

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

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Korea Economic Research Institute

Executive Summary

Korean economy projected to grow 2.6% in 2016 owed by private consumption and investment rise

Korean economy is expected to grow 2.6%(YoY) in 2016, which is not changed since our last forecast in last December; contracting export volume led by the downward shift of world growth forecast is to set off by the private consumption boost helped by the Korean government's various demand - vitalizing policy. Private consumption is projected to grow 2.2%(YoY) this year which is a 0.1% p rise than that of last year, and construction and facilities investment are forecast to grow 3.1%(YoY), 3.7%(YoY) respectively. Export and import would sustain their current contracting trend marking -3.4%(YoY), -3.0%(YoY) respectively in 2016. In turn, the current surplus may step down a bit to 96.3 billion dollar this year, which is a 7.0% of GDP. Meanwhile, CPI is projected to level up to 1.4% in 2016 and USD/KRW is expected to climb 4.5%p up to 1,181 won.

Korea's 5 years growth outlook remains at 2.7%, low growth likely to prolong

In the midst of weak resilience of export recovery led by low world growth and unrest of Chinese economy, domestic recovery is also expected to be suppressed due to interest rate rise, volatile real estate market, and ageing symptoms. CPI is estimated to rise from 1.9% in 2017 to 2.2% in 2018 ~ 2020 owed by the rebound of crude oil price and USD/KRW. Moreover, current account surplus is expected to climb down from 7.0% of GDP in 2016 to 4.5% in 2020. The changes of number of employed person is projected to slow down to 200 thousand person in 2017~2020, with unemployment rate rise up to 4.0% in 2020.

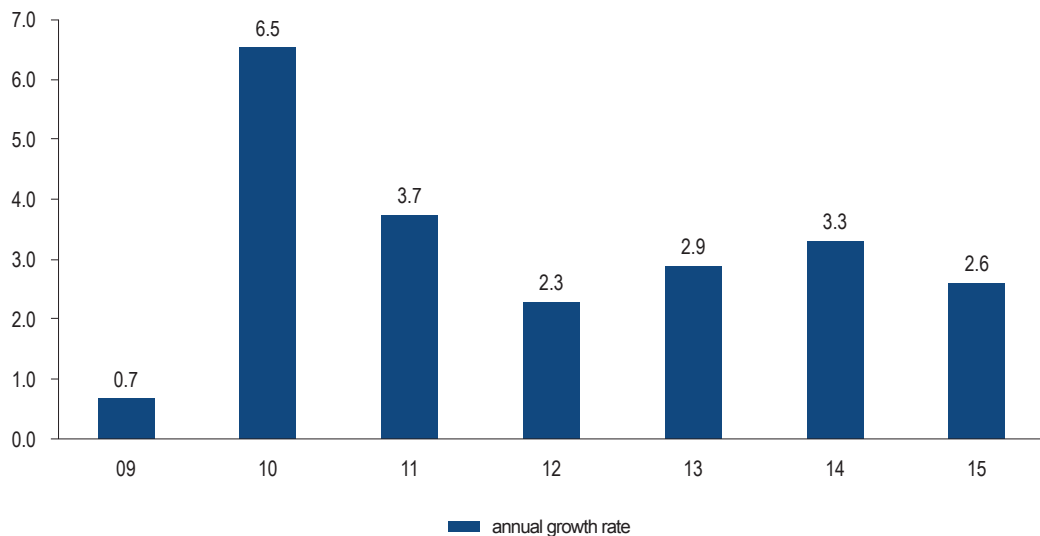
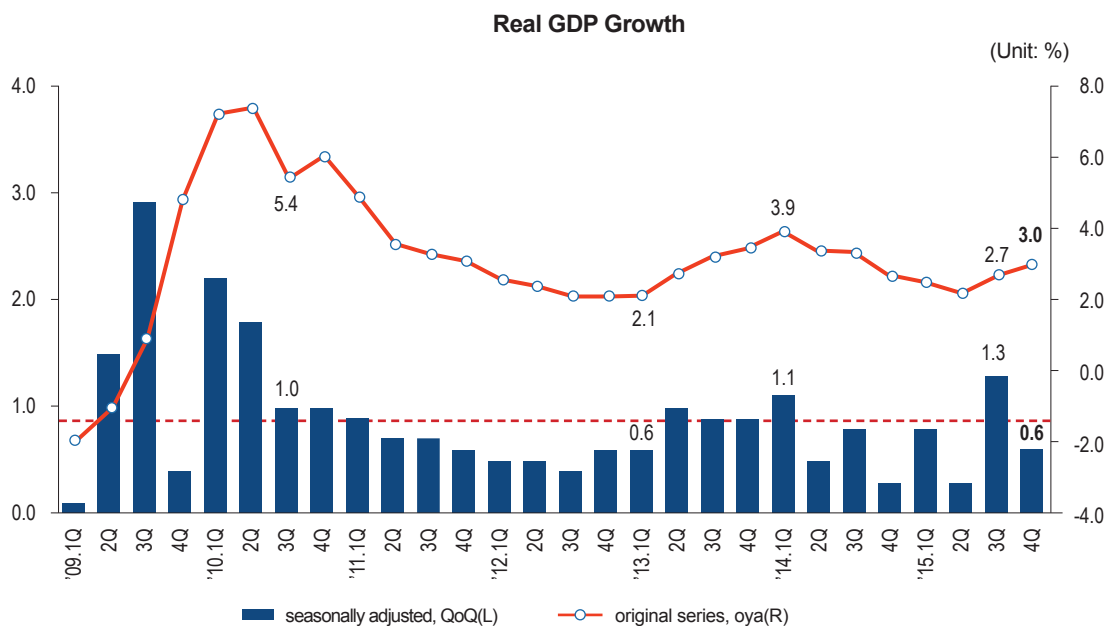
The latest rise of employed person in elderly citizens could be a statistical illusion, thus labor market repair of the age range urgently needed

Lately, the elderly employed persons whose age is over 50 years old increased remarkably. However, the rise is analyzed to be just a statistical illusion which is hard to be interpreted as a labor market improvement. In 2015, employed person between 50~64 years old increased by 286 thousand persons; however, this happened as the number of people entering this age range (645 thousand persons) outpaced that of people leaving the age range (236 thousand persons). This employment mounting effect would vanish from 2019 by demographic shift and would even negatively work as employment contraction from 2025. In turn, improving the labor market conditions of the elderly people is critical: redesign wage system, expand various working time workers and develop works suitable for the elderly.

