National Assembly Budget Office

2011~2015 Economic Outlook and Fiscal Analysis

2012. 2

National Assembly Budget Office

2011~2015 Economic Outlook and Fiscal Analysis

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「2011~2015 Economic Outlook and Fiscal Analysis」 is published to evaluate the 「2012 Budget Proposal」 and to support the National Assembly's review of the government budget proposal.

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Foreword

Korea, with its smooth transition through the global financial crisis and economic growth of 6.2% in 2010, recorded managed budget balance of 13 trillion won deficit, which is an improvement of 30.2 trillion won from the 43.2 trillion won deficit in 2009. However, factors from around the globe such as the European financial crisis and the delayed economic recovery of the United States are withholding Korea's economic growth. Domestically, struggling domestic demand, diminished investment, household debt and unemployment of the young generation are persistently problematic. And the role of fiscal plan in finding a virtuous cycle and imbuing it with vitality is in great need.

As predicted before, circumstances that undermine the fiscal sustainability such as decrease in potential growth rate and reduction in tax base due to the change in population structure and a sharp increase in welfare expenditure are soon to be reality.

The government has submitted *2012 budget proposal*, *2011 Tax Revision Bill*, *2011–2015 National Fiscal Management Plan* to the National Assembly with “Balanced Budget” as its goal. NABO, in order to aid the National Assembly in its review of the submitted plans and proposals by the government, published the *2011–2015 Economic Outlook and Fiscal Analysis series*.

2011-2015 Economic Outlook and Fiscal Analysis series

1. 2011-2015 Economic Outlook
2. 2011-2015 Total Revenue Outlook and Fiscal Analysis
3. Analysis on Tax Revision Bill for 2011
4. Analysis on 2011-2015 National Fiscal Management Plan
5. Analysis on 2012 Tax Expenditure Budget
6. Budgetany Issues on 2012 Revenue Budget Proposal
7. Comprehensive review

This series consists of six books on different topics and one that succinctly provides the overview of those topics, which are designed to assist Strategy and Finance Committee and other committees, such as Special Committee on Budget and Accounts in their work.

This year, in addition to Outlook on total revenue, Tax Revision Bill, and Tax Expenditure Budget of the 2012, 「Budgetary issues on 2012 Revenue Budget proposal」 has been published for a comprehensive review of major issues in tax revenue budget plan.

I sincerely hope that you find this report helpful in furthering your understanding of Korea's economy and its fiscal management.

February 2012

Chief of the National Assembly Budget Office, Republic of Korea

Joo, Young-Jin

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Executive Summary

The Role of Fiscal Policy and the Changes in Economic Circumstances

Korea responded to the 2008 financial crisis that began in the United States with fiscal expansion, which totaled 6.5% of the GDP for three years from 2008 to 2010. 40.6 trillion won in fiscal expenditure and 26.1 trillion won in tax cuts, totaling 66.7 trillion won were the largest fiscal expansion among all OECD nations, and Korea's budget soundness was somewhat undercut consequently. Deficit in the managed budget account increased to 43.2 trillion won, which totals 4.1% of GDP in 2009. With faster–than–expected recovery in 2010, however, deficit in the managed budget account came back down to 13 trillion won, which totaled 1.1% of GDP. The government's risk–management through fiscal policies seems to have been effective. Although the expansion's appropriateness and the financial management after the response to the financial crisis in an attempt to recover budget soundness need to be analyzed in depth, employing fiscal policies to respond to the crisis is considered to have been successful. The world economy, after coping with the global financial crisis without a severe hit, has faced yet another problematic situation that arose out of Southern European nations such as Greece and Italy. Greece is avoiding national default with financial aids from EU and IMF, but European financial crisis is expected to last for a significant time despite tireless efforts to revitalize the economy. Moreover, the United States, after escaping a horrid moment of national default with an approval for federal debt raise from the legislators, is in the position where it needs to improve its finances by 2.4 trillion dollars in 10 years, and its domestic economy is struggling to recover. China and developing nations, after pushing the growth of the world economy for some time in recent years, are expected to maintain tightened monetary policy to counter inflation, and consequently, the world economy is expected to face a period of recession.

Although budget soundness is recovering fast, the government announced its plan to balance its finances by 2013, which is a year sooner than the previous plan. Korea's economy is sensitive to external pressures because of its size and openness. As such, Korea's public finance needs to function as a buffer for stable growth of the economy. Public finance was able to contribute significantly in the IMF economic crisis in 1997 and 2008 global financial crisis because public finance of Korea has been maintained at good health.

Population structure change due to low birth rate and aging will become reality with reduced workforce in 2016, and, as a result, growth rate of the economy will slow down, tax base will weaken, and welfare expenditure will skyrocket to make it extremely difficult to secure budget soundness in medium and long term. In these circumstances, securing budget soundness early is an important goal. However, specific fiscal management plans to achieve the fiscal goals set out by the government ought to be presented, and those goals need to be chosen with care, considering current economic atmosphere. Finding the role of public finance to secure future growth engines and responding to the requests for various welfare programs are some of the problems that need to be discussed in the National Assembly's review of the 2012 budget proposals, 2011–2015 National Fiscal and Management Plan. Lastly, any budget proposed to win votes or relaxation of fiscal regulations in light of 2012's two elections shall be watched out for.

Summary of 2012 Budget Proposal and 2011-2015 National Fiscal Management Plan

The government submitted documents related to the budget proposal, such as 「2012 Budget Proposal」 and 「2011–2015 National Fiscal Management Plan」, to the national assembly on September 30th. Next year's budget proposal presented, "Budget for expanding employment," "Budget with tailored welfare for the working middle class," "Budget with investments for economic vitality and future," "Budget with plans to balance finances by 2013," as its main goals. With the growth rate of GDP at 4.5% as a premise, the budget proposal set total revenue as 344.1 trillion won, which is 29.7 trillion won(9.4%) increase from the preceding year, and total expenditure at 326.1 trillion won, which is 17.0 trillion won(5.5%) increase from the preceding year. The budget proposal aims to improve the managed budget account from 14.3 trillion won deficit in 2012 to 0.2 trillion won surplus to achieve the government's goal of balanced finance by 2013, and the ratio of national debt to GDP is expected to continually decrease to reach 29.6% in 2014 and 27.9% in 2015.

In terms of allocation of financial resources, education component has been allocated 45.1 trillion won, a 9.5% increase from preceding year, general public administration 56.6 trillion won, 8.0% increase, R&D 16 trillion won, 7.4% increase, Health Welfare Labor 92 trillion won, 6.5% increase, and SOC 22.6 trillion won with 7.4% decrease. Increases in education and general public administration are attributed to the increase in both local education financial grant(9.1%), local allocation tax(9.6%) and 1.2 trillion expansion in "Tailored National Scholarship," and SOC, which has been downsized with the end of the 4 Major Rivers Restoration, has increased 6.1%(1.3 trillion won) when the 4 Major Rivers Restoration and Yeosu Expo are excluded.

Economic Outlook

The National Assembly Budget Office(NABO) expects the growth rate of GDP for 2012 to be 3.5%. This projection reflects the continued instabilities in the global financial market, retardation in exports, investments, and employment, and lethargic private consumption due to burden of household debts. Contrarily the administration has projected a 4.5% growth in their budget proposal for next year. This number is 1%p higher than that from NABO, and is deemed an optimistic one even when compared to projections from other domestic and foreign organizations.

In 2011–2015 National Fiscal Management Plan, the government expected the 4.5% growth to continue until 2015, while NABO expected a 3.9% growth in 2013, 4.2% in 2014, 4.0% in 2015 from the trough in 2012. The improvements in projection of NABO are attributed to the recovering economies of developed countries, which would lead to better conditions for exports for Korean industries. The annual average growth of GDP for 2011 to 2015 is expected to be 3.8%, which is lower than the 4.5% from the administration and the 4.7% from before the global financial crisis (2004–2007). The main reason behind NABO's such low growth expectation for the next five years is dwindling domestic demand, as household debt restructuring and slower increase in employment are to be unfold.

One of the biggest concerns in the economic outlook for the next year is employment. According to NABO's forecast for employment, unemployment in the next year rate increases slightly by 0.1%p, but the increase in the number of newly hired is expected to be 262,000, a decrease by 113,000 from this year. This low increase is the lowest since 1993 with exceptions 1998 Asian currency crisis, 2003 credit card crisis, 2008·2009 global financial crisis.

The recent global financial crisis placed albeit small a burden on Korea's growth potential, and it is expected to take some time for the world economy to recover. Under these circumstances, public finance needs to secure budget soundness, recover the virtuous cycle of economy, and expand growth potential.

Evaluation of the Government's Fiscal Goal

The government, in its submission of next year's Budget Proposal and National Fiscal Management Plan to the National Assembly, proposed "balanced Budget by 2013" as a fiscal goal.

"Balanced Budget," itself is not significant in terms of economics, but it is still a desirable goal in that fiscal health will recover promptly. The government's goal of balanced budget by 2013, however, needs to be critically reviewed in some aspects.

First of all, the goal, "balanced Budget by 2013," places a burden on the next administration. If this administration were to restore the fiscal health from the withered state due to the global financial crisis within its term, it should have adopted a more tightened fiscal policy in 2010 and 2011.

Secondly, in order to balance the budget by 2013, the growth rate of the economy must sustain 4.5% on an annual average, and the total revenue in 2011-2013 needs to increase by 9.3%. Considering the economic circumstances in 2012 and 2013 and projections from other institutions, the 4.5% growth rate and a large increase in total revenue seem overly optimistic. Additionally, in the same period, non-tax revenue needs to improve by 19.9%. In the government's Budget Proposal, such revenue is gained through sales of government shares and assets. Because the government has not been successful in sales of its shares and assets since they first put this on their budget plan, the plan to secure additional revenue through sales of the government shares and assets at an appropriate price and time does not seem feasible.

The administration's projection for expenditure is also set lower than that from NABO. Expenditure projection of NABO is divided into mandatory expenditure and discretionary expenditure, with an assumption that the latter increases at CPI inflation rate. Such assumption of NABO means that the real value of discretionary expenditure remains fixed, making the projection enormously conservative. The government, however, projected a even lower expenditure until 2015, but it would be difficult to achieve.

Thirdly, the government indicated that it would keep the growth rate of expenditure 2-3% lower than that of revenue to accomplish balanced finance by 2013. In the 2012 Budget Proposal, total expenditure grew 5.5%, which is 3.9%p lower than that of total revenue, 9.4%. However, this method of fiscal management will be a pro-cyclical one as the size of total expenditure increases with total revenue when the economy is upturn, and decreases with total revenue when the economy is downturn. Pro-cyclical fiscal policies could weaken the capacity of public finance to stabilize the economy and amplify the shock from the changes in the economic state.

Direction of Fiscal Management

According to NABO's projection, Korea is to experience a gradual recession with growth potential of around 3.7%. Nonetheless, as long as rate under the world economy remains uncertain, proactive fiscal stimulation does not seem appropriate. In light of this, the government's tightened stance on the Budget Proposal needs to be reviewed carefully as below.

The Fiscal Impulse Indicator of the government in 2012 Budget Proposal is -0.18. The government, has been maintaining tightened stance on fiscal management to restore fiscal health promptly. Considering various risks the fiscal authority may have to encounter in the future restoring fiscal health undoubtedly an important fiscal goal.

When the economy is in recession, public finance needs to mitigate the shock from economic fluctuations. Even so, proactive stimulation of the economy harming fiscal soundness is unnecessary when other nations around the globe are focusing on promoting fiscal soundness. What could be considered is keeping the ratio of national debt to GDP at the same level from this year while relaxing the tightened fiscal stance to a certain degree. According to NABO's outlook, the ratio of national debt to GDP this year is 33.5%. To sustain this ratio next year, total expenditure of 327.8 trillion won, which is 1.7 trillion won more than 326.1 trillion won in the government's Budget Proposal is recommendable. 327.8 trillion won will improve the Fiscal Impulse Indicator to -0.06, which is close to neutral. Such fiscal expansion could delay the recovery of budget soundness, but fiscal stance can be tightened once the growth rate of the economy surpasses the potential growth rate in 2013. This type of fiscal management would as much protect fiscal soundness in a medium term while responding to the economic recession in a short term.

Direction of Tax Revision

In national fiscal management, the revenue, which is determined by both economic conditions and tax law, should be contemplated with significance as expenditure. The government, in its preparation of 2011 Tax Revision Bill with over 200 items, displays a change in its stance on tax policy. Rather than emphasizing growth through expansion of investments from large corporations, the government is focusing on stability and redistribution with more support for the economically disadvantaged and small-and medium-sized firms and improve employment. The direction of the tax revision seems to be set to respond appropriately to the changes in both domestic and external economic conditions, but it lacks uniformity, effectiveness, and suitability in policies. Consequently, it would hardly achieve the intended goal.

According to NABO's estimation, the net effect of the 2011 Tax Revision Bill on the tax revenue would be -8.5 trillion won over four years from 2012 to 2015. That is, if it had not been for this 2011 Tax Revision Bill there would have been 8.5 trillion won more revenue from 2012 to 2015. The effect exhibits a negative sign because revenue decreasing effect from extensions on sunset clauses outweighs tax increasing effect from revocation of tax cuts on income tax and corporate tax, which amounts to 11.9 trillion won.

In other words, by the extension of 32 sunset clauses, the effect of revocation of tax cuts on promoting fiscal soundness has been canceled out significantly.

Analysis on some items of the 2011 Tax Revision Bill in connection with their policy objectives also reveals many shortcomings in the administration's Revision Bill.

Firstly, the Revision Bill includes converting temporary investment tax credit to job creation tax credit. The administration expects this would relieve the problem of “Jobless Growth”. In terms of deduction rate, the old tax credit and the new policy has the same full deduction rate, 6%. Main change is differentiation of deduction rate according to a firm's employment creation; 4% of base rate is to be applied if the firm kept employment at the previous years' level, and additional 2% is allowed in proportion to the new jobs created. According to NABO's analysis, the effective deduction rate of the job creation tax credit would be 4.8%. This conversion to job creation tax credit is, in effect, not much different from implementing a quasi-permanent investment tax credit rule. In order to put more emphasis on expanding employment, the base deduction rate of the job creation tax credit (4%) needs to be lowered while additional deduction rate (2%) should be raised further.

As another measures to induce employment, especially of the young generation, implementing tax exemption for social insurance premiums and income tax is also included in the Revision Bill. Nevertheless, NABO's analysis shows this will only have a limited impact on employment expansion. Although tax exemption on social insurance premiums are expected to create jobs, exemption on income tax cannot provide enough incentive (240,000 won per person/year) to induce a significant amount of labor supply.

Two tax incentive items that are designed to boost the real estate market are included in the Revision Bill. 1) lowering transfer tax to increase the supply of rental housing, and 2) expanding tax exemptions on interest payment or rent/lease fees to increase the demand, are those. Considering the surge in rent/lease fees are recent phenomenon, it is crucial for each policy to have immediate and realistic effects. Nonetheless, NABO's empirical analysis provided could not find any meaningful evidence for timely effect of this scheme in supporting real estate prices. Also, the differentiation in the limits for tax exemption on housing loan interests is likely to benefit only middle or upper class (annual income above 54 million won) whose interest payment tends to be larger.

Imposing gift tax on unjust commercial transaction between parent and subsidiary companies is introduced by the Revision Bill in a pursuit of “equity”, which is the new agenda the administration is pushing for. Even if the meaning of equity is applied in a limited sense to the recovery of market order, this is an abstractive and ambiguous slogan and the new taxation seems to be an overly unilateral and unclear method. Given that the basis for taxation is not the increased stock value but the operating profit, which has little connection to the gift, the foregoing measure would be limited in suppressing expedient gifts. Therefore, a sufficient review and discussion for its legality and effectiveness is needed before the legislation of this measure.

Methods for relaxing tax exemptions for small and medium firms' succession of family business also need some improvements. Policy objective seems too broad in its scope without consideration to the need for the succession, and the limit on exemption (Maximum of 50 billion won) is too high, which is not on a fair term with other inheritance taxes. Deferring taxation(Maximum of 20 years) on succession of family business is worth a review whether this can effectively protect the control over the business

Earned Income Tax Credit(EITC), which has been adopted as one of the ways to support the low income households and the working class, is commendable in that 0.76 million additional families, including 0.71 million households without children, are to receive EITC. Nonetheless, more employment from the low income households should be induced through restructuring the benefit schedule of EITC. For example, gradual increase rate of 15% for households with one child is much lower than that of the United States, resulting in less attraction for the labor supply.

Regarding taxation on new financial instruments and domestically issued bonds in foreign currency, it is meaningful in that it expands tax base (increase in tax revenue, 0.1 trillion won). Still taxation on financial trades needs to be expanded further. As the capital market matures, V.A.T. on financial services(total service charge amounts to 24 trillion won), taxation on minority shareholders' capital gains, taxation on trades of speculation funds (trade volume amounts to 40 trillion won), and introduction of financial transaction tax(tobin tax) should be discussed seriously.

Macroeconomy

Ⅰ. Macroeconomic Outlook

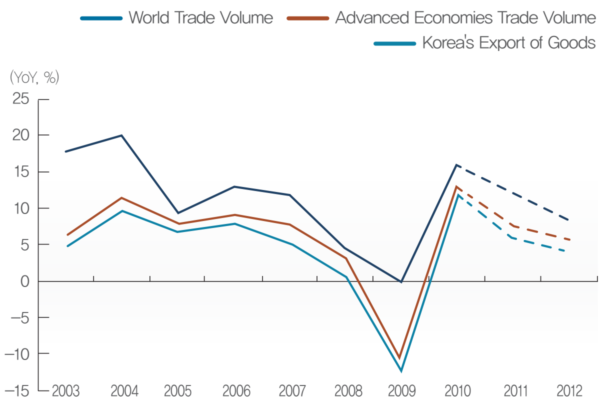
The national economy is expected to grow 3.5% in 2012, which is a 0.3%p decrease from 3.8% growth in 2011. This decrease is due to the reduction in global trade, caused by the economic stagnation in advanced countries, uncertainties surrounding developing nations in the international financial market, and household debt reaching its limits, among other reasons.

The domestic growth rate of GDP in 2012 is expected to decrease by 0.3%p from that of 3.8% (projected) in 2011. Domestic economy has grown 3.8% in the first half of 2011. Growth rate is projected to continue to slow down due to the uncertainties in the global financial market, which is attributed to the financial crisis in southern Europe and the potential double-dip of the American economy. The domestic growth rate of GDP is expected to decline because volume of exports, which led the high rate of growth after the global financial crisis, has atrophied and the domestic demand is sluggish at the same time.

Reasons for reduction in export volume include: 1) Uncertainties in global financial market are expected to continue for a prolonged period of time because early resolution of fiscal crisis of Southern European nations seems elusive. 2) Job cuts and debt restructuring would lengthen America's low growth rate of GDP. 3) Some of the developing nations would abide by their tightened monetary policy to mitigate the pressure of inflation and, consequently, their growth rate of GDP would be hindered, resulting in reduction in the world trade volume. IMF has also conjectured that 2012 world trade volume would increase by 5.8%, which is 1.7%p lower than the growth rate of 2011, 7.5%.

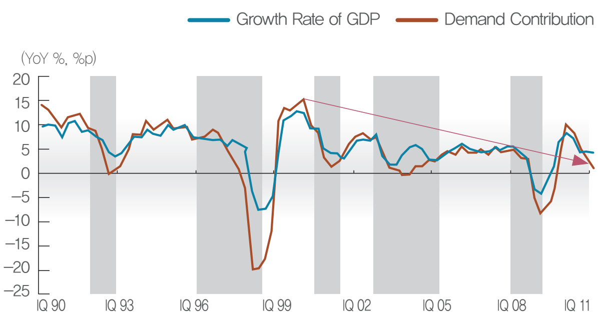
The upward trend of 2012 domestic demand

Figure 1 _ World Trade Volume and Korea's Export of Goods



Note: dotted lines indicate forecasts
Source: National Assembly Budget Office, IMF 「World Economic Outlook」, 2011. 9

Figure 2 _ Growth Rate of GDP and Domestic Demand Contribution to Growth



Note: Economic Growth Indicator
Source: IMF, 「World Economic Outlook」, 2011.9

Table 1 _ 2011–2015 Korea Economic Outlook

(unit: %, 100 million dollar, ₩/$, won)

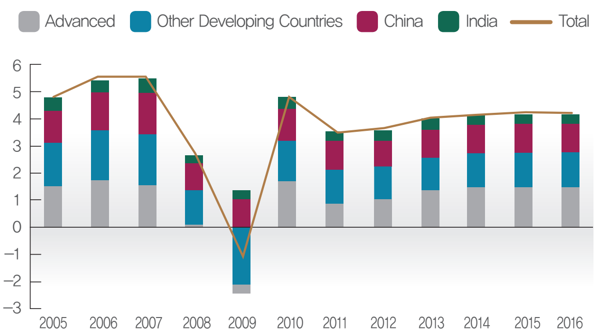
	2010	2011	2012	2013	2014	2015
GDP	6.2	3.8	3.5	3.9	4.2	4.0
Private Consumption	4.2	2.9	2.7	3.1	3.4	3.3
Facilities Investment	25.5	6.5	2.9	4.5	6.1	5.3
Construction Investment	–1.0	–5.8	–0.6	1.6	1.6	1.0
Exports of Goods & Services	14.6	10.6	7.5	7.9	8.8	9.4
Imports of Goods & Services	17.1	8.6	6.6	7.0	7.8	8.1
Current Account(100 Million Dollar)	282.1	178.6	147.7	169.1	182.9	180.3
Exports of Goods(F.O.B.)	28.3	21.5	10.4	11.5	13.9	12.4
Imports of Goods(C.I.F.)	31.6	24.8	11.7	12.1	14.2	13.1
GDP Deflator	3.7	2.8	3.2	2.6	2.7	2.6
CPI	2.9	4.4	3.6	2.8	2.9	2.8
Unemployment Rate	3.7	3.6	3.7	3.6	3.5	3.5
Exchange Rate(W/$)	1,156	1,102	1,112	1,079	1,036	998
Yield of KTB(3 maturity years)	3.7	3.7	3.5	4.1	4.7	4.8
Current GDP	10.1	6.6	6.7	6.5	6.9	6.6

Source: National Assembly Budget Office, Bank of Korea, Statistics Korea

(private consumption+total fixed investment) has lost its momentum and, consequently, its contribution to growth will remain low (2010: 4.0%p, 2011: 1.4%p, 2012: 1.7%p). Limitations on financing due to the unstable global financial market, increasing uncertainties in international conditions, rising prices of capital goods due to fallen Korean Won value, etc will slow down investments in facilities. Low increasing trend of the private consumption is also expected to continue due to delayed improvements in employment conditions. Fall in asset price will also have a negative impact on consumption and investment (negative wealth effect).

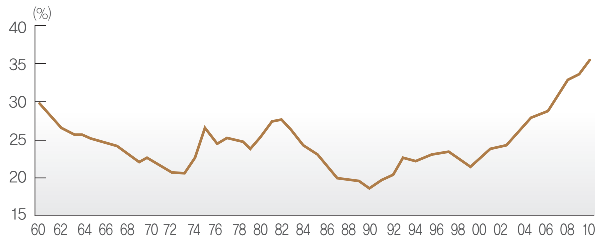
Domestic economy is expected to start recovering in 2013, after display sluggish business condition until 2012. Revived vitality in the private sectors of advanced nations (recovery in facilities investment and increased employment) and developing nations' policy-oriented expansion of domestic markets (increased mid-class wages) will improve market conditions for exports and alleviate some of the financial instabilities. Nonetheless, the recovery is not going to be a fast one due to domestic policy

Figure 3 _ Prediction of Major Countries Contribution to World Economic Growth



Source: IMF, 「World Economic Outlook」, 2011.9

Figure 4 _ Trend of Developing Countries Share of World Import Market



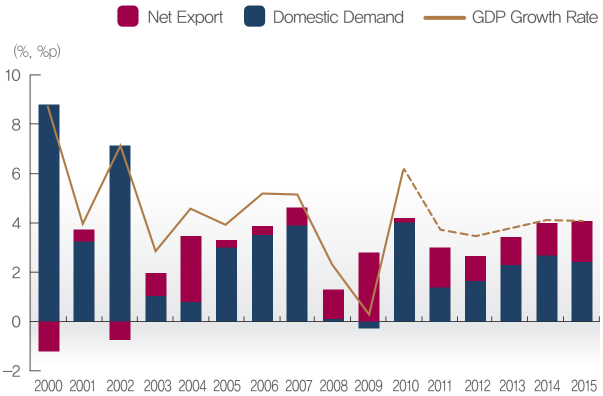
Source: IMF, 「World Economic Outlook」, 2011.9

that discourages house hold debt and the slow increase in jobs. Consequently, growth rate of GDP will experience a gradual increase from 2013 and display an annual average value of 3.8% for the 2011-2015 period.

The world economic growth rate is projected to be higher as a result of increased consumption, which is an expected effect of progress in household debt restructuring. Although contribution to growth from the world private consumption is expected to remain below 2%p from 2011 to 2012, it is expected to pick up to 3%p in 2016 with the rising trend beginning in 2013. Developing nations' high rate of increase in wages will vitalize consumption, and imports from developing nations will take up a large portion in the world market. Korea's exports to developing nations seems to stagnate at 1%p in 2011, but the net export contribution to growth will gradually start to rise to reach 1.6%p in 2015.

Since 2013, rise in expected growth rate will expand investments in infrastructure and contribution to growth from domestic demand (private consumption+ total fixed investment) is expected to gradually pick up. Contribution from domestic demand to growth is going to remain at an annual average of 1.6%p in 2011 and 2012, but the contribution is expected to shoot up to 2.4%p from 2013 to 2015. Nonetheless, due to factors such as growth without employment, polarization between industries specializing in exports and the ones that target domestic market, domestic household debt restructuring, contribution to growth from domestic demand will stay at a relatively low level.

Figure 5 _ Prediction of Korea's Domestic Demand and Net Export Contribution to Growth



Note: 1) Domestic = Private Consumption + Total Fixed Investment
2) Net Export = Exports of Goods & Services - Imports of Goods & Services
Source: National Assembly Budget Office, Bank of Korea

◆ Short-run Forecast of Real GDP Growth Using Monthly Indicators

Advance estimate of real GDP in the third quarter of 2011, which is the most representative macro-economic variable that exhibits current economic conditions, will only be available 28 days after the third quarter (Oct. 28). Advance estimate of the fourth quarter will be available after Jan 28. Therefore, it is important to employ monthly indicators, which are announced with short periods of time between announcements, in order to accurately grasp the current or near-future economic conditions.

In this section, the growth rate of real GDP for the third and fourth quarters in 2011 have been predicted using a short-term model that depicts current and following quarter's real GDP growth rate with monthly indicators. For such a prediction, models for real GDP prediction(quarterly Least Square Model) and monthly indicator prediction (Bayesian vector auto regression model, BVAR) have been combined together.

In October, 2011, monthly indicators for the third quarter are available up to those from July and August. Based on the financial and real variable experiments, which include KOSTAT's indicators that make up the composite indexes of business indicators, Industrial Production Index and Service Industry Activity Index have proved to be most relevant in predicting real GDP growth rate.

In other words, using the BVAR model, Industrial Production Index and Industry Activity Index can be predicted for four months from Sept. 2011 to Dec. 2011 and those predicted values can be substituted into the quarterly real GDP prediction model, real GDP values can be obtained as a result.

The proposed model for quarterly growth rate of real GDP, which have been prepared by applying real GDP growth rate from the corresponding quarters from the previous year and changes in monthly indicators per quarter, is as follows. Data applied have been taken from the first quarter of 2000 to the second quarter of 2011.

$$\underset{}{\triangle RGDP_t} = \underset{(1.21)}{0.27} + \underset{(12.06)}{0.23}\triangle IP_t + \underset{(8.90)}{0.36}\triangle SVR + \underset{(3.49)}{0.19}\triangle RGDP_{t-1}$$

ΔRGDP, ΔIP, ΔSVR represent, respectively, changes in real GDP, Industrial Production Index, Service Industry Activity Index from the previous year. Values in the parenthesis are t-values and Adjusted R2 is 0.93, standard error for the auto regression was 0.69.

To predict Industrial Production Index and Service Industry Activity Index, Bayesian VAR(12) model has been proposed using 140 data points from Jan. 2000 to Aug. 2011. A distribution of 10,000 stimulated forecasts, which has been extracted from posterior density for the parameters of the model through a direct Monte Carlo Sampling, on changes in Industrial Production Index and Service Industry Activity Index from previous year's values has been formulated. The table on the upper-right side shows averages and standard deviation of the predicted distribution.

The distribution of 10,000 stimulated forecasts has been formulated by substituting predicted values of

Table _ Mean(Standard Deviatin) of Predictive Density for Monthly Indicators

(MoM, %)

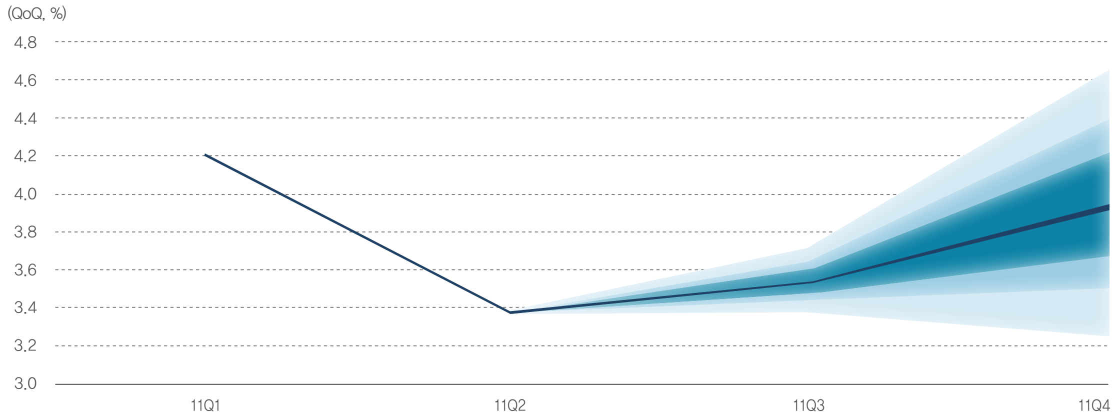
Forecast Horizon \ Variable	Industrial Production (IP)	Service Production (SVR)
T+1 (11. 9)	5.47 (0.96)	4.44 (0.26)
T+2 (11. 10)	5.46 (1.17)	4.49 (0.33)
T+3 (11. 11)	5.85 (1.38)	4.72 (0.41)
T+4 (11. 12)	6.29 (1.56)	4.71 (0.50)

Table _ Mean(Median, S.D.) of Predictive Density for the Real GDP Growth

Horizon	Mean	Median	Standard Deviation
11. 3/4	3.5424	3.5429	0.10
11. 4/4	3.9525	3.9530	0.43

monthly indicators for the third and fourth quarters of 2011 into the real GDP model. Table and chart that display mean, median, standard deviation, and the fan chart of the expected distribution are on the lower-right side. The result reveals that real GDP growth rates in the third and fourth quarters of 2011 are going to be 3.54% and 3.95% respectively from the previous year with the rate reaching 3.75% in the second half of the year.

Figure _ Fan Chart of Predictive Density for the Real GDP Growth(Fan Chart)



◆ Comparison with the Forecast from the Administration

NABO's prediction of real growth rate of GDP in 2012 is 3.5%, which is 1%p lower than that of 4.5% from the administration. NABO's lower value stems from the difference in the perception towards the future export conditions. NABO foresees that export conditions for 2012 will be much worse than that of 2011(Growth rate of Exports of Goods & Services, 2011: 10.6% → 2012: 7.5%). On the contrary, it seems that the administration does not expect a significant difference in export conditions in 2012. The administration, based on the IMF's analysis that the World Economic Growth Rate remain the same at 4.0%, predicted that real growth rate of GDP in 2012 will be 4.5%, which is the same rate from the year 2011 (2011-2015 Mid-term fiscal management plan, Sept. 2011). Nevertheless, IMF's prediction for the economic growth rate in 2012 for respective nation shows that advanced nations show an improved growth rate (2011: 1.6% → 1.9%) while developing nations show a deceleration in rates(2011: 6.4% → 2012: 6.1%).

