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Part 1: Country Report

Economy and Construction Industry in Korea

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1. Executive summary

The Korean economy has successfully passed through the global financial and economic crisis, even if it is currently slowing down due to stagnant private consumption. The Korean GDP growth rate in the first half of 2014 showed a slight increase compared with the previous year, due to the improvement of terms-of-trade. In the first half of 2014, the private consumption and investment decreased 0.3% and 0.2% respectively, but the export of goods and service increased 1.7% compared with the previous quarter. Both exports and import are forecasted to rise by 4.9 and 5.5% respectively compared with the last year, because of the growth of cordless telephone and automobile car, the influence of US government shut-down, rise of exchange rate and so forth.

In the construction sector, the value of contracts in the first half of 2014 definitely has increased 26.8% owing to the recovery of residential building construction. The number of contractors in June 2014 is similar to that in last year, and that of employees maintained the same level. For the exports in construction, the Civil sector showed an exceptional shrunk, while the Plant sector keep the steady trend after 2011. The construction investment in 2014 is expected to increase by 1.3%, lower than original expectation in 2013.

All things considered, the Korean GDP growth rate in 2014 is expected to be 3.8% under the influence of the domestic and global economic recovery. The economic outlook for next year is predicted to be more improved, even if it will be affected by domestic demand reduction and uncertainty of the global economy.

2. Macro Economic Review and Outlook

The Korea as well as other countries had been confronted with a serious economy crisis after the Subprime mortgage in U.S.A, 2008. However, the GDP growth rate had greatly been up to 6.5 percent in 2010 from 0.7 percent in 2009, riding on brisk exports and recovering domestic demand. The GDP growth rate, unfortunately, has fallen again from 2.3 percent in 2012 to 3.7 percent in the first half of 2014, which means that the Korean economy has been at a standstill. In the first half of 2014, the population and labour force growth rate slightly increased and the unemployment rate is slightly moving upward, compared with the values in 2013. The interbank and short term loan interest rate decreased during the same period, whereas the long term loan interest rate increased 2.79 to 2.82 percent.

In the first half of 2014, private consumption declines by 0.3% over previous quarter due to the national tragic accident, the sinking of the Sewol, which reduce the expenditure of almost all goods and service. The construction investment increased by 0.4% with a growth of building construction especially in non-residential building, while the investment in civil engineering and road decreased due to shortage of national and local government's budget.

On the production side, the manufacturing sector increased by 5.4% over the same period in the previous year, which was mainly due to the rise of precision instrument such as electronic and semiconductor equipment. The construction sector also increased of 1.7% because of expansion of residential sector, which was extremely sluggish after 2007. In addition, the service sector increased by 3.0% on the strength of finance, insurance, food and lodging industries.

As the rate of Korean economic growth is predicted to be 3.8% in the next half of 2014, it is difficult to say that economic has been completely recovered. However, the major credit rating agencies like Moody's take an optimistic view of Korean economy despite downgrading the most developed countries' rating. In conclusion, the Korean economy is expected to be positive growth but its pace might be slow down.

