

# Trends in Swedish Public Finances – Past and Future

BY YNGVE LINDH AND HENRY OHLSSON

*Yngve Lindh, Ministry of Finance and Henry Ohlsson, professor at Göteborg University*

*Swedish public finances 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 recessions. This has led to a trend increase in public debt. The crisis in Swedish public finances at the beginning of the 1990s has been solved in the short term. It is less clear that the long-term trend has changed. The EMU convergence criteria and the “peer pressure” within the union comprise restrictions on public debt and budget balance. The medium-term target of a general government net lending of 2 per cent of GDP is a response to this. Our first main conclusion is that this target is not ambitious enough in the short term, while it is too ambitious in the long term – the trend will be excessively reversed in the long term. A “top-down” budget process and expenditure ceilings are intended to help in reaching the target. Our second main conclusion is that, while measures like these may be effective in reducing expenditure in the short term when they are introduced, the long term efficiency is less clear. In the long term there needs to be strong political commitment to the necessity of fiscal discipline. “Straitjackets” cannot work alone, and particularly not against the intentions of the political decision-makers.*

This article was written while Yngve Lindh held a position as economist at the Riksbank's Economics Department. A few updates have been added since then.

A previous version of this paper was prepared for a workshop organized by Banca d'Italia. We would like to thank Marco Buti, Jose Marin, Kerstin Mithid, Platon Timios, Staffan Viotti, Anders Vredin, and seminar participants for helpful comments and suggestions. The views expressed in the paper are solely those of the authors and not those of Sveriges Riksbank or the Swedish Ministry of Finance.

## Introduction

---

**Swedish public debt has shown a strong increasing trend over the past three decades. The degree of variability is high and also increasing.**

---

Swedish public debt has shown a strong increasing trend over the past three decades. The degree of variability is high and also increasing. After a rapid upturn during 1978–1981, public debt declined considerably in the late 1980s. The improved public finances in the late 1980s were not sustained 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.

---

**A high and volatile debt may cause higher welfare losses than would otherwise be necessary.**

---

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 would otherwise be necessary. These welfare losses may show up as negative incentives for labour 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 term following the current episode of debt reductions?

There are two main policy alternatives to keep the public debt-GDP ratio stable in the long term. 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 for deficits during recessions by surpluses during expansions, so that the public debt ratio is *stationary* in the long term but not necessarily constant in the short term.

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

---

**What is really the optimal public debt ratio?**

---

One may, however, ask why a stable long-term 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 Straitjacket.<sup>1</sup> This consists of a medium-term target of budget

---

**Public finances in Sweden are put into a Straitjacket; that is a medium-term target of budget balances, a “top-down” budgetary process, and expenditure ceilings.**

---

balances, a “top-down” budgetary process, and expenditure ceilings. In addition there is a “peer pressure” from abroad due to the Swedish membership of the European Union. The medium term target is a response to this.

Our *first* main conclusion is, however, that in the short term this target is not ambitious enough, while it is too ambitious in the long term – the trend will be excessively reversed in the long term. 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 term when they are introduced, the long term efficiency is less clear. In the long term there will need to be a strong political commitment to the necessity of fiscal discipline. Straitjackets cannot work alone and particularly not against the beliefs of the political decision-makers.

This paper is structured as follows: First basic facts concerning the development of the Swedish public debt over more than a century are presented followed by policy instruments and policy implementation. Thereafter, policy objectives are presented followed by a discussion of how the optimal public debt can be determined.

## Facts – patterns and episodes

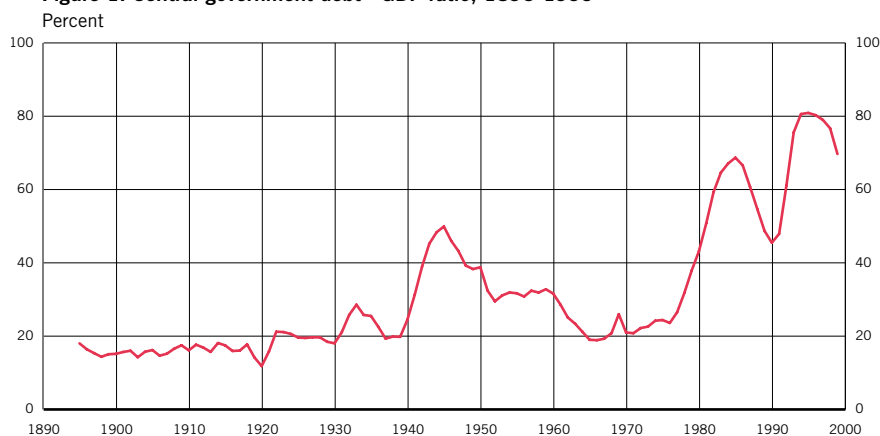
Figure 1 shows the development of the Swedish central government debt-GDP ratio over more than a century.<sup>2</sup> The debt ratio was almost constant at 20 per

<sup>1</sup> OECD (1998) presents the budget process of the central government in Sweden.