The reason for IMF's prediction of higher economic growth rate for advanced nations (IMF Outlook) based on the fact that Japan's production network, which has experienced a temporary paralysis, will recover and find normalcy. Contrarily, economic growth rates of developing

Table _ Comparing NABO's and the Administration's Medium-Term Economic Growth outlook

(unit: %, %p)

		2011	2012	2013	2014	2015
Real GDP Growth Rate	NABO(A)	3.8	3.5	3.9	4.2	4.0
	Administration(B)	4.5	4.5	4.5	4.5	4.5
	Difference(A-B, %P)	-0.7	-1.0	-0.6	-0.3	-0.5
Nominal GDP Growth Rate	NABO(A)	6.6	6.7	6.5	6.9	6.6
	Administration(B)	8.2	7.6	7.6	7.3	7.1
	Difference(A-B, %P)	-1.6	-0.9	-1.1	-0.4	-0.5
GDP Deflator	NABO(A)	2.8	3.2	2.6	2.7	2.6
	Administration(B)	3.7	3.1	3.1	2.8	2.6
	Difference(A-B, %P)	-0.9	0.1	-0.5	-0.1	0.0

Note: 1) The average yearly Real GDP Growth Rate for 5 years, NABO : 3.8%, Adiministration : 4.5%

2) The average yearly Nominal GDP Growth Rate for 5 years, NABO : 6.7%, Adiministration : 7.6%

Source: National Assembly Budget Office, Government of Republic of Korea

nations are expected to retard due to tightened monetary policies aimed at keeping inflation in check. What needs to be noted is the fact that the effects of developing nations' economies on export conditions for Korea are not negligible (Contribution to growth rate of GDP: Advanced Nations 21.3%, Developing Nations 78.7%). NABO projected that export conditions will experience difficulties because economies of developing nations will experience retardation in growth. Additionally, IMF's forecast of decrease in the growth rate of World Trade Volume, which is expected to increase by 5.8% in 2012 from that of 7.5% growth in 2011) is also a basis on which NABO projected that export conditions will be tougher. Stall in developing nations' economies and shrinkage in the World Trade Volume are expected to exacerbate export conditions in 2012 in comparison to those in 2011.

NABO's conjectures of 2012 nominal GDP growth rate is 6.7% which is 0.9%p lower that that of the administration, which is 7.6%. This difference is attributed to the 1%p difference in the projections on the real growth rate of GDP (NABO 3.5%, Administration 4.5%).

As for the annual average of real growth rate of GDP from 2011 to 2015, NABO and the administration shows a difference of 0.7%p with that of NABO being 3.8% and that of the administration being 4.5%. This difference is attributed to the disaccord in the projections of the potential GDP growth. The administration expects that Korea's growth rate of GDP will recover 4.5% level as instabilities from the global financial crisis are resolved. On the other hand, NABO projects that Korea's potential growth rate of GDP will dwell on 3.7%. Considering that a serious financial crisis tends to lower a nation's potential growth rate, NABO projects that retaining 4% level of growth rate is going to be a challenge. Besides, the fact that fiscal crisis in Southern European nations, such as Greece, will not find an early resolution and the fact that economies of advanced nations, such as that of the United States, will undergo a prolonged period of low growth are factors that lower the expected growth rate of GDP for Korea.

The administration's projection of the annual average of the nominal GDP growth rate is 7.6%, which is 0.9%p lower than that of NABO, which is 6.7%. This difference is due to the difference in expected real growth rate of GDP (Administration: 4.5%, NABO: 3.8%).

◆ Comparison of Economic Environments Before and After the Global Financial Crisis

The annual average of growth rate of GDP after the global financial crisis, specifically for the 2011–2015 period, is projected to be 3.8%, which is 0.9%p lower than that of 4.7% for the 2004–2007[1] period. The growth rate is expected to fall because contribution from the domestic demand will be significantly hindered and the rate of increase in exports is also forecasted to slow down. Exports in goods & services had been increasing 12.9% on an annual average before the global financial crisis. This increasing trend is conjectured to drop 4.1%p to record 8.8% after the crisis. This retardation in the volume increase in exports reflects the deceleration in the growth of the world economy. At the same time, domestic demand for the five years following the global financial crisis is expected to increase by only 2.7% on an annual average (by volume), which is much lower than the increase rate of exports (8.8%, annual average).

It will be difficult for domestic demand to bounce back for two reasons. First, increase in jobs is expected to be slow at best. Recovery of domestic economy after the global financial crisis is led by manufacturing industries that have a small impact on employment. On the contrary, service industries, in comparison to advanced nations, do not contribute as much to the economic growth (1990–1997 US 73.1%, Korea 47.5%) and help little with employment.

Secondly, polarization among industries, corporation, regions, and economic classes will continue to obstruct business opportunities and the circulation of capital. As polarization progresses, the low income classes with high propensity to consume and mid-size corporations with high propensity to employ are expected to suffer more and undermine the recovery of domestic demand. Thirdly, lethargy in the real estate economy and restructuring of household and small-and medium-sized corporation debt are additional major factors in undermining the recovery of domestic demand. As the expected rate of return in the real estate market drops, demand for real estate properties will also be weak and maintain status quo. Because over 90% of the household loans are given out at variable interest rates, burdens on households will multiply when loan payments kick in for the household loans. When broken down into economic classes, consumption for the low income classes will dwindle, hence increasing the pressure for making loan payments (1st quarter 17.9%, 2nd quarter 17.8%).

Annual average value for the nominal GDP growth rate for the 2011–2015 period is expected to be 6.7%, which is 0.5%p higher than that from before the global financial crisis (6.2%). This higher value is projected because despite the rise in the price for the international raw materials' prices, demand is also expected to rise and the increase rate for the GDP deflator is conjectured to be higher than that from before the global financial crisis.

1 Economic growth rate was 2.8%, 2.3% and 0.3% in 2003, 2008, and 2009 respectively. This is below its normal rate due to credit card issue in 2003, and global financial crisis in 2008 and 2009. We excluded all economic indices from 2010 in our comparison. This is because in 2010, due to base effect, it will be difficult for the indices to reflect the normal economic situation. We set the comparion period to 2004~2007(before crisis) which showed normal economic growth trend and 2011~2015(after crisis)

Table _ Economic Indicators Before and After Global Crisis

(unit: %, 100million dollar, won)

	2004–2007 Year (Average, Before Crisis)	2011–2015 Year (Average, After Crisis)
GDP	4.7	3.8
Private Consumption	3.7	3.1
Facilities Investment	6.7	5.1
Construction Investment	0.7	0.4
Exports of Goods & Services	12.9	8.8
Imports of Goods & Services	10.6	7.6
Current Account(100 Million Dollar)	136	171.7
Exports of Goods(F.O.B.)	17.9	13.9
Imports of Goods(C.I.F.)	18.9	15.2
GDP Deflator	1.4	2.7
CPI	2.8	3.3
Unemployment Rate	3.5	3.6
Exchange Rate(W/$)	1,013	1,065.4
Yield of KTB(3 maturity years)	4.6	4.2
Current GDP	6.2	6.7

Source: National Assembly Budget Office, Bank of Korea, Statistics Korea

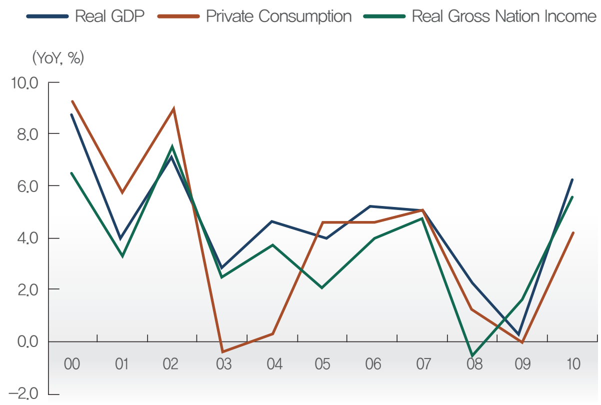
II. Outlook by Sector

There will be about 262,000 new job openings in 2012, which is the lowest number since 1993 under normal economic circumstances, due to decrease in exports and low level of domestic demand. Therefore, flexible policies to counter the short-term economic difficulties are needed. It seems as though employment conditions will improve in the 2013-2015 period, but aging workforce and the lack of employment opportunities for the younger generation due to discord between the supply and demand for labor force, low level of employment from the manufacturing industries are expected to continue.

1. Private Consumption

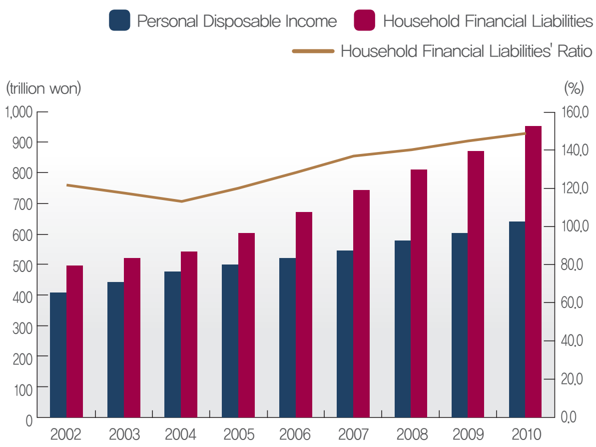
Private consumption in 2012 is expected to increase by 2.7%, which is lower than the expected growth rate of GDP (3.5%). This is due to tougher employment conditions, household debt restructuring, and the weakened wealth effect. First of all, the increasing trend of wages and employment will retard due to reduction in facilities investment of domestic corporations, which is the ramification of slowdown in advanced nations' economies and instabilities in the global financial market. Secondly, household debt restructuring process will limit the availability of loans and deter consumption. Increase in the loans exceeding the amount that can be repaid negatively affects the health of household economies and, as a

Figure 6 _ Private Consumption, Real GDP and Real Gross Nation Income



Source: Bank of Korea

Figure 7 _ Personal Disposable Income to Household Financial Liabilities's Ratio



Source: Bank of Korea

Figure 8 _ Private Consumption, Real Wage, and Employment

Source: Bank of Korea

◆ Trend in Household Debts

Household debt recorded 847 trillion won in 2010, which is 72.2% of GDP, and 132% of personal disposable income. The annual average of growth rate for household debt(15.0%) exceeded that of disposable income(5.7%) during the 2000-2010 period, and the proportion of household debt escalated with speed.

The high-speed escalation is attributed to the expectation of rise in the real estate value after the surge in 2006 and the competition amongst financial institutions to attract lenders. Non-bank mortgages increased fast since 2007(16.2%, annual average), and mortgages from banks accounted for 70% of all household debts from banks in 2010.

The effect of the growth rate for household debt has been analyzed for various scenarios that may pan out should restructuring of household debt occur. First, the control scenario assumes that the ratio of personal disposable income to debt maintains the current level in 2011-2015. In this scenario, the growth rate of household debt is expected to be 6.3% on an annual average, which is 3.9%p lower than that from the 2006-2010 period(10.2%), and leads to a conclusion that debt restructuring would have a limited impact on private consumption.

On the other hand, in the Scenario A, in which the ratio of personal disposable income to debt is suppressed 5%p each year, the growth rate of household debt for the same period(2011-2015) is projected to fall 2.8%, a value 7.4%p lower than that from the 2006-2010 period. The result from Scenario A suggests that consumption will be severely undercut.

Table _ Household Financial Liabilities when Debt-to-Income Ratio Maintains Current Level(130%)

(unit: %, tril.won)

	2006~2010 Year Average	2010	2011	2012	2013	2014	2015	2011~2015 Year Average
Household Financial Liabilities Growth Rate	10.2	8.6 (846.9)	4.9 (888.8)	6.7 (948.3)	6.5 (1,010)	6.9 (1,079)	6.6 (1,150)	6.3 (1,015)
Personal Disposable Income Growth Rate	5.1	6.5	6.6	6.7	6.5	6.9	6.6	6.7

Note: 1) NABO's growth rate forecast of 2011~2015 current price GDP is applied to the growth rate of personal disposable income
2) ( ) is the estimated household credit balance
Source: National Assembly Budget Office, Bank of Korea

Table _ Alternative Scenario(A) for a Case of Household Financial Liabilities' Ratio to Personal Disposable Income Falling by 5%p Yearly

(unit: %, tril.won)

	2011(130%)	2012(125%)	2013(120%)	2014(115%)	2015(110%)	2011~2015 Year Average
Household Financial Liabilities Growth Rate	4.9	2.6	2.2	2.4	2.0	2.8
Creadit to Households	888.8	911.9	932.3	955.1	973.9	932.4

Source: National Assembly Budget Office, Bank of Korea result, add vulnerabilities for the entities in the finance sector and hamper consumption. Thirdly, the anti-wealth effect from the fall in the real estate and stock market also decelerates the increase in consumption. Real estate market in the metropolitan area and the unsold new homes, the administration's policy driven restrictions on mortgage loans will make it more difficult for the real estate market to recover.

Private consumption in 2011–2015 is expected to increase by 3.1% on an annual average with 2.9% for 1011, 2.7% for 2012, 3.1% for 2013, 3.4% for 2014, and 3.3% for 2015. Private consumption from 2013 and onward is expected to be higher because rate of increase in employment is going to be higher with values being 1.2% in 2013, 1.3% in 2014, and 1.2% in 2015 along with higher rate of increase for wages (projected average for 2013–2015: 5.7%, 2012: 5.4%).

2. Construction Investment

Construction investment in the first half of 2011 decreased 11.3% from the previous year for two major reasons. The fall in construction investment is attributed first to decreased demand for civil engineering projects due to the administration's shrunk budget for SOC and secondly to diminished construction investment in resident buildings(–21.4% from the previous year), which is due to unsold new homes and enervation of PF loans and major construction corporations.

In 2012, new urban-type housings are scheduled to begin development, prerequisites for obtaining renters' tax exemption status will be relaxed, restrictions on resale are to be lifted, 2nd Bogeumjari housing will undergo construction, and these efforts are expected to help imbue investments in housing with more vitality. As for the investments in civil engineering, the administration has allocated 22.6 trillion Won for SOC (2011–2015 National Fiscal Management Plan), which is a 7.3% decrease from the previous year, and the administration is likely to continue the declining trend in 2012. As a result, construction investment in 2012 will fall by 0.6% from the previous year and maintain a declining trend for three years in a row.

Table 2 _ Trend of Construction Indicators

(unit: YoY, %)

		2009	2010	2011			
				1/4	2/4	July	August
Construction Investment		3.4	–1.4	–11.9	–6.8	–	–
For Residental Use		–2.0	–10.2	–24.0	–18.9		
For Non-Residental Use		–2.6	2.8	–0.5	6.6	–	–
Civil Engineering Construction		11.6	0.5	–12.7	–10.4		
Construction Completed	Total	1.6	–3.3	–12.6	–6.6	–14.6	–9.2
	Building	–6.4	–7.1	–15.2	–8.4	–14.3	–10.5
	Civil Engineering	16.1	2.2	–9.2	–4.3	–14.9	–7.5
Construction Orders Received	Total	5.0	–18.7	–12.8	–3.3	–34.6	75.4
	Public	63.1	–43.7	–49.1	–11.9	–55.5	13.4
	Private	–20.0	2.8	18.2	0.5	–9.3	103.9
	Building	–14.2	–9.9	–9.7	–4.0	–41.8	87.7
	Civil Engineering	44.3	–29.5	–17.0	–1.5	–26.7	50.7

Source: Bank of Korea, Statistics Korea

2011–2015 period. Revitalizing the housing market will be an arduous task because the public expects the demand for housing to decline with the abating total population, burden of household debt, and the government's tightened restrictions of household loans. When the cycle is riding the upward momentum, it stops at recovering the pre-Currency Crisis level (Figure . A) while falling short of the lowest level recorded in the first quarter of 2000. This implies that the current sharp decline in housing investment is not going to rebound like it did in 2000s.

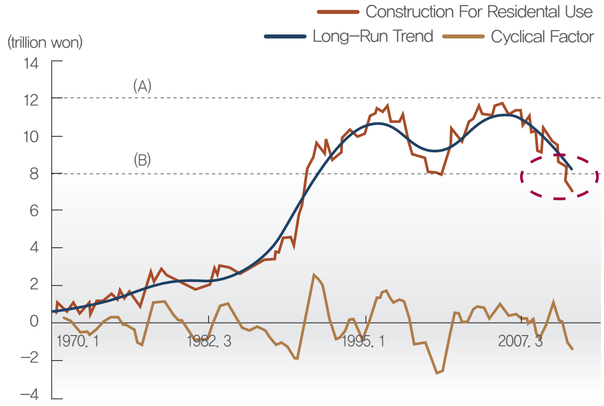
Midterm national investment in SOC, which takes up a large portion in civil engineering projects, will not be likely to increase. According to the 2011–2015 National Fiscal Management Plan, the administration aims to balance its finance and, as one of the ways to reach that goal, has allocated 22.6 trillion Won for SOC in 2012 and 22.8 trillion Won for the years onward. Naturally, real investment, with inflation taken into consideration, will continue to subside. Consequently, as it did directly after the Currency Crisis, the portion construction investment takes up in the entire GDP will downsize.

3. Facilities Investment

Facilities investment in 2012 is projected to increase by 2.9% as investments in the relevant industries decrease and as the exports decrease (Based on the data from Customs Service 2011: 21.5% → 2012: 10.4%)due to various factors such as the slowdown in American economy, the fiscal crisis in the European Union, retardation in the inclining trend of China's domestic need.

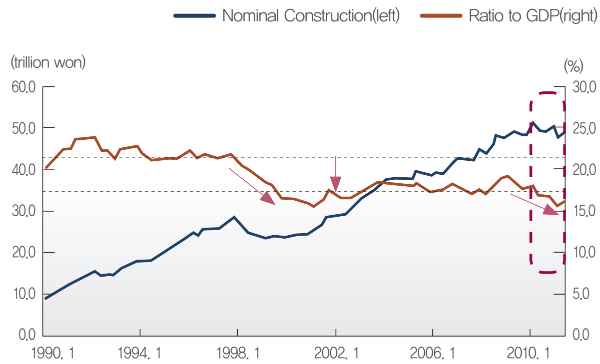
Facilities investment will increase 5.1% on an annual average for the 2011–2015 period. This increase is 1.6%p lower than the value from the four year period before the global financial crisis (2004–2007), which was an annual average of 6.7%. Compared to the values from past five years(2006–2011), which includes the global financial crisis, the increase is still 1.2%p lower. When broken down into each year, respective value

Figure 9 _ The Long-Run Trend of Construction For Residental Use



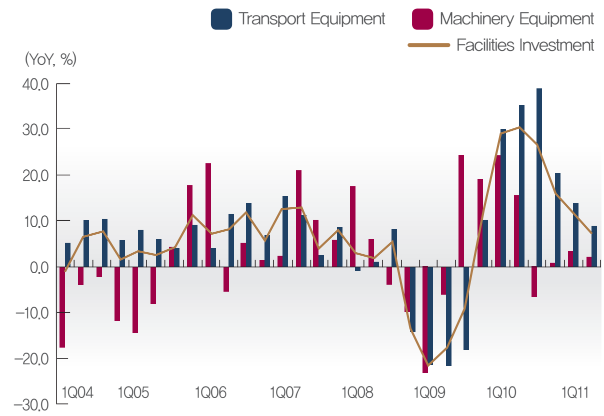
Note: Trend is produced by HP filting seasonal adjusting data
Source: Bank of Korea

Figure 10 _ Nominal Construction Investment and Its Ratio to GDP



Note: Seasonal adjusted
Source: Bank of Korea

Figure 11 _ Facilities Investment by Type of Capital Goods



Source: Bank of Korea

is as follows: 2011, 6.5%; 2012, 2.9%; 2013, 4.5%; 2014, 6.1%; 2015, 5.3%.

In Korean economy, industrial production is led by exports and consumption and investment are led by export-related industries. Additionally, the IT sector accounts for 37% in facilities investment and 39% in exports. In other words, should the IT sector underperform, the total investment in facilities will suffer significantly even if the increase in exports based on customs clearance in 2012 and 2013 show a relatively healthy output of 10.4% and 11.5%. Nonetheless, economic conditions will start picking up in 2014 with the growth rate of GDP reaching above 4%, exports based on customs clearance augmenting by 13.9%, and facilities investment increasing 6.1%. In 2015, the growth rate of facilities investment is projected to be 5.3%.

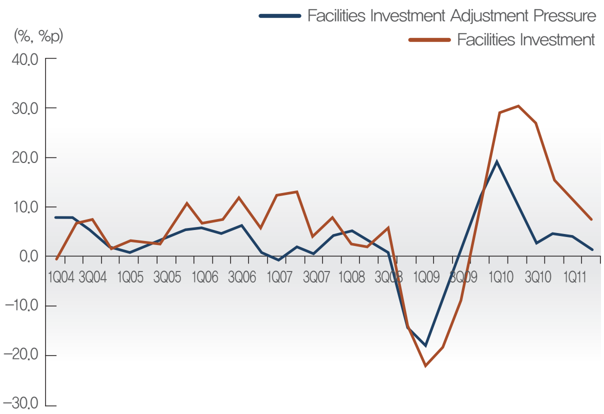
On a mid-term basis, exports will slow down and the demand for facilities investment will also decrease as production based on domestic demand declines with private consumption and construction investment. Structural changes in facilities investment in the 2000s can be attributed to three factors; concentration of investments in the IT industries, increase of ODI from domestic corporations, and corporations' conservative investments. Therefore, in order to animate facilities investment, service industries' part in facilities investment need to be raised, corporations, both foreign and domestic, need to be encouraged to invest within the nation, and more attractive options need to be offered to entice corporations to invest.

4. Exports and Imports

Exports based on customs clearance for 2012 are expected to fall 11.1%p from 21.5% in 2011 and record 10.4% due to lower demand from advanced nations(IMF increase rate of World Trade Volume in 2011: 7.5% → 2012: 5.8%). OECD's leading indicator, which has a close relationship with domestic IT productions, is on a decreasing trend. As such, core industries of exports such as electronic and cars will continue their declining trend, and, as the close relationship between exports to China and China's demand for imports implies, Korea's exports of intermediate materials to developing nations would experience negative impacts as the demand for imports of advanced nations slow down.

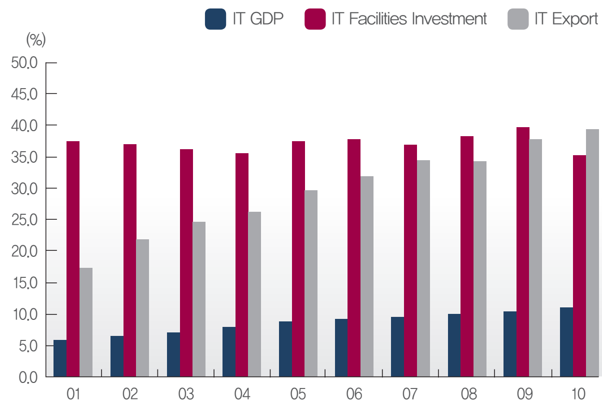
Exports based on customs clearance in 2011-2015 are expected to increase by 13.9% on an annual average. Compared to that of before the global financial crisis, rate of increase in exports is expected to decelerate afterward while exports to developing nations would increase as domestic demands(increase in wage, expanding middle class,

Figure 12 _ Facilities Investment Adjustment Pressure



Source: Bank of Korea, Statistics Korea

Figure 13 _ IT Ratio in the GDP, Export, and Facilities Investment



Source: Bank of Korea

Figure 14 _ OECD's Leading Indicator and IT Industrial Production

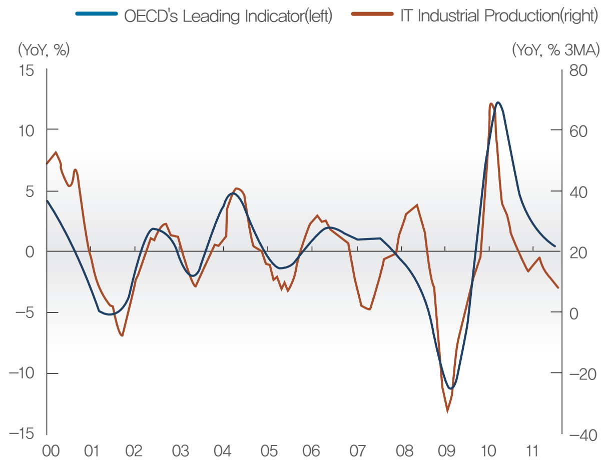
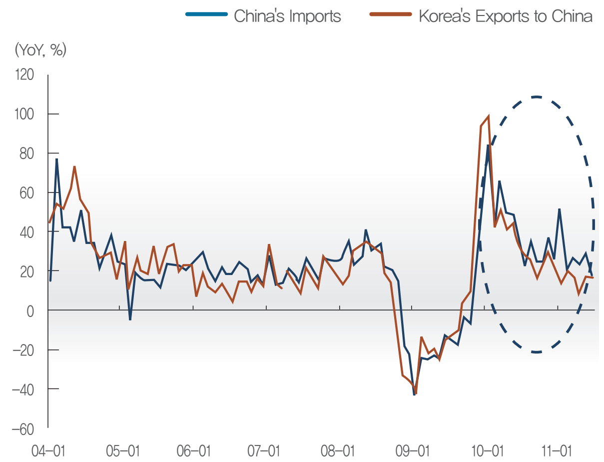


Figure 15 _ The Growth Rate of China's Imports from the World and Korea's Exports to China



progress in urbanization, heavier investment in infrastructure, increase in value of their currencies) of those nations, including China.

Imports based on customs clearance in 2012 would increase only by 11.7% which is a 13.1%p drop from 24.8% in 2011. This decline is due to the decrease in imports of raw materials due to retardation in exports, decrease in demand for imports due to weakened domestic demand, and stabilization of price with imports due to the decline of the raw material prices.

The annual average of imports based on customs clearance is expected to be 15.2% for the 2012−2015 period. Rate of increase for exports will start to pick up from 2013 alongside with recovering domestic demands. Improving global production networks have strengthened the correlation between imports and exports, and as a result, imports will rise as IT exports, which strongly induces imports, increase. According to the Input−Output Tables, import inducing effect of exports was 44.3%, which is a 4.3%p rise from 40.0% in 2007. Prices of raw materials are also expected to increase, which would push up the import prices. As the global financial market stabilizes after 2013 and the world economy starts to recover, prices for raw materials such as that of oil, are projected to rise again.

Figure 16 _ Growth Rate of Domestic Demand and Imports of Goods & Services

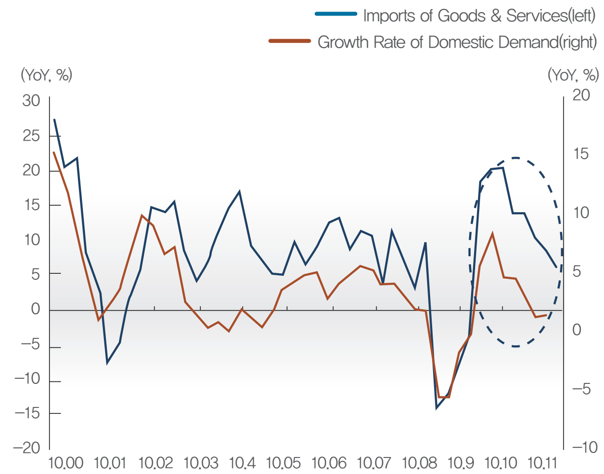
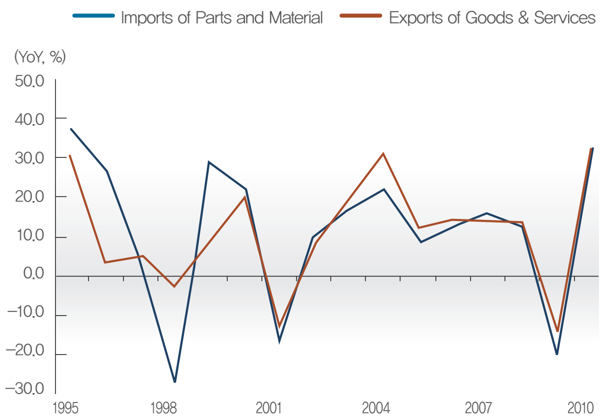


Figure 17 _ Growth Rate of Exports of Goods & Services and Imports of Parts and Materials



5. Current Account and Exchange Rates

The current account is expected to record 14.8 billion dollars surplus on goods account which is a 3.1 billion dollar dollar drop from 17.9 surplus of 2011 as retardation in the increasing trend of exports (Exports based on customs clearance 21.5%, 2011 → 7.5%, 2012) would downsize the amount of surplus. The current account on an annual average in 2011–2015 would be 17.2 billion dollars surplus, which is higher than the annual expectant value for 2012. Such improvement is expected since the surplus on goods account would increase as the rate of increase for exports rises with the recovery of the global economy. This phenomenon reflects expansion of exports to developing nations, where exports show larger surplus on goods account. For instance, trades with Japan and exporting nations, such as the Middle East and Australia, exhibit deficit while trades with developing nations display surplus in large scale. As exports to developing nations are on a rise, such surplus on large sale is expected to sustain.

The exchange rate for 2012 is 1,112KRW, which is a small ascension from that of 1,102 in 2011. When the global financial market demonstrated instabilities due to downgraded credit ratings for the advanced nations, such as the United States and Japan,, and second round of the financial crises in Europe surfaced, the exchange rate soared to 1,200. Nonetheless, the surge was smaller in impact than the one from 2010, when the financial crisis in Europe first became an issue and the exchange rate hit 1,260KRW. Because surge in the exchange rate is not due to domestic factors and the financial crises of European nations are known to the public, the domestic foreign currency market will not receive shocks as impactful as before. Additionally, since the current account is maintaining surplus and the rise in the exchange rate will help expand the surplus. As for the foreign currency liquidity, despite the fact that short-terms loans take up to 37.6% in the total external debt as of June, 2011, the percentage is markedly lower than that of 48.1% from 2007 and the short-term loans only take up

Table 3 _ Regional Trend of Export-Import Gap

(unit: 100 billion dollar)

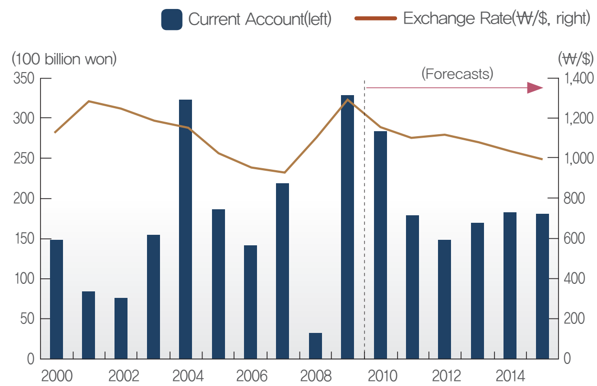
	2007	2008	2009	2010
Japan	-298	-327	-277	-361
Australia	-85	-128	-95	-138
Middle East	-478	-750	-376	-525
China	190	145	325	453
Southeast	252	267	248	336
Latin America	145	195	151	215
Total	146	-133	405	412

Source: Korea Customs Service

Figure 18 _ Arise of Europe's Financial Crisis and Exchange Rate Movement

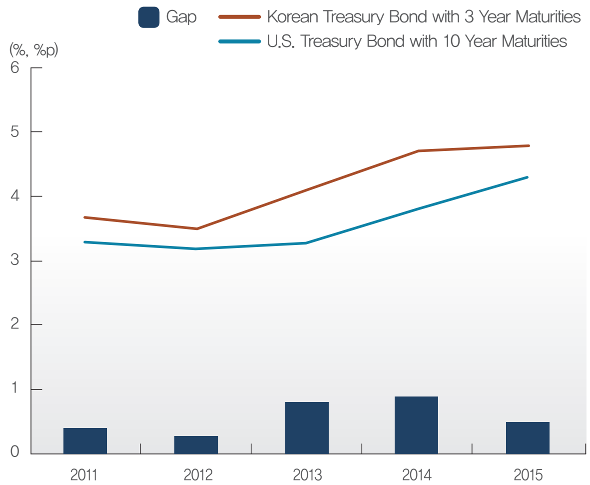
Source: Bank of Korea

Figure 19 _ Trend and Forecasts of Current Account and Exchange Rate



Source: Bank of Korea

Figure 20 _ Mid-Term Interest Rate Forecasts in Korea and U.S.



Source: National Assembly Budget Office,
CBO, 「The Budget and Economic Outlook: an Update」, Aug. 2011

49.2% of the foreign exchange reserve. Considering the foregoing factors, the exchange rate is expected to gradually stabilize.

When the financial crisis in Europe finds resolution, the exchange rate for KRW/USD will experience a sharp decline, as surplus in the current account is expected for 2011-2015. Although in 2012, the increasing trend of exports will slow down with the retardation of the world economy, the current account is expected to show 14.8 billion dollar surplus with the effect of risen exchange rate, and the upward trend is expected to continue after 2013. The world economy is expected to show a gradual, yet higher rate of growth. As a result, the global financial would stabilize and the gap between the domestic and foreign interest rates will widen, which would induce foreign investments in the domestic c stock market. Recently, despite the instabilities in the global financial market and the surge in the exchange rate, foreign investors are maintaining a stable stance on the investment in domestic bond market, which indicates that the demand for domestic bond market is high. On a medium term basis, the Bank of Korea is planning to raise the base rate, which would make Korean bonds even more attractive.

