The Swedish Model[1]

4.1 Introduction

During the current economic crisis Sweden has stood out from other EU countries thanks to its strong public finances. At the trough of the recession in 2009 Sweden had the smallest fiscal deficit of all EU countries: only 0.9 percent of GDP. In 2011 there was even a (small) fiscal surplus. Sweden is one of the three member states that have never violated the deficit and/or debt criteria in the stability pact (the other two are Estonia and Luxembourg).[2]

This chapter tries to explain the strong performance of public finances in Sweden and looks at what lessons for other countries can be drawn. Section 4.2 reviews the development of public finances over time. Section 4.3 begins by surveying the research on why fiscal policy in modern democracies may be subject to a *deficit bias* and then discusses how the fiscal framework established in Sweden may have helped to contain such tendencies. The importance of output growth to fiscal consolidation is highlighted in Section 4.4. Section 4.5 sums up the conclusions.

4.2 Development of public finances over time

To what extent does Sweden's comparably favourable fiscal balance depend on stronger public finances *before* the crisis and to what extent on the performance *during* the crisis? The two last columns in Table 4.1 break down the differences in government net lending between Sweden and other countries in 2011 into contributions from (1) differences in government net lending in 2007 and (2) differences in the development of government net lending during 2007–2011. The table shows that the main explanation of why the public finances are currently stronger in Sweden than elsewhere is the stronger position already before the crisis. The difference in government net lending between Sweden and the euro area as a whole in 2007, for example, accounted for as much as 4.3 percentage points of the 4.7 percentage points difference in 2011.[3] Greece, Portugal, Italy and Germany all had small-

[1] We are grateful to Anna Larsson and Joakim Sonnegård for their helpful comments on the chapter.

[2] The deficit criterion is that the fiscal deficit shall not exceed three percent of GDP. The debt criterion is that consolidated government gross debt shall not exceed 60 percent of GDP or that, if it does, it should be approaching the debt limit "at a satisfactory pace" (which means that it must be falling at the very least). See Calmfors and Wren-Lewis (2011).

[3] The exceptions to this pattern concern the comparisons to Ireland and Spain, which both had fiscal surpluses in 2007, but then suffered huge deteriorations when the unsustainable booms in both countries came to an abrupt end.

Table 4.1

Government net lending in Sweden and other EU countries as a percentage of GDP

	Level			Difference compared to Sweden		
	Net lending 2011	Net lending 2007	Change in net lending 2007–2011	Difference in net lending 2011	Difference in net lending 2007	Difference in change in net lending 2007–2011
Sweden	– 0.6	3.6	– 3.0			
Euro area	– 4.1	– 0.7	– 3.4	– 4.7	– 4.3	– 0.4
France	– 5.9	– 2.8	– 3.1	– 6.5	– 6.4	– 0.1
Germany	– 1.3	0.2	– 1.5	– 1.9	– 3.4	1.5
Greece	– 8.9	– 6.8	– 2.1	– 9.5	– 10.4	– 0.9
Ireland	– 10.3	0.1	– 10.4	– 10.9	– 3.5	– 7.4
Italy	– 3.8	– 1.6	– 2.2	– 4.4	– 5.2	0.8
Portugal	– 5.8	– 3.2	– 2.6	– 6.4	– 6.8	0.4
Spain	– 6.6	1.9	– 8.5	– 7.2	– 1.7	– 5.5

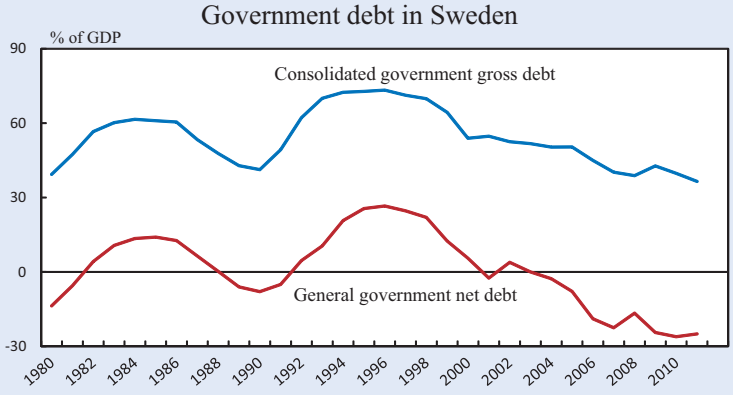
Source: European Economic Forecast, Autumn 2011, European Commission.

er deteriorations than Sweden in government net lending 2007–2011.

4.2.1 Long-term developments of public finances

Figure 4.1 shows the development of government net lending in Sweden. There have been large swings in fiscal outcomes, especially before 2000. The large fluctuations have to a large extent depended on strong *automatic stabilisers,* associated with a high ratio of government expenditure to GDP (see Section 4.2.2).

Figure 4.2

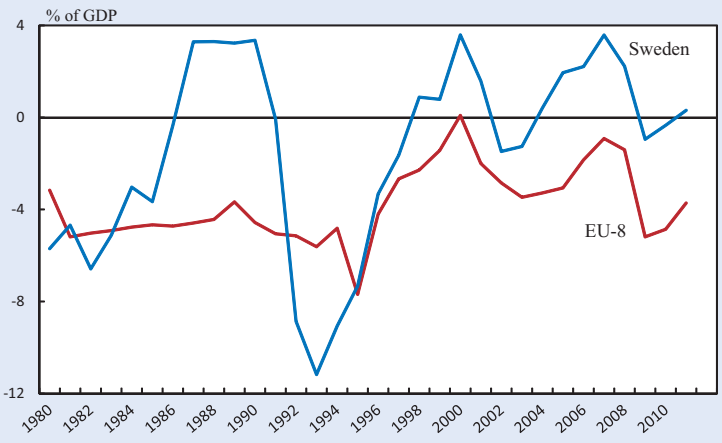


Note: Consolidated government gross debt (Maastricht debt) is defined as the general government total debt after internal claims and liabilities in the sector have been netted out. General government net debt is the sector's gross financial debt minus the sum of its financial assets, including both claims by one part of the government sector on other parts of it and claims on the private sector. The large difference between consolidated government gross debt and general government net debt depends mainly on large claims on the private sector held by the public pension system.
Sources: Ameco (consolidated government gross debt) and OECD Economic Outlook No. 89 (general government net debt).

In the first half of the 1990s Sweden suffered a deep economic crisis similar to those currently occurring in Ireland and Spain. Credit market deregulation in the mid-1980s was followed by rapid credit expansion, which led to a price bubble for both private and commercial property. The bubble burst in the early 1990s and resulted in a serious banking crisis, which coincided in time with a deep international downturn. The large real appreciation that had taken place during the preceding boom when wages and prices rose faster than abroad, at the same time as the exchange rate was held fixed (first to a currency basket and then to the ecu), contributed to a fall in exports. The result was a deep recession, with GDP falling for three consecutive years (representing a total decrease of around five percent) and unemployment rising from a trough of two percent in 1990 to eleven percent in 1993.[4] The result for public finances was a deficit of 11.2 percent of GDP in 1993.

The combination of large fiscal deficits and negative growth led to a rapid build-up of government debt (see Figure 4.2). Consolidated government gross debt increased from 41.2 percent of GDP in 1990 to 73.3 percent in 1996. The government net financial position went from a positive net financial worth of 8.0 percent of GDP in 1990 to net debt of 26.6 percent in 1996. This gave rise to serious doubts about Sweden's ability to service its debt in the financial markets, leading to the development of a large long-term interest rate differential vis-à-vis Germany (Figure 4.3).

