

HRI Quarterly Economic Review

I. Economic Issues Facing Korea
II. North Korean Issues
[Annex] Domestic and Global
Economic indices

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Devoting to economic research
and human resource development
with intellectual conscience and sincerity,
the Hyundai Research Institute leads
the advancement of Korean Economy
in the 21st century by proposing
creative policy alternatives.

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< Executive Summary >

I . Economic Issues Facing Korea

『Forecast on Korean Economy for 2016』

Although the domestic economy is expected to show a recovery tendency with export demand as a main driving force in 2016, the momentum of economic recovery is forecast to be weak due to the strong base effects from the weak economy in 2015. Private consumption is likely to achieve a 2% plus increase thanks to the base effect from low increase rate of 1% plus for the past 4 years (2012-2015) and the growth of purchasing power as a result of oil price falling, although there are some constraint factors such as slowing wage growth and rising household debt. Construction investment will be on the gradual increase in 2016 after a good recovery of construction contracts in 2015. Despite the recovery of export demand, the recovery of facility investment and intellectual property products investment will remain weak with shrinking investment sentiment caused by global and domestic economic risk factors.

『Five Characteristics of Industrial Business for 2016』

Most industries except IT and motor industries are unlikely to emerge from recession as domestic and global economy are expected to show a weak growth trend in 2016. Motor & ICT Industries will be in recovery situation. Construction Industry is feared to face recession. Steel, Petro-chemical, Ship building, and Machinery Industries will remain in depression. Summarizing the characteristics of industrial business for 2016 in one word, it is the DELAY of economic recovery: i) The economy of most industries is to suffer a lasting depression due to the absolute shortage of demand. ii) The upstream and downstream businesses of construction industry will be affected by the back blast of excessive supply in the construction market. iii) Overall, industries are struggling for survival leaving no leading sector. iv) The risk of Asia Risk leading to the collapse of industrial infrastructure is feared to expand. v) Although limited, public sector is expected to play a countercyclical role.

II . The North Korean Issues

Both the 3rd quarter peace index and the 4th quarter expectation index of 2015 surged. The 3rd quarter peace index recorded 47.0, a quarter-on-quarter increase of 9.7p, showing a great improvement in the inter-Korean relationship from the 'high tension state' to 'co-existence of cooperation and confrontation state', reaching a similar level to 4th quarter of 2014 when three North Korean heavyweights visited S. Korea. The 4th quarter expectation index also increased to 53.1, a quarter-on-quarter rise of 17.8p, turning around to an upturn for the first time in three quarters.

I . Economic Issues Facing Korea

1. Forecast on Korean Economy for 2016

Characteristics of Korean Economy for 2015

Both domestic economy and export demand fell into a slump in the first half of 2015 due to the MERS shock and sharp fall in oil price. Although domestic economy will improve with the MERS shock easing and the supplementary budget being executed, the annual economic growth rate is expected to remain at no more than 2.5% (2.3% in the 1st half, 2.6% in the 2nd) as a result of sluggish exports. The continued drop in export demand from China and other emerging nations is feared to stop Korea from achieving 'Annual trade amount of US\$ 1 trillion' for the first time in 5 years.

Global Economic Conditions and Downside Risks, preconditions for Forecast for 2016

(Global Economic Situation) The global economy is likely to make a modest recovery in 2016 although the emergence of downside risks cannot be entirely ruled out. The recovery trend of developed nations was slow in 2015, but is expected to show a gradual improvement in 2016. Having experienced an economic slowdown in 2015, emerging nations may suffer further economic setback due to risk factors such as sluggish economies of countries exporting raw materials and outflow of foreign capital. International oil price looks set to stay low with a continued

oversupply of oil as a result of OPEC member countries maintaining current production levels and the resumption of oil supply by Iran set to start soon.

(Downside Risks of Global Economy) The greatest downside risk for the Korean economy is the slowdown and structural reform of the Chinese economy. The imminent rise of the US base rate and the risk of foreign exchange crisis of emerging nations exporting raw materials should be closely watched.