6. Employment

Employment is expected to grow by 1.1% (262,000 jobs) while the unemployment rate rises by 0.1% to reach 3.7% in 2012. Employment is expected to experience difficulties as the manufacturing industries reduce employment as the exports based on customs clearance record a low increase rate of 10.4% and struggles to attract investment, which are attributed to lethargy in the American economy, the financial crisis in Europe, and retardation of the Chinese economy. Also, low consumption of households (increase of private consumption 2011 2.9% → 2012 2.7%), atrophy in construction (investment in construction, 2011 -5.6% → 2012 -0.6%) which lowers activities in production in the domestic market and less employment in the service industry.

Employment for 2011-2015 is expected to rise by 1.2% on an annual average (308,000), which is a 0.2%(16,000) fall from 1.4%(324,000) increase before the global financial crisis (2004-2007). On an yearly scale, the employment increase per year are: 2011, 1.6%(375,000); 2012, 1.1%(262,000); 2013, 1.2%(291,000), 2014, 1.3%(315,000), 2015, 1.2%(296,000).

Employment market is expected to improve in 2013 and 2014 as the growth rates of GDP recover 3.9% and 4.2% respectively. Unemployment in 2013 would cut back to 3.6% and 3.5% in 2013 and 2014 respectively and the increase in employment would also rise to respective rates of 1.2% and 1.3%. Nonetheless, problems such as aging labor force, unemployment of the young generation due to the discord of supply and demand, and reduced employment from the manufacturing industry are expected to worsen over time.

On a medium term, non-economic factors such as structural change in the labor force, change and in the education level of the labor force significantly affect employment. To improve employment on a medium term basis, employment-friendly industries need to be raised and the current reliance on the IT industries need to be reduced. In a response to the fast-aging labor force and decreasing supply of the labor force due to low birth rate, participation of women and the elderly need to be encouraged. Expansion of social service industries would also help dealing with the aging labor force. To resolve oversupply of labor force with high level of education and to increase quality jobs, college and vocational education system and employment policy need to be improved.

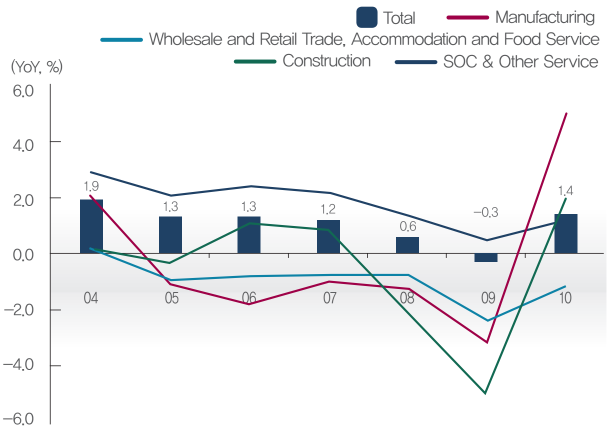
Table 4 _ Employment Coefficients by Industry

(unit: persons)

Year	Total	Agriculture, Forestry, and Fishing	Manufacturing	SOC & Other Service
04	3.02	7.15	2.08	3.20
05	2.95	7.01	1.93	3.16
06	2.84	6.79	1.76	3.11
07	2.73	6.31	1.62	3.03
08	2.67	5.85	1.56	3.00
09	2.66	5.62	1.53	2.98
10	2.53	5.50	1.40	2.92

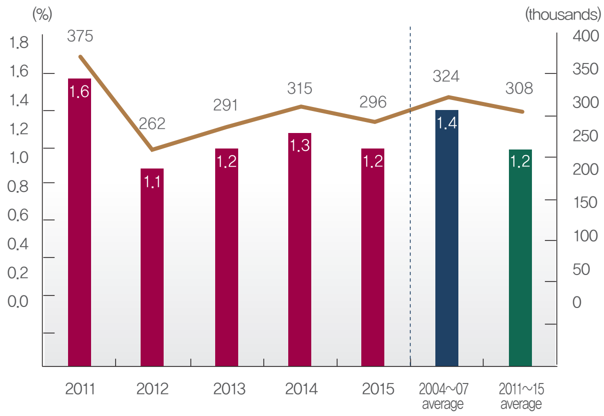
Note: Employment Coefficient = Employment / Real Value Added(100 million won)
Source: Bank of Korea, Statistics Korea

Figure 21 _ Changes in the Number of Persons Employed by Industry



Source: Bank of Korea, Statistics Korea

Figure 22 _ Midterm Employment Growth Outlook

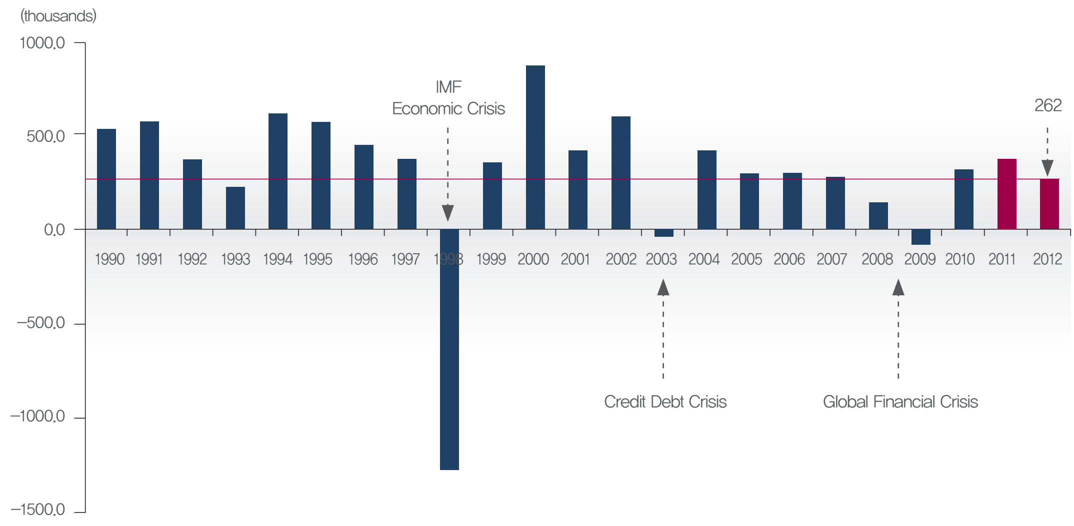


Source: National Assembly Budget Office

◆ Comparison between the Outlook for 2012 Employment and Employment in the past

Although the rise in unemployment will cap at 0.1%p (from 3.6% to 3.7%), the increase in employment will sharply fall from 375,000(1.6%) to 262,000(1.1%). Employment in manufacturing companies will be reduced as investment in the industry wanes with decrease in exports to the struggling global market. Employment in service industry is also expected to fall as domestic demand falls. Those who give up on finding a job are expected to increase significantly, as the job search becomes tougher.

Such trend in employment of 2012 is the worst since 1993 (225,000, 1.2% increase) which exceptions of the currency crisis in 1998, the credit card crisis of 2003, and the global financial crisis of 2008-2009 (annual average of 425,000 increase, 2.2% increase).



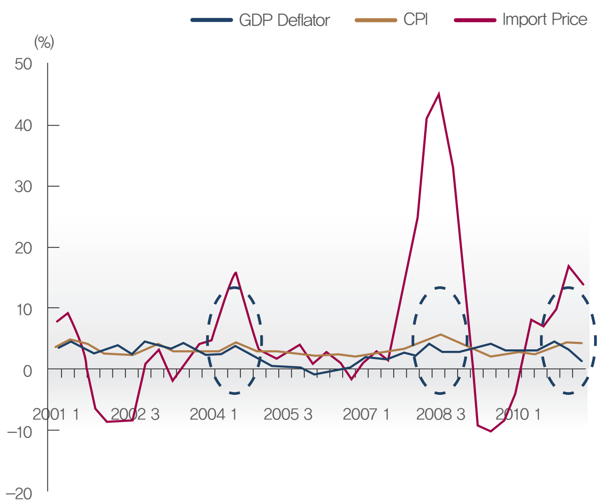
Source: Statistics Korea

7. Price and Interest Rate

Price of imports sharply increased in the beginning of 2011, and the GDP deflators for the first and second quarters of 2011 recorded 3.4% and 1.5%. The increase rate for GDP deflator in the second quarter is lower because, in the early stage of import price surge, the increase rate of import deflator, which is a deflator offset factor, is greater from that of export and domestic demand deflator. This type of pattern was observed in 2004 and 2008. 2012 GDP deflator is expected to rise by 3.2%, which is 2.8% higher than the value from 2011, due to high volatility in the price of agricultural products, rise in the price expectation, and high price for imports.

Based on the size of the GDP gap, GDP deflator for 2013–2015 will stabilize at 2.6%–2.7% since pressure on demand is not high and the rate of increase for labor is not as high(expected to be 3.0% on an annual average for 2011–2015). The annual average of GDP deflator for 2011–2015 is expected to be 2.7%. The increase rate for consumer price is expected to jump 4.4% from the previous year due to rise in the volatility of agricultural products and the surge in price of imports. High level of consumer price, nonetheless, is expected to retard to 3.6% in 2012, as the economies slow down as well. Despite the

Figure 23 _ Trend of Deflator, CPI, Import Price



Source: Bank of Korea, Statistics Korea

economic recover, due to fall in the exchange rate, the increase rate of consumer price is expected to show 3.3% for 2011~2015.

The KTB(3 years) yield is projected to fall from 3.7% to 3.5% in 2012. Monetary stimulus is expected last as price level and the growth rate of GDP slow down from 4.4% to 3.6% and from 3.8% to 3.5% respectively on the domestic front while economies of advanced nations retard on the international front. Interest rate higher than that of advanced nations will stimulate foreign investors for domestic bonds in 2012.

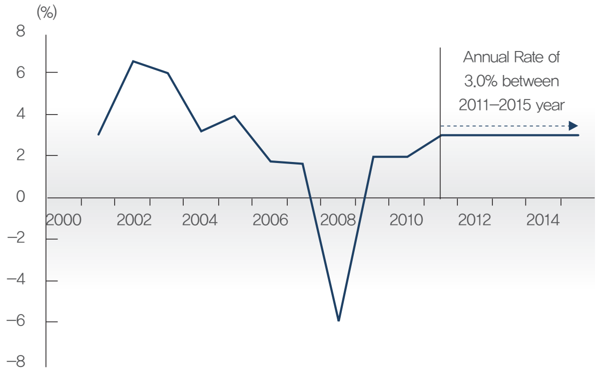
KTB for 2011~2015 is expected to be 4.2% on an annual average. Real base rate is expected to remain in the negative region from mid-2007, which will lead the Bank of Korea to maintain its stance of raising the base rate to find normalcy in the base rate. However, in 2012, when the economy is expected to wither, the base rate will maintain the current level. After mid-2013, on the other hand, more conservative approach in raising the base rate is expected in consideration of its effect on the burden of household debt interest and the real estate market. As the administration aims to balance its finances by 2013, it will limit itself to issuing 77 trillion Won's worth of treasury bond and avoid problems in terms of supply.

8. Potential Growth Rate

Based on the conjecture for the growth rate of GDP and input factors, the potential growth rate in 2011~2015 is expected to record 3.7% on an annual average, which is a 0.3%p fall from the annual average for past five years (2006~2010: 4.0%). When compared to the value from before the global financial crisis (2004~2007: 4.3%), the potential growth rate is expected to fall 0.7%. Reduced Investment and labor input are thought to have had a negative effect on the potential growth rate. The potential growth rate started from below 4% (3.9%) and dropped even lower in 2009 and 2010, which recorded 3.7% and 3.9% respectively.

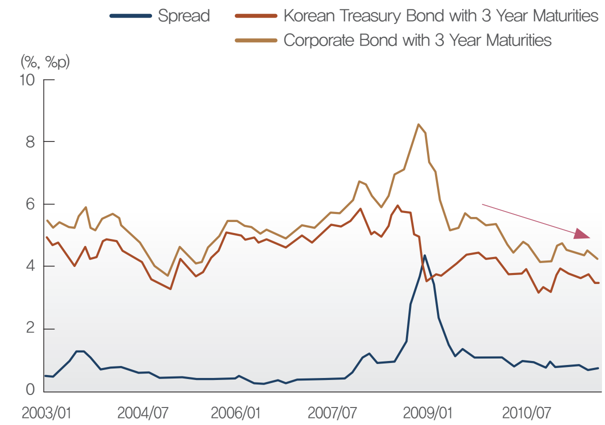
Contribution on an annual average from labor and total factor productivity (TFP) are 0.2%p and

Figure 24 _ Trend of Labor Cost per Value-Added



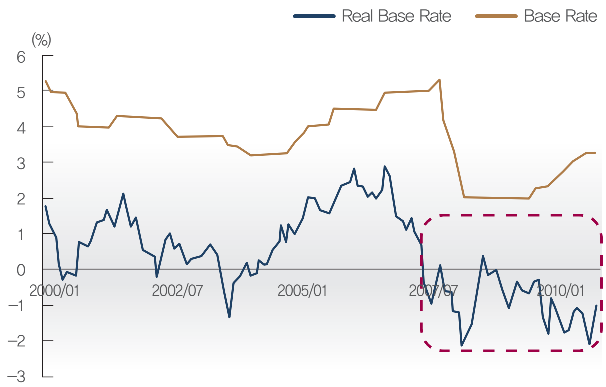
Source: Bank of Korea, Statistics Korea

Figure 25 _ Trend of Market Interest Rates



Source: Bank of Korea

Figure 26 _ Trend of Real Interest Rates



Note: Monthly Average
Source: Bank of Korea

1.9%p respectively, which is 0.1%p lower than the value from the four years preceding the crisis, while the contribution from capital falls 0.6%p, which makes it the major factor that hinders the potential growth rate. The contribution from capital suffers since the rate of increase for the gross fixed capital formation is 2.1% on an annual average, which is a 0.8%p decrease from 2.9% for the four years before the global financial crisis (2004–2007), and the net capital stock growth, consequently, stalled at 3.7% on an annual average. The net capital stock growth fell 1.7% from the annual average before the global financial crisis, which was 5.4%.

The output gap, defined as the difference between the real GDP and the potential GDP, is expected to bet −3.5% in 2009, −1.3% in 2010, −1.3% in 2011, −1.7% in 2012, −1.8% in 2013, −1.4% in 2014, and −0.7% in 2015, which indicates that the real output will fall short of the potential output.

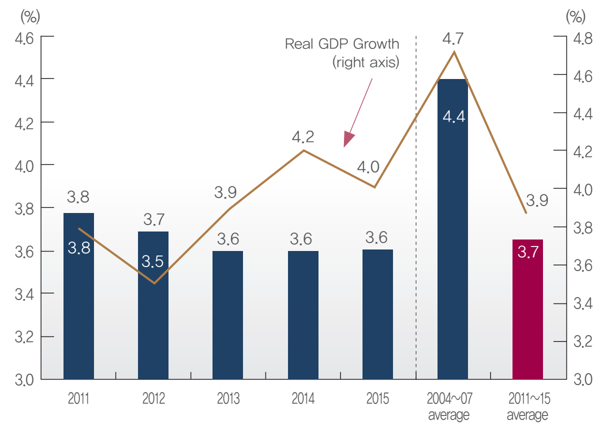
The impact of the expected output on the price level has been estimated with a bivariate vector auto regression (VAR) model of inflation and output gap. The reaction function of inflation to the output gap stock shows that unit standard deviation(2.53%p) shock to the output gap raises inflation for three years, which the impact lasting for five years. A positive shock to the output gap did not immediately increased inflation. Instead it started to exhibit its effect an year after the shock.

9. Policy Implications

Macroecononomically, first of all, policy needs to show a flexible stance. Considering the fact that instabilities in the economy are greater than ever before due to the financial instabilities and reduction in the world trade volume, accommodative policies on interest rates are required. In other words, the base rate needs to maintain the current level until the economic conditions hint at recovery. Since small–and medium–sized businesses cannot respond to difficult economic situations, it is likely that they will struggle with financing. As such, economic policies need to assist banks with fluid supply of short–term operating fund.

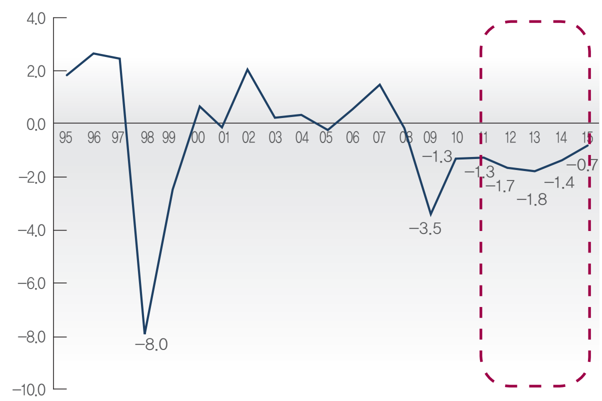
Secondly, the base rate needs to be raised, starting in 2013, which is the year the economy is expected to begin its recovery. Since the call rate before the global financial crisis (2000–2007) with the increase rate of consumer price level of 3.0% and the real growth rate of GDP of 5.2% on an annual average, the current base rate of 3.25% is considered low. Since the rise in the increase rate of consumer price level to reach 4.4% in 2011 and the recent soar of deposits for "jeonse," a Korean rent system are attributed to the late raise of the base rate, the need for raising the base rate is high. There, however, are few factors to keep in mind before raising the base rate. First of all, since the

Figure 27 _ Medium Potential GDP Growth Projection



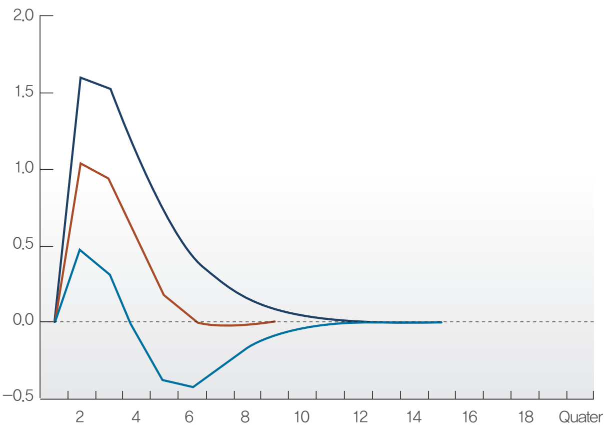
Source: National Assembly Budget Office

Figure 28 _ Output Gap Outlook



Source: National Assembly Budget Office

Figure 29 _ Impulse Response Function of Inflation on Output Gap Shock



Source: National Assembly Budget Office

economic growth is expected to slow down in 2012, the base rate needs to be raised when the economy shows signs of recovery in 2013. Additionally, the possibility of a slow growth in the recovering phase, the influence of household debt on domestic consumption, and severity of depression in the real estate market in the metropolitan are need to be considered.

Considering the foregoing factors, the base rate needs to be raised to approximately 4%, which nears the average value for the 2000s, starting in 2013. The base rate can be adjusted according to the real estate market, burden of household debt, and other economic circumstances (or the consequences of the raised base rate) afterwards.

Thirdly, much attention needs to be invested in an effort to stabilize the exchange rate. Volatility in the exchange rate has heightened as the credit rating of the United States fell and the shock from the European financial crisis. Although the rise in the exchange rate stimulates exports, its impact on the domestic price level is large, and the rise could have a negative impact on the real economy. As such, economic policies should push for stabilization of the exchange rate. To accomplish the goal, the administration needs to establish that it has secured sufficient foreign currency liquidity by maintaining surplus on the current account with management of the foreign currency and expansion of the foreign currency reserve, establishing currency swap agreements with foreign central banks, and aiding the financial institutions in acquisition of foreign loans. Also, policies need to find ways to inhibit excessive inflow of capital, such as transaction taxes on excessive inflow of capital, and the sources of foreign loans need to be varied to include the Middle East and Asian nations to lift the heavy reliance on the United States and the European nations.

Fourthly, in light of the recent financial crisis of southern European nations, fiscal balance needs to be improved and the national debt needs to be maintained at a stable level through actively managing the public finance. Sustainability of the pubic finance has become a challenging task, considering the factors such as difficulty of resolving the global financial crisis, surge in the demand for social welfare, the fast drop in the birth rate, and the aging population. Therefore, tax base needs to be expanded and the efficiency of the expenditure is improved for the stability of the public finance.

Fifth, policies should provide methods to raise the potential rate of growth, which is on a declining phase since the global financial crisis. Sustainable growth should be secured by improving the service industry, green growth, and new growth engine. Total factor productivity should be improved through relaxation of regulations, technological innovations through investment in R&D, expansion of investment in human resources.

Microeconomically, first of all, the household debt problem needs to be handled with care. In other words, excessive increase in loans should be suppressed through increasing the risk weighted value of BIS on high-risk, adopting regulations on leverage of credit specialized financial businesses, increasing the required rate of deposits of loan-loss provisions for bad debts. At the same time, efforts should be made to minimize the burden on the household economy by financially assisting the public through methods such as smile microcredit loans or sunshine loans. Admittedly, it would be ideal to secure stable source of income for those with large amounts of debts and low level of income.

Secondly, employment conditions need to be improved through remedies on short-term jobs and structural measures to create jobs. To create more jobs, service industry needs to be improved, new growth engines should be fostered, and policies on taxes, finance, acquisition, and budget should be revised accordingly (Tax exemptions on investments that produce more jobs, Benefits to the corporations that offer new jobs at a high level). Domestic industries need to be vitalized since they have a high power of producing new jobs, and new businesses should be encouraged to broaden the base for creating new jobs. Additionally, links between schools and industries need to be strengthened while structural modifications of universities are accelerated to raise work force that fulfills the needs of industries. Finally, functions of the labor market need to be more efficient by diversifying forms of employment and strengthening function as an agent for employment.

Thirdly, policies for the real estate market should actively employ the market function. Although the government is relaxing restrictions on the real estate market, the recession in the metropolitan real estate market is worsening. Perception that prices of real estates are too high and expectation of lower home values on a long term as the demand for homes decreases due to low birth rates of recent years are discouraging consumers from purchasing real estates. In this type of situation, demand for real estates need to be raised by relaxing restriction on the real estate market and heightening flexibility of price. If real estate prices fall enough in a short period of time, expectation of lower home values will weaken and thus may stimulate the market. On the contrary, if the prices of real estates fail to adjust according to the market, it could prolong the recession in the market. In light of such analysis, despite the fact that financial difficulties of construction industries continue, it would be imprudent to artificially provide support to corporations, as it would make it more difficult to adjust the pricing in the real estate market. Moreover, corporations in danger of insolvency need to be actively restructured.

◆ Output of Long-Run Equilibrium Price and its Characteristics

Hallman, Porter and Small(1991)[2] proposed that the real rate of inflation approaches the long run equilibrium price when the gap between the real rate of inflation and long-run equilibrium price(P*) occurs and defined the rate of increase for the long run equilibrium in terms of the remaining amount of money (M) as follows:

$$P^* \equiv M_t V^*_t / Q^*_t$$

Q*: potential GDP, V*: long-run equilibrium velocity of money

To get P*, we used the GDP deflator to measure inflation, Lf for the quantity of money, and HP filtering for V*. The following model has been proposed to see if the rate of inflation approaches P* when the gap between inflation and P* occurs. The model has been used for the time frame from 1991 to 2011, and used quarterly data.

$$\Delta\pi_t = \alpha(p_{t-r} - p^*_{t-r}) + \beta_1\Delta\pi_{t-1} + \beta_2\Delta\pi_{t-2} + \beta_3\Delta\pi_{t-3}$$

$\Delta\pi_t$: difference between the log values of inflation
P_{t-r} : log values of inflation

The model predicted a negative value for the parameter(α) of the gap (pt–r–p*t–r) and indicated high level of significance. The prediction suggests that the real increase rate of inflation($\Delta\pi$ t) declines when the gap occurs. Therefore, the currently high quantity of money raises the value of P*, which pushes the inflation rate up when the long-run equilibrium price is higher. On the second run, filtered value of P* has been used for long-run equilibrium price instead of P*. The second run showed higher significance. Ahn and Kim (2007) proposed a buffer stock hypothesis, which says that economic agents do not adjust their retention of money when they realize that the imbalance in the supply and demand of money is temporary because economic agents use money as a buffer. In other words, increase in the amount of money does not immediately cause rise in the rate of inflation, which makes the filtered value of P* more effective in predicting future price level.

When the long-run equilibrium of price was calculated using GDP deflator, the current real increase rate of GDP deflator was higher than the increase rate of the long run equilibrium price. The calculation yielded a positive value for the gap, which indicates that the increase rate of GDP deflator is under a pressure to decline.

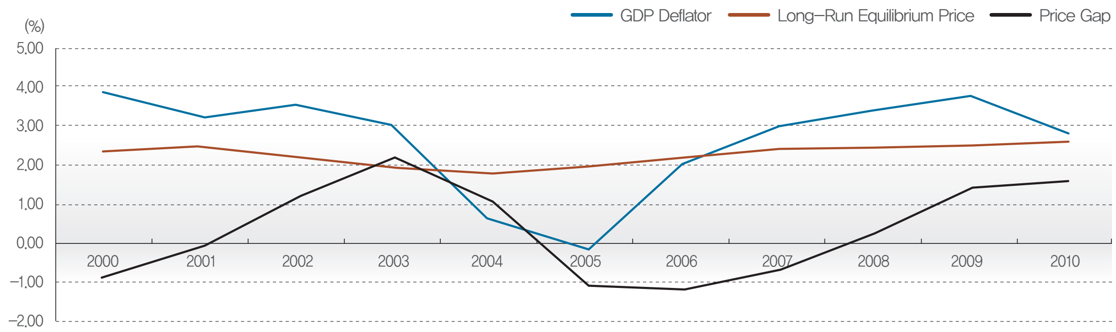
Table _ Estimation Result

Dependent Variable	lag(r)	α	β_1	β_2	β_3
Pstar	1	–0.3406***	0.3818***	0.3925***	–
	2	–0.2061*	0.1348	0.3725***	0.1630
Pstar Filtered Value of Pstar	1	–0.4146***	0.4098***	0.4140***	–
	2	–0.3166***	0.0785	0.4255***	0.2102*

Note: ***and * indicate that estimated coefficients are statistically significant at the 1%, 10% level, respectively.

2 J.J. Hall, R.D. Porter, and D.H. Small, "Is the Price Level Tied to the M2 Monetary Aggregate in the Long Run?," AER, Sep. 1991.

Figure _ Trend of and Price Gap



Source: National Assembly Budget Office, Bank of Korea

Revenue

Ⅰ. Total Revenue

As the domestic demand recovers in 2011, total revenue will record 324.7 trillion won, which is an 8.4% increase from the previous year. Nonetheless, owing to retardation of the real economy, caused by the European financial crisis, total revenue is expected to stall at 5.7% increase and record 343.7 trillion won to yield an annual average incline of 6.1% with 411.8 trillion won in total revenue in 2015.

1. 2011 Outlook

Total revenue in 2011 is expected to record 324.7 trillion won which is a 25.1 trillion won increase(8.4%) from that of 299.6 trillion won in 2010.

National tax revenue is expected to increase by 14.6 trillion won(8.2%) from 177.7 trillion won in 2010 to reach 192.3 trillion won in 2011. As the rate of increase for national tax rises, elasticity of national tax is projected to increase from 0.79 in 2010 to 1.24 in 2011. Increment in national tax is expected despite the implementation of tax cuts on income and corporate taxes due to a surge in income and corporate tax from the upswing in domestic consumption, retention of healthy nominal GDP growth rate, and a large increase in imports.

Social security contribution is expected to be 39.0 trillion won in 2011, which is a 3.5 trillion won increase from 35.5 trillion won of 2010. Rise in the base income in 2011 due to the risen rate of increase of wages(6.8%), increased number of pension and insurance policy holders due to higher employment rate(1.6% increase), and rise in the rate of premium for teachers pension and employment insurance have contributed to the rise in social security contribution.

Non-tax and capital gain are expected to be 93.4 trillion won in 2011, which is a 7.1 trillion won (8.2%) increase from 86.3 trillion won in 2010. Although the rate of increase in interest receipts is expected to slow down due to the fallen interest rate, robust performance of the economy and the large return from the investment of the social security fund and pensions of the public sector in the first half of the year contributed to the increase in non-tax and capital gain.

2. 2012 Outlook

Total revenue in 2012 is expected to record 343.3 trillion won, which is an 18.6 trillion won increase. The 18.6 trillion won increase is a 5.7% increase, which is a sharp decline from 8.4% increase in 2011.

National tax revenue is expected to be 205.5 trillion won, a 13.2 trillion won increase from 2011 with the increase rate of 6.9%, which is somewhat lower than that from the previous year. Such decline in the increase rate is attributed to the European financial crisis and declining increase rate of employment that would hurt corporate performance and decelerated the increasing trend of wages. The elasticity of national tax is expected

Table 5 _ 2011~2012 Total Revenues Forecast

(unit: tril.won, %)

	2011			2012		to 2011 Forecast		to 2012 Budget	
	Budget	Revenue Forecast	to Previous Year	Budget	Revenue Forecast	Net Increase	(%)	Net Increase	(%)
Total Revenues (to GDP)	314.3	324.7	8.4	344.1	343.3	18.6	(5.7)	−0.8	(−0.2)
Tax Revenue	187.6	192.3	8.2	205.9	205.5	13.2	(6.9)	−0.5	(−0.2)
Social Security Contribution	37.6	39.0	9.8	40.5	41.3	2.3	(5.9)	0.8	(2.1)
Non-Tax etc.	89.1	93.4	8.2	97.7	96.5	3.1	(3.4)	−1.2	(−1.2)

to fall from 1.24 to 1.02.

Social security contribution is expected to increase in 2012 by 2.3 trillion won (5.9%) from 39.0 trillion won of 2011 and record 41.3 trillion won. The increase rate of 5.9% is lower than the value from 2011, which was 9.8%, and such decrease is attributed to the retardation of the increasing trend of monthly base income in 2012 (2010: 6.8% → 2011:5.3%) and the decreased number of new social security policy holders due to lower employment rate in 2012 (2011: 1.6% → 2012: 1.1%).

Non-tax and capital gain is expected to be 96.5 trillion won, which is an increase by 3.1 trillion won (3.4%) from the expected value of 2011 (93.4 trillion won). The increase indicates that the increase rate experiences a sharp decline from 8.2% in 2011, which is attributed to the decreased interest receipt due to reduction in the social security fund.

3. 2011-2015 Medium-Term Outlook

Total revenue of 324.7 trillion won in 2011 is expected to increase by 6.1% on an annual average to reach 411.8 trillion won in 2015. This increase is a small one compared to the 6.0% in the preceding five years (2006-2010). From 2011 to 2015, the elasticity of the total revenue compared to the nominal GDP growth is expected to be 0.91 and maintain its level from the previous medium term (2006-2010). The ratio between total revenue and nominal GDP is projected to gradually decline from 26% in 2011 to 25.4% in 2015.

The national tax revenue is expected to increase at an annual average of 6.9%, which is higher than the 6.5% average from the previous medium term (2006-2010). The elasticity of the national tax revenue will be slightly higher than 0.98 from the preceding medium term and record 1.03 on average. The slight increase is attributed to the fact that there has been no economic crisis in this medium term and the fact that the tax cuts will be recanted this year. The ratio between the national tax revenue and the nominal GDP will remain at 15.4-15.5% for the 2011-2015 period.

Social security contribution is expected to rise from 39.0 trillion won in 2011 to 49.8 trillion won in 2015, which is a 6.3% increase on an annual average, slightly lower than the 6.8% increase from the previous medium term (2006-2010). And the lowering in the social security contribution is attributed to the declining increase rate of wages due to decelerated increase rate for base income and the projection of lessened number of pension policy holders as the social security and pension system mature. The ratio between the revenue from social security contribution to the nominal GDP will be approximately 3.1% in the 2011-2015 period. The ratio between social security contribution and GDP will be around 3% as institution matures and the room for further revenue increase decreases.

