

**LONG TERM DEVELOPMENTS  
OF SWEDISH PUBLIC FINANCES —  
CAN “STRAIGHT JACKETS” REVERSE THE TRENDS?**

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**1 Introduction<sup>1</sup>**

Swedish public debt shows a strong increasing trend over the last three decades. The degree of variability is high and also increasing. After a fast upturn during 1978-81, public debt declined considerably in the late 1980s. The improved public finances in the late 1980s were not sustainable in a longer perspective. The most severe fiscal crises during the whole century followed in the early 1990s. Public debt has, however, been reduced in the late 1990s. Debt will probably be reduced further in the coming couple of years.

Why should we care about public debt? A high and volatile debt may lead to higher taxes in the future. Debt today and higher taxes tomorrow may cause higher welfare losses than otherwise necessary.

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These welfare losses may show up as negative incentives for labor supply, savings, higher education, and international capital flows. There could also be a threat to price stability. This is the reason why the Stability and Growth pact was introduced when the European Monetary Union started.

The fundamental question is therefore: Can we expect a sustainable path for public debt in the long run following the current episode of debt reductions?

There are two main policy alternatives to keep the public debt-GDP ratio stable in the long run. The first is to have annual deficits of a size so that the growth of the debt is equal to GDP growth. This will keep the public debt ratio *constant*. The second is to compensate deficits during recessions by surpluses during expansions so that the public debt ratio is *stationary* in the long run but not necessarily constant in the short run.

During the last decades, Sweden has chosen the first alternative during expansions and the second during recessions. This is not a sustainable combination in the long run.

One may, however, ask why a stable long run public debt ratio should be a policy objective. What is really the optimal public debt ratio? This separates into several different questions. Two of them are:

- What is the optimal level of the public debt ratio?
- What is the optimal variability of the public debt ratio?

Our interpretation is that the first question has very much to do with public investment and the public stock of real capital. The development of the public sector's assets will affect the optimal public debt.

The second question is related to public consumption and public transfers. An important dimension of this question is that there are several different theoretical models suggesting that it is desirable to keep tax rates constant over time. A consequence of this may be that the public debt ratio will fluctuate.

The policy environment is important. Besides general differences in the macroeconomic conditions and in the size and structure of the public sector, public finances in Sweden are now put into a

“straight jacket”<sup>2</sup>. It consists of a medium-term target of budget balances, a “top-down” budgetary process, and expenditure ceilings. In addition there is a “peer pressure” from abroad because of the Swedish membership in the European Union. The medium run target is a response to this.

Our *first* main conclusion is, however, that in the short run this is not ambitious enough while it is too ambitious in the long run—the trend will be too much reversed in the long run. The “top-down” budget process and the expenditure ceilings are intended to help in reaching the target. Our *second* main conclusion is that, while measures like these may be effective in the short run when they are introduced, the long run efficiency is less clear. In the long run there will have to exist a strong political commitment to the necessity of fiscal discipline. “Straight jackets” cannot work alone and especially not in the opposite direction of the beliefs of the political decision makers.

The paper is structured as follows: Section 2 presents the basic facts about the development of the Swedish public debt during more than a century. The policy objectives are presented in Section 3. Section 4 discusses how the optimal public debt can be determined. Policy instruments and policy implementation are the topics of Section 5. Section 6 concludes.

## 2 Facts, patterns and episodes

Figure 1 shows the development of the Swedish central government debt-GDP ratio during more than a century<sup>3</sup>. The debt ratio was almost constant at 20 percent during the period 1890-1930, except