Recent Developments

Korea's GDP growth recorded 0.6% (QoQ) in 4Q 2015, annual growth of 2015 2.6%(YoY)

The over year ago growth of 4Q rebounded to 3.0% from 2.7% in 3Q only due to the base effect where 4Q 2014 growth was remarkably weak (0.3% QoQ, 2.7% oya). Annual growth of 2015 marked down to 2.6% which is a slide after 3 years of consecutive rise (2.3% in 2012, 2.9% in 2013, 3.3% in 2014). The growth remains subdued.



Source: The Bank of Korea

Construction investment contribution reduced while negative contribution from net export prolonging; both of which pulled down the growth rate

The contribution of domestic economy plummeted from 2.0%p to 0.9%p in 4Q 2015 owed by the construction investment freeze. Private consumption contribution maintained favorable level from 0.9%p to 1.0%p in 4Q helped by the several demand pushing government policies, while construction investment contribution dampened from 0.7%p to -0.9%p with facilities investment contributing almost 0% to GDP. Meanwhile, the negative contribution of net export has narrowed down its negative gap from -0.8%p to -0.3%p, yet powerless to overturn the contraction to expansion.

Contribution to GDP by expenditure

(Unit: %p)

(SA, real)	2014				2015			
	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4
Final consumption expenditure	0.2	-0.1	0.7	0.3	0.3	0.0	0.9	1.0
Private	0.2	-0.2	0.4	0.2	0.3	-0.1	0.6	0.8
Government	0.0	0.1	0.3	0.0	0.0	0.1	0.3	0.2
Gross capital formation	-0.6	0.4	0.7	0.1	0.7	0.6	1.1	-0.1
Gross fixed capital formation	0.7	0.2	0.1	-0.8	1.1	0.2	0.9	-0.8
Construction	0.8	0.1	0.1	-1.2	1.0	0.2	0.7	-0.9
Facilities investment	-0.1	0.1	0.0	0.4	0.0	0.0	0.2	0.1
Intellectual property products	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Changes in inventories and acquisition	-1.3	0.2	0.5	0.9	-0.5	0.4	0.2	0.7
Exports of goods and services	0.7	0.7	-0.9	0.2	0.1	0.1	-0.3	1.0
Imports of goods and services	-0.6	0.6	-0.3	0.3	0.3	0.4	0.5	1.3

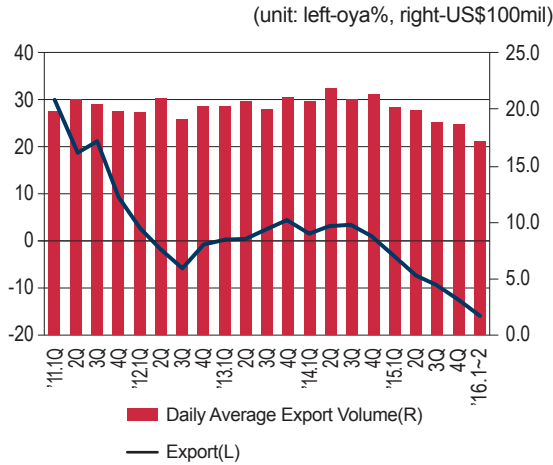
Source: The bank of Korea

Export growth (on a custom clearance basis) continues to drop to -15.6% of monthly average between January and February in 2016 from -12.0% in 4Q 2015

With continuing weak export to Japan, China of which is the biggest export market has reduced its export volume from our nation as well; both of which accelerated the export contraction. Export to China expanded its negative gap to -17.3% in between January and February in 2016 from -10.5% in 4Q 2015. In addition, exports of almost all the products of major export products contracted in between January and February in 2016. The daily volume of export trimmed to a monthly average of US\$1.72 billion between January and February in 2016 from US\$1.86 billion in 4Q 2015.

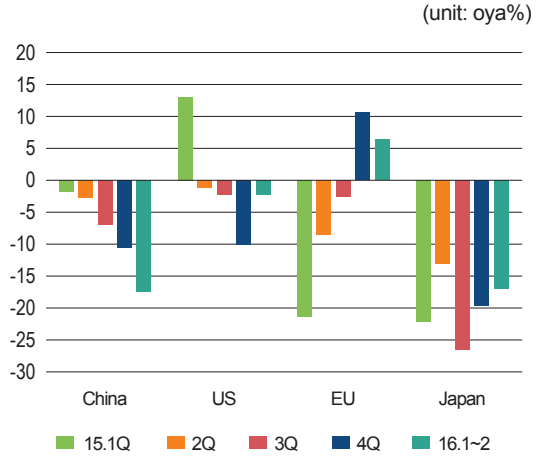
Economic Trends and Outlook

Export Growth and Daily Average Export Volume



Source: MOTIE, Korea Customs Service

Export Growth by Destination

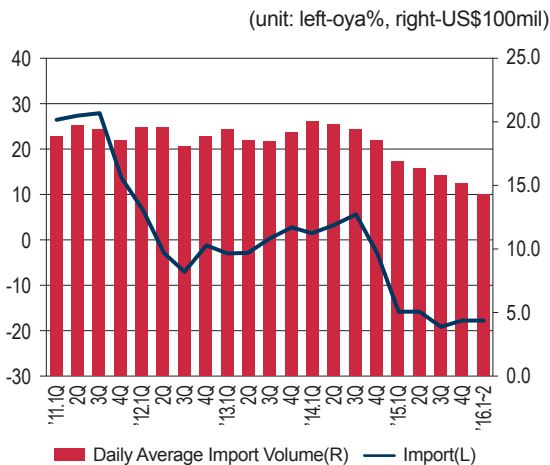


Source: MOTIE

Weak imports growth (on a custom clearance basis) recovered by a small margin: to -17.5% monthly average between January and February in 2016 from -17.8% in 4Q 2015