Figure 4.1

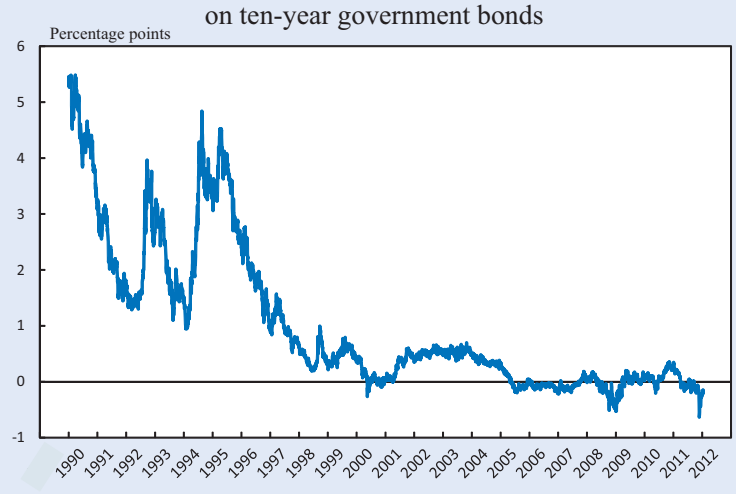


Note: EU-8 is a weighted average for Austria, Belgium, Finland, France, (West) Germany, Italy, the Netherlands and Portugal.
Sources: OECD Economic Outlook No. 89 (Sweden); and Ameco and own calculations (EU-8).

The Social Democratic government that took office in Sweden in 1994 launched a tough fiscal consolidation programme, which continued the consolidation efforts started in 1992/1993 by the then Liberal-Conservative government. The programme was *unconditional*, in other words a

[4] See, for example, Jonung and Hagberg (2005), Jonung et al. (2009) and Fiscal Policy Council (2010, 2011) for analyses of Sweden's 1990s crisis. A thorough analysis was also provided in Swedish Parliament (2001).

Figure 4.3



Source: Reuters EcoWin, last accessed on 13 January 2012.

path for the fiscal deficit to be achieved irrespective of macroeconomic developments was set out. The programme's objectives were a fiscal deficit of below three percent of GDP in 1997 and a balanced budget in 1998. Figure 4.1 shows that these objectives were met; the fiscal situation improved even faster than scheduled.[5] This improvement continued until 2000, by which time a fiscal surplus of 3.6 percent of GDP had been achieved. The fiscal balance deteriorated again during the downturn of 2001–2003, but the emerging deficits were small. As of 2004 fiscal surpluses were achieved once again, which rose continuously up until 2007, when the surplus returned to the level of 3.6 percent of GDP.

The consolidation programme in the 1990s was rather evenly split between decreases in government expenditure and increases in government revenues.[6] Looking at ratios to GDP, the revenue ratio fell somewhat over the 1993–2000 period, while the ratio of government expenditure to GDP was reduced substantially from 71.7 percent in 1993 to 55.1 in 2000 (Figure 4.4). The increase in GDP when growth picked up again after the crisis in the first half of the 1990s was of key importance to these developments (see Section 4.4.1).

[5] See Henriksson (2007) for an account of the consolidation programme.
[6] Henriksson (2007) and Bergman (2010).

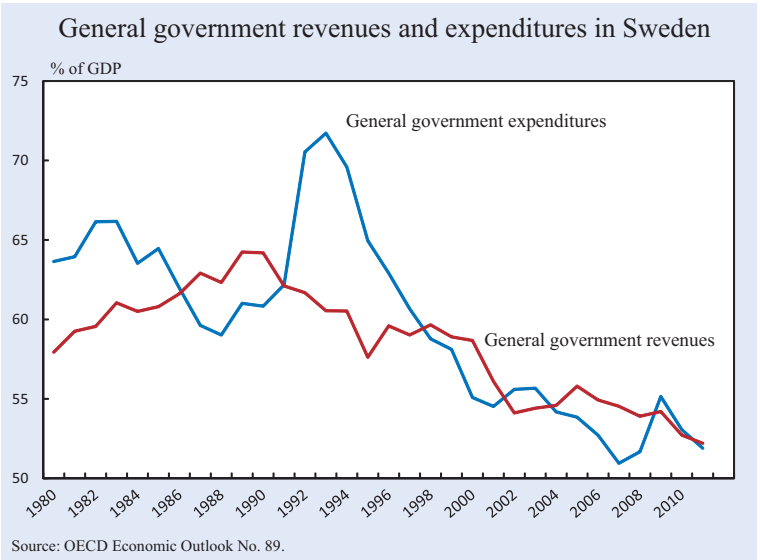
A key contributing factor to successful fiscal consolidation was that the costs of supporting failing banks in 1992–93 turned out to be small in the end. The total direct net cost to tax payers was estimated at around two percent of GDP in 1997. This is explained by the fact that the government largely followed a policy of injecting capital only in exchange for equity or other assets (mainly commercial property) that could later be sold off under favourable terms.[7]

The development of the fiscal balance is reflected in the development of the government debt ratio. Figure 4.2 shows a trend towards a reduction of both consolidated gross debt and net debt. From its peak of 73.3 percent of GDP in 1996, consolidated gross debt fell to 36.9 percent at the end of 2011. Government net debt was *negative* as of 2004, in other words the general government sector had a positive net financial worth from that time on. At the end of 2011 general government net financial worth amounted to 25 percent of GDP.

A frequently used measure of *fiscal sustainability* is the so-called *S2 indicator*, which is computed for the

[7] See Jennergren and Näslund (1997) and Englund (1999). In 1992 the Swedish government issued a blanket guarantee for all bank debt, which helped contain the banking crisis, but ultimately only had to be met to a small degree.

Figure 4.4



Source: OECD Economic Outlook No. 89.

Table 4.2
The European Commission's S2 indicator

	2010 Scenario	Programme scenario
Belgium	6.4	6.6
Bulgaria	4.0	2.4
Czech Republic	8.1	6.9
Denmark	3.1	3.4
Germany	5.7	4.2
Estonia	1.3	1.7
Ireland	15.9	12.4
Greece	15.8	12.5
Spain	12.4	9.0
France	5.7	4.0
Italy	2.8	2.0
Cyprus	12.8	12.3
Latvia	6.7	7.7
Lithuania	9.8	9.2
Luxembourg	13.3	12.9
Hungary	0.6	4.7
Malta	8.0	6.9
Netherlands	8.9	6.1
Austria	5.3	4.7
Poland	5.5	3.4
Portugal	8.8	3.6
Romania	10.3	6.4
Slovenia	11.6	11.2
Slovakia	10.9	7.3
Finland	5.3	4.0
Sweden	**1.8**	**1.0**
United Kingdom	10.6	6.8
Unweighted average	**7.8**	**6.4**

Note: The S2 indicator gives the permanent increase in government structural primary net lending as a percentage of GDP required to meet the government's intertemporal budget constraint, that is the condition that future predicted primary surpluses (given unchanged tax and expenditure rules and a demographic projection) at least equal the current debt stock. The 2010 scenario gives the change relative to the actual position in that year, whereas the programme scenario gives the change relative to plans up to 2014 in the countries' stability and convergence programmes.

Source: Public Finances in EMU 2011, European Commission.

EU member states by the European Commission.[8] The indicator measures the permanent change in structural (cyclically adjusted) primary net lending as a percentage of GDP necessary for the government to comply with its *intertemporal budget constraint,* according to which future primary fiscal surpluses (revenue less expenditure excluding interest payments) must be at least as large as the outstanding debt. The estimated future primary surpluses are based on assumptions of unchanged tax and expenditure rules and on demographic projections. This metric also confirms the picture of strong public finances in Sweden as compared to most other EU member states (Table 4.2). The S2 indicator is 1.8 for Sweden versus an (unweighted) average of 7.8 for the European Union as a whole, using the actual situation in 2010 as the benchmark in this calculation. If the comparison is instead made with the plans in the convergence and stability programmes presented to the Ecofin Council, the Swedish figure is 1.0 and the European average 6.4. According to the first calculation Sweden comes third among the EU countries (after Hungary and Estonia), while according to the second calculation Sweden ranks first.

