A Study on the Burden of the Public Debt in Japan through System of National Accounts

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I. Introduction

The financial deficit of Japan has been on the constant rise due to accumulated public bond issuance and a debt loan since the bursting of the bubble economy in the 1990s. As a result, the balance of long-term debt of both national and local government is supposed to top 130% of nominal GDP at 693 trillion yen at the end of the 2002 fiscal year (1). This is twice as much as the standard of EU monetary union at 60%, and is the worst in the world’s leading industrialized nations. This is caused mainly by rising expenditure for series of economy-boosting measures, gradually increasing social security-related expenditure such as pension and medical expenses in connection with dwindling birthrate and an aging population beyond expectation, in addition to plummeted tax revenues because of the prolonged economic downturn. Even if the economic conditions of Japan get well slowly over a medium and long period of time, the increased tax revenues thereof cannot afford the enormous public debt expenditure and increased expenditure due to rising social security-related expenditure, which means, with present situation the public finance will be most likely to go steadily downhill.

It is also predictable that if financial deficit continues to extend, it results in not only even lower rating of government bond by internal and external credit rating agencies but also constrained capital investment by private companies due to constant pressure on hikes in interest rate, or in the increased national burden in terms of tax raise and oppressed household consumption.

However, citizens or local residents appear to have little recognition of “the burden of the public debt” since negative effects of financial deficit is not so obvious.

There have been varieties of arguments about the burden of the public debt in comparison with the tax burden, especially about whether the burden would be shifted from the present generation to the next generations when revenue sources necessary for public service are supplied by public (government and local) bond issuance.

This thesis, therefore, will examine the burden of the public debt between generations, in addition to emphasizing the background of financial aggravation in the 1990s by comparing it with that from the 1970s through the early 80s with “System of National Accounts”, one of the major indicators of macro economy.

(1) According to “White Paper on the Economy and Public Finance” by Cabinet Office, public sector (general government and public business) has 2, 274 trillion yen of total assets and, at the same time, 2, 422 trillion yen of total debts at the end of 1999 fiscal year. Therefore, net worth, total assets with total debts taken out of it, is 148 trillion yen minus, which means excess of debt.
II. The Background of the Financial Crisis in the 1990s

I will first consider the background of the financial crisis in the 1990s called “the Heisei Recession” in comparison with the financial crisis after the first and second oil crises in the 1970s.

More specifically, three decades from the 1970s to the 1990s will be divided into 2 periods: 15 years from the 1970s to the early 1980s (called the previous financial aggravation term) and another 15 years from the late 1980s to the 1990s (called the current financial aggravation term). Financial and economic structure in these past 30 years will be studied on with balance of saving and investment (in the ratio to nominal GDP) classified by institutional sectors in system of national accounts.

1. The Background of the Previous Financial Crisis

Firstly, let us consider reasons why the financial deficit grew large in the previous financial aggravation term (figure 1). This is the period when the growth rate stagnated significantly from rapid economic growth rate to stable or moderate growth rate because of the two oil crises in 1973 and 1979, accompanied by great debilitation in public finance.

According to figure 1, the balance of saving and investment of households (including private unincorporated non-financial enterprises) sector is almost stable at 10% excess saving (financial surplus) in nominal GDP.

On the other hand, the balance of saving and investment of incorporate business (non-financial incorporated enterprises) sector is basically minus, i.e., excess investment (financial deficit). The ratio expanded into 15%

Figure 1  Movements in balance of saving and investment classified by institutional sectors (in the ratio to nominal GDP) (fiscal 1970 to 1984)
(Source) Economic Planning Agency (Cabinet Office) "Annual Report on National Accounts"
minus at the end of the 1973 and 1974 fiscal year from about 10% minus in the early 1970s, especially before the first oil crisis in 1973. The major reason is why decrease in saving was beyond that in investment as growth of business benefit dampened.

However, after the 1975 fiscal year minus margin grew small from 10% minus to 4% minus. This is mainly because incorporated business saving recovered and at the same time its investment saw sluggish growth, while incorporate business benefit moved stably.

On the contrary, general government sector underwent a different transition. The balance of saving and investment of general government was slightly in the black (excess saving and financial surplus) until the 1974 fiscal year. In 1975, though, it swung into minus (excess investment and financial deficit) and thereafter moved stably between about two to four percent minus.