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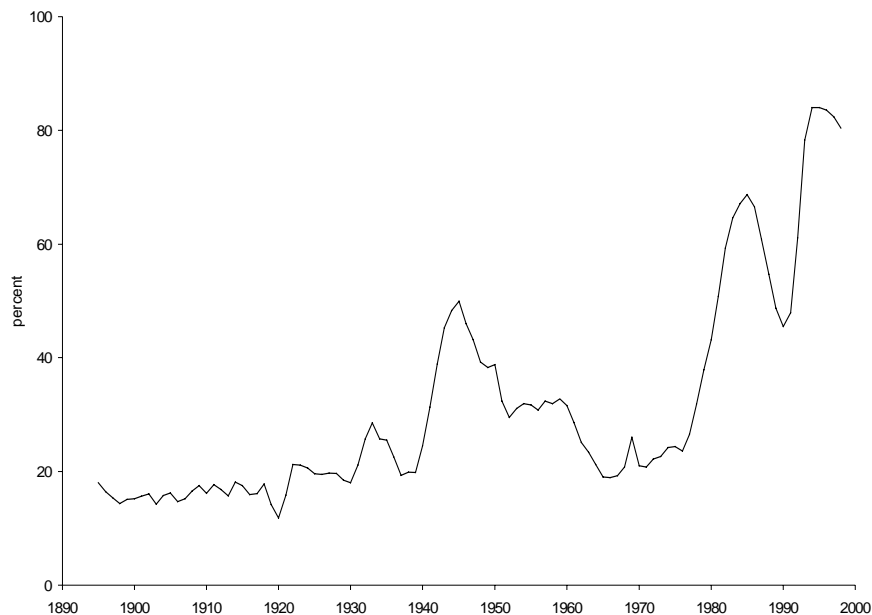
<sup>2</sup> OECD (1998) presents the budget process of the central government in Sweden.

<sup>3</sup> The general public sector also includes the local governments (county councils and municipalities) and the old-age pension system. The implicit pension debt of the pay-as-you-go pension system is, however, not included. There are, however, no long time series easily available for these sectors. We, therefore, concentrate on the central government. The development in general government debt-GDP ratio is to a large extent dominated by the development in central government debt-GDP ratio.

for a small drop in the beginning of the 1920s. Debt rose somewhat in the middle of the 1930s when the Swedish government pursued an activist fiscal policy. During World War II the debt ratio more than doubled for obvious reasons. After the war, however, the debt ratio showed a trendwise decline until the 1970s. This was a decade when the public sector continued to expand at the same time as international influences on the Swedish economy, for example the oil price hikes, affected the economy much more than before.

During the last decades the debt ratio shows a strong increasing trend. In the end of the 1990s the debt ratio was four times that of the ratio during the 1970s. But in addition there has also been a high, and increasing, degree of variability. After fast upturns during 1978-81 and in the early 1990s public debt declined considerably in the late 1980s and has been reduced in the late 1990s. Public debt can be expected to be cut further in the coming years.

**Figure 1. Central government debt-GDP ratio, 1895-1998.**



Source: The Swedish National Debt Office.

**Figure 2. Central government real revenue and real expenditure, 1969-1998.**



*Source: Own calculations based on data from the Swedish National Audit Office and the Swedish National Financial Management Authority.*

Figure 2 shows central government real revenue and real expenditure 1969-1998. It is very much standard to relate nominal fiscal variables to GDP, e.g., to compute expenditure or public debt as shares of GDP. A potential drawback with this is that it is difficult to know if trends and cycles in these shares depend on trends and cycles in the fiscal variables or trends and cycles in GDP. As an alternative we have in this figure instead deflated the fiscal variables with the price index for central government consumption from the National Accounts. The main part of this index depends on wage costs as labor by far is the most important part of central government expenditure. Our computations also mean that we evaluate how much central government consumption could have been

bought for the actual expenditure on central government investment and transfers.

It is interesting to note that real expenditure (dotted line) has been higher than real revenue (solid line) almost every year during the three decades shown in the figure. The development of real revenue and real expenditure shown in Figure 2 is consistent with a clear decline in the expenditure-GDP ratio and an almost constant revenue-GDP ratio for the period 1993-1998. This development will continue 1999-2002 according to the forecasts in the *Updated Swedish Convergence Programme*, November 1999. The expenditure ratio for the general government will decline from 58.4 percent of GDP 1998 to 53.6 percent in 2000.

By looking at Figures 1 and 2 two conclusions can be drawn. In the first place, it is clear that the improved public finances in the late 1980s were not sustainable in the longer run. The most severe fiscal crises in the whole century followed during the beginning of the 1990s. Second, the following fiscal consolidation process was different from that of the 1980.

The fiscal consolidation starting 1982 was initially based on a tax increase strategy. Real expenditure did not start to decrease until the mid 1980s. The final steps to budget balance were based more on expenditure cuts than revenue increases.

During the 1990s the order was reversed. The fiscal consolidation started with a stop in the expenditure increases in 1992. Revenue started to increase later. Budget balance, contrary to in the 1980s, was exclusively based in revenue increases while real expenditure was not cut<sup>4</sup>.