Table 6 _ 2011~2015 Total Revenues Forecast

(unit: tril.won, %)

	2011	2012	2013	2014	2015	Projected Average Annual Growth Rate (11~15)	Average Annual Growth Rate (06~10)
Total Revenue	324.7	343.3	363.7	386.9	411.8	(6.1)	(6.0)
(to GDP)	[26.0]	[25.7]	[25.6]	[25.5]	[25.4]		
(to Previous Year)	(8.4)	(5.7)	(6.0)	(6.4)	(6.4)		
Tax Revenue	192.3	205.5	219.6	235.4	251.5	(6.9)	(6.5)
(to GDP)	[15.4]	[15.4]	[15.5]	[15.5]	[15.5]		
Social Security Contribution	39.0	41.3	43.9	46.8	49.8	(6.3)	(6.8)
(to GDP)	[3.1]	[3.1]	[3.1]	[3.1]	[3.1]		
Non-Tax & Capital Gain	93.4	96.5	100.2	104.7	110.5	(4.3)	(4.7)
(to GDP)	[7.5]	[7.2]	[7.1]	[6.9]	[6.8]		
Nominal GDP Growth Rate	(6.6)	(6.7)	(6.5)	(6.9)	(6.6)	(6.7)	(6.6)

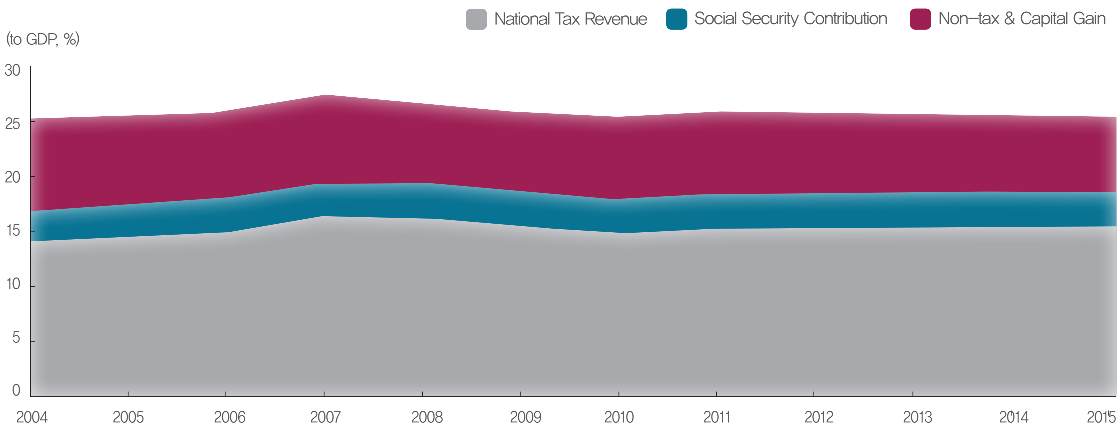
The revenue from non-tax and capital gain is expected to be 93.4 trillion won in 2011 and 110.5 trillion won 2015, which will result in 4.3% increase rate on an annual average and 0.4%p decrease from the 4.7% increase on annual average in the previous medium term (2006-2010). The decrease is attributed to the fall in the interest rate in general and the retardation of social security fund's expansion. The ratio between the revenue from non-tax and capital gain and the nominal GDP will fall from 7.5% in 2011 to 6.8% in 2015 due to the slowdown in the increasing trend of interest receipts and the lowered value of elasticity of other non-tax revenues to the growth of nominal GDP.

◆ Trend in Total Revenue

The size of total revenue reached 25.3% of GDP in 2004, which continued to grow and record 27.6% in 2007. In 2007, national tax revenue collected well and the contribution from social security increased, resulting in the record high percentage of the total revenue in GDP. On the contrary, due to the global financial crisis in 2008, tax revenue suffered and the total revenue took a downward path. In 2009, national tax revenue exhibited an exceptional decrease of 1.7% from the previous year and the total revenue fell to 25.9% of GDP.

The faster-than-expected economic recovery after 2010 helped the fast recovery of total revenue from its languid state in 2009. National tax revenue increased 7.9% in 2010 with the help of 10.1% increase of the nominal GDP. It is expected to show a healthy increase rate of 8% in 2011. As such, total revenue will total around 25% of GDP, which is close to the ratio from before the global financial crisis. Total revenue for the 2011-2015 period will show around 6.0% of increase rate on annual average, which is slightly lower than 6.6% increase rate of the nominal GDP due to tax cuts, slower revenue increase from maturing social security contribution and smaller gain from non-tax revenues due to low interest rate. As a result, the ratio between total revenue and GDP will discontinue its sharp increase and turn back down to 25.4% from 25.8% in 2012.

Figure _ Trend of Total Revenue Components as a Percentage of GDP



Note: 2011-2015 Figures are Forecasts

II. National Tax Revenue

Although national tax revenue in 2011 would increase by 8.2% from the previous year to reach 192.3 trillion won with the help of the recovering economy, expansion of consumption and employment, and healthy corporate performances, national tax revenue will only increase by 6.9% in 2012 to record 205.5 trillion won due to the financial crisis in Europe and retardation in the real economy domestically. For the medium term of 2011–2015, national tax revenue is forecasted to increase by 6.9% on an annual average to record 251.5 trillion won in 2015.

1. 2011 Outlook

National tax revenue for 2011 was 192.3 trillion won, which is a 14.6 trillion won (8.2%)increase from 177.7 trillion won in 2010. The rate of increase from the previous year (8.2%) is slightly higher than the value from the previous year (8.0%), which is attributed to healthy corporate performances, increased consumption, and expansion of employment.

Although the growth rate of GDP is expected to fall in 2011, tax items that are influenced by the growth rate of the previous year are expected to augment in 2011. At the same time tax items that are influenced by the performance of the same year including indirect taxes such as excise tax are projected to maintain its status quo since they are affected by the difficult economic circumstances in the second half of 2011.

Items that are expected to display a high rate of increase in comparison to 2010 are corporate tax(19.4%), customs duties(14.3%), and income tax(12.4%). These items are mostly direct taxes. Corporate tax and income tax, especially, reflect the strong performance of the economy from the previous year.

On the contrary, indirect taxes such as consumption tax, which are influenced by the performance of the same year, are expected to reflect difficult economic circumstances of 2011. Although the growth rate of GDP declines, V.A.T. and customs duties will experience less influence since they are more affected by the external sector than they are by the domestic sector and since the growth rate of imports is relatively high.

2. 2012 Outlook

National tax revenue of 2012 is expected to be 205.9 trillion won, which is a 13.2 trillion won increase from 192.2 trillion won in 2011. The rate of increase (6.9%) is slightly less than that from the previous year (2011, 8.2%) on the surface, but when the carryover from 2011 is excluded, the rate of increase is cut down to 4.3%.

Consumption tax is expected to increase 6.3% from the projection for 2011 (42.1 trillion won) and record 44.7 trillion won. Global income tax, which in heavily influenced by the preceding year's performance, is expected to increase by 7.7%, while employment income tax only increased by 6.9%. These rates of increase are a huge drop from 23.1% and 19.5% from last year and the fall is attributed to the decelerated rate of increase for employment(1.6% → 1.1%) while the nominal wages maintained their rate of increase from the previous year (5.3% → 5.4%). Although corporate tax is expected to increase by 0.6 trillion won (1.4%) from the 2011 outlook (44.5 trillion won) and record 45.1 trillion won, it will cut back down to 44.6 trillion won when the carryover from 2011 is excluded. The reason behind such phenomenon is that tax return is expected to fall as the corporate performance of 2011, which is the basis for taxation, suffers despite the fact that the amount of withheld tax revenue, which is attributed to expansion of corporations' financial assets and the increased interest rate, increased. V.A.T. will increase by 4.2 trillion won (7.9%) from the 2011 outlook (52.4 trillion won) and record 56.6 trillion won. Tax revenue from V.A.T.

Table 7 _ 2011–2012 National Tax Revenues Forecast

(unit: trillions of won,%)

	2011		Growth Rate	2012		Revenue Incnease(A/C)		to 2012 Budget(B/C)	
	Budget	NABO(A)	(%)	Budget(B)	NABO(C)	Netamount	to 2011 Forecast	Difference	to 2011 Forecast
Total Nat'l Tax	187.6	192.3	8.2	205.9	205.5	13.2	6.9	−0.47	−0.2
General Accounting	180.8	184.5	7.9	197.4	196.8	12.3	6.7	−0.64	−0.3
Internal Tax	151.4	156.2	11.1	166.3	165.3	9.0	5.8	−1.03	−0.6
1. Income Tax	40.0	42.1	12.4	46.0	44.7	2.6	6.3	−1.29	−2.9
2. Corporation Tax	41.3	44.5	19.4	44.5	45.1	0.6	1.4	0.67	1.5
3. Inheritance–Gift Tax	3.1	3.3	7.6	3.7	3.6	0.3	9.4	−0.07	−1.9
4. V.A.T	52.9	52.4	6.7	56.8	56.6	4.2	7.9	−0.25	−0.4
5. Individual Consumption Tax	5.0	5.0	−0.3	6.0	5.6	0.6	11.4	−0.42	−7.4
6. Securities Transaction Tax	3.9	4.1	11.9	4.2	4.5	0.4	8.8	0.22	4.9
7. Stamp Tax	0.5	0.6	22.4	0.6	0.7	0.0	2.2	0.04	6.4
8. Revenue on Previous Years	4.5	4.1	−7.1	4.4	4.5	0.4	8.8	0.05	1.1
Traffic–Energy–Environment Tax	12.4	11.0	−21.6	13.7	13.3	2.4	21.5	−0.37	−2.8
Customs Duties	11.4	12.2	14.3	11.6	12.4	0.2	1.4	0.76	6.1
Education Tax	4.6	4.1	−12.3	4.8	4.7	0.6	15.6	−0.06	−1.2
Comprehensive Real Estate Holding Tax	1.1	1.1	2.3	1.1	1.1	0.1	6.7	0.06	5.4
Special Accounting	6.9	7.7	14.3	8.5	8.6	0.9	11.6	0.17	1.9
Liquor Tax	2.6	2.5	−12.7	2.9	3.0	0.5	20.9	0.09	2.9
Special Tax for Rural Development	4.2	5.2	34.2	5.5	5.6	0.4	7.2	0.08	1.4

is projected to rise since the nominal increase rate of GDP of 2012 will be higher than that from the preceding year and the difference between exports and imports will not differ greatly despite the decreased volume of trades. Traffic–Energy–Environment tax will exhibit a high increase rate of 21.5% (13.3 trillion won), but the real rate of increase will be around 3.1% once the carryover is excluded. Such mere increase is projected since consumption of energy, which showed an extraordinary surge in 2010, will come back down to the normal level in 2012. Despite the fact that the exchange rate will increase to some extent (1,102 won/$ → 1,112 won/$), due to the fall in effective duties on customs from Korea–EU FTA and retardation in the growth rate of imports duties on customs will increase only slightly by 0.2 trillion won (1.4%).

3. 2011–2015 Medium–Term Outlook

National tax is expected to increase on an annual average of 6.9%, which is a small bit above the average nominal growth rate of GDP of 6.7%, from 192.3 trillion won in 2011 to reach 251.5 trillion won in 2015. Income tax and Corporate tax secured some revenue with the partial or complete rescindment of tax cuts, V.A.T. is maintaining its healthy growth rate, and the growth rate of inheritance–gift tax and securities transaction tax is growing at a rate faster than the nominal GDP is.

Income tax is expected to rise 8.4% in 2013 to recover from its set back in 2012 of 5.8% increase and maintain 8% level growth to record 56.9 trillion won in 2015. With the aid of a healthy growth rate of nominal GDP in the high 6%, Employment income tax and the Global income tax will increase 8.3% and 9.0% respectively on an annual average. Corporate tax is expected to increase 6.0% on an annual average between 2011 and 2015 to record 56.2 trillion won in 2015. Self-assessed corporate tax is expected to decrease in 2012 due to poor corporate performance in 2011 and a low growth rate of 5.5% in the 2011-2015 period is forecasted with the additional tax cut scheduled from 2012. However, the withheld corporate tax is expected to increase 7.8% on an annual average with the increase in interest rate and expansion of corporate financial assets. On the other hand, V.A.T., despite the low growth rate of the domestic demand, is expected to show a healthy growth rate of 7% on an annual average to record 70.6 trillion won in 2015 as the imports maintain its high growth rate. Customs duties will show a high rate of increase(14.3%) as the market of imports experiences favorable conditions, but the declining trend of the effective customs duties and the exchange rate would slow the growth rate down to 5.1% increase rate on an annual average to record 14.9 trillion won in 2015.

Table 8 _ 2011-2015 National Tax Revenues Forecast

(unit: tril.won, %)

	2011	2012	2013	2014	2015	Projected Average Annual Growth Rate
Gov't 's Projection	192.8	205.9	224.2	242.6	262.3	8.0
NABO's Projection	192.3	205.5	219.6	235.4	251.5	6.9
Genenal Accounting	184.5	196.8	210.5	225.7	241.1	6.9
Internal Tax	156.2	165.3	177.6	191.9	207.0	7.3
1. Income Tax	42.1	44.7	48.5	52.4	56.9	7.8
2. Corporate Tax	44.5	45.1	47.9	51.9	56.2	6.0
3. Inheritance-Gift Tax	3.3	3.6	3.9	4.3	4.7	9.4
4. V.A.T	52.4	56.6	60.7	65.6	70.6	7.7
5. Selective Excise Tax	5.0	5.6	6.1	6.3	6.3	5.8
6. Securities Transaction Tax	4.1	4.5	4.9	5.3	5.8	9.2
7. Stamp Tax	0.6	0.7	0.7	0.7	0.7	2.9
8. Revenue on Previous Years	4.1	4.5	4.9	5.3	5.7	8.4
Traffic · Energy · Environment Tax	11.0	13.3	13.5	13.3	12.6	3.5
Customs Duties	12.2	12.4	13.1	14.0	14.9	5.1
Education Tax	4.1	4.7	5.1	5.3	5.3	6.8
Comprerensive Real Estate Holding Tax	1.1	1.1	1.2	1.3	1.4	6.7
Special Accounting	7.7	8.6	9.1	9.7	10.4	7.5
Liquor Tax	2.5	3.0	3.2	3.2	3.3	6.8
Special Tax for Rural Development	5.2	5.6	5.9	6.4	7.1	7.8

◆ Dividing Corporate Tax Brackets and its Revenue Impact

The original plan for the tax cuts on corporate taxes was to reduce the nominal tax rate on the down to 20% from 22% for tax base exceeding 0.2 billion won, but the 2012 tax revision proposal plans to establish a new bracket for over 200,000 and under 50 billion won and to reduce the rate down to 20% for this bracket only. The impact of this reform on revenue is discussed in this section.

On 2009 accrual basis, total tax payable on the assessed value of 9.8 trillion won for the bracket under 0.2 billion won was 0.9 trillion won with an effective tax rate of 9.6%, and total tax payable

Table _ Tax Base and Effective Tax Rates of Corporate Tax (Fiscal Year 2009)

(unit: billion won, %)

	Tax Base	Total Tax Payable	Effective Tax Rates
Total	178,630	29,581	16.6
0.2 Billion Won or Less	9,839	944	9.6
50 Billion Won or Less	68,254	10,971	16.1
50 Billion Won or Over	100,537	17,666	17.6

Note: Effective Tax Rate = Total Tax Payable / Tax Base

on the assessed value of 168.8 trillion won for the bracket over 0.2 billion was 28.6 trillion won with an effective tax rate of 17.0%. The tax base and total tax payable for the 0.2 billion–50 billion won bracket are 68.3 trillion won and 11.0 trillion won respectively which amount to 38.2% and 27.1% of the total with an effective tax rate of 16.1%.

Total tax payable has been calculated by the following method: 1) Tax base has been projected with a regression analysis with nominal GDP, exchange rate and the corporate bond yield rate. 2) The effective tax rate for each tax base has been calculated by applying 0.97%p change to the effective tax rate for each percent point change in the nominal tax rate. 3) Projected value for each tax base has been multiplied by the effective tax rate to yield the value for total tax payable.

The value for total tax payable for three different proposals, which are A, following the original tax cut plan, B, withdrawal of the tax cut plan, and C partial withdrawal of the plan with the establishment of the new bracket, as proposed by the government in the 2012 tax revision proposal.

The proposal to withdraw the tax cut plan entirely (B–A) yields a change of 3.8 trillion won for 2012 while yielding 4.5 trillion won in 2015. And the proposal to partially withdraw the plan yields a change of 2.2 trillion won in 2012 and 2.7 trillion won in 2015.

Finally, since the change in projections for tax revenue in terms of collection are spread over two years into interim prepayment and regular payments, when the value for total tax payable is converted into accrual basis, the original proposal yields 1.7 trillion won and 4.3 trillion won for

Table _ Revenue Impact of Withdrawing Tax Cuts

(unit: billion won)

	Collecting Basis		Accrual Basis		
	Totally Withdrawal Tax Cut Plan(B–A)	Partially Withdrawal Tax Cut Plan(C–A)	Totally Withdrawal Tax Cut Plan(B–A)	Partially Withdrawal Tax Cut Plan(C–A)	Change(C–B)
2012	3,833	2,244	1,660	974	−686
2013	3,978	2,334	3,900	2,283	−1,617
2014	4,186	2,451	4,073	2,385	−1,688
2015	4,466	2,660	4,307	2,542	−1,765

Note: Revenue impact in case of A, B and C; A=Tax cut, B=Complete withdrawal of tax cut plan and C=Partial withdrawal of tax cut plan

2012 and 2015 respectively while the proposal for partial withdrawal yields 1.0 trillion won and 2.5 trillion won for the two years.

In summary, the original proposal on tax cuts of placing a 2%p cut on the bracket exceeding 0.2 billion was to yield 1.7 trillion reduction in 2012, 3.9 trillion won reduction in 2013, and 4.3 trillion won reduction in 2015. Nonetheless, following the government's plan to put in a new bracket yields a 1.0 trillion won reduction for 2012, 2.3 trillion won reduction for 2013, and 2.5 trillion won reduction in 2015. This also expands the total tax payable of corporate tax by 0.7 trillion won in 2012, 1.6 trillion won in 2013, and 1.8 trillion won in 2015.

Ⅲ. Social Security Contribution

Social security contribution, with the help of improving employment conditions and the high increase in wages in the preceding year, is expected to increase 9.8% to yield 39.0 trillion won in 2011, but in 2012, on the contrary, as the growth rate for wages and employment slows down, the contribution from social security would only increase by 5.9% to yield 41.4 trillion won. In the medium term, 2011–2015, the contribution is expected to increase 6.3% on an annual average to reach 49.8 trillion won in 2015.

1. 2011 Outlook

Revenue from social security contribution in 2011 is expected to increase 3.5 trillion won to yield 39.0 trillion won in 2011. The rate of increase is 9.8%, which is much higher than that from 2010, (5.0%). Wages in 2010, which is the base income for social security, exhibited a high rate of increase (6.8%), and the employment expanded by 1.6% in 2011, which was an improvement from 1.4% in 2010. Additionally, the premium rates for employment insurance and teacher's pension are expected to increase, which would significantly up the contribution from social security.

National pension is expected to bring in 27.2 trillion won in 2011, which is 1.9 trillion won higher than that from 2010(25.3 trillion won), and the rate of increase will be 7.7% which is 1.7%p higher than the 6.0% increase from the preceding year. Such improvement is attributed to the fact that inclining trend of wages in 2010 led to raised base income in 2011 and the fact that employment and national pension holding businesses expanded. Workers' compensation insurance is expected to

Table 9 _ 2011~2012 Social Security Contribution Forecast

(unit: tril.won, %)

	2011		YoY	2012		to 2011 Forecast		to 2012 Budget	
	Budget	Forecast	(%)	Budget	Forecast	Net Increase	(%)	Difference	(%)
Total	37.6	39.0	9.8	40.5	41.4	2.4	5.9	0.8	2.1
National Pension	26.3	27.2	7.7	28.0	28.8	1.6	5.8	0.8	2.8
Worker's Compensation Insurance	5.1	5.0	8.5	5.2	5.3	0.3	5.8	0.1	1.6
Employment Insurance	4.6	5.2	23.8	5.4	5.5	0.3	5.2	0.1	1.4
Teachers' Pension	1.6	1.6	11.9	1.9	1.8	0.2	10.1	−0.1	−5.5

expand from 4.6 trillion won in 2010 to 5.0 trillion won in 2011. Employment insurance is expected to bring in 5.2 trillion won in 2011, which is a huge leap from 4.2 trillion won in 2010. Employment insurance is expected to have surged in April, 2011 since the premium rate is raised from 0.9% to 1.1% to preserve the funds for unemployment. Contribution revenue for teachers' pension will also surge from 1.4 trillion in 2010 to 1.6 trillion won in 2011. Increase in the number of teachers and wages is projected to have been higher than expected and the premium rate is also raised from 6.3% to 6.7%.

2. 2012 Outlook

Social security contribution is expected to increase by 2.3 trillion won to reach 41.3 trillion won, but the rate of increase is expected to slow down from 9.8% in 2010 to 5.9%. In 2011, the contribution from social security surged at an unprecedented rate, but due to retardation in the growth rate of wages and employment in 2011, the rate of increase for the contribution is expected to fall.

National pension is expected to record 28.8 trillion won in 2012, which is 1.6 trillion won higher than the projection for 2011 (27.2 trillion won), but the rate of growth, which is conjectured to be 5.8%, is expected to be lower than the value from 2011 (7.7%) Such phenomenon is attributed to the fact that the growth rate for wages of industries, which is the basis for determination of insurance fees in 2012, is expected to increase only slightly. Employment insurance is expected to record 5.5 trillion won, which is 0.3 trillion won higher than the forecasted value of 5.2 trillion won in 2011. Teachers pension is expected to reach 1.8 trillion won in 2012, which is a jump from the 2011 forecast of 1.6 trillion won. The number of teachers (2.5%) and their wages (2.2%) are expected to maintain its increasing trend, and the premium rate is also about to adjusted upward (6.7% → 7.0%), which would lead to a high rate of growth for the contribution from teacher's pension.

Table 10 _ 2011~2015 Social Security Contribution Forecast

(unit: tril.won, %)

	2011	2012	2013	2014	2015	Projected Average Annual Growth Rate
Total	39.0	41.3	43.9	46.8	49.8	6.3
National Pension	27.2	28.8	30.7	32.8	34.9	6.4
Worker's Compensation Insurance	5.0	5.3	5.6	6.0	6.3	6.2
Employment Insurance	5.2	5.5	5.8	6.1	6.5	5.6
Teachers' Pension	1.6	1.8	1.9	2.0	2.1	6.9

3. 2011–2015 Medium-Term Outlook

Revenue from social security contribution is expected to increase 6.3% on an annual average from 39.0 trillion won in 2011 to 49.8 trillion won in 2015. High rate of growth for the number of policy holder cannot be hoped for since each insurance and pension plans are entering a settling phase, but the nominal growth rates of GDP and wages are keeping healthy, and as a result, the gradual increasing trend of revenue from social security contribution is expected to sustain. Additionally, expansion of national pension holders and systematic changes such as adjustment of the upper limit on the monthly base income and raised premium rate for teacher's pension, are expected to contribute to expansion of revenue from social security contribution.

National pension is expected to increase 6.4%, which is a slightly higher growth rate than the one from 2006–2010 period (5.8%), on an annual average from 27.2 trillion won in 2011 to 34.9 trillion won in 2015. National pension is expected to exhibit a healthy growth rate of 6% as the wages increase at around 5–6%, the upper limit of the base income is raised, and voluntary applications increase as interests in retirement life rise. Workers' compensation insurance is expected to increase from 5.0 trillion won in 2011 to 6.3 trillion won in 2015, which amounts to 6.2% increase on an annual average. This average is higher than the value from 2006–2010, which was 4.9%. Contrarily, employment insurance is expected to increase from 5.2 trillion won in 2011 to 6.5 trillion won in 2015, which yields an annual average of 5.6% increase, a slightly higher value than 5.4% from the previous medium term. Current year's rise in the premium rate for unemployment compensation from 0.9% to 1.1%, and the growth rate of nominal wages at 5–6% with expanded policyholders are to contribute to a stable incline. Teacher's pension is expected to increase from 1.6 trillion won in 2011 to 2.1 trillion won in 2015 (annual average of growth rate: 6.9%). The average growth rate of 6.9% is lower than the value of 10.3% from the 2006–2010 period, but excluding 2010, which is the year the pension plans were revised and the number of policy holders soared, the 2006–2009 period displays an annual average of growth rate of 4.1%. The number of policyholders for teachers' pension will not greatly increase, but, along with the growing trend of the economy, base income is expected to rise, and the premium rate of 2010 at 6.4% is expected to rise 0.3% twice in 2011 and 2012 to yield a healthy rate of increase at around 7%.

The percentage of social security contribution in the total revenue is expected to rise from 11.86% in 2010 to 12.02% in 2011 and to gradually reach 12.10% in 2015. This increase is a result of the fact that the annual average of growth rate for social security contribution (6.3%) is slightly higher than that of total revenue for the 2011–2015 period.

The ratio of social security contribution to the nominal GDP peaked at 3.2% in 2008 and continually declined to 3.03% in 2010. Nonetheless, as the upper limit of the monthly base income and the premium rates for employment insurance and teacher's pension are adjusted up, the aforementioned ratio is to rise back up to 3.12% in 2011 and come back down to 3.08% in 2015. The ratio is expected to fall back down despite the raised premiums since the growth rate of GDP is expected to be lower with a reduced inducing effect on employment, which leads to retardation in the growth rate for employment and wages, and the maturity of the insurances and pension systems make it difficult to expect a sizable increase in the number of policy holders.

Ⅳ. Non-Tax Revenue & Capital Gain

Revenue from Non-tax and capital gain, with the help of expanded interest receipts from the healthy economy in the first half of 2011 and increased return on government investments, is expected to record 93.4 trillion won, an 8.1% increase, but is expected to fall back down to 3.3% in 2012 as the interest receipts drop to record 96.5 trillion won. On the medium term basis, revenue from non-tax and capital gain is expected to rise 4.3% on an annual average to record 110.5 trillion won in 2015.

1. 2011-2012 Outlook

In 2012, non-tax and capital gain is expected to yield 96.5 trillion won in revenue, which is about 1.2 trillion won lower than the administration's projection of 97.7 trillion won. NABO's forecast is slightly higher than the government's outlook on non-tax revenue, but lower in the capital gain section, which includes sales of government shares and assets.

Non-tax revenue in 2011 is expected to be 57.5 trillion won (4.6% of GDP). Despite the declining trend in growth rate of interest receipts, increase in government investments from the rise of the net profit of the term, increase in dividend rates and the increase in the surplus fund of the Bank of Korea are expected to contribute to a 9.6% increase in non-tax revenue. The rate of increase is relatively low compared to 11.4% increase in the preceding year, but considering the fact that the rate of increase for 2010 includes the base effect of the preceding year's financial crisis, the 9.6% increase is above the average of the most recent five years, which is 7.7%.

Non-tax revenue in 2012 is expected to record 59.7 trillion won (4.5% of GDP), which is 3.7 trillion won higher than the 2011 outlook of 57.5 trillion won. But the rate of increase is expected to fall

Table 11 _ 2011-2012 Non-Tax Revenue & Capital Revenues Forecast

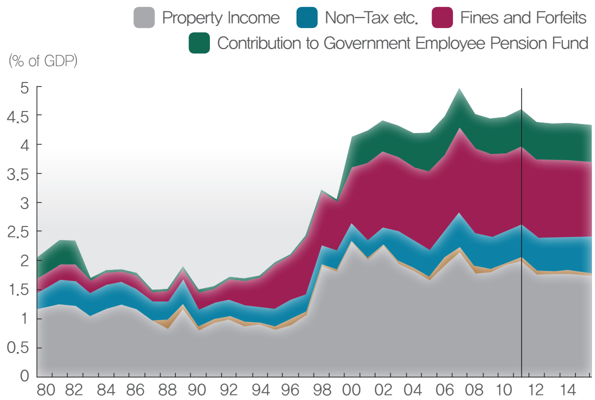
(unit: trillion won, %)

	2010	2011		2012	
		Budget	NABO's Forecast	Budget	NABO's Forecast
Ⅰ. Central Government Non-Tax Revenue	52.5	53.8	57.5	58.9	59.7
1. Property Income	23.2	23.0	26.0	25.3	26.1
1.1 Dividend and Profits[1]	0.4	0.5	0.8	0.9	0.8
1.2 Other Property Income	22.8	22.6	25.2	24.5	25.4
Rentals of Government estates	0.1	0.2	0.1	0.2	0.1
Surplus of Bank of Korea	1.1	0.0	2.0	1.4	1.4
Interest	21.6	22.4	23.0	22.9	23.8
2. Fees, Charges and Nonindustrial Sales	6.3	6.8	6.9	7.4	7.5
3. Fines and Forfeits	15.7	16.4	16.7	17.6	17.7
4. Contribution to Government Employee Pension Fund	7.2	7.6	8.0	8.6	8.5
Ⅱ. Central Government Capital Revenues	2.4	3.7	3.6	5.0	4.4
Ⅲ. Repayment of Lending	25.0	25.6	25.5	27.4	26.0
Ⅳ. Total Revenue of Public Enterprises	6.5	6.0	6.8	6.4	6.4

Note: 1) Dividend and Profits Excludes Surplus of B.O.K (Surplus of B.O.K is classified into 1.2 other property income henceforth) down to 3.9% from 9.6% in 2011. This is because revenue from the surplus fund of the bank of Korea is expected to fall (−0.6 trillion won) while the growth rate for interest receipts is expected to decline to 3.3% from 6.9% in 2011.

2012 Capital gain and lending repayment has been adjusted from the government's budget. According to the administration's budget, capital gain is expected to increase by 1.38 trillion won to reach 5.0 trillion won. Nonetheless, NABO projects a value that is 0.6 trillion one lower (4.4 trillion won) due to the fact that sales of government assets collected 91% at best in the 2007–2010 period and the fact that next year's real estate market will not perform as well. On the other hand, budget for lending repayment for 2012 reflects the sales of Incheon International Airport, Industrial Bank of Korea, the Korea and Development Bank by increasing the 2011 value of 25.6% up to 27.4 trillion won (7%). However, NABO projects that revenue from lending repayment to be 26.0 trillion won, which is 1.4 trillion won less than that from the administration because the privatization of public enterprises, which account for 1.4 trillion won of government assets up for sale at 2.2 trillion won total, have been delayed for several years and the fact that the forecast for the stock market is not favorable.

Figure 30 _ Trend & Outlook



Note: Forecasted Values, Right to the Vertical Line

2. 2011–2015 Medium-Term Outlook

Non-tax revenue for the central government is expected to increase 5.2% on an annual average

Table 12 _ 2011~2015 Non-Tax Revenue & Capital Gain

(unit: trillion won, %)

	2011	2012	2013	2014	2015	Projected Average Annual Growth Rate
Ⅰ. Central Government Non-tax Revenue	57.5	59.7	61.9	66.3	70.4	5.2
(Ratio to GDP)	(4.6)	(4.5)	(4.4)	(4.4)	(4.3)	
1. Property Income	26.0	26.1	26.2	28.1	29.7	3.4
1.1 Dividend and Profits[1]	0.8	0.8	0.8	0.8	0.8	1.3
1.2 Other Property Income	25.2	25.4	25.4	27.3	28.9	3.5
Rentals of Government Estates	0.1	0.1	0.2	0.2	0.2	2.3
Surplus of Bank of Korea	2.0	1.4	0.0	0.0	0.0	–
Interest	23.0	23.8	25.2	27.2	28.7	5.7
2. Fees, Charges and Nonindustrial Sales	6.9	7.5	8.1	8.8	9.5	8.4
3. Fines and Forfeits	16.7	17.7	18.7	19.9	21.1	6.0
4. Contribution to Government Employee Pension Fund	8.0	8.5	9.0	9.5	10.1	6.0
Ⅱ. Central Government Capital Revenues	3.6	4.4	4.8	4.0	4.3	4.1
Ⅲ. Repayment of Lending	25.5	26.0	26.7	27.2	28.1	2.5
Ⅳ. Total Revenue of Public Enterprises	6.8	6.4	6.8	7.2	7.7	3.3
Total	93.4	96.5	100.2	104.7	110.5	4.3

Note: 1) Dividend and Profits Excludes Surplus of B.O.K (Surplus of B.O.K is classified into 1.2 other property income henceforth) from 57.5 trillion won in 2011 to 70.4 trillion won in 2015. The 5.2% increase rate is slower than the 7.7% of the past five years, and this decrease in the value is attributed to the reduction of revenue from interest, which accounts for most of the non-tax revenue. The ratio between non-tax revenue to the nominal GDP is expected to fall 0.1%p in 2011 from 4.6% down to 4.3% in 2015.