First, as China enters the age of New Normal, the risk of a hard landing of Chinese economy already suffering from slow economic growth cannot be ruled out. Having recorded economic growth rate of 7% plus for the past 13 quarters, China is now set to enter the age of New Normal with economic growth rate staying at between 6% and 6.5% for the next 5 years(2015-2020). With delayed recovery of domestic economy in investment and consumption, industrial production efficiency is forecast to drop, and the recovery of real estate business and export demand will be delayed.

Second, the rise of the US base rate may contribute to increasing the instability of global financial markets, and financial crisis can breakout starting with emerging nations with fragile financial condition. Malaysia, Indonesia, and Thailand among Southeast Asian countries are nations not entirely free from the risk of financial crisis.

Third, weak international raw material prices and the continued slowdown of the Chinese economy has decreased the demand for raw materials, directly affecting the economies of developing countries exporting raw materials. Malaysia, Indonesia, and Thailand tend to rely heavily on exports of raw materials and

exports to China, and Brazil, Russia, and South Africa are also highly dependent on exports of raw materials. Deterioration of the current account balance of these raw material-exporting nations due to falling international raw material price combined by a growing concern over the risk of a hard landing of the Chinese economy is feared to cause global financial instability and a further slowdown of the world economy.

(Preconditions for Domestic Economy Forecast) With the current global economic conditions and the downside risks of world economy taken into consideration, Hyundai Research Institute has prepared a forecast for the Korean domestic economy for 2016 based on the assumption of global economic growth rate at around 3.5%, global trade growth rate at 4% plus, and international oil price at the upper US \$40-range.

< Preconditions for Domestic Economy for 2016 >

(%, dollar/barrel)

Section	2014	2015(E)	2016(E)
Global economic growth rate	3.4	3.0 ~ 3.2	3.4 ~ 3.6
US	2.4	2.4 ~ 2.8	2.5 ~ 2.6
Japan	-0.1	0.4 ~ 0.8	0.7 ~ 0.9
Euro Zone	0.8	1.3 ~ 1.7	1.4 ~ 1.6
China	7.4	6.8 ~ 7.0	6.7 ~ 6.9
Global economic growth rate	3.2	3.0 ~ 3.4	3.8 ~ 4.4
International oil price	104.1	lower \$50-range	upper \$40-range

Forecast on Korean Domestic Economy for 2016

Although the domestic economy is expected to show a recovery tendency with export demand as a main driving force in 2016, the momentum of economic recovery is forecast to be weak due to the strong base effects from the weak economy in 2015. Private consumption is likely to achieve a 2% plus increase thanks to the base effect from low increase rate of 1% plus for the past 4 years (2012-2015) and the growth of purchasing power as a result of oil price falling, although there are some constraint factors such as slowing wage growth and rising household debt. Construction investment will be on the gradual increase in 2016 after a good recovery of construction contracts in 2015. Despite the recovery of export demand, the recovery of facility investment and intellectual property products investment will remain weak with shrinking investment sentiment caused by global and domestic economic risk factors.

Consumer prices are to show a marginal year-on-year increase in 2016 as the downward pressure on prices caused by the falling international oil price in 2015 is expected to be released, although some downward price drivers such as Iran's resumption of oil supply and a price-reducing strong dollar still exist. Employment market is likely to show a steady upward curve with the continued entry of middle-aged people into the labor market. Structural change of the labor market is continuing, and the unemployment rate is to stay at a similar level to 2015.

Despite the slowing exports to China, overall exports are forecast to turn around due to the base effect and modest recovery of global economy. The current account balance recorded a surplus in 2015 with imports decreasing more than exports. However, exports will increase and show a trade surplus in 2016. The size of current account surplus for 2016 is expected to be US\$110 billion, similar to that of 2015.