There is another interesting observation to be made from the figure, a detail. After four years of decreases, real expenditure started to increase 1989. Was it because of a recession? No. The previous year was the first year with a fiscal surplus. When the surplus came, the control of

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<sup>4</sup> Alesina and Perotti (1996) compare the fiscal consolidations in industrialized countries.

costs decreased. Central government expenditure started to increase long before the crisis of the 1990s. As soon as there was a fiscal surplus, expenditure started to increase. Hence, the policy became pro-cyclical<sup>5</sup>.

This type of fiscal policy behavior was nothing particular for Sweden. Pro-cyclical reactions in good times has been common in a number of countries and seem to have caused an asymmetric pattern in fiscal policy so that discretionary expansion of expenditures has offset the effect of automatic stabilizers. This difficulty to let automatic stabilizers work unrestricted in upswings of the business cycle has been an important reason behind the problem to reduce government debt<sup>6</sup>.

So far we have focused on particular episodes for revenue and expenditure. It is instead possible to seek common patterns for the last three decades. Table 1 reports some regression results where we try to track down the impact of economic activity, as measured by GDP, on central government revenue and expenditure. The sample is very small from an econometric viewpoint so it is not possible to ask the data too difficult questions. We, therefore, keep the specifications simple and interpret the results with care.

We start by taking logarithms of the central government revenue and expenditure, and GDP. As is clear from Figure 2 the fiscal variables are trend dominated. We detrend by taking first differences to obtain revenue growth, expenditure growth, and GDP growth which all are stationary variables.

As is clear from Table 1 revenue is positively related to GDP. The elasticity with respect to current GDP is estimated to 1.3. The estimated coefficient is borderline significant. However, there seem to be lags in the effects of GDP on revenue. Including lagged GDP improves the fit considerably. Lagged GDP has a bigger impact than current GDP. The combined elasticity is estimated to 2.5 over a two-year period<sup>7</sup>.

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<sup>5</sup> Ohlsson and Vredin (1996) use these data to test if there are election and partisan effects on expenditure and revenue. They find partisan effects but no signs of political business cycles.

<sup>6</sup> For international evidence see Méhitz (1997).

<sup>7</sup> We compute the combined effect simply by summing the estimated coefficients,  $0.87 + 1.68 = 2.55$ .

**Table 1. Fiscal sensitivity to economic activity, 1969-1998**

	central government revenue growth		central government expenditure growth	
GDP growth	1.29 (1.84)	0.87 (1.22)	-1.30 (2.84)	-1.52 (3.00)
GDP growth, previous year		1.68 (2.47)		0.24 (0.49)
constant	0.008 (0.48)	-0.013 (0.74)	0.050 (4.52)	0.049 (3.76)
$R^2$	0.11	0.28	0.23	0.27
$SEE$	0.063	0.059	0.041	0.042
$F$ , sign level	0.078	0.015	0.008	0.021
$DW$	1.74	1.59	1.84	1.82
n of obs	29	28	29	28

*Absolute t-values within parentheses.  
All variables are in logarithms.*

The impact on expenditure of GDP is negative and significant. The elasticity with respect to current GDP is estimated to  $-1.3$ . Introducing lagged GDP does not add to the specification, the estimation suggests that there are no lagged effects.

Suppose that we evaluate these estimates at 1998 central government revenue, expenditure, and 1998 GDP. The estimations without lagged GDP suggest that the budget balance as a share of GDP increases by 0.9 percentage points if GDP increases by 1 percent. The estimations including lagged GDP suggest a higher number, 1.4 percentage points. It should be stressed that this is only a partial effect. To obtain the total effect of economic activity on general government finances it is necessary to add the impact on local government finances. Regardless of this, the conclusion is that the variations in the central



government budget, and consequently the variations in central government debt, has been very much connected with variations in economic activity during the last three decades.

The strong sensitivity of the Swedish budget balances to variation in economic activity has also been documented in several studies by international organizations. The EU-commission reports the estimates 0.9 and 1.1, the latter with IMF data. In a recent OECD study by Dalsgaard and de Serres (1999) the estimate is 0.7. Assarsson et al. (1999) estimated the sensitivity to 1.0 using a disaggregated method. The authors point out that the estimate is an historical average over the period 1980-97.

Reforms in the tax system and effects of the compensation rules on transfers during the 1990s are seen as reasons to assume that the sensitivity has decreased somewhat. Also the strong fall in GDP in the early 1990s probably influences the initial estimate. The estimates of the budget sensitivity are lower—approximately 0.8—when extreme episodes of reduction in GDP (annual decreases of GDP more than 2 percent) are excluded. This is in line with the rules of the Stability and Growth Pact. Methods that include current codes of taxes and expenditures yield similar results (Gidehag 1999).