Capital gains the central government is estimated to be 3.6 trillion won in 2011 but it is expected to increase up to 4.8 trillion won in 2012 and 2013 with the push from sales of government assets in Innovative City construction. However, the value is expected to stabilize at around 3.9-4.2 trillion won after 2014. Lending repayment is also expected to display an annual average of 3% increase from 25.5 trillion won in 2011 to 28.1 trillion won in 2014, and the total revenue of public enterprises is expected to grow at a rate similar to the growth rate of nominal GDP.

◆ Need for Expanded Disclosure of Information on Non-Tax Revenue Statistics

According to the administation's National Fiscal Management Plan, non-tax revenue totaled 138.2 trillion won out of 344.1 trillion won in total revenue, which amounts to 40%. The government plans to achieve fiscal balance 2013, and a considerable amount of finance for the plan comes from privatization of public enterprises. Despite the weight of non-tax revenue in the total revenue, hindering factors such as limitations on access to data have been forcing the National Assembly's review of revenue to focus on national tax revenue only.

The 「National Fiscal Management Plan」 does not report any details on the non-tax revenue for the next five years other than the total amount on the budget. Also, the underlying method of extraction for the total amount is unclear. For example, 「2011-2015 National Fiscal Management Plan」 shows revenue from sales of government shares as 2.4 trillion won in 2012, 10.0 trillion won in 2013, and 7.3 trillion won in 2014 without revealing the basis or data used for the projection. Consequently, there are limitations to the National Assembly's review of the validity of the projection. Moreover, only the statistics on the revenue bill, not on settled account, is revealed for total revenue, which makes it impossible to make comparisons between the budget plans and its results.

Accomplishing the goal of balancing the budget requires an accurate analysis of all aspects of revenue, not just the revenue from national tax. For a more comprehensive review of the budget by the National Assembly, the range of fiscal statistics provided to the National Assembly must be broadened while the government needs to disclose its method of projections.

Table _ Medium-Term Revenue Outlook

(unit: tril.won, %.)

	2011	2012	2013	2014	2015
Total Revenues	314.3	344.1	375.7	395.8	415.3
Tax Revenue (Share of Total Revenues)	187.6 59.7	205.9 59.8	224.2 59.7	242.6 61.3	262.3 63.2
Non-Tax Revenue (Share of Total Revenues)	126.7 40.3	138.2 40.2	151.5 40.3	153.2 38.7	153.0 36.8

Source: Ministry of Strategy and Finance, 『2011~2015 National Fiscal Management Plan』, 2011.

V. Comparison with the Administration

The difference between projections by NABO and the administration, which are 3.6 trillion won for 2011 and 0.8 trillion won for 2012, are relatively small but the difference soars up to 12 trillion won in 2013. The sudden jump in the difference is due to the fact that the administration is optimistic about the elasticity of national tax and the growth rate of GDP and the fact that sales of government assets are heavily concentrated in 2013.

1. 2011 Outlook

NABO expects 324.7 trillion won for the total revenue for 2011, which is 3.1 trillion won higher than that of the administration's projection of 321.6 trillion won. Total revenue is divided into national tax revenue and non-tax revenue, and the difference between the projections by NABO and the administration are larger in national tax than in non-tax.

NABO expects 192.3 trillion won for national tax while the administration expects 192.8 trillion won, yielding 0.6 trillion won difference. The difference is small since NABO and the administration both used the performance of the first half of 2011 when making the projections.

As for the non-tax revenue, NABO expects 132.4 trillion won, while the administration expects 128.8 trillion won, 3.6 trillion won higher than that from NABO. There is a much larger difference between the projections for non-tax revenue because the government did not announce the most recent forecast that reflects the performance in the first half of the year. Hence some part of the difference comes from a time gap between NABO's and the administration's forecast. More specifically, NABO expects a value 1.5 trillion won higher for social security contribution in light of the improvements in employment and wages in the first half of 2011 while expects a value 1.6 trillion higher than the budget for non-tax revenue, including interest receipts, with the help from the good economy circumstances and the increase in the profit from the management of funds.

2. 2012 Outlook

NABO expects the total revenue to be 343.3 trillion won in 2012, which is 0.84 trillion won lower than the administration's projection of 344.1 trillion won.

Projection for each tax item in national tax differs from each other in small amounts, but the

Table 13 _ 2011 Total Revenues Forecast: NABO and the Admin's

(unit: tril.won, %)

	NABO (A)	Admin (B)	Difference (A-B)	to NABO's Forecast (A-B)/(B)
Total Revenue(A+B)	324.7	321.6	3.07	0.96
(to GDP)	26.0	25.3	-	-
A. National Tax	192.3	192.8	-0.57	-0.29
(to GDP)	15.4	15.2	-	-
B. Non-Tax&Capital Gain	132.4	128.8	3.64	2.83
(to GDP)	10.6	10.1	-	-

Note: The Administration's 2011 Figure Is Reconstrucled by NABO; National tax revenue and surplus from B.O.K in the total revenue budget(2011.1) is replaced with the most recent data(2011.9)

Table 14 _ 2012 Total Revenues Forecast: NABO and the Admin's

(unit: tril.won, %)

	NABO (A)	Admin (B)	Difference (A-B)	to NABO's Forecast (A-B)/(B)
Total Revenue(A+B)	343.3	344.1	-0.84	-0.24
(to GDP)	25.7	25.2	-	-
A. National Tax	205.5	205.9	-0.47	-0.23
(to GDP)	15.4	15.1	-	-
B. Non-Tax&Capital Gain	137.8	138.2	-0.36	-0.26
(to GDP)	10.3	10.1	-	-

difference is negligible in overall (NABO's projection is 0.47 trillion won lower). Broken down into each item, NABO expects a value 1.3 trillion won lower in income tax, 0.2 trillion won lower in V.A.T., 0.4 trillion won lower in Traffic-Energy-Environment tax while projecting a value 0.7 trillion won higher in Corporate tax and 0.8 trillion won higher in customs duties. These small differences end up cancelling each other to yield a negligible difference in overall.

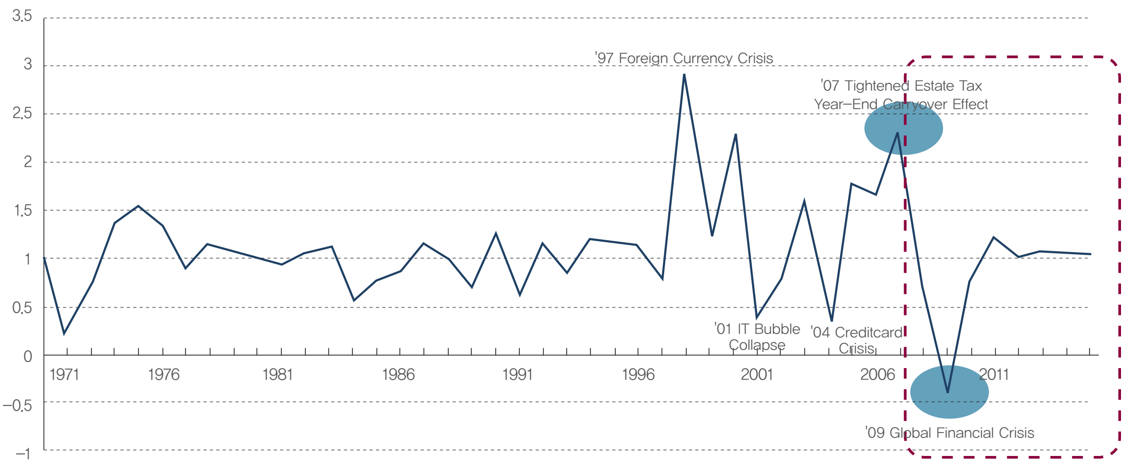
For non-tax revenue, NABO expected 137.8 trillion won which is 0.4 trillion won lower than the administration's projection of 138.2 trillion won. NABO expects social security contribution to be 0.8 trillion won higher than the administration's projection based on the difference in the projection for the growth rate of wages while expecting capital gains and loan repayment to be 2 trillion won lower

◆ Projection for Tax Revenue in 2012 and the Elasticity of National Tax

Elasticity of national tax is used as an indicator to show how fast national tax revenue is growing in comparison to the growth rate of the nominal GDP. The value for national tax elasticity for the past 40 years is 1.03 on average. The elasticity has been kept relatively low around 1.0 in the 70s and 80s due to the tax exemptions and preferences given out to investments and exports to induce capital accumulation, but it has increased in the 90s as the tax base broadened and showed rapid changes in the 00's due to fluctuations in the economy.

The national tax elasticity temporarily surged to 2.33 in 2007 as a result of the tightened real estate tax policy, but the value has fallen down to 0.69 in 2008 with the tax cuts after the global financial crisis only to swoop down to -0.44 in 2009. With a swift recovery from the crisis in 2010, the elasticity came back up to 0.79 with the nominal growth rate of 10.1% and the rate of increase for national tax revenue at 8.0%.

Figure _ Trends in Elasticity of National Tax Revenue



1 '09: Nominal GDP growth: 3.8%, National tax increase: -1.7%
'98: Nominal GDP growth: -1.0%, National tax increase: -3.0%

2 Due to some tax items that are influenced by the preceding year's performance, tax revenue dynamics tends to lag the business cycle

The economic recovery in 2010 had a positive effect on tax revenue in 2011, and the rate of increase for national tax in 2011 is expected to be higher than the growth rate of nominal GDP with an increased value for elasticity at 1.24. When the carryover from 2011 to 2012 is taken into the tax revenue for 2011, the growth rate for national tax goes up to 9.6%, elasticity becomes 1.44. And this phenomenon reflects the sudden fall in 2011 from the high rate of growth in 2010. The elasticity of national tax revenue for 2012 is 1.02, which falls down to 0.64 when the carryover from 2011 is taken out of consideration (growth rate of national tax revenue: 4.3%). Retardation in the economy in the second half of 2011 and the large drop from the high rate of tax revenue are lowering the growth rate of national tax revenue and the elasticity of the tax revenue for 2012. After several years of stabilization after the global financial crisis, the elasticity of national tax revenue is expected to be marked at slightly above 1.00, which is the long-term average, in 2013 as the growth rate of GDP also stabilizes.

than the government's conjecture. Although the rate of increase for interest receipts declines from the last year's value(6.9%→3.3%), the actual amount is expected to be larger than the administration's projection.

3. 2011-2015 Medium-Term Outlook

Although NABO projected that the total revenue was going to increase from 324.7 trillion won in 2011 to 411.8 trillion won in 2015 on an annual average of 6.1%, the administration expected an increase of 6.6% on average with the total revenue increasing from 321.6 trillion won to 415.3 trillion won in the same period. The gap between the projections of the two entities do not differ greatly at 1-3 trillion won for the 2011-2012 period, but in 2013, the gap jumps to 12 trillion won with a decline afterwards. The administration's projection for total revenue increases steadily at 22.5 trillion won annually with a sudden leap in 2013 to 32 trillion only to cut back down to 20 trillion won increase for the 2014-2015 period. On the other hand, NABO projects that annual increase in total revenue will steadily rise from 18.6 trillion won in 2012 to 24.8 trillion won in 2015.

NABO expected the mid-term rate of increase for national tax revenue to be 6.9%, which is 1.1%p lower than the projection of the administration. The gap between the projections by the two organizations widens with time; the gap is 0.4 trillion won in 2012, 4.6 trillion won in 2013, 7.2 trillion won in 2014, and 10.8 trillion won in 2015. The reason for the widening gap is due mainly to the difference in perspective on macro economics and the elasticity of national tax. First of all, the administration's outlook on the growth rate

Table 15 _ Decomposition of National Tax Revenues Forecast Gap: NABO and the Admin.

(unit: tril.won, %)

	2011	2012	2013	2014	2015
Admin	192.8	205.9	224.2	242.6	262.3
(Increase Rate)	8.5	6.8	8.9	8.2	8.1
(Nominal GDP Growth)	8.2	7.6	7.6	7.3	7.1
(Tax Elasticity)	1.0	0.9	1.2	1.1	1.1
NABO	192.3	205.5	219.6	235.4	251.5
(Increase Rate)	8.2	6.9	6.9	7.2	6.8
(Nominal GDP Growth)	6.6	6.7	6.5	6.9	6.6
(Tax Elasticity)	1.2	1.0	1.1	1.0	1.0
Gap of Tax Revenue Increase Rate	0.3	-0.1	2.0	1.0	1.3
Attributed to GDP Forecast Gap	1.6	0.8	1.3	0.4	0.6
Attributed to Tax Elasticity Gap	-1.3	-0.9	0.7	0.6	0.7

of nominal GDP is a healthy 7.4% on an annual average while that from NABO is around high 6% with an average increase rate at 6.7%. As for the national tax elasticity, the administration's outlook on tax revenue shows conservatism up to 2012 and then suddenly turns into optimism with the value exceeding 1.1 from 2013 and on. Contrarily, NABO expects a stable value around 1.04–1.06 for the elasticity.

Additionally, the administration expects that non-tax revenue will increase by 8 trillion won annually for both 2011 and 2012 but by 13 trillion won in 2013, and then only to increase by 2 trillion won in 2014 and decrease by 0.2 trillion won in 2015. Such surge and crash are attributed to the consolidated non-tax gain for 2013 and necessary adjustments in the following years. The administration aims to balance its finance early by 2013, but NABO predicts that the government's plan to sell its assets depend heavily on the market conditions and that it would be difficult for total revenue to significantly increase in 2013. NABO's projection of the increase in non-tax revenue at 10.6 trillion won is relatively large, but the projections for the subsequent years (2012–2015) are 5.4, 6.3, 7.8, 8.8 trillion won, which are relatively steady.

Table 16 _ Mid-Term Total Revenues Forecast: NABO vs the Admin

(unit: tril.won, %)

		2011	2012	2013	2014	2015	Avg.
Total Revenue	NABO(A)	324.7	343.3	363.7	386.9	411.8	6.1
	Admin(B)	321.6	344.1	375.7	395.8	415.3	6.6
	Difference(B-A)	-3.1	0.8	12.0	8.9	3.5	
National Tax	NABO(A)	192.3	205.5	219.6	235.4	251.5	6.9
	Admin(B)	192.8	205.9	224.2	242.6	262.3	8.0
	Difference(B-A)	0.5	0.4	4.6	7.2	10.8	
Non-Tax & Capital Gain	NABO(A)	132.4	137.8	144.1	151.5	160.3	4.9
	Admin(B)	128.8	138.2	151.5	153.2	153.0	4.4
	Difference(B-A)	-3.6	0.4	7.4	1.7	7.3	

Note: The Administration's 2011 figure is reconstrucled by NABO: National tax revenue and surplus from B.O.K in the total revenue budget(2011.1) is replaced with the most recent data(2011.9)

◆ Assessment of Feasibility on the Administration's Plan to Balance its Finance Early

In the 「2011–2015 National Fiscal Management Plan」, the administration projects total revenue for 2013 to be 375.5 trillion won while projecting 341.9 trillion won for total expenditure, and concludes that an early balance of finance is feasible with a small amount of surplus. Nonetheless the assessment by NABO shows otherwise.

When national tax revenue and surplus from the Bank of Korea in the 2011 budget is replaced with the most recent data, the projected total revenue of 314.4 trillion won by the administration increases to 321.6 trillion won, which is a 22.2 trillion won increase from the preceding year. According to the 「2011–2015 National Fiscal Management Plan」, the increase for 2012 is similar at

22.5 trillion won. However, the increase suddenly leaps to 31.6 trillion won in 2013 with a gradual decrease back down to 20.1 trillion won in 2014 and 19.5 trillion won in 2015. In other words, the increase in total revenue for 2013 is extraordinarily large. Reasons for the exceptionally large increase can be categorized into national tax revenue and non-tax revenue.

The administration forecasts that national tax will soar by 18.3 trillion won in 2013 after increasing by 13.1 trillion won in 2012 from 192.8 trillion won (before adjustment) in 2011. After the surge in 2013, the administration conjectured that national tax will maintain its high increasing trend in 2014 (18.4 trillion won) and in 2015 (19.7 trillion won). Considering that the administration's forecast of the nominal growth rate of GDP remains the same at 7.6% in 2012 and 2013 only to fall in 2014 and 2015 (7.3% and 7.1% respectively), the large increase in the projection for national tax in 2013 is overly optimistic.

The administration also expects non-tax revenue to increase by 9.4 trillion won in 2012 from 128.8 trillion won in 2011 (sum of the value on 2011 budget plan and the updated surplus from the Bank of Korea), which surges by 13.3 trillion won in 2013. This surge, again, retards to 1.7 trillion won increase in 2014 and 0.2 trillion won decrease in 2015. The government's sales of assets are concentrated in 2013 with its plan to privatize the Industrial Bank of Korea (6.5 trillion won), Korea Development Bank (2.6 trillion won), and the Incheon Airport (0.9 trillion won).

Figure _ Admin's Total Revenue Growth Forecast(Plan)

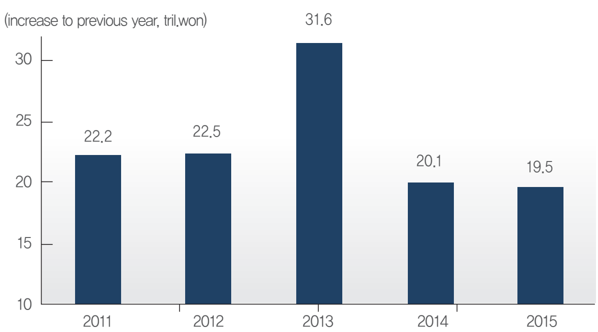
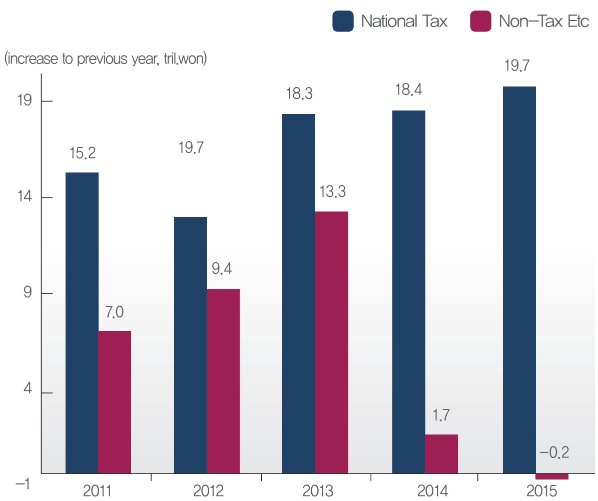


Figure _ Admin's National Tax and Non-Tax Revenue Forecast



In conclusion, the administration's plan to balance its finance early by 2013 is based on the overly optimistic forecast of national tax revenue and concentration of sales of government shares in 2013. However, it seems unlikely that national tax revenue will increase by a large amount, given the government's projection that the nominal growth rate of GDP would not dramatically grow in 2013. Additionally, sale of the Industrial Bank of Korea has been taken into the budget plan since 2006, but it never materialized. Differently put, feasibility of such sales is low. Therefore, the administration's plan to balance its finance in 2013 is more of an overly zealous goal than a plan.

Expenditure

Ⅰ. 2012 Total Expenditure and Functional Allocation

The growth rate of total expenditure in 2012 budget proposal is lower than the growth rate of nominal GDP. The expenditure to GDP ratio in all area including health, welfare and labor practically fall from the previous year.

1. Comparison with the 2012 Budget Proposal

NABO forecasted that total expenditure for 2012 would increase by 16.8 trillion won (5.4%) from this year's budget to reach 325.9 trillion won.

In its outlook of total expenditure, NABO has employed the method of summing outlook for mandatory and discretionary expenditure. Mandatory expenditures such as interest on loan and minimum living security benefits, whose amount and obligation are mandated by law, are projected using the outlook on the macro economy and tax revenue. Discretionary expenditure has been projected under the hypothesis that the rate rises at the growth rate of CPI so that the real value of discretionary expenditure stays constant. Under the outlook, mandatory expenditure has been estimated to be 137.5 trillion won while discretionary expenditure has been expected to be 171.6 trillion won in 2012.

Total expenditure in the 2012 budget proposal totaled 326.1 trillion won, which is similar to the forecasted value from NABO(0.2 trillion won difference). The projected value for total expenditure is a 17.0 trillion won(5.5%) increase from this year's budget, which is 3.9% lower than the rate of increase for total revenue (9.4%). The administration manifested its intention to mange total expenditure at 2~3%p lower than the rate of increase for total revenue in the 2011 budget plan, and it deserves positive assessments for keeping faithful to its goal.

2. Analysis on the Allocation and Major Expenditure Areas

Functional Allocation

In the 2012 budget proposal, the items that have the high rates of increase than the growth(5.5%) of total government expenditure are the following 6 areas: education(9.5%), general public administration(8.0%), R&D(7.4%), health, welfare and labor(6.5%), public order and safety(5.8%), national defense(5.7%). The items with the lower rate of increase than the growth of total government expenditure are the following 6: SOC(-7.4%), industry, small & medium enterprise, energy(0%), agriculture, forestry, fisheries and food(2.8%), culture, sports, and tourism(4.8%), environment(5.2%), reunification and diplomacy(5.4%) .The growth rate of total expenditure in 2012 budget proposal is lower than the growth rate of nominal GDP. The expenditure to GDP ratio in all area including health, welfare and labor reduce practically from the previous year. Proportion to total expenditure in health, welfare and labor area increased from the preceding year while its ratio to GDP reduced when compared to the value from 2011 budget. Such declining trend is universal in all areas except education and general public administration, which experience an increase in the amount transferred to the local governments with expanding tax revenue.

In health, welfare and labor area, national pension displays a rate of increase higher than that of nominal GDP, which is 7.6%, but the increase in national pension is a mandatory expenditure required by law and therefore has little to do with the government's allocation of finances to reach its fiscal goals.

The administration has yet to provide an analysis to ascertain feasibility of continuing ongoing projects in the components that experience budget cuts and the ones that endure growth rates that are lower than the inflation rate. The government only provides explanations on major policies such as "tailored support" and "strengthening support for certain components" in the 2012 budget proposal descriptions but fails to sufficiently elaborate on the components that expect budget cuts. Education, which is expected to enjoy the high rate of increase, has expanded in high school education and early childhood, elementary and middle school education components with 1.2 trillion won support from the implementation of "tailored national scholarship program" while continuing education, vocational education area experienced 29% cut. Industry, small & medium enterprise and energy area only increased 8.7% in technological support, 0.8% in energy and resource development while industry stimulation, enhancement, trade and investment experienced 1.9% and 18.1% decrease respectively. As for SOC, railroad increased by 11.8% while shipping and ports, logistics, roads, aviation &

Table 17 _ Change from 2011 Budget in Health·Welfare·Labor Area

(unit: 100mil won, %)

	2011 Budget	2012 Budget Proposal	% Change of 2011 Budget
Minimum Living Securities	75,240	79,095	5.12
Public Pension	281,833	314,080	11.44
Childcare·Family·Women	28,759	30,072	4.57
Labor	126,180	127,900	1.36
Veterans	38,737	40,636	4.90
Housing	180,536	189,829	5.15
Old Age·Disabled People	57,641	59,885	3.89
Health	75,000	78,132	4.18
Total Expenditure	863,929	919,629	6.45

Source: Government of Korea, 「2011~2015 National Fiscal Management Plan」

Table 18 _ Functional Allocation in 2012 Budget Proposal

(unit: trill won, %)

Area	2011	2012		
	Budget (A)	Budget Proposal (B)	Change from 2011 Budget(B–A)	% Change from 2011 Budget
SOC	24.4	22.6	–1.8	–7.4
Industry·Small and Medium Firms·Energy	15.2	15.2	0.0	0.0
Agriculture·Forestry·Fisheries·Food	17.6	18.1	0.5	2.8
Health·Welfare·Labor	86.4	92	5.6	6.5
Education	41.2	45.1	3.9	9.5
Culture·Sports·Tourism	4.2	4.4	0.2	4.8
Environment	5.8	6.1	0.3	5.2
National Defence	31.4	33.2	1.8	5.7
Reunion·Diploma	3.7	3.9	0.2	5.4
Public Order·Safety	13.7	14.5	0.8	5.8
General Public Administration	52.4	56.6	4.2	8.0
Others	13.1	14.4	1.3	9.9
R&D	14.9	16	1.1	7.4
Total	309	326	17.0	5.5

Note: 1) Based on the general account.
2) 'Others' includes communication, science, technology, technology and emergency.
3) Total amount of R&D spending across in 16 areas of budget.
4) Numbers exclude inter–transaction and conservation

airport either decreased or increased slightly.

The main projects in the 2012 budget plan by the government are: 1. Budget for expansion of employment, 2. Budget for tailored welfare of the working and middle class, 3. Budget for investment on economic vitality and future. The aforementioned projects have been analyzed as follows:

First, according to the budget for expansion of employment, 0.5 trillion won of the 0.6 trillion won increased from the preceding year is expected to be spent on direct support for job search. But this budget is a temporary fund and is insufficient to establish the virtuous cycle of work-growth-welfare the government hopes to achieve. The direct support from the government is merely a temporary employment, and the satisfaction level in the work, work environment, and wages are low, which leads to a high rate of dropouts. The budget at hand is more appropriate for expanding domestic need by increasing the disposable income of the private sector.

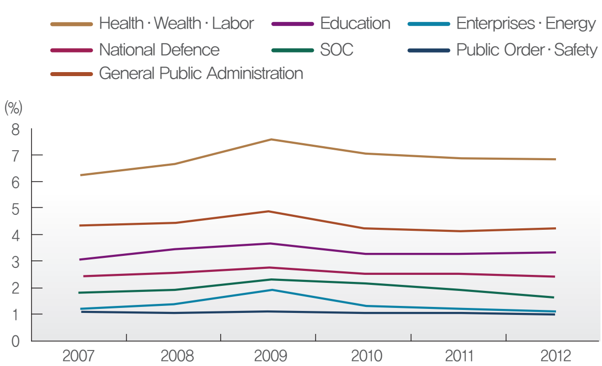
Second, budget for tailored welfare of the working and middle class has been analyzed. Expenditure on welfare is difficult to cut back on once it has been given a bump and consequently it is prudent to raise the budget with care. Nonetheless, the economically disadvantaged class in the blind spot needs to be constantly monitored. Third, budget for investment on economic vitality and future has been analyzed. Vitalization of the local economy can only be achieved through raising the local allocation tax and local educational financial grant.

The government's budget plan for 2012 and its allocation of finances do not include a measure to respond to the economic circumstances in the downward turn next year. The budget plan has strong ties to the government's aim to balance its finance by 2013 with allocation of finances on tightened stance. Since fiscal policy to boost the economy should execute in a timely, targeted, and temporary manner, the 2012 budget plan must include premeditated plans, considering the lag in the effect of fiscal policy.

◆ Recent Trend in Functional Allocation by Area

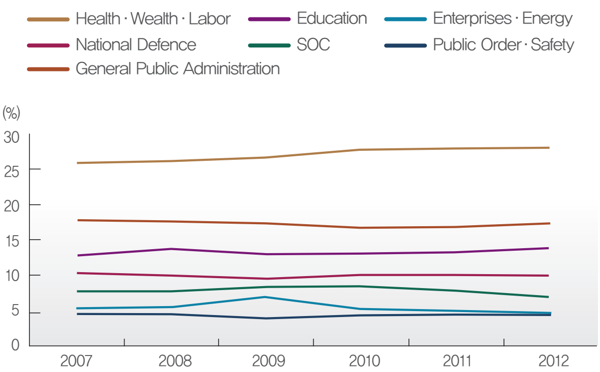
The trend in allocation of finances by area in six most recent years (2007-2012) has been analyzed with respect to its ratio to total expenditure and its ratio to GDP. First, in each area's ratio to total expenditure, recently, health, welfare and labor, R&D, Education and general public administration are increasing their weights in total expenditure. Health, welfare and labor and R&D have been continually increasing from 2007 to 2012 while education has maintained its upward trend with one exception in 2009 due to the global financial crisis. General public administration increased in both 2011 and 2012 at 0.4% from the preceding years.

Figure _ Trend in Funtional Expenditure (% of GDP)



On the contrary, SOC, industry, small & medium enterprise, energy area has decreased in its proportion to total expenditure recently. SOC area has displayed an increasing trend in 2008–2011 while decreased in 2011 and 2012. Industry, small & medium enterprise, energy area has also showed a downward trend in the 2011–2012 period.

Figure _ Trend in Funtional Expenditure (% of Total Expenditure)



Secondly, its ratio to GDP has exhibited a declining trend since 2009, when government spending was expanded to recover from the global financial crisis, in all areas with exceptions of reunification and diplomacy and R&D areas. This decrease is attributed to the reduction in the total expenditure to GDP. The administration has been maintaining total expenditure below the nominal growth rate from 2010 to 2012. Education, general public administration, and R&D increased 0.09%p, 0.05%p, and 0.01%p respectively in its ratio to GDP. The expansion in the general public administration area is attributed to the increase in national tax and its effect on the rise of local allocation tax and local education financial grant.

Direction of Expenditure for Employment Policies

One of the most salient features of next year's budget plan for employment is the establishment of "business fund for the younger generation". Policy's role, in addition to inducing the younger generation to start businesses and create new jobs, should provide an environment where the new businesses can compete fairly so that they may find stability.

Training for development of vocational abilities component should focus on improving the current on-going project rather than expanding the budget rapidly. The current project lacks specialization for different business types and needs to provide more opportunities for those who are at disadvantage such as people with low level of education, elderly age, temporary employees, employees at small-and medium-sized firms, etc.

Nation-sponsored job creation programs needs to

Table 19 _ Allocation in Nation-Sponsored Job Programs

(unit: 100 mil won)

	2011 Budget	2012 Budget Proposal	Change	(%)
① Direct Jobs	23,651	25,026	1,375	5.8
② Training for Development of Vocational Abilities	11,465	11,501	36	0.3
③ Employment Service	3,792	3,701	-91	-2.4
④ Supporting Fund for Employment	9,369	11,594	2,225	23.7
⑤ Supporting for Starting Business	1,937	4,096	2,159	111.5
⑥ Income Support Benefit During Unemployment	39,360	38,612	-748	-1.9
Total (Excluding for ⑥)	89,574 (50,214)	94,530 (55,918)	4,956 (5,704)	5.5 (11.4)

Source: Ministry of Employment and Labor

Table 20 _ 2012 'Hope for People' Budget

(unit: 100 mil won)

	2011 Budget	2012 Budget Proposal	Change	(%)
Total	208,246	252,007	43,761	21.0
① Childcare	4,784	13,799	9,015	188.5
② Education	1,349	16,578	15,229	1,128.8
③ Culture	381	573	192	50.3
④ Housing · Health	152,366	162,507	10,142	6.7
⑤ Low Income Group	296	2,700	2,404	811.5
⑥ Disabled	1,242	3,696	2,454	197.5
⑦ Elderly	6,276	6,798	522	8.3
⑧ Multicultural Families	468	524	56	12.0
⑨ Farmers and Fishermen	3,782	4,358	575	15.2
⑩ Military Personnel · Conscripted Policemen	12,687	13,887	1,200	9.5
⑪ Veterans	24,615	26,587	1,972	8.0

Source: Ministry of Employment and Labor

establish a stronger connection between internships for the young generation and permanent employments and to improve the efficiency in the local governments' temporary employments such as public work programs.

"Hope for people" budget proposal, which is emphasized in the 2012 budget plan, has shown the largest increase in education due mainly to the inclusion of support for college tuitions. It should be noted that support for college tuitions must be accompanied by collegiate institutions' determination against raising their tuitions to exploit the governmental support and to improve their educational programs. The component with the second augmentation is the support for low income class. Considering the markedly high rate of poverty in the elder generation in comparison to advanced nations, lowering the supporter qualification standard for one who has to take care of a dependent would reduce the number of poor people in the blind spot.

In contrast, vocational training and support for employment, which are essential in improving the quality and productivity of human resources, for the economically disadvantaged have been marginally increased or reduced. Increase in the number of temporary jobs and voluntary retirements have placed greater importance on the importance of vocational training, but the disadvantaged class is receiving only a low level of vocational education. Therefore, more active responses are requested to provide efficient job trainings and services for employment.

Support for Small-and Medium-Sized Firms·Small Enterprises

2012 budget plan reflects the government's will to support the small-and medium-sized firms · small enterprises as a growth-friendly method in light of the global financial crisis. "Expansion on funds for small-and medium-sized firms and R&D", "Developing sales routes for products from small-and medium-sized firms", "More support to the vocational high schools", and "Implementation of 10,000 Nadeul stores" are considered policy measures that would help reduce the polarization between large corporations and small-and medium-sized firms and raise growth potentials of small-and medium-sized firms.