It was the period struck by the two oil crises (in the 1973 and 74 fiscal years, and in the 1979 and 80 fiscal years) when balance of saving and investment (current balance) of foreign sector moved into red (excess investment and current-account deficit on this figure ), and except for this period the current balance moves in the black (excess saving).

Accordingly, following the fiscal year 1975 after the first oil crisis, the excess saving of household surpasses the excess investment of incorporated business, keeping the private sector (household and incorporated business) in excess saving. This excess saving of the private sector tops the excess investment (the financial deficit) of general government, which leads to surplus in current balance by just that much. In other words, in the previous financial aggravation term the pattern in which excess saving, or financing surplus, of household sector compensates for the financial deficit, or the financing deficit of general government sector was firmly established.

Let us then consider reasons why general government went into continual financial deficit.

Figure 2 shows a breakdown of the balance of saving and investment (in the ratio to nominal GDP) of general government. There are two important points according to it.

Firstly, it is not always the case that the financial deficit has rapidly expanded because economic measures, especially public investment, were carried out. It is true that in order to minimize impact on real economy by the first and second oil crises, economic measures especially public investment were positively carried out several times in the previous financial aggravation term. Nonetheless, as far as investment expenditure of general government is concerned, stable shift of around six percent continued in the ratio to nominal GDP.

Secondly, consistent increase in transfer expenditure, especially social security–related expenditure, was the main cause of rapidly expanded financial deficit. That stemmed from social security boosting measures carried out by the government. The 1973 fiscal year, for instance, was called “the Pension Year” and two major reforms were conducted. The one is that the rise of benefit levels by reevaluating the past wage in accordance with the

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(2) In this thesis excess investment in foreign sector means deficit in the current account, but it officially means net lending to rest of the world, i.e., surplus in the current account.
wage level of 1975. The other is that the real value of public pension was automatically maintained by introduction of the system of indexation.

In effect, the previous financial aggravation term is the time when the high economic growth rate until then was greatly dampened due to sharp increase in social security–related expenditure such as public pension and the two oil crises, which led to lower tax revenue that emphasized the reality of financial deficit.

2. The Background of the Current Financial Crisis

The 1990s, the current financial aggravation term, seems to be the period during which the financial situation extremely worsened by drop of tax revenue due to the economic slump in the wake of the bursting of the bubble economy and increased public investment and tax cut because consecutive economic measures were carried out. Let us take a close look (figure 3).

First of all, excess saving of household, in the ratio to nominal GDP, showed a stable movement at approximately eight percent from fiscal 1987 to 1993. After 1994, though, the movement lowered to approximately five percent. The underlying reason thereof supposed to be that personal consumption recovered, whereas housing investment moved almost stably.

On the other hand, the balance of saving and investment of incorporated business rapidly grew negative against the background of favorable capital investment in the late 1980s. However, that in the 1990s, especially after the 1992 fiscal year, had decreased minus margin and finally swung into plus in fiscal 1998 and 1999. This is because private equipment investment was stagnated and incorporated business tried to reconsider earning
retention by means of repayment of past debts.

General government is in sharp contrast with the private sector, i.e., household and incorporated business. Minus margin in the balance of saving and investment of general government steadily decreased in the 1980s and swung into plus in fiscal 1987. Afterward, financial surplus between two to three percent continued, reflecting high growth rate in tax revenue due to the bubble economy. In the 1992 fiscal year, though, raising public investment and leading acquisition of land in economic measures in addition to plummeted tax revenue due to economic slump led to minus in balance of saving and investment again and minus margin has been growing after the 1993 fiscal year.

Having in mind the changes in economic and financial structure in the current financial aggravation term, let us consider why the financial deficit of general government went onto an expanding basis in the 1990s.

Figure 4 shows a breakdown of general government’s balance of saving and investment in the ratio to nominal GDP. There are two noticeable points according to it.