All in all, both our own estimates and a number of other studies give clear indications that the Swedish budget is highly sensitive to economic activity. This sensitivity could have weakened somewhat in recent years because of structural reforms in the public sector and in the economy in general. Still there is no strong empirical evidence for major changes in the budget sensitivity to economic activity.

The fiscal cycles have, however, not been symmetric. Budget surpluses during expansions have been smaller than the budget deficits during recessions. This has led to a trend increase in debt. Table 2 illustrates this. During the last almost three decades there have been 12 years with below average GDP growth. During these years real central government debt has grown by on average 8.5 percent per year. We have used the GDP deflator to convert nominal debt to real. During expansion years annual real debt growth has been lower slightly less than 5 percent on average. This has not been low enough to keep overall debt growth on par with the average annual GDP during the period of 1.7 percent. Debt

**Table 2. GDP growth and debt growth, 1971-1998**

	n of years	GDP growth, mean	public debt growth, mean
recession years, GDP growth below overall mean	12	0.2	8.5
expansion years, GDP growth above overall mean	16	2.8	4.9
total	28	1.7	6.5

has increased by an average annual rate of 6.5 percent. The debt to GDP ratio has therefore grown with on average almost 4 percent per year.

The crucial fiscal variables for the Convergence Programme concern the general government and not the central government. More specifically, the programme focuses on the net lending of the general government and the consolidated gross debt of the general government. As is clear from Table 3, the developments of the net lending and the budget balance are similar except for a difference in levels. The same applies for consolidated gross debt. Our discussion of fiscal variables for the central government is, therefore, a good approximation also for the development of the fiscal variables for the general government.

The conclusions from this section are, first, that public budget balance and public debt have shown considerable cycles during the last decades. Second, these cycles are strongly and positively related to the economic activity. Third, the fiscal cycles have been asymmetric in the sense that budget surpluses during expansions have been smaller than the budget deficits during recessions. This has, fourth, lead to a trend increase in public debt. These conclusions are valid for the central government as well as the general government.

**Table 3. Fiscal convergence variables, percent of GDP, 1995-1998**

	1995	1996	1997	1998
net lending, general government	-7.9	-3.6	-1.8	2.3
budget balance, central government	-8.1	-1.2	-0.3	0.5
consolidated gross debt, general government	75.4	74.4	73.6	71.7
debt, central government	84.0	83.6	82.4	80.3

### 3 Policy objectives, forecasts and targets

There are two main policy alternatives to keep the public debt ratio stable over time, two long run fiscal policy strategies. The *first* strategy is to have a constant public debt ratio. The annual budget deficits should be of a size so that the growth in debt corresponds to the GDP growth. The public debt ratio will then be constant.

The *second* alternative is to have a stationary public debt ratio. This means that we let the public debt ratio vary but around a constant expected value. Deficits during recessions are compensated by surpluses during expansions so that the public debt ratio becomes stationary in the long run but not necessarily constant in the short run. The fiscal deficit will equal GDP growth in this case too, not every year but over the business cycle.

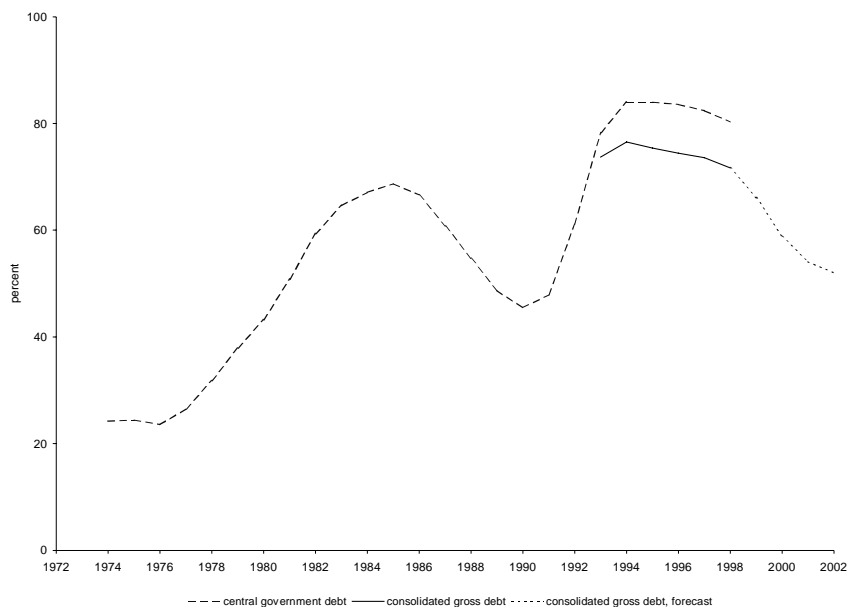
A strategy that, on the other hand, is not sustainable in the long run is to have a growing debt ratio during bad times and a constant debt ratio during good times. But during the last decades, Sweden has chosen rapidly a rapidly growing debt ratio during bad times and a slowly growing debt ratio during good times as was shown in Table 2. Since 1978 central government surpluses have only materialized a few years in

