

Swedish Fiscal Policy

Report of the Fiscal Policy Council 2009

The Swedish Fiscal Policy Council is a government agency. Its remit is to conduct an independent evaluation of the Swedish Government's fiscal policy. The Council fulfils its tasks primarily through the publication of the report **Swedish Fiscal Policy**, which is presented to the Government once a year. The report is used by the Riksdag as a basis for its evaluation of the Government's policy. The Council also arranges public conferences and seminars. In the series **Studier i finanspolitik (Studies in Fiscal Policy)**, it publishes in-depth studies of different aspects of fiscal policy.

Finanspolitiska rådet
Box 3273
SE-103 65 Stockholm
Kungsgatan 12-14
Tel: 08-453 59 90
Fax: 08-453 59 64
info@finanspolitiskaradet.se
www.finanspolitiskaradet.se

ISSN 1654-7993
ISBN 978-91-633-2164-1

Foreword to the English translation

The 2009 report of the Swedish Fiscal Policy Council was published on 11 May 2009. This is the English translation of the report. Barbara Burton helped with the translation. Martin Flodén, Erik Höglén, Charlotte Korfitsen, Marianne Larsson, Pär Nyman and Eva Oscarsson also worked on the English version in co-operation with the Chairman.

7 September 2009

Lars Calmfors
Chairman of the Council

Foreword

The Fiscal Policy Council has the Government's remit to evaluate fiscal and other economic policy. The Council is also to review the Government's forecasts and their analytical basis and the clarity of the proposals in budget bills and their stated justifications.

This is the Council's second report. Six of the Council's seven members support the report in its entirety. One member, Lars Tobisson, has dissented on one point: the assessment of how extensive fiscal stimulus measures should be in the current situation. His dissenting opinion is reported in a reservation in accordance with the Council's instruction which stipulates that "possible dissenting opinions by members are to be presented in the report".

The Council currently consists of the seven members who have signed this foreword. Since the 2008 report, Per-Ola Eriksson (2008-08-21) and Karolina Ekholm (2009-02-12) have left the Council. Lars Tobisson has been appointed a new member (2008-09-11). The Council is assisted by a secretariat consisting of Eva Oscarsson and Erik Höglin (Senior Economists), Pär Nyman (Economist) and Charlotte Korfitsen (Head of Administration).

The Council in its work on this year's report held ten recorded meetings. In connection with these meetings, seminars in various subject areas were arranged in cooperation with the National Institute of Economic Research (NIER). Hearings have been held at the Ministry of Education and Research (2008-11-18), the Ministry of Employment (2008-12-15) and the Ministry of Finance (2009-01-20).

The Council has commissioned seven background papers, all of which are published in the publication series Studies in Fiscal Policy (*Studier i finanspolitik*):

1. Clas Bergström – The financial crisis and Swedish crisis management in autumn 2008/winter 2009 (in Swedish).
2. Martin Flodén – Automatic fiscal stabilizers in Sweden 1998-2009.
3. Rikard Forslid and Karen Helene Ulltveit-Moe – Industrial policy for the Swedish automotive industry (in Swedish).
4. Alan B. Krueger and Mikael Lindahl – An evaluation of selected reforms to education and labour market policy in Sweden.

5. Per Molander – Net wealth analysis and long-term fiscal policymaking.
6. Oskar Nordström Skans – Why is Swedish youth unemployment so high? (in Swedish).
7. Gabriella Sjögren Lindquist and Eskil Wadensjö – The labour market for older workers (in Swedish).

We are grateful for consulting assistance from the NIER (Anna Widenfalk, Joakim Skalin, Rémy Kamali, Camilla Prawitz and Ulla Robling), Kent Eliasson and Malin Persson. In the course of our work, we have received valuable comments from Anders Forslund, Thomas Franzén, Peter Fredriksson, Fredrik Jansson Dahlén, Tomas Nordström, Staffan Viotti, Pehr Wissén and others, in addition to those from the authors of the background reports. Göran Selin and Holger Hammar at the Swedish Public Employment Service were most helpful in producing statistics on the labour market programmes. Tommy Lindkvist at Statistics Sweden helped us with data from the Labour Force Survey and Kristian Persson at the Swedish Unemployment Insurance Board with information on the unemployment insurance funds' fee increases. We have also found the ongoing discussions with Mats Dillén, Urban Hansson Brusewitz, Kristian Nilsson and Juhana Vartiainen at the NIER very helpful.

Marianne Larsson and Aila Ahsin at the NIER provided valuable administrative support as did Helena Hellman. We also want to thank Kerstin Abrahamsson, Lars Blumenthal, Sandra Bonaldi, Maria Hedin Nordling, Marie Hyllander, Lars Johansson, Birgit Kaur, Tommy Persson and Astrid Wåke for their help to the Council in a variety of ways.

Lars Calmfors
(Chairman)

Torben Andersen
(Deputy Chairman)

Martin Flodén

Laura Hartman

Ann-Sofie Kolm

Lars Tobisson

Erik Åsbrink

Contents

Principal conclusions of the report	1
Summary.....	4
1 Current fiscal policy	28
1.1 Fiscal policy in the 2009 Budget Bill.....	28
1.2 Measures in the wake of the financial crisis in autumn 2008.....	36
1.3 The fiscal framework in a recession.....	78
1.4 Additional fiscal stimulus measures	84
2 The surplus target and the fiscal framework.....	92
2.1 Motives for the surplus target.....	92
2.2 Monitoring the surplus target	95
2.3 Alternative strategies for meeting the demographic challenges.....	103
2.4 The budget balance target and the future fiscal framework – possible starting points	112
2.5 How can the budget target be determined and reviewed over time?	115
3 Public finance reporting	124
3.1 The public sector balance sheet.....	126
3.2 Fiscal sustainability calculations.....	132
4 Public investment	140
4.1 Trends in public investment	140
4.2 The need for public investment	148
4.3 Risk of over- and under-investment	150
4.4 Public sector size and public investment	151
4.5 Current public investment.....	154
4.6 Conclusions	154
5 Labour market policy	156
5.1 Labour market developments	156
5.2 Active labour market policy	159
5.3 Unemployment insurance	190
6 Labour supply in a life cycle perspective	210
6.1 Labour force participation in different age groups.....	212
6.2 Labour market entry.....	216
6.3 Labour market exit	229

7 Tax policy	244
7.1 Reduced social contributions.....	244
7.2 Higher income threshold in the state income tax.....	250
7.3 Step three in the earned income tax credit	252
7.4 RMI deduction.....	257
7.5 Reduction of the corporate tax rate.....	259
7.6 The tax changes and the cyclical situation.....	261
Lars Tobisson's reservation.....	262
References	264
Appendix 1 The intertemporal budget constraint and intertemporal net worth	282
Appendix 2 Estimates of the public sector capital stock.....	284
Appendix 3 The future development of the labour market exit age	286

Principal conclusions of the report

The report focuses on two main issues:

1. How well has the Government succeeded in adjusting fiscal policy to the dramatic cyclical weakening?
2. How should the economic policy frameworks be further developed?

Our principal conclusions are:

- Government measures to handle the financial crisis itself have generally been adequate. But there needs to be a more thorough analysis of the risks of increased government lending and various guarantee schemes.
- An assessment of the Government's measures in face of the recession must weigh the advantages of taking measures now to address the fall in employment against the risks of a higher budget deficit. The large downward revisions of economic forecasts since the Budget Bill justifies, in our opinion, stronger stimulus measures this year than those taken up to now.
- Additional stimulus measures beyond those announced by the Government should probably be taken in 2010. The stimulus measures should include a further temporary increase in the central government grants to local governments and a *temporary* increase in unemployment benefits.
- The expenditure ceiling should not block central government expenditure if there are compelling cyclical reasons for allowing it to increase. It would be desirable to get a cross-party agreement on the possibility of exceeding the ceiling in *exceptional* circumstances.
- It is appropriate, as the Government is doing, to expand labour market policy measures for the short-term unemployed. But the Government has an overoptimistic view of what job search activities can achieve in a deep recession.

- The expansion of the job and development guarantee is not a forceful labour market policy measure, but a consequence of having to provide welfare benefits to support more long-term unemployed. It will be difficult to provide the guarantee with enough meaningful content for the majority of participants.
- There is too little labour market training. It is wise to keep volumes substantially lower than in the 1990s but there is nevertheless room for an expansion without impairing effectiveness. Temporary central government support for training in firms should be possible where agreements on shorter working hours and corresponding wage adjustments have been reached.
- Unemployment insurance should be made *cyclically dependent*, so that the benefit level is higher in a recession than in a boom. The need for insurance is greater in a recession. At the same time, job-search incentives play a smaller role.
- Reporting of the total worth of the general government sector is still inadequate in the Budget Bill and the Spring Fiscal Policy Bill. Reporting of general government investment is so incomplete that the Riksdag (the Swedish Parliament) does not have a satisfactory basis for decision making.
- The review of the fiscal framework now under way must clarify the overall objectives behind the surplus target. The framework should provide a clearer picture of the balance to be struck between *pre-funding* and a gradual *increase in lifetime working hours* as methods of meeting the future demographic pressure on expenditure.
- A gradual rise in lifetime working hours should be part of the strategy for meeting the demographic strains. One way to achieve this is an automatic adjustment of the retirement age to life expectancy. Such a link could make possible a budget objective that is less ambitious than the current surplus target.
- Reforms to reduce the labour market entry age are desirable. These reforms could take the form of generally higher study support, more generous study support for younger students than for older students, and a reduction in the ceiling for earned income (the exempt amount) in the student support system.