< Forecast of Domestic Economy for 2016 >

Section	2014 Annual	2015			2016(E)		
		1st half	2nd half(E)	Annual (E)	1st half	2nd half	Annual
Economic growth rate (%)	3.3	2.3	2.6	2.5	2.7	2.8	2.8
Private Consumption (%)	1.8	1.6	2.1	1.8	2.2	2.0	2.1
Construction Investment (%)	1.0	1.2	4.0	2.7	3.7	3.2	3.4
Facility Investment (%)	5.8	5.4	5.3	5.3	3.3	3.7	3.5
Intellectual Property Investment (%)	4.6	1.3	5.0	3.2	4.5	3.8	4.1
Export Growth Rate (%)	2.3	-5.2	-7.2	-6.2	3.2	4.6	3.9
Consumer Price (%)	1.3	0.5	0.8	0.6	1.1	1.3	1.2

Note : Forecasts for the 2nd half of 2015 were prepared by HRI.

Policy Suggestions

First, structural reforms to improve economic constitution should continue for the expansion of growth potential, and a comprehensive policy should be in place to create new jobs, secure new growth engine, and to restore the middle class. Second, measures for household debts tailored to income brackets should be set to recover consumption strength, ensuring that external shocks such as the rise of the US base rate would not lead to household insolvencies. Third, regulations should be reformed and tax support expanded to revitalize investment. Fourth, expansionary fiscal policy should be sustained while preparing measures to strengthen fiscal stability. Welfare expenditure is to be gradually expanded, focusing on areas and target people in need, and rules for fiscal stability should be legislated. Fifth, monitoring should be strengthened to minimize impact from external shocks with a response system established for rapid reaction if necessary. Foreign exchange soundness and consolidated international cooperation should be promoted.

2. Five Characteristics of Industrial Business for 2016

- Delayed Recovery and Growing Concern over the Risks of Industrial Infrastructure Collapse.

Business Phases by Major Industry for 2016

Most industries except IT and motor industries are unlikely to emerge from recession as domestic and global economy are expected to show a weak growth trend in 2016.

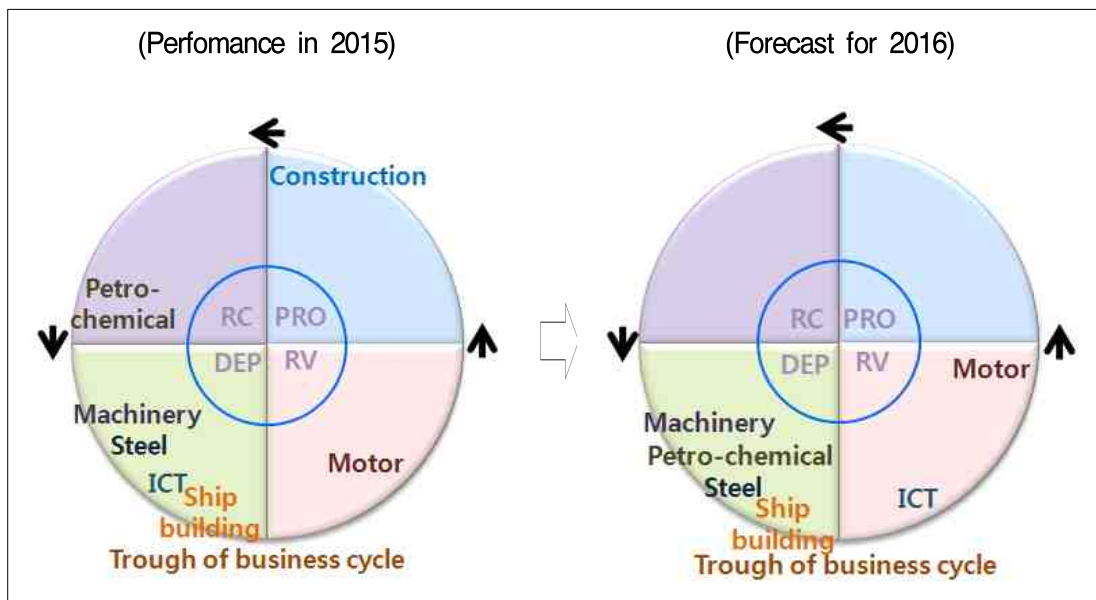
(Recovery - Motor & ICT Industries) Motor industry is forecast to be out of negative growth with continuing recovery of exports to the US and unsolicited gains from the Volkswagen crisis, and with recovering domestic sales. Although production in the ICT industry is expected to be on the increase thanks to rising global demand, growth is likely to be limited due to growing economic uncertainty, intensifying competition with overseas businesses, and absence of new growth commodities.

