

The Sustainability of Government Debt in Korea*

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Abstract

We carried out three different tests to check the sustainability of government debt in Korea: Bohn's test, tax gap test and IGDC index. We find some consistency in the result for all three tests. Namely, the government debt in Korea seems to be sustainable in the short or medium term, but may not be sustainable in the long term.

In particular, considering huge potential deficit in public pension system and rapid slowdown in future growth rate together with rapid aging and low birth rate, Korean government needs to pay special attention to the pace of government debt level in Korea.

Keyword : government debt, Bohn's test, tax gap, IGDC index.

JEL Code : H55, E27

I. Introduction

The level of government debt has increased rapidly since the 1997 economic crisis in Korea. Before the crisis, government debt to GDP ratio was 8.2%, but it increased to 25.2% at the end of 2004. While it is still low compared to those

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of most OECD countries, there have been debates on whether it is too high in Korea. Academia tend to argue that it is too high, whereas government says that it is still low so that we can still use expansionary fiscal policies.

However, both arguments are not based on solid empirical evidences. The aim of this paper is to find out some reliable evidences for this controversy to end. In doing so, we need to review the definition of government debt. This is because most debates on the sustainability of government debt of Korea are center around the scope of government debt. While the official level of government debt is published based on IMF definition, some experts argue that countries tend to have different nature and scope of public sector so that the scope of government debt may vary among countries.

Once we have agreed on the scope of government debt, we then need to find out if it is sustainable. There are various means of testing the sustainability of government debt. This paper uses Bohn's test and fiscal gap calculation to test the sustainability of government debt. We also calculates international government debt comparison (IGDC) index to check if the level of government debt in Korea is higher or lower than expected given her economic, social, and demographic characteristics, using the international expenditure comparison (IEC) index of Tait & Heller (1982) and Heller & Diamond (1990).

The main result of this paper is that, based on the IMF definition, the government debt in Korea is sustainable in short or medium term, but may not be sustainable in the long term. This is mainly because, while Korean government used to maintain the sound fiscal policies from 1982 to 1997, it tends to resort to deficit budget since the 1997 economic crisis for various reasons, which caused rapid increase in government debt. Considering huge potential deficits in public pension systems and rapid slowdown in future potential growth rate, it is worthwhile to pay special attention to the pace of government debt level in Korea.

The rest of the paper is organized as follows. Section II discusses the scope of government debt and identifies the reasons for the controversy surrounding it. Section III assesses the sustainability of government debt, using three different methods, namely, Bohn's test, fiscal gap test and IGDC index. We also describe the data used in each test. Section IV summarizes the results of the analysis and concludes.

II. The Trend of Government Debt in Korea

The official data for government debt are based on the IMF definition, which are the direct liability for which central and local governments are directly responsible in paying off their principals and interests. It consists of government bond, borrowing and contract authorization in general accounts, special accounts and public trust funds of the central government of Korea.

However, some countries include debts of public corporations, public financial institutions and civilian funds some of which are used occasionally to subsidize firms or to boost economy, since governments are responsible for repayment of their debts when the respective institutions are not capable of repaying them. Sometimes, government guarantees the repayment of bonds issued by public financial institutions as happened in Korea during the 1997 financial crisis. More importantly, governments are responsible for paying public pensions when the public pension funds are exhausted.

In case of Korea, debts of local government, public corporations and public financial institutions, the non-payable government guaranteed public debts, and the potential debts of public pension schemes are not included in the definition of government debt. But if they are included, the level of government debt will increase considerably.

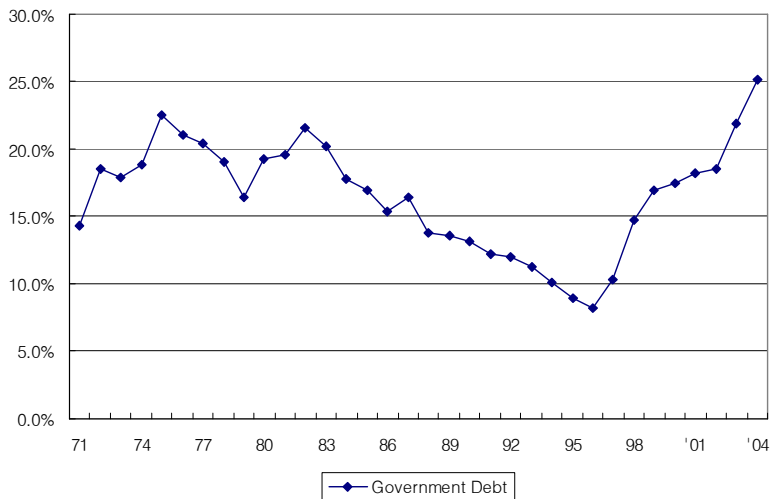
However, local governments should have permission from the central government to issue bonds. Hence, the debt of local government has been small compared to that of central government. And it is difficult to include the debt of the public corporations and the public financial institutions into government debt since the definite size of liability transferred to the government is not known until it is realized. And most of the guaranteed bonds were transformed into government bonds. Liability of the pension funds is also subject to the changes of contribution and benefit schedule and future economic situation such as economic growth rate and interest rate.