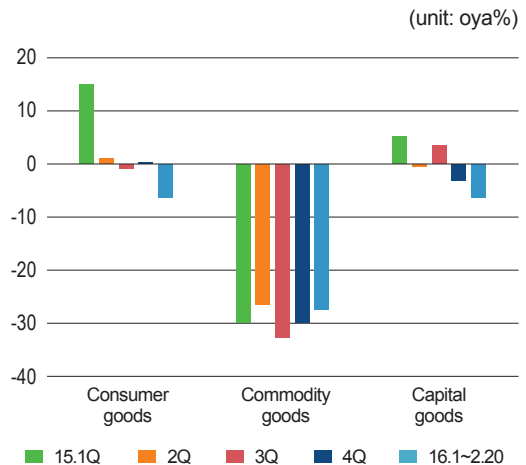
Imports of raw materials maintaining weak, imports of consumer goods and capital goods also contracted. Commonly known, the import of raw material poses the biggest portion among total imports. The daily volume of imports between January and February in 2016 reduced to US\$1.42 billion from US\$1.52 billion in 4Q 2015.

Import Growth and Daily Average Import Volume



Source: MOTIE, Korea Customs Service

Import Growth by Use

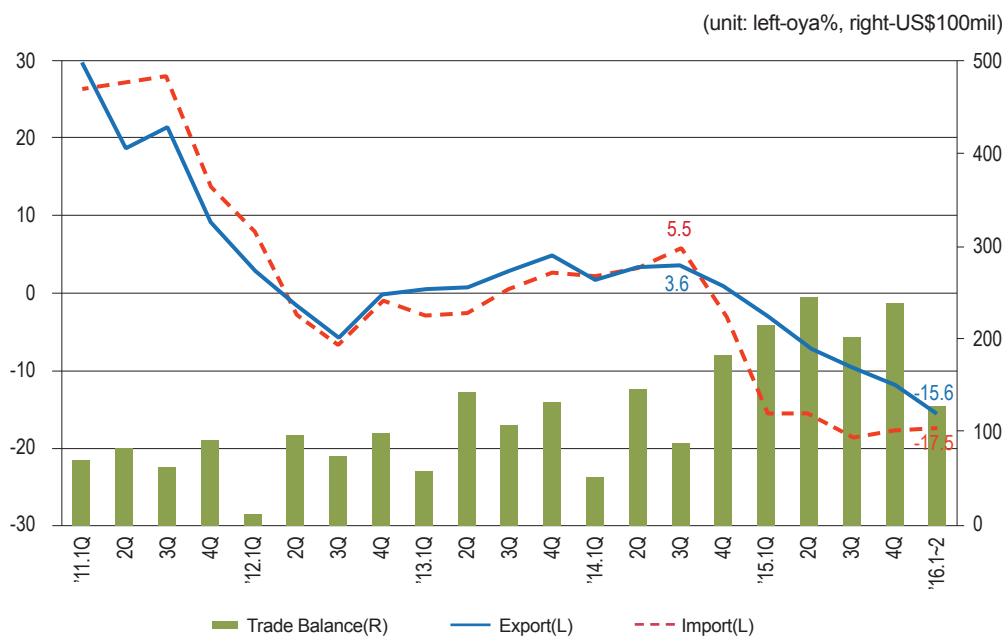


Source: Korea Customs Service

Korea's trade balance records a US\$90.3 billion surplus in 2015 (increased by US\$43.1 billion, 91% YoY) and US\$12.6 billion surplus in between January and February in 2016 (increased by US\$10.9 billion, 657% oya)

While Korea's trade performance continues to deteriorate with both exports and imports falling, the huge trade surplus comes from declining magnitude of import growth outpacing that of export growth. Monthly average export growth between January and February in 2016 was -15.6%, while import growth over the same period was -17.5%.

Trend of Export, Import and Trade Balance



Source: MOTIE

Korea's current account surplus archived US\$105.87 billion in 2015 and US\$7.06 billion in January 2016

Korea's current account surplus outstripped by US\$21.5 billion (25.5% YoY) in 2015 compared to the last year's current account surplus of US\$84.38 billion. The surplus on balance of goods rose dramatically from US\$88.88 billion in 2014 to US\$120.3 billion in 2015, with surplus on balance of primary income climbing from US\$4.16 billion to US\$5.89 billion in 2015. The current account surplus increased by US\$ 0.8 billion (12.8% oya) in January 2016 compared to the last year's current account surplus of US\$6.26 billion over the same period. The upward trend of monthly average of current account since 1st half of 2014 fell back in small margin in January 2016.