Firstly, it is not necessarily the case that financial deficit has rapidly extended because economic measures, especially public investment, were conducted. It is true that in order to minimize impact on real economy by the bursting of the bubble economy, economic measures especially public investment were positively carried out several times. Nevertheless, as long as investment expenditure of general government is concerned, stable movement of around six percent continued in the ratio to nominal GDP. It is evident that discretionary fiscal policy was, just as in the previous term, not implemented thoroughly in the current financial aggravation term, though contrary to common belief (3).
Secondly, consistent increase in transfer expenditure, especially social security–related expenditure, was the major cause of rapid expansion of the financial deficit. This is because social security–related expenditure such as public pension and medical expenses is constantly increasing due to aging population combined with the diminishing number of children (4).

In the light of these facts, it seems right to say that the fundamental causes of the current financial aggravation term have already been built in during the previous term. It is thinkable that the reason why the current term is more serious than the previous term is that the economic growth rate is low or in the negative rate as social security–related expenditure steadily increases, accompanied by extreme decrease in tax revenue.

III. Problems of Public Bond Issuance and Major Viewpoints of the Burden of the Public Debt

1. Problems of Public Bond Issuance

Let us now examine how, when, and by whom the burden of public bond issuance involved in the growing financial deficit is shouldered. There have been various discussions held in and out of Japan on this subject.

(3) It is said that “increased deficit in government sector is not brought about by conscientious demand stimulation policy” in the current financial aggravation term (Japan Economic Research Institute. “Kokusai no Ruizo to Nihon Keizai” P57).

(4) “White Paper on the Economy and Public Finance” by Cabinet Office also points it out as the major cause of expanding structural fiscal deficit.
In considering the burden of the public debt, it is of great value to recognize whether the citizens are aware enough of the tax burden involved in the future redemption of public bond, i. e., the problem of “the fiscal illusion”. Its existence can be proved by analyzing the role of balance of public bond issuance in household consumption and saving, such as whether or not it itself is thought to be a net asset. Lively discussions have been held in Japan on the fiscal illusion, as the financial deficit and amount of public debt grew large due to the two oil crises in the 1970s. One of the studies, which examined empirically the existence of the fiscal illusion, is “Annual Report on Japan’s Economy, 1985 edition” (former Economic Planning Agency, present Cabinet Office). It says that it is realistic to acknowledge to some extent the existence of the fiscal illusion, which leads to various problems involved in public bond issuance.

When there is fiscal illusion among the citizens, cost of public service supplied by public bond issuance cannot be recognized properly and the citizens feel the burden lighter than when it is provided by tax revenue. Therefore, it is likely that financial expenditure expands beyond the appropriate standard of public service, and resource distribution will be inefficient. In addition, growing financial expenditure and the ballooning public sector can eventually heighten national contribution ratio (tax burden ratio and social security burden ratio) and, at the same time, lower the morale, which would impede the energy of private business.

Lower efficiency in resource distribution and lower morale noted above are not the only problems resulted by public bond issuance. Rapid increase in public bond expenditure is feared to result in budget rigidity and inadaptability to financial demand that will come up in the future.

The problem of crowding out, although it is not obvious because of the economic slump and the low interest rate policy, will be likely to come to light depending on the future financial development and its potential danger calls for enough attention. If the crowding out occurs, it can lower the future production capability through decreased capital accumulation and the burden of the public debt will be shifted onto the future generations by lowering their welfare levels.

This idea of the burden between generations, i. e., the problem in public bond issuance between the current and the future generations, has called all sorts of discussions according to definitions of the burden.

2. Major Viewpoints of the Burden of the Public Debt between Generations (5)

(1) The Idea that the Burden of the Public Debt will be shifted from the Current Generations to the Next

The public debt is fundamentally understood in a way in which household debt acts. Household and government such as national and local government are essentially the same in structure, and the public debt is unwholesome just as the household debt is. Debt primarily means a way to cover the present expenditure by the future burden. In case of financing through bond issuance, the citizens tend to think little of the future burden because there is poor relation between the current beneficiaries and the future taxpayers in comparison with the

(5) About the burden that is shifted to the future generations involved in bond issuance, the argument from Bowen et al. is well known other than those below. It defines the burden as decreased life-long consumption. It says that when bond is issued and redeemed over generations, future generations consume less than the current generation and the burden is shifted to the coming generations.
case of household debt. In other words, the public debt will be the future burden since it will cause tax raise at
the time of redemption and interest payment, not at the time of its issuance.

Buchanan, J. M also claims that the burden of the public debt is shifted to coming generations (6).