Furthermore, no structural change of government debt can be forecasted if we include the debt of the above institutions. In other words, this adjustment does not have permanent or systematic effect on the trend of debt to GDP ratios even though it changes the level of government debt for a moment.

Hence, we test the sustainability of debt with the officially released data. However, the potential government liability for the public pension was found to be a threat to debt sustainability unless the present contribution and benefit schemes are adjusted to make ends meet. Consequently, we calculate fiscal gap with current fiscal stance and pension scheme.

Figure 1 shows the trend of government debt based on IMF definition. The government debt levels were fluctuation around 20% during 1970s. However, the level was continuously lowered after the consolidation of budget in 1982. And the economic crisis of 1997 changed the trend of debt, sharp increase of debt level.

<Figure 1> Trend of Debt (% of GDP)



III. Sustainability Test

1. Bohn's Test

There are various methods to test sustainability of government debt. Hamilton and Flavin(1986) used a unit root test for this purpose. Trehan and Walsh(1988) and Hakkio and Rush(1991) suggested a cointegration test. In other words, they

tested whether linear combination of primary surplus and interest payment is stationary or not. Bohn(1998) paid attention to the response of primary budget surplus to the change of debt. He also corrected the effect of cyclical components of revenue and spending to capture the long-term relationship between debt and primary surplus. His test is widely adopted in determining sustainability since it does not require assumptions on interest rates and is based on simple OLS.

The benchmark equation is

$$s_t = \rho \cdot d_t + \alpha_0 + \alpha_G GVAR_t + \alpha_Y YVAR_t + \epsilon_t \quad (1)$$

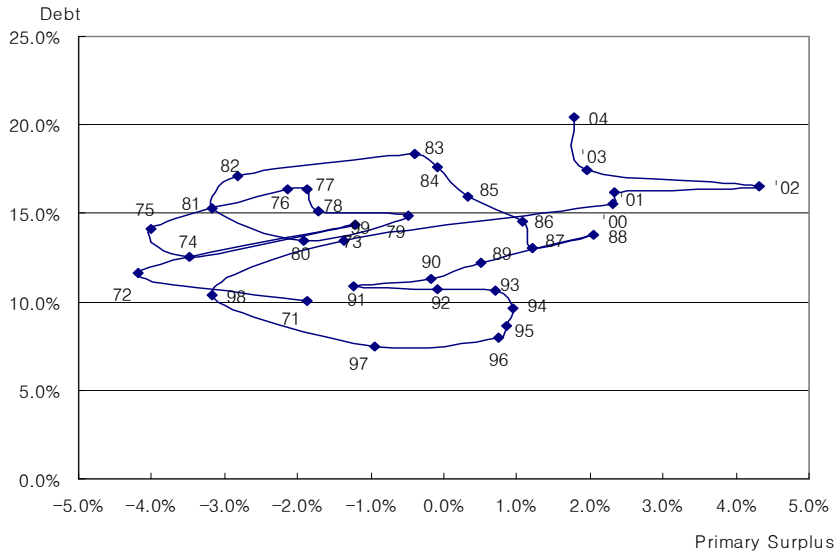
$$GVAR = (g - g^*) / y, \quad YVAR = (1 - y / y^*) \cdot (g^* / y).$$

where, s and d represent ratios of primary surplus and debt to GDP respectively. And g and y are real government spending and real GDP while superscripts $*$ stand for respective trends of g and y . Variable e means error term. The trends of spending and GDP were calculated with Hodrick and Prescott Filter. The government debt is judged to be sustainable if government increases budget surplus when debt to GDP ratio jumps. Namely, the government debt is sustainable if the coefficient of d is significant and has positive value.

Two types of primary surplus were used in this paper. One is ordinary primary surplus, consolidated budget balance excluding interest payment. The other is the primary surplus subtracting the balance of the National Pension Fund, which will be called "Adjusted primary surplus." This is because the National Pension Fund currently accumulates surplus since it is in the early stage of funded system and the resulting surplus has no relation with government effort to reduce debt.