Trend of Current Account

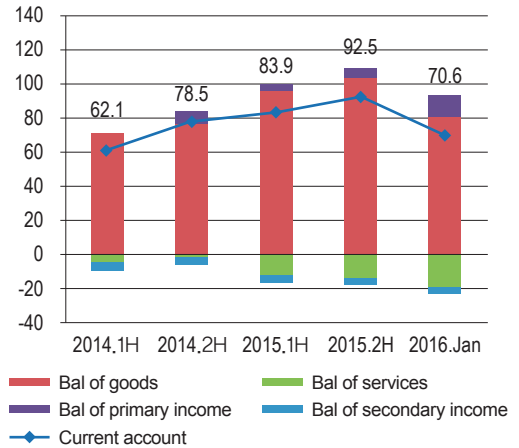
(unit: US\$100mil)

	2014		2015		2016
	1H	2H	1H	2H	Jan
Current Account	372.6	471.2	503.6	555.2	70.6
Bal of Goods	427.7	461.1	579.0	624.0	81.1
Bal of Services	-28.4	-8.5	-74.7	-82.1	-19.0
Bal of Primary Income	-1.8	43.4	22.7	36.2	12.5
Bal of Secondary Income	-25.0	-24.9	-23.3	-22.9	-4.0

Source: The Bank of Korea

Trend of Average Current Account

(unit: US\$100mil)



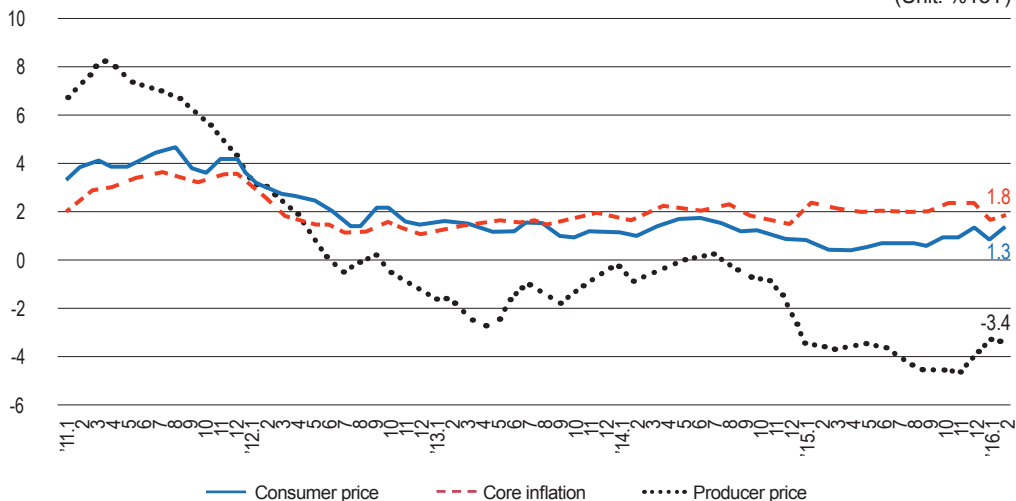
Source: The Bank of Korea

Consumer prices buoyed to 1.3% in February from 0.7% in 2015

Consumer price stepped up from 0%-low level in 2016 thanks to the hike of price of agriculture, livestock and fisheries due to the bad weather in winter seasons. The demand side price pressure is timid helped by the uncertainty among Korean economy. However, the supply side price pressure remains even though the low oil and commodity price lingers owed to the price push of agricultural, livestock and fisheries. In reality, the core inflation leveled down to 1.8% in February while expected inflation sustaining 2.5%. Meanwhile, producer prices recovered to -3.4% in February 2016 from the previous months' record of -4.0%.

Trend of Prices

(Unit: %YoY)



Source: Korea Customs Service, The Bank of Korea

The continuous decline of overall job growth of 337 thousand in 2015 extended further in February 2016

The number of employed person declined to 223 thousands person in February 2016, which is continuously deteriorating since last year. By age group, the slowdown of youth employment (between 15~29 years old) is worrisome. By industry, the number of employed person in construction industry slipped back to contracting phase and that in wholesale & retail trade, hotels & others is showing a repetitive reduction. On the other hand, unemployment rate rose to 4.9% in February owed heavily to seasonal reasons.

Employment – related Indicators

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

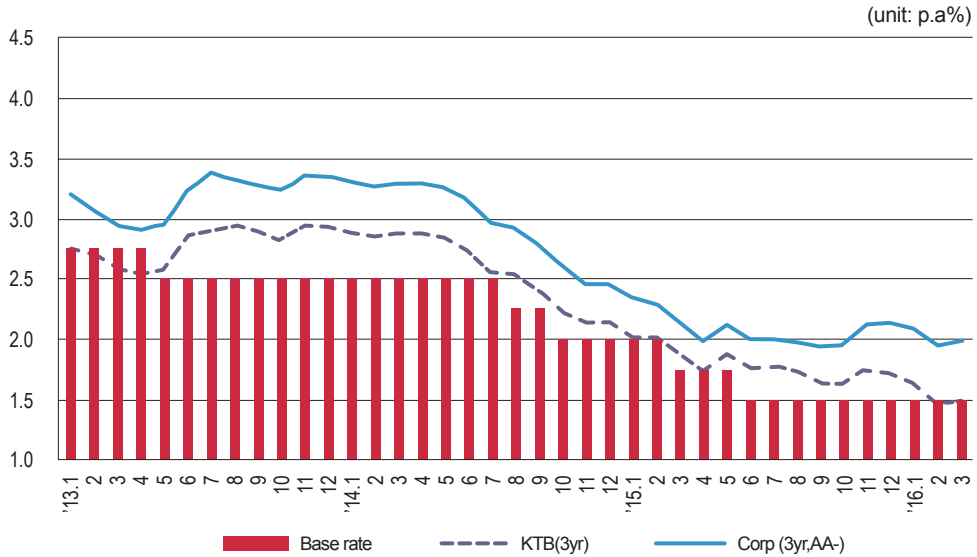
		2014	2015		2016		
		Year	Year	Feb	Dec	Jan	Feb
Changes in number of employed persons		533	337	376	495	339	223
By Age	- 15 ~ 29	77	68	30	111	25	18
	- 30 ~ 39	-21	-38	18	-11	10	-44
	- 40 ~ 49	38	-14	-48	-9	-4	15
	- 50 ~ 59	239	149	183	142	115	77
	- 60 years and older	200	172	193	263	194	158
By Industry	- Agri., Forestry & Hunting	-68	-107	-87	-27	-74	-61
	- Manufacturing	146	156	159	146	145	108
	- Construction	42	27	68	7	17	-6
	- Wholesale & retail trade, hotels & others	259	73	142	-45	-44	-63
	- Business, personal, public service & others	176	165	127	356	206	218
	- Electricity, transport, communication & finance	-18	22	-28	51	83	20
Unemployment rate(%)		3.5	3.6	4.6	3.2	3.7	4.9

