

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

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Korea Economic Research Institute

Executive Summary

Korea's 2H economic growth, dampened to 1.9% owing to the Brexit uncertainties

The projected growth rate of Korea had been modified to 2.3%, lowered by 0.3%p compared to the previous figure. From the beginning of this year, external headwinds had been strong, induced by economic slowdown of China and opened possibility of the US Fed's base rate hike. In the meantime, the unexpected Brexit broke out; thus we expect that Korea's 2H growth to be adjusted downwards to 1.9% which is lower than the 1st half (2.7%). Partially, domestic policies to revert the economy up could partially offset the economic slowdown, but only to a confined degree due to the predominance of majority-opposition party and unsettled industry restructuring policies.

Consumer price, leveled down to 1.2% from the former forecast as 1.4%

The upbeat of USD/KRW and international crude oil price would incur the rise of consumer price for the 2nd half, although the overall yearly CPI is expected to lower down than the former forecast by 0.2%p. Likewise, current account surplus is projected to decline by a small margin to US\$99.1 billion from US\$105.9 billion in 2015. The maintenance of current account surplus stems from the lingering recession type surplus; this year's export and import losses are forecasted to be -4.6%, -5.4% respectively. USD/KRW is expected to show a rising trajectory as 1,191 won owing to the heightened international financial market volatility after the Brexit event. The market interest rate (Corp, AA-, 3yr) is on a declining tendency due to uncertainties of the US Fed's interest rate decision as well as the BOK's intention on the base rate cut.

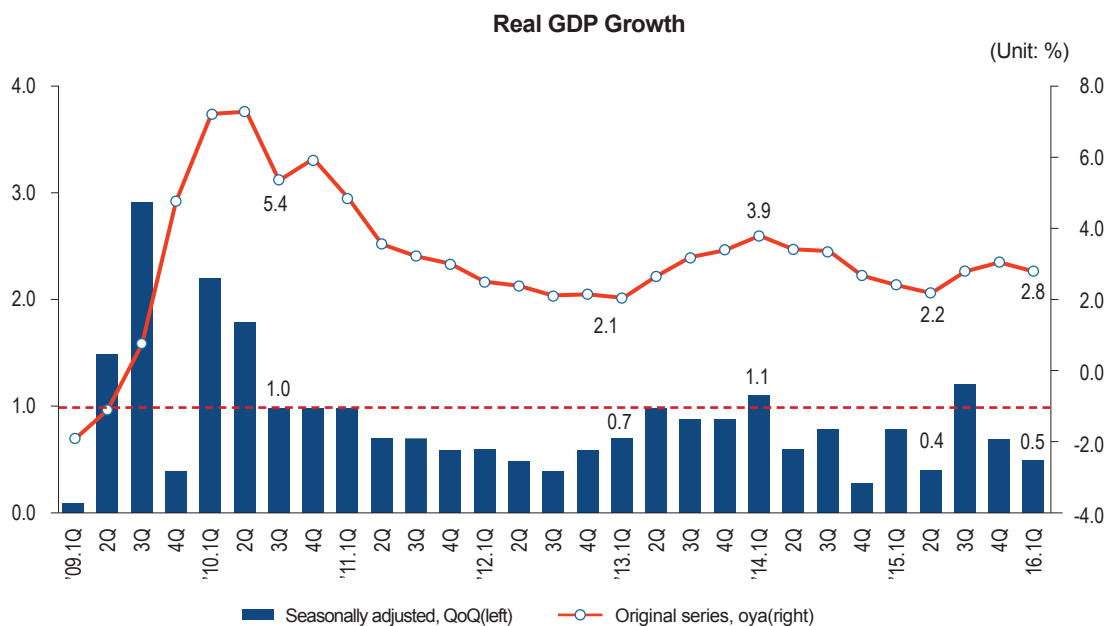
Korean economy, with high probability of re-entering its downturn phase, is in need of supplementary budget plan and other types of pump-priming policies

An inauspicious of potential growth rate is foreseeable as long term trend of real GDP has been around 8.9% since the 1st quarter of 2013, which is only 60% recovery level of the average value between 1996 and 2013. Further, with consideration of economic cycles of Korean economy, it shows signs of sluggish growth although it seems like Korea has overcome the economic hurdles, derived from the 1st quarter of 2013. As a result, we highly recommend short term stimulus to be carried over with long term policies as well to construct a sound economic structure.

Recent Developments

1Q growth rate slid to 0.5% q/q, which is a two consecutive quarters decline

Korea's growth rate weakened 2 consecutive quarters as q/q growth rate was diminished from 0.7% in 4Q15 to 0.5% in 1Q16, which reached its peak as 1.2% in 3Q 2015 after the 6 consecutive quarters of struggle. The over-year basis growth rate was dropped to 2.8% in 1Q16 from 3.1% in 4Q15.