<sup>2</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 the general government debt-GDP ratio is to a large extent dominated by the development of the central government debt-GDP ratio.

cent during the period 1890–1930, except for a small drop at 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.

**Figure 1. Central government debt—GDP ratio, 1895-1999**



Source: The Swedish National Debt Office.

---

**Over the past few decades, the debt ratio has shown a strong increasing trend.**

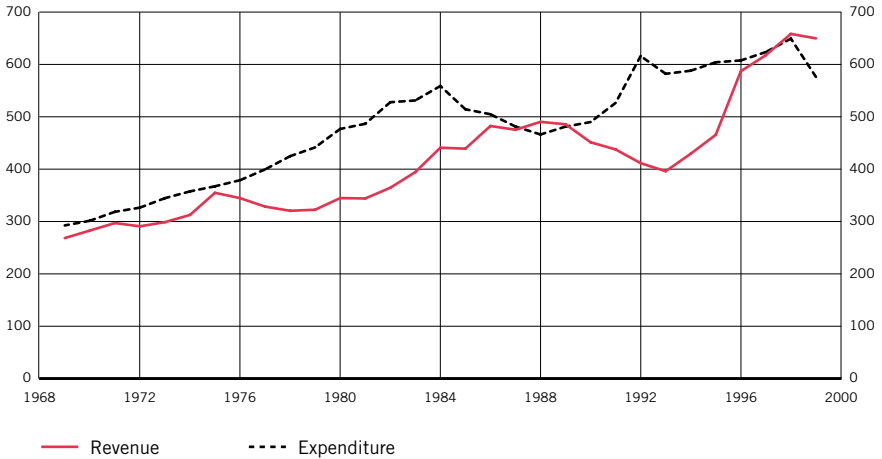
---

Over the past few decades, the debt ratio has shown a strong increasing trend. At the end of the 1990s, the debt ratio was almost 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 2 shows central government real revenue and real expenditure 1969–1999. It is very much standard to relate nominal fiscal variables to GDP, that is to compute expenditure or public debt as shares of GDP. A potential drawback with this is that it is difficult to know whether trends and cycles in these shares depend on trends and cycles in the fiscal variables or trends and cycles in GDP. As an alternative, in this figure we have 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 labour is by far 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.

**Figure 2. Central government real revenue and real expenditure, 1969-1999**  
1995 SEK billion



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

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

**Real expenditure has been higher than real revenue almost every year during three decades.**

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 1993–1999. This development will continue during 2000–2003, according to the projections in the 2001 Budget Bill presented in September 2000. The expenditure ratio for the general government will decline from 58.7 per cent of GDP 1998 to 52.9 per cent in 2003.<sup>3</sup>

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 sus-

<sup>3</sup> Interest costs are expected to decline from 6.2 to 3.0 per cent of GDP during the period.

tained in the longer term. The most severe fiscal crises in the whole century followed during the beginning of the 1990s. Second, the ensuing fiscal consolidation process was different from that of the 1980s.

The fiscal consolidation started in 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 the situation in the 1980s, was exclusively based on revenue increases, while real expenditure was not cut.<sup>4</sup>

---

**As soon as there was a fiscal surplus, expenditure started to increase. Hence, the policy became procyclical.**

---

There is another interesting observation to be made from Figure 2, a detail. After four years of decreases, real expenditure started to increase in 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 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 behaviour was not particular to Sweden. Pro-cyclical reactions in good times have been common in a number of countries and seem to have caused an asymmetric pattern in fiscal policy so that discretionary expansion of expenditure has offset the effect of automatic stabilisers. This difficulty in allowing automatic stabilisers to work without restriction during upswings of the business cycle has been an important reason behind the problem in reducing government debt.<sup>6</sup>

So far, we have focused on particular episodes concerning 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 and it is therefore not possible to obtain answers to difficult questions from this

<sup>4</sup> Alesina & Perotti (1996) compare the fiscal consolidation in industrialised countries.