Source: Economically Active Population Survey (Statistics Korea)

Market interest rate descended from January to March helped by the flight to quality sentiment

Korea's external data (export, import) radically contracted with production, consumption, and investment indicator deteriorating as well. The market interest rate influenced by the worry upon national economic status slid down with longer maturity rate deeper than the shorter maturity yield resulting in negative yield spread. The 3-yr Treasury bond yield decreased from 1.72% in December of 2015 to 1.50% in March of 2016, while 3-yr Corporate bond yield(AA-) stepped down from 2.14% in December of 2015 to 1.98% in March of 2016.

Interest rates



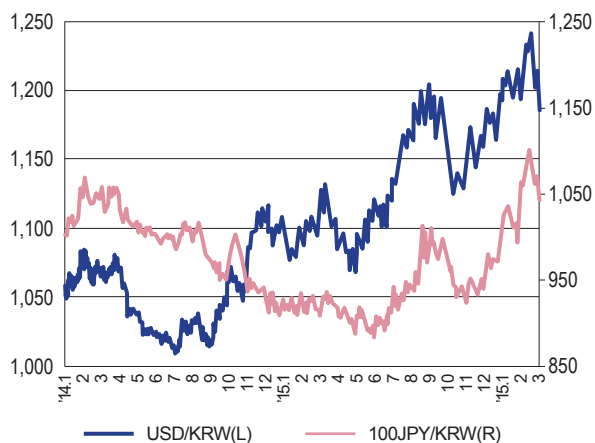
Source: The Bank of Korea

USD/KRW dramatically climbed up as prevailing dollar strengthening trend mixed up with Chinese hard landing worry and provocative North-Korea risk

Since the last base rate hike of the US Fed in late 2015, the dollar strengthening trend settled down in foreign exchange market globally. Against this backdrop, Korean Won depreciated radically and additionally helped by the Chinese economic indicators deteriorating and the aggravation of North Korean provocation. In addition, foreigners net sold Korean equity between December of 2015 and January 2016 exacerbating the foreign exchange movement.

Exchange rate trend

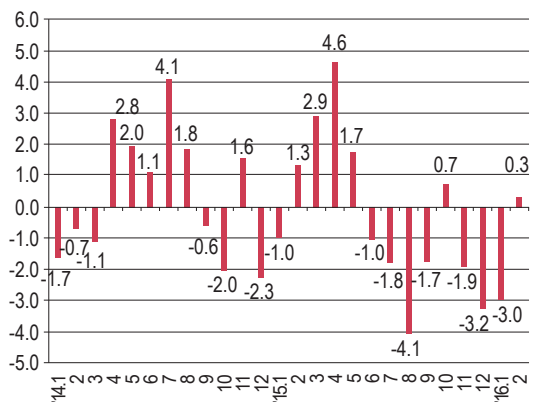
(unit: USD/KRW, 100JPY/KRW)



Source: The Bank of Korea

Net foreign purchase of Korean equities

(unit: Tril won)



Source: The Bank of Korea

Outlook for 2016 and Further

1. External Environments

(World Economy) A subpar growth for global economy is projected in 2016 owed by the weak world trade and investment

(United States) The growth for US is expected to slightly level down than last year as subsequent investment and real wage recovery is supposed hard to meet within this year even though the labor market improvement sustains.

(China) The protracted growth slowdown is expected in 2016 as transition of growth strategy works along with the volatile financial market.

(Eurozone) The growth for Eurozone is expected to step down merely than last year helped by the sluggish investment and yet too- high unemployment rate.

(Japan) The growth rate for Japan is expected to gear up very gradually than last year as private consumption would stay lower than expected and export may swing big due to the Yen strengthening.

(Oil Prices) The price of oil is expected to rise very gradually within 2016 helped by the gradual oil surplus reduction and regional risks; only to end up yet in low level

(Demand-Supply) The demand growth may outpace the supply growth; to end up in oil surplus decline.

(Speculative and Geopolitical factors) The speculative factors would possibly outstand whenever additional supply issue pops up resulting in the oil price swing.

(Foreign Exchange rates) The dollar strengthening would prevail throughout 2016; while Yen would stay stronger than last year however continuing weak trend with Euro and Yuan

(US Dollar) The US Dollar is expected to remain in strong trend gradually throughout this year as US economic indicator improving slower and mixed than - expected and global world growth possessing several risks.

(Euro) Euro is expected to maintain weak as economic recovery projected gradual and minus base rate implemented.

(Yen) Japanese Yen is forecasted to level up a small margin than last year however only to yet remain weak as Japanese economy still needs quantitative easing to boost up.

(Yuan) Chinese Yuan is estimated to stay weak as worry upon Chinese hard-landing mingles with financial market volatility.