Source: The Bank of Korea

A huge drop of private consumption contribution and minus contribution of facilities investment both pulled down the growth rate

At a domestic level, the contribution to GDP of private consumption dropped wild by 0.8%p while that of facilities investment was on a downward trajectory as -0.2%p. The contribution to GDP of private consumption recorded 0.7%p in 4Q15 with the aid of government's revitalization policies. However, as the government stimulus ceasing partially, the contribution dwindled to -0.1%p even with the government defending of consumption cliff. Moreover, facilities investment, which had shown 0%p of contribution to GDP in 4Q15, was not free from diminishment either to -0.6%p in the 1Q16. Meanwhile, the export and import contribution to GDP both decreased. The import loss outpaced export loss; thus the net export contribution to GDP recorded 0.9%p in 1Q16 which was -0.4%p in 4Q15.

Contribution to GDP by expenditure

(Unit: %p)

(SA, real)	2014				2015				2016
	1/4	2/4	3/4	4/4	1/4	2/4	3/4	4/4	1/4
Final consumption expenditure	0.3	-0.1	0.6	0.2	0.5	0.1	0.8	0.8	0.1
Private	0.2	-0.2	0.3	0.2	0.4	-0.1	0.6	0.7	-0.1
Government	0.1	0.1	0.3	0.0	0.1	0.1	0.2	0.2	0.2
Gross capital formation	-0.4	0.4	0.8	0.2	0.4	0.5	1.1	0.2	-0.3
Gross fixed capital formation	0.5	0.3	-0.1	-0.4	0.9	0.3	0.7	-0.3	0.3
Construction	0.5	0.2	-0.1	-0.7	0.8	0.3	0.5	-0.4	1.0
Facilities investment	-0.1	0.1	0.0	0.3	0.0	0.1	0.2	0.0	-0.6
Intellectual property products	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Changes in inventories and acquisition	-0.9	0.1	0.8	0.6	-0.5	0.2	0.5	0.5	-0.6
Exports of goods and services	0.4	0.6	-0.8	0.2	0.4	0.0	-0.1	1.0	-0.5
Imports of goods and services	-0.8	0.4	0.0	0.2	0.4	0.2	0.6	1.4	-1.4

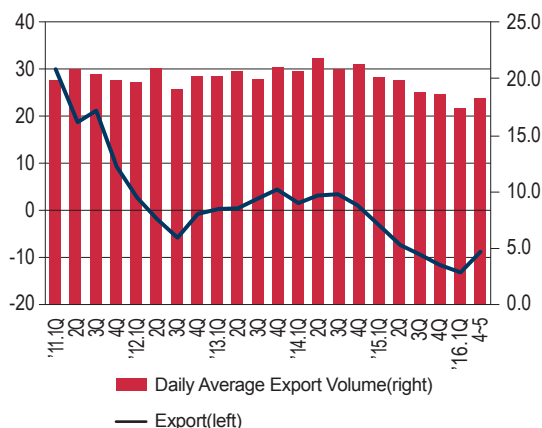
Source: The bank of Korea

Export loss (on a custom clearance basis) recovered from -13.3% in 1Q to -8.7% in monthly average between April and May

Along with lingering losses from the major export markets, the overall export had been compensated by the growth in ASEAN market. On 2015 basis, ASEAN is the 2nd largest consumer market for Korean products. By products, the sales volume of major export products contracted. Meanwhile, the average daily volume of export buoyed from US\$1.74 billion in 1Q to US\$1.83 billion between April and May.

Export Growth and Average Daily Export Volume

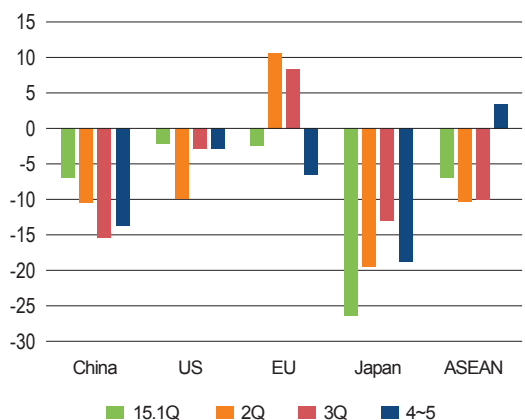
(unit: left-oya%, right-US\$100mil)



Source: MOTIE, Korea Customs Service

Export Growth by Destination

(unit: oya%)

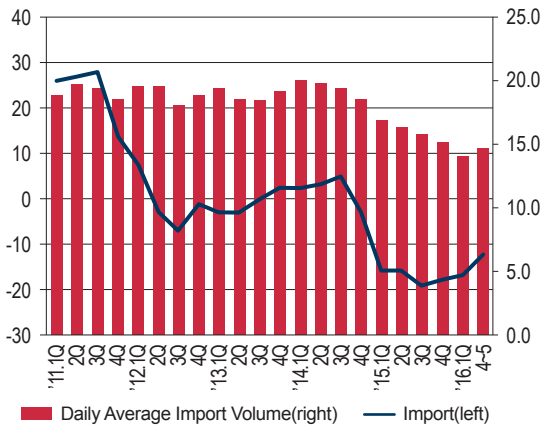


Source: MOTIE

Import loss (on a custom clearance basis) recovered from -16.3% in 1Q to -12.2% in monthly average between April and May