<sup>5</sup> Ohlsson & Vredin (1996) use these data to test whether 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 Méliitz (1997).



data. We therefore prefer to 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.

**Table 1. Fiscal sensitivity to economic activity, 1969–1999**

	Central government Revenue growth		Central government Expenditure growth	
GDP growth	1.13 (1.65)	0.68 (0.97)	-1.57 (3.13)	-1.80 (3.24)
GDP growth, previous year		1.62 (2.36)		0.15 (0.28)
Constant	0.009 (0.51)	-0.012 (0.65)	0.051 (4.11)	0.051 (3.76)
$R^2$	0.09	0.25	0.26	0.30
$SEE$	0.064	0.060	0.046	0.047
$F$ , sign level	0.110	0.025	0.004	0.010
$DW$	1.70	1.58	1.78	1.82
Number of observations	30	29	30	29

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

As is clear from Table 1, revenue is positively related to GDP. The elasticity with respect to current GDP is estimated at 1.1. The estimated coefficient is borderline significant. However, there seem to be time lags in the effects of GDP on revenue. Including lagged GDP improves the fit considerably. Time-lagged GDP has a greater impact than current GDP. The combined elasticity is estimated to 2.3 over a two-year period.<sup>7</sup>

**Revenue is positively related to GDP.**

The impact on expenditure of GDP is negative and significant. The elasticity with respect to current GDP is estimated to -1.6. Introducing lagged GDP does not add to the specification, the estimation suggests that there are no lagged effects.

**The impact on expenditure of GDP is negative and significant.**

Suppose that we evaluate these estimates at 1999 central government revenue, expenditure, and 1999 GDP. The estimations without lagged GDP suggest that the budget balance as a share of GDP increases by 0.75 percentage points if GDP increases by 1 per cent. The estimations including time-lagged GDP suggest a higher number, 1.25 percentage points. It should be stressed that this is

<sup>7</sup> We compute the combined effect simply by adding together the estimated coefficients,  $0.68 + 1.62 = 2.30$ .

---

**Variations in the central government budget, and consequently the variations in central government debt, have been very much connected with variations in economic activity.**

---

have been very much connected with variations in economic activity during the last three decades.

---

**The strong sensitivity of the Swedish budget balance to variation in economic activity has also been documented in several studies.**

---

In a recent OECD study by Dalsgaard & de Serres (1999), the estimate is 0.7. The Swedish Ministry of Finance assesses the sensitivity to 0.75 in the 2001 Budget Bill.

Assarsson et al (1999) estimated the sensitivity at 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 sensitivity has decreased somewhat. The strong fall in GDP in the early 1990s probably also has an influence on the initial estimate. The estimates of budget sensitivity are lower – approximately 0.8 – when extreme episodes of reduction in GDP (annual decreases of GDP more than 2 per cent) are excluded. This adjustment is in line with the rules of the Stability and Growth Pact.

---

**There is no strong empirical evidence of any major changes in budget sensitivity to economic activity.**

---

of structural reforms in the public sector and in the economy in general. Nevertheless, there is so far no strong empirical evidence of any major changes in 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 of below average GDP growth. During

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,

The strong sensitivity of the Swedish budget balance to variation in economic activity has also been documented in several studies by international organisations. The European Commission (2000) reports the estimate 0.8.

In a recent OECD study by Dalsgaard & de Serres (1999), the estimate is 0.7. The Swedish Ministry of Finance assesses the sensitivity to 0.75 in the 2001 Budget Bill.

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



these years real central government debt has grown by on average 8.2 per cent per year. We have used the GDP deflator to convert nominal debt to real. During expansion years annual real debt growth has been slightly lower, at slightly more than 4 per cent on average. This has not been low enough to keep overall debt growth on a par with the average annual GDP during the period, amounting to 1.7 per cent. Debt has increased by an average annual rate of 5.9 per cent. The debt to GDP ratio has therefore grown by an average of 4 per cent per year.