The data are obtained from the Consolidated Budget Balance of Korea, which cover from 1970 to 2004. Figure 1 shows the movement of the ratios of government debt and primary surplus to GDP.

<Figure 2> Relation Between Primary Surplus and Debt (ratios to GDP)



The benchmark test result as in table 1 indicates that the sustainability of Korea's fiscal policy is not identified. This result is also confirmed in Valdrrama(2005), who also carried out Bohn's test using Korean data. He divided the sample period into two and the coefficient of debt level is significant and positive only for the period after 1990. However, the sustainability for the period before 1990 was not confirmed.

Bohn's tests applied to Korea bring questions about the appropriateness of the test since Korean fiscal policy was well known for its soundness, especially for the period from early 1980s to the year before the economic crisis.

<Table 1> Benchmark Test

	Debt/GDP	GVAR	YVAR	R ²
Primary Surplus	-0.24 (-0.291)	-0.794** (-3.082)	-0.359 (-0.696)	0.198
Adjusted Primary Surplus	0.001 (0.018)	-0.775** (-3.954)	-0.367 (-0.941)	0.311

Note : t-stats are in parenthesis; * and ** indicated Significance at the 5% and 1% levels, respectively.

<Table 2> Regression Results of Valderrama

Sample	Debt/GDP	GVAR	YVAR	R ²
1975~2003	0.0677 (0.0429)	-0.800** (-0.150)	-0.447** (0.170)	0.54
1975~1989	-0.0448 (0.0856)	-0.489** (0.135)	-0.274 (0.164)	0.73
1990~2003	0.156** (0.0235)	-0.917** (0.192)	-1.151** (0.150)	0.87

Source: Valderrama(2005)

Note : Standard errors are in parenthesis. * and ** indicated significance at the 5% and 1% levels, respectively.

As indicated by Persson and Tabellini(2000), the level of debt is hard to explain with economic factors only. In other words, political and institutional features can be a main determinant of debt or deficit level. For this reason, this paper adjusted Bohn's test to incorporate fiscal policies. First, Korean government starts fiscal consolidation from 1982. Hence, we added a dummy variable (D82) into estimating equation. Second, fiscal tools in response to accumulated debt are considered. A government may increase fiscal surplus in the case of debt hike to sustain fiscal stability while other government pursues fiscal stability by adopting budget balance rule. In fact, Korean government has frequently determined spending level within forecasted revenue. Hence, we divided the period with budget balance and non-budget balance years with government budget data. If government bonds were not issued and there were no borrowings, then the year is classified as a budget balance year.

If government fiscal tool is a balanced budget rule, then the primary surplus is identical to interest payment. Consequently, the revised Bohn's test becomes

$$s_t = \delta R_t D + \rho d_t (1 - D) + \alpha_0 + \alpha_G GVAR_t + \alpha_Y YVAR_t + \epsilon_t \quad (2)$$

where R represents interest payment and D is a dummy variable representing the year that government adopted budget balance rule. As in the benchmark case, government debt is sustainable if the coefficient of $d(1 - D)$ is significant and has positive value.

The estimated coefficients of debt level are 0.157 and 0.136 and significant,

which indicate that the government debt of Korea is sustainable. The explaining power of the regression (R2) is also greatly improved. Furthermore, the coefficients of *D82* and *R·D* are also significant, indicating that government fiscal policy should be considered in the test of sustainability.

It is possible to use dummies for the respective administration to accommodate different tendency toward debt level when we test the fiscal sustainability. The estimated results, in fact, are similar to the results in Table 3.

<Table 3> Regression Results with Fiscal Policy

	Debt/GDP	GVAR	YVAR	D82	R*D	R ²
Primary Surplus	0.157** (5.123)	-0.723** (-4.883)	-0.908** (-3.523)	-0.031** (-9.354)	1.550* (2.235)	0.828
Adjusted Primary Surplus	0.136** (4.756)	-0.579** (-4.181)	-0.888** (-3.684)	-0.017** (-5.527)	2.873** (4.431)	0.772

Note : t-stats are in parenthesis; * and ** indicated significance at the 5% and 1% levels, respectively; D82 is a dummy for the year 1971-1982; R is a ratio of interest payment to GDP; D is a dummy variable representing the year that government adopted budget balance rule

2. Tax Gap Test

While Bohn’s test uses information on the past behavior of fiscal authority, tax gap proposed in Blanchard et al.(1990) is based on fiscal forecasts. They defined a sustainable fiscal policy as a policy such that sooner or later the ratio of debt to GDP converges back to its initial level. Equation (3) says that the evolution of debt-GDP ratio depends on two factors: (a) product of the ratio of accumulated debt to GDP times the difference between the real interest rate and the growth rate and (b) stream of future primary deficits.