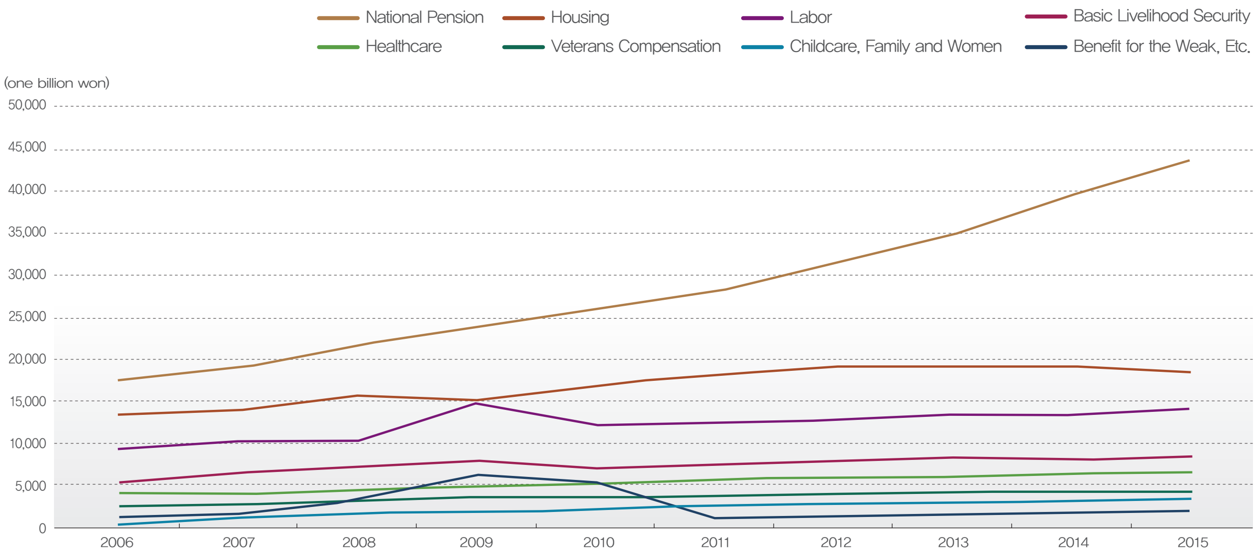
Should foregoing policy measures do not improve, various supports for small & medium enterprise and small enterprises could be placed under "budget for future preparation" to maintain the policy stance on expanding growth potentials of those businesses.

3. Analysis of Expenditure on Welfare

Welfare expenditure for 2011-2015 National Fiscal Management Plan

According to the 2011-2015 National Fiscal Management Plan, expenditure on health and welfare will increase by 5.8% on annual average. Besides national pension, of which the growth rate is expected to be 11.7% on annual average, other expenditures except for national pension are projected to grow at 2.5% annually, which is way below the growth rate of total expenditure (4.8%) or the inflation rate.

Figure 31 _ Size of the 2006~2015 Social Security Expenditure



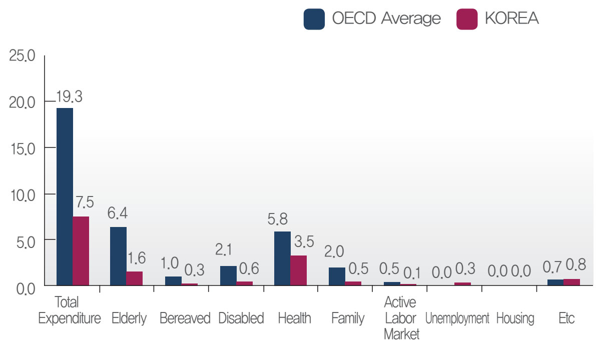
Note: The figure from 2006 to 2010 is closing account, that in 2011 budget, that in 2012 budget bill, from 2013 to 2015 the government plan.
Source: NABO, 「The Financial Statue of Social Welfare and the Policy Issue, Budget Issue Analysis」, Vol.35, 2010.9.
Government of Korea , 「2011~2015 Fiscal Management Plan」, 2011.

Trend in Welfare Expenditure

In large, expenditure on health, welfare and labor showed two prominent trends. First of all, to respond flexibly to the global financial crisis in 2009-2010, expenditure on support for the disadvantaged and on labor has been increased at a high rate. Secondly, in the expenditure plan up to 2015, national pension increases significantly.

In 2012 budget plan, national pension takes 34.2% of expenditure on welfare while housing takes up 20.6%, labor 13.9%, minimum living security 8.6%, healthcare 6.5%, veterans compensation and elderly·youth 4.4%, childcare·family·women 3.3%, health 1.7%, support for the disadvantaged 1.5%, general welfare 0.6%, food safety 0.3%.

Figure 32 _ 2007 Public Social Welfare Expenditure(% of GDP)



Source: OECD, OECD.Social Expenditure Statistic

International Comparison of Expenditure on Health and Welfare

As of 2008, expenditure of social welfare is around 10.95% of GDP, which is the second lowest among OECD members next to Mexico (10.8%). However, for the most recent five years, the growth rate was 10.8%, which was the third highest among OECD nations. On average, OECD nations spent 6.4% and 5.8% of GDP on the elderly and health respectively. In contrast, Korea only spent 1.6% and 3.5% of GDP on those sectors and is expected to expand expenditure on them.

Increase in Welfare Expenditure and Need for Long-Term Management

The reason Korea's expenditure on welfare exceeds that of the OECD average is the maturity of social insurance, change in population structure, and increase in the economic activities of women. Considering that welfare system, once it is in place,

Table 21 _ Long-Term Outlook of Health and Social Welfare Expenditure

		2011	2020	2030	2040	2050
% of GDP						
Mandatory Expenditure	National Pension	1.7	2.4	3.6	4.8	6.1
	Healthcare	0.4	0.7	0.8	1.0	1.1
	Basic Livelihood Security, Childcare, etc.	1.0	1.4	2.3	2.6	2.9
	Labor	0.6	0.7	0.8	0.9	1.2
	Veterans Compensation	0.2	0.2	0.1	0.1	0.1
	Sub-Total Expenditure	3.9	5.4	7.6	9.4	11.4
Discretionary Expenture		3.0	2.8	2.8	2.8	2.8
Total Expenditure		6.9	8.2	10.4	12.2	14.1
% of Total Expenditure						
Mandatory Expenditure	National Pension	6.9	9.2	12.6	15.8	18.5
	Healthcare	1.7	2.5	2.9	3.2	3.3
	Basic Livelihood Security, Childcare, etc.	3.9	5.5	8.0	8.7	8.8
	Labor	2.6	2.9	2.9	3.0	3.5
	Veterans Compensation	0.9	0.7	0.5	0.3	0.3
	Sub-total Expenditure	16.1	20.8	26.9	31.1	34.4
Discretionary Expenture		12.1	10.7	9.8	9.1	8.4
Total Expenditure		28.1	31.5	36.7	40.2	42.8

Source: NABO, *The Long-term Budget Outlook* (Forthcoming)

is difficult to cut back on expenditure, the fact that proportion of mandatory expenditure is growing in comparison to discretionary expenditure clouds sustainability of national finance. As such, long-term fiscal outlook is needed.

In the long-term outlook by NABO, expenditure of welfare is expected to increase from 6.9% of GDP in 2011 to 14.1% in 2050. Its proportion of total expenditure is expected to increase from 28.1% in 2011 to 42.8% in 2050. While the growth rate of total expenditure in the same period is expected to be 6.8%, the annual growth rate of welfare expenditure is expected to be the highest in 2011-2020 with 8.1% growth rate which is expected to slow down to 4.4% for 2041-2150.

National pension is expected to sustain growth from 1.7% of GDP in 2011 to 6.1% in 2050 due mainly to a rapidly aging population and hence the increase in full-rate old age pensioners.

The sector of minimum living, basic pension for the elderly and childcare is expected to increase from 1.0% of GDP in 2011 to 2.9% of GDP in 2050. Such increase is attributed to the fact that payments of pension is expected to increase 16.7% on annual average from 2011 to 2030 as the A value of 2011 increases from 5% to 10%. The A value, which is used to calculate pensions, is the average of the price-indexed average monthly income for the three years prior to pension payment. Contrarily, expenditure on labor is projected to incline slightly from 0.6% of GDP in 2011 to 1.2% of GDP in 2050 due to reduction in workforce.

Expenditure on health and welfare in 2050 is expected to be 14.1% of GDP, but the value is expected to be higher since NABO's projection excludes the expansion of benefit recipients, increase in payments due to policy modifications and the amount paid by local governments. Moreover, since expenditure on health and welfare is set aside as mandatory spending, the rigidity in fiscal management is expected to increase. According to the conjecture, proportion of mandatory expenditure of health and welfare is expected to increase from 57.1% in 2011 to 73.3% in 2030, reaching 80.4% in 2050.

To relieve the pressure from health and welfare, following efforts are necessary: a) Efficiency of health and welfare expenditure needs to be improved before larger budget is allocated. In the national health insurance, outpatients are concentrated in general hospitals, health care claims are unnecessarily increased due to fee-for-service, and proportion of medicine is twice that of OECD average. b) Burden of healthcare benefits should be distributed fairly between generations. As of 2010, there are 6.6 people in the workforce with age 64 or less for every person with age above 65, but the number is expected to drop to 1.4 in 2050. At the same time, burden of social insurances is expected to increase by a factor of 2.5 in 2050. Consequently, the gap between the amounts paid by generations need to be reduced. For example, healthcare fees could be taken from pension that exceeds a certain amount or setting aside healthcare fees before the population in the workforce age is necessary. c) A gradual increase in government aid should be considered with increasing expenditure on social insurances. As for the national health insurance, the mandatory expenditure takes up to 13.5% in welfare expenditure, which is to increase up to 16.3% in 2050. Nonetheless, long term care insurance on aging increases from 15.5% in 2011 to 16.8% in 2026 and comes back down to 12.9% in 2050. This is because government aid is calculated into the projection of long term care insurance on aging (20%), which triples in expenditure while total expenditure on national health insurance doubles. Long term care insurance on aging is still in the formative stage. When the baby boom generation turns 80 in 2030, should be the amount of government aid is expected to be higher than the projected value. d) By applying factors that expand expenditure other than the aging population, gradual expansion based on priority would be feasible with realistically fiscal projection and available finances.

Efficiency Improvement of In-Work Benefit Policy

Active policy on the labor market, which is a portion of social welfare expenditure, has been allocated 5.6 trillion won in 2012 budget plan, and the government's job creating program takes up 44.8% (2.5 trillion won), which is far above the OECD average in 2008, 10.7%.

However, government's job creating program does not contribute to fostering independence. According to "Economic activities of minimum living security beneficiaries," the number of beneficiaries went up 34.5% from 2001 to 2009 while the number of unemployed people went up 61.4% and the number of economically inactive people increased 50%. Also, rate of decrease in permanent employment turned out to be lower than the rate of decrease for population engaged in economic activities, which indicate that the government's job creating programs are not leading people to permanent jobs. Government's offer of jobs with simple labor started as a response to the economic recession, but the dropout rate of simple labor programs is high due to low satisfaction as a job, poor work environment and low wages.

Table 22 _ Trend of the Government Job Creation Program

(unit: billion won, %)

	2008	2009	2010	2011	2012
Active Labor Market Policy (A)	35,849	64,428	53,059	50,214	55,918
The Government Job Creating Program (B)	20,956	46,438	35,898	23,651	25,026
(B/A)	58.5	72.1	67.7	44.8	44.8

Note: The figure in 2011 is budget, and that in 2012 budget bill.
Source: Ministry of Employment of Labor, NABO, 「Main Points of FY 2010 Settlement of Account」, 2011. 7.

To remedy the situation, Following efforts are necessary. First of all, expansion of projects that connect counseling, training and employment is necessary to escape from the projects that encourage simple labor. Secondly, the government's job creating programs need more people who are devoted to the programs and equipped with professional knowledge on the their roles. This would lead the specialists to cooperate with corporations, schools and employment offices to create jobs that respond to the need of those looking for jobs. Third, beneficiaries need to be given incentives, such as raised rate of exemption on income tax, to remove themselves from the program's roll.

Efficiency Improvement on the Long-Term Care Insurance on Aging

Mandatory expenditure on long-term care insurance on aging, which takes up approximately 14% of its total revenue in 2010, consist of government aid, subsidy for people who receive medical benefits, and subsidy for the public official and the educational personnel. 2012 budget for long-term insurance on aging is 0.49 trillion won, which is increased 6% from the preceding year. Mandatory expenditure on long-term insurance on aging is expected to increase 9.3% on an annual average, and in light of Japan's precedent, it would be prudent to prepare efficient infrastructure before the large increase in expenditure on long-term care programs hit. One of the first problems to resolve is the separation of long-term care programs from medical services. Long-term care insurance is centered on caregiver service and cannot sufficiently treat the elderly medically. Secondly, due to an overflow of supply, excessive competitions between service providers and fraudulent claims are on the rise, which would lower the quality of services. Thirdly, under the current law that does not admit family caregiving, services for the elderly are likely to result in unjust activities such as exchange of caregiving among families.

To remedy the situation, the number of medical screenings given at the turning point of life needs to be increased while the preventive function of the doctor-in-charge program is improved. Establishing ties with long term care insurance and national health insurance minimizes the duplication of expenditure and improves efficiency of expenditure. Secondly, the proportion of medical professionals devoted to long-term care for the elderly needs to be increased while working conditions for those professionals are improved to secure the quality of service. Lastly, incentives to encourage the elderly to receive care at home should be offered. At the same time, encouraging at-home cares should not prevent caregivers from engaging in the labor market or cause undue burdens financially.

Table 23 _ Trend of Mandatory Expenditure of Long-Term Care Insurance for the Elderly

(unit: billion won)

	2008	2009	2010	2011	2012
Total Expenditure	1,271	2,770	3,876	4,594	4,869
Government Subsidy	1,181	2,044	3,323	3,883	4,152
Subsidy for People Who Receive Medical Benefit	0	504	208	296	306
Government Subsidy for the Public Official and the Educational Personnel	90	222	345	415	411

Note: Operation Expenses are not included, the figure in 2011 is budget, and that in 2012 budget bill.
Source: Ministry of Health and Welfare

II. 2011-2015 Outlook on Total Expenditure

Total expenditure for 2011–2015 is expected to increase 5.3% on annual average while the administration expects a value that is 0.5%p lower.

1. Total Expenditure

NABO's medium term forecast shows that total expenditure will be 309.1 trillion won in 2011, 325.9 trillion won in 2012, 343.3 trillion won in 2013, 361.8 trillion won in 2014, and 380.6 trillion won in 2015, a 5.3% increase on an annual average. Mandatory expenditure will be 137.5 trillion won in 2011, 148 trillion won in 2012, 160.1 trillion won in 2013, 173.1 trillion won in 2014, and 186.4 trillion won in 2015 to increase at an annual growth rate of 7.9% while discretionary expenditure will be 171.6 trillion won in 2011, 178 trillion won in 2012, 183.2 trillion won in 2013, 188.7 trillion won in 2014, 194.2 trillion won in 2015 to increase 3.2% on an annual average.

The ratio of total expenditure to GDP is expected to decrease 1.2% over the 2011–2015 period (24.7% of GDP in 2011, 24.4% in 2012, 24.2% in 2013, 23.8% in 2014, 23.5% in 2015).

Mandatory expenditure accounts for 11% of GDP in 2011, 11.1% in 2012, 11.3% in 2013, 11.4% in 2014, and 11.5% in 2015 to maintain the upward trend while discretionary expenditure accounts for 13.7% of GDP in 2011, 13.3% in 2012, 12.9% in 2013, 12.4% in 2014, and 12% in 2015. The reason the ratio of total expenditure to GDP decreases despite the rise in mandatory expenditure's proportion to GDP is the decrease of discretionary expenditure's proportion, which is larger in size. Discretionary expenditure is tuned to increase at the growth rate of consumer price index.

Such result becomes much clearer when the proportions of mandatory and discretionary expenditures in total expenditure are compared. Proportion of mandatory expenditure increases from 44.5% in 2011 to 49% in 2015, while discretionary expenditure falls 4.5%p.

When the forecasts by NABO and the

Figure 33 _ Forecast of Total Expenditure, Mandatory, Discretionary Expenditure Ratio to GDP

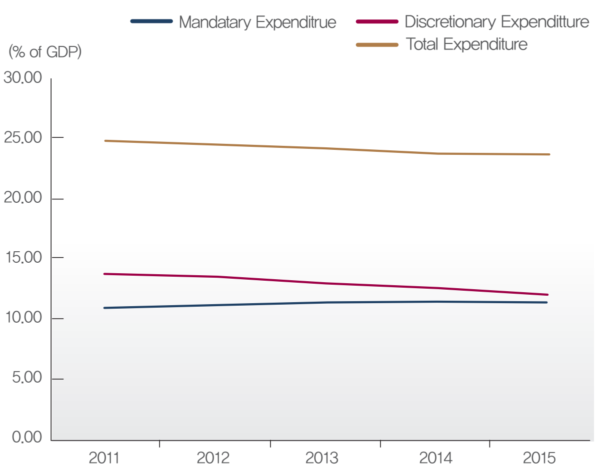
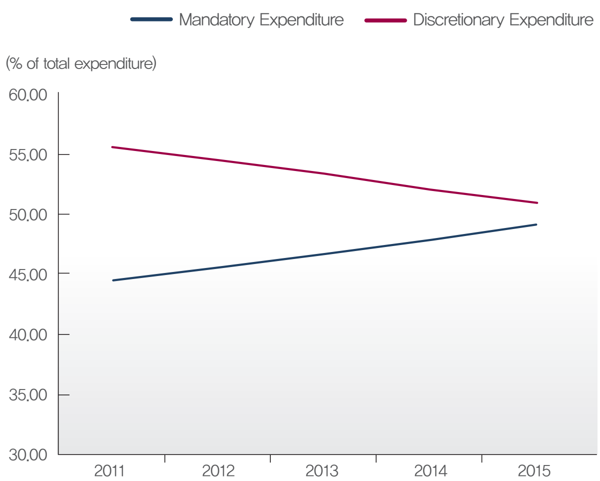


Figure 34 _ Forecast of Mandatory, Discretionary Expenditure



administration are compared, NABO's conjecture of the annual average rate of growth at 5.3% is 0.5%p higher than the administration's projection of 4.8%.

NABO expects total expenditure to be 325.9 trillion won in 2012, 343.4 trillion won in 2013, 361.8 trillion won in 2014, 380.6 trillion won in 2015 while the administration expects 326.1 trillion won in 2012, 341.9 trillion won in 2013, 357.5 trillion won in 2014, and 373.1 trillion won in 2015 to yield −0.19 trillion won, 1.43 trillion won, 4.32 trillion won, 7.49 trillion won difference in respective years.

2. Mandatory Expenditure

NABO's projection for mandatory expenditure can be divided into 6 categories: public assistance, social insurance, pension, expenses on interest, other mandatory expenditure, and transfer to other levels of national government. Pension category, which is expected to record the highest rate of increase at 10.2%. Expenses on interest is next at 8.4%, followed by social insurance at 7.8%, transfer to other levels of national government at 7.5%, public assistance at 5.3%, and other mandatory expenditure at 3.7%. Pension and expenses on interest display a high growth rate at above 7.9%.

Within the pension category, national pension would increase at the average annual growth rate of 12.8%, which is the highest. Teacher's pension and government employees pension also show high rates of increase at 10.1% and 9.1% respectively. The growth rate for basic old-age pension marks at 7.3% which is similar to the average growth rate of mandatory expenditure.

The ratio of national pension to GDP also showed the highest rate of growth, from 0.8% to 1%. This 0.2% increase is the most prominent, which means that national pension is largest in both the growth rate and size of expansion. Government employees pension increased 0.07%, while teachers pension increased 0.02%, and basic old-age pension increased 0.01%

As for the social insurance category, which showed an annual rate of increase at 7.9%,

Table 24 _ Total Expenditure Comparison

(unit: tril.won)

	2011	2012	2013	2014	2015
NABO Total Expenditure(A)	309.06	325.92	343.35	361.82	380.57
Administration Total Expenditure(B)	309.06	326.10	341.90	357.50	373.10
Diffrence(A-B)	0	−0.19	1.43	4.32	7.49

Figure 35 _ Forecast of Mandatory Expenditure by Sector(% of GDP)

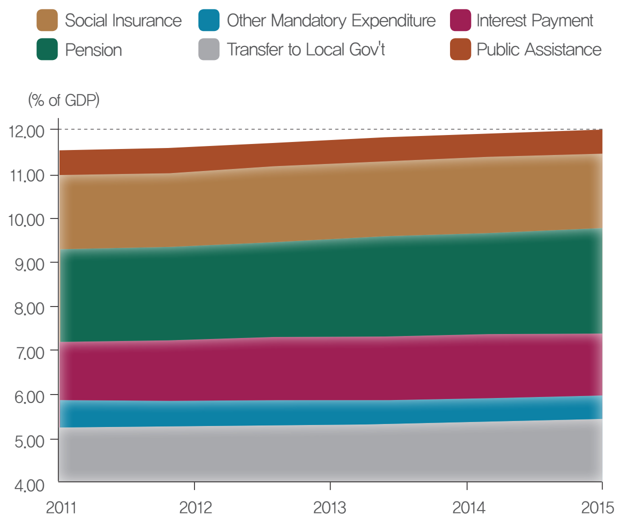
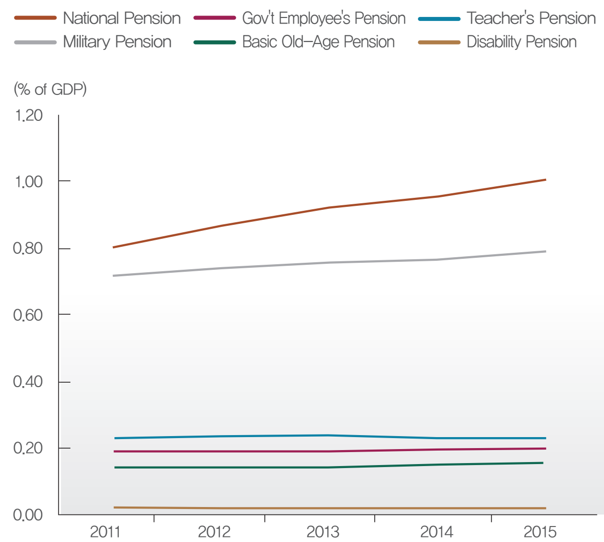


Figure 36 _ Forecast of Pensions (% of GDP)



similar to that of mandatory expenditure at 7.8%, government support for national healthcare is expected to increase by 10% on average for the same time period, making social insurance the second largest in mandatory expenditure. Long term care insurance for aging, government's share of health insurance premium of public officials and private school employees , employment are expected to increase by 9.9%, 8.7%, 8.1% respectively making the industrial accident compensation insurance the only one that fails to increase at a rate above the average growth rate of mandatory expenditure.

Nonetheless, the governmental support on national health insurance and employment showed a relatively high rate of 0.06%p and 0.02%p increase in their ratio to GDP while long-term care insurance for aging and government's share of health insurance premium of public officials and private school employees showed a negligible increase of 0.005% and 0.004% respectively. Industrial accident compensation insurance decreased 0.03% in its ratio to GDP.

Figure 37 _ Forecast of Social Insurance Expenditure by Item

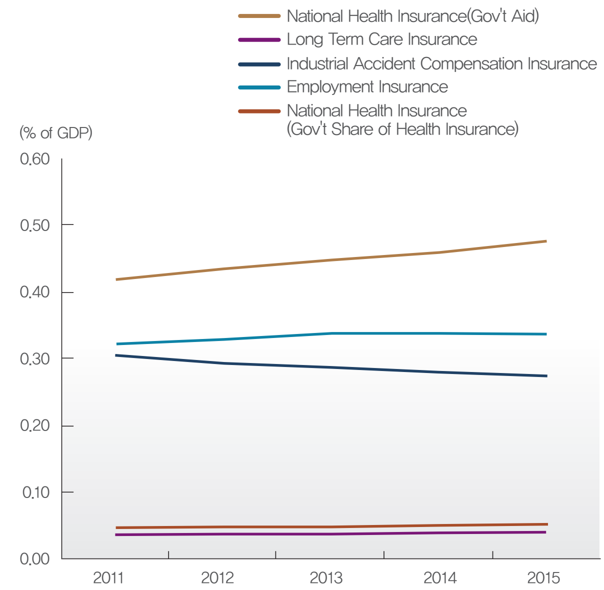
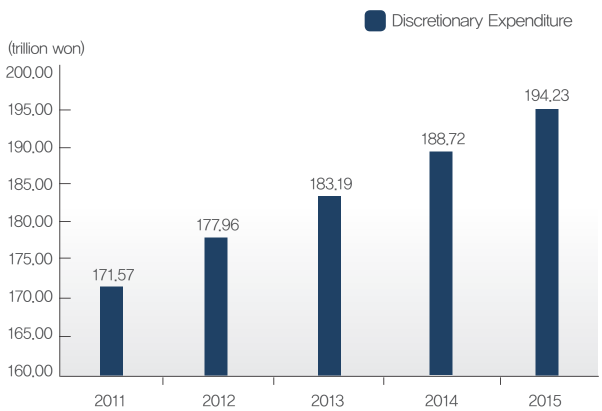


Figure 38 _ Forecast of Discretionary Expenditure



3. Discretionary Expenditure

Discretionary expenditure was projected by subtracting all mandatory expenditure from total expenditure in 2011 budget and applying the growth rate that equals the increase rate of consumer price index (NABO projection), which means that discretionary expenditure is tied at real value.

In contrast, since expenditures other than wages and pensionable pay which belong to social security contribution require independent estimation, they have been estimated individually.

As a result, discretionary expenditure is to increase by 3.2% annually for the 2011-2015 period with 171.6 trillion won in 2011, 178 trillion won in 2012, 183.2 trillion won in 2013, 188.7 trillion won in 2014, 194.2 trillion won in 2015.

Table 25 _ Total Expenditure Outlook

(unit: trillion won, %)

		2011	2012	2013	2014	2015	Annual Growth Rate 11~15
Public Assistance	National Basic Livelihood Security	6.86	7.08	7.52	7.98	8.45	5.33
Social Insurance	National Health Insurance(Government Aid)[1]	5.28	5.81	6.37	7.01	7.73	10.02
	National Health Insurance(Government's Share of Health Insurance Premium of Public Officials and Private School Employees)	0.57	0.62	0.67	0.73	0.79	8.68
	Long Term Care Insurance	0.46	0.51	0.56	0.61	0.67	9.90
	Employment Insurance	4.00	4.38	4.79	5.12	5.46	8.09
	Industrial Accident Compensation Insurance	3.82	3.93	4.09	4.27	4.44	3.88
	Sub Total	14.12	15.24	16.48	17.74	19.10	7.84
Pension	National Pension	10.03	11.51	13.02	14.57	16.25	12.80
	Military Pension	2.42	2.59	2.78	2.97	3.17	6.95
	Teacher's Pension	1.74	1.91	2.10	2.32	2.56	10.08
	Government Employee's Pension	9.00	9.88	10.76	11.73	12.75	9.11
	Basic Old-Age Pension	2.82	3.08	3.29	3.52	3.74	7.31
	Disability Pension	0.29	0.31	0.32	0.33	0.34	4.52
	Sub Total	26.31	29.28	32.28	35.43	38.81	10.21
Interest Payment	Interest Payments	16.45	17.97	20.05	21.52	22.74	8.42
Other Mandatory Expenditure	Patriots And Veterans Compansation	2.90	2.96	3.11	3.29	3.42	4.23
	Child Care Benefit	1.88	2.00	2.07	2.16	2.27	4.80
	Share Of The Defence Costs	0.73	0.76	0.78	0.80	0.83	3.02
	Direct Compansation Of Cultivating Rice	0.62	0.62	0.62	0.62	0.61	-0.23
	Charge Of Imported Grain	0.30	0.31	0.32	0.33	0.34	3.02
	Other	1.04	1.08	1.11	1.14	1.17	3.08
	Sub Total	7.46	7.72	8.00	8.34	8.63	3.70
Transfer to Local Government	Local Allocation Tax	30.59	32.69	35.23	38.23	41.35	7.83
	Local Educational Financial Grant	35.69	37.97	40.58	43.87	47.29	7.29
	Sub Total	66.27	70.66	75.81	82.10	88.63	7.54
Mandatory Expenditure		137.48	147.95	160.14	173.11	186.36	7.90
Discretionary Expenditure		171.57	177.96	183.19	188.72	194.23	3.15
Total Expenditure		309.06	325.91	343.33	361.82	380.59	5.34

Note: 1) Total amount of government aid from general account and National Health Promotion Fund aid

Table 26 _ Total Expenditure Outlook (% of GDP)

(unit: %)

		2011	2012	2013	2014	2015
Public Assistance	National Basic Livelihood Security	0.55	0.53	0.53	0.52	0.52
Social Insurance	National Health Insurance(Government Aid)[1]	0.42	0.44	0.45	0.46	0.48
	National Health Insurance(Government's Share of Health Insurance Premium of Public Officials and Private School Employees)	0.05	0.05	0.05	0.05	0.05
	Long Term Care Insurance	0.04	0.04	0.04	0.04	0.04
	Employment Insurance	0.32	0.33	0.34	0.34	0.34
	Industrial Accident Compensation Insurance	0.31	0.29	0.29	0.28	0.27
	Sub Total	1.68	1.67	1.69	1.69	1.70
Pension	National Pension	0.80	0.86	0.92	0.96	1.00
	Military Pension	0.19	0.19	0.20	0.20	0.20
	Teacher's Pension	0.14	0.14	0.15	0.15	0.16
	Government Employee's Pension	0.72	0.74	0.76	0.77	0.79
	Basic Old-Age Pension	0.23	0.23	0.23	0.23	0.23
	Disability Pension	0.02	0.02	0.02	0.02	0.02
	Sub Total	2.08	2.17	2.25	2.31	2.38
Interest Payment	Interest Payments	1.32	1.35	1.41	1.42	1.40
Other Mandatory Expenditure	Patriots And Veterans Compansation	0.23	0.22	0.22	0.22	0.21
	Child Care Benefit	0.15	0.15	0.15	0.14	0.14
	Share Of The Defence Costs	0.06	0.06	0.05	0.05	0.05
	Direct Compansation Of Cultivating Rice	0.05	0.05	0.04	0.04	0.04
	Charge Of Imported Grain	0.02	0.02	0.02	0.02	0.02
	Other	0.08	0.08	0.08	0.08	0.07
	Sub Total	0.60	0.58	0.56	0.55	0.53
Transfer to Local Government	Local Allocation Tax	2.45	2.45	2.48	2.52	2.55
	Local Educational Financial Grant	2.85	2.85	2.86	2.89	2.92
	Sub Total	5.30	5.30	5.33	5.40	5.47
Mandatory Expenditure		10.99	11.09	11.27	11.39	11.51
Discretionary Expenditure		13.72	13.34	12.89	12.42	11.99
Total Expenditure		24.71	24.42	24.16	23.81	23.50

Note: 1) Total amount of government aid from general account and National Health Promotion Fund aid

Fiscal Soundness

Ⅰ. Fiscal Balance

Consolidated fiscal balance is expected to be 15.6 trillion won in 2011 and to increase annually to reach 31.2 trillion won in 2015. Managed fiscal balance deficit is expected to decrease from 16.1 trillion won in 2011 to 6.7 trillion won in 2015.

NABO, based on its projections on total revenue and total expenditure, calculated the consolidated budget balance and the managed budget balance for next 5 years. Consolidated fiscal balance is expected to grow from 15.6 trillion won in 2011, 27.4 trillion won in 2012, 20.4 trillion won in 2013, 25.1 trillion won in 2014, and 31.2 trillion won in 2015, showing a sustained growth annually. While managed fiscal balance deficit is expected to diminish from 16.1 trillion won in 2011 to 15.0 trillion won in 2012, 14.4 trillion won in 2013, 11.1 trillion won in 2014, and 6.7 trillion won in 2015.

There is a 13.4 trillion won differences on consolidated fiscal balance and 14.6 trillion won difference on managed fiscal balance in NABO's projection and the 2011-2015 National Fiscal Management Plan for 2013 because the administration's outlook of macroeconomic variables such as the GDP growth rate is much more optimistic than that of NABO's and the administration planed a surge in non-tax revenue. Therefore, the administration expects 12 trillion won more on total revenue and 1.4 trillion won less on total expenditure than the NABO's forecast.

The administration's estimation of total revenue is based on 5% growth rate of GDP. Considering that Korea's average annual growth rate of GDP for 2004-2007, which is before the global financial crisis, was 4.7%, the administration's outlook of 7.2% increase in total revenue annually, indeed, seems optimistic.