Table 2.1. Main Economic Indicators

	2006	2007	2008	2009	2010	2011	2012.	2013	2014 2Q
GDP and Components									
GDP at real price (bill. won, base year 2010)	1,087,876	1,147,311	1,179,771	1,188,118	1,265,308	1,311,893	1,341,966	1,381,838	694,762
GDP at current market price (bill. won)	966,055	1,043,258	1,104,492	1,151,708	1,265,308	1,332,681	1,377,457	1,428,295	736,972
GDP growth (%)	5.2	5.5	2.8	0.7	6.5	3.7	2.3	3.0	3.7
GDP growth (%) for agri and fishing sector	1.6	4.1	5.6	3.2	-4.3	-2.0	-0.9	5.8	5.2
GDP growth (%) for manufacturing sector	7.7	8.4	3.7	-0.5	13.7	6.5	2.4	3.3	5.4
GDP growth (%) for services sector	4.6	5.2	3.2	1.5	4.4	3.1	2.8	2.9	3.0
GDP growth (%) for mining sector	7.7	8.3	3.7	-0.5	13.5	6.5	2.4	3.3	1.1
GDP growth (%) for construction sector	1.7	2.5	-2.6	2.3	-3.7	-5.5	-1.8	3.6	1.7
Demographic Indicator									
Population (1000 people)	48,371	48,597	48,948	49,182	49,410	49,779	50,004	50,219	50,423
Population growth rate (%)	0.49	0.47	0.72	0.48	0.46	0.75	0.45	0.43	0.40
Labour force (1000 people)	23,151	23,433	23,577	23,506	23,829	24,244	24,681	25,066	25,790
Labour force growth rate (%)	1.29	1.22	0.61	-0.30	1.36	1.71	1.77	1.54	2.81
Unemployment rate	3.5	3.2	3.2	3.6	3.7	3.4	3.2	3.1	3.7
Inflation rate (CPI)	2.2 (88.1)	2.5 (90.3)	4.7 (94.5)	2.8 (97.1)	3.0 (100.0)	4.0 (104.0)	2.2 (106.3)	1.3 (107.6)	1.4 (109.0)
Financial Indicator									
Interbank interest rate	4.14	4.65	4.77	1.92	2.03	3.01	3.02	2.56	2.47
Short term loan interest rate (Yields on CD(91-day))	4.48	5.16	5.49	2.63	2.67	3.44	3.30	2.72	2.65
Long term loan interest rate (Yields of Treasury Bonds (3-year))	4.83	5.23	5.27	4.04	3.72	3.62	3.13	2.79	2.82
Average change against USD\$	955.08	929.16	1,103.36	1,276.35	1,156.00	1,107.99	1,126.76	1,095.04	1,029.19

3. Trading Country

3.1. Value of Import and Export

The balance of trade was recorded a surplus of \$44.0 billion in 2013, due to the sharp increase of export exceeding the increase of import. In the first half of 2014, it already made a surplus of \$20.2 billion, that is, similar with that of last year. The value of import and export in 2014 is expected more than that in 2013 due to recent recover of world economy especially in developed countries. However, the balance of trade can be shrunk to \$43.0 billion.

The export in the first half of 2014 is estimated to have grown 1.7%, which was caused by the growth of cordless telephone, automobile car, general machinery and petrochemicals and by the decline of shipping and wireless mobile products. The import is also estimated to increase about 1.1%, which was caused by rise of consumption abroad.

The value of exports and imports in 2014 are being forecasted to increase about 4.9% and 5.5% respectively by the effects of recent recover of world economy.

Table 3.1. Export and Import

	2006	2007	2008	2009	2010	2011	2012	2013	2014 2Q
Export (increase rate)	325.5 (14.4)	371.5 (14.1)	422.0 (13.6)	363.5 (-13.9)	466.3 (28.3)	555.2 (19.0)	547.8 (-1.3)	559.6 (2.1)	283.3 (2.5)
Import (increase rate)	309.4 (18.4)	356.8 (15.3)	435.3 (22.0)	323.1 (-25.8)	425.2 (31.6)	524.4 (23.3)	519.5 (-0.9)	515.5 (-0.7)	263.1 (2.6)
Balance of trade	16.1	14.6	-13.3	42.6	41.1	30.8	28.3	44.0	20.2

Source: Korea Customs, The Korea International Trade Association.

3.2. Five Major Trading Countries

The three major trading countries of Korea in the first half of 2014 are China, Japan and America. Hong Kong and Singapore are also included in the five major countries of export, and Middle East Asia countries including Saudi Arabia and Qatar are the major countries of import. About 80% of oil import of Korea is from these Middle East countries. While the share of EU Countries in the trading to Korea has decreased, the share of East South and Middle East Asia countries has increased.