Now suppose public service costs are supplied by the public debt, not by tax revenue. In this case, the current
taxpayers do not have to bear the burden of the tax. The future taxpayers, on the other hand, should bear it if tax
is raised in order to redeem the bond. That is to say, the current generation can be exempted the tax burden,
whereas the future generations should shoulder it.

Moreover, Modigliani, F. says the public debt affects the future point of time through its influence on capital
accumulation, as explained as follows.

Suppose public bond is issued in order to cover the costs of public service. Then balance in account of the one
undertaking the bond decreases by just that much. Money in account will be appropriated for loans that
companies invest in equipment. Decrease in back account due to the bond issuance, however, cuts down
equipment investment of private companies through decrease in bank loans. Although public investment grows
by bond issuance, national investment productivity grows negative by decreased private equipment investment.
This indirect mechanism causes decreased capital accumulation in the future private sector, leading to the
conclusion that the burden of the public debt is shifted to the future point of time.

Government absorbed the most financing surplus of household in the 1990s, and it has enormous impact on
resource distribution of the whole economy. If the financial deficit crowds out corporate financing demand, it
impedes the future capital accumulation.

Fiscal authorities are for the idea that the burden of the public debt will be shifted to the future generations
since the costs necessary for public bond redemption should eventually require tax raise.

(2) The Idea that the Burden of the Public Debt will Not be shifted from the Current Generation to the
Next

This idea was established by Keynesian, among whom are Samuelsen, P. A. and Lerner, A. P., and it
considers the burden of the public debt as “changes of resources available”. They think that users of available
resources are not limited to household or fiscal authorities but include the whole nation, and measure the burden
by changes of welfare levels of the entire economy. In other words, the idea focuses not only on fiscal
expenditure but also on the influence on household consumption spending and corporate investment
expenditure.

Available resources can change or remain unchanged depending on whether the public debt is internal or
external. External debt makes it possible to utilize more that sheer domestic production since available resources

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(6) Buchanan refined the Keynesian idea. He thinks that because there will be both ones who bear the burden and the ones who get
redemption on the time of public debt redemption, there is no change when the entire economy is considered. However, as far as
the burden of the public debt between generations is concerned, it is considered to be shifted from generation of the time of
issuance to that of the time of redemption.
flow in from overseas at the time of issuance. On the contrary, at the future point of time when the public bond expenditure (redemption and interest) is paid, all domestically produced resources cannot be utilized since they flow out of the country. In case of external debt, the future burden remains, for domestic available resources decrease at the time of redemption.

On the other hand, this is not the case with internal debt, since resources never move over borders through both issuance and redemption, since bondholders are all within the country. That is, internal debt can be viewed as a debt and, at the same time, an asset. As a result, viewing the whole nation, they offset each other. Therefore, the public debt does not change available resources in the sense of time, i.e., its burden will not be shifted to the future generations.

The public debt of Japan is internal, basically absorbed domestically reflecting household excess saving. Accordingly, some economists say it lacks reasonable balance to criticize bond issuance, as far as the shift of its burden between generations is concerned.

Barro, R. J, a member of rational expectations school, is famous for offering neutrality theorem, i.e., the idea that the burden is not shifted as long as household deals with it rationally. The concept of the neutrality theorem, which allows no room for the fiscal illusion, is explained below.

People try to bequeath a fortune to the coming generations such as their children. Amount of a fortune depends on consideration to the future generations, no matter how much bond has been issued. If the future generations should shoulder the burden through bond issuance, the actual fortune they will be receiving will be depreciated. People thus seek to increase their saving, or a fortune, in order to cover the actual depreciation of it. That is, they pass down a fortune to future generations as tax reserves. Barro’s point is that when a fortune is properly regulated and the neutrality theorem is valid, financial deficit and accumulated balance of bond issuance do not have negative impact on macro economy, and the burden of the public debt will not be shifted from the current generation to the next, either.

The neutrality theorem is usually defined as follows: Public bond is a postponed tax, so expanded financial deficit will force household to decrease consumption in behalf of the future generations and to leave as much saving as possible in consideration of the heavier burden of tax for bond redemption. Therefore, no matter how financial expenditure is covered, namely, by either bond issuance or tax raise, it has nothing to do with the present and the future household consumption and eventually, macro economy itself will remain unchanged.