The favourable development of public finances in Sweden has closed the interest rate gap to Germany (Figure 4.3), a development which was seen as highly unlikely in the mid-1990s. The yield on ten-year government bonds is now (January 2012) even lower in Sweden than in Germany.

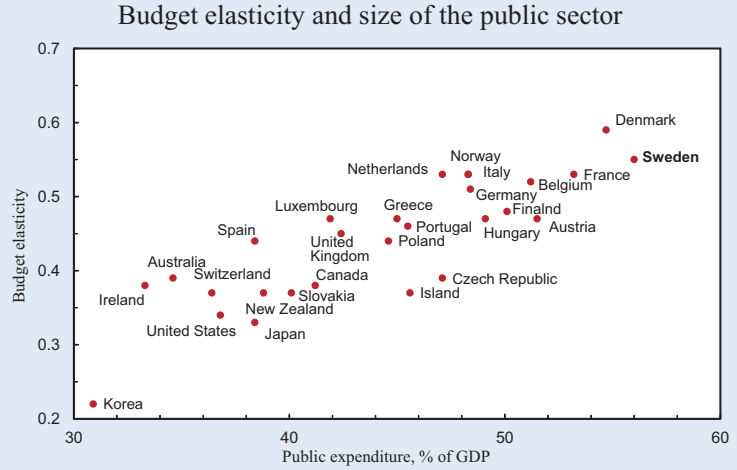
4.2.2 Fiscal developments during the economic crisis

The size of automatic stabilisers is closely related to government expenditure as a share of GDP. If taxes are proportional to GDP and all government expenditure is independent of GDP, the *budget elasticity* (more specifically the semi-elasticity of the fiscal balance with respect to GDP, or the percentage point change of the fiscal balance relative to GDP when there is a one percent change in GDP) equals the ratio of government expenditure to GDP.[9] Figure 4.5 also shows a strong relationship between the budget elasticity estimated by the OECD and the government expenditure-to-GDP ratio. From this graph, one should have expected a larger fiscal deterioration in Sweden than

[8] See, for example, European Commission (2010). The S2 indicator has been extensively analysed in Fiscal Policy Council (2009, 2010, 2011).

[9] See, for example, Gàli (1994), Girouard and André (2005) and Flodén (2009).

Figure 4.5



Note: The budget elasticity measures the percentage points change in government net lending in per cent of GDP when there is a one per cent change in GDP. Public expenditure refers to the total of all public sector expenditures in % of GDP in 2005.
Sources: Girouard and André (2005) and OECD (2008).

in the euro area during the 2008–2009 recession as GDP fell more. Instead, however, the opposite occurred.

One explanation is that the OECD is likely to have overestimated the size of automatic stabilisers in Sweden. The OECD does not take into account that local governments in Sweden now operate under a balanced budget requirement (see Section 4.3.2), which they also seem to respect. This means that local government expenditure is not independent of GDP. Instead, when GDP falls, and thus the tax revenues of local governments also decrease, the latter are forced to cut their expenditure. As local government expenditure amounts to over 20 percent of GDP, this means that the budget elasticity calculated by the OECD should be adjusted downwards by approximately as many percentage points. Hence, the general government fiscal balance is much less sensitive to GDP falls than indicated by the OECD estimate.[10]

Another explanation of the small deterioration in the fiscal balance in Sweden in 2008–2011 is that discretionary fiscal policy did not follow its usual countercyclical pattern. There was much less fiscal stimulus during the downturn than there would have been if earlier policy patterns had been followed.[11]

Sweden's strong fiscal performance in recent years reflects labour market reforms to a certain degree. The primary economic-policy objective of the Liberal-Conservative government that took office in 2006 was to raise employment, which had not returned to pre-1990s crisis levels. To this end the government started to implement far-reaching reforms before the downturn in 2008–2009. Eligibility for sickness insurance and early retirement was severely restricted along with eligibility for unemployment insurance. Unemployment benefit replacement rates and compensation replacement rates in labour market programmes were also reduced. Together, these changes have had a *direct* mechanical strengthening effect on the fiscal balance of over one percent of GDP (not taking behavioural effects on the employment level into account).[12]

In addition, labour market reforms may have helped to maintain a high level of employment. The earlier Okun's law relationship between employment and GDP growth broke down in the recession: in 2008–2009 employment fell much less than it would have done if it had followed the earlier relationship between employment and output growth (Fiscal Policy Council 2010). This helped keep up tax revenues during the downturn. The reasons for the limited fall in employment have been much discussed, but no consensus has been reached on this point. The labour market reforms described above and the introduction of an earned income tax credit are potential reasons for this outcome. Such reforms can reduce the unemployment effects of macroeconomic disturbances.[13] Another possible explanation is that the 2008–2009 recession was restricted to the export industry, whereas demand held up much better in the more labour-intensive service sector. A related explanation is that the downturn was mainly regarded by firms as *temporary* and resulting from an external shock, which motivated labour hoarding, rather than as a more permanent downturn resulting from structural weaknesses in the domestic economy (as in the 1990s). In addition, firms probably had much more slimmed-down organisations than previously, which made them more inclined to keep staff in order to retain core competences.[14]

[10] Fiscal Policy Council (2011).
[11] Ibid.
[12] Ibid.
[13] The seminal contribution is Blanchard and Wolfers (2000).
[14] Fiscal Policy Council (2010, 2011).

A final explanation of Sweden's recent fiscal performance is that no banking crisis, requiring large-scale government injections of new capital into banks, has (to date) developed. Swedish banks were not very highly exposed to the various types of mortgage-based securities and there have been no large falls in domestic property prices (although there have been warnings about inflated house prices from, for example, the IMF).[15] Swedish banks were, however, heavily exposed to the Baltic economies due to aggressive lending and sustained large capital losses there during their recent recessions, but – with some luck – those losses were absorbed by the banks themselves and their shareholders.

4.3 The fiscal framework

4.3.1 Theories of deficit bias and the Swedish case

The general tendency among OECD countries to accumulate government debt in the 1970s and 1980s has given rise to a large body of research literature which claims that unconstrained discretionary fiscal policy in modern democracies is likely to be subject to *deficit bias,* that is to be too expansionary on average. The explanations put forward partly overlap, but, following Calmfors and Wren-Lewis (2011), they can be classified as follows:

1. *Informational problems.* These may refer to a lack of understanding among both voters and politicians of the government's intertemporal budget constraint. Alternatively, there may be general over-optimism as stressed by Reinhart and Rogoff (2009). More sophisticated explanations emphasise that voters are more ignorant than governments, making it possible for the latter to exploit this lack of knowledge and increase their re-election chances through expansionary policy before elections, thus creating a political business cycle.
2. *Impatience*. Governments may be discounting the future at a higher rate than the electorate, because politicians can lose office in elections. One set of models stresses political polarisation in a two-party system where parties are likely to alternate in power (Alesina and Tabellini 1990; Persson and Svensson 1989). If the parties have differing preferences regarding the size or type of government expenditure, a party has an incentive to run a deficit when in power to favour its constituency (tax cuts by liberal-conservative governments and expenditure increases by socialist governments or increases in the type of expenditure that their own constituency prefers). Such deficits have the strategic advantage from the point of view of the incumbent government of making it more difficult for the other party when it comes to power in the future to pursue the interests of its constituency, as room for fiscal manoeuvre is reduced by the requirement to service the accumulated debt.
3. *Common-pool problems.* As government expenditure or tax cuts may favour specific groups, those groups lobby for these with insufficient regard to their full budgetary costs both now and in the future. Hence, policy makers may fail to internalise the overall costs of deficits, leading to excessive government debt accumulation (von Hagen and Harden 1995; Hallerberg and von Hagen 1999; Velasco 1999, 2000). Common-pool problems are likely to be more important if pressure groups exert a large influence, if governments are fragmented (coalition governments) and if governments have weak support in the legislature (minority governments). Hallerberg and von Hagen (1999) outline two methods to mitigate common-pool problems: one is through a *strong finance minister,* who keeps spending ministers in check; the other is through a *contract solution,* whereby ministers (coalition parties) *ex ante* commit to a common contract on budget discipline.
4. *Time inconsistency.* It is well-known that unconstrained central banks, interested in low unemployment in addition to low inflation, may in a discretionary setting be subject to inflation bias, because they have an incentive to try to reduce unemployment through surprise inflation (Kydland and Prescott 1977; Barro and Gordon 1983a,b). Similar forces may apply to fiscal policy and then result in deficit bias (Agell et al. 1996). The temptation for governments to run deficits for this reason may have increased as central banks have become more independent, which has reduced the inflation bias of monetary policy (Castellani and Debrun 2005).

In the Swedish context, several of the described deficit-bias mechanisms are potentially important. There has been political polarisation regarding the size of government between a liberal-conservative bloc and a red-green bloc, which have alternated in power. Governments have been minority or coalition governments for decades, and high employment has been a key economic policy objective. So the impa-

[15] See, for example, IMF (2010).

tience, common-pool and time-inconsistency mechanisms could all be expected to play an important role under unconstrained discretionary fiscal policy-making.

4.3.2 Fiscal rules and institutions

Fiscal rules and fiscal transparency are widely seen as appropriate constraints to counter deficit bias. The fiscal crisis in the 1990s helped forge a broad consensus that the fiscal house must be kept in order so that the country would never end up in a similar situation again. This consensus has been codified into a strict fiscal framework. It was established in the late 1990s as a continuation of the budget consolidation programme discussed in Section 4.2.2, and has subsequently been successively amended, especially in recent years.[16] The framework consists of the following pillars:[17]

1. A *top-down approach* for the adoption of the budget in the Parliament. Decisions are taken in *two steps*. In a first step, the Parliament decides on overall expenditure and its allocation between 27 expenditure areas. In a second step, decisions are taken on individual expenditure items. In this phase, one form of expenditure cannot be raised unless another form of expenditure in the same area is correspondingly reduced. Hence, the decision on the total expenditure level will not be the result of a series of uncoordinated individual expenditure decisions. The two-step budget procedure is well-designed to deal with the common-pool problems discussed above.
2. A *surplus target* according to which general government net lending should be one percent of GDP. To preserve flexibility for fiscal policy, the target applies *over a business cycle*. In contrast to what was the case in the United Kingdom in the past, and which opened up for manipulations, the Swedish government does not date the cycle.[18] Instead, it evaluates adherence to the target with the help of several indicators: a backward-looking average of actual net lending, a – partly – forward-looking average of actual net lending, and cyclically adjusted net lending (for both individual years and longer time periods). Initially, it was not stipulated in the budget law that there should be a surplus target, but it is as of 2010. The level of the target is, however, left to discretionary policy-making.
3. A *ceiling for central government expenditure* which is set at least three years in advance. The ceiling applies to all central government expenditure except interest payments. Initially, it was not mandatory for the government to propose an expenditure ceiling, although there were regulations on how it should be used if it were decided (which it has been for every year since 1997). The stipulations require the government to take action if the ceiling is in danger of being breached. In 2009 it became mandatory for the government to propose an expenditure ceiling to the Parliament in the annual Budget Bill.
4. A *balanced budget requirement for local governments* (municipalities and counties/regions).[19] They must budget for an excess of revenues over expenditures. If there is a deficit ex post, it must be compensated for by a surplus within three years.
5. A reformed *pension system* designed to guarantee long-term sustainability as contributions, not benefits, are defined. Pensions are indexed to per-capita wage growth. This could involve sustainability risks due to unfavourable employment or demographic developments. To deal with this there is a balancing mechanism – the *brake* – which limits the degree of indexation if the long-run financial stability of the system is threatened: this occurs if the capitalised value of contributions plus the assets in the buffer funds falls below the value of pension liabilities. The balancing mechanism is automatic according to a predetermined formula and does not require any political decisions.[20]
6. A system for monitoring the government budget by a number of government agencies.[21] These include the *Swedish National Financial Management Authority* (which makes budget forecasts), the *National Institute for Economic Research* (which makes forecasts of macroeconomic developments, including for public finances) and the *National Audit Office* (which in addition to its main activities evaluates how the fiscal rules have

[16] Many of the features of the fiscal framework were first proposed by the so-called Lindbeck commission (named after its chair, professor Assar Lindbeck; Ekonomikommissionen 1993), a government commission given the remit to propose changes in both actual economic policy and the economic policy framework during the 1990s crisis.
[17] See Calmfors (2010, 2011a,b), Fiscal Policy Council (2010, 2011) and the Spring Fiscal Policy Bill (2010, 2011) for more detailed accounts of the fiscal framework.
[18] See Calmfors and Wren-Lewis (2011).
[19] There is a two-tier structure of local governments in Sweden with counties responsible for health care and public transports and municipalities for more local issues. A few counties have been amalgamated into larger regions.
[20] See EEAG (2007), Chapter 4, and Fiscal Policy Council (2009, 2010).
[21] See Calmfors (2010, 2011a,b) and Calmfors and Wren-Lewis (2011).

been respected). In 2007, a *Fiscal Policy Council,* consisting of independent (mostly academic) economists, was set up with the remit of monitoring the sustainability of fiscal policy, the adherence to the surplus target and the expenditure ceiling as well as how fiscal policy relates to the cycle. In addition, the council is to evaluate employment policy and the transparency of economic policy. There are special provisions to safeguard the council's independence, such as a stipulation that the council itself proposes its members to the government.

An interesting question is what motivated the choice in 1997 of a surplus of one percent of GDP as the fiscal target. No convincing motivations were initially given for that particular choice. Over the years, the government's motivations have also shifted (Finanspolitiska rådet 2008). Recently, the government has stressed three primary motives: social efficiency (tax smoothing), intergenerational equity and precautionary considerations. The social-efficiency argument has been backed up by annual fiscal sustainability calculations usually showing that, given current expenditure and tax rules and projected demographic developments, attainment of the one-percent surplus target will allow (marginal) tax rates to remain constant. In recent years, the government has placed great emphasis on the precautionary motive, arguing that large safety margins are required to preserve room for fiscal stimulus in the case of a deep and prolonged recession, although this argument has never been made very precise. Nor has a convincing case been made for why this target would be consistent with intergenerational equity; the Ministry of Finance, for example, does not publish any generational accounts.

The overall conclusion is that the government has never provided a very good explanation of why a surplus of one percent of GDP should be the appropriate fiscal target.[22] It was chosen quite arbitrarily in a situation when the government of the time was looking for a future anchor for fiscal policy after the budget consolidation of the 1990s. A broad consensus on this target has nevertheless evolved. Although there has been some critique that the target is too ambitious (from the left because it is thought to constrain government expenditure and from private business because it is seen to cause over-taxation), it has not had a great impact in the public debate. This should be seen against the background of the deep fiscal crisis in the 1990s, which created a consensus on the merits of a *fiscal norm* as a way of reducing the risk of new such crises. It is widely believed that the very *existence* of a reasonable norm, rather than its exact formulation, is the key factor (Fiscal Policy Council 2010).