NABO's projection for expenditure follows the baseline without changes in the mandatory expenditure and assumed that the discretionary expenditure will remain status quo by applying the growth rate of consumer price index as the growth rate of discretionary expenditure. In other words, the NABO's conjecture of expenditure is kept at minimum level, but it is still 0.5% higher than the number from the administration.

Table 27 _ Comparison between NABO's and the Administration's Fiscal Balance Outlooks

(unit: trillion won)

		2011	2012	2013	2014	2015
Consolidated Fiscal Balance	Administration(A)	5.3	18.0	33.8	38.3	42.2
	NABO(B)	15.6	17.4	20.4	25.1	31.2
	Difference(A-B)	-10.3	0.6	13.4	13.2	11.0
Managed Budget Balance	Administration(A)	-25.0	-14.3	0.2	3.1	5.3
	NABO(B)	-16.1	-15.0	-14.4	-11.1	-6.7
	Difference(A-B)	-8.9	0.7	14.6	14.2	12.0

Note: Administration's outlook of FY2011 is based on budget
Source: Administration, 'FY2011~2015 National Fiscal Management Plan', 2011, NABO

Ⅱ. Government Debt

Government debt is expected to increase an annual average rate of 5.2% from 419.3 trillion won in 2011 to 513.3trillion won in 2015, but the ratio of government debt to GDP will constantly decrease from 33.5% in 2011 to 31.7% in 2015.

Government debt is expected to be 419.3 trillion won in 2011, 445.1 trillion won in 2012, 470.9 trillion won in 2013, 494.0 trillion won in 2014, and 513.3 trillion won in 2015. It means that government debt rises at an annual average rate of 5.2%, while its ratio to GDP decreases from 33.5% in 2011 to reach 31.7% in 2015.

When the projection of government debt from NABO is compared with the administration' s plan, the administration' s plan exceeds the NABO' s projection by about 3 trillion won in 2011 and 2012, but the trend reverses from 2013 to 2015. At that time, NABO' s projection exceeds that the administration' s plan by 10.9 trillion won, 27.6 trillion won, and 41.7 trillion won in respective years. As the annual average is taken, NABO expects a 5.2% increase of government debt annually while the administration expects a 2.8% increase, yielding a difference of 2.4%p.

NABO expects the ratio of government debt to GDP to diminish from 33.5% in 2011 to 31.7% in 2015 while the administration expects the ratio to be 29.6% in 2014, which decreases down to 27.9% in 2015.

Figure 39 _ GDP % of Government Debt

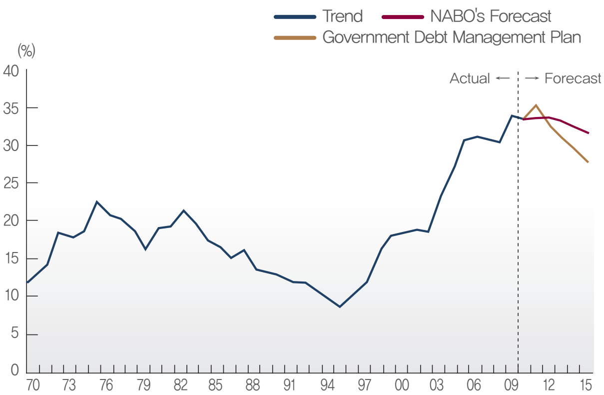


Table 28 _ FY 2011~2015 Comparison and Outlook of Government Debt

(unit: trillion won, %)

	2011	2012	2013	2014	2015	Annual Growth Rate
NABO's Forecast (A)	419.3	445.1	470.9	494.0	513.3	5.2
(% of GDP)	(33.5)	(33.4)	(33.1)	(32.5)	(31.7)	—
Administration's Plan (B)	422.7	448.2	460.0	466.4	471.6	2.8
(% of GDP)	(33.3)	(32.8)	(31.8)	(29.6)	(27.9)	—
Difference (A–B)	–3.4	–3.1	10.9	27.6	41.7	2.4%p

Note: 1. Administration's plan of FY2011 is the number of forecasting.
2. GDP % of Administration's plan is based on GDP forecast by Administration.
Source: Administration, 'FY2011~2015 Government Debt Management Plan', 2011.
NABO

◆ Comparison between NABO's and Administration's Outlooks

The NABO's forecast of the annual GDP growth rate for 2011-2015 at 3.8% is 0.7%p lower than the administration's medium-term outlook of 4.5%. Moreover, NABO expects an annual average of 6.1% increase for total revenue and 5.3% increase for total expenditure. Differently, the administration's plan reflects that increase in total revenue will be higher (6.6%) while its prediction of total expenditure is lower (4.8%) than that from NABO. As the result, the managed budget balance will improve each year, but NABO expects that it would be difficult to come out of the red by 2015 despite the government's aim to make the balanced budget by 2013. The ratio of government debt to GDP also will diminish each year, but NABO expects that it will do so at a more gradual rate than the administration's plan.

Figure _ Comparison between NABO's and Administration's Fiscal Outlook

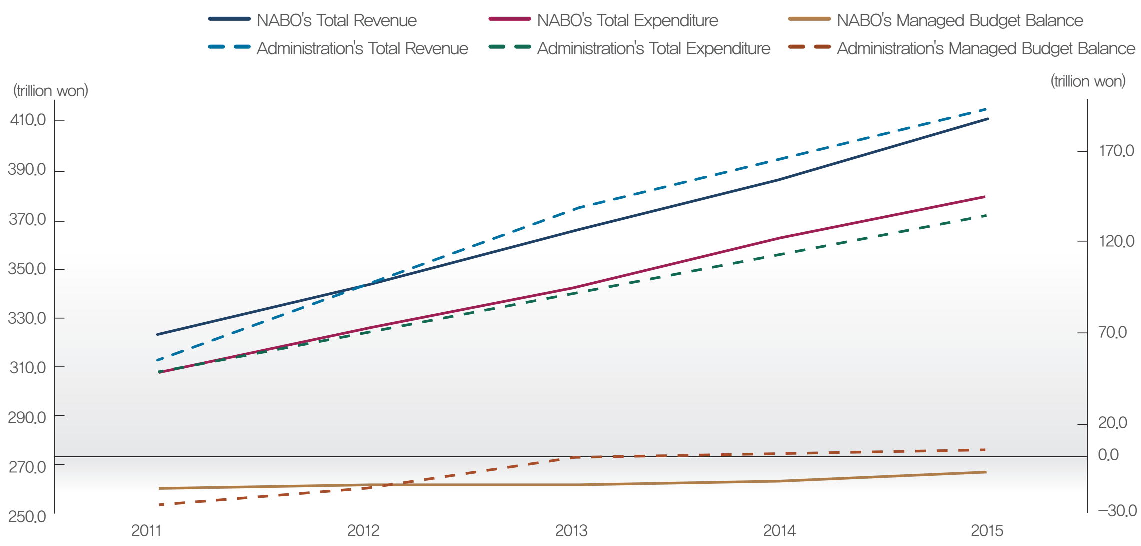


Table _ Comparison between NABO's and the Administration's Economic and Fiscal Outlook

(unit: trillion won, %)

		2011	2012	2013	2014	2015
Economic Growth Rate	NABO	3.8	3.5	3.9	4.2	4.0
	Administration	4.5	4.5	4.5	4.5	4.5
Total Revenue	NABO	324.7	343.3	363.7	386.9	411.8
	Administration	321.6	344.1	375.7	395.8	415.3
Total Expenditure	NABO	309.1	325.9	343.4	361.8	380.6
	Administration	309.1	326.1	341.9	357.5	373.1
Managed Budget Balance	NABO	-16.1	-15.0	-14.4	-11.1	-6.7
	Administration	-25.0	-14.3	0.2	3.1	5.3

Ⅲ. The Direction of Future Fiscal Management

The goal of the National Fiscal Management Plan, "The balanced budget in 2013", is one year sooner than what was originally scheduled in the past plan, which is a clear manifestation of the administration' s emphasis on its responsibility on fiscal management. Nonetheless, the plan's feasibility and appropriateness are unsatisfied.

1. Making the Balanced Budget in 2013

The administration, in "2011–2015 National Fiscal Management Plan", stated that its goal is to make the balanced budget in 2013. Nonetheless, the plan's feasibility and appropriateness are unsatisfied.

The administration' s decision to push for making the balanced budget merits a positive review for exhibiting its determination to take a responsibility for the fiscal management. Nonetheless, considering that 2013 is after the presidential election, the current administration should have tightened its fiscal management earlier had it truly intended to take fiscal responsibility. In 2010, NABO suggested total expenditure for 2011 would be more appropriate at 306.2 trillion won which is 2.9 trillion won less than the budget, applying a fiscal rule, which states that the increase in the total expenditure should be at two percent below the nominal growth rate of the potential GDP.

In order for the process to improve fiscal soundness in the long-run to avoid facing a short-lived fate, structural adjustments in tax revenue and total expenditure are necessary. For the fiscal soundness to sustain a permanent effect, the mandatory expenditure needs to be suppressed while the tax exemption must be reduced to broaden the tax base. However, the budget proposal from the administration said that mandatory expenditure is expanded and tax revenue is reduced by tax exemptions in the reform of tax law.

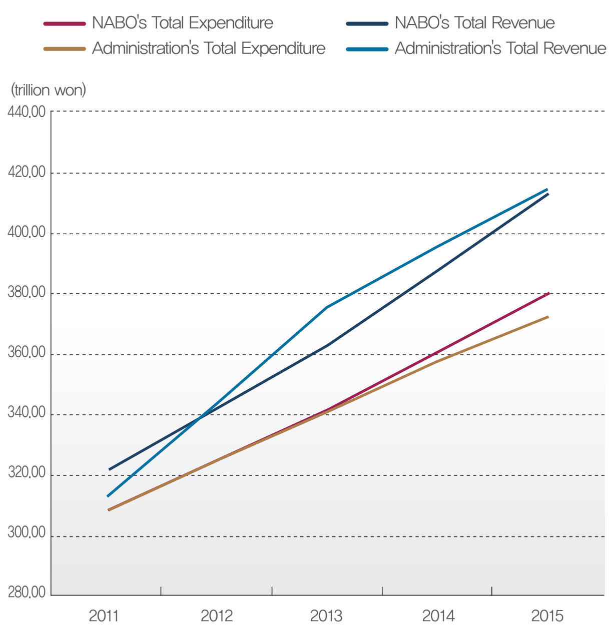
Comparing the administration' s fiscal management plan with the NABO' s midterm outlook, NABO' s forecast for expenditure exceeds

Table 29 _ 2011~2015 Medium Term Fiscal Outlook

(unit: trillion won)

	2011	2012	2013	2014	2015
NABO's Total Expenditure	309.1	325.2	342.6	361.0	379.7
Administration's Total Expenditure	309.1	326.1	341.9	357.5	373.1
NABO's Total Revenue	322.6	342.2	362.5	387.2	413.9
Administration's Total Revenue	314.4	344.1	375.7	395.8	415.3

Figure 40 _ 2011~2015 Medium Term Fiscal Outlook



the administration's plan for each year except for 2012, while the plan for total revenue of the administration stays below the forecast from NABO.

Although the administration aims to make the equilibrium of fiscal balance (0.2 trillion won surplus), NABO expects a 14.4 trillion won deficit in the managed budget balance in 2013. This gap (14.6 trillion won) is due mainly to the difference of the total revenue forecast. The administration predicts that the total revenue for 2013 will be 375.7 trillion won, while NABO forecasts 363.7 trillion won, which is 12 trillion won lower than the administration's plan (Tax revenue: 4.6 trillion won, Non-tax revenue: 7.4 trillion won). In other words, the administration's goal of making the balanced budget in 2013 relies heavily on the increase of the total revenue. Looking into the macroeconomic outlook of the administration, however, it would be challenging to raise enough the desired total revenue to make the balanced budget.

The government, while assuming that the nominal growth rate of GDP would remain constant (7.6%) for the 2012-2013, forecasted a sudden surge in total revenue in 2013, which is invites questions as to whether the government's projection is an overestimation.

Non-tax revenue mainly is raised through sales of the government-owned shares. However, the government had difficulties selling its shares (i.e. Industrial Bank of Korea), and it is not easy to sell the government-owned shares for an appropriate price at an appropriate time.

Compared the 2011-2015 National Fiscal Management Plan with the 2010-2014 National Fiscal Management Plan, there is the sudden surge in the total revenue than the plan a year earlier.

Besides, the administration's expenditure plan is so tightening, considering that NABO's forecast of expenditure employs a conservative hypothesis that the discretionary expenditure increases annually as much as the increase rate of consumer price index (CPI).

Table 30 _ Comparison between NABO's and Administration's Total Revenue Outlook

(unit: trillion won)

		2011	2012	2013	2014	2015
Total Revenue	NABO	324.7	343.3	363.7	386.9	411.8
	Admin.	321.6	344.1	375.7	395.8	415.3
	Diff.	-3.1	0.8	12.0	8.9	3.5
Tax Revenue	NABO	192.3	205.5	219.6	235.4	251.5
	Admin.	192.8	205.9	224.2	242.6	262.3
	Diff.	0.5	0.4	4.6	7.2	10.8
Non-Tax Revenue	NABO	132.4	137.8	144.1	151.5	160.3
	Admin.	128.8	138.2	151.5	153.2	153.0
	Diff.	-3.6	0.4	7.4	1.7	7.3

Figure 41 _ Annual Growth of Total Revenue and Non-Tax Revenue

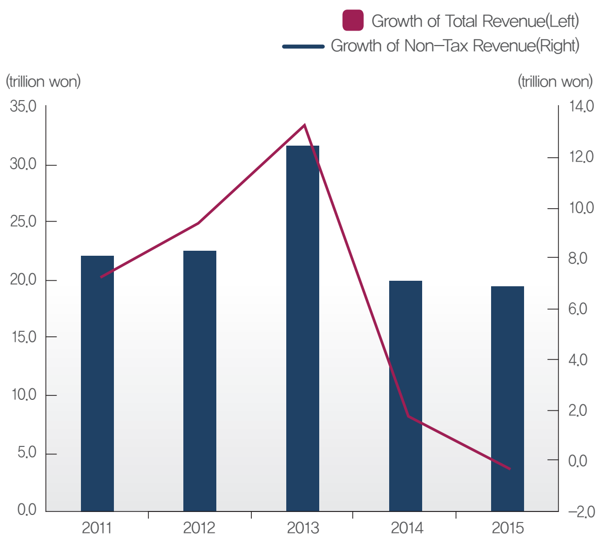


Table 31 _ Comparison Total Revenue Outlook Btwn 2010~2014 and 2011~2015

(unit: trillion won)

	2010	2011	2012	2013	2014	2015
Total Revenue (2010~2014 Plan)	290.8	314.6	342.9	365.1	390.9	-
Total Revenue (2011~2015 Plan)	-	314.4	344.1	375.7	395.8	415.3
Diff.	-	-0.2	1.2	10.6	4.9	-

2. Review of the Fiscal Stance in 2012

The Problem of Pro-Cyclical Fiscal Policy

Changes in the managed budget balance, which is measured with Fiscal Impulse Indicator (FI), imply that the government maintains a tightened stance on the fiscal policy after 2011.

Due to the base effect of the tightened fiscal policy in 2010, the FI for 2011 is 0.14, which is a relatively expansive stance.

Based on the National Fiscal Management Plan, the administration's FI is −0.18 for 2012, and −0.34 for 2013 and the administration maintains the tightened stance for 2014 and 2015 with FI of −0.52 and −0.62 respectively.

Contrarily, FI of NABO's outlook is −0.22 for 2013, −0.33 for 2014, −0.43 for 2015, which is less contracted than the administration's plan.

Because of the fiscal crisis in the Southern Europe and the United States, there is a great interest about each country's fiscal stance. In this atmosphere, Korea's tightened stance on fiscal policy would show sound fundamentals in fiscal management.

Suggestions on Setting an Appropriate Fiscal Stance

At this point, fiscal stimulus is unwise because of the instabilities in the global economy, challenging economic conditions domestically, and the large volume of debt in the public sector that are not officially accounted for. Assuming that, however, the growth rate of GDP for domestic economy will retard, the budget for 2012 will exhibit a tightened stance on fiscal policy with a possibility for a pro-cyclical fiscal policy. Hence, although securing midterm fiscal soundness is important, tightening fiscal operation is not proper when the economy is contracting, considering the role of fiscal policy in stabilizing the business cycle.

Taking a neutral stance on fiscal policy would be a considerable option. In other words, it would be proper fiscal operation to relax the tightened stance on fiscal policy in 2012 because there would be retardation in the domestic economy and the global economy, then to tighten the fiscal stance again after 2013 when we expect the real growth rate of GDP exceeds the potential growth rate.

To respond to the downward momentum of the economy, fiscal management of 2012 could relax the tightened stance but keep the government debt ratio at the same level as this year in order to maintain fiscal soundness.

The neutral stance on fiscal policy (FI=0) in 2012 would require the amount of total expenditure be 328.8 trillion won, which is 2.7 trillion won more than the budget proposal (326.1 trillion won). This level of expenditure would increase the ratio of government debt per GDP and would hinder fiscal soundness. Therefore, relaxation on tightened stance should be carried out carefully with fiscal soundness in check.

NABO's forecast for the ratio of government debt per GDP in 2011 is 33.5%. The same ratio in 2012 would be required 327.8 trillion won in total expenditure. This amount would allow an additional 1.7 trillion won in total expenditure than the budget proposal (326.1 trillion won). Such ways of strengthening the fiscal role in stabilizing business cycle without undermining fiscal soundness need to be reviewed by the National Assembly in the process of deliberating the budget proposal.

Table 32 _ FY 2010~2015 Fiscal Impulse Indicator

FI	2010	2011	2012	2013	2014	2015
Administration's Expenditure Plan Based on National Fiscal Management Plan	−2.16	0.14	−0.18	−0.34	−0.52	−0.62
Expenditure Forecasting by NABO			−0.20	−0.22	−0.33	−0.43

Note: GDP is based on NABO's forecast.

◆ Improving Fiscal Management System

The government has proposed 11 measures to improve the fiscal management system such as strengthening the government debt management and a system for long-term fiscal forecasts. This report has analyzed the government's proposed measures including strengthening government debt management, need for long-term forecasts, improvement of fiscal statistics, improving budget soundness for national health care, establishment of system for business owners to voluntarily participate in the employment insurance program, and suggested that fiscal information, which is vital to the fiscal review by the National Assembly, be open at a greater degree.

Strengthening the Government Debt Management

As its goal, the government has proposed sustainable management of public finance, stable financing, and minimization of cost in financing. Since fiscal sustainability is not an issue, at least in the medium-term outlook for the next five years, long-term management of government debt through long term forecasts of finances with consideration for sustainability is required.

Foreign Investment Management System(FIMS) needs to be modified so that trend of foreign investments can be monitored real time, and a system for international cooperation on foreign investments through global financial cooperation needs to be established to help with management and of the bond market. Additionally, application of the link between the D-brain system of Ministry of Strategy and Finance and BOK-wire system of the Bank of Korea, and application of KTB Issuance Management System(KIMS) development need to be improved so that they may practically contribute fiscal systems to strengthen the Korean Treasury Bond(KTB) revolving risk management. Lastly, various government bond products that have been introduced to expand and vitalize the demand base for government bonds must be reviewed with respect to general KTBs to cut down on the cost of issuing them.

Reformation of Fiscal Statistics

The administration, in its 2011-2015 National Fiscal Management Plan, proposed reformations in fiscal statistics for government debt forecast that comply with new international standards such as 2001 GFS. However, the new reformation measures are to be used in international comparison, and there is no change to the size of government debt in the review process of the budget proposal by the National Assembly, also there is any explicit change in statutes such as the National Fiscal Act. Therefore, current reformation measures for fiscal statistics are insufficient to fill in the deficiencies of the current statistics and to resolve the doubts around the future burden of government debt on people.

The government, in its proposal for reformation on fiscal statistics, excluded the special account on three projects run by the Korea Post such as the special account about postal service. However, the Korea Post is a part of the Ministry of Knowledge Economy, which is a central administrative organization, appointment of its head, its budget, and expenditure of its assets are heavily controlled by the administration, and the three special accounts under the management of the Korea Post are a part of the government's account, reviewed and determined by the National

Assembly. As a result, according to 2011 GFS, the Korea Post should be considered a part of the government. Moreover, the government plans to decide whether or not to include the Korea Post under general government based on its market test on private managed fund, but a separate market test on a fund, not on a system, does not comply with international standards. The fund of Korea is not a unit because they do not constitute a legal institution and therefore cannot be legally liable independently, make transactions, or take loans under its own name.

Establishment of Long-Term Fiscal Forecast System

The long-term fiscal forecasts are performed based on the impact of socioeconomic changes on financial circumstances. Therefore, it is necessary to review if budget proposals and national fiscal management plan conform to the process to improve the fiscal health and efficiency through it.

International organizations such as IMF and OECD suggest the establishment of long-term fiscal forecasts for the transparency in fiscal management. Advanced nations, such as the United States, United Kingdom, and European Union, are already announcing long-term fiscal forecasts. Korea is introducing mainly medium-term forecasts, although the National Fiscal Act requires medium and long-term fiscal forecasts.

Long-term forecasts are the fundamental step to solidifying the short/medium/long term structure of the fiscal management. Through this structure, frameworks for the medium-term plans can be formulated under the long-term forecasts. Based on the long and medium-term management, short-term budget plan can be proposed and reviewed to efficiently secure fiscal soundness. Long-term forecasts are needed due to the possibility of a surge in national pension and social insurance expenditures caused by a population aging. The government concurs with the need for long-term forecasts. It has officially announced a plan to establish a system for long-term fiscal forecasts in this year's National Fiscal Management Plan. NABO also plans to present its long-term fiscal forecast up to 2050, using the “Baseline” method.

Measures to Stabilize Finance Budget for National Health Care

There is a high possibility of health care expenditure skyrocketing due to a rapid aging of the population. It is essential to improve the efficiency of fiscal management while securing fiscal resources. To achieve this goal, the following improvements on the system and measures to secure new resources are proposed.

Firstly, there is a possibility of avoiding healthcare fees when changing jobs within the same field under the current system for national healthcare tax. Standards of review for the dependent qualifications need to be considered dependents to minimize those dependents who do not pay. In addition, dependents with incomes should be converted to policy holders in order to secure new sources of finances.

Secondly, an appropriate method of distribution of limited resources for high cost procedures need to be discussed, and a long-term fiscal management plan by the government is needed.

Thirdly, Korea has been employing a fee-for-service method of assessing healthcare fees, but the fee-for-service method may encourage service providers to overcharge. Even if the rate of increase for fees is limited, expenditure for healthcare still surges when the number of services are increased. In order to manage payments for claims more efficiently, the government is planning to employ case–payment method. Since case–payment method could lead to lower service quality, avoidance of critical patients, premature release of in–patients, etc, medical services need to be carefully monitored to maintain the quality.

Introduction of Unemployment Benefit Scheme for Self–Employed People

Through revision of the above referenced law in July 2011, unemployment benefit scheme for self–employed people with less than 50 employees has been put in effect beginning January 2012. Unemployment policy holders must have held the policy for at least one year, and the premiums are determined by multiplying an insurance rate with the base income reported by the holder. 50% of the base income is paid for from 90 to 180 days, depending on how long the policy has been held, in cases of involuntary closing of the business. However, the relatively high rates of premium, long period of policy, and the difficulty of proving involuntary closing of business make the scheme less practical. Self–employed people, especially the ones with economic difficulties, need to pay for the employees as well, which imposes 1.45% more on self–employed people than those who work on salaries. The length of policy of self–employed people is twice as long as that of the people working on salaries, which is no differentiation between different age groups with shorter period of claim payments. Since it is difficult to prove involuntary closing of business, unemployment aid would be more appropriate, but it is not easy to decide on the qualifications to be a recipient, write the necessary statutes, or to prepare finances.

To contribute to the establishment of a social security network of self–employed people and to increase the budget soundness of employment insurance, the following considerations are essential. First of all, premium rates need to be applied differently based on the base income so that those with economic difficulties are inclined to join, which would help secure a certain size of policy holders. Secondly, to help the self–employed people with troubling economic outputs, the minimum required length of policy could be reduced while the period of claim payment is increased for those who receive vocational training for a different field of business. Lastly, considering the size of social insurance for low–wage workers, the initial premium rate for the self–employed people could be lowered by increasing employment insurance aid.

Expansion of Access to Fiscal Information

Legal budget documents need to be as precise and as detailed as possible in order for the National Assembly to fulfill its duty of reviewing and finalizing budget proposals by the government. However, the current National Fiscal Act does not guarantee such amount of information. The digital budget accounting system, which was expected to act as an important tool in expanding access to fiscal information, did not pan out as expected. The digital budget accounting system has inherent limitations while the amount of information provided on the system itself is small. The following improvements must be considered.

Firstly, information, such as budget proposal' s explanatory notes on projects and reports on performance, on the digital budget accounting system needs improvements in the registering function of the system and data need to be put in the system. Secondly, detailed expenditure by projects, which are submitted quarterly, along with monthly data should be shared. Thirdly, revenue data need to be shared and provided to the National Assembly. Fourthly, information such as, the fiscal indicator for the total, its subsidiaries, allocation of finances by components, needs to be easily accessible on the digital budget accounting system. Lastly, expansion of budget proposals and budget reports need to be expanded. Budget proposals and fund management plans should be required to attach detailed explanatory notes per specific projects, midyear reports should be written and submitted, and a statute requiring monthly status of finances needs to be submitted to the National Assembly should also be considered.

Analysis on Tax Revision Bill for 2011

Ⅰ. Direction of Tax Policies and Revenue Effects

Tax Revision 2011 is responding appropriately to changes in both domestic and international economic circumstances, but in terms of fiscal soundness, taxation fairness, job creation, and stabilization of housing market, the proposals would not be sufficient to achieve the expected goals. NABO projected that the tax revenue effects of the Tax Revision 2011 would be –8.5 trillion won for 2012–2015 since the extension of tax exemptions and reductions have greater effect than tax items with revenue increasing effects such as additional revocation of tax cuts.

1. Evaluation of Tax Policy Directions

Introduction

The administration, in preparation of over 200 items in the Tax Revision 2011 shows a change of policy stance. Rather than concentrating on economic growth by means of expanding investments of large corporations, policies aim to achieve stabilization of ordinary people's standard of living and job creation with redistributive policies for vulnerable class and small–and medium–sized businesses. Such change in keynote of the tax revision appropriately responds to the recent changes in the economic circumstances, but policies in its details do not contain extraordinary items that support the change of the policy stance.

Evaluation

The administration now emphasizes equity, but the term of 'equity' is abstract and ambiguous and makes one wonder whether it can be objective and specific enough to be used as the direction of policy. Rather than focusing on the 'equity', 'inducing fair trades and restoration of order in the market economy' would be more appropriate. To recover the market order, Fair Trade Act would be more appropriate mean than tax laws, but tax on the expedient gift would be needed if taxation requirements can be laid out clearly.

Since employment rates are down after the financial crisis in 2008, Tax Revision 2011 submitted by the administration offers numerous measures to induce employments for the young adults and small–and medium–sized business. Nonetheless, the revision fails to include measures to help the economically troubled self–employed people due to chronically increasing number of temporary employments and early retirements.

Tax exemption and reduction items that closely reach on the sunset period are extended in Tax Revision 2011 as in previous years. Also, the revision do not reflect the fundamental principle of taxation, 'Lowering Tax Rates, Broadening Tax Base' and introduce the only limited directions on the short term perspectives. Mid–and long–term measures to secure tax base are items regarding to financial sectors 「Taxation on the New Financial Instruments and the Domestically Issued Foreign Currency–Denominated Bonds」 As the capital market matures, 「Taxation of Value Added Taxes(VAT) on Financial Services」 (total fees of 24 trillion won), 「Taxes on Capital Gains on Minority Shareholders and Speculative Capital Transactions」 (40 trillion won), and Financial Transaction Tax(Tobin Tax) are needed to be considered officially.

2. Tax Revenue Effects

According to NABO's projections, tax revenue effects of Tax Revision 2011 would be –8.5 trillion won, which is 0.3 trillion won greater than –8.2 trillion won that have been expected by the administration. The difference is relatively small, but tax revenue effects per tax revision item differ greatly between two institutions. The revenues of individual income tax and corporate tax by both the administration and NABO have been projected to be similar, while the tax revenue effects on the inheritance and gift tax, VAT, and other tax items differ greatly.

Although complete revocation of tax cuts on individual income tax has been hypothesized, two organizations expected a decrease in tax revenue for income tax. The reason is that the 「Income Tax Deduction for Credit Card Charges」 (–3.6 trillion won), 「Earned Income Tax Credit (EITC)」 (–1.7 trillion), 「Special Tax Reduction or Exemption for Small–and Medium–Sized Enterprises (SMEs)」 (–1.7 trillion won), 「Special Taxation on Tax–favored Comprehensive Savings」 (–0.8 trillion won) have been extended.

Most of the difference in the inheritance and gift tax revenue effect is due to different estimation of 「Taxes on any Profits Generated by Contracts within the Same Affiliates」 (Administration: 0.3 trillion won, NABO: 1.1 trillion won). Other differences in revenue effects such as VAT occur from the application of increasing trend of the 「Oil Tax Exemption for Farming and Fishing Activities and VAT Reduction for the Purchase of Agricultural and Fishery Equipment」 (–1.0 trillion won) and inclusion of 「VAT Exemption on General Management Services of Apartment Housing, and etc」 (–0.6 trillion won).

Table 33 _ Effects of Tax Revenue Pursuant to Tax Revision Bill : Administration vs NABO(2012~2015)

(unit: billion won)

	NABO(A)	Administration[1](B)	Difference(A–B)
Total	–8,471	–8,173	–298
Individual Income Tax	–5,579	–6,001	422
Corporate Income Tax	5,619	5,568	52
Inheritance & Gift Tax	1,086	222	864
Others	–9,597	–7,962	–1,636

Note: 1) Total amounts of adding up all tax expenditure estimates per individual item, submitted by the administration

◆ Problems with Tax Revenue Effects Submitted by the Administration

Lack of Consistency in the Tax Revenue Effects Estimation

The administration reports the tax revenue effects of Tax Revision 2011 in two forms. One is as an attachement to the press release of the Tax Revision, and the other is tax revenue effects in the Tax Expenditure Estimates attached to partial revision of proposed tax law submitted to the National Assembly. Until last year, the administration used year–to–year method for calculating both of the former and the latter. From this year and on, baseline method is applied for the latter, but the fomer still maintains year–to–year method. By definition, if we differentiate figures from the baseline method, figures from year to year method should be yielded. However, this conversion does not show a match for the case of Tax Revision 2011, which implies inconsistency between the two documents, suppose to contain the same contents.

NABO's analysis on the reason behind this difference is that the administration assumes implicitly that the sunset clauses of all tax exemptions and reductions would be extended continuously when calculating tax revenue effects of Tax Revision 2011. However, in the case of Tax Expenditure Estimates, all tax exemptions and reductions that reach to sunset period is assumed to be abolished on the date set in statute. The administration does not explain the differenence between two assumptions, and is causing unnecessary confusion in National Assembly' s review of the Tax Revision. In the future estimations, a uniform method should be applied so that announcement by the administration in revenue effects of Tax Revision 2011 would be consistent.

Table _ Effects of Tax Revenue Pursuant to the Tax Revision 2011, Submitted by the Administration

(unit: trillion won)

	2012	2013	2014	2015	2012–2015 Total
Year–to–Year Method	Tax Expenditure Estimates[1]				
Individual Income Tax	–0.3	0.3	–0.1	0.5	0.5
Corporate Income Tax	1.3	2.0	0.0	–0.4	2.9
Inheritance & Gift Tax	0.0	0.1	–	–	0.1
Others	–0.1	–0.1	0.0	0.9	0.8
Total	0.9	2.4	0.0	1.1	4.2
Year–to–Year Method	Tax Revision Bill				
Individual Income Tax	–0.3	0.3	–0.1	0.1	–
Corporate Income Tax	1.3	2.0	–	–	3.3
Inheritance & Gift Tax	–	0.1	–	–	0.1
Others	0.1	–	–	–	0.1
Total	1.1	2.4	–0.1	0.1	3.5

Note: 1) Results from converting figures using the base–year method to the ones using year–to–year method in Tax Expendure Estimates, Submitted by the administration

Problems in Estimation of Tax Revenue Effects per Individual Revision Item

There are three problems in the method used in the Tax Expenditure Estimates, submitted by the administration: 1. Over and under estimation; 2. No application of tax revenue estimates; 3. Inconsistencies between the Tax Expenditure Estimates and the Tax Expenditure Budget Report. As a result, National Assembly' s review of the revisions is limited. To resolve the problems, the administration needs to improve its accuracy in estimations of tax revenue effects and needs to provide its basis for estimations so that they may be reviewed for validity.