(Recession - Construction Industry) Construction industry is feared to face a rapid downturn due to the SOC budget cut and the sharp reduction of construction contracts as a result of over-supplied real estate market.

(Depression - Steel, Petro-chemical, Ship building, and Machinery Industries) Domestic demand for steel is forecast to maintain a similar level to that of 2015. However, steel industry is unlikely to show an upturn as the level of dependence on steels produced in China is increasing. The exports of petrochemical industry is expected to be slack with heavy dependence on exports to China, while domestic demand is likely to increase by a small margin as a result of slow domestic recovery. Despite increasing global container traffic, shipbuilding industry

will remain in depression due to shrinking orders for ships and offshore plants. Export business of machinery industry is forecast to continue to be sluggish with facility investment declining owing to the uncertainty of both domestic and global economy, resulting in shortfalls in all sectors including production, exports, and imports.

< Economies of Maor Industries >



Note: 'RV' denote 'Recovery', 'PRO' denote 'Prosperity', 'RC' denote 'Recession', 'DEP' denote 'Depression'.

Five Major Characteristics of Industrial Business Cycle for 2016

Summarizing the characteristics of industrial business for 2016 in one word, it is the DELAY of economic recovery:

First, the economy of most industries is to suffer a lasting depression due to the absolute shortage of demand. Overall industrial business is experiencing basic shortage of demand to the extent that wholesale and retail in-stock rates have retraced to levels of the last financial crisis. There are no positive indications for the improvement of domestic and global economies for 2016. Business recovery of major industries is likely

to be delayed for a considerable time with absolute shortage of domestic and export demand.

Second, the upstream and downstream businesses of construction industry will be affected by the back blast of excessive supply in the construction market. Construction business is expected to face both a shrinking demand for civil engineering (SOC) and an over-supplied construction market. This overall demand-supply imbalance is likely to lead to a long-term depression, affecting related industries, and the issue of household debts will further deteriorate, pushing both real economy and financial sector into a crisis.

Third, overall, industries are struggling for survival leaving no leading sector. Key industries such as petrochemical, steel, shipbuilding industries are facing a question of survival with the performance of ICT and motor industries, surviving leading sectors, reaching their limit. Most of the key industries are expected to suffer from dwindling demand and excessive production capacity, facing the risk of eroding their competitive edge with no leading sector in sight to tow key industries.

Fourth, the risk of Asia Risk leading to the collapse of industrial infrastructure is feared to expand. Considering the close international industrial relationships between Korea, China, Japan, and the Southeast Asian nations, an outbreak of industrial crisis is highly likely in Asia if the China Risk were to become a reality. If it does indeed happen, the IT, petrochemical, machinery, and steel industries would be most severely affected.

Fifth, although limited, public sector is expected to play a countercyclical role. Government is to increase production activities of public sector as the business recovery of private sector is feared to be delayed for some time. Unlike in the past however, the effect of economic stimulation by the public sector is to be limited as the private sector is playing an ever-greater part in the Korean economy.

Policy Suggestions

To respond to the delayed recovery of industrial business that is feared to continue in 2016:

First, macroeconomic policy such as fiscal expansion and monetary easing must be combined with microeconomic policy of promoting investment and consumption to keep the nation's economy on the right track.

Second, the issue of declining export demand should be dealt with by enhancing the utilization of the FTAs, and increasing exports linked with Hallyu (Korean Wave).