4.3.3 The effects of fiscal rules and transparency

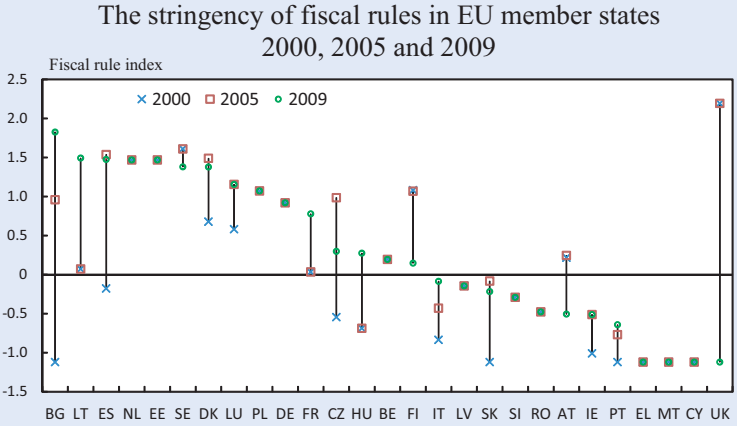
Empirical studies have found that – controlling for other factors – fiscal rules and fiscal transparency are associated with favourable fiscal outcomes.[23] This applies especially to rules that combine fiscal balance targets with expenditure rules as in Sweden. These studies are, however, plagued by problems of causality. The question is whether a strict fiscal framework *causes* good fiscal outcomes or whether a strict fiscal framework and good outcomes are both *caused* by a third factor, such as a political determination to avoid future fiscal crises (perhaps resulting from previous crises). In the latter case, a strict fiscal framework might just be a sign of such determination. Studies which have taken this causality problem seriously, like Alt and Lassen (2006) and Fabrizio and Mody (2006), have, however, also found an independent effect from the fiscal framework. According to a recent study, sovereign interest rate spreads to Germany in the euro area are negatively related to the stringency of fiscal rules when government deficit and debt levels are controlled for (Iara and Wolff 2010). This can be interpreted as an indication that fiscal rules have a credibility effect on sovereign interest rates over and above their effects on (current) deficits and debts.

The fiscal rules in Sweden have been judged by the European Commission in different ways at different points of time. European Commission (2006) constructed an index of the stringency of fiscal rules. According to this index, Sweden was below the European median in terms of stringency. However, according to an updated version of this index in European Commission (2011), Sweden's fiscal rules are among the strongest in the European Union (Figure 4.6). The index is an aggregate measure of the number of rules, their "bite" and their coverage of general government finances. The "bite" of each rule reflects (1) its statutory base; (2) the scope for revising

[22] The sustainability calculations mentioned above should probably be regarded with healthy scepticism, since it is hard to escape the suspicion that assumptions have been chosen to give precisely the result that the surplus target is consistent with the government's intertemporal budget constraint.

[23] See, for example, European Commission (2006), Broesens and Wierts (2009) and IMF (2009).

Figure 4.6

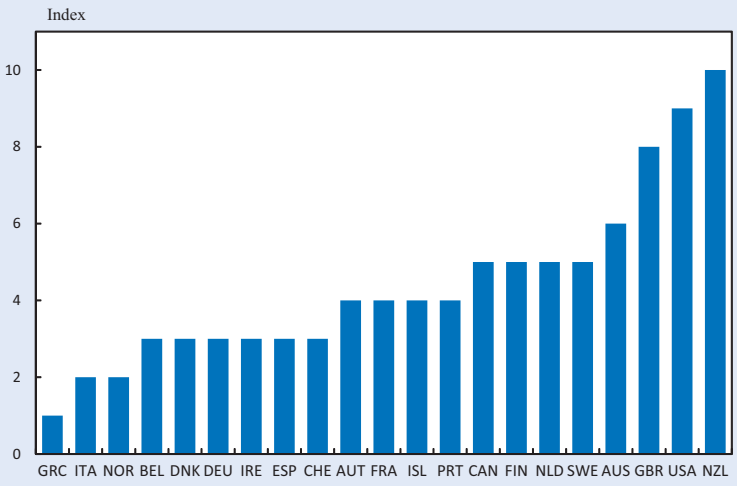


Note: Points indicate the value of the index in 2000, 2005 and 2009. A higher value denotes a higher quality of rules-based fiscal governance. By comparing the score for different years, an indication of the evolution of the quality of fiscal governance can be obtained. Thus countries with long lines have introduced big changes in their fiscal rules. If the 2000 point is higher than the 2009 point, the fiscal rules index has decreased indicating a weakening of fiscal rules (and vice versa).
Source: European Commission (2011).

objectives; (3) the mechanisms for monitoring compliance with and enforcement of the rule; (4) the existence of pre-defined enforcement mechanisms; and (5) the media visibility of the rule.

Alt and Lassen (2006) tried to measure *fiscal transparency* rather than the stringency of rules. Their transparency index is based on the amount and quality of information provided and being required by the government and the existence of independent verification of this information. Figure 4.7 shows that Sweden scores high on this measure, although not as high as the Anglo-Saxon countries Australia, the United Kingdom, the United States and New Zealand. Alt and Lassen (2006) and Lassen (2010) find that there is a positive association between this transparency index and fiscal discipline.

Figure 4.7



Source: Lassen (2010).

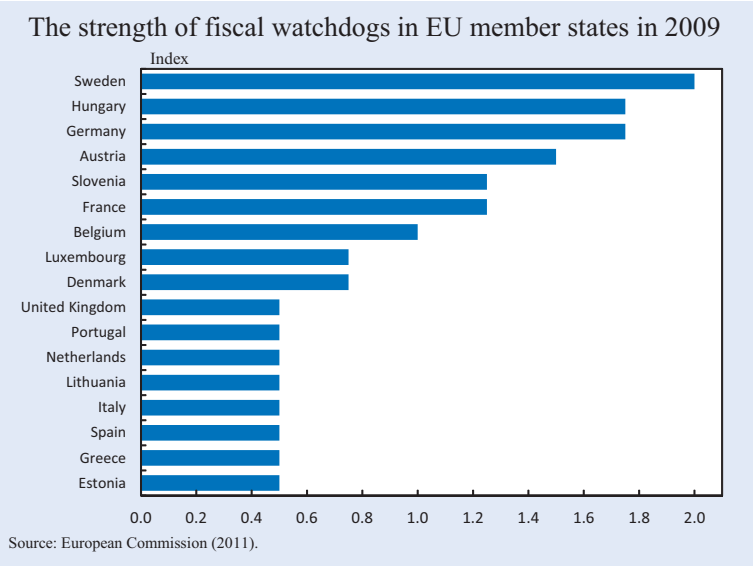
A related measure to the Alt-Lassen index has recently been provided by the European Commission (2011), which has constructed an index of the strength of independent fiscal watchdogs (fiscal councils) in the various EU countries. The analysis considers four areas of activity: (1) independent analysis of fiscal policy developments; (2) provision of macroeconomic and/or budgetary forecasts for budget preparation; (3) issuing of normative statements on fiscal policy; and (4) issuing of recommendations on the conduct of fiscal policy. A watchdog is considered stronger the more areas of activity it has. The score also becomes higher (although at a decreasing rate) if there are more watchdogs. Figure 4.8 shows that Sweden 2009 scored the highest among the OECD countries according to this index. This is because the country was considered to have two such watchdogs with all four forms of activity: the Fiscal Policy Council and the National Institute for Economic Research.