As can be seen, the arguments stem from conflicts of views toward the burden of the public debt, and result in two different standpoints. The one is that “the burden will be shifted from the current generation to the future generations”, and the other is that “the burden will not be shifted from the current generation to the future generations.” These two opinions are opposed to each other logically. There is no need to say, therefore, whether or not the burden will be shifted requires strict empirical analyses.
Ⅳ. Empirical Analyses of the Burden of the Public Debt

1. Traditional Empirical Analyses on the Burden of the Public Debt (the Neutrality Theorem)

<table>
<thead>
<tr>
<th>Main traditional studies</th>
<th>whether to approve the neutrality theorem</th>
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<tr>
<td>Ochiai (1982)</td>
<td>X (reject)</td>
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<tr>
<td>Nagamine (1985)</td>
<td>O (approve)</td>
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<td>Ihori (1989)</td>
<td>O</td>
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<tr>
<td>Honma, Atoda, and others. (1986)</td>
<td>micro economy X, macro economy O</td>
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<td>Honma, Mutou, and others. (1987)</td>
<td>Recently O, though depending on data</td>
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<td>Nagamine (1987)</td>
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<td>Ihori (1989)</td>
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<td>Kitasaka (1991)</td>
<td>X</td>
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<td>Shibata, Hidaka (1992)</td>
<td>O</td>
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<td>Honma (1996)</td>
<td>Recently O, though depending on the period data covers</td>
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<td>Akai (1996)</td>
<td>local bond X</td>
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<tr>
<td>Uemura (1997)</td>
<td>only national government expenditure considered O</td>
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<td>only local government expenditure considered X</td>
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<td>both national and local government considered X</td>
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(Note) Because the validation of the theorem is based on statistical methods, it cannot be said exactly whether or not it is valid. Here O denotes approval and X rejection in each study.

(Source) Uemura, Toshiyuki. “Zaisei Futan no Keizai Bunseki” P185, Kansei Gakuin University Press

There have been many empirical analyses with different prerequisites about validity of the neutrality theorem from the 1980s, the previous financial aggravation term, among all sorts of ideas about the burden of the public debt shown above. The table shows the outcome of the major empirical analyses on the neutrality theorem in Japanese bonds. According to it, the two extreme results are taken out of the strict empirical analyses on neutrality theorem, i.e., “rejection” (X) and “approval” (O), because of differences of analyzing methods and economic environment due to the difference in periods of analyses.

What is remarkable here in the results of the empirical analyses about the burden of the public debt is that there are many studies rejecting the neutrality theorem in the 1990s, whereas more studies approved it in the 1980s.

One of representative empirical analyses in the 1980s by Honma, Mutou, et al. said that economic situation in which the neutrality theorem holds had become more common in the period from 1965 to the early 1980s.

Empirical analyses in the 1990s, on the other hand, such as Uemura’s, said that the neutrality theorem could hold to some extent in national financial deficit, but could not in local financial deficit.

Although the analyzing methods are different, why, then, is this difference of results in the previous and current financial aggravation term?

Let us now confirm the fact noted above through examination of mutual action of total saving (including depreciation cost) classified by institutional sectors in system of national accounts.

(1) Movements in Total Savings in the Previous Financial Aggravation Term

Figure 5 tries to examine the bond issuance–induced movements of total savings classified by institutional sectors in the ratio to nominal GDP.

First of all, let us focus on the movements of total savings of household and incorporated business. The sum of total savings of both sectors keeps fairly stable movement around 15% in the ratio to nominal GDP. The saving of incorporated business swung into decrease from fiscal 1970 to 1974 affected by poor performance in the wake of the first oil crisis, though it recovered afterward. On the other hand, the household saving shows the almost opposite movement to that of incorporated business during the same period of time.

The way of understanding the reason why the total savings of household and incorporated business moved contradictory opens the door to the idea on the burden of the public debt. For example, rational household supposedly sees the total savings just as incorporated business does its own, then household considers the total savings of incorporated business as internal retention, which eventually means a form of total savings that household has as a shareholder. The total savings of the entire economy plummeted significantly after the first oil crisis. Thus, it can be said that expanding financial deficit decreases the total savings of the whole economy. Bond issuance, then, as Modigliani puts it, has noticeable influence on resource distribution of the entire economy.