Summary

The past year has witnessed a uniquely rapid and deep deterioration in the economy. In a short time it has fundamentally changed the conditions for both fiscal policy and other economic policy. Stabilisation policy considerations now play an important role that could not have been predicted only a year ago. The change in the situation makes it natural for our review to focus on two principal questions:

- How well has the Government succeeded in adjusting economic policy to the new conditions?
- How should the work ahead to develop and improve the rules system governing economic policy be conducted?

The two questions are intimately connected. The economic crisis brings a number of issues about the design of economic policy frameworks to a head. At the same time, it is essential to keep a long-term perspective so that the goals of a sustainably high level of employment and sustainable public finances can be achieved. A long-term perspective is also essential for the short-term credibility of fiscal policy and thus for its effectiveness. This means that the Government's work on developing fiscal and employment policy frameworks should continue in the current situation.

Fiscal policy in the recession

The fiscal policy for 2009 was mainly determined in the Government's Budget Bill in September 2008. At that time, a limited economic slowdown was expected. The Government predicted that GDP growth would fall to 1.3 per cent in 2009 and that a GDP gap, i.e. a difference between actual and potential GDP, of –1.7 per cent would emerge. At the same time, general government net lending in 2008 was expected to be 2.8 per cent of GDP. Since this was substantially above the surplus target of 1 per cent of GDP, the Government considered an expansive fiscal policy appropriate. The budget proposal therefore involved a reduction in structural net lending (cyclically adjusted net lending) of about 1 per cent of GDP

in 2009. The expansive measures included a third step in the earned-income tax credit, a higher tax threshold for the central government income tax, a general lowering of social contributions and an extension of the earlier reduction in social contributions for young people. Our opinion is that the fiscal policy in the Budget Bill, given the information on the cyclical situation then available, was well balanced.

Since the Budget Bill was presented, there has been a drastic downward revision in the economic outlook. The estimate in the Spring Fiscal Policy Bill is now that GDP growth in the current year will be -4.2 per cent. This is expected to mean a negative GDP gap as large as 7.1 per cent. The fall in GDP is reckoned to come to an end in 2010 but resource utilisation is expected to continue to decline. Unemployment is expected to rise with some lag, reaching almost 12 per cent in 2011. For Sweden, this economic crisis is fully comparable to the crisis in the 1990s. The primary difference is that the crisis this time has not been triggered by events in the Swedish economy but by developments elsewhere in the world.

A key issue is how to assess fiscal policy in its current form in relation to the dramatic deterioration in the cyclical situation since autumn 2008. The Government has taken some further fiscal stimulus measures in a supplementary bill in January this year and in the Spring Fiscal Policy Bill. For 2009, these primarily include some increase in general government investment, the introduction of a permanent RMI (repairs, maintenance and improvement) deduction and more resources for labour market policy. The measures are limited in size. They correspond to about 0.3 per cent of GDP for 2009. In 2010 local governments will receive a temporary increase in central government grants of SEK 7 billion.

Stronger fiscal stimulus measures are desirable

The deep recession also entails a significant deterioration in general government finances. In the Spring Fiscal Policy Bill, the Government forecast a deficit in net lending of 2.7 per cent of GDP in 2009 and 3.8 per cent in 2010. The deficit in 2010 is thus expected to exceed three per cent of GDP, the deficit ceiling under the EU's Stability Pact. Under an escape clause in the Pact, however, this ceiling can be exceeded temporarily in an economic situation like the

current one. The reversal in net lending is primarily due to the automatic stabilisers; that is, it is a result of reduced tax revenue and increased expenditure on unemployment and other benefits that automatically occur in an economic downturn.

A common view expressed in the economic policy debate has been that the tax cuts and cuts in unemployment and other benefits in recent years have weakened the automatic stabilisers. According to our calculations, such a weakening has occurred, but it is small.

The cyclical weakening is obviously so great that the policy options to combat it are limited. We share the Government's opinion that it is impossible to prevent the economic downturn from having a major impact on output and employment in Sweden. Instead it is a matter of weighing at the margin how big a fiscal stimulus should be deployed and how large a budget deficit should be accepted.

There are at least three strong arguments contending that the Government should have conducted a more expansive fiscal policy:

- The reforms in the Budget Bill were not primarily designed to stimulate the economy but more with the aim of contributing to long-term economic efficiency. This is true, for example, of the tax cuts resulting from the increase in the tax threshold in the central government income tax. High-income earners can be expected to consume a lesser share of a tax cut than low-income earners.
- The drastic cyclical deterioration since autumn 2008 means that we will experience a much sharper fall in output and employment than could be foreseen at that time. If the basis for action even then was that fiscal policy should take the cyclical situation into account, a dramatic deterioration in the economy should have meant stronger doses of economic stimulus.
- The unemployment insurance reforms – which can be expected to have positive long-term effects on employment because they help improve the functioning of the labour market – have at the same time meant that there is less insurance in the event of unemployment. This means that the consequences of increased cyclical

unemployment will be very serious. It is therefore more important than before to fight cyclical unemployment with stabilisation policy.

At the same time, there are highly respectable arguments for a more cautious approach. Sizeable fiscal stimulus measures that lead to permanent large budget deficits may jeopardise the long-term sustainability of fiscal policy. The effects of *temporary* large deficits – which could occur, for example, if some of the central government's sizeable guarantee commitments were to be triggered – on the long-term sustainability of general government finances, are, however, small. The greatest risk is that what is initially cyclical unemployment will eventually grow into persistent unemployment. Because of the relatively strong automatic stabilisers, general government finances are more vulnerable to such a development in Sweden than in most other countries. The risk of persistent unemployment, however, is reduced by the contribution that the fiscal stimulus measures make to keeping unemployment down now.

A bigger problem is that the recession may well be both very deep and quite protracted. If so, too big a stimulus in the current situation could limit the room for additional stimulus measures at a later date when there may be an even greater need. The deficits may also raise expectations of future tax increases, which might induce households to save more. This could have contractionary effects later on. Such effects also occur if doubts about the credibility of fiscal policy drive up long-term interest rates.

When we weigh the various risks against each other, it is our opinion that additional fiscal stimulus measures would have been – and are – desirable. The deficits in Sweden are considerably smaller and the financial position (both net financial worth and gross debt) better than in most other OECD countries. The financial position of the general government sector is also stronger than it was at the beginning of the crisis in the 1990s. Furthermore, there is now a fiscal framework with a relatively high level of credibility and a broad political consensus on the need to safeguard the long-term sustainability of general government finances. This gives fiscal policy room for manoeuvre that should be exploited.

Appropriate additional fiscal stimulus measures

It is important for additional fiscal stimulus measures to be cost effective: the demand and employment effects should be as large as possible in relation to the costs. One such measure is additional temporary central government grants to *local governments*. In our opinion, more funds should be provided even in the current year with the aim of avoiding layoffs. It is presumably less expensive to reach a certain level of employment by preventing layoffs than by stimulating hiring later. We also share the National Institute of Economic Research's assessment that the additional resources provided next year should be larger than those proposed in the Spring Fiscal Policy Bill. The research literature indicates that public consumption has a substantial effect on aggregate demand. There is, of course, a risk that local governments will save some of these additional resources and not use them for consumption. But if so, there will not be any deterioration in general government finances as a whole: net lending is simply transferred from one part of the public sector (the central government) to another (local government).

Further stimulus measures should mostly be directed at low income groups expected to have a high propensity to consume. One such group is the *unemployed*. In our previous report, we concluded that the reduction in unemployment benefits carried out will markedly lower unemployment in the long term. This will take place because the incentives to find a job and to restrain wage increases are strengthened when the return on work increases. This is crucial for high employment in normal economic times when unemployment is mainly due to deficiencies in the functioning of the labour market. But in an extreme economic downturn, when unemployment increases sharply owing to a lack of demand, and there is substantial wage restraint, the incentive effects play a much smaller role for employment than they normally do. This may be an argument for a *temporary* increase in the level of unemployment benefits. This could be done, for example, by extending the period (currently 200 days) when benefits amount to 80 per cent of the previous wage. Such an extension could remain in effect for two years, for example.

One obvious problem with a temporary rise in the benefit levels is that it may be difficult to lower it again once the economy picks up. For long-term employment, it is important that a future reduction

does, in fact, take place. It would therefore be desirable if a decision on a temporary change could be taken as part of a cross-party agreement on making unemployment insurance permanently dependent on the business cycle. This is discussed at greater length later in the summary.

In the unemployment insurance, there is also a minimum and a maximum daily amount for the benefit: the basic allowance and the ceiling. These amounts do not follow general income developments. Instead they are changed by discretionary decisions by the Riksdag. However, this has not happened since 2002 when both the basic allowance and the ceiling were raised. So that unemployment benefits will not continue their gradual decline in relation to wages – which would be unreasonable – a decision on raising the levels will eventually be required. It may be appropriate to take these decisions during the recession now under way.

One further measure that should be considered is a permanent increase in *study support*. It has fallen sharply in relation to the average wage since the beginning of the 1990s. According to our analysis of the incentives for getting an education and completing it in a short time, an increase in study support is justified in the long term. It is also timely to raise the support during a recession.

In addition, the ‘brake’ in the pension system will be applied in 2010. Under the previous regulations, old-age pensions would have fallen by 3.5 per cent next year. This would be unfortunate in the course of an extreme economic downturn. The Government parties and the Social Democrats have reached an agreement on a rule change that results in a smoother development of pensions. We are, however, sceptical towards this change since it is important not to undermine the credibility of the rules guaranteeing that pension expenditure will be adjusted to the pension system’s resources. It would seem more appropriate to first take other measures, for example *time-limited* targeted tax cuts, to temporarily maintain pensioners’ income during the current cyclical situation.