Table 3.2. Top 5 Major Trading Countries of Import and Export (2Q, 2014)

Rank	Export		Import	
	Country	Value	Country	Value
1	China	69,441	China	43,833
2	America	33,863	Japan	26,782
3	Japan	16,191	America	22,993
4	Singapore	13,704	Australia	10,628
5	Hong Kong	13,174	Taiwan	7,486

Source: Korea Customs

4. Overview of construction industry

4.1. The Value of Construction Contracts

Since early 2008, the economic stimulus policy had led the government expenditure to rise rapidly, letting the investment in construction, mainly for infrastructure projects, to rise fast. In 2009, the rate of civil construction contracts increase by 31.2%, but that of total construction contracts conversely decreased by 1.1% with offsetting by a large fall of private projects. In 2010, only non-residential construction contracts recorded positive growth of 18.6%. Fortunately, the residential construction contracts in 2011 increased rapidly into 22.4%, which brought about the positive growth in total construction.

However, construction contracts including civil and privates have been deeply decreased by domestic recession since 2012. The civil and residential construction contracts in 2013 were recorded the extremely negative growth of 16.2% and 14.6% respectively, meanwhile the non-residential construction contract decreased by 1.0% compared with the same period the previous year.

After severe decrease in contract for 2 years, the value of contracts in the first half of 2014 increase sharply due to base effect. The residential building contracts increase by 49.6% but its real value is 37% lower than the peak point in 2007. The non-residential and civil contracts also grow 27.4% and 8.9% respectively. By the results, the total construction contracts showed the positive growth of 26.8%, reaching a value of KRW 49.6 trillion (US\$ 47.4 billion).

The economic prospects for the second half of this year are different from the sectors. It is expected that it will be difficult to keep the recovery pace in the residential construction contracts due to the shortage of housing demand. Government try to induce an end user to buy a house through diverse policy packages but people is reluctant to buy worrying the additional decline of housing price. It is predicted to be the positive growth in the non-residential buildings and infrastructure, however, its amount is dependent in the private sector investment due to insufficient public budget.