Figure 5  Movements of total saving classified by institutional sectors in the previous financial aggravation term (in the ratio to nominal GDP)

Let us now give attention to the movements of household’s and government’s total savings. After rapid economic growth rate until fiscal 1974, the sum of both savings decreased in the ratio to nominal GDP. Viewing the movements respectively, household somewhat increased its total saving, though not thoroughly, in response to decrease in government’s saving. From this standpoint, Barro’s neutrality theorem seems to be, to some extent, valid.

This can be confirmed, to a degree, by “Family Budget Survey” released by Ministry of Public Management, Home Affairs, Posts and Telecommunications (figure 6). It can be also born out by the fact that household, after increasing saving rate (decreasing consumer propensity) from fiscal 1970 to 1974, moves quite stably. Stable growth in saving rate (consumer propensity) after the 1975 fiscal year is supposed to be because of the fine environment surrounding household, although Japanese economic and financial structure dramatically changed during the previous financial aggravation term, from the period of rapid economic growth rate to that of stable growth rate. Household disposable income in the 1984 fiscal year (359,000 yen a month) became three and a half times as much as that in the 1970 fiscal year (104,000 yen a month).

These statistic data alone cannot tell which of the idea of the bond burden, namely, that from either Barro or Modigliani, explains better the economic situation in the previous financial aggravation term. However, it seems reasonable to think that total savings decreased because household tried not thoroughly to increase its saving rate in response to decreased saving rate of both incorporated business and government.

From this standpoint, it is understandable that there were many results of strict empirical analyses in the 1980s saying the neutrality theorem was at some level valid.

(Note) Both consumer propensity and saving rate are the ratio to disposable income respectively.
(2) Movements of Total Savings in the Current Financial Aggravation Term

Figure 7 shows the movements of total savings classified by institutional sectors through bond issuance in the current financial aggravation term in the ratio to nominal GDP.

First, let us take a close look at the movements of total savings of household and incorporated business. The sum of both savings moves stably at around 10% in the ratio to nominal GDP after the 1990 fiscal year. Total saving of corporate business, though it decreased mainly because of poor performance after the bursting of the bubble economy, slowly improved due to upturn in performance. Saving of household, on the other hand, showed the almost opposite movement to that of incorporated business after the 1990 fiscal year.

Household can be said to have the same view on its total saving as on that of incorporated business in the current financial aggravation term just as in the previous term. Since the growing financial deficit of government leads to decreased total savings in the entire economy, bond issuance has, as Modigliani explains, remarkable impact on resource distribution in the whole economy.

Let us now focus on the movements of total savings of household and government. The sum of both savings in the ratio to nominal GDP shows almost flat move from the 1985 to 1991 fiscal year, but it decreased significantly after fiscal 1992. When seen respectively, total saving of household appeared to decrease in response to the increased total saving of government from fiscal 1985 to 1991. From this point of view, Barro’s neutrality theorem can be understood as valid to a degree in the late 1980s.

In the current financial aggravation term after the 1992 fiscal year, however, household saving in addition to that of government showed a tendency to decrease. As long as measured by this fact, it is reasonable to think that the neutrality theorem is less valid in the current term.

Why, then, is it that the neutrality theorem is hard to be validated in the current term? One of the underlying problems is that the benefit environment of household is not as optimistic as it was in the previous term. Disposable income of household became 1.3 times more over 15 years from 1985 fiscal year (374,000 yen a month) to 1999 (484,000 yen a month). It increased, except the boom years in the late 1980s, only by 10% over the 10 years from the 1990 fiscal year (441,000 yen) to 1999.

In this harsh environment of income, consumer propensity tends to keep decreasing whereas household saving rate goes higher (figure 8). The point is how to consider this fact and mutual action between each institutional sector in terms of total savings noted before.

There can be a lot of explanations on this point from the view of the burden of the public debt, but it may be the most reasonable way to think that there is such mechanism at work as follows.

Rational household tries to boost saving rate in response to extremely worsening performance of incorporated business in the current financial aggravation term. However, because the performance has deteriorated over a very long period of time and environment of household income was quite severe, household appeared to have little way to cope with government financial deficit by means of increasing saving rate.