The degree of adherence to the rules

On the whole, respect for fiscal rules has been high in Sweden. This does not mean that it has been perfect. Formally, the central government expenditure ceiling introduced in 1997 has never been breached. However, creative accounting to circumvent the ceiling has been used. The Social Democratic governments in particular, which held office until 2006, made extensive use of *tax expenditure*, that is selective tax cuts (regarding payroll taxes for local governments only, for example, when hiring long-term unemployed) instead of expenditure increases.[24] Both the previous Social Democratic government and the current Liberal-Conservative government have also manipulated the timing of

[24] See, for example, Molander and Paulsson (2008).

Figure 4.8



Source: European Commission (2011).

payments when the ceiling was threatened, meaning that expenditure relating to one year was booked in another year.[25] However, these manipulations bore a non-negligible political cost and have not resulted in a trend towards a laxer adherence to the rules.

There have also been some accommodating changes in the pension rules. When, during the recent crisis, the pension brake (see Section 4.3.2) implied that pensions had to be cut, the rules for computing the value of the pension system's assets were changed so that they were evaluated not at the end of the preceding year, but as a more favourable three-year average. Tax cuts only for people above 65 were also made to compensate pensioners for the cuts in pre-tax pensions.[26] Although the Swedish pension system on paper is robust to demographic changes and growth shocks, its long-run political viability may thus be more uncertain.

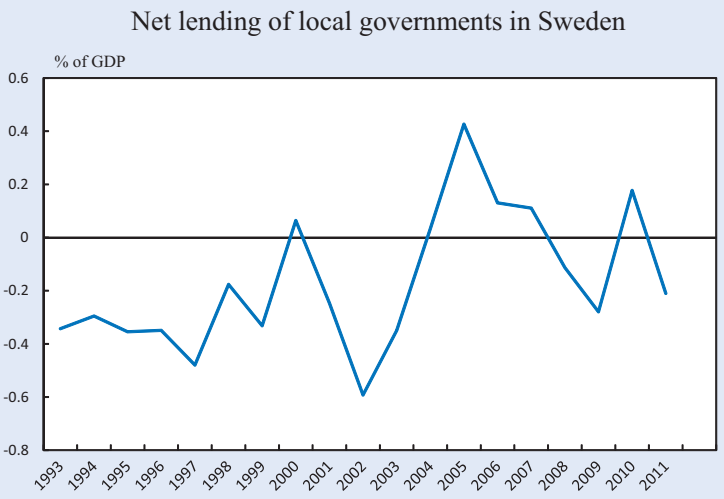
More importantly, fiscal policy has, however, adhered to the surplus target of one percent of GDP over a *business cycle*. Since the target started to apply fully in 2000 there has been one full cycle according to Bergman (2011), who used different methods to date the business cycle: 2000–2007(2008) if one measures from peak to peak and 2003–2009 if one measures from trough to trough. From peak to peak, average government net lending was 1.3 (1.4) percent of GDP and from trough to trough 1.2 percent. The results emerged regardless of the government's practice of using a host of indicators (see Section 4.3.2), which could enable it to jump between indicators when they show different outcomes.

It is also noteworthy that local governments have adhered to the balanced budget requirements despite the fact that violations trigger no sanctions. Figure 4.9 shows that the local government sector's net lending has varied around zero. This is important, as it has been found that sovereign debt crises in many countries have been triggered by regional governments' fiscal profligacy (Bordo et al. 2011).

The Swedish budget process and the "scope for reform"

The fiscal decision-making process may also be important to the favourable fiscal outcomes. It is based on an evaluation by the Ministry of Finance of the so-called *scope for reforms*. This is defined as the total sum of tax decreases and expenditure increases which can be actively decided by the Parliament and which are compatible with the target that general government net lending should show a

Figure 4.9



Note: There is a two-tier system of local governments: municipalities and counties. A few counties are amalgamated into regions.
Sources: Ameco, National Institute for Economic Research in Sweden, own calculations.

[25] Fiscal Policy Council (2009, 2010, 2011).
[26] Ibid.

surplus of one percent of GDP over a business cycle.

Without discretionary tax and expenditure decisions, the fiscal balance would gradually strengthen. The explanation is as follows. Most taxes are proportional to their tax bases. Tax revenues therefore grow automatically at about the same pace as GDP. In the absence of discretionary decisions, however, government expenditure grows more slowly than GDP. This is because only some expenditure, like pensions and sickness benefits, are tied to wages (which over time grow approximately at the same rate as nominal GDP). Other expenditure, like central government administration appropriations, grows more slowly than wages: it follows wage increases less expected productivity increases (approximated by productivity increases in the private sector). Some expenditure is indexed to the CPI, which rises more slowly than wages. Much expenditure, including, for example all central government grants to local governments, is not indexed at all and thus falls in real terms when prices rise. As a consequence, in the absence of discretionary decisions on "new reforms", there is an annual improvement in the structural fiscal balance of 0.5–0.6 percent of GDP. Without active decisions, there is thus a built-in *surplus bias* in the budget.[27]

The Ministry of Finance's estimate of the scope for reform forms the basis for the government's internal budget negotiations. In recent years, the estimate has also been accepted by the opposition parties, which have kept their budget proposals within the limits of the calculated scope for reforms.

The procedure with scope-for-reform calculations as a basis for fiscal policy is likely to have contributed to budget discipline. One way of looking at this procedure is as a way of combining the two approaches to dealing with the common-pool problem which have been proposed in the research literature on deficit bias (see Section 4.2.1): delegation of fiscal balance decisions to a strong finance minister and the contract approach whereby ministers and political parties commit to budget discipline *ex ante*.

The scope-for-reform calculations are also likely to have *framed* budgetary decision-making in a way that has facilitated a gradual reduction in government expenditure and taxes relative to GDP (see Figure 4.4). It is well-known from psychological research that the framing of a decision problem often has a major effect (Tversky and Kahneman 1981, 1986; Kahneman and Tversky 1984). A process whereby discretionary budget decisions are based on an estimate of the scope for reform makes it natural to divide this scope between tax cuts and expenditure rises. Since the scope for reform emerges because government expenditure in the absence of discretionary decisions falls relative to GDP, the result is likely to be a gradual decline in both taxes and public expenditure in relation to GDP.

[27] Fiscal Policy Council (2011) analyses how various factors contribute to the scope for reform.

4.4 The importance of output growth

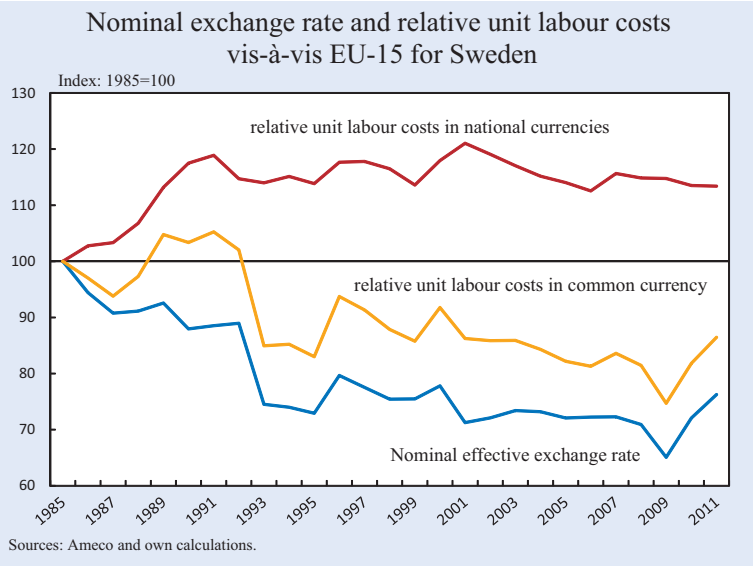
Discussions of fiscal performance naturally, as above, tend to focus on fiscal policy and how it is influenced by the fiscal framework. There is a risk, however, that such an analysis attributes too large a role to fiscal rules and transparency. Indeed, *output growth* is also of paramount importance. There are two reasons for this. Firstly, it is much less painful to improve the primary fiscal balance if the economy grows. Secondly, given the primary fiscal balance and the real interest rate, higher growth "dilutes" the debt-to-GDP ratio by making the denominator increase faster.