$$b_n = b_0 \cdot (1 + \gamma - g)^n + \sum_{t=1}^n (e_t - t_t) \cdot (1 + \gamma - g)^{n-t} \tag{3}$$

where b_0 and b_n =debt-GDP ratio in the base year and n th year, γ = real interest rate, g =growth rate, e =non-interest spending/GDP, t =revenue/GDP

Given forecasts of non-interest spending and the initial level of debt-GDP ratio, sustainable tax rate can be computed as constant tax rate which would satisfy equation (4) and leave the debt-GDP ratio unchanged over the horizon. Then, the tax gap is obtained by computing the gap between the sustainable tax rate (t^*) and the current tax rate(t). If the tax gap is positive, sooner or later taxes will have to be increased and/or spending decreased to reach the initial level of debt-GDP ratio. The magnitude of (t^*-t) is simply the size of the adjustment, were it to take place today.

$$\sum_{t=1}^n \frac{t^*}{(1+\gamma-g)^t} = b_0 \cdot \left\{ 1 - \frac{1}{(1+\gamma-g)^n} \right\} + \sum_{t=1}^n \frac{e_t}{(1+\gamma-g)^t} \quad (4)$$

In this paper, we try to compute a set of indicators, each of which is associated with a different time horizon, say $n=1, 5, 40, 66$ years. The short-term tax gap for the 2005 budget is computed as $t^* - t_1 = b_0 \cdot (1-g) + e_1 - t_1$. And Medium-term tax gap is computed based on the fiscal forecasts in 2004~2008 National Fiscal Management Plan, that is Korean version of a medium-term expenditure framework, whereas long-term gap is based on our own 3 forecasts of central government spending summarized in <Figure 3>.

The fiscal gap test in <Table 4> shows that the debt level of 2004 can be maintained in the short or medium term. This is because the growth rate is projected to be higher than the real interest rate by 2~3%p and the primary balance continues to be surplus over the next 5 years. However, it cannot be maintained in the long term, say after 40 or 66 years. This is because the National Pension Fund is expected to be dried up around year 2047 under the current scheme.

This result seems consistent with that of earlier Bohn's test in showing the sustainability of government debt in the short or medium term. However, it should be noted that the result of this test can be different depending on the base year we take. For example, if we take the government debt to GDP ratio of year 1982, whose level of government debt is much lower than that of 2004, it may be more difficult to sustain it.

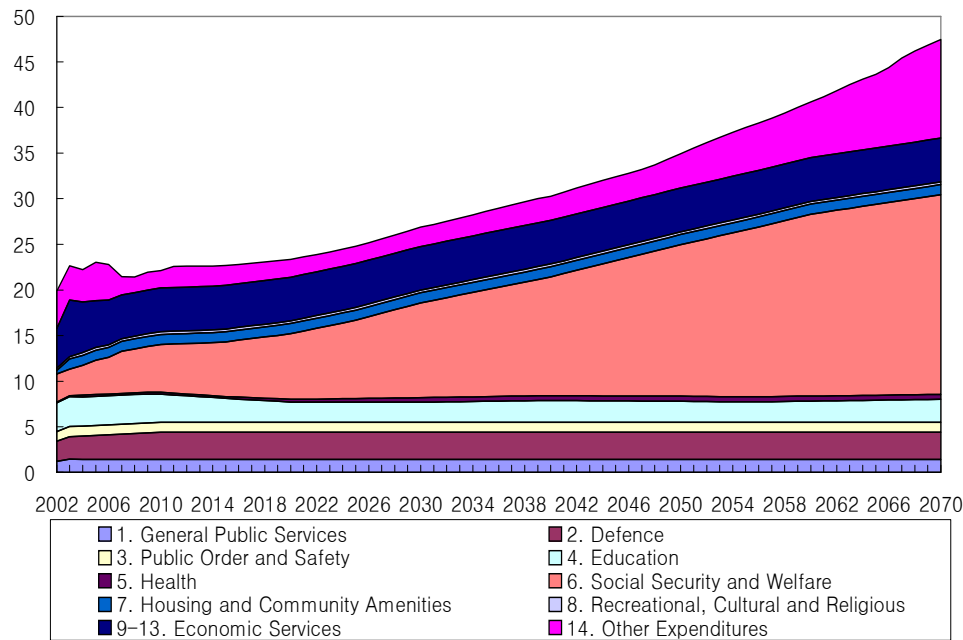
<Table 4> Tax gap in Korea

	2005	2006	2007	2008	2009	Average
Short-term gap	-1.01	-1.39	-1.75	-1.85	-1.63	-1.52
Medium-term gap	-0.8					
(r-g)	Long-term gap (40years:2005~2044)			Long-term gap (66years:2005~2070)		
	case 1	case 2	case 3	case 1	case 2	case 3
-0.5	1.55	-0.33	0.52	3.01	0.90	1.90
0.0	1.46	-0.39	0.44	2.81	0.75	1.72
0.5	1.37	-0.44	0.36	2.61	0.60	1.54