Possible further stimulus measures could take the form of support for improving the municipal housing stock. Another possibility would be a temporary tax credit for low-income earners.

All recommendations on the appropriate level of fiscal stimulus have to be based on uncertain assessments of various risks and expected effects of various stimulus measures and relative

evaluations of different objectives. Additional stimulus measures, had they already been taken in 2009, would have been able to dampen the upturn in unemployment somewhat. Larger temporary stimulus measures this year of up to 0.5 per cent of GDP (SEK 15 billion) would hardly present any problems for the credibility of fiscal policy.

Further stimulus measures are also, as far as we can see today, appropriate in the course of 2010. On the basis of the Government's own calculations, temporary stimulus measures of 1 per cent of GDP (about SEK 30 billion) mean a structural (cyclically adjusted) net lending of around zero next year. All estimates of the structural budget balance are naturally quite uncertain, particularly in a situation like the current one. But a stimulus policy that in an extreme economic downturn aims at limited deviations from the surplus target of 1 per cent of GDP should not mean unacceptably high risks of fiscal sustainability. On the contrary, it is natural for structural net lending to fall short of the surplus target in a severe recession. In our opinion, there is room for temporary stimulus measures beyond those announced by the Government.

The Government has too much confidence in the effectiveness of labour market policy

Labour market policy reforms have been a key feature of the Government's economic policy. When the reforms were designed, the primary aim was to reduce the high unemployment that persisted despite the economic boom. The policy has had two main elements: one is more effective matching between the unemployed and job vacancies by putting more focus on employment services and on increased job search activity by the unemployed. The other main element is the use of targeted measures to reduce the *stock* of long-term unemployed people.

The acute economic crisis confronts labour market policy with problems that are to a large extent different. It is now also a matter of dealing with a very large *inflow* into unemployment and trying to prevent it from leading to a persistent increase in long-term unemployment, and thus of total unemployment, in the long run. This is reflected in the increased resources that the Government is now giving to the Swedish Public Employment Service to help the short-term unemployed, primarily by coaching and traineeships. At

the same time, subsidies to new start jobs directed at the long-term unemployed, who now find entering the labour market during a recession even more difficult than during a boom, are being doubled. In our opinion, these changes in the labour market policy are highly appropriate in the current situation.

The scale of what today are classified as active labour market policy programmes will, in the Government's opinion, increase dramatically in the next few years. Around five per cent of the labour force is expected to participate in various programmes in 2010-2011. This has been presented as an exceptionally forceful labour market policy measure. We find this assessment very questionable. The higher programme participation is mostly a purely mathematical consequence of the increase in long-term unemployment: more unemployed have to be offered places in the job and development guarantee so that they are not without a means of support.

What real content can be injected into the guarantee in a situation with high unemployment and few job vacancies is an open question. It is desirable to keep the unemployed active and try to achieve as even a distribution of unemployment as possible. The concern is to avoid concentrating unemployment among a core of marginalised long-term unemployed. But past experience makes it hard to believe that meaningful job search activities can be found for the large majority of unemployed people when there will be so many in this situation. With low labour demand, it will presumably also be difficult to come up with a large number of traineeships. The Government's intention of pursuing 'a policy involving a broad range of active measures' will therefore be very difficult to fulfil: quite the opposite policy is more likely to be the result. Activation schemes cannot be successfully implemented simply by changing the designation of long-term unemployment.

The Government appears to put too much faith in the expectation that the changes in the labour market policy will make it more effective. It would be more reasonable to acknowledge that the policy faces an almost impossible task.

Labour market training should expand

It is positive that the Government is well aware of the risks of expanding those labour market policy programmes that may have

large locking-in effects. At the same time we are critical of keeping labour market training at such a low level: only about 5 000 people at present. Instead the Government is focusing on an expansion of vocational education and training in the regular education system (adult vocational training).

The Government's negative attitude towards labour market training is presumably related to the disappointing results during and after the crisis in the 1990s. Those results were due in part to the extensive use of labour market training at that time to re-qualify participants for unemployment benefits. This is no longer possible. Another likely explanation for the disappointing results in the 1990s is the extreme size of the programmes. In our opinion, it should be possible to expand vocational labour market training to at least 15 000 places without any efficiency problems. This assessment is supported by the good results shown in evaluations in recent years.

There is no reason to see labour market training and vocational education in the regular education system as substitutes. They should instead be seen as *complements*. There are good reasons for, as the Government is doing, increasing the number of places in adult vocational training. But it would probably be wise to raise benefits, at least on a temporary basis, to the unemployed beginning such training to make the incentives for choosing the training stronger: for many unemployed, study support is currently considerably less than unemployment benefits and activity support (even though it is somewhat more generous than ordinary study support).

A much discussed issue is whether the central government should provide support for training within firms. The main argument *against* this is that it is inappropriate to lock in labour in stagnating economic activities since this may slow down desired structural change. One argument *for* such training in the current situation is that for most firms, the reduction in demand is likely to be cyclical. One possibility would be for the central government to provide support only for the costs of arranging training in firms where agreements have been concluded with the union on shorter working hours and scaling down wage income correspondingly. Such an agreement is an indication that employers have deemed it likely that the downturn in demand is cyclical and that in the future, they will need the labour not made redundant.

Perspective on youth unemployment

The Government has taken special measures targeting youth unemployment. Social contributions for young people were lowered back in 2007. This year, that reduction has been broadened. It is also natural that concern about high youth unemployment is growing now since young people and others entering the labour market are particularly hard hit in an economic downturn.

Youth unemployment, like all other unemployment, is an extremely serious problem, both for society and for the individuals concerned. But it is not self-evident that unemployment is worse for young people than for older people. On the contrary, research shows that during the crisis in the 1990s, youth unemployment was much less persistent than unemployment among older workers. There are also plausible reasons why there is higher unemployment among young people. It is due partly to the time it takes to find a job when entering the labour market and to young people trying out various jobs.

Unemployment spells are in general much shorter for young people, which indicates that the labour market functions better for them than it does for older workers. That being so, broad measures aimed at lowering youth unemployment may have undesirable effects: older workers may be crowded out into more prolonged unemployment. This may cause an increase in total unemployment. As in last year's report, we are therefore critical of the selective reductions in the social contributions for young people. The reductions violate the general principles that otherwise guide the Government's employment policy and that entail selective support measures targeted at those who have been unemployed the longest.

Measures aimed at youth unemployment should, in our opinion, be targeted at the group of young people with little education, who have considerable difficulty getting established in the labour market. But measures should mainly be taken in the labour market and education policies, not in tax policy. We are therefore positive to the job guarantee for young people that – in accordance with earlier policies in Denmark – is aimed at activation initiatives, particularly education and training. We also welcome the changes in education policy, which entail apprenticeships in the upper secondary school

and a more vocational orientation in both upper secondary school studies and adult education.

The economic crisis brings several system changes to the fore

The acute financial crisis has brought to light several shortcomings in various rules systems that need to be remedied. These primarily concern the expenditure ceiling, the balanced budget requirement for local governments, unemployment insurance, and the crisis management system for the financial markets.

Allow temporary exemptions from the expenditure ceiling

Under the Budget Act, the Government may choose to use expenditure ceilings. The ceilings then specify the maximum level for the majority of the central government and the old-age pension systems' expenditures. Before the economic crisis, the current Government had specified expenditure ceilings for 2009-2011. However, central government expenditure is rising when the economy is deteriorating, particularly as a result of the rising unemployment but also as a consequence of various expenditure measures. The expenditure ceilings may therefore restrict economic policy's room for manoeuvre in the coming years.

The expenditure ceiling is established by the Riksdag, but it is not legally binding. One issue that has come to the fore as a result of the economic crisis is therefore whether the Government will stick with the ceiling established earlier or if higher expenditures will be permitted in an exceptional situation.

It is our opinion that the expenditure ceiling should not be defended at any price during a deep recession. The expenditure ceiling has no value in itself. It is a help in achieving an efficient fiscal policy. The underlying idea is primarily to avoid unplanned large expenditures in good times when tax revenues are higher than expected. If in a deep recession the regulatory framework instead limits the policy so that it is obviously ineffective, the short-term cost of keeping the ceiling, no matter what the economic situation, is too high.

If the expenditure ceiling is revised upwards in an orderly manner, the credibility of the fiscal policy framework need not be markedly weakened. If the ceiling is to be revised, the Government should try to get as much support as possible in the Riksdag for an agreement on the principles to apply in such a revision. The Government and the Riksdag should, in our opinion, as soon as possible declare that the expenditure ceiling need not be followed during an exceptional recession like the current one, despite there being no urgent reasons at present for reconsidering the expenditure ceiling for 2010. Delaying such a declaration risks damaging the ceiling's credibility. The Government has already begun circumventing the rules by choosing to disburse the increased central government grant to local governments for 2010 already in 2009. An honest and clearly justified deviation from a previously established ceiling is preferable to such manipulation. Moreover, there is a risk that economic policy may not be designed in the best way if the expenditure ceiling is defended to the very end. In the current recession the Government might, for example, be forced to choose less effective stimulus measures in the form of tax cuts rather than stimulus measures that raise expenditures.

Central government grants to local governments should be cyclically adjusted

In accordance with the *balanced budget requirement* for local governments, the budget is to be drawn up so that revenue exceeds expenditure. The balanced budget requirement means that local governments' possibilities of pursuing stabilisation policy are very limited. In practice there is a risk that local government policy will be pro-cyclical, i.e. it will be more expansive in an economic upturn and tighter in an economic downturn. The reason is that local governments' tax revenues fall when the economy is weak. To meet the balanced budget requirement, local governments may thus be forced to save in an economic downturn. This is unfortunate from a stabilisation policy perspective.