2. Outlook for Korean economy in 2016

Growth: 2.6% in 2015 → 2.6% in 2016

Korean economy is expected to grow 2.6% in 2016 and stay in L-shaped trajectory since improvement in external environments is unclear following China risk, U.S. interest rate hike and domestic circumstance encountering several headwinds as limitation of political capability, restructuring of partial industry, and debt deleveraging. The forecast is maintained at 2.6% same with the last projection as domestic demand vitalizing policy effectively setting off the sluggish export helped by the downward shift of global growth projection.

Private Consumption: 2.1% in 2015 → 2.2% in 2016

Amid the average propensity to consume remaining low due to the structural factors such as household debt and ageing, interest rate hike pressure, slowdown of growth of employed person, and slow of real estate market recovery are expected to suppress the private consumption in 2016. APC recorded 70.4% in 4Q 2015, which is lower by 1.2%p than late 2014 and by 2.7%p than pre-financial crisis period (2003~2008). Growth in number of employed person deteriorated as well recording average of 200 thousand persons between January and February in 2016.

Facility Investment: 5.2% in 2015 → 3.7% in 2016

As both internal and external economic outlook uncertain, and investment conditions such as investment demand and capital cost deteriorating, facility investment growth is expected to slower down in 2016 than 2015. The internal and external economic forecast is possible to worsen than expected ultimately contracting investment sentiment more than projected. Also, if US Fed hikes base rate further, the volatility of financial market may rise and thus the capital cost would enhance. In the meanwhile, the facility investment pressure index is remaining in negative territory and average operating ratio for manufacturing industry is keep showing a slid.

Construction Investment: 4.0% in 2015 → 3.1% in 2016

Several factors are predicted to suppress the resilience of construction investment in 2016: construction stability policy implemented by government, curtail of 2016 SOC budget, and ascending pressure of interest rate. Government is trying to balance down housing permit volume as worries upon excessive housing supply heads up, and announced on Economic Directive 2016 that it should reinforce the mortgage loan regulations. The 4.5% cut of 2016 SOC budget along with the loan rate hike may attenuate the real estate market recovery.

**Export growth (BOP basis):
-10.5% in 2015 → -3.4% in
2016**

The export growth of 2016 is expected to stay at negative territory as structural factors such as weak external demand, enhancing competence sustain. Thanks to additional Chinese yuan depreciation pressure, global demand deterioration, and Emerging Market unrest, risks for export increased. The positive growth effect helped by the upward USD/KRW is restrictive as well due to proliferation of international division of labor. The degree of export decline would descend from 2nd quarter helped by the base effect and export price recovery; however huge improvement would be difficult as global growth forecast implies heavy uncertainty. Altogether, we downshifted 4.3%p our last export forecast (0.9%) to -3.4% along with the world growth rate.

**Import growth (BOP basis):
-18.2% in 2015 → -3.0% in
2016**

The import growth is expected to sustain in negative territory 2016 as well owed by weak internal and external demand, effect of price decline. We downshifted 5.2%p our last import forecast (2.2%) to -3.0% due to the drop of export growth forecast and import price.

**Current account surplus:
US\$105.9 billion in 2015 →
US\$96.3 billion in 2016**

The current account surplus in 2016 is expected to diminish thanks to decline of goods account surplus and expansion of service account deficit. The magnitude of goods surplus is to narrow down as import growth would outpace the export growth. The deficit volume of service accounts would mount up as travel account deficit enlarges and transport and construction surplus reduces.

**Consumer price: 0.7% in
2015 → 1.4% in 2016**

Despite the prolonging minus gap, consumer price would level up to mid-1% in 2016 helped by the upward USD/KRW trend, slowdown of international oil price fall, and inflation related policies. Helped by the February consumer price step up to 1.3% and base effect, the price upward pressure would retain within the whole year. However, the price is not expected to hover over 2% as international crude oil price climb would be restrictive. Oil price is not going to easily rise due to the weak demand and came back Iran supply.

**Corporate bond yield (3yr,
AA-): 2.1% in 2015 → 2.3%
in 2016**

The corporate yield (3yr, AA-) of 2016 is expected to hover around 2.3% which is 0.2%p higher than the last year rate of 2.1% and a 0.2%p downward shift from last forecast. As US Fed thought to slow the base rate hike schedule than expected early, Korean base rate takes off hike pressure as well. Unless the Korean – US real rate reverse gap widens, domestic market rates would not jump up dramatically.

**USD/KRW: 1,131 won/
dollar in 2015 → 1,181 won/
dollar in 2016**

USD/KRW is expected to gradually rise to 1,180 won level in 2016 from last year's 1,131 won. Indeed dollar strengthening factors such as US base rate hike and Chinese yuan depreciation dominates, however huge magnitude of current account surplus would tap down the dollar. In the 1st quarter, the USD/KRW climbed higher than the market expected, anyhow it would settle down due to the alleviation of regional risk, slowdown of US base rate hike and Chinese yuan depreciation. In this manner, we retain our 1,181 won forecast since the last forecast.