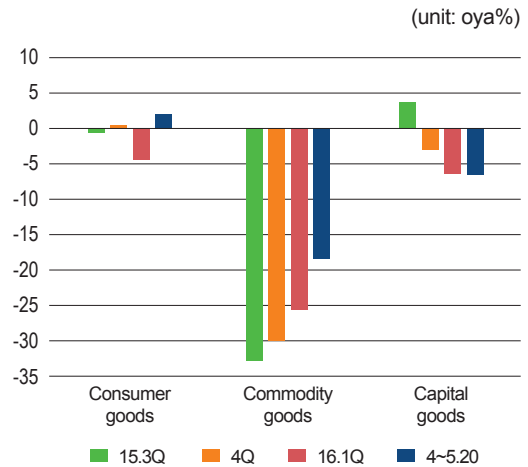
Commodities import, which constitutes the largest portion of import, is yet to be in a declining phase owing to the low oil price from the beginning of 2015. However, the import of consumer goods recovered from -4.5% in 1Q to 2.1% between April and May. Meanwhile, the average daily volume of import buoyed from US\$1.40 billion in 1Q to US\$1.47 billion between April and May.

Import Growth and Average Daily Import Volume
(unit: left-oya%, right-US\$100mil)



Source: MOTIE, Korea Customs Service

Import Growth by Usage Type

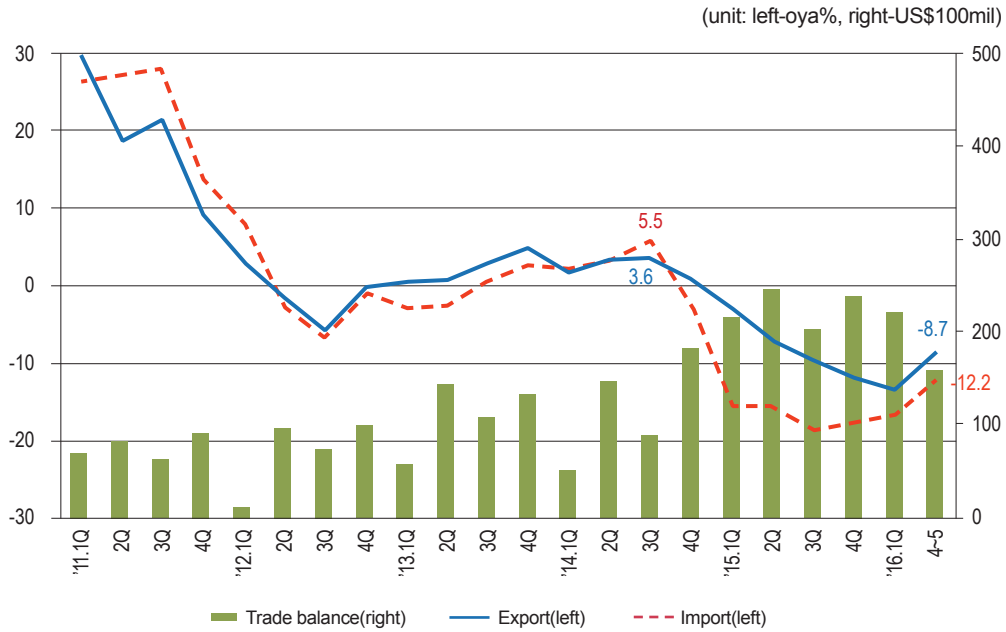


Source: Korea Customs Service

Korea's trade surplus recorded US\$37.9 billion (increased by US\$1.65 billion, 4.5% oya) in between January and May

Trade surplus is sustaining as import loss outpacing the export loss. Au fond, the average import loss was -14.6% between January and May, while that of export was -11.5%.

Trend of Export, Import and Trade Balance



Source: MOTIE

Korea’s current account surplus recorded US\$27.5 billion (decreased by US\$2.72 billion, 9.0% oya) in between January and April

Between January and April, with plummeting primary income, the deficit on service sector had been expanded, compared to that of last year's. Goods surplus increased to US\$37.5 billion from US\$36.3 billion the same period previous year thanks to the import loss(-18.4%) outpacing export loss(-14.1%). The service deficit rose to US\$5.8 billion from US\$5.2 billion the same period previous year due to transportation and construction balance declining by US\$1.53 billion and US\$0.43 billion each even though the charges for the use of intellectual property deficit recovered by US\$1.59 billion than the same period previous year. The primary balance deteriorated to US\$2.83 billion deficit from US\$0.73 billion surplus same period previous year induced by the curtailed domestic dividends and reinvestment earnings, along with expanded international dividends and the outflow of reinvestment even though the investment income on debt grew by a small margin.

Trend of Current Account Balance

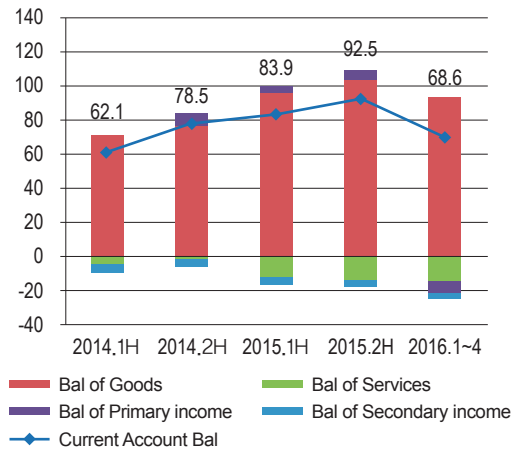
(unit: US\$100mil)