This section first discusses output developments in Sweden during the budget consolidation in the 1990s and goes on to analyse the importance of higher long-run growth during the whole period after the crisis in the 1990s.

4.4.1 Output growth during the fiscal consolidation in the 1990s

Slow or negative output growth and high unemployment constitute major difficulties for euro area counties that are currently experiencing deep fiscal crises. As a consequence, tax revenues are low and transfer payments to the unemployed are high. It has been claimed that, in such a situation, fiscal contractions can be *expansionary* (for example, Giavazzi and Pagano 1990, 1996 and Alesina and Perotti 1995). Possible explanations are that long-term interest rates fall because the credibility of fiscal sustainability increases, that the risk of future and more chaotic budget consolidations decreases and that very large, future tax increases with huge distortionary costs can be avoided if taxes are raised in the near future.

Figure 4.10



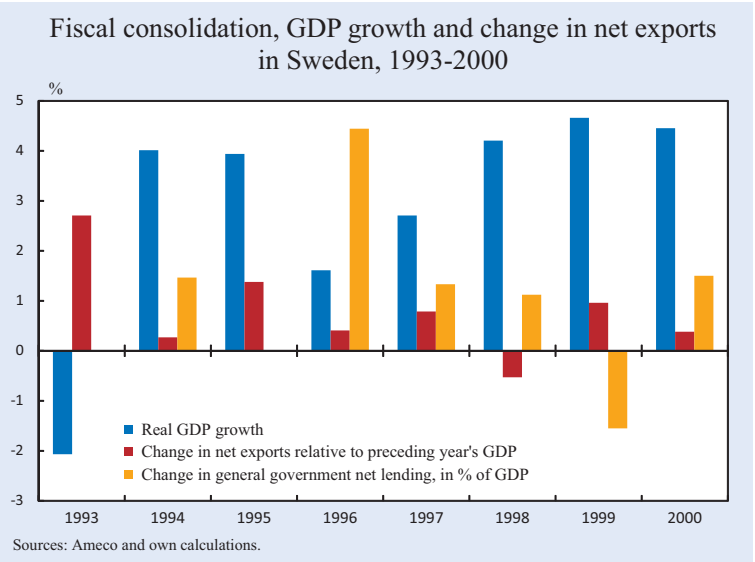
Sources: Ameco and own calculations.

Sweden managed to combine its tough fiscal consolidation in the 1990s with high output growth. Therefore, this episode has been cited as an example of an expansionary fiscal contraction. This is probably an incorrect inference. Indeed, Bergman (2010) could find no support for this hypothesis: instead he concluded that contractionary fiscal policy also had normal Keynesian demand-reducing effects during this episode.[28]

A more plausible explanation of why Sweden could combine fiscal consolidation with output growth is the large *real exchange rate depreciation* that took place (see Figure 4.10).[29] Between 1991 and 1995 relative unit labour costs vis-à-vis EU-15 fell by as much as 21 percent. This was caused by a large *nominal* exchange rate depreciation. The real exchange rate depreciation gave a boost to net exports as can be seen in Figure 4.11. The stimulus effects from increasing net exports (including second-round multiplier effects on private consumption) made it possible for aggregate demand and output to grow in 1994–2000, despite harsh fiscal consolidation (reflected in the diagram by the increases in general government structural net lending).

In fact, Sweden provides a vivid illustration of the importance of swift real exchange rate depreciations for economies caught up in a situation with large fiscal deficits, low output growth and an appreciated real exchange rate. Without a real exchange rate depreciation, tax rises and government expenditure cuts are bound to reduce aggregate demand and output. Hence, tax revenues will fall and fiscal consolidation will be very slow. This is the current predicament of the most crisis-ridden euro area countries. They are not able, like Sweden in the 1990s, to achieve export-led growth in the short run, since a real exchange rate depreciation within the euro area requires a fall in labour costs, which can only be achieved after a lengthy period of high unemployment.

Figure 4.11



Sources: Ameco and own calculations.

4.4.2 Longer-term output growth

Table 4.3 gives a longer term perspective on Swedish GDP growth. Actual average GDP growth per year after the 1990s crisis until the recession in 2008 was 0.7 percentage points higher than before the crisis: 3.0 percent in 1995–2008 versus 2.3 percent in 1970–1990. The difference is accounted for by higher productivity growth after the 1990s

[28] Hjelm (2002) reaches a similar conclusion.

[29] See Andersen (1994) and Barry and FitzGerald (1999) for similar conclusions regarding the fiscal contractions in Denmark and Ireland in the 1980s.

crisis: 2.2 versus 1.4 percent. Potential GDP growth was also higher in 1995–2008 than in 1970–1990, but with a smaller margin: 2.7 versus 2.4 percent. Long-term growth in Sweden after 1995 also compares favourably with, for example, the three largest euro area countries. For France, Germany and Italy (EU-3), average output growth was more than one percentage point lower in 1995–2008 than in 1970–1990.

Table 4.3

Average growth rates in percent

	GDP	Potential GDP	GDP/hour
Sweden			
1970–1990	2.3	2.4	1.4
1995–2008	3.0	2.7	2.2
EU-3			
1970–1990	3.0	2.9	2.1
1995–2008	1.7	1.6	1.4
Note: EU-3 is a weighted average for France, Germany and Italy. Growth for GDP/hour is for 1971–1990.			

Source: AMECO.

Higher output growth facilitates fiscal consolidation in two ways:

1. By raising the denominator in the debt-to-GDP ratio at a faster pace, government debt is "diluted". Ceteris paribus (with given paths for the primary deficit and the real rate of interest), higher GDP growth reduces the government debt-to-GDP ratio. Over time the effects can be sizable, as illustrated by Table 4.4. The *ceteris paribus* effect of the higher real growth in Sweden in 1994–2007 than in 1970–1993 (at given paths for the primary deficit-to-GDP ratio and the real rate of interest) was a reduction in the consolidated government gross debt ratio of 13 percentage points: from 70.0 percent of GDP to 57.0 percent of GDP. A comparison with the average growth in EU-3 (France, Germany and Italy) in 1994–2007 gives almost the same effect.[30]
2. More importantly, higher output growth makes it easier to improve the primary fiscal balance. As discussed in Section 4.3.3, in the absence of discretionary fiscal decisions the fiscal balance strengthens with output growth as taxes are more or less proportional to GDP, whereas government expenditure does not automatically follow GDP. In general, fiscal consolidation becomes politically less controversial with strong output growth, as it is easier to combine a strengthening of the fiscal balance with higher real disposable incomes and private consumption.

The relatively fast output growth in Sweden after 1994 has been the subject of much discussion. Although the large currency depreciation in 1992 started off a process with higher growth, it cannot possibly have had effects that lasted for at least a fifteen-year period. In the twenty-year period prior to the floating of the Swedish *krona* in 1992 there were several devaluations which all failed to trigger such a process. Instead, the Swedish economy was then caught in a *devaluation cycle,* whereby each devaluation triggered a few years of high growth until wages caught up again and then overshot, leading to a real appreciation, which had to be corrected through a new devaluation.