For local government resource utilisation not to amplify cyclical swings under the current regulatory framework, central government grants to local government should be adjusted to the cyclical situation. These grants are not indexed to economic growth but are changed from one year to the next by discretionary decisions by the

Riksdag. One way of achieving a well-designed economic policy is therefore to let central government grants be higher during recessions and lower during periods of strong economic growth.

It would be desirable to change the rules system. The Government has indicated that the balanced budget requirement may be relaxed to permit local governments with well-managed finances to plan for deficits in bad years. We see problems with such a change and think that the central government should retain responsibility for stabilisation policy. It would make this task easier if the current system of discretionary decisions on local government grants were replaced by a regulatory framework in which central government grants were automatically cyclically adjusted to smooth out short-term fluctuations in the aggregate tax base of local governments.

Make unemployment insurance cyclically dependent and mandatory

Unemployment insurance is intended to provide individuals with income protection in the event of unemployment. At the same time, benefit terms affect the unemployment level since a more generous benefit leads to both longer periods of unemployment and higher wage levels than would otherwise prevail. It is therefore necessary to strike a balance between the objective of providing insurance protection and the objective of creating incentives for low unemployment. The reduction in unemployment benefits that has been introduced is likely to lead to a substantial reduction in unemployment in the long run.

It may, however, be argued that the balance between the insurance and incentive motives should vary according to the cyclical situation. While there are lesser incentive problems during a recession, there is more need for insurance than there is in a boom: no matter how intensively the unemployed search for work, the fewer the job vacancies, the less job-search activities matter for the aggregate employment level. This is the argument for a *cyclically dependent* unemployment insurance with more generous benefits in a recession than in a boom. The unemployment insurance schemes in the United States and Canada are designed in this way.

In our opinion, cyclically dependent unemployment insurance should also be introduced in Sweden. This could be done, for example, by a slower decrease of unemployment benefits over the

unemployment period for an individual in a recession and an increase in the basic allowance, which is not income-related. The system should be rule-based so that pre-determined changes are triggered automatically when the unemployment level deviates by a specified number of percentage points from the average during, for example, the preceding two years. Cyclically dependent unemployment benefits would strengthen the automatic stabilisers in fiscal policy.

Making unemployment insurance cyclically dependent cannot be done overnight. That is why we proposed a *time-limited* extension of the initial period with the highest replacement rate earlier in the discussion.

As in last year's report, we again feel very concerned about the decline in the number of people who are members of the unemployment insurance funds owing to the increase in membership fees. Admittedly, the deterioration in the cyclical situation will lead to a reversal of this outflow to some extent, even though the higher unemployment means higher membership fees. Raising the membership fees in the current situation is unfortunate since it weakens the automatic stabilisers. We would prefer a system where the average unemployment insurance fee was made independent of the cyclical situation but a differentiation of the fees depending on the unemployment in the individual funds is retained.

In our opinion, it would be best in the long run to make the unemployment insurance a mandatory, central government social insurance covering all employees. There are two main reasons for this. One is to guarantee everyone, including low-income earners at high risk of unemployment who perhaps would otherwise consider themselves unable to afford insurance, adequate protection against unemployment. The other main reason is ensuring that everyone contributes fully to the insurance, even high-wage groups with low unemployment risk. This is the same argument that has been used to justify obligatory central government sickness and pension insurances. In principle, there are no reasons for taking a different view of unemployment insurance.

The crisis management system for the financial markets needs to be designed more carefully

The turmoil in the financial markets last autumn forced emergency measures on the part of the Government, as well as the Riksbank, the Swedish National Debt Office and the Swedish Financial Supervisory Authority. Well-functioning financial markets are vitally important to all sectors of the economy. If firms and households are unable to get credit, the whole economy risks collapsing. It is therefore necessary for the authorities to intervene with various support measures in the event of big shocks in the financial markets.

The Government has responded by introducing a stability plan and a recapitalisation scheme for commercial banks, by providing the conditions for more central government lending and credit granting, and by allowing temporary tax deferrals for firms. These measures have mostly been appropriate.

One criticism that can be directed at both the current and previous governments, however, is that when the crisis began, there was no satisfactory legislation for handling financial institutions in crisis, though the need for such legislation had been noted after the Swedish bank crisis in the 1990s. Legislation has now been hastily drawn up and the Ministry of Finance has been compelled to allocate resources for this work. In the absence of a special government authority that could deal with the financial institutions in crisis, the National Debt Office has been given this role.

It is in principle questionable whether the Debt Office is the right body to handle financial institutions in crisis even though it currently happens to have a management with considerable experience of similar problems from the 1990s crisis in Sweden.

The Debt Office has now been given responsibility for the bank guarantee and other types of support and guarantees to financial institutions. Exercise of this authority is to be combined with the Debt Office's traditional tasks of borrowing in the market from firms and households and through various financial institutions, reaching agreements on debt exchanges with various maturities, and investing any liquidity surplus in the market. The same financial institutions will now both have a business relationship with the Debt Office and be subject to the exercise of its authority.

Assigning business responsibilities and the exercise of government authority to the same agency is, in our opinion, inappropriate.

Against this background, we recommend transferring the exercise of authority from the Debt Office to a new independent agency.

The stability plan also includes a voluntary *guarantee programme* that enables solvent banks to purchase central government guarantees for their medium-term borrowing for a limited time and an obligatory *stability fund* that will help finance future central government support to banks in crisis. Only a few financial institutions have joined the guarantee programme. This has led to criticism. One alternative would have been to make participation obligatory. Since banks can decide to join at a later date, the programme has still served a useful purpose even though direct participation has been low.

We also agree that there is a need for some form of obligatory stability fee (or 'bank tax'). This fee is justified since financial institutions occupy a special position that may warrant central government support in times of crisis. The banks should finance future support measures through fees paid when their activities are not in crisis. How best to design the stability fees is, however, a complicated issue. One lesson from the current financial crisis is that the regulations and fee structures must be carefully considered, for example so that they do not provide incentives for excessive risk-taking. Since the stability fees are not part of the acute crisis management, there should be further study of their design before they come into effect.

Shortcomings in general government reporting

General government investment as a share of GDP has declined from about six per cent at the beginning of the 1970s to about three per cent in recent years. This development is primarily due to the reduction in investment by local governments as a share of GDP. In the government budget bills, there is no analysis of the development, level and distribution of public investment. This makes it extremely difficult to judge whether the level of public investment is appropriate. The Riksdag has, quite simply, no satisfactory basis for making decisions on such matters. This needs to be substantially improved.

Reporting of the capital stock of the public sector, and thus the sector's total net worth, is still unsatisfactory. Admittedly, this information has been included in the Budget Bill for 2009 and the

2009 Spring Fiscal Policy Bill for the first time. But the information is reported at the end of the Bill and appears not to play any role whatever in fiscal policy considerations. Moreover, the information is reported entirely without comment.

One urgent issue concerns the risk-taking involved in the central government's support measures for the financial system. These include guarantee commitments, loans and capital injections. To be sure, the Spring Fiscal Policy Bill reported all the support measures, but it is still difficult to get a good picture of the risks. This is partly due to the nature of things since uncertainty about the future course of the crisis is genuine. However, a much more penetrating analysis of various alternative scenarios based on previous experience with financial crises in different countries would be desirable. Such elaborated analyses should be included in the forthcoming Budget Bill.

The surplus target is unclear

The surplus target is the most important long-term fiscal policy target. To meet this target, general government net lending is to show a surplus of 1 per cent of GDP over a business cycle. There is, however, a fundamental lack of clarity on what this target actually means since completely different indicators are used to evaluate whether the target has been met. Previously these three indicators were used: average net lending since 2000 (this was the first year that the surplus target was fully implemented), a moving seven-year average for net lending (comprising the three previous years, the current year and forecasts for the coming three years) and structural (cyclically adjusted) net lending for the current year. In the 2009 Spring Fiscal Policy Bill, two additional indicators were introduced: an average for structural net lending since 2000 and a moving seven-year average for structural net lending.

Thus there are now *five* different indicators for net lending over a business cycle. Since they measure completely different things and may show different values, there is obviously no clear definition of what the surplus target means. This implies that it is also not clear when there are deviations from the target. This creates unnecessary uncertainty about the future course of fiscal policy. This is unfortunate, particularly in the current situation when the budget

deficit is growing. There is therefore a great need for the Government to clarify what the surplus target actually means.

Pre-funding or working longer?

A more fundamental problem is that the motives behind the surplus target are inadequately defined. The underlying assumption is that with an ageing population, demographic developments will put pressure on future public finances. Under the current fiscal policy strategy, this is to be precluded by *pre-funding* in the general government sector in order to accumulate wealth that we can then consume. But pre-funding is not the only strategy available. One alternative is an *adjustment strategy* according to which *working time over the life cycle increases* as longevity increases. There is a strong distribution argument in favour of including increased lifetime working hours in a strategy for a sustainable fiscal policy: since a longer life expectancy is a welfare gain for future generations, longer lifetime working hours contribute more to welfare smoothing between generations than pre-funding does. A major shortcoming in the current fiscal framework is that the surplus target was originally established without any explicit consideration of alternative strategies.