Then let us examine why there are many empirical analyses which turn down the neutrality theorem on local financial deficit in this term of financial aggravation.

Uemura (1997, 2001) comments on this matter saying that this is because household does not have easy access to information about local government financial deficit in addition to financial deficit of other regions, although information of central government financial deficit is within its reach.

Akai says in his 1996 thesis that local government has no actual latitude on levying taxes and local bond redemption costs cannot be covered with local tax raise, making local residents feel as if local bond issuance
was without any burden, since they think only of their own region.

V. Concluding Remarks

This thesis has examined economic and fiscal environment in the previous and current financial aggravation term through macro data, namely, balance of saving and investment classified by institutional sectors in system of national accounts. It has also studied how the idea of the burden of the public debt affects on real economy of Japan. However, analyses of the burden of the public debt can vary as long as it is done with ex-post macroeconomic data, i. e., system of national accounts, and it has not yet been determined which idea is both realistic and appropriate. It seems proper, though, that the current financial aggravation term is not more adaptable to household financial deficit than the previous term as far as mutual action on saving between each institutional sector is focused on, as already noted. Although there is no need to say that more precise empirical analyses are crucial, this leaves important suggestions about examining the problems of the burden of the public debt, as explained below.

Firstly, benefit trend of corporate business in addition to financial deficit hold the key in prolonged economic slump. Performance of incorporated business plummeted significantly in the current financial aggravation term, which cannot be compared with that in the previous term, in the wake of the bursting of the bubble economy. Reflecting the worsening income environment, household seems to have very few ways to cope with financial deficit that expands beyond expectation.

Secondly, tax system and political and economic structure have more influence on household saving. It is hard to say that especially local finance, compared to national finance, gives precise data of actual financial deficit, not to mention it is less efficient in disclosing fiscal information. This is because local financial deficit is covered automatically by national finance without issuance of local bond or tax raise. In the current financial aggravation term, for instance, the reason why local government cooperates eagerly with central government is that most redemption costs of local bond are covered by local allocation tax, that is, by financial transfer, without future raise of local tax. This makes it natural for local residents to be little aware of the cost necessary for local bond redemption as well as to have difficulty grasping the actual condition of local finance.

Thirdly, it has become ever more important to show specific ways to fiscal reconstruction with social security–related expenditure at its core, in order for household to adapt rationally to financial deficit. If financial deficit can be controlled at the level in which its sustainability is maintained, household may be free to some extent from worries about unclear outlook and for the increased burden. In the previous financial aggravation period, the fiscal reconstruction measure called zero or minus ceiling under the slogan “fiscal reconstruction without tax increase” was introduced, but it seemed to have considerable impact on middle– and long– term income and saving of household.

(7) Neutrality theorem cannot be turned down when examined with quarter data, but can be rejected with annual data.
Therefore, it will be more critical in further empirical analyses on the burden of the public debt to take into consideration these three points: benefit trend of incorporate business, political and economic structure, and policy operation such as public finance correction.

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A Study on the Burden of the Public Debt in Japan through System of National Accounts

Masaki Hirano

This thesis will examine the economic and financial environment of the previous and current financial aggravation terms through macroeconomic data, namely, balance of saving and investment classified by institutional sectors in system of national accounts. It will also consider how far the concept of the burden of the public debt is applicable to Japanese actual economy.

As long as measured by ex–post macroeconomic data, system of national accounts, though, there are a lot of possibilities of evaluating the burden and it cannot be exactly said which evaluation such as neutrality theorem is both realistic and appropriate.

However, the current financial aggravation term, compared with the previous term, seems to cope insufficiently with household financial deficit as far as mutual action about saving between each institutional sector is concerned. Although there is no need to say that further empirical analyses are essential, this includes important suggestions for examining the problems involved in the burden of the public debt.

Firstly, incorporated business benefit trend in this prolonged period of economic slump is a critical factor.

Secondly, taxation system and political and economic structure have more and more impact on household saving.

Thirdly, it has become essential to show specific ways to fiscal reconstruction with social security–related expenditure at its core, in order for household to adapt rationally to fiscal deficit.

Therefore, it will be more crucial in further empirical analyses on the burden of the public debt to take into consideration these three points: benefit trend of incorporate business, political and economic structure, and policy operation such as public finance correction.