the late 1980s and in 1998 and 1999. The central government budget balance showed deficits the other years. This is not a sustainable combination in the long run. It is necessary to settle for one of the two possible sustainable strategies.

There are two lessons to be learned for fiscal consolidation. The first is to reduce the fiscal deficit. Both in the beginning of the 1980s and in the beginning of the 1990s it became the task for incoming Social Democratic governments to reduce deficits. The first lesson is done. The second lesson is to have budget balances during better times so that the debt ratio decreases. The second lesson remains to be done.

Figure 3 shows the trend increase in the public debt ratio since 1974. We have also included the forecasts according to the budget bill for the year 2000 the coming years until 2002.

**Figure 3. The central government gross debt ratio, the general government gross debt ratio, and forecasts, 1974-2002.**



Sources: The Swedish National Debt Office and the Budget Bill.

When studying Figure 3 it is clear that the public debt ratio is not stationary. The debt ratio increases trendwise. It has gone down cyclically in recent years and is expected to continue to do so. But, are there really signs that the long run trend is broken?

At a first glance the consolidation process in the second part of the 1990s has been impressive. The budget balance has improved some 15 percent of GDP from 1993 to 1998. Approximately half of the improvement has been of structural nature, as results of permanent reductions in social security benefits, tax increases and cuts in government consumption. The second half has been a result of the improved cycle. The gross debt of the general government sector stopped to grow 1994 at a peak of 76.5 percent of GDP and has been reduced to approximately 66 percent of GDP in 1999<sup>8</sup>.

The Swedish Parliament has decided on a medium run target for the net lending of the general government of 2 percent of GDP. The objective is to fulfil the convergence criteria for joining the European Monetary Union, e.g., to keep general government consolidated gross debt below 60 percent of GDP. Judging from Figure 2 this criterion will be met in 2000. The question is if this is only because of cyclical reasons, if the criterion will still be met in a coming recession.

However, in the *Updated Swedish Convergence Programme* there is some uncertainty about the path of fiscal policy in the coming years. It seems as the authorities aim at a surplus of general government of 2 percent of GDP in the years 2000-2002. Since most forecasters predict higher than potential growth in these years there will probably be room for higher surpluses than the medium-term target. But, according to the *Updated Convergence Programme* the authorities plan to transfer surpluses higher than 2 percent to the household sector. Such transfers in the form of income tax reductions are already decided upon for the year 2000. However, if there will be further tax cuts in the coming years will depend on the development of public finances, how wage formation functions, and the general cyclical position of the Swedish economy.

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<sup>8</sup> Forecast in the Budget Bill for the year 2000.

The measure of fiscal stance that is presented in the *Updated Convergence Programme* also indicates that fiscal policy stance will be relaxed in the period 1999-2002, by 1.7 percent of GDP. Such a relaxation could be well motivated after an unusual tough consolidation period. But according to the Riksbank's measure of cyclically-adjusted budget surplus, given the uncertainty of such a measure, the relaxation could result in a weaker cyclically adjusted budget surplus than the medium-term target in a period when the economy experiences a high degree of resource utilization<sup>9</sup>. A tentative conclusion is that it can not be excluded that again there is a risk for pro-cyclical fiscal policy in good times. What will then happen in the next recession? Will the budget be compensated by consolidation measures, again pro-cyclical policy but now in a recession or will fiscal policy deteriorate? Neither alternative is attractive.

In line with the analysis above there could still be some distrust against Swedish fiscal policy in a long-term perspective. As can be seen in Figure 3, the gross debt to GDP ratio was in 1999 (66 percent of GDP) clearly above the ratio at the turning point after the consolidation period in second half of the 1980s (45 percent of GDP in 1990). This later proved to be an unsustainable ratio. Also, including the forecasts the gross debt ratios of the general government up to the year 2002 the ratios will still be higher than in 1989.