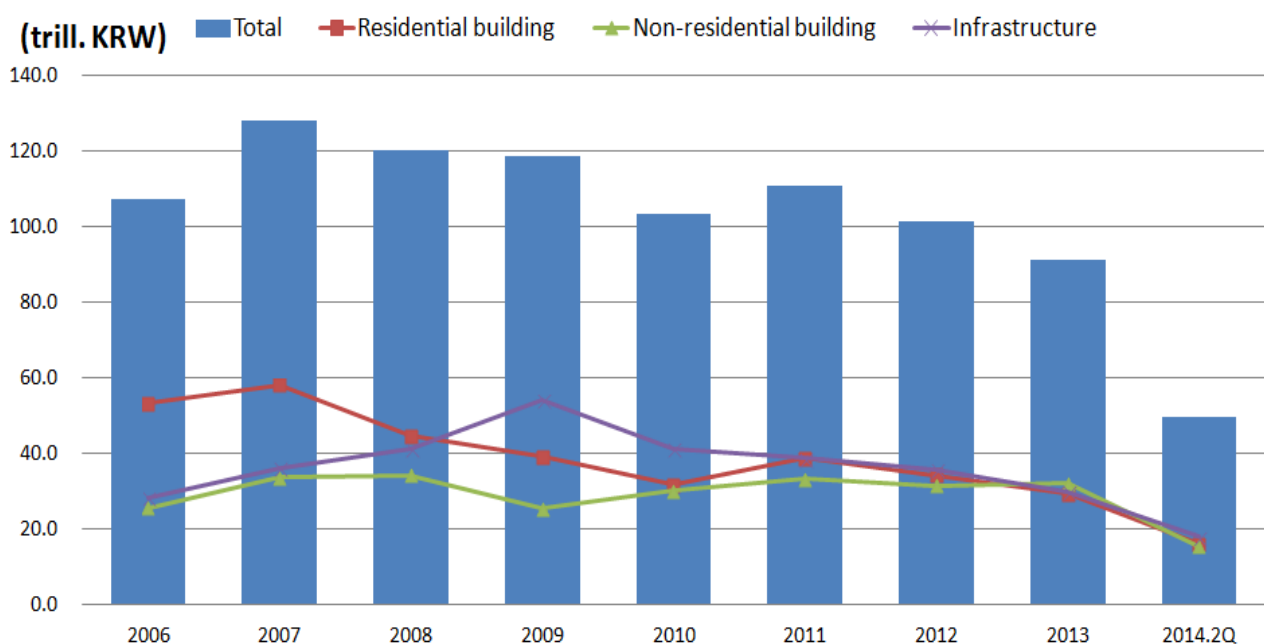


Figure 4.1: The Value of Construction Contracts (2006~2014.2Q)

Table 4.1. The growth rate of construction Contracts

(Unit: %, compared with the same period)

Year	residential	non-residential	civil(Infra)	total
2006	23.9	-1.2	-6.6	8.0
2007	9.1	30.8	27.5	19.2
2008	-23.2	1.8	14.0	-6.1
2009	-12.5	-25.4	31.2	-1.1
2010	-19.1	18.6	-23.5	-13.0
2011	22.4	9.8	-6.2	7.2
2012	-11.4	-5.0	-8.1	-8.3
2013	-14.6	-1.0	-16.2	-10.0
2014.6	49.6	8.9	27.4	26.8

Table 4.2. Breakdown of Construction Contracts

(Unit: bill. won, current price)

Type of Contract	2006	2007	2008	2009	2010	2011	2012	2013	2014. 6
Public Project									
Residential building	5,122	7,570	9,346	7,378	4,738	6,963	6,446	5,058	1,676
Non-residential building	5,755	7,587	9,149	8,327	7,749	7,779	8,730	11,049	5,525
Infrastructure	18,643	21,932	23,354	42,782	25,749	21,882	18,901	20,063	14,495
Sub-Total	29,519	37,089	41,849	58,487	38,236	36,624	34,077	36,170	21,696
Private Project									
Residential building	48,155	50,578	35,311	31,699	26,875	31,742	27,850	24,233	14,511
Non-residential building	19,905	25,984	25,021	17,161	22,486	25,406	22,797	21,063	9,923
Infrastructure	9,740	14,261	17,904	11,366	15,631	16,927	16,781	9,841	3,524
Sub-Total	77,799	90,823	78,236	60,227	64,993	74,076	67,428	55,137	27,958
Total									
Residential building	53,276	58,148	44,657	39,078	31,613	38,705	34,295	29,291	16,187
Non-residential building	25,660	33,571	34,170	25,488	30,235	33,185	31,528	32,112	15,448
Infrastructure	28,383	36,193	41,258	54,149	41,380	38,809	35,683	29,904	18,019
Total	107,318	127,912	120,085	118,714	103,229	110,701	101,506	91,307	49,655

Source: Construction Association of Korea.

4.2. Construction Companies

4.2.1. The number of Contractors by Type

The number of construction companies had steadily increased since 2006, and dropped back to 54,825 in 2014, where it hardly changed the amount of contractors until August 2013. Although the number of general contractors and specialized and equipment contractors are gradually decreasing year after year, those of equipment contractors is reversely increasing a little.

Most of the contractors are composed with the general and specialized companies, and the shares of them consist of 20.0% and 67.8% respectively in total.

Table 4.2.1. The number of Construction Companies

(Unit: each).

Year Type	2006	2007	2008	2009	2010	2011	2012	2013	2014.6
General Contractors	12,914	12,842	12,590	12,321	11,956	11,545	11,304	10,921	10,962
Specialized contractors	35,040	36,422	37,106	37,914	38,426	38,100	37,605	37,057	37,164
Equipment contractors	5,387	5,478	5,768	5,994	6,151	6,330	6,463	6,599	6,699
Total	53,341	54,742	55,464	56,229	56,533	55,975	55,372	54,577	54,825

Source: Construction Association of Korea.