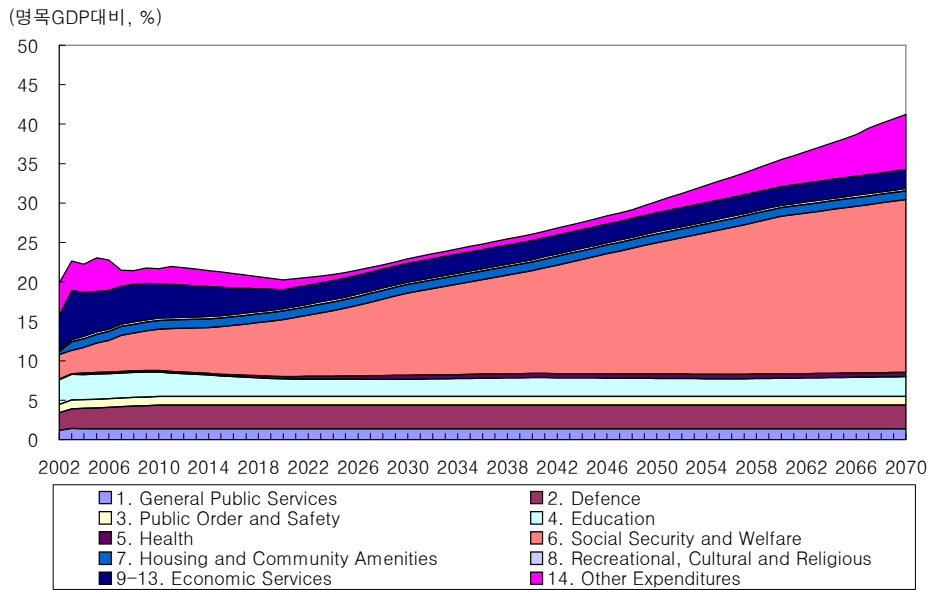
<Figure 3> long-term forecasts of central government spending

(Case 1) Expenditure on economic service will be fixed at its ratio of GDP in 2008

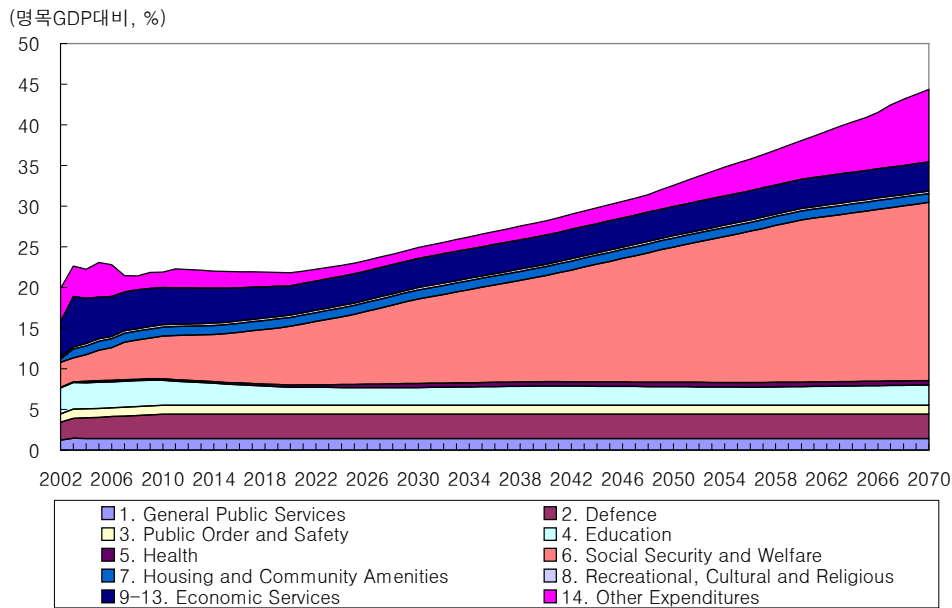
(명목GDP대비, %)



(Case 2) Expenditure on economic service will be reduced as much as an increase in expenditure on social security and welfare



(Case 3) Expenditure on economic service will be reduced as much as the half of the increase in expenditure on social security and welfare



3. International Government Debt Comparison (IGDC) index

This section calculates international government debt comparison (IGDC) index to check if the level of government debt in Korea is higher or lower than expected given her economic, social, and demographic characteristics. The IGDC index is based on the concept of International Expenditure Comparison (IEC) index of Tait and Heller (1982) and Heller and Diamond (1990). The IEC index is used to indicate if a country spends a functional expenditure category (e.g. education) more than would be predicted, given its economic, social, and demographic characteristics.