Outlook for Korean Economy in 2016

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

	2015		2016		2014	2015	2016
	1 st Half	2 nd Half	1 st Half	2 nd Half	Year	Year	Year
GDP	2.3	2.8	2.7	2.4	3.3	2.6	2.6
Private Consumption	1.6	2.7	2.3	2.1	1.8	2.1	2.2
Construction Investment	1.2	6.5	4.1	2.3	1.0	4.0	3.1
Facilities Investment	5.4	5.0	3.4	3.9	5.8	5.2	3.7
Export(Goods & Services)	-0.3	1.1	2.0	2.3	2.8	0.4	2.2
Import(Goods & Services)	1.7	4.4	1.4	2.2	2.1	3.0	1.8
Consumer Price	0.6	0.9	1.2	1.6	1.3	0.7	1.4
Producer Price	-3.6	-4.4	-3.1	-0.5	-0.5	-4.0	-1.8
Current Account Bal	503.6	555.1	451.0	511.5	843.7	1058.7	962.5
Bal of Goods	579.0	623.9	557.3	588.0	888.9	1202.9	1145.3
Export(BOP basis)	2767.0	2721.4	2527.0	2774.8	6130.2	5488.4	5301.9
(growth rate, %)	-10.6	-10.3	-8.7	2.0	-0.8	-10.5	-3.4
Import(BOP basis)	2188.0	2097.5	1969.8	2186.8	5241.4	4285.5	4156.6
(growth rate, %)	-18.0	-18.5	-10.0	4.3	-2.1	-18.2	-3.0
Service and other bals*	-81.3	-78.0	-106.3	-76.6	-45.1	-159.3	-182.8
FX rate(USD/KRW, avg)	1099.1	1162.8	1192.5	1170.0	1053.0	1130.9	1181.3
Corp bond yield(3yrs, AA-)	2.2	2.0	2.1	2.5	3.0	2.1	2.3
Unemployment rate(%)	4.0	3.3	4.1	3.6	3.6	3.6	3.8
Changes in number of employed persons	331.0	343.0	346.5	301.2	532.8	337.0	323.9

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

3. Outlook for Korean economy in 2016 ~ 2020

Main Assumptions for the Forecast

First, we assume that the global economy is to grow by 3.2% in between 2016 ~ 2020 (0.4%p lower than the IMF forecast.) The global growth is estimated to step down by 0.3%p than 3.5% in between 2011~2015. Also, the international crude oil price would climb up since 2016, rebound in 2017 ~ 2018, and hover around the 50 dollar level from then. The excessive supply of crude oil would alleviate as production is rebalancing and global demand would pick up further, however the strengthening trend of dollar would maintain quite long and expansion of oil economic reserve followed by the oil price recovery would limit the level of price to rise.

Growth Rate: 2.6% in 2015 ~ 2016, and annual average 2.7% in 2017 ~ 2020

The long term growth forecast is not rosy; low growth period is to come thanks to weak export recovery and restrictive domestic market boost. The export is expected to grow only by 2.2% in 2016 and 3.0% in 2017 ~ 2020; enervated global growth, rising China risk (Chinese slowdown, Yuan depreciation, technology chase up) are suppressing factors. The private consumption would record lower 2% level which is below the growth level helped by the ageing society and negative effect of debt redemption. Construction investment is forecasted to show 1% of low growth pace due to weak housing market and curtail of SOC budget while facilities investment is projected to rise at solid 4% growth thanks to alternative and new growth industry investment.

Consumer Price: 1.4% in 2016, 1.9% in 2017, 2.2% in 2018 ~ 2020

The minus GDP gap would sustain in the mid – term and press the consumer price down. However, the rebound of international crude oil price and upward trend of USD/KRW would push the price to rise.

Current Account Balance: gradual downscale due to goods surplus fall and rise of service deficit

The current account surplus is expected to drop from US\$96.3 billion in 2016 to US\$76.4 billion in 2020. Converted to GDP ratio, the current account surplus is gradually falling from 7.0% to 4.5%.

Outlook for Korean Economy in 2016 ~ 2020

	Unit	2015	2016	2017	2018	2019	2020
GDP	YoY%	2.6	2.6	2.8	2.9	2.7	2.6
Private Consumption	YoY%	2.1	2.2	2.3	2.5	2.3	2.2
Construction Investment	YoY%	4.0	3.1	1.9	2.0	1.5	1.3
Facilities Investment	YoY%	5.2	3.7	5.0	4.5	4.1	3.9
Export(Goods & Services)	YoY%	0.4	2.2	3.0	3.1	3.0	2.9
Import(Goods & Services)	YoY%	3.0	1.8	2.8	2.9	2.7	2.6
Consumer Price	YoY%	0.7	1.4	1.9	2.2	2.2	2.3
Current Account Bal	US\$100mil	1058.7	962.4	972.6	816.0	838.7	763.5
	% of GDP	7.7	7.0	6.7	5.3	5.2	4.5
Goods Export	YoY%	-10.5	-3.4	6.1	5.2	4.1	3.2
Goods Import	YoY%	-18.2	-3.0	7.2	9.8	4.3	4.9
USD/KRW	won(average)	1130.9	1181.3	1162.9	1149.8	1160.7	1164.1
Corp bond yield(3yrs, AA-)	p.a%	2.1	2.3	2.5	2.9	2.9	3.0
Unemployment rate	%	3.6	3.8	3.7	3.7	3.9	4.0
Employed persons	oya %	1.3	1.2	1.1	1.1	1.0	0.9
	chg(thousand)	337.0	323.9	288.9	292.0	268.4	244.0
Major exogenous variables							
World growth rate	oya%	3.1	3.1	3.3	3.4	3.3	3.2
Crude oil price	dollar/bbl	51.0	39.0	45.0	55.0	56.0	53.0

Policy Issue:

The growth of the elderly employment and analysis of the demographic structure transition

The relatively favorable employment condition sustaining compared to the sluggish growth needs to be investigated

Average employment grew from 262 thousand persons in between 2001 ~ 2008 to 313 thousand persons in 2010 while average growth rate deteriorated 1.1%p from 4.6% to 3.5% during the same period. In this manner, there is possibility that the latest employment growth of the elderly is actually a demographic structure transition. It is a possible story that the number of persons entering the elderly outstrips the number of persons leaving the same age group, the so-called baby boomer generation, so that the number of employed person is growing despite current weak growth circumstance.

Population of age range between 50 and 64 years old remarkably rose thanks to the elderly entering the age range

Annual population reaching 50 years old dramatically increased since 2001. In 2010, population newly entering 50~64 age range was 848 thousand persons while population leaving the same age was 359 thousand persons only to reach the peak of their discrepancy.