**Table 2. GDP growth and debt growth, 1971–1999**

	Number of years	GDP growth Mean	Public debt growth Mean
Recession years, GDP growth below overall mean	12	0.2	8.2
Expansion years, GDP growth above overall mean	17	2.8	4.2
Total	29	1.7	5.9

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 in net lending and the budget balance are similar except for a difference in levels. The same applies to consolidated gross debt. Our discussion of fiscal variables for the central government is, therefore also a good approximation of the development of the fiscal variables for the general government.

**Developments in net lending and budget balance are similar, the same applies to consolidated gross debt.**

**Table 3. Fiscal convergence variables, per cent of GDP, 1995–1999**

	1995	1996	1997	1998	1999
Net lending, general government	-7.9	-3.6	-1.8	2.3	1.9
Budget balance, central government	-8.1	-1.2	-0.3	0.5	4.2
Consolidated gross debt, general government	76.3	76.0	74.9	72.4	65.6
Debt, central government	80.9	80.3	79.0	76.7	69.7

The conclusions from this section are, firstly, that public budget balance and public debt have shown considerable cycles during the last decades. Secondly, these cycles are strongly and positively related to economic activity. Thirdly, the fiscal cycles have been asymmetric in the sense that budget surpluses during expansions have been smaller than budget deficits during recessions. This has, fourthly, lead

to a trend increase in public debt. These conclusions are valid for the central government as well as the general government.

## Policy instruments and policy implementation

---

**After the early 1990's substantial reforms were introduced.**

---

In the previous section, we pointed out similarities and differences in fiscal policy behaviour during the two consolidation episodes in the second halves of the 1980s and the 1990s. Changes in the budget process may, however, also be important for breaking negative debt developments.<sup>8</sup> Following the severe deterioration of the Swedish public finances in the early 1990s, the government believed that the budget process in itself was an important factor behind the crisis. Substantial reforms were introduced. The budget process went from being rather loose to becoming more robust.

---

**A top-down budgetary process, multiyear expenditure ceilings, and medium-term targets for the budget balance of the general government were introduced.**

---

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 to consolidation so far?

Are they, together with the external surveillance of Swedish public finances due to membership of the European Union, sufficiently strong mechanisms to reverse the unsustainable long-term trends?

---

**The Ministry of Finance is responsible for updating the multiyear framework; projections of key macroeconomic figures and expenditure ceilings for three years.**

---

The Ministry of Finance plays a clearer role in the top-down budget process, compared with the previous process. In an initial phase, the Ministry of Finance is responsible for updating the multiyear framework. The framework contains projections of key macroeconomic figures for the three coming years. The projections are discussed and approved by Parliament. This is an important change compared with the earlier system. The multiyear framework also includes the expenditure ceilings for three years, the coming year and the two following years. These binding aggregate ceilings constitute a frame for the budget process and hence could have improved budgetary discipline.

<sup>8</sup> The description of the budget process is based on Molander (2000), OECD (1998), and the Swedish Ministry of Finance (1999).



The expenditure ceilings are nominal. In the 2001 Budget Bill<sup>9</sup>, for instance, the expenditure ceilings for the general government sector are set to SEK 1,107, 1,148 and 1,200 billion for 2001–2003. The government projects that this will correspond to 50.7, 50.5, and 50.7 per cent of GDP.<sup>10</sup> These maximum levels of total government expenditure are approved by parliament. In cabinet meetings there are also set indicative levels of expenditure for 27 different expenditure areas. The cabinet’s decisions are based on recommendations from the Ministry of Finance. The sum of these expenditure levels is less than the ceiling of total expenditure. The difference constitutes the “budget margin” which forms a buffer against forecasting errors. In a final phase, individual ministers are responsible for the allocation within each area.

---

**The expenditure ceilings are nominal.**

---

Parliament has approved the Government’s *medium-term goal* of a surplus in general government net lending corresponding to an average of 2 per cent of GDP over the business cycle. According to the *Updated Swedish Convergence Programme for the year 1999*<sup>11</sup>:

---

**The Government’s *medium-term* goal: a surplus in general government net lending corresponding to an average of 2 per cent of GDP over the business cycle.**

---

“After a phase-in period, the targets for the surplus will come into effect as of the year 2000. The surplus 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>12</sup>

The Government announced a short-term target for the year 2001 of 2 1/2 per cent of GDP in the 2001 Budget Bill. The motivation was that there exists some risk of an overheated economy if the policy was directed towards a target of 2 per cent of GDP.

The Swedish Government has to submit an updated convergence programme annually under a Council regulation. The programme is evaluated by the Council. In this way the fulfilment of the fiscal goals is supervised by an external body and exposed to peer pressure.