The IGDC index is a ratio of actual government debt/GDP to predicted government debt/GDP. The predicted government debt/GDP is calculated by regressing the debt/GDP on explanatory variable such as economic, social, demographic, fiscal, and demographic factors. More precisely we carry out pooled OLS estimation by regressing the debt/GDP on natural log and square of per capita GDP, the ratio of aged over 65, the degree of openness, debt servicing costs, political factors including power dispersion index and Schmidt index, using time series data of 25 OECD countries from 1960 to 2003. We then estimate the short-term equation by using the residual of long-term equation as error correction term. For the explanatory variables for the short-term equation, we include only statistically significant variables among per capita GDP, unemployment rate, ratio of elderly, openness and debt servicing costs, and political factors.

If IGDC index is larger than 100, we can say that Korea has government debt more than expected given its characteristics and vice versa.

We also use the ratios of total revenue (T/Y), non-interest expenditure (G/Y), and primary budget balance (PB) to GDP as dependent variables, apart from the ratio of government debt (GD/Y) to GDP.

The data for variables are as follows:

Social and economic variables:

- ① PCGDP: per capita GDP (in US dollars)
- ② OLD: ratio of elderly (the ratio of aged over 65 in total population)
- ③ OPEN: degree of openness (the weight of export and import in GDP, %)

Fiscal variables:

④ DSC: Debt-Servicing Costs (Real Interest rate minus the growth rate, multiplied by the lagged debt-GDP ratio)¹⁾

Political variable:

⑤ POL1: the power dispersion index (from Comparative Political Data Set : 1960~2002, 1=single party government; 2=minimal winning coalition; 3=surplus coalition, 4=single party minority government; 5=multi-party minority government; 6=temporarily caretaker government)

⑥ POL2: Schmidt index (Cabinet Composition from Comparative Political Data Set: 1960~2002, 1=hegemony of right-wing parties(social-democratic and other left parties in percentage of total cabinet posts=0); 2=dominance of right-wing and centre parties(<33.3%); 3=balanced between left and right (33.3%< <66.6%); 4=dominance of social-democratic and other left parties(>66.6%); 5=hegemony of social-democratic and other

<Table 5> shows that while the increase in per capita GDP and the ratio of elderly increase both revenue and expenditure, they incur deterioration in primary budget balance and increase in government debt due to the larger expenditure elasticity. However, the increase in openness and Debt-servicing costs improves primary budget balance due to the larger revenue elasticity. The increase in the power dispersion index (i.e. the decrease in power concentration) increases both revenue and expenditure, but does not affect the primary budget balance and government debt statistically significantly. However, the higher tendency of leftist government tends to improve the primary budget balance and government debt contrary to the normal expectation²⁾.

1)=interest payments on government debt divided by gross general government debt=weighted average of inflation rates at time t and 3 lagged periods =weighted average of real GDP growth rates at time t and 3 lagged periods GD=gross general government debt

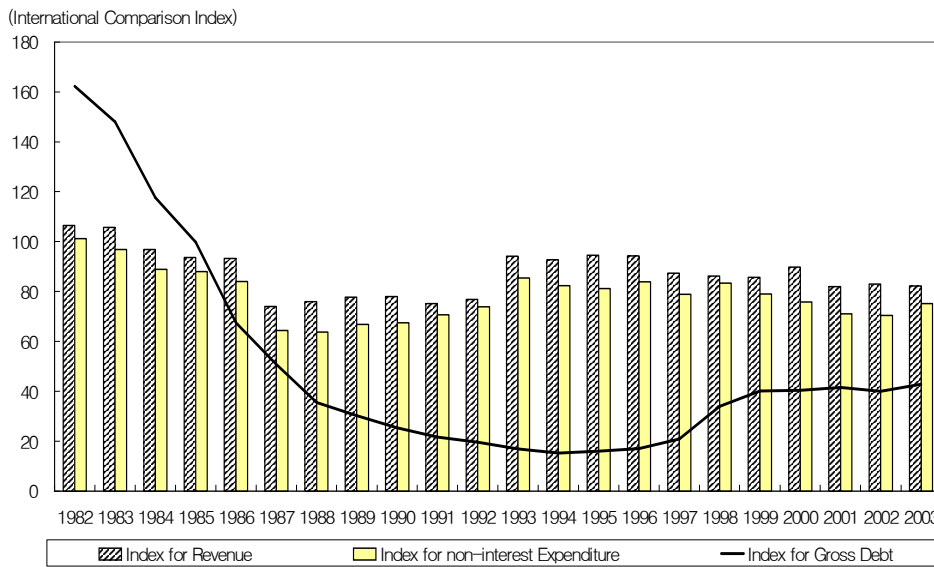
$$Y = \text{nominal GDP Debt servicing costs} = (i - \pi - g) \cdot \frac{GD_{t-1}}{Y_{t-1}}$$