A related problem is that the Government has never defined how long the surplus target is to remain in force. In earlier government bills on the economy, it was assumed that the surplus in general government finances would gradually decline until the middle of the 2020s when the surplus would change to a deficit of 1-1.5 per cent of GDP, at which time the general government sector would begin to use the accumulated assets. The 2009 Budget Bill also opened the door for a future downward revision of the surplus target in connection with the review of the fiscal framework now under way. However, there was no mention of this in the Spring Fiscal Policy Bill, where estimates of sustainability instead assume a return to a surplus of around 1 per cent of GDP once the current recession is over.

One fundamental problem is that the fiscal policy and employment policy frameworks are not sufficiently integrated. In fact, the pre-funding requirement and the future growth of lifetime working hours are interdependent. It is therefore not logical to set a target for general government net lending without at the same time

setting a target for how much we are to work in the future. But no such link exists today. On the contrary, in the employment policy framework, which has just come into use, the Government has relinquished quantitative employment targets. This is ill-advised since the quantitative surplus target presupposes an implicit quantitative employment target. There is thus reason for a clear formulation of such a target. This would best be accomplished by specifying a target for how the total number of hours worked per capita should grow over time.

Integrating the fiscal and employment policy frameworks

The Government's ongoing review of the fiscal policy framework should lead to its integration with the employment policy framework so that pre-funding and how much we should work in the future can be weighed against each other. Our report includes an outline of our ideas on how this could be done. This is only a rough illustration, not a finished proposal.

The choice of the appropriate level of net lending should be based on calculations of the long-term sustainability of fiscal policy. It is not sufficient to justify continuing the surplus target of one per cent of GDP by the fact that this was the previous target (since the original target has never been satisfactorily explained). The sustainability of fiscal policy is usually measured as the requirement for annual permanent budget strengthening or budget weakening needed to allow the general government sector to meet its commitments in the long run (the S2 indicator). If rational considerations are to be made, this indicator should be estimated using various assumptions about future lifetime working hours. This would make it clear that it is a question of a *policy choice* of what combination of pre-funding and lifetime working hours is desirable. This could then be turned into a *fiscal balance target* for general government sector net lending and an *employment target*.

In the 2009 Spring Fiscal Policy Bill, the Government for the first time discussed an alternative estimate of sustainability where the labour market exit age increases as life expectancy increases. This may be seen as an embryo of the analysis we would like to see, but it

should not, as now, play a marginal role in the Government's considerations. Instead it should be pivotal.

Raising the labour market exit age may be seen as a natural part of a strategy for managing a gradual increase in longevity. The more ambitious the employment target is, the less ambitious the balance target for general government net lending obviously needs to be. The exit age will likely rise even without any changes in the pension system since the last pension reform is still gradually being phased in. We have made some rather rough calculations that indicate that the gradual impact of the pension reform could raise the average exit age from about 63 years to possibly about 64 ½ years by the mid-2020s.

It would, however, be a perilous strategy to give up saving based on a general hope that future generations will work more. It is a strong argument for a rules system that would automatically link the labour market exit age to the increase in longevity since this employment margin is probably both the most important and the easiest to regulate. Such an automatic link of the pension age to life expectancy has been introduced in Denmark. However, in Sweden there is no longer any formal retirement age. In our system, several parameters in the old-age pension system would instead have to be linked to life expectancy: the lowest age for drawing an old-age pension (now 61 years), the mandatory retirement age (now 67 years) and the age at which the right to other social insurance benefits ceases (now 65 years). With such a link, the current budget target for general government net lending could possibly be lowered.

A rational framework for sustainable general government finances should integrate decisions on the fiscal balance target and future pension provisions, making it possible to weigh different objectives against each other in a transparent way. This can be done in many ways – including not allowing lifetime working hours to increase in line with life expectancy if a political majority were to decide so – but it is in any event desirable that the consequences of various policy combinations are made clear.

It is also desirable that the review of the fiscal framework clearly defines the exact time period in which the balance target is to apply. The target could, for example, be set for a ten-year period. The Government could then be obliged to present a plan on how major deviations from the target during this ten-year period are to be handled. At the end of each such ten-year period, both the fiscal

balance target and the employment target would be reviewed. This review would then be based both on the previous actual development of general government finances and on how the number of hours worked had developed.

Shorten study time

Yet another way of increasing lifetime working hours is by early labour market entry. This could be achieved if young people began their post-secondary education sooner after finishing upper secondary school and if they interrupted their studies less. One reason that studies commence so late and there are so many interruptions in Sweden is probably the incentives created by the tax and transfer systems. The private costs of postponing one's post-secondary education are much lower than the social costs due to the progressivity in tax and benefit systems.

Some of the Government's labour market reforms have created incentives for university students to postpone their studies. For example, the earned income tax credit also gives students an incentive to work more and thus may reduce the time devoted to studies. The sharp reduction in social contributions for young people creates more room for wage increases and in the long run may be expected to lead to higher wages for young people. It strengthens the incentives for students to postpone their university studies and to supplement their finances with earned income during the study time.

Economic policy measures aimed at increasing the incentives to work are duly justified from an employment perspective, even though they may as a side-effect lure students away from their studies. The student support system should, however, be designed to mitigate this effect as much as possible.

Limiting the number of years that study support may be collected would in all likelihood reduce the average study time. Furthermore, a *lowering* of the exempt amount, i.e. a reduction in the income a student is allowed to have without limiting study support, would reduce students' propensity to work while they study. Since the social return on avoiding long study times exceed the private return, the exempt amount, in our view, should be lowered and not raised as recently proposed by the Student Welfare Inquiry (Studiesociala utredningen). To encourage students to begin their post-secondary

studies soon after completing upper secondary school, study support should be made more generous the younger the university students are. This could be done, for example, by making the grant part higher for younger than for older students.

So that students will not choose to work more than necessary during their study time, study support should be at a level at which they can manage on their own without parallel incomes. Since it is the remuneration when studying in relation to the remuneration when working that is key to students' propensity to work, the relative remuneration for studying should not be too low.

Brickbats and bouquets for the Government's tax reductions

One of the Government's most important objectives is a permanent increase in employment. To achieve this goal, a large number of tax policy changes have been implemented. With the aim of strengthening the incentives to work, an earned-income tax credit was introduced at the beginning of 2007 and strengthened one year later. A further strengthening of this tax credit was introduced on 1 January 2009, at the same time that the income threshold for central government income tax was raised. Social contributions were lowered by 1 per cent at the same time.

We were very positive to the earned-income tax credit in our previous report. According to our analysis, it should reduce unemployment and increase employment markedly over the business cycle. The higher income threshold for the central government income tax is probably also an effective method of increasing the number of hours worked. A tax cut of this kind increases the marginal return on work for many people without the need for total tax revenue to fall so much.

However, we are critical of the general cut in social contributions. At best, it yields a marginal increase in labour force participation, and thereby long-term employment, because the wage level can be expected to increase in the long run. A permanent reduction in the social fees is a much costlier method of increasing the number of hours worked than, for example, raising the threshold for the central government income tax.

One reason for the general reduction in social contributions presented in the 2009 Budget Bill is that in the short term, it stimulates the demand for labour when the cyclical situation deteriorates. There are, however, other grounds for questioning a reduction in contributions for cyclical reasons. One obvious question is why this reduction, justified on cyclical grounds, is to be permanent rather than temporary. This has not been explained by the Government. There is, however, an argument that short-term effects on employment are only realised if the reduction is permanent. But if the reduction actually becomes permanent, it is a costly form of stabilisation policy since tax revenues will then also be permanently lower.

The decisions on the tax cuts for 2009 were made in an economic situation that has now completely changed. At that time, we thought we faced a moderate economic slowdown and not, as we know today, an exceptionally deep recession. Several of the proposed reforms were well warranted for long-term efficiency reasons. It is questionable, however, if these tax reductions would have been chosen if the Government had been able to predict the sharp economic downturn. It can be argued that it would have been more appropriate to cut taxes that focus more on groups with low incomes and hence a high propensity to consume. However, it would be unfair to criticise the Government for this since the depth of the economic crisis was impossible to predict. At least no other analysts – including ourselves – managed to predict it either.

1 Current fiscal policy

The past year has witnessed a uniquely rapid and dramatic change in the economic situation. In a short space of time, this change has radically altered the conditions for economic policy. The last details in the 2009 Budget Bill were worked out in early September 2008. The situation then looked very different than it does today. On 4 September, for example, the Riksbank *raised* the repo rate in reaction to rising inflation expectations. Capacity utilisation was then considered under some strain but falling.¹ The Riksbank has since reduced the repo rate by more than four percentage points and both the National Institute of Economic Research and the Government's forecasts of GDP growth in 2009 have been lowered by more than five percentage points. According to the latest forecasts, GDP growth in 2009 will be the weakest since the Second World War.

The principal question in an evaluation of the Government's fiscal policy is how well the Government has managed to adapt fiscal policy to the altered economic situation. Section 1.1 briefly analyses the fiscal policy planned in connection with the 2009 Budget Bill based on the conditions that then prevailed. Section 1.2 assesses the Government's measures in view of the acute financial markets crisis. Section 1.3 considers fundamental issues regarding the fiscal framework raised by the dramatic economic deterioration, while section 1.4 discusses the need for further fiscal stimulus measures.

1.1 Fiscal policy in the 2009 Budget Bill

1.1.1 The Ministry of Finance's assessment of the cyclical situation

Tables 1.1 and 1.2 present different macroeconomic forecasts for Sweden before the acute financial market turbulence in September 2008. The tables show that the Ministry of Finance's forecasts are in line with other organisations' forecasts for the same period. Most forecasters predicted an economic slowdown with lower GDP growth and some rise in unemployment in 2009.

¹ The Riksbank (2008).