---

**The Swedish Government has to submit an updated convergence programme annually.**

---

<sup>9</sup> Presented by the government in September 2000.

<sup>10</sup> The central governments expenditure ceilings are set to SEK 789, 814 and 844 billion during 2001–2003.

<sup>11</sup> November 1999.

<sup>12</sup> The Updated Convergence Programme, p 2.

Has the introduction of the new budget process with its targets – the strait-jacket – contributed to fiscal improvements during the most recent budget consolidation episode? And, looking forward, is the process strong enough to reverse the increasing gross debt trend?

---

**In the short term it seems clear that the new budget process has contributed to consolidation.**

---

In the short term it seems clear that the new budget process has contributed to consolidation. Firstly, the multiyear expenditure ceilings, decided by 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 expenditure level for the last of the three years without a political cost. The levels for the first and second years are restricted by previous decisions. This mechanism seems also to have strengthened the minority government in its budget negotiations with supporting parties. In parliament, it is – of course – also difficult for opposition parties of different political leanings to unite over an alternative budget. We believe that these mechanisms of targets are important, at least in the short term.

---

**The first years of the 21st century will probably reveal whether the new budget process will confirm the improvements in Swedish public finances.**

---

However, the success of debt reduction in the longer term has to do with other things. Most important are the political preferences and the political opportunities 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 & Ohlsson 1991). The first years of the 21st century, with a substantially better economic situation than most of the 1990s, will probably reveal whether the new budget process will confirm the improvements in Swedish public finances.

---

**External pressure by the Maastricht convergence has been helpful in the consolidation process.**

---

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

However, in a forward-looking perspective, with Sweden still in the convergence phase or as a member of EMU, the system has not been tested in a severe recession. At least the question could be asked as to how strong the incentives

would be for the “club” to fully impose 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

---

**According to the estimates, the reformed budgetary process has reduced the expenditure level by slightly less than 2 per cent.**

---

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 by slightly less than 2 per cent. The standard errors of the estimated coefficients are high, resulting in very small t-statistics.

**Table 4. Effects of budgetary reform, 1969–1999**

	Central government expenditure growth	
GDP growth	-1.57 (3.08)	-1.80 (3.17)
GDP growth, previous year		0.17 (0.30)
Reformed budget process	-0.019 (0.21)	-0.017 (0.19)
Constant	0.052 (3.97)	0.051 (3.46)
R <sup>2</sup>	0.26	0.27
SEE	0.047	0.048
F, sign level	0.017	0.029
DW	1.77	1.81
Number of observations	30	29

Notes. Absolute *t*-values within parentheses.

## Policy objectives, forecasts, and targets

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

---

**There are two alternatives to keep the public debt ratio stable over time; the *first* is to have a constant public debt ratio.**

---

The *second* alternative is to have a stationary public debt ratio. This means that we allow the public debt ratio to vary, but around a constant expected value.

---

**The *second* alternative is to have a stationary public debt ratio.**

---

long term, but not necessarily constant in the short term. The fiscal deficit will equal GDP growth in this case too, not every year but over the whole business cycle.

---

**Sweden has chosen a rapidly growing debt ratio during bad times and a slowly growing debt ratio during good times.**

---

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

---

**There are two lessons to be learned for fiscal consolidation: to reduce the fiscal deficit and to have budget balances during better times.**

---

There are two lessons to be learned for fiscal consolidation. The first is to reduce the fiscal deficit. Both at the beginning of the 1980s and at the beginning of the 1990s, it became the task for incoming Social Democrat governments to reduce deficits. The first lesson has been learned. The second lesson is to have budget balances during better times so that the debt ratio decreases. It is too early to be sure that this lesson has been learned.

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 2001 for the coming years until 2003.

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

---

**At first glance, the consolidation process in the second part of the 1990s looks impressive.**

---

At first glance, the consolidation process in the second part of the 1990s looks impressive. The budget balance has improved some 15 per cent of GDP from 1993 to 1999. Approximately half of the improvement has been of a structural nature, resulting from permanent reductions in social security benefits, tax increases and cuts in government

**Figure 3. The central government gross debt ratio, the general government gross debt ratio and forecasts, 1974-2003**



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

consumption. The second half has been a result of the improved cycle. The gross debt of the general government sector ceased growing in 1994 at a peak of 76.5 per cent of GDP and has been reduced to approximately 60 per cent of GDP in 2000.<sup>13</sup>

The Swedish Parliament has decided on a medium-term target for net lending by the general government of 2 per cent of GDP on average over the business cycle. The objective is to fulfil the convergence criteria for joining the European Monetary Union, that is to keep general government consolidated gross debt below 60 per cent of GDP. Judging from Figure 2, this criterion will be met in 2000. The question is whether, if this is to a large part due to cyclical reasons, the criterion will still be met in a coming recession.