Third, construction industry, an industry with a huge impact on national economy, should be prevented from a rapid cooling by taking appropriate preemptive measures in preparation for the deteriorating demand-supply situation and by positively seeking overseas construction orders.

Fourth, efforts for higher-value added products of key industries and early discovery of new growth engines and their industrialization is desperately required.

Fifth, risks of external shocks entering into Korea through trading or financial channels should be positively dealt with.

Sixth, the effect of fiscal policy must be maximized. Countercyclical capacity of public sector should be improved by enhancing proper fiscal timing and focusing.

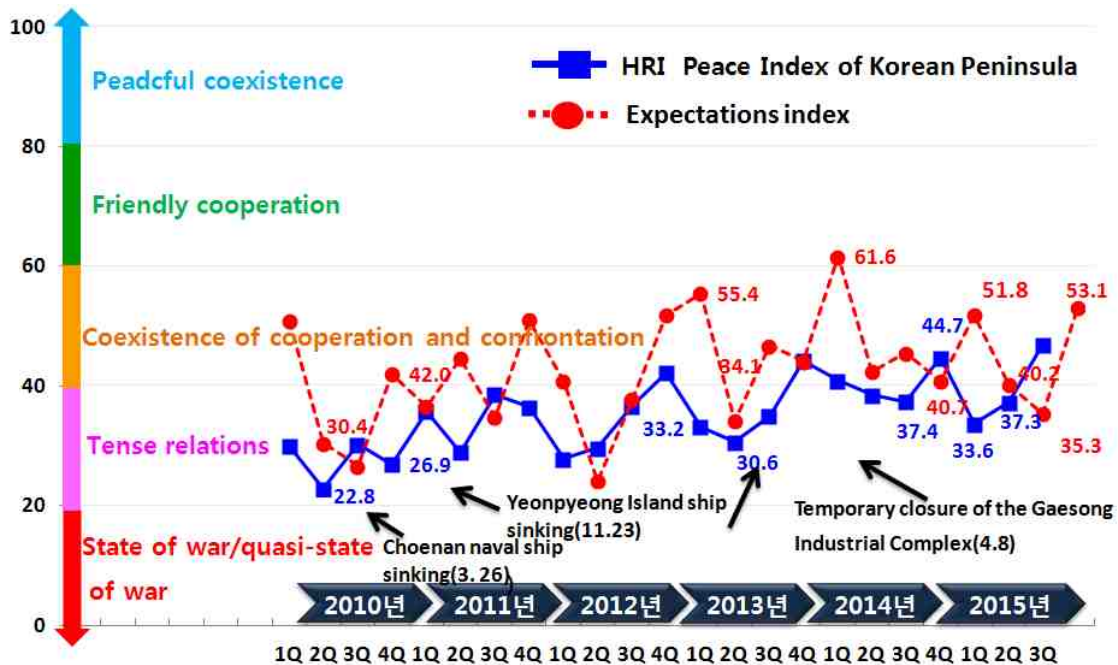
II. North Korean Issues

1. Korean Peninsula Peace Index, Survey Conducted in the 3rd Quarter 2015

Comprehensive Assessment

Both the 3rd quarter peace index and the 4th quarter expectation index of 2015 surged. The 3rd quarter peace index recorded 47.0, a quarter-on-quarter increase of 9.7p, showing a great improvement in the inter-Korean relationship from the 'high tension state' to 'co-existence of cooperation and confrontation state', reaching a similar level to 4th quarter of 2014 when three North Korean heavyweights visited S. Korea. The 4th quarter expectation index also increased to 53.1, a quarter-on-quarter rise of 17.8p, turning around to an upturn for the first time in three quarters.