	2014		2015		2016
	1H	2H	1H	2H	Jan~Apr
Current Account	372.6	471.2	503.6	555.2	274.5
Bal of Goods	427.7	461.1	579.0	624.0	374.5
Bal of Services	-28.4	-8.5	-74.7	-82.1	-57.9
Bal of Primary Income	-1.8	43.4	22.7	36.2	-28.3
Bal of Secondary Income	-25.0	-24.9	-23.3	-22.9	-13.9

Source: The Bank of Korea

Trend of Average Current Account Balance

(unit: US\$100mil)



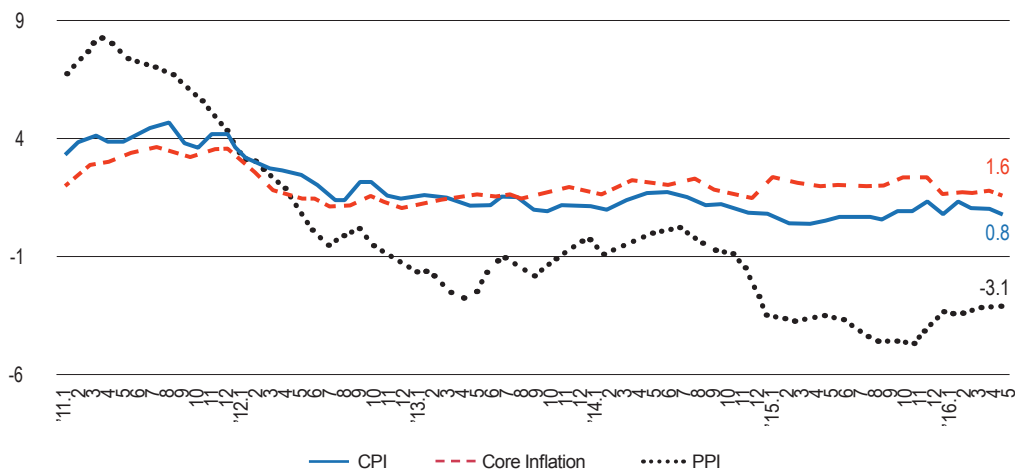
Source: The Bank of Korea

Consumer price index, leveled down to 0.8% in May again

CPI stepped down to 0%-low level once again owing to the price stabilization of agriculture, livestock and fisheries. The demand side inflation is rarely probable as domestic sentiment for economic prospect is not so rosy. The supply side inflation, however, is more probable, as crude oil price and commodity price projected to rise merely while the price of agriculture, livestock and fisheries may not climb up without weather shock. Meanwhile, the core inflation, price without supply side pressure, has decreased to 1.6% in May. CPI expectation is maintaining 2.4% level in May. Producer price has risen to -3.1% in May due to the price stabilization of agriculture, livestock and fisheries.

Trend of Prices

(unit: %YoY)



Source: Korea Customs Service, The Bank of Korea

The employment of May, sustaining 200 thousands level which is lower than 2015 average

The growth on employment was only about 261 thousands in this May, less than the previous year. The number is only a small margin rise than April, 252 thousands, and is lower than the average of last year, 337 thousands. The slowdown of youth employment (ages between 15 and 29) in 1Q was improved. However, the employment growth in construction industry has been sluggish along with manufacturing industry. The unemployment rate has stepped down to 3.7% in May from 3.9% in April.

Employment, with relevant Indicators

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

		2014	2015		2016		
		Year	Year	May	1Q	Apr	May
Changes in employment		533	337	379	287	252	261
By Age	- 15 ~ 29	77	68	114	40	43	72
	- 30 ~ 39	-21	-38	-44	-21	-22	-20
	- 40 ~ 49	38	-14	-7	6	-52	-37
	- 50 ~ 59	239	149	147	84	76	83
	- 60 years and older	200	172	167	179	208	162
By Industry	- Agri., Forestry & Hunting	-68	-107	-123	-54	-60	-99
	- Manufacturing	146	156	140	126	48	50
	- Construction	42	27	42	-7	-37	-22
	- Wholesale & retail trade, hotels & others	259	73	178	-55	40	5
	- Business, personal, public service & others	176	165	141	227	271	313
	- Electricity, transport, communication & finance	-18	22	4	44	-15	9
Unemployment rate(%)		3.5	3.6	3.8	4.3	3.9	3.7