Table 1.1 Macroeconomic key indicators in autumn 2008

	MoF Sept	NIER August	RB Sept	OECD June	EU April	IMF April
GDP growth^a						
2003-2007	3.2					
2008	1.5	1.7	1.1	2.1	1.7	2.0
2009	1.3	1.4	0.9	2.1	1.5	1.7
2010	3.1	3.3	2.3			
Inflation^b						
2003-2007	1.5					
2008	3.6	3.8	3.9	3.2	2.4	2.4
2009	1.1	2.5	3.2	2.8	1.9	2.0
2010	2.2	1.6	2.0			
Unemployment^c						
2003-2007	7.1			5.2		
2008	6.0	5.9	6.2	4.3	6.2	6.6
2009	6.4	6.5	6.8	4.4	6.5	7.1
2010	6.6	6.7	6.9			
Net lending^d						
2003-2007	1.4					
2008	2.8	2.6	2.9	3.1	2.7	2.1
2009	1.1	0.9	1.2	2.7	2.3	1.4
2010	1.6	0.7	0.6			

Notes: ^a) Percentage change in volume from the previous year. ^b) Percentage change in the CPI, December-December (Ministry of Finance, National Institute of Economic Research, the Riksbank and the IMF), annual average (OECD); percentage change in the harmonised consumer price index (EU). ^c) Per cent of the labour force; ILO definition (Ministry of Finance, National Institute of Economic Research and IMF), EU definition (Riksbank and EU), old Swedish definition of open unemployment (OECD). ^d) General government net lending as a percentage of GDP.

Sources: Ministry of Finance, 2009 Budget Bill; National Institute of Economic Research, The Swedish Economy, August 2008; Riksbank, Monetary Policy Report 2008:2; OECD, Economic Outlook June 2008; European Commission, European Economy Spring 2008; IMF, World Economic Outlook, April 2008.

The most apparent differences between the Ministry of Finance and other forecasters concerned inflation and monetary policy. According to the Ministry of Finance forecast, the Riksbank would lower the repo rate to three per cent at the end of 2009. The Riksbank's own forecast was 4.5 per cent and the National Institute of Economic Research's 3.75 per cent. The differences can in part be attributed to the different assumptions about fiscal policy on which these institutions based their forecasts. In the Budget Bill, the Government announced a one percentage point cut in employer contributions.²

² The reduction in employer contributions is discussed in more detail in Section 7.1.

This reduction could be expected to reduce inflationary pressures and thereby facilitate the Riksbank's conduct of an expansionary monetary policy. Unlike other forecasters, the Ministry of Finance could take this into account.

Another, and more important, difference in the forecast assumptions concerned fiscal policy after 2009. In its forecasts, the Ministry of Finance only took into account *announced* fiscal policy. Therefore, no new reforms in 2010 or later were included in the Budget Bill's forecasts. The National Institute of Economic Research, however, expected that general government net lending for 2010 would decline by one per cent of GDP owing to new decisions in 2009. Presumably the Riksbank based its forecast on a similar assumption, even though this was not explicitly stated.³ The lower repo rate in the Ministry of Finance forecast can therefore be explained by its assumption of a tighter fiscal policy and a more expansionary monetary policy. In the National Institute of Economic Research and Riksbank models, the expectation of an expansionary fiscal policy in 2010 led to a tighter monetary policy already in 2009.⁴

As a result of the Ministry of Finance's assumption that future fiscal policy will not be changed in any way other than that announced in the Budget Bill, these forecasts may be systematically misleading. This is unfortunate for several reasons, primarily because the forecast of the Riksbank's conduct is affected. The Government's view of monetary policy is usually of particular interest. Therefore, the forecast methods should not be allowed to result in systematic errors.

³ In the Riksbank's forecast, general government net lending in 2010 would be slightly lower than in the National Institute of Economic Research forecast and one percentage point lower than in the Ministry of Finance forecast.

⁴ The Swedish National Debt Office also made forecasts of future fiscal policy (as the basis for its forecasts of the central government borrowing requirement). In March 2009, it forecast new fiscal stimulus measures of SEK 40 billion in 2010 (the National Debt Office 2009).

Table 1.2 Resource utilisation indicators autumn 2008

	MoF Sept	NIER August	RB Sept	OECD June	EU April	IMF April
Output gap^a						
2003-2007	0.4	-0.3	0.3	0.0	0.3	0.5
2008	-0.7	-0.8	0.5	0.1	0.3	-0.7
2009	-1.7	-1.6	-0.8	-0.5	-0.3	-1.8
2010	-1.4	-1.0	-0.7			
Labour market gap^b						
2003-2007		-1.4	-0.4			
2008		0.6	1.5			
2009		-0.7	0.5			
2010		-1.1	0.0			
Equilibrium unemployment^c						
2003-2007				4.9		
2008		6.1		4.7		
2009		6.1		4.6		
2010		6.0				
Structural net lending						
2003-2007	0.8	1.8		1.5	1.4	1.0
2008	2.8	2.7		3.0	2.5	2.6
2009	1.9	1.7		2.9	2.5	2.6
2010	2.2	1.3				

Notes: ^a) Percentage difference between actual and potential GDP. ^b) Percentage difference between actual and potential number of hours worked in the economy. ^c) ILO definition (National Institute of Economic Research), old Swedish definition (OECD).

Sources: See Table 1.1.

We are aware that forecasts of one's own future policy can be problematic. The Riksbank has, however, had to handle a similar problem in the past. For many years, the Riksbank based its forecasts on the assumption that the repo rate would remain constant. In autumn 2005, the Riksbank began to base its forecasts on financial markets' interest rate expectations. From the winter of 2007, the Riksbank's macroeconomic forecasts have been based on its own forecasts of the future interest rate path. Similar possibilities should exist for the Ministry of Finance, even though forecasts of this kind are more problematic than in monetary policy.⁵ The forecasts could be based on fiscal policy assumptions made by external forecasters

⁵ Possible problems are both the bargaining that goes on between the finance minister and other ministers and election tactics considerations.

(for example, the National Institute of Economic Research) or on the Government's own forecasts of future net lending.⁶

In addition to the forecasts presented in Tables 1.1 and 1.2, the Ministry of Finance also presented two alternative scenarios in the Budget Bill. In one scenario, domestic demand was assumed to be weaker than in the base scenario and consequently economic growth would be weaker in 2009. This alternative scenario was, however, considerably more optimistic than the scenarios worked out in internal memoranda after the financial market turbulence in 2008.

1.1.2 Fiscal policy in the Budget Bill

The 2009 Budget Bill contained 'reforms' in the form of increased expenditure and reduced taxes totalling SEK 32 billion. General government structural net lending (cyclically adjusted net lending) was expected to decline by approximately one per cent of GDP on account of the reforms. The Government largely justified this expansionary fiscal policy by the expected cyclical developments and wrote that "the reforms mitigate the economic downturn and its effects on the labour market".⁷ The underlying aim of the reforms, however, was not primarily stabilisation policy, but implementing structurally warranted measures and bringing the budget surplus down to its target of one per cent of GDP. It was thus the *timing* of the reforms that was justified by the cyclical situation.

According to the Government's forecast, structural net lending in 2009 would be decidedly higher than the surplus target, despite the expansionary reforms. At the same time, the output gap, i.e. the difference between actual and potential GDP, was expected to be -1.7 per cent. An even more expansionary fiscal policy may therefore have been warranted based on the Government's base scenario for the economy. But for a number of reasons, it was deemed appropriate not to use all the room for reform indicated in the Budget's base scenario. The principal reasons given were a number of uncertainty factors:

⁶ See Section 2.2 for a more detailed discussion.

⁷ 2009 Budget Bill, p. 20.

- (i) The cyclical situation was considered unusually uncertain. The downside risks were thought to be particularly large.⁸
- (ii) The effects of the cyclical weakening on public finances were considered highly uncertain. It was repeated several times in the Budget Bill that public finances generally react more strongly to cyclical changes than the forecasts predict.⁹ The Government, for example, stated:

The risks of a more negative economic outcome predominate [...]
It is therefore important to ensure there is a sufficiently large margin in the public finances to allow the automatic stabilisers to work fully.¹⁰

- (iii) The estimate of the long-term sustainability of public finances is considered uncertain. The uncertainty applies to population and labour force forecasts as well as the possible financial strains on the welfare systems.¹¹

The Government concluded by stating that these uncertainty factors may justify an asymmetric risk management. A fiscal outcome that is weaker than planned may be quite difficult to correct. Hence the Government considered it justified not to use all the room for reform.¹²

The need for safety margins in the public finances is also discussed in our report last year and we generally agree with the Government's analysis.¹³ One possible objection, however, is that large downside risks could have justified more expansionary fiscal policy rather than higher government saving. In our opinion, however, the economic forecast was reasonable and the design of fiscal policy well balanced in the Budget Bill, given the information then available.

⁸ The 2009 Budget Bill, pp. 90 and 128.

⁹ The 2009 Budget Bill, pp. 21 and 90.

¹⁰ The 2009 Budget Bill, p. 90. The expression 'automatic stabilisers' means that tax revenue and part of public expenditure (for example, unemployment benefits) react automatically to changes in the cyclical situation. This makes fiscal policy contractionary in upturns and more expansionary in downturns, which dampens cyclical swings. We discuss the automatic stabilisers in more detail in Box 1.1.

¹¹ The 2009 Budget Bill, p. 90.

¹² The 2009 Budget Bill, p. 93.

¹³ Fiscal Policy Council (2008), pp. 36-37.