Table 4.4

Direct contribution of higher growth to decreases in Sweden's government debt-to-GDP ratio in 1994–2007

Fall in debt-to-GDP ratio	
Cumulated contribution from higher growth than in 1970–1993	13.0
Cumulated contribution from higher growth than in EU-3 1994–2007	13.1
Note: The government debt ratio is the ratio of consolidated government gross debt to GDP. Absent stock-flow adjustments and valuation changes, the change in the government debt-to-GDP ratio is $d_t - d_{t-1} = p_t + (r_t - g_t)d_{t-1}$, where d is the government debt ratio, p is the primary deficit-to-GDP ratio, r is the real rate of interest and g is the real GDP growth rate. The entries in the table give the accumulated contribution to the decrease in the debt ratio from higher growth than in the reference period, i.e. $\sum_{1994}^{2007}(g_t - \bar{g})\, d_{t-1}$, where $\bar{g}$ is the average growth rate in Sweden in the reference period or in EU-3 (France, Germany and Italy) in 1994–2007.	

Sources: AMECO, own calculations.

[30] In general it holds that: *Change in the Government Debt-to-GDP Ratio = Primary Deficit-to-GDP Ratio + (Real Interest Rate – Real Growth Rate) × Government Debt-to-GDP Ratio + Residual.* The residual captures, for example, valuation changes in shares held by the government and sales of such shares. The residual is often referred to as stock-flow adjustments.

To understand the long period of favourable growth after 1992, one instead has to look at other factors. A number of such factors have been identified (see, for example, EEAG 2007, Chapter 4):

- Schumpetarian *creative destruction* during the 1991–1993 crisis, which led to the close-down of many stagnating firms and freed up labour and capital for use in firms with a potential for long-run expansion.
- *Comprehensive tax reform* in 1990–1991, which broadened tax bases and reduced marginal tax rates, thus creating a socially more efficient tax system. Although there were subsequently a number of amendments to the system, which in some cases violated the basic principles behind the reforms, the reformed system has on the whole survived (Fiscal Policy Council 2011).
- Extensive *product market deregulation,* which took place mainly in the first half of the 1990s, was earlier than in most continental European economies. The deregulations encompassed in particularly important network industries such as rail transport, taxi services, domestic air traffic, postal services, telecommunications, and electricity generation and distribution.
- A high level of *R&D expenditure*: the ratio of R&D expenditure to GDP (around 4 percent) has been the highest in the European Union.
- Reforms of the *wage bargaining system*: In the 1980s, the centralised wage bargaining system, which had earlier delivered aggregate real wage restraint, but also compressed wage differentials, began to crumble. In the late 1990s, more co-ordinated wage bargaining, contributing to wage restraint, was reintroduced. However, the co-ordination is now more informal and permits greater individual wage flexibility, allowing the individual's wage to be better linked to her productivity (EEAG 2004, Chapter 3).
- For historical reasons, such as the strong position of *Ericsson* in the telecom industry, Sweden may have been well placed to take advantage of the growth potential associated with IT.

As discussed in Section 4.2.2, there have recently also been fundamental labour market reforms (less generous unemployment insurance, sickness insurance and early retirement, as well as the introduction of an earned income tax credit) aimed at raising aggregate employment. Yet such reforms were not made until in 2007 and cannot account for growth developments before that year.

The relative importance of various factors that may explain the favourable Swedish growth record after the 1990s crisis is not clear. Our discussion nevertheless highlights the potential importance of growth-enhancing reforms for fiscal performance in general.

4.5 Conclusions

Our discussion has emphasised two sets of explanations for Sweden's strong fiscal performance in recent years:

1. A strict fiscal framework and a broad political consensus on the merits of fiscal discipline.
2. High output growth, which has reduced the costs of fiscal discipline.

There is an effective fiscal framework in Sweden with a fiscal balance (surplus) target, a government expenditure ceiling and a top-down approach for budgetary decisions. However, there are no strong commitment devices or sanction mechanisms in the case of violations of the rules. There are no stipulations that past deviations from the fiscal balance target must be compensated for in the future, as is the case with the Swiss and German debt brakes and is now envisaged in the new EU fiscal compact. Instead, the system relies to a large extent on a high degree of *fiscal transparency.* This includes relevant follow-ups of the attainment of fiscal targets and long-run sustainability calculations provided by the government, as well as monitoring of fiscal policy by several independent or semi-independent bodies. All this imposes high *reputation costs* on governments that renege on their own targets and gives voters access to *good information* on fiscal policy.

It is not obvious why this system works. One possible explanation is that economists in Sweden have traditionally enjoyed high status and are listened to in the public debate. This means that criticism of government policy by economists probably has a greater impact than in most other countries.

There is probably also a deep respect for rules in Swedish society in general, which contrasts starkly with the situation in Greece and some other South European countries. This is illustrated by the fact that the risk of being subjected to sanctions in the case of monetary union membership played an important role in the Swedish discussion on whether or not to join. It was never seen as an option that the three-per-

cent-of-GDP deficit ceiling stipulated in the stability pact would be violated. Instead, before the referendum on membership of the monetary union (which resulted in a "no" to the euro) in 2003, a government commission looked into the requirements of fiscal policy that would be imposed by switching to the euro (Commission on Stabilisation Policy 2002). The commission concluded that the surplus target should be raised in the event of membership of the monetary union to minimise the risk that the deficit ceiling would be breached in a cyclical downturn. This recommendation was based on an analysis of the probabilities that the stability pact's deficit ceiling would be breached under assumptions of different fiscal balance targets (Ohlsson 2002). To our knowledge, there was no similar discussion before the adoption of the euro in Greece, for example.

Sweden's current government has used a desire to avoid breaching the EU deficit ceiling in downturns as an argument for maintaining the surplus target of one percent of GDP over a business cycle, although Sweden is not a member of the monetary union and thus cannot be exposed to fines (Budget Bill 2011).

A difficult question is to what extent Sweden's recent favourable fiscal performance depends on the fiscal framework in place, and to what extent its fiscal performance (as well as its fiscal framework) are consequences of the political consensus on fiscal discipline that emerged in the wake of the 1990s crisis. It is important not to give too much credit for this performance to the new fiscal framework and too little to the change in mind-set that may also have manifested itself in the absence of framework reforms (at least as long as the earlier crisis is fresh in the public's memory). The lessons learned during the crisis in the 1990s were probably necessary for the successful implementation of the stricter fiscal framework. At the same time, the rules may have helped create an institutionalised memory that fades more slowly than the purely political memory.

Our discussion emphasises that good fiscal performance does not depend only on decisions in the fiscal sphere. Macroeconomic conditions are also of crucial importance. Fiscal discipline is much easier to achieve with high output growth than with a stagnating economy. This holds true both in the long run and in the short run and is vividly illustrated by the case of Sweden. Higher growth than achieved previously or in the large EU economies after 1994 helped to create a downward trend in the government debt-to-GDP ratio. Budget consolidation in the 1990s was greatly facilitated by a large real exchange rate depreciation that boosted both net exports and output. The real exchange rate depreciation was achieved through a large currency depreciation, an option not available to countries like Greece, Ireland, Italy, Portugal and Spain vis-à-vis the other euro area countries.

To sum up, Swedish fiscal experiences suggest the following lessons:

- A deep fiscal crisis may help to forge a broad consensus on the merits of budget discipline with long-lasting effects.
- Well-defined fiscal objectives, fiscal transparency and a qualified economic-policy debate may be more important to fiscal discipline than binding rules and automatic correction mechanisms.
- The framing of the budget decisions, particularly a well-defined process for evaluating the scope for active tax and expenditure decisions, may be of great importance.
- Fiscal sustainability does not only depend on decisions taken within the fiscal sphere. High output growth greatly facilitates fiscal consolidation. In the long run this requires growth-enhancing reforms. In the short run, the ability to achieve large real exchange rate depreciation, stimulating net exports, is of paramount importance to open economies with serious competitiveness problems.

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