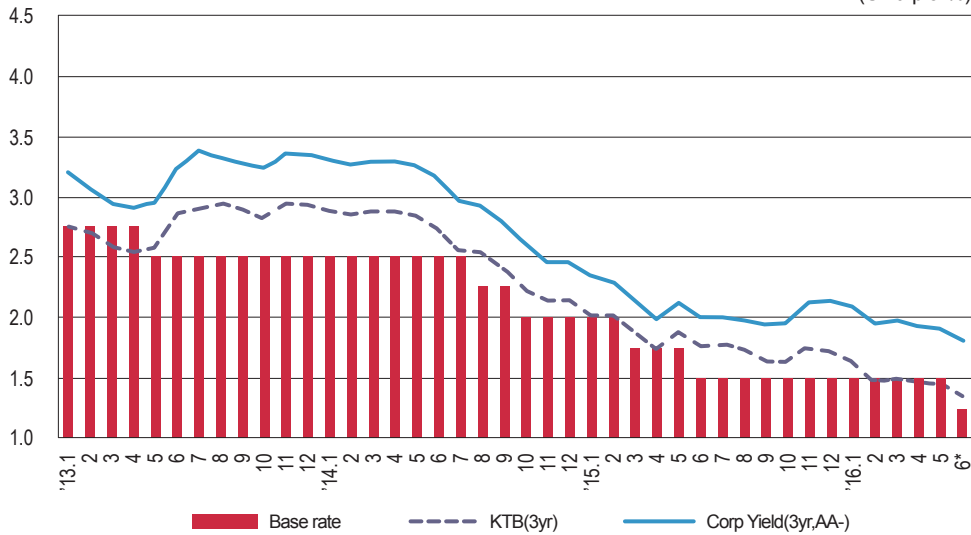
Source: Economically Active Population Survey (Statistics Korea)

Market interest rate descended in June, owing to the unexpected base rate cut

As base rate cut of MPC(BOK) was not anticipated, the market interest rate hadn't level down in advance. However, the KTB 3-yr yield climbed down to 1.25% in late June after the base rate cut, from 1.35%.

Interest rates

(Unit: p.a %)



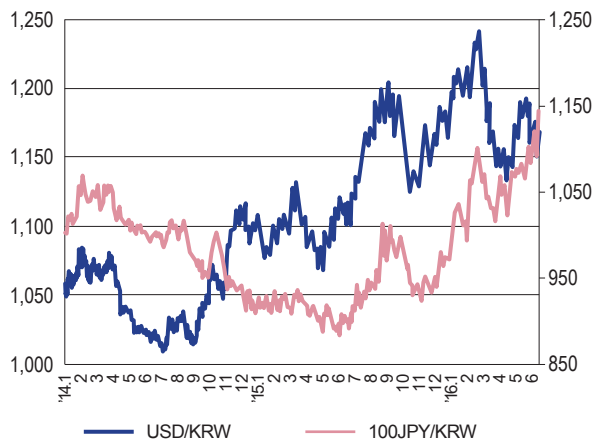
Source: The Bank of Korea

The value of USD/KRW is swinging like a pendulum sprang from the global uncertainties such as Brexit

In May, the USD/KRW was stabilized thanks to expectations on the US Fed's postponed hike on base rates. However, it climbed dramatically up in the aftermath of Brexit. The USD/KRW reached 1,201.7 won in January and declined to 1,151.2 won on June 24th only to climb up to 1,180 won again after the Brexit incident. The net foreign purchase of Korean equities has sustained since February limiting the value of USD/KRW to overshoot.

Exchange rate

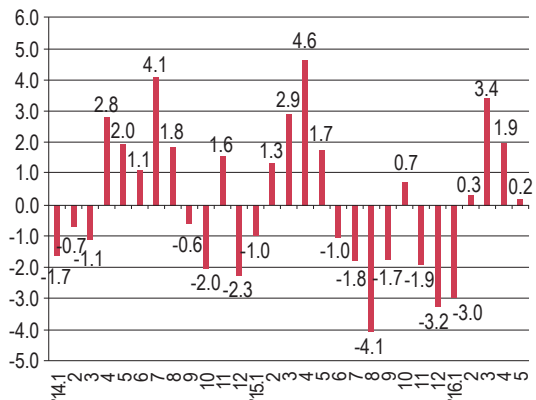
(unit: USD/KRW, 100JPY/KRW)



Source: The Bank of Korea

Net foreign purchase of Korean equities

(unit: Tril won)



Source: The Bank of Korea

Outlook for 2016

1. Global Prospects

(World Economy) Subdued growth foreseeable due to diminishing world trade, reduced investment, and upsurge in financial volatility

(United States) More torpid growth than last year is expected due to the slowdown of labor market improvement and sluggish recovery of investment

(China) With the existence of firm stimuli such as new industry nurture policy and new foreign exchange transaction policy, the exacerbated growth is projected to be alleviated

(Eurozone) Weaker than last year growth is projected largely due to the Brexit uncertainties despite with the favorable private consumption, investment and trade surplus

(Japan) Powerless growth is expected owing to weak private consumption and strong Yen

(Oil Prices) Gradual rise is expected on the basis of reduction in supply and ongoing geopolitical conflicts; however will not overshoot due to the ramification of Brexit

(Demand & Supply) Supply surplus is expected to reduce thanks to the demand growth outpacing the supply growth

(Speculative factor) Net long position of WTI future will be maintained due to the rise of spot crude oil price; however it is prone to decline along with possible external shocks such as post-Brexit storm

(Foreign Exchange Rates) Strong dollar is expected to prevail throughout 2016; while Euro and Yuan are projected to stay weak and stronger Yen is expected

(US Dollar) Gradual appreciation is expected until the year end, despite US economic data shows mixed signals as flight to quality is proliferating due to Brexit

(Euro) Gradual depreciation is expected until the year end, despite Euro economy is in recovery gradually as Brexit generating uncertainties as a whole

(Yen) Gradual appreciation is expected until the year end, despite Japanese economic growth is marginally achieved along with flight to quality proliferation as a consequence of Brexit

(Yuan) Depreciation is expected as Chinese economic slowdown is visible

2. Outlook for Korean economy in 2016

Growth: 2.7%(1H) → 1.9%(2H), 2.3% yearly

Korean economy is expected to grow slower in 2nd half than the 1st one due to the enhanced external uncertainties caused by Chinese slowdown, US base rate hike possibility, and Brexit with limited nature of domestic policies for boosting the economy. As a result, we anticipate its growth rate as 2.3%, dropped 0.3p from the previous forecast.