The plans for the future path of fiscal policy are presented in the 2001 Budget Bill.

In 2001, the target is a surplus of 2 1/2 per

cent of GDP. For 2002 and 2003, no decision to diverge from the medium term target has been taken. Since most forecasters predict that economic growth will be higher than potential growth during these years, there will probably be scope for higher surpluses than the medium-term target. It has already been decided to reduce income taxes in 2001. Whether there will be further tax cuts in the com-

---

**In 2001, the target is a surplus of  
2 1/2 per cent of GDP.**

---

<sup>13</sup> Forecast in the Budget Bill for the year 2001.

ing years will depend on the development of public finances, how wage formation functions, and the general cyclical position of the Swedish economy.

---

**With further relaxation of fiscal policy after 2001, the risk of a pro-cyclical fiscal policy in good times cannot be ruled out.**

---

The measure of fiscal stance that is presented in the 2001 Budget Bill also indicates that fiscal policy stance will be relaxed by 1.3 per cent of GDP in 2001. Such a relaxation could be well motivated after an unusually tough consolidation period. According to the Riksbank's measure of cyclically-adjusted budget surplus, given the uncertainty of such a measure, the relaxation could result in a cyclically adjusted budget surplus slightly above the medium-term target.<sup>14</sup> A tentative conclusion is that with further relaxation of fiscal policy after 2001, the risk of a pro-cyclical fiscal policy in good times cannot be ruled out. What will then happen in the next recession? Will the budget be compensated by consolidation measures, pro-cyclical policy once again, 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 uncertainty related to Swedish fiscal policy in a long-term perspective. As can be seen in Figure 3, the gross debt to GDP ratio in 2000 (60 per cent of GDP) was clearly above the ratio at the turning point after the consolidation period in the second half of the 1980s (45 per cent of GDP in 1990). This later proved to be an unsustainable ratio. Additionally, including the forecasts for the gross debt ratios of the general government up to the year 2003, the ratios will still be higher than in 1989.

---

**The long-term problems may be overshadowed by strong public finances for cyclical reasons.**

---

The long-term problems may be overshadowed by strong public finances partly for cyclical reasons. The situation during the next recession may, however, become very unpleasant. To be forced, in such a situation, to make far-reaching cuts in public activities may lead to severe problems on the labour market, with lower employment and higher unemployment. This may mean that we will have to dismantle the welfare system as we know it today under disordered forms and not to reform it carefully.

Reducing the debt at a faster rate now, would make it possible to avoid the risks of being forced to do so. The possibilities to reduce debt are at hand now. It could be argued that the 2 per cent medium term target may lead to timing problems. It may not be ambitious enough. At least, the budget target is not ambitious enough in the short term in a situation where the economy experiences a high degree of resource utilisation.

<sup>14</sup> See Sveriges Riksbank (2000), p 30, figure 30.





# Optimal debt

The discussion has so far implicitly assumed that a stable long term public debt ratio is 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>15</sup>

---

**Optimal public debt management has several dimensions.**

---

- 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 comprise the starting point for a discussion of these issues. The fundamental role has to do with intertemporal considerations resulting from decisions on 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, that is 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 public sector balance sheet 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.

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

---

**The debt to asset ratio is almost constant during both of the fiscal consolidation phases.**

---

Secondly, the debt to asset ratio more than doubled during the fiscal crisis at the beginning of the 1990s. Debt increased at a much faster rate than assets did. Another way