Fiscal policy as an instrument of stabilisation policy

One problem is that the role of fiscal policy in stabilisation policy has not been clarified in the Budget Bill. In last year's report, we welcomed the first step taken in the 2008 Spring Fiscal Policy Bill to clarify the role of fiscal policy.¹⁴ The Bill affirmed that the Riksbank has primary responsibility for stability policy. At the same time, it was argued that:

There are times when fiscal policy has to be prepared to act to stabilise the economy. This is particularly true in a crisis or in the event of strong supply side disturbances when fiscal policy may need to support monetary policy.¹⁵

We argued in our last report that the Government should elaborate the reasoning as to when discretionary fiscal policy, i.e. active fiscal policy decisions, is to be used as a stabilisation policy instrument. We formulated two criteria: (i) there must be a sufficiently *large* cyclical shock and (ii) fiscal policy must generate *a value added* beyond that contributed by monetary policy and the automatic stabilisers in fiscal policy.¹⁶ In our opinion, it is of great value to have already formulated clear guiding principles *before* an actual crisis develops. Our recommendation was one of principle but it has assumed an unexpected importance because of subsequent events.

The 2009 Budget Bill did not contain any discussion in principle of how to use fiscal policy with the aim of stabilisation. It is clear from the Budget Bill that the Government shares our view of monetary policy and the role of the automatic stabilisers.¹⁷ But its views on discretionary fiscal policy are not as clear. The Government, for example, writes:

When the business cycle weakens in a situation where government net lending is estimated to sustainably exceed the surplus target, it is natural to conduct a more expansionary fiscal policy that makes net lending approach the target.¹⁸

Even though it is not expressly stated, this formulation indicates that discretionary fiscal policy that can stabilise the economy will only be permitted if, as a result, net lending moves towards the surplus target

¹⁴ Fiscal Policy Council (2008), p. 108.

¹⁵ 2008 Spring Fiscal Policy Bill, p. 73.

¹⁶ Fiscal Policy Council (2008), pp. 61-62.

¹⁷ See, for example, pp. 36 and 94 in the 2009 Budget Bill.

¹⁸ The 2009 Budget Bill, p. 96.

of one per cent of GDP. This perception is reinforced by the Government when it writes:

It cannot be excluded that net lending may temporarily become negative under special circumstances, but a responsible fiscal policy can minimise the risk that the policy as such contributes to such an outcome.¹⁹

In our opinion, it is unclear *if* in the Budget Bill, the Government meant to say that discretionary fiscal policy only is to be used as a stabilisation policy instrument if net lending is approaching the target and if so, *why* it had this opinion. Our interpretation of subsequent government documents is, however, that this view has gradually been reconsidered.²⁰

The expenditure ceiling

Under a proposal in the 2008 Spring Fiscal Policy Bill, the 2011 expenditure ceiling was set at SEK 1050 billion in the 2009 Budget Bill. This level is SEK 30 billion higher than the 2010 ceiling and, according to the forecast in the Budget Bill, will result in a decline in the ceiling in relation to GDP from 29.1 per cent in 2010 to 28.7 per cent in 2011. In the Budget Bill, the *budget margin*, i.e. the difference between the expenditure ceiling and budgeted expenditure, was SEK 49 billion or 1.3 per cent of GDP. By way of comparison, the budget margins for 2009 and 2010 were 1.1 and 1.0 per cent of GDP respectively. Justification for the slightly higher budget margin for 2011 is based mainly on the uncertain economic situation.

The budget margin is meant to provide room both for an increase in public expenditure in the event of a cyclical weakening and for costly reforms that have not yet been decided. Given this dual role, it is difficult to determine how large the cyclical margin is. Even if the entire budgeting margin were to be considered a cyclical margin, SEK 49 billion may very well be too small a buffer in the event of a serious economic slowdown.²¹ But since the budget margin has no clear cyclical link, the expenditure ceiling would be less effective with a larger margin. But with too large a margin, the expenditure ceiling would lose the restraining impact it normally has on public

¹⁹ The 2009 Budget Bill, p. 36.

²⁰ See Govt. Bill 2008/09:97, pp. 18-20 and the 2009 Spring Fiscal Policy Bill, pp. 62-63.

²¹ Section 1.3 below expands on our view of the role of the expenditure ceiling in the wake of an economic slowdown.

expenditure. With the current design of the expenditure ceiling, a larger budget margin would therefore have been inappropriate. In last year's report, however, we recommended that the budgeting margin be split into a *cyclical margin* and a *reform margin*, and this is still our opinion.²² If this were done, budgeting for larger margins in an uncertain economic situation would be less problematic. But the expenditure ceiling as it is now designed would function more effectively if the Government presented a forecast of future costly reforms.

1.2 Measures in the wake of the financial crisis in autumn 2008

In the weeks after the Budget Bill was sent to the printers, the turmoil in the financial markets escalated and even the most pessimistic alternative scenarios in the Budget Bill soon appeared far too optimistic.²³ The turmoil provoked reactions from the Government, the Riksbank, the Swedish National Debt Office, and the Swedish Financial Supervisory Authority. Initially the Government's measures focused on the financial markets, but eventually it became clear that a more direct stabilisation policy was needed. In the following section, we analyse how the Government has dealt with both the turmoil in the financial markets and the subsequent economic slowdown. In addition to evaluating the measures taken by the Government, we scrutinise the Ministry of Finance's internal analysis and decision-making process.

In addition to the Government's memoranda and public statements, we base our scrutiny on interviews with Ministry officials as well as access granted by the Ministry to internal working papers.

²² Fiscal Policy Council (2008), pp. 117-118. See also sections 4.3-4.5 in Per Molander and Gert Paulsson's background report to the Fiscal Policy Council in 2008 (Molander and Paulsson 2008) for a discussion of how alternative rules could be designed.

²³ Table 1.3 summarises the more important international and Swedish events related to the crisis.

1.2.1 The Government's management of the financial crisis

Well-functioning financial markets are vitally important to all sectors of the economy. If firms and households are unable to obtain credit via bank loans, other financial institutions or directly from the bond markets, the whole economy risks collapsing. Public intervention in these markets is therefore justified in the event of major shocks. Developments around the world in autumn 2008 have shown that these interventions can take a number of different forms. The interventions can be divided into four categories: *liquidity support*, *solvency support*, *guarantees* and *bankruptcy supervision*. The Swedish authorities have taken all these types of measures. These are summarised in Table 1.4.²⁴

The liquidity support measures have primarily been handled by the national central banks. In several countries, the need for liquidity support had already begun in autumn 2007. The Riksbank did not need to take any significant measures before the acute financial crisis in autumn 2008. The Riksbank's intervention was, however, extensive: its balance sheet total increased from about SEK 200 billion to over SEK 600 billion in only a few months.

The balance sheet total has increased primarily because the Riksbank has lent Swedish banks both Swedish kronor and US dollars with longer maturities than normal lending in kronor. Before the crisis, the Riksbank focused on the market liquidity of very short maturities, usually one week or less. Banks' access to credit with longer maturities deteriorated in conjunction with the crisis. The Riksbank may be said to have taken over the function of the market by offering loans in Swedish kronor with up to a one-year maturity and loans in US dollars with a three-month maturity. Apart from these general measures to support liquidity, the Riksbank also provided acute liquidity support to two individual banks: Kaupthing Bank Sverige and Carnegie Investment Bank.

²⁴ Clas Bergström's background report to the Fiscal Policy Council (Bergström 2009) contains a more detailed description and analysis.

Table 1.3 Important events in the financial crisis

2006	
July	US property prices peak according to the Case-Shiller Composite House Price Index.
2007	
August	Turmoil in the US money market; interest rates on inter-bank loans rise sharply.
14 September	British mortgage institution Northern Rock gets an emergency loan from the Bank of England. The mortgage institution is later nationalised.
18 September	Federal Reserve begins a series of interest rate reductions. By December 2008 – in little more than a year – the rate is cut from 5.25 to almost zero per cent.
12 December	Several central banks (but not the Riksbank) take coordinated measures to boost liquidity in the financial markets.
2008	
13 February	American government decides a fiscal stimulus programme.
14 March	The American investment bank Bear Stearns gets an emergency loan from the Fed. Subsequent forced sale of the bank to JP Morgan.
4 September	Riksbank raises the repo rate by 25 points to 4.75 per cent.
7 September	U.S. government takes control of American mortgage institutions Fannie Mae and Freddie Mac.
12 September	Swedish Government decision on the 2009 Budget Bill.
14 September	American investment bank Merrill Lynch experiences severe liquidity problems and is taken over by Bank of America.
15 September	American investment bank Lehman Brothers seeks bankruptcy protection.
16 September	American insurance company AIG gets an emergency loan from the Fed.
22 September	Sweden's 2009 Budget Bill is made public.
7 October	EU Ecofin Council establishes principles for government intervention in the financial markets.
8 October	Riksbank lowers repo rate by 50 points to 4.25 per cent as part of a concerted effort by several central banks.
14 October	American government proposes TARP (<i>Troubled Asset Relief Program</i>) to manage troubled assets in the financial system.
20 October	Swedish Government presents its stability plan: a voluntary guarantee programme for banks, an obligatory stability fund, and a new law to strengthen the stability of the Swedish financial system.
23 October	The Riksbank lowers the repo rate by 50 points to 3.75 per cent.
5-24 November	German, British and Chinese governments each decide a fiscal stimulus package.
2 December	EU Ecofin Council establishes principles for fiscal stimulus measures. Stimulus measures equivalent to 1.5 per cent of GDP are recommended.
4 December	Riksbank lowers the repo rate by 175 points to 2 per cent.
5 December	Swedish Government presents a fiscal stimulus package.
2009	
12 January	German government decides additional fiscal stimulus measures.
11 February	Riksbank lowers the repo rate by 100 points to 1 per cent.
17 February	American government decides a fiscal stimulus package.
1-2 April	G20 countries meet in London and agree on new measures. IMF gets substantial capital injection.
21 April	Riksbank lowers the repo rate by 50 points to 0.5 per cent.