Private Consumption: 2.4%(1H) → 2.1%(2H), 2.2% yearly

Private consumption is expected to grow weaker in 2nd half than the 1st one due to the aggravated APC(Average Propensity to Consume), dampening of employment growth rate, and enhancing interest burden induced by the decline of interest rate reduction rate. In reality, rise of real wages is favorable for the private consumption. However, several structural factors, such as huge household debt and ageing are continuously pushing the APC down.

Facility Investment: -2.8%(1H) → 1.3%(2H), -0.7% yearly

Facility investment is expected to buoy in 2nd half than the 1st one, only by a marginal level as 1%-level growth due to the contracted investment tendency as with prevailed uncertainties about the future economy. In reality, the surplus of equipment production has been accumulated owing to the sluggish domestic and international demand.

Construction Investment: 7.4%(1H) → 1.1%(2H), 4.0% yearly

Construction investment is expected to plummet in 2nd half than the 1st one along with the persistent government construction stabilization policy, decline of public clients, and possibility of housing market downturn. In reality, housing market recovery is projected to decelerate as the principal redemption burden of outstanding debt and suppression of new debt demand are prevailed in the market.

Export growth (BOP basis): -10.3%(1H) → 1.2%(2H), -4.6% yearly

Export is expected to rebound on a growing trajectory in 2nd half; however it may only be by a small margin due to the increased uncertainty regarding the global economic growth thanks to Brexit. As a result, the export growth per annum seems to stay as negative figure in 2016.

Import growth (BOP basis): -13.9%(1H) → 3.4%(2H), -5.4% yearly

Import is expected to rebound in the 2nd half thanks to the rise in international commodity price and base effect. The speed of recovery is forecasted to outpace that of export.

Current account surplus (US\$ billion): 494(1H) → 498(2H), 991 yearly

Current account surplus in the 2nd half is projected to stay almost the same with the 1st half or to be less due to the decline of balance of goods while service deficit decreased. As a result, the yearly current account surplus is forecasted to reach US\$99.1 billion this year, which is a decline of US\$6.8 billion compared to the last year figure (US\$105.9 billion).

Consumer price: 1.1%(1H) → 1.3%(2H), 1.2% yearly

Consumer price is expected to increase by a small margin in 2nd half thanks to the rising USD/KRW and international crude oil price, despite the sustaining negative GDP gap. However, the CPI is forecasted to grow slightly as economic recovery and crude oil price may rebound only marginally.

Corporate bond yield (3yr, AA-): 2.0%(1H) → 1.8%(2H), 1.9% yearly

Basically, the US Fed's base rate hike triggers the base rate and market yield of Korea to rise because it leads to the reduction of Kor-US real yield spread or even to reverting position. In the 2nd half, possibility of US' base rate hike and pessimistic view on its economy are exacerbating yields in the market. As a result, the corporate bond yield (3yr, AA) is expected to be lowered by 0.2% to 1.9% in 2016.

USD/KRW : 1,182 won(1H) → 1,199 won(2H), 1,191 won yearly

USD/KRW is projected to grow by a small margin in 2nd half than the 1st one in accordance with the continuous upward pressure with US base rate hike and post-Brexit effects.

Outlook for Korean Economy in 2016

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

	2015	2016				
	Year	1 st Half	2 nd Half	Year(A)	Year(B) (former forecast)	A-B
GDP	2.6	2.7	1.9	2.3	2.6	-0.3
Private Consumption	2.2	2.4	2.1	2.2	2.2	0.1
Construction Investment	3.9	7.4	1.1	4.0	3.1	0.9
Facilities Investment	5.3	-2.8	1.3	-0.7	3.7	-4.4
Export(Goods & Services)	0.8	0.9	2.1	1.5	2.2	-0.6
Import(Goods & Services)	3.2	1.7	2.1	1.9	1.8	0.1
Consumer Price	0.7	1.1	1.3	1.2	1.4	-0.2
Producer Price	-4.0	-3.3	-1.3	-2.3	-1.8	-0.5
Current Account Bal	1058.7	493.7	497.8	991.4	962.4	29.0
Bal of Goods	1202.9	595.2	586.4	1181.6	1145.3	36.3
Export(BOP basis)	5488.4	2479.9	2755.1	5235.0	5301.8	-66.9
(growth rate, %)	-10.5	-10.4	1.2	-4.6	-3.4	-1.2
Import(BOP basis)	4285.5	1884.7	2168.7	4053.4	4156.6	-103.2
(growth rate, %)	-18.2	-13.9	3.4	-5.4	-3.0	-2.4
Service and other bals*	-144.2	-101.6	-88.6	-190.2	-182.8	-7.3
FX rate(USD/KRW, avg)	1130.9	1182.1	1199.0	1190.6	1181.3	9.3
Corp bond yield(3yrs, AA-)	2.1	2.0	1.8	1.9	2.3	-0.4
Unemployment rate(%)	3.6	4.2	3.7	3.9	3.8	0.1
Changes in number of employed persons	337.0	287.0	248.8	267.9	323.9	-55.9