< Trend for HRI Korean Peninsula Peace Index for 2010-2015 >



Main Characteristics

The 3rd quarter peace index and the 4th quarter expectation index of 2015 features:

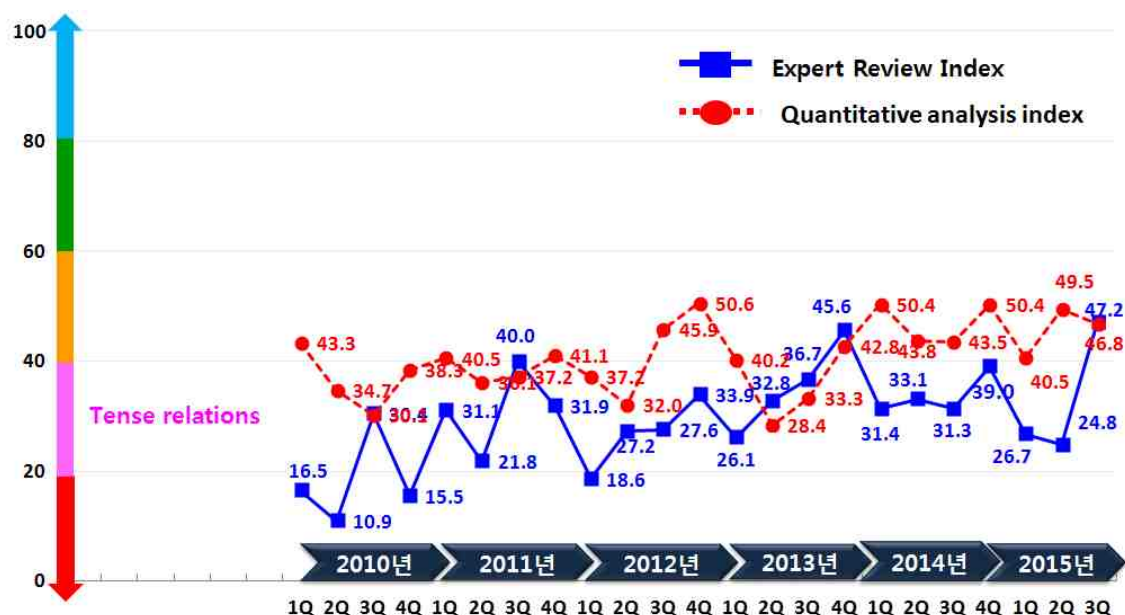
First, the Peace index is comprised of an experts' evaluation index, a subjective indicator, and a quantitative analysis, an objective one. The experts' evaluation index surged while the quantitative analysis index, which is performance-based, showed a contradicting result. Despite the high tension state created by the nonparticipation of N. Korea in the Universiade, North Korea's slandering toward the South, and wood-cased landmine incident, the experts' evaluation index increased by as much as 22.4p owing to the dramatic solution of an explosive situation at the August 25 Agreement between the two Koreas. However, the quantitative analysis index dropped by 3.0p due to the falling performance of the Kaesong Industrial Complex, poor implementation of the inter-Korean Cooperation Fund, and shrinking number of South Koreans visiting the North.

Second, the 4th quarter expectation index showed 53.1, a quarter-on-quarter rise of 17.8p, the highest since the 4th quarter of 2013, and the biggest quarterly increase since 2010, which is interpreted to be due to the growing expectation for the improving inter-Korean relationship since the August 25 Agreement was reached following the much-awaited reunion meetings of separated families, increasing number of S. Korean civilians visiting N. Korea, and N. Korea's refrainment from provocation on the occasion of celebrating the foundation day of North Korea's Workers Party.

Third, the experts' evaluation on inter-Korean relationship turned positive regardless of their political orientation with conservative experts' index marginally higher than those with other political inclinations. This appears to be a rebound from the steep drop in the index of conservative experts in the previous quarter. The fact that S. Korea managed to persuade N. Korea to express 'regret' for

the first time in the August 25 Agreement seems to have convinced the experts that S. Korea's policy of sticking to the principles in dealing with N. Korean issues has been working.