2) While Roubini and Sachs(1989a, 1989b) showed that higher POL1 is linked to deteriorating the fiscal balance De Haan and Sturm(1997) and others argued that link is not statistically significant. An Roubini and Sachs(1989b), Comisky(1993), De Haan and Sturm(1994) Cusack(1995) has proposed that non-defense government spending is positively related to the strength of leftist parties in government. Empirical works with government revenue and

The result shows that the IGDC indices are lower than 100 except in the early 1980's. This implies that the level of government debt is lower than expected under her economic, social and demographic characteristics. The can be interpreted as the level of government debt is still manageable (refer to <Figure 4>).

However, we need to pay attention to the phenomenon that the IGDC jumps to a higher level right after 1997 economic crisis and is increasing marginally rather than going down to the earlier lower level. Considering huge potential deficits in public pension systems and rapid slowdown in future potential growth rate, we have to be careful in order for the government debt problem not to be further deteriorated.

<Figure 4> International Comparison Index for Korea



fiscal balance in Huber et al.(1994) and Cusack(1997) suggested that left-dominated governments were more fiscally conservative than right-dominated governments.

<Table 5> The estimation results for short-term and long-term equations

[Long-term]						
	T/Y	G/Y	PB/Y	PB/Y	GD/Y	GD/Y
C	-64.588 (29.906)	-98.217 (28.073)	27.217 (13.361)	27.107 (13.177)	-210.757 (123.521)	-241.902 (132.244)
ln(PCGDP1)	17.365 (6.638)	25.527 (6.226)	-6.513 (3.019)	-6.562 (2.985)	54.508 (27.513)	58.939 (29.276)
ln(PCGDP1)^2	-1.009 (0.364)	-1.492 (0.340)	0.383 (0.167)	0.393 (0.166)	-3.302 (1.509)	-3.370 (1.601)
OLD	1.841 (0.109)	1.944 (0.127)	-0.118 (0.060)	-0.124 (0.061)	4.621 (0.492)	4.218 (0.479)
OPEN	0.045 (0.006)	0.033 (0.007)	0.015 (0.003)	0.016 (0.003)	0.065 (0.045)	-
DSC	0.508 (0.088)	0.354 (0.098)	0.122 (0.056)	0.140 (0.055)	2.852 (0.467)	2.731 (0.469)
POL1	1.619 (0.177)	1.518 (0.214)	0.124 (0.115)	-	-1.192 (0.830)	-
POL2	0.880 (0.178)	0.593 (0.199)	0.262 (0.111)	0.227 (0.104)	-4.532 (0.809)	-4.059 (0.770)
Adj. R2	0.701	0.604	0.103	0.118	0.248	0.236
# of obs	551	561	551	568	568	585
[Short-term]						
	T/Y- T/Y(-1)	G/Y- G/Y(-1)	PB/Y- PB/Y(-1)	PB/Y- PB/Y(-1)	GD/Y- GD/Y(-1)	GD/Y- GD/Y(-1)
Error Correction	-0.029 (0.010)	-0.056 (0.010)	-0.195 (0.024)	-0.194 (0.024)	-0.010 (0.006)	-0.010 (0.006)
GAP	-	-	-	-	-0.518 (0.068)	-0.502 (0.066)
UR_DIFF	-	0.584 (0.085)	-0.668 (0.077)	-0.655 (0.077)	1.202 (0.220)	1.255 (0.214)
OLD-OLD(-1)	-	-	-	-	3.464 (0.850)	3.793 (0.869)
OPEN-OPEN(-1)	-0.041 (0.016)	-0.141 (0.021)	0.077 (0.019)	0.077 (0.019)	-0.158 (0.050)	0.152 (0.049)
DSC-DSC(-1)	0.322 (0.073)	0.309 (0.106)	-	-	0.690 (0.250)	0.568 (0.237)
POL1	-	0.102 (0.026)	-	-	-	-
POL2	0.080 (0.022)	-	-	-	-	-
Adj. R2	0.071	0.315	0.263	0.253	0.317	0.300
# of obs	524	536	548	565	552	569