The long-term problems may be shadowed by strong public finance because of cyclical reason. The situation during the next recession may, however, become very unpleasant. To be forced, in such a situation, to wide reaching cuts in the public activities may lead to extremely big problems on the labor market, with lower employment and higher unemployment. This may mean that we will have to demount the welfare state as we know it today under disordered forms and not to reform it carefully.

By reducing the debt faster now it would be possible to avoid the risks of being forced to do this. The possibilities to reduce debt are at hand now. It could be argued that the 2 percent medium run target may

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<sup>9</sup> See Sveriges Riksbank (1999), p. 27, figure 28.

lead to timing problems. It may not be ambitious enough. At least, the budget target is not ambitious enough in the short run in a situation when the economy experiences a high degree of resource utilization.

#### 4 Optimal debt

The discussion has so far implicitly assumed that a stable long run public debt ratio is the desirable. But why should this be the policy objective? Why, or in what sense, is this optimal? Taken in isolation a stable debt ratio is simply an arbitrary objective.

Optimal public debt management has several dimensions. Some of the issues that need to be addressed are<sup>10</sup>:

- What is the optimal level of the public debt ratio?
- What is the optimal variability of the public debt ratio?

The role of public debt must be the starting point for a discussion of these issues. The fundamental role has to do with intertemporal considerations resulting from decisions concerning public expenditure. The first question has very much to do with public investment and the public stock of real capital. Changes in debt may coincide with changes in the value of assets, e.g., the stock of real capital. But it is also possible that net worth is affected. In general, the development of the other items on the balance sheet of the public sector is important for public debt.

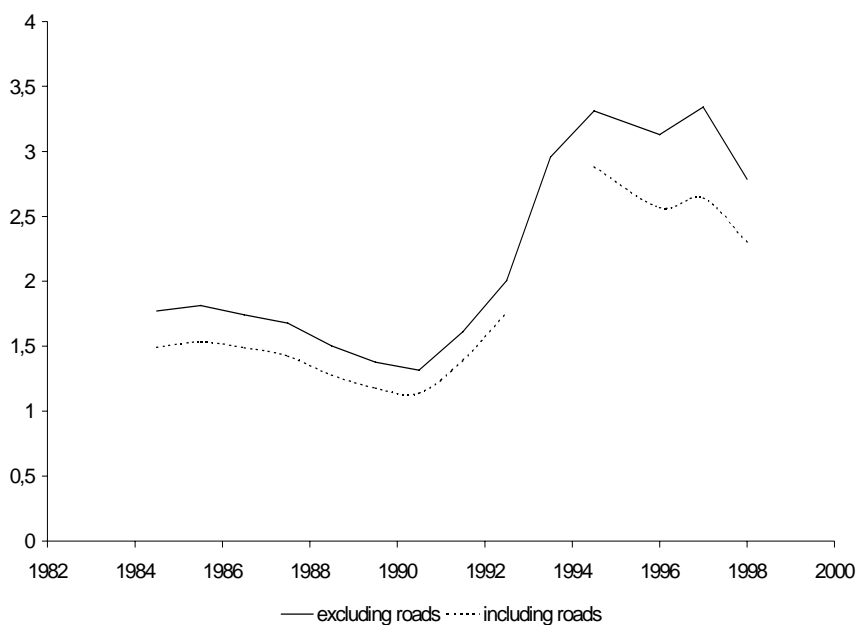
The intertemporal considerations in this case can be viewed as follows. Public real capital yields a flow of services during many time periods for many cohorts. Financing the capital by debt is a way of letting each cohort pay for their flow of services by paying the interest on the debt. With this approach the optimal debt level increases if there is public investment increasing the public stock of capital.

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<sup>10</sup> Two other issues are: What is the optimal maturity structure of public debt? What is the optimal mix between nominal and real debt?

Figure 4 shows the ratio of central government debt to assets from the mid 1980s and on. There are two important things to be noted from the figure. The first is that ratio is almost constant during both of the fiscal consolidations phases during the mid 1980s and the mid 1990s. This means that value of assets decreased almost at the same rate as debt.

**Figure 4. Central government debt-asset ratio, 1984-1998.**



Sources: *The Swedish National Audit Office and the Swedish National Financial Management Authority.*

Second, the debt to asset ratio more than doubled during the fiscal crisis in the beginning of the 1990s. Debt increased at a much faster rate than assets did. Another way to put this is to say that the central government borrowed not for public investment but for public consumption and public transfers.