< Trends for the Expert Assessment Index & Quantitative Analysis Index for 2010-2015 >



< Experts' Assessment Index by Political Disposition >

Section	Conservatives		Moderate		Liberal		Expert review index	HRI Peace Index	Expectation Index
	Now	Expected	Now	Expected	Now	Expected			
Q3 2015	52.1 (▲24.8)	55.5 (▲16.1)	48.4 (▲22.8)	54.6 (▲18.4)	46.1 (▲21.1)	48.7 (▲18.5)	47.2 (▲22.4)	40.2 (▲2.9)	53.1 (▲17.8)
Q2 2015	27.3 (▽4.5)	39.4 (▽5.6)	25.6 (▽1.7)	36.2 (▽8.9)	25.0 (▲0.4)	30.2 (▽3.1)	24.8 (▽1.9)	37.3 (▲3.7)	35.3 (▽4.9)
Q1 2015	31.8 (▽7.2)	45.0 (▽8.9)	27.3 (▽12.2)	43.2 (▽4.1)	24.6 (▽14.8)	33.3 (▽22.1)	26.7 (▽12.3)	33.6 (▽11.1)	40.2 (▽11.6)
Q4 2014	39.0 (▲2.4)	53.9 (▲7.7)	39.5 (▲5.2)	47.3 (▲5.2)	39.4 (▲15.0)	55.4 (▲20.0)	39.0 (▲7.7)	44.7 (▲7.3)	51.8 (▲11.1)
Q3 2013	36.6 (▲4.0)	46.2 (▲1.1)	34.3 (▽1.4)	42.1 (▽4.3)	24.4 (▽7.1)	33.4 (▽11.0)	31.3 (▽1.8)	37.4 (▽1.0)	40.7 (▽4.8)
Q2 2014	32.6 (▲1.5)	45.1 (▽0.9)	35.7 (▲4.6)	46.4 (▲3.4)	31.5 (▲5.2)	44.4 (▲3.2)	33.1 (▲1.7)	38.4 (▽2.4)	45.5 (▲3.2)
Q1 2014	31.1 (▽10.8)	46.0 (▽12.2)	31.1 (▽14.9)	43.0 (▽20.1)	26.3 (▽21.2)	41.2 (▽21.4)	31.4 (▽14.2)	40.9 (▽3.3)	42.3 (▽19.3)

Note: Due to certain corrections, this peace index maybe slightly different from the peace index previously published.

Policy Suggestion

With the momentum for interaction between the two Koreas provided by the August 25 Agreement, more positive efforts should be made to advance dialogue in earnest with the following points taken into consideration:

First, a real breakthrough is desperately required to enable the objective index based on results performed by inter-Korean cooperation to rise together with the subjective index. In particular, we should pay special attention to the fact that the economic and social/cultural exchange indices have fallen.

Second, more practical proposals and their fulfillment should be put into practice starting with small ones to create an atmosphere to implement the August 25 Agreement and the trust-building process on the Korean peninsula. It is important to reinstate inter-Korean relationship to the level of the pre-high tension state, and therefore it is recommended that economic, social, and cultural projects benefiting both Koreas should be discussed between the two Koreas rather than sensitive political or military issues.

Third, paradigm change is a must to improve the North-South relationship and to encourage N. Korea for change, and N. Korea should be recognized not as a target for support, but as a partner for 'cooperation'. N. Korea is no longer the same nation as it was from 1990s to 2000s when suffering from 'March of Ordeal (N. Korean famine) and negative growth', but should be acknowledged as a nation with a trade volume of US\$10 billion. Therefore, it is necessary for the government to propose to N. Korea more forward-looking projects linked with the economic development zones of N. Korea and the promotion of market economy of N. Korea with a flexible approach in implementing its policies.