4.3. Construction Employees and Labors

4.3.1. The number of construction workers by job type

The number of workers shows an up-and-down pattern in the construction industry. For the year of 2007, more than 1.8 million employees worked in the construction field, 7.9% of total employment. However, the number of workers in 2008 slightly declined with construction business depression. And it sharply fell by 1.7 million workers in 2009, when Korean economy was in the deepest recession affected by global financial crisis. In 2010, the number of employees in construction increased a few owing to the growth in the economically active population. Reflecting this trend, the number of employees in June 2014 is over 1.8 million, 7.1% of total employee, similar with that before financial crisis.

It is hard to analyze the latest trend by job type, because the relevant data was only available until 2010, as showing in the Table 4.3.1b. The number of building construction workers increased amid the buoyant housing and building business from 2006 to early 2007.

Table 4.3.1a. The total number of workers in Construction

(Unit : thousand persons)

Year Number	2006	2007	2008	2009	2010	2011	2012	2013	2014.6
Number of employee in construction	1,833	1,849	1,812	1,720	1,753	1,751	1,773	1,754	1,842

Source: Korea National Statistical Office.

Table 4.3.1b. The number of Construction Workers by Job Type

(Unit: thousand workers)

Type \ Year	2005	2006	2007	2008	2009	2010
General construction	571	579	576	529	491	468
Heavy construction	176	161	162	157	196	166
Building construction	395	417	414	372	294	302
Special trade construction	1,147	1,138	1,151	1,127	1,170	1,157
Engineering and building	475	482	477	469	465	466
Building installation	183	170	165	165	169	177
Electrical & communication works	252	246	265	258	290	280
Building completion	236	239	243	233	246	234
Equipment construction	95	116	121	155	59	128
Total	1,813	1,833	1,849	1,812	1,720	1,753

Source: Construction Association of Korea.

4.3.2. The number of foreign construction workers by job type

There are few statistics about the number of foreign workers in Korean construction market, because it is difficult to assemble acute figures for the number of foreign workers. The reason that can't exactly accumulate the number of foreign workers is that there are a lot of illegal foreigner more than 1 million. In 2012, the number of legal foreign construction workers is approximately 85 thousand and soar up continuously.

4.4. Productivity

4.4.1. The Value added per employee

The index of value added per employee was changed into 100 in 2010, therefore we just suggest the figures since 2008. The table 4.4.1 shows the value added per employee construction dropped from 105.8 in 2009 to 96.1 in 2013. Showing the trends in the past data, the value added per employee in each industry had not been improved since 2010, even though the percentages charged in manufacturing had increased from 2008 to 2012.

Table 4.4.1. The Value Added per Employee

(unit : %)

	2008	2009	2010	2011	2012	2013
Construction	(98.2)	(105.8)	(100)	(94.6)	(91.8)	(96.1)
Manufacturing	(89.9)	(92.4)	(100)	(104.9)	(107)	(108.4)
Service	(96.5)	(96.9)	(100)	(100.7)	(101)	(102)
Primary sector	(94.7)	(99.6)	(100)	(99.9)	(100.1)	(106.5)

Source: Korea National Statistical Office.

4.4.2. Physical measurement of construction productivity

We do not have the adequate data explaining physical measurements of construction productivity, since there is no labor input data classified by construction types.

4.5. Construction Cost

4.5.1. Major construction material average price

The official prices of major construction materials are influenced by government guideline but the actual transaction value changes according to the market conditions. The demand and supply of most construction materials can be more or less matched domestically. Shown as table 4.5.1, the price of construction materials has not been much changed since 2005, except Steel bars.

In 2008, the price of Steel bar sharply rose to 888,500 won per ton from the previous year 526,500 won. Because the raw material of Steel bar mainly depended on import, the price was influenced by international market situation such as construction and shipbuilding. The price of steel bar came down to 811,000 won in 2010. But it had been risen up to 995,000 won in 2012 and the price has been stabilized so far.