Central government assets corresponded to 24 percent of GDP in 1997. If we add the assets of county councils and municipalities, general government asset GDP ratio was 50 percent<sup>11</sup>.

The second question is related to public consumption and public transfers. Should outlays on public consumption and transfers always be matched by tax revenue on an annual basis? Or should the paths differ so that variations in debt will occur? An important aspect of this second question of the optimal variability of the public debt ratio, is that there exist several different theoretical models suggesting that it is desirable to keep tax rates constant over time.

Theories of optimal taxation tell us that tax rates should be constant over time. This is a way of avoiding variations in private consumption over time. This result is more robust for consumption taxes than for income taxes and labor income taxes (Barro 1995).

It has also been argued that different economic agents want stable rules, for example by stable tax rates. This is a way of reducing uncertainty. It is not because of a belief in activist Keynesianism.

Regardless of the motivation, stable tax rates may lead to a public debt ratio that fluctuates. This is because we can expect cyclical variations in tax revenues when the tax base varies with economic activity. For the public debt this would not necessarily mean that it could not be stationary.

## **5 Policy instruments and policy implementation**

In section 2 of the paper we discuss similarities and differences in fiscal policy behavior in connection to the two consolidation episodes in the second halves of the 1980s and the 1990s. A factor we did not discuss was the possible importance of the budget process itself for the

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<sup>11</sup> Here local government is narrowly defined. If firms owned by these authorities were included the general government asset GDP ratio would be higher.

aim of breaking negative debt developments<sup>12</sup>. After the severe deterioration of the Swedish public finances in the early 1990's the government believed that the budget process itself was one important factor behind the crisis. Reforms were introduced. It is obvious that the budget process went through substantial changes in the middle of the 1990s, from a rather loose to a more robust process. The most important innovations were the introduction of a "top-down" budgetary process, multiyear expenditure ceilings and medium-term targets for the budget balance of the general government. Have these reforms contributed the consolidation so far? Are they, together with the external surveillance of the Swedish public finances because of the membership in the European Union, strong enough mechanisms to reverse the unsustainable long-term trends?

The *top-down budget process* brings a clearer role to the Ministry of Finance in forming the budget compared to in the previous process. In the first phase it is the Ministry of Finances responsibility to update the multiyear framework. This contains of key macroeconomic figures for the three coming years. They are discussed and approved by the Parliament, which is an important change compared to the earlier system. The multiyear framework also includes the expenditure ceilings for three years, the upcoming year and the two next. These binding aggregated figures constitute a frame for the budget process and hence could have improved the discipline.

The expenditure ceilings are nominal. For instance in the Budget Bill for the year 2000<sup>13</sup> the expenditure ceilings for the general government sector are set to 1,066, 1,100 and 1,142 billion SEK. This is forecasted by the government to 52.2, 51.7, and 51.5 percent of GDP, i.e. a minor decrease in the expenditure/GDP ratio is planned<sup>14</sup>. These maximum levels of total expenditure of the government are approved by

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<sup>12</sup> The description of the budget process leans on Molander (2000), OECD (1998) and The Swedish Ministry of Finance (1999).

<sup>13</sup> Presented by the Government in September 1999.

<sup>14</sup> The central governments expenditure ceilings are set to 765, 790 and 814 billion SEK in 2000 to 2002.

the parliament. In cabinet-meetings there are also set indicative levels of expenditures for 27 different expenditure areas. These Cabinet decisions are based on recommendations by the Ministry of Finance. The sum of these levels of expenditures is less than the ceiling of total expenditures. The difference constitutes the “budget margin” which forms a buffer against forecasting errors. In a last phase individual Ministers are responsible for the allocation inside each area.

The Parliament has endorsed the Government’s *medium-term goal* of a surplus in general governments net lending corresponding to an average of 2 percent of GDP over the business cycle. According to the *Updated Swedish Convergence Programme*<sup>15</sup> the targets, “after a phase in period, for the surplus will come into effect in the year 2000 and that the targets for 2001 and 2002 remain unchanged at 2 per cent of GDP. If for cyclical reasons growth were to be significantly stronger or weaker, an equivalent deviation for general government net lending would be tolerated”<sup>16</sup>.