[Annex] Domestic and Global Economic Indices

Global Growth Rate

Category	2013					2014					2015
	Annual	1/4	2/4	3/4	4/4	Annual	1/4	2/4	3/4	4/4	Annual(E)
US	2.2	2.7	1.8	4.5	3.5	2.4	-0.9	4.6	4.3	2.1	2.6
Euro Region	-0.4	-0.2	0.3	0.1	0.3	0.9	0.2	0.1	0.2	0.4	1.5
Japan	1.6	1.5	0.7	0.4	-0.4	-0.1	1.1	-1.7	-0.5	0.3	0.6
China	7.7	7.7	7.5	7.8	7.7	7.3	7.4	7.5	7.3	7.3	6.8

Note: 1) IMF figures of July 2015 for 2015 global projections.

2) Annual rates were compared with those of previous term for the US and Japan, with the rates of the previous term for Euro region, and with the same term in the previous year for China.

Economic Indicators of South Korea

Division		2013	2014			2015(E)		
			the first half	the second half	Annual	the first half	the second half	Annual
National Account	Economic Growth rate (%)	2.9	3.7	3.0	3.3	2.3	2.6	2.5
	Private Consumption (%)	1.9	2.2	1.5	1.8	1.6	2.1	1.8
	Construction Investment (%)	5.5	1.9	0.4	1.0	1.2	4.0	2.7
	Facility Investment (%)	-0.8	7.5	4.2	5.8	5.4	5.3	5.3
	Intellectual Property Investment(%)	4.4	6.4	2.9	4.6	1.3	5.0	3.2
Foreign Trade	Current Account (100 million Dollars)	811	394	498	892	523	567	1,090
	Exports (100 million Dollars) [Increase rate, %]	5,596 [2.1]	2,832 [2.4]	2,895 [2.2]	5,727 [2.8]	2,686 [-5.2]	2,686 [-7.2]	5,327 [-6.2]
	Imports (100 million Dollars) [Increase rate, %]	5,156 [-0.8]	2,633 [2.7]	2,622 [1.2]	5,255 [1.9]	2,224 [-15.5]	2,218 [-15.4]	4,443 [-15.5]
Consumer Price (Average, %)		1.3	1.4	1.2	1.3	0.5	0.8	0.6
Employment rate (15~64, Average, %)		64.4	65.0	65.7	65.3	65.4	65.9	65.6

Economic Indicators of North Korea

		2006	2007	2008	2009	2010	2011	2012	2013	2014
Per capita GNI (10,000 won)		103	104	114	119	124	133	137	138	139
Amount of Trade by Year (USD million)	South-to-North	830.2	1,032.6	888.1	744.8	868.3	800.2	897.2	520.6	1,136.2
	North-to-South	519.5	765.3	932.3	934.3	1,043.9	913.7	1,074.0	615.2	1,206.8
	Total	1,349.7	1,797.9	1,820.4	1,679.1	1,912.2	1,713.9	1,971.2	1,135.8	2,343.0

Source: THE BANK OF KOREA, Ministry of Unification.

Hyundai Research Institute

Current Status

HRI is established by Chung Ju-yung, the first CEO, founder and honorary chairman of Hyundai Group in 1986. HRI is a leading Korean research think tank committed to studying and analyzing the economic and industrial environment as well as reunification economy of Korea. HRI, further, has it's own businesses such as business consulting, education and training service, and knowledge-content business.

Main Research Topics

HRI is mainly composed of four divisions. The major working areas of each part are as following :

Research Sector deals with the macroeconomic issues relating to domestic-and-international economy as well as the industrial trends and issues. Reunification Economy Center is one of it's sub-sectors, specialized in both the North Korean political and economic issues.

Business Consulting Sector devotes to helping domestic and international companies improve their competitiveness by providing strategic solutions.

Knowledge-Business Sector produces a great deal of invaluable online-and-offline contents such as educational videos and reading materials.

Human Resource Development and Education Sector provides HR development consulting services to companies for improved talent management, and also provides educational services such as training and lectures.

Messages to Future-Cooperation Partner

HRI is prepared for cooperation and coworks with your institute, especially in the field of survey, economic trend analysis and business consulting. For more information on cooperation, please contact us.

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