Some of the items that have been over/under estimated need to raise their accuracies by improving the estimation method and by using more rational hypotheses. Examples of over/under estimation include 「Introducing Taxes on any Profits Generated by Contracts within the Same Affiliates」 (Administration: 0.3 trillion won, NABO: 1.0 trillion won), conversion from 「Temporary Investment Tax Credit」 to 「Job Creation Tax Credit」 (Administration: 3.0 trillion won, NABO: 1.4 trillion won), 「Income Tax Deduction for Credit Card Charges」 (Administration: Δ4.9 trillion won, NABO: Δ 3.7 trillion won).

The revisions that the administration decided not to estimate due to difficulties in estimation also need to be estimated if there exists available information. For example, NABO projected the tax revenue effects for 「VAT Exemption on General Management Services of Apartment Housing, etc」 (Δ0.63 trillion won), mitigating requirements of 「Tax Supports on Multi-Housing Rental Businessman」 (Δ0.24 trillion won).

The administration's revision bill also has the problems of inconsistency between tax revenue effects in the Tax Expenditure Estimates for 2012 and the ones in Tax Expenditure Budget Report for 2012. For example, tax revenue effects of 「Tax Credit for Investment in Energy-Economizing Facilities」 in Tax Expenditure Budget Report was Δ0.20 trillion won, while those in the Tax Expenditure Estimates were Δ0.38 trillion won.

Table _ The Estimation Problems of Tax Revenue Effects by Each Items of Tax Revision, Submitted by the Administration

(unit: one hundred million won)

			Tax Expenditure Estimates				
			2012	2013	2014	2015	2012–2015
Over·Under Estimation	Imposing Gift Tax on Any Profits Generated by Contracts within the Same Affiliates	Administration	–	1,015	1,015	1,015	3,045
		NABO	–	3,618	3,730	3,846	11,194
	Conversion from Temporary Investment Tax Credit to Job Creation Tax Credit	Administration	4,015	10,037	10,037	6,022	30,111
		NABO	2,128	5,039	5,502	3,341	16,009
	Income Tax Deduction for Credit Card Charges	Administration	0	–16,310	–16,310	–16,310	–48,930
		NABO	0	–11,240	–11,970	–13,681	–36,891
	Payment of EITC	Administration	–2,289	–2,289	–2,289	–2,289	–9,156
		NABO	–3,720	–4,028	–4,327	–4,601	–16,676
	Lowering of Goods Tariff Rate for Ordinary People and Monopoly and Oligopoly	Administration	–300	–300	–300	–300	–1,200
		NABO	287	356	447	566	1,656
No Application of Tax Revenue Estimates	VAT Exemption on General Management Sevices of Apartment Housing and Etc	NABO	–1,792	–2,095	–2,451	0	–6,338
	Alleviation Requirements for Tax Supports on Multi-Housing Rental Businessman	NABO	–484	–606	–627	–651	–2,368
	Special Deduction on Multi-Home Owners for Long Term Holding	NABO	–370	–463	–479	–497	–1,809
	Tax Exclusion on Livelihood Savings for Elders, Disabled, and Etc	NABO	–1,648	–1,744	–1,845	–	–5,236
	Tax Exclusion on Savings for Collecting Large Sum of Money for Farmers and Fishermen	NABO	–98	–95	–92	–	–285

Ⅱ. Analysis and Review of the Effects of Key Revisions

Main revisions include 「Revocation of Additional Tax Cuts」, 「Taxation on any Profits Generated by Contracts within the Same Affiliates」 and conversion from 「Temporary Investment Tax Credit」 to 「Job Creation Tax Credit」 but they lack unifomity with other policy goals, effectiveness as a policy mean, and suitability for policy objectives.

1. Extension of Tax Exemptions and Reductions Offset Revenue Increasing Effect

Introduction

The administration, in order to raise fiscal soundness and encourage redistribution of wealth, maintained the current maximum income tax rate(35%) while establishing a new tax bracket between 0.2 billion and 50 billion won with tax rate of 20% for corporate tax and maintaining the maximum tax rate at 22%.

Evaluation

「Revocation of Additional Tax Cuts」 is an acceptable measure, but it is not an efficient method to establish a new tax bracket.

Considering the low burden of income tax, there is a need to secure tax revenues for the medium- and long-term expansion of demand for welfare.

And suffering fiscal soundness due to the global financial crisis allows for 「Revocation of Additional Tax Cuts」. Then, ratio of individual income tax to GDP is around 4%, which is about a half of the OECD average 9%, and makes Korea 29th out of 33 OECD nations.

In light of the facts that only three nations-U.S., U.K., and Belgium-have over three brackets for taxation as of 2010 and that corporate tax does not have the function of redistributing wealth through a progressive tax rate, establishment of a new bracket for corporate tax is not an efficient method.

Analysis on the Effects of Raising Fiscal Soundness

According to NABO's projections, as a result of 「Complete Revocation of Additional Tax Cuts」 for income tax in 2012-2015, 3.7 trillion won will be brought in as revenue, while 「Partial Revocation of Additional Tax Cuts」 for corporate tax brings in 8.2 trillion won in revenue. Total revenues from 「Revocation of Additional Tax Cuts」 (11.9 trillion won) are cancelled out by the tax revenue effects of 「Repeated extensions of sunset clauses for tax exemptions and reductions」 (⊿20.5 trillion won) that have been approved without sufficient discussions.

Unlike 「Revocation of Additional Tax Cuts」 with main issues heatedly discussed, extension of sunset clauses for tax exemptions and reductions has been approved without much attention. Micro adjustments through the review by the National Assembly ought to be done carefully.

Table 34 _ Effects of Tax Revenue Pursuant to Revocation of Additional Tax Cuts and Extension of Tax Exemptions and Reductions of Sunset Clause

(unit: Trillion Won)

	2012	2013	2014	2015	2012-2015
Revocation of Additional Tax Cuts (A)	1.24	3.26	3.51	3.85	11.86
Corporate Income Tax	0.97	2.28	2.38	2.54	8.18
Individual Income Tax	0.27	0.97	1.12	1.30	3.67
Extension of Tax Exemptions and Reductions (B)[1]	-1.97	-6.70	-6.83	-4.95	-20.45
(A+B)	-0.73	-3.44	-3.32	-1.11	-8.60

Note: 1) Decrease in tax revenues according to the extension of sunset clauses

2. Introduction of 「Taxes on any Profits Generated by Contracts within the Same Affiliates」

Introduction

The administration, to restore the fair market order and to prevent expedient gift, proposed introducing 「Taxes on any Profits Generated by Contracts within the Same Affiliates」. Operating income above setting standards in statues are recognized as gift revenue on which the tax is imposed.

More specifically, to yield the profits on which the tax is imposed, the operating profits after tax of the corporate beneficiary is multiplied by the commercial transaction rate(over 30%) and the proportion of shares held by the parent company (over 3%).

Analysis on the validity of the tax requisites

Legal requisites for introducing 「Taxes on any Profits Generated by Contracts within the Same Affiliates」 are imperfect and cause the following problems due to inappropriately set imposition base.

First of all, complete comprehensive gift according to the inheritance and gift tax law is limited to the transactions and actions that lack economic rationality, but the administration's tax revisions include normal commercial transactions between parent and subsidiary company with economic rationality, which does not conform with the concept of gift tax. Secondly, profits gained by the controlling shareholders from the commercial transactions between parent and subsidiary company can be considered profits from the rise in stock prices, but the proposed tax revision set operating profits, which has little connection to the profits from rising stock prices held by shareholders, and therefore is inefficient. Thirdly, a gift tax on operating income arising from transactions between parent and subsidiary company that are not considered as expedient gift is a kind of tax on unrealized dividends. In other words, the tax imposed on the dividends after they are distributed would be the double taxation imposed on the same entity. Fourth, according to the tax revision, grounds for the base rate of commercial transactions are the 30% from the current inheritance and gift law. However, it would be invalid to use the same rate for the low volume of transactions that have little connections.

Tax revenue effect

The administration projected that the tax revenue effects from introducing 「Taxes on any Profits Generated by Contracts within the Same Affiliates」 would be 0.3 trillion won for 2013-2015. It multiplied the ratio of operating profits for general corporations from the Statistical Yearbook on National Tax Service to the imposed gift tax regarding operating profits on the restricted mutual corporate contribution with a head (100 totals). NABO, contrarily, based its estimation on 793 corporations that submitted footnote requirements on sales to the Korea Investor Service's external audit, projected 1.0 trillion won in tax revenue effect, 0.7 trillion won higher than that from the administration.

Direction

The ultimate goal of introducing 「Taxes on any Profits Generated by Contracts within the Same Affiliates」 is to realize equity in taxation and to prevent concentration of wealth through expedient gifts. Although the intention behind the tax is more than justifiable, the method of imposition is overly unilateral in determining the expediency of the gift, and therefore not sufficiently clear. Moreover, basis for imposition of the tax is operating profit, which has little connections with the gift, not the profits from increased value of the stocks and therefore is inadequate to prevent expedient gifts. Therefore, clearer basis for imposition of the tax needs to be established, and the tax should be imposed on the profits from risen stock values not on operating profits.

3. Partial Permanent Standing of 「Temporary Investment Tax Credit」

Introduction

The administration converted 「Temporary Investment Tax Credit」 to 「Job Creation Tax Credit」 to induce job creations and to resolve the problems of growth without employment. The tax credit at 5~6% of investment is the same, and, to increase the inducing effect on employment, 4% tax credit is allowed when employment did not decrease from the preceding year, while extra 2% is allowed in proportion to the number of increased employees.

Analysis on the basic exemption for sustained employment

Since employment did not decrease in the trough of the economic conditions and the amount of abandoned exemption that did not meet the conditions for sustained employment is relatively large(1.43 trillion won as of 2012), 3.6% is projected to be exempted even with the consideration for the discord between investment and employment(10%).

Analysis on the additional exemption for the augmented employment

Based on the increase in the number of employees, additional 2% or less of the facilities investment is exempted. Due to the economic recession and the discord between investment and employment, large corporations will not be able to meet the requirements for additional exemption of 2%, which is 60,929 employees to receive the maximum additional exemption of 0.65 trillion won. On the contrary, it will not be difficult for small-and medium-sized corporations to hire additional 8,784 employees to receive the maximum additional exemption of 93.3 billion won. As a result, corporations of all sizes will receive exemption at an effective rate of 1.2% out of 2 % additional exemption rate.

Consequently, when 「Temporary Investment Tax Credit」 is converted to 「Job Creation Tax Credit」 the total effective exemption rate comes out to be 4.8%, which is not different from implementing partial temporary investment tax credit.

Table 35 _ Effects of Tax Revenue Pursuant to Conversion from Temporary Investment Tax Credit to Job Creation Tax Credit

(unit: one hundred million won)

<table>
<tr><th colspan="3"></th><th>2012</th><th>2013</th><th>2014</th><th>2012~2014 Total</th></tr>
<tr><td colspan="3" rowspan="2">Keeping on Temporary Investment (A)
(Including 1% Job Creation)</td><td>21,418</td><td>22,703</td><td>24,065</td><td>68,186</td></tr>
<tr><td>6%</td><td>6%</td><td>6%</td><td>6%</td></tr>
<tr><td rowspan="10">Job Creation Tax Credit</td><td colspan="2" rowspan="2">Basic Deduction</td><td>12,610</td><td>13,366</td><td>14,168</td><td>40,144</td></tr>
<tr><td>3.6%</td><td>3.6%</td><td>3.6%</td><td>3.6%</td></tr>
<tr><td rowspan="6">Additional Deduction</td><td rowspan="2">Small-and Medium-Sized Enterprise</td><td>933</td><td>989</td><td>1,049</td><td>2,971</td></tr>
<tr><td>0.3%</td><td>0.3%</td><td>0.3%</td><td>0.3%</td></tr>
<tr><td rowspan="2">Large Enterprise</td><td>3,539</td><td>3,434</td><td>3,645</td><td>10,618</td></tr>
<tr><td>1.0%</td><td>0.9%</td><td>0.9%</td><td>0.9%</td></tr>
<tr><td rowspan="2">Total</td><td>4,472</td><td>4,423</td><td>4,694</td><td>13,589</td></tr>
<tr><td>1.3%</td><td>1.2%</td><td>1.2%</td><td>1.2%</td></tr>
<tr><td colspan="2" rowspan="2">Total (B)</td><td>17,082</td><td>17,789</td><td>18,862</td><td>53,733</td></tr>
<tr><td>4.9%</td><td>4.8%</td><td>4.8%</td><td>4.8%</td></tr>
<tr><td colspan="3" rowspan="2">Difference (A-B)</td><td>4,338</td><td>4,914</td><td>5,203</td><td>14,453</td></tr>
<tr><td>1.1%</td><td>1.2%</td><td>1.2%</td><td>1.2%</td></tr>
</table>

Tax revenue effect

Applying the total effective exemption rate of 4.8%, which is 3.6% from sustained employment and 1.2% from additional employment, NABO expected an increase in tax revenue of 1.45 trillion won for 2012-2014. On the contrary, the administration applied the effective exemption rate of 3% due to the discord between investment and employment and projected increase in tax revenue of 3.11 trillion won.

Alternative

The conversion from 「Temporary Investment Tax Credit」 to 「Job Creation Tax Credit」 has limited effects in creating jobs. In order to achieve the original goal of expanding employment, the basic exemption rate for sustained employment(4%) should be lowered, while the additional exemption rate(2%) should be raised.

4. Expansion on 「Tax Exemption on Succession to Family Business」

Introduction

To facilitate small-and medium-sized enterprise' succession of family business, the scheme of family business succession has been adopted in 1987, and the requisites for exemption have been mitigated over time and the amount of exemption rose continuously. The administration has proposed measures to augment the exemption rate from 40% to 100% and limit on the exemption amount from 10 billion to 50 billion won on the business assets, when the decedent inherits a family business, which is small-and medium-sized firms, that lasted for over 10 years.

Evaluation

There is a need for mitigating inheritance tax burden from those who inherit family businesses in order to sustain the growth of small-and medium - sized firms that contribute to domestic employment and industrial developments. However, the administration's measures define family business too broadly and the exemption amount is too high as following.

First of all, the administration's definition of family business is overly broad and includes businesses that do not require family succession, such as IT or information communications businesses that are based on individual' s talents with technology. As such, definition of family business is currently superficial and does not reflect the original intent of the scheme, which is why it needs to be revised.

Secondly, inheritance tax, along with gift tax, is defined as imposed taxes on the taxable capacity of those who attain assets for free to realize equity in the burden of taxes and to promote health of the national finance. Inheritance tax also has a role of preventing concentration of wealth. According to the administration's measures, however, maintaining a firm for 20 years allows for inheritance of business assets up to 50 billion won to be nontaxable, and it could be seen as wealth succession of the current head of the corporation to the successor.

Since the purpose of 「Tax Exemption for Succession to Family Business」 is to make the differences from other inheritance assets in terms of equity in inheritance, excessive rate of exemption could be intolerable to the society.

Direction

It is not easy to formulate a reasonable system for succession to family business that fulfills equity in taxation and mitigates the burden of inheritance tax to sustain the growth of small-and medium-sized firms at the same time. As an alternative, current exemption system for family business succession could be converted into a system of deferred tax. Deferred tax system determines the inheritance tax on the family business assets at the time of inheritance but defers collection of a part of the inheritance during a certain time period. Duration of deferment would be 10-20 year after which deferred taxes will be collected. Successor of the business would benefit from lowered real value of the inheritance tax at the time of collection.

As such, deferred tax system imposes the same inheritance tax on business assets, but allows for tax deferrals at the time of inheritance to protect the control over the company.

5. Emphasis on Job Creation

Introduction

The administration is offering active measures to expand employment by boosting tax supports for employment by small-and medium-sized firms, which takes up 75% of the entire employment. To amplify new hires by small-and medium-sized firms, the administration adopted a new measure of 「Tax Deduction for Social Security Costs on SMEs」 and 「Income Tax Exemption for Young Adults Working in SMEs」 More specifically, corporations that augmented employment would be eligible to apply for 「Tax Credit for Social Security Costs on SMEs」 for two years, while the newly hired young generation(hired by end of 2013) would be eligible to apply for a tax exemption on earned income for two years.

Trend Analysis of Employment and 「Tax Deduction for Social Security Costs on SMEs」

The effect of tax credit of costs on employment has been analyzed by looking at the change in employment at the time of social insurance's inception or the time when the cost was raised in the past. When the premium rate for national pension rose in 1998 and when the employment insurance was adopted in 1995, employment by small-and medium-sized firms decreased at a greater rate than the average value of all industries. In other words, when the premium rate was raised from 6% to 9% in the first quarter of 1998, the number of new employees at small-and medium-sized firms decreased 15.5% from the preceding quarter, which is larger than that of the entire industry(-15.2%) and that of large corporations(-13.5%). On the contrary, when employment insurance was adopted in the third quarter of 1995, the number of new employees by small-and medium-sized firms decreased 19.9%, also exceeding that of the entire industry(-12.1%) and that of large corporations (-6.2%).

Analysis on the Effect of 「Tax Deduction for Social Security Costs on SMEs」

Once 「Tax Deduction for Social Security Costs on SMEs」 are adopted, real wage of the new hires at small-and medium-sized firms will decrease by 12%(Healthcare insurance 2.8%, national pension 4.5%, accident compensation insurance 3.3%, employment insurance 1.0%, and long-term care insurance for the elderly 0.19%). NABO has also learned from empirical analysis that employment by small-and medium-sized firms increase by 1.49% per 1% drop in real wage. Consequently, 「Tax Deduction for Social Security Costs on SMEs」 that employ more is expected to increase the demand for employment by 18% for the small-and medium-sized firms under financial pressure.

Analysis on the Labor Supply Effect of 「Tax Exemption on Earned Income for the Young Adults Working in SMEs」

Exemption of tax on earned income is not large enough in size to induce an increase in labor supply. The effective tax rate on the young generation, defined as those who are under 30 in age, is around

Table 36 _ Salaries per Employee and Estimation of the Amounts of Reduction in Income Tax per Employee Less than 30 Years Old

(unit: ten thousands won, %)

	2010	
	Monthly	Yearly
Salaries per Employee Less than 30 Years Old (A)	148	1,778
Effective Tax Rate for Employees Less than 30 Years Old (B)	1.36	1.36
Income Tax Reduction Less than 30 Years Old (C=A*B)	2	24

Note: Effective tax rate on earned income under 30 years old is calculated as the ratio of earned income tax to total salaries

Source: 「Statistic Survey for Employment and Labor」, Ministry of Employment and Labor

1.36%(based on the data provided by the National Tax Service), which yields mere 240,000 won exempted per person every year. Considering that average monthly wage of large corporations, as of June 2011, is about 1.7 times that of those who are working for small-and medium-sized firms, an increase of 1.36% in wage would not significantly induce amplification of labor supply.

Tax revenue effect

NABO projected that 「Tax Deduction for Social Security Costs on SMEs」 would reduce 451.6 billion won of tax revenue for 2012-2014, but the administration expected a decrease in tax revenue of 110.0 billion won, 341.6 billion won less than that from NABO.

NABO projected a decrease in the tax revenue of 151 billion won for 2012-2015 as a result of exemption on earned income for the young adults working in SMEs, while the administration forecasted a decrease of 280.4 billion won.

Alternative

Since tax credit on social security costs only benefit the small-and medium-sized firms in surplus (84% of all firms by sales, as of 2009), boosting employment through tax supports is realistically limited. Current measures need to be revised so that small-and medium-sized firms in the red could also benefit from them in order to turn profit by allowing deferments on social security costs.

6. Repeated Extensions on Sunset Clauses for Tax Exemptions and Reductions

Introduction

The administration is repeatedly extending sunset clauses for tax exemptions and reductions without appropriate review and analyses. In 2010, only 14 out of 50 tax exemptions and reductions items that closely reached on the sunset period were abolished, and the remaining ones were extended. In the Tax Revision 2011, also, out of 42 items that are scheduled to reach on the sunset period, only 10 are to be abolished, while the others are to be granted extensions. Moreover, the administration proposes establishment of 24 additional tax exemptions and reductions items. Of the items that are to be granted extensions on the sunset period, validity of 「Income Tax Deduction for Credit Card Charges」 and 「Special Tax Reduction on SMEs」 have been analyzed in the following section.

Table 37 _ Deciles Distribution of the Profits of Surplus Corporate in 2010

(unit: one hundred million won)

	Number of Corporations			Net Income before Taxes		
	Total	Large Ent.	SME	Total	Large Ent.	SME
1	1,207	182	1,025	1	3	1
2	1,207	182	1,025	3	12	2
3	1,207	182	1,025	5	23	4
4	1,207	182	1,025	8	39	7
5	1,207	182	1,025	12	63	10
6	1,207	182	1,025	18	99	15
7	1,207	182	1,025	27	156	21
8	1,207	182	1,025	43	270	32
9	1,207	182	1,025	80	602	51
10	1,206	181	1,025	1,118	5,715	171
Total	12,069	1,819	10,250	131	696	31

Note: Deciles distribution of net income before corporate tax is derived on the basis of corporations which are marked on positive net income

Source: Korea Investor service

Validity of 「Income Tax Deduction for Credit Card Charges」

The administration plans to extend the sunset period for 「Income Tax Deduction for Credit Card」 by three years from 2011 to 2014, increase the deduction rate of check card spending from 25% to 30%, and increase the limit of deduction amount(1 million won) and the rate of deduction from 20% or 25% to 30%.

Nonetheless, considering that Korea's credit card usage in comparison to its GDP is higher than that of advanced nations, the goal of broadening tax base can be deemed accomplished. Also, since the effect of deduction on income tax is increasing at a much greater rate for those with high income(tax bracket between 100 million won and 200 million won, 0.60 million won) rather than low income(tax bracket between 20 million won to 40 million won, 44,000 won), tax deduction for credit card should gradually be diminished.

To calculate tax revenue effect, the administration simply multiplied the average effective rate(13%) to the total amount deducted(13 trillion won) to yield 4.9 trillion won for 2013-2015 period. On the contrary, NABO, after applying differentiated effective rates for different tax brackets, projected 3.7 trillion won in tax revenue effect, yielding a 1.2 trillion won difference with the administration.

「Special Tax Reduction on SMEs」

The administration proposes that the sunset period for the current 「Special Tax Credit Reduction on SMEs」 which reduces 5-30% taxes for small- and medium-sized firms, be extended to 2014 from 2011.

The purpose of 「Special Tax Reduction on SMEs」 is to support, protect and foster the corporations that are weaker than large corporations. According to the Korea Investor Service, the average of net income before taxation for the top 10% small-and medium-sized businesses was 17.1 billion won, while that of the bottom 10% of large corporations are only 0.3 billion won, and therefore not all small- and medium-sized firms are weaker than large corporations. It is not justifiable to provide support unilaterally to all small-and medium-sized firms without assessing their profits and rate of profits.

Therefore, the measure at hand should be steered in its direction to help the small-and medium-sized firms in need of help or to gradually reduce the support when small-and medium-sized firms become a large one, instead of cutting of all supports immediately.

Tax revenue effect of the measure at hand, under the assumption that the rate of increase for past special tax credit reductions holds true in the future, is projected to be total 4.2 trillion won for 2013-2015(corporate tax 2.6 trillion won, income tax 1.6 trillion won).

7. Emphasis on Stabilization of the Housing Market

Introduction

Tax support measures for the tenant of monthly rental or Chonsei(returnable lump-sum rental deposit) have been included in the revision bill for both supply and demand aspects. The administration, because the market is not functioning normally due to reduced amount of sales and the drop in the supply of rents for monthly rental or Chonsei attempted to stabilize the housing market through transfer 「Income Tax Exemption for Multi Housing Rental Businessman」 and granting 「Special Deduction for Long Term Holding to Multi Home Owners」 On the demand side, the administration attempted to provide support for the working class who suffer from recent soar in the rent for monthly rental or Chonsei by expanding the benefit of income tax deduction and by differentiating the limit on income tax deduction for the interest payments on loans secured by long term residence.

Analysis

The administration expects that its measures will significantly lower the heavy transfer tax on multi home owners and consequently bring down the housing prices that went up as the volume of housing sales decreased due to lock-in effects. Nonetheless, finding empirical analyses to link tax supports and stabilization of housing transactions

Table 38 _ Income Tax Exemption on Interest Redemption Regarding Loans Secured by Long Term Residence

(unit: %, ten thousands won)

Ranges of Interest Redemption	Household Budget Survey	
	Ratio of the Recipients for Tax Deduction	Average Redemption Amounts
0~500	88.6	190.3
500~1,000	9.8	668.0
1,000~1,500	1.3	1,161.4
1,500~	0.3	2,027.3
Total	100.0	Avg. 254.8

was difficult. The measures at hand require a careful review since they cannot stabilize the housing market at a speedy rate.

The administration revised the limit on income tax deductions on interest payments for loans secured by long term residence up to 15 million won for fixed rate or undeferred loans. Nonetheless, Household Budget Survey for 2010(Statistics Korea) shows that 11% of the people who received deductions were given deductions above 5 million won, and their average income was relatively high at 54 million won. That means that tax deductions on interest payments could only benefit the middle class and higher.

As the qualification requirements for tax deductions on home rents relaxed, recipients of deductions increased by 18.3%(44million households). Considering that people who rent home consist 32% of all households, however, only 17% (0.79 million households) enjoyed the tax deduction benefits despite the relaxed requirements for qualification.

Tax Revenue Effect

Decrease in tax revenue due to 「Income Tax Exemption for Multi Housing Rental Businessman」 for 2012~2015 totals 0.24 trillion won, which the administration decided not to estimate because they deemed it is impossible to project. Decrease in tax revenue due to 「Special Deduction for Long Term Holding to Multi Home Owners」 is projected to be 0.18 trillion won for 2012~2015. The administration, taking the projection method from NABO, predicted that 0.56 trillion won would decrease in tax revenue for the same period. Despite the administration' s usage of NABO' s projection method, there is a difference because the administration did not consider relaxation on heavy tax rate.

Alternative

To expand the number of those who rent homes, deductions could be given to those who live alone. When the requisites for dependents are relaxed, 250,000 additional families receive deductions with 22% of those who rent homes and receive the benefit.

8. Encouraging Work by Low Income Employees and Stabilization of Prices

Introduction

To provide tax supports for the low income employees, the administration expanded 「Earned Income Tax Credit(EITC)」 and proposed lowering the basic tariff ratio for 40 items to stabilize prices. EITC expanded the beneficiaries to married couples without children while the maximum credit was increased up to 1.8 million won depending on the number of dependent children. The 40 items with lowered basic tariff ratio include 26 monopolized items to which people are sensitive, 7 items that are closely connected to everyday life, and 7 items with long-term tariff quota.

Analysis

Revision of EITC, which is intended to provide tax incentives for the low income employees to find jobs and to provide tax supports for them, added couples without children (710,000 households, average credit issued: 360,000 won) to yield the total number of households receiving credits from 0.59 million in 2010 to 1.31 million in 2012, and the average credit issued is also expected to rise. However, despite the surge in the recipients of the credit, its impact on inducing people to work seems to be insufficient.

In the United States, up to 34% of earned income, up to a certain wage level, is provided to households with one child as an incentive to work, but only 15% is given out in Korea, which is why the impact of credit on labor supply is small.

The administration also proposed lowering the basic tariff ratio to stabilize prices. The 40 items that receive the benefit of lowered basic tariff ratio, with exceptions of noodles and coffee, all currently are under tariff quota. If tariff quota were to discontinue with this tax revision, the basic tariff ratio would be higher than the current rate. As a result, a higher tariff ratio would be applied to imports, which could ironically push the prices up.

Alternative

EITC now has passed its formative period and has reached an expansive state. Therefore it would

◆ Expansion of EITC

The administration, in order to subsidize the income of the low income working class and to increase the supply of labor at the same time, decided to expand EITC. Thus, this plan should be evaluated on two issues: its effect on subsidize of income and its effect on the supply of labor for the low income working class. According to Park(2011)[1], he analyzed how the earned income changed in 2009 for the potential recipients of EITC, who applied for EITC in 2008. The result showed that income for the households who received EITC significantly increased over that of the households that did not receive EITC. As for the supply of labor, Park(2011) explained that EITC helped increase 15.9~18.6 working days per household. Nonetheless, the gradual increase rate, which has a large impact on the supply of labor, did not improve as much in the tax revision this time. Revision bill set 10% of gradual increase rate for the household with no children, 15% for households with one child, and 16.7% of for households with two children, which is not a large improvement from the current rate 15%. Additionally, the gradual increase rate in the revisions is much lower than that of the United States (households with one child: 34%, households with two children: 40%), and it should be augmented in order to induce labor of the low income working class.

NABO expected that tax expenditure would increase about 350 billion won as a result of the increase in the number of households receiving the credit(0.59 million to 1.31 million households) and the increase in the average credit issued. On the contrary, the administration projected that 0.23 trillion won would increase with an addition of households without children(0.4 million to 0.5 million households). The administration projection assumed that each recipient households had an even distribution of income while NABO took the uneven distribution of income from Household Budget Survey for 2010(Statistics Korea). In the following table, with an addition of households with no children, 0.25 trillion won was added to tax expenditure while the increase in the average credit issued for households with two or three children pushed the tax expenditure up by 85.6 billion won.

Table _ Comparison of EITC Amounts per Household

Type of Households	2010 Present			2012 Revision 1)		
	Average EITC Amounts(Ten Thousands Won)	Number of Households in 2010 Current Tax Law (Ten Thousands Household)	EITC Amounts (One Hundred Million Won)	Average EITC Amounts(Ten Thousands Won)	Number of Households (Ten Thousands Household)	EITC Amounts (One Hundred Million Won)
No Children	-	-	-	35.5	70.7	2,512.2
One Child	76.6	26.9	2,061.7	79.2	26.2	2,077.9
Two Children	77.1	27.2	2,095.0	98.7	26.9	2,652.4
3 or More Children	76.2	5.0	380.6	93.2	7.3	683.0
Total	Avg: 76.8	59.1	4,537.3	Avg: 60.4	131.2	7,925.5

Note: 1) Households satisfying the EITC's eligibility are selected from 10,667 households in 「Household Budget Servey for 2010」

1 Park, Neung Hoo, "Analysis of EITC effect in Korea", Social Welfare Policy, Vol 38-2(2011): pp.165-191

be more appropriate to increase the credits issued and the gradual rate of increase to provide more effective incentives to the labor market.

9. Expanded Taxation on Certain Financial Instruments

Introduction

The administration proposed introducing a basis for imposing 「Taxation on New Financial Instruments」 and measures to impose 「Taxation on Domestically Issued Foreign Currency-Denominated Bonds」 in its Tax Revision 2011 as a way of expanding tax base.

Evaluation

The administration, to prevent tax evasion and to broaden tax base, newly introduced the grounds of 「Taxation on New Financial Instruments Combined with Derivatives」 and the taxation measures of financial products that produce interests and dividend incomes. However, instruments such as Yen Swap Savings are, unlike 2004 when imposition of tax of heatedly debated, no longer in sales and therefore will not be effective in broadening tax base. Introducing the grounds of 「Taxation on New Financial Instruments」 also provides reasonable basis for imposing 「Taxation on New Financial Instruments Combined with Derivatives」 and an important clue to broaden tax base in the finance, but it is not sufficient as a preemptive measure.

To stabilize the foreign exchange market and to broaden tax base, the administration intends to impose 「Taxation on Domestically Issued Foreign Currency-Denominated Bonds」 which has been exempted from taxation before, and to extend the exceptions to the foreign corporations' offices in Korea. The measures at hand promote tax equity between bonds in foreign currency and bonds in won and between foreign banks' Korea branches and domestic banks, and at the same time, the measures at hand broaden tax base.

Tax Revenue Effect

NABO and the administration expected the tax revenue to increase by 13.4 billion and 67 billion in 2012 respectively as a result of imposing 「Taxation on Domestically Issued Foreign Currency-Denominated Bonds」 Although tax will be imposed on the interests from bonds that are issued after 2012, the administration projected its value of tax exclusion amount by multiplying the interest rate to the total taxable income on domestically issued foreign currency-denominated bonds in 2011 to calculate the income from interests, thereby resulting in such overestimation.

Alternative

The measures at hand are significant in that they established a basis for imposing tax on at least some financial instruments. However, as the capital market matures, additional systems of taxation on financial instruments is needed.

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