicted that the consumers bear the corporate tax burden at 32.8%, and the producers at 67.2%. It is analyzed that the producer surplus is to labors at -16% and to capital owners at -51.2%. Again, it is predicted the capital surplus is to dividend at -4.5%, to equipment and building at -21%, to land at -0.8%, to intangible and cash and cash equivalent asset at -30.9%, and business income at 6%. It is analyzed that, if the corporate tax increases, the income redistribution gets worse as the Gini coefficient increases by 0.02~0.034%p. This is why the width of decrease in earned and capital income happens to be larger at the low income class. It is predicted that, if the corporate tax increases, the consumer price increases by 0.12%, and GDP decreases by 0.33%.

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