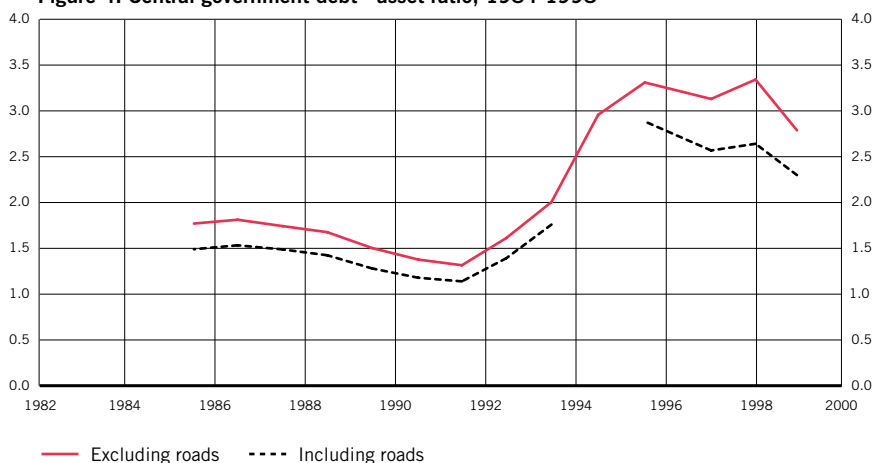
---

**The debt to asset ratio more than doubled during the fiscal crisis at the beginning of the 1990s.**

---

<sup>15</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. Central government debt—asset ratio, 1984-1998



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

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 per cent of GDP in 1997. If we add the assets of county councils and municipalities, the general government asset GDP ratio was 50 per cent.<sup>16</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 labour income taxes (Barro 1995).

It has also been argued that different economic agents want stable rules, for example through stable tax rates. This is a means 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

<sup>16</sup> Here local government is narrowly defined. If firms owned by these authorities were included the general government asset GDP ratio would be higher.

when the tax base varies with economic activity. For the public debt this would not necessarily mean that it could not be stationary.

## 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 at the beginning of the 1990s is solved in the short term. It is less clear that the long-term trend has changed. These conclusions are valid for the central government as well as the general government.

---

**The crisis for Swedish public finances at the beginning of the 1990s is solved in the short term.**

---

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

---

**In the short term the medium run target is not ambitious enough, while it is too ambitious in the long term.**

---

A substantially more robust budget process has been implemented in Sweden in the latter part of the 1990s. In the short term it has contributed to debt reduction 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 term we see other things as political preferences as being decisive. The good times during the first years of the new century could prove 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 term when they are introduced, the long term efficiency is less clear. In the long term there will need to be a strong political commitment to the necessity of fiscal discipline. Straitjackets cannot work alone and especially not in the opposite direction of the beliefs of the political decision makers.

---

**While measures like these described may be effective in the short term when they are introduced, the long term efficiency is less clear.**

---



## References

- A. Alesina and R. Perotti (1996) Reducing budget deficits. *Swedish Economic Policy Review*, 3, 113–134.
- B. Assarsson, R. Gidehag, and G. Zettergren (1999) Fiscal policy in Sweden: An analysis of the budget over the business cycle, in *Indicators of structural budget balances*, Banca d'Italia.
- R. J. Barro (1995) Optimal debt management, Working Paper 5327, National Bureau of Economic Research, Cambridge, MA.
- Budgetpropositionen för 2001 (The Budget Bill for the year 2001), Stockholm, September 2000.
- T. Dalsgaard and A. de Serres (1999) Estimating prudent budgetary margins for 11 countries: A simulation SVAR model approach, Working Papers No. 216, OECD, Economics Departments.
- P.A. Edin and H. Ohlsson (1991) Political determinants of budget deficits: Coalition effects versus minority effects. *European Economic Review*, 35, 1597–1603.
- European Commission (2000) Public Finances in EMU. European Economy: Reports and Studies, 2000.
- J. Mélitz (1997) Some cross-country evidence about debt, deficit and the behaviour of monetary and fiscal authorities, Discussion Paper no 1963, CEPR.
- P. Molander (2000) Reforming the Budgetary institutions: Swedish Experience. Ed. R. R. Strand and J. Von Hagen Institutions, Politics and Fiscal Policy
- OECD (1998) Budgeting in Sweden, Public Management Service, PUMA/SBO(98)5/REV1.
- H. Ohlsson and A. Vredin (1996) Political cycles and cyclical policies. *Scandinavian Journal of Economics*, 98, 203–218.
- Sveriges Riksbank (2000) Inflation Report, 2000:3, Stockholm.
- Swedish Ministry of Finance (1998) The State Budget Procedure, Stockholm.
- Swedish Ministry of Finance (1999) Updated Swedish convergence programme, Stockholm.