Under a Council regulation the Swedish Government is obliged to submit annually an updated convergence program which is evaluated by the Council. In this way the fulfillment of the fiscal goals are supervised by an external body and exposed to peer pressure.

Interesting questions are if the introduction of the new budget process with its targets—the “straight jacket”—has contributed to fiscal improvements during the most recent budget consolidation episode and, looking forward, is it strong enough to reverse the increasing gross debt trend?

In the short run it seems clear that the new budget process has contributed to the consolidation. First, the multi-annual expenditure ceilings, decided by the parliament, have introduced a kind of inertia in nominal expenditure increases. At each annual decision about the expenditure levels it is only possible to freely set the level for the last of the three years without a political cost. The levels for the first and second

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<sup>15</sup> November 1999.

<sup>16</sup> The Updated Convergence programme, p. 2.

years are restricted by earlier decisions. This mechanism seems also to have strengthened the minority government in its budget negotiations with supporting parties. In the parliament, it is—of course—also difficult for opposition parties of different colors to unite over an alternative budget. We think that these mechanisms of targets are important, at least in the short run.

But the success in the longer run of debt reduction has to do with other things. Most important are the political preferences and the political possibilities to deal with fiscal policy. Within the economic research on fiscal discipline there are results suggesting that minority governments may be bad for budget discipline while coalition governments may be better (Edin and Ohlsson 1991). The first years in the 2100-century, with a substantial better economic situation compared to most of the 1990s, will probably reveal whether the new budget process will confirm the improvements in the Swedish public finances.

It also seems obvious that the external pressure put on Swedish public finances by the Maastricht convergence criteria after the Swedish entrance into the EU in 1994 has been helpful in the consolidation process. Especially, the medium term budget target makes concrete demands of consistency upon the expenditure ceilings and plans for tax policies. Again, in the short run the value of this external pressure has been clear.

However, in a forward-looking perspective, with Sweden still in the convergence phase or inside the EMU, the system is not tested in a severe recession. At least the question could be asked how strong the incentives would be for the “club” to fully impose the corrective measures on a small country like Sweden with only a marginal influence on the whole union’s economy.

We have made some attempts to estimate the quantitative effects of the reformed budget process. We cannot find any effects on the growth of expenditure. Table 4 reports some estimations where we instead try to estimate the impact on the level of expenditure. The specifications build on the assumption that the effects of the budget reform came gradually during three years 1995-1997. According to the point estimates, the reformed budgetary process has reduced the expenditure level with 3 percent. The standard errors of the estimated coefficients are high, resulting in very small *t*-statistics.

**Table 4. Effects of budgetary reform, 1969-1998**

	central government expenditure growth	
GDP growth	-1.30 (2.80)	-1.53 (2.96)
GDP growth, previous year		0.27 (0.53)
reformed budget process	-0.031 (0.40)	-0.031 (0.40)
constant	0.051 (4.41)	0.049 (3.72)
$R^2$	0.23	0.27
$SEE$	0.042	0.043
$F$ , sign level	0.031	0.052
$DW$	1.84	1.81
n of obs	29	28

*Absolute t-values within parentheses.*

## 6 Conclusions

Swedish public budgets and public debt have shown considerable cycles, in response to economic activity, during the last decades. The budget cycles have been asymmetric in the sense that surpluses during expansions have been smaller than deficits during contractions. This has led to a trend increase in public debt. The crisis for Swedish public finances in the beginning of the 1990s is solved in the short run. It is less clear that the long run trend has changed. These

conclusions are valid for the central government as well as the general government.

The convergence criteria of the EMU and the “peer pressure” within the union are restrictions on public debt and budget balance. The medium run target of a general government net lending of 2 percent of GDP is a response to this. Our *first* main conclusion is that in the short run this is not ambitious enough while it is too ambitious in the long run—the trend will be too much reversed.

A substantially more robust budget process has been implemented in Sweden in the later part of the 1990s. In the short run it has contributed to the reduction of the debt through increased transparency, inertia in expenditure increases and a strengthened position of the (minority) government in the budget process in relation to supporting parties and to the opposition. In the longer run we see other things as political preferences as decisive. The good times in the first years of the new century could be critical for the system’s ability to further reduce the debt level.

Our *second* main conclusion is that, while measures like these may be effective in the short run when they are introduced, the long run efficiency is less clear. In the long run there will have to exist a strong political commitment to the necessity of fiscal discipline. “Straight jackets” cannot work alone and especially not in the opposite direction of the beliefs of the political decision makers.

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