Table 4.5.1. Average Construction Material Price

	Cement in bulk (won per 40kg)	RMC * kg/cm ³ (won per m ³)	Steel bars (won per ton)	25mm aggregates (won per m ³)	Concreting sand (won per m ³)	Common Bricks (won per thousand pieces)
2006	3,370	49,080	455,667	11,333	13,250	45,000
2007	3,370	49,080	526,500	11,500	13,083	45,000
2008	3,370	51,248	888,500	12,417	12,000	45,000
2009	4,000	51,970	741,000	12,000	13,000	45,000
2010	3,800	54,670	811,000	12,000	13,000	50,000
2011	3,800	51,430	975,000	12,000	13,000	50,000
2012	3,890	56,970	995,000	13,500	13,000	55,000
2013	4,400	57,600	995,000	13,500	13,000	55,000

* RMC: Ready Mix Concrete.

Source: KPC (Korea Price Information Corp).

4.5.2. Construction industry wages

In construction like other industries, the salaries and wages have mildly increased since 2006. For instance, the wage for special daily workers was 73,572 won and gradually increased by 106,569 won in 2014. In the first half of 2014, the average wages per day were 109,664 won (about 104.9 dollars) for chief workers, 106,569 won (about 102.0 dollars) for special daily wage, and 86,686 won (about 82.9 dollars) for normal daily wage.

Table 4.5.2. Wages in the Construction Industry

(unit : Korean won)

	2006	2007	2008	2009	2010	2011	2012	2013	2014.9
Chief worker	78,124	81,700	87,995	90,889	97,000	101,726	104,876	105,500	109,664
Special daily wage	73,572	79,027	83,141	84,862	91,396	96,325	95,232	101,635	106,569
Normal daily wage	57,321	59,715	65,076	68,437	71,456	74,808	81,088	84,071	86,686

Source: CAK (Construction Association of Korea).

4.6. Import and Export of Construction Work

4.6.1. Annual exports of construction work

Such a tremendous increase in export of construction work was experienced in 2010, because the United Arab Emirates (UAE) nuclear power plant contract signed at the end of 2009 was brought into 2010 calculation. The 18.6 billion dollar UAE project accounted for most of the increase in the amount. Meanwhile, the exports in 2011 showed a little decreasing by the global depression sparked in Europe. The total value in export in construction was recorded 44,696 million dollars by August 2013, and this was similar pace compared with that the same period the previous year.

Among construction sectors, the export of plant occupied the largest portion recording 36,350 million dollars in 2014, but it already similar to the record in 2013. On the other hand, the export of civil in construction sectors decrease by 3,527 million dollars, which was six times less than the value over the past year in 2013.

Table 4.6.1. Annual Exports of Construction Work

year	Total	Contract Amount by work type(million US\$)					
		Civil	Architecture	Plant	Electric	Telecomm	Engineering
2006	16,468	1,532	3,433	10,920	474	3	106
2007	39,788	5,232	8,177	25,268	690	41	381
2008	47,640	9,364	9,192	26,764	1,336	19	965
2009	49,147	5,746	6,273	35,692	756	20	660
2010	71,578	4,124	7,724	57,285	770	458	1,217
2011	59,144	5,857	7,846	43,269	954	61	1,157
2012	64,880	8,795	14,332	39,549	1,323	73	818
2013	65,211	18,128	5,446	39,650	761	238	988
2014.8	44,696	3,527	2,935	36,350	507	184	1,193

Source: ICAK (the international Construction Association of Korea).

4.6.2. Five major foreign markets by value

Middle-east Asian countries are usually included in top five countries for construction export of Korea. Iraq were the highest countries in construction exports, in addition, Venezuela and Algeria recently entered into the five major export countries. The construction service of exported to middle-east Asian countries is mainly plant construction sector and the service to south-east Asian countries is infrastructure or architecture construction sector.

In 2013, Iraq was the most important country in construction exports, where 9,975 million dollars of construction service was exported. It was noteworthy that Uzbekistan in Middle Asia held the third rank in the construction export.