The latest growth of employment among the age of the elderly could be a statistical illusion; a natural growth as the result of the demographic structure transition

The number of employment change among the age between 50 and 64 years old in 2015 can be rewritten as following:

$$\begin{aligned}
 B_{2015}^{50-60} - B_{2014}^{50-64} &= (B_{2015}^{50} + B_{2015}^{51-64}) - (B_{2014}^{50-63} + B_{2014}^{64}) \\
 &= \underbrace{(B_{2015}^{50} - B_{2014}^{64})}_{\text{Employment change due to demographic structure transition}} - \underbrace{(B_{2015}^{51-64} + B_{2014}^{50-63})}_{\text{Employment change due to labor market condition alteration}}
 \end{aligned}$$

The first term on the right side $(B_{2015}^{50} - B_{2014}^{64})$ shows the employment change due to the demographic structure transition in 2015: the yearly difference in 2015 between the number of employed persons entering the age range of 50 to 64 years old and the number of employed persons leaving the same age range.

The second term on the right side $(B_{2015}^{51-64} - B_{2014}^{50-63})$ shows the employment change due to the labor market condition alteration in 2015: the yearly difference between 2014 and 2015 of the number of employed persons who were in between the age of 50 and 63 years old in 2014 and also in between the age of 51 and 64 years old in 2015

If analyzed by above equation, the growth of elderly employment in 2015 is presumed to be totally a result of demographic structure transition.

$$\underbrace{B_{2015}^{51-64} + B_{2014}^{50-64}}_{286,000} = \underbrace{(B_{2015}^{50} + B_{2014}^{64})}_{409,000} - \underbrace{(B_{2015}^{51-64} + B_{2014}^{50-63})}_{-123,000}$$

286 thousands person which is the number of employment growth between the age of 50 and 64 years old in 2015 can be divided into two terms: 409 thousands person which is the number of employment change due to the demographic structure transition and – 123 thousands person which is the number of employment change due to the labor market alteration. The decrease of employment due to the deterioration of labor market is set off by the increase of employment due to the demographic structure transition. In 2015, the number of population leaving the age range was only 236 thousands while that entering the age range was 645 thousands.

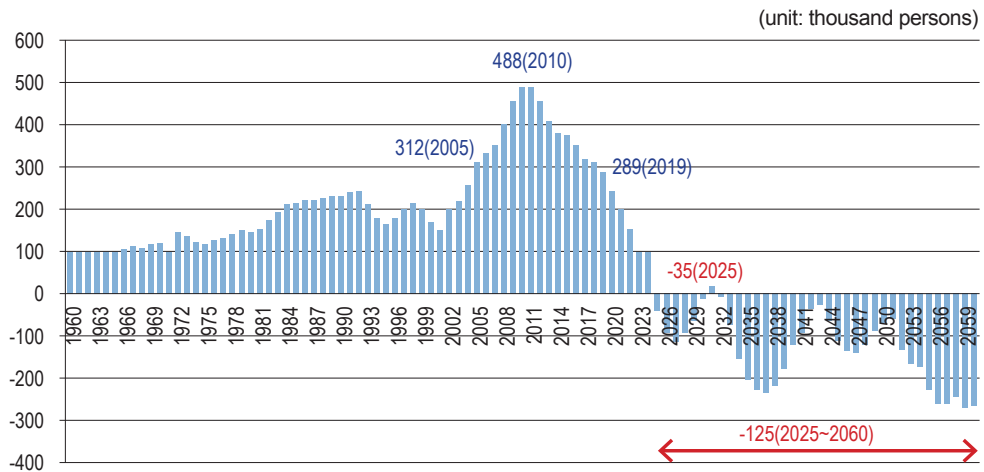
The latest rise of employed person in elderly citizens could be a statistical illusion, thus labor market repair of the age range urgently needed

Lately, the elderly employed persons whose age is over 50 years old increased remarkably. However, the rise is analyzed to be just a statistical illusion which is hard to be interpreted as a labor market improvement. In 2015, employed person between 50~64 years old increased by 286 thousand persons; however, this happened as the number of people entering this age range (645 thousand persons) outpaced that of people leaving the age range (236 thousand persons). This employment mounting effect would vanish from 2019 by demographic shift and would even negatively work as employment contraction from 2025. In turn, improving the labor market conditions of the elderly people is critical: redesign wage system, expand various working time workers and develop works suitable for the elderly.

As the employment bonus due to the statistical illusion is estimated to disappear from 2019, the labor market reform of the elderly is urgent

The employment bonus due to the demographic structure transition of the elderly would fade away from 2019 and could even work as penalty leading employment to decline from 2025. The demographic bonus, a discrepancy between the population entering 50 years old and population leaving 65 years old, has been raging from 2005 and had reached the peak 488 thousands in 2010 only to decline since recording 353 thousands in 2016. This number is estimated to decrease more than the 2005 level after 2019 touching 289 thousands. The worse is population leaving 65 years old is expected to outpace the population entering 50 years old from 2025 resulting population downsize in 2025 ~ 2060 by 125 thousands annually.

<Projection of demographic bonus of the elderly
(discrepancy of the population entering 50 years old and leaving 65 years old)>



Source: Future population projection(National statistical portal)

It is highly recommended that we sustain our labor market improvement of the elderly before the demographic bonus disappears. Firstly, excessive seniority should be alleviated as radical labor costs are predicted thanks to the implementation of deferred retirement. Also, wage system including salary peak system must be redesigned so that the wage meets the productivity. Moreover, various working time workers should be introduced in order to vitalize reemployment. For the last, suitable type of businesses and works for the elderly should be analyzed.

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