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

Policy Issue:

Estimating the phase of Korean economic cycle and its implications

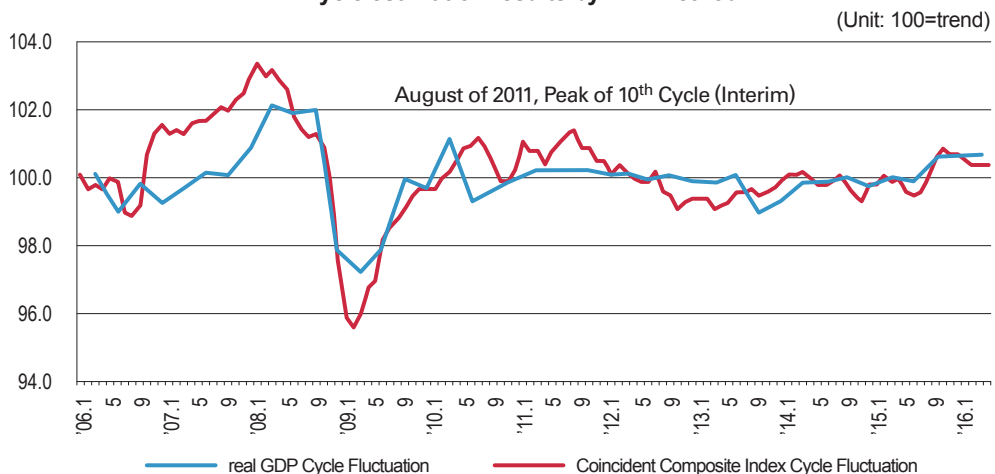
(Research Purpose)
Analyzing current Korean economic phase, applied with 3 methods in order to estimate the phase of business cycle, and measures the re-entering probability to the economic downturn

In June 2014, the Korean statistics office had determined February of 2009 as trough of the 10th business cycle of Kore. Also, they announced August 2011 as a temporal peak. Unfortunately, since then, they haven't announced nothing more than that. For a swift decision making, enterprises and financial institutions are in need of precise, urgent information regarding the phase of business cycle. Having these backdrop, we applied 3 methods to estimate Korea's business cycle phase: Phase Average Trend(PAT), Hodrick Prescott Filtering(HP Filtering), Sequential Signaling.

(Results) The 10th business cycle was designated on the 1st quarter of 2009 and its peak was measured on the 3rd quarter of 2011. However, several troughs were visible only to climb down repetitively after the 3rd~4th quarter of 2015

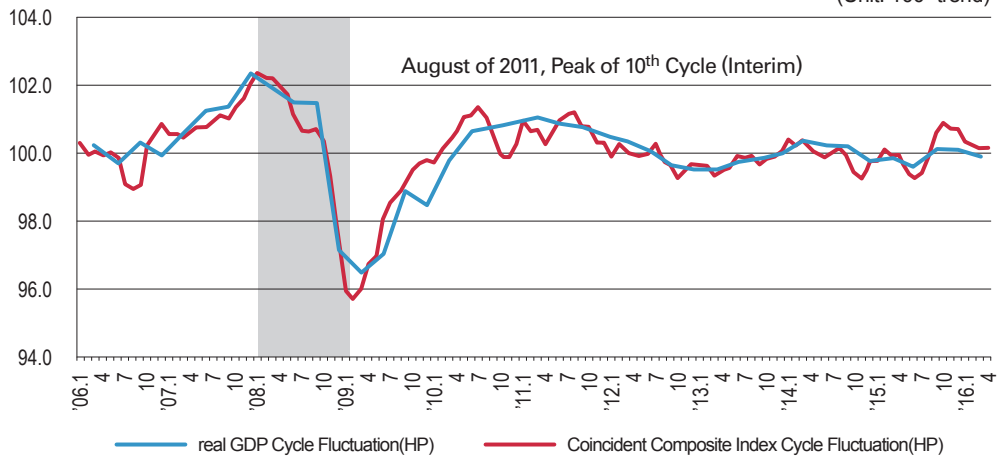
The PAT method showed Korean business cycle was passing 10th cycle peak on August 2011 and trough on 1st ~ 3rd quarter of 2013, 2nd quarter of 2015. To make matters worse, the cycle is hovering around low growth regions, thus it's difficult to diagnose that Korean economy is in recovery. HP Filtering method showed similar results with PAT method in that Korean economy seemed to pass the 10th cycle peak on August of 2011 and trough on 1st quarter of 2013 and the 2nd quarter of 2015. Worrisome part is that the recent cycle seems to enter the downturn phase again. Sequential signaling method supports the previous methods as well in which the Korean economy seemed to pass the 10th cycle trough on April 2012 and continuously sending upturn signals since then. Regrettably, recent cycle lacks evidences to be determined as recovery phase.