Table 4.6.2. Top Five Countries for Construction Export

(unit : million US\$)

Rank	2010		2011		2012		2013		2014.8	
	Country	Value	Country	Value	Country	Value	Country	Value	Country	Value
1	U.A.E	25,602	Saudi Arabia	16,588	Saudi Arabia	16,167	Saudi Arabia	9,975	Iraq	8,061
2	Saudi Arabia	10,531	Brazil	4,606	Iraq	9,636	Australia	5,855	Kuwait	7,166
3	Kuwait	4,893	Iraq	3,666	Kazakhstan	4,161	Uzbekistan	4,534	Venezuela	4,338
4	Vietnam	3,298	Vietnam	3,459	Vietnam	3,416	Vietnam	4,044	Algeria	4,248
5	Australia	3,246	Singapore	3,289	Singapore	3,345	Singapore	3,516	Saudi Arabia	2,673

Source: ICAK (the international Construction Association of Korea).

5. Construction Outlook 2013 / 2014

The Korea's GDP growth had sharply dropped off after the global financial crisis, and the growth rate was only 0.7 percent in 2009. In 2010, however, the growth rate rose to 6.5 percent with economic activity increasingly led by the private sector. The recovery was led by the rebound in fixed investment and the turning of the inventory cycle. Nevertheless, the growth rate in 2011 dropped again into 3.7 percent with the stagnant domestic economy and the financial crisis triggered by Europe. The growth rate in 2012 was 2.0 percent lower than that of last year. The economists in Korea, meanwhile, would forecast that the world economic growth rate will be 3.8% with reflecting the recovery of world economy and on the other hand,

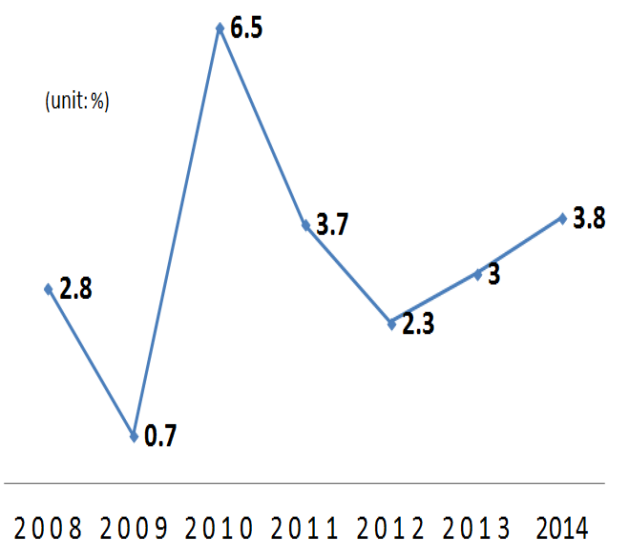


Figure 5.1: Korea's GDP growth

Korea economic growth rate will be 0.5 more than the average growth rate of the world economic. The growth rate in construction investment was converted from negative in 2012 into positive in 2013, which reached 6.7% in 2013. The government announced that the growth rate in the first half of 2014 is 1.9% provisionally, which is lower than expected value. It is expected that the annually rate will be about 1.3%, also lower than original expectation.

Table 5.1. Prospect of Construction Investment in 2014

(Unit: %, compared with the same period)

Segment	2013 annually	1 st half of 2014	2 nd half of 2014	2014 annually
Construction Investment	6.7	1.9	0.8	1.3

Source: Korea Research Institute for Human Settlements

The prospects for the Korean economy next year is a little hopeful. The government of Korea plans to strengthen its investment for healthcare, welfare and the research of new growth engines, while cutting the budget for social overhead capital including road construction in 2014. There are so many uncertainties ahead in the Korean economy as well as the global economy. Even though the government in the next year plans to cut down construction investment sector, the GDP growth rate in 2015 would be predicted to be about 4.0% due to the recovery of domestic demand and the growth of export.