note : The figures in () are White Heteroskedasticity-consistent standard error

IV. Conclusion

We carried out three different tests to check the sustainability of government debt in Korea: Bohn's test, tax gap test and IGDC index. We find some consistency in the result for all three tests. Namely, the government debt in Korea seems to be sustainable in the short or medium term, but may not be sustainable in the long term.

In particular, considering huge potential deficit in public pension system and rapid slowdown in future growth rate together with rapid aging and low birth rate, Korean government needs to pay special attention to the pace of government debt level in Korea.

<Appendix>

International Comparison Index for Revenue, Expenditure and Gross Debt

	Revenue			non-interest Expenditure			Gross Debt		
	Actual	Fitted	Index	Actual	Fitted	Index	Actual	Fitted	Index
1982	21.1	19.8	106.5	20.4	20.1	101.2	19.2	11.8	162.3
1983	21.2	20.1	105.7	19.8	20.4	96.8	19.0	12.9	148.1
1984	20.0	20.7	96.8	18.6	21.0	88.9	17.8	15.2	117.7
1985	19.9	21.3	93.6	19.0	21.6	88.0	17.6	17.7	99.8
1986	19.5	20.9	93.2	18.1	21.5	84.1	15.4	22.9	67.5
1987	19.6	26.4	74.0	17.2	26.8	64.3	12.6	24.7	50.8
1988	20.6	27.1	75.9	17.5	27.5	63.6	9.6	26.9	35.5
1989	21.5	27.6	77.8	18.7	27.9	66.8	8.8	29.0	30.2
1990	21.9	28.1	78.0	19.2	28.4	67.5	7.7	30.2	25.4
1991	21.3	28.4	75.2	20.2	28.6	70.7	6.7	30.8	21.6
1992	22.2	28.9	76.9	21.5	29.1	73.8	6.3	32.3	19.5
1993	22.9	24.3	94.1	21.1	24.7	85.4	5.6	33.0	16.9
1994	23.0	24.8	92.7	20.6	25.1	82.3	5.2	33.8	15.3
1995	23.9	25.2	94.6	20.5	25.3	81.1	5.5	34.1	16.0
1996	24.2	25.6	94.4	21.5	25.6	83.9	5.9	34.5	17.0
1997	24.6	28.1	87.4	22.1	28.0	78.8	7.5	36.2	20.9
1998	25.0	29.0	86.2	24.4	29.2	83.3	13.1	38.7	33.9
1999	25.3	29.6	85.7	23.4	29.6	79.0	15.6	39.0	40.0
2000	27.3	30.4	89.8	22.9	30.2	75.8	16.3	40.4	40.5
2001	28.0	34.1	81.9	24.1	34.0	71.1	17.4	41.9	41.4
2002	28.7	34.5	83.0	24.1	34.3	70.3	16.6	41.6	40.0
2003	29.3	35.6	82.3	26.5	35.2	75.2	18.7	43.7	42.8

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[국문 초록]

국가부채의 지속 가능성 : 한국의 경우

나성린·박기백·박형수

본 연구는 논란이 되고 있는 정부부채의 안정성을 검증하기 위하여 3가지 분석을 실시하였다. Bohn's test에 따르면 우리나라는 정부부채에 적절히 반응하므로 재정안정성이 있는 것으로 나타났다. 지출 전망을 이용하여 재정안정에 필요한 세입 증대 수준(Tax gap)을 계산한 결과를 보면 단기나 중기는 문제가 없다. 그러나 장기적으로는 연금재정 악화, 복지지출 증대로 세입 증대가 불가피한 것으로 나타나고 있다. 경제수준이나 정치적 요인 등을 감안하여 부채수준을 국제비교한 지수(IGDC index)를 보면 우리나라는 외국보다 부채 수준이 낮지만 최근 증가하는 추세를 보이고 있다.

따라서 공적연금의 잠재적인 부채, 경제성장의 정체, 고령화 및 저출산 등의 재정 여건을 감안하면, 장기적인 재정안정성을 확보하기 위하여 공적연금의 개혁이 필수적이고, 정부는 우리나라의 부채수준 증가에 더욱 더 조심하여야 한다.

핵심 주제어 : 재정 안정성, Bohn's test, tax gap, IGDC 지수.

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