Cycle estimation results by PAT method



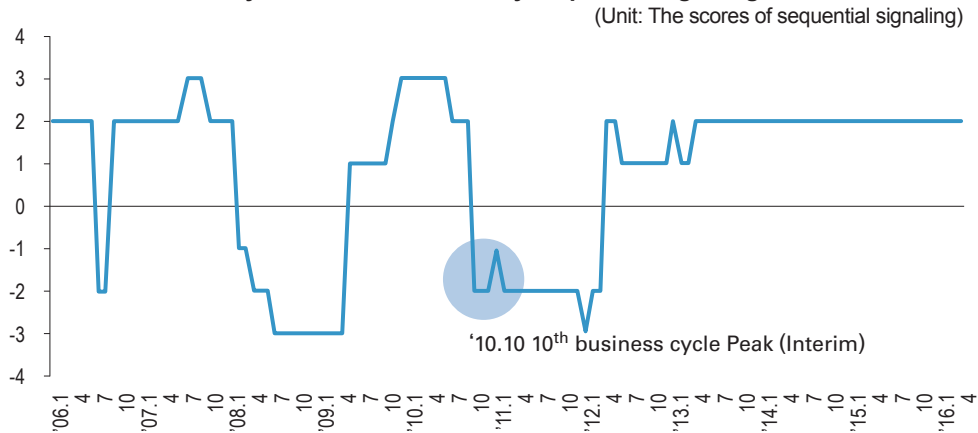
Footnote: If cycle fluctuations rise higher than 100, expansionary phase is estimated.

Cycle estimation results by HP Filtering



Footnote: If cycle fluctuations stay higher than 100, expansionary phase is estimated. The shaded area is contraction phase.

Cycle estimation results by Sequential Signaling



Footnote 1: 1(Approaching Trough), 2(Expansion begins), 3(Expansion heightens), -1(Approaching Peak), -2(Contraction begins), -3(Contraction heightens). In general, the cycle processes from 1 to -3.

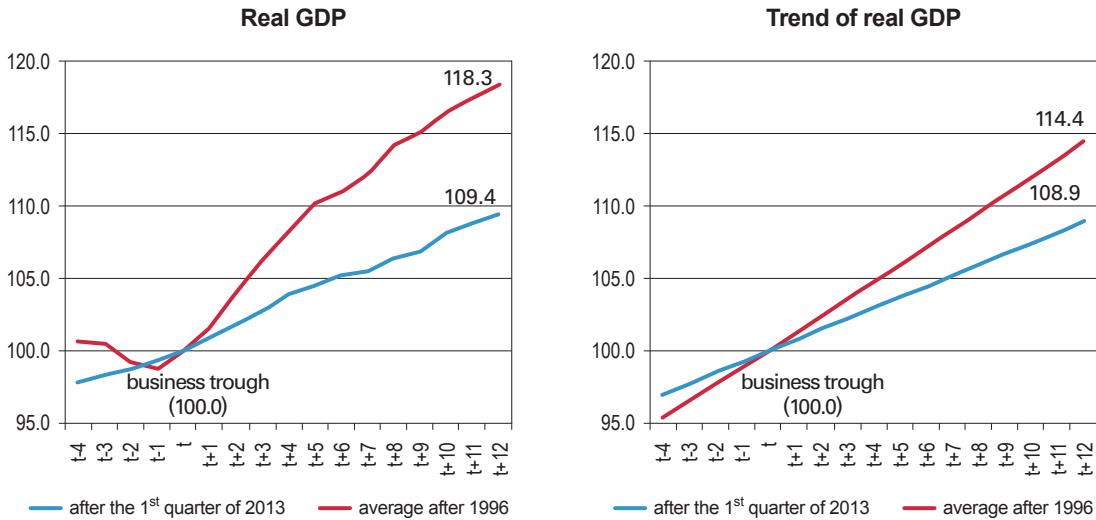
Footnote 2: The shaded area is contraction phase

Korea's current economic condition is worrisome because the long-term trend of real GDP shows only 60% recovery level of the past and the possibility of another downturn is undergirded by the current analysis

The real GDP growth can be divided into two parts: long term trend growth and the business cycle. Korea's real GDP has only grown 9.4% since the 1st quarter of 2013, which is only half of the past recovery rate as 18.3%. The real GDP has grown 8.9% since the 1st quarter of 2013, which is about 60% of the past recovery rate (14.4%). It's worrisome that the potential growth rate may decline as well, and to make matters worse, the current business cycle is in the downward phase.

Comparison of real GDP growth rate

(Unit: Trough=100.0)



Footnote 1: Long term trend estimated by HP filtering the seasonally adjusted real GDP

Footnote 2: The numbers are converted by basis of business trough(t) 100.0

Pump-priming policies both short term and long term are necessary until global economy shows recovery

After the 2007 financial crisis the Korean government has enacted several measures as a stimulus to economy in terms of base rate cut, fiscal expansion, and private consumption revitalization policy along with global major nations. Anyhow, several measures have been regraded as "ineffective" and demand-side policies are should be adopted with supply-side policies to enhance the flow of fiscal & credit channels together. The new growth industry nurture plan and labor market reform are good examples. Moreover, short term policy such as revised supplementary budget plan is highly recommendable to scoop the drowning economy.

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