Table 1.4 Most important measures to ensure functioning of Swedish financial markets

2008	
18 September	The Swedish market for treasury bills stops functioning: no selling prices are quoted. The Swedish National Debt Office intervenes and announces that large volumes of treasury bills with short maturities will be issued. The funds received are used to purchase housing bonds (via repos).
22 September	The Riksbank makes the rules for accepted collateral more generous. The rules are further relaxed later in the autumn.
24 September	The Riksbank enters into a swap agreement with the Fed and opens a facility for USD loans in the Swedish market.
2 October	The Riksbank opens an SEK loan facility with longer than normal maturities.
6 October	The Government decides to increase the deposit guarantee from SEK 250 000 to SEK 500 000.
8 October	The Riksbank provides liquidity support to Kaupthing Bank Sweden.
20 October	The Government presents its stability plan: a voluntary guarantee programme for banks, a mandatory stability fund and a new law to strengthen the stability of the Swedish financial system.
27-28 October	The Riksbank provides emergency loans to Carnegie Investment Bank.
10 November	Carnegie Investment Bank loses its banking licence and is taken over by the National Debt Office.
11 November	The Swedish Export Credit Corporation (SEK) and Almi Företagspartner receive capital injections of SEK 5 billion and SEK 2 billion respectively.
5 December	The Government presents a stimulus package (see Section 1.2.3) including some measures directed at the financial markets. The Export Credit Corporation is given a lending limit of SEK 100 billion and the Swedish Export Credits Guarantee Board's guarantee limit is increased by SEK 150 billion.
11 December	The Government presents an action plan for the automotive industry with a limit of SEK 20 billion in credit guarantees via the European Investment Bank and a limit of SEK 5 billion for rescue loans for firms in acute crisis.
12 December	The Swedish Financial Supervisory Authority allows a higher share of hybrid capital in banks' capital base.
23 December	Sweden participates in an IMF programme with an emergency loan for Latvia. This programme makes it possible for Latvia to maintain its fixed exchange rate to the euro, at least for the time being. The loan can be considered an indirect support to Swedish banks with large outstanding loans in the Baltic states.
2009	
29 January	The Government announces that the bank guarantee programme will be made more generous.
29 January	The Government increases the micro loan programme of Almi Företagspartner from SEK 100 000 to SEK 250 000.
29 January	The Government announces that companies will be allowed to defer payments of two months' social contributions and preliminary taxes for employees by up to one year.
3 February	The Government presents a programme of capital injections for commercial banks (limit SEK 50 billion).
10 February	Nordea announces an issue of new shares with an intended State participation of SEK 5 billion.

Laws on insolvent banks

When the crisis began, there were no adequate laws for handling financial institutions in difficulty. The Riksbank could provide liquidity support to banks deemed solvent, but it was not clear how banks with solvency problems were to be handled. Banks going bankrupt may cause major ripple effects in the real sector as firms and households' access to credit diminishes. Avoiding such problems requires special treatment of insolvent banks.

This conclusion had already been drawn during the Swedish banking crisis in the early 1990s. At that time, temporary legislation gave the authorities special powers to take control of banks in crisis. In 1995, the Swedish Committee on Bank Legislation was appointed with the task of proposing how permanent legislation should be designed. The Committee's proposal was to establish a system for *public administration* of insolvent banks to be managed by a special authority for crisis management.²⁵ Such a system would enable the State to use enforcement measures to take control of an insolvent bank of systemic importance without taking over ownership. The Committee's proposal was not followed. Thus no new legislation was in place when the financial crisis broke out in September 2008, although the Governor of the Riksbank and others had called attention to its importance a number of times.²⁶

However, the acute crisis forced the Government to act quickly. In late October, the Government submitted a proposal for a new law, which came into force at the end of the month. Based on the new law, handling of the Carnegie Investment Bank could be transferred from the Riksbank to the National Debt Office, which had to take on the responsibility for crisis management, since there was no special authority for this task. The Riksbank's liquidity support to Kaupthing Bank continued until March 2009, when the Bank of Åland took over Kaupthing and repaid the loan.

In our opinion, it was unfortunate that neither the current Government nor previous ones managed to produce a legislative framework for handling insolvent banks. The lack of preparedness made the handling of the crisis more difficult. During the acute crisis,

²⁵ SOU 2000:66.

²⁶ See Ingves (2008).

the Ministry of Finance staff could have been used for other tasks than drawing up the new legislation under strong time pressure.

Furthermore, it is in principle questionable whether the National Debt Office is the right body to handle financial institutions in crisis, even though it currently happens to have a lead with considerable experience of similar problems from the 1990s crisis in Sweden. Borrowing in the market directly from firms and households or through various financial intermediaries is one of the traditional tasks of the National Debt Office. The Debt Office enters into agreements with market participants on debt swaps with various maturities. It also places liquidity surpluses in the market. The ultimate aim of its debt management is to achieve the lowest possible cost for the State. This requires businesslike behaviour in a market with competition between different actors. Thus, the National Debt Office has extensive business contacts with a number of actors in the financial market.

The new duty assigned to the Debt Office in wake of the financial crisis is to shoulder the responsibility for the bank guarantee and various forms of support and guarantees to financial institutions. This is an exercise of official authority.

The same financial institutions can now both have a business relationship with the Debt Office and to be subject to the exercise of its authority. There is an obvious risk of conflicts of interest. The exercise of authority gives the Debt Office an insight into some of its customers, which could influence its commercial actions. Nor is it clear that adequate exercise of authority is always compatible with the Debt Office's task of minimising the costs of central government debt management.

It is understandable why the task of acting as the bank support authority was assigned to the Debt Office in this situation. Rapid action was necessary when the financial crisis struck, particularly as no preparations had been made in advance. Moreover, we have seen no indications that the Debt Office has acted improperly.

But it is still a good principle not to mix different roles in one agency if there is a risk of conflict of interest. Against this background, we recommend transferring the exercise of authority from the Debt Office to a new independent agency. When the financial crisis has subsided, this agency can be abolished or, as proposed by the Bank Legislation Committee, be trimmed down to

some form of emergency agency. In the long run, it is to be hoped that the Government and the Riksdag will ensure, by way of legislation and other measures, that there is an agency with the capacity to take prompt action in the event of a financial crisis.

The guarantee programme

The new legislation for crisis management of banks presented in October was one of three parts of the Government's *stability plan*.²⁷ The other two parts were a *guarantee programme* and a *stability fund*.

The guarantee programme gives solvent banks the option for a limited time to buy government guarantees for their medium-term debt instruments. The maximum aggregate limit for the guarantees is SEK 1 500 billion. The pricing is based on the estimated market price under normal conditions, but with a mark-up. The purpose of this pricing is to make guarantees available to the banks at a price below the market price during the crisis, but the government guarantees will become less attractive when market conditions return to normal.

Participation in the guarantee programme is voluntary and implies certain restrictions on bank executives' wages, bonus payments and severance packages. At the beginning of April, only Swedbank, SBAB, Volvo Finans and Carnegie Investment Bank had joined the programme and loans of about SEK 260 billion had been guaranteed. Recently (end April 2009) SEB also announced that it will join.

Many regard the limited participation in the guarantee scheme as a failure, and some have proposed making participation mandatory or introducing a central government guarantee for the banks' borrowing.²⁸ However, we do not see the low participation as any major macroeconomic problem. Even though Swedbank is the only major bank participating thus far, the guarantee programme has probably helped stabilise the financial markets. The reason is that all banks benefit from the guarantee in practice, since they have the option to join later if they need to.

²⁷ Govt. Bill 2008/09:61. The guarantee programme was modified in January 2009 (Ministry of Finance 2009a). The restrictions on participating banks' expansion possibilities were relaxed. In April 2009 (Ministry of Finance 2009b), the duration of the programme was extended from 30 April to 31 October 2009.

²⁸ See for example Dagens Nyheter (2009a).

Thus, the guarantee scheme assures the financial markets that the banks will have access to funding at a reasonable price, even if their financial position weakens.

In addition, it is doubtful whether the banks currently outside the programme would get significantly lower borrowing costs by joining it. For example, the Financial Supervisory Authority has pointed out that the interest rate on Swedbank's borrowing under the scheme is up to 0.9 percentage points above the corresponding rate on government borrowing, even though the Government is guaranteeing Swedbank's borrowing.²⁹ Consequently, a bank's participation in the programme does not automatically make the market regard lending to that bank as risk-free.

Mandatory participation would also pose new problems for the Government. First, it is doubtful whether it would then be possible to impose restrictions on remuneration to bank executives. In our view, there is also a reasonable political aim to avoid government support in the form of guarantees to banks with very generous remuneration for their executives. It would require new legislation with major restrictions on free enterprise to link such restrictions to a mandatory guarantee.

Second, a mandatory guarantee could aggravate the *moral hazard* problems created when actors taking large risks do not bear the full costs of possible losses. This risk of increased moral hazard would arise if the best managed banks were put at a disadvantage by a mandatory scheme.

The stability fund

The stability fund introduced in connection with the stability plan is in the long run to finance various government support measures aimed at financial institutions. The fund is primarily financed by a one-off government contribution of SEK 15 billion and mandatory fees paid by the financial institutions. Also, the fees in the guarantee programme and some income from other government support measures go to the fund. The SEK 18 billion earlier accumulated in the deposit guarantee scheme has also been added to the fund. The fund will be increased over the next 15 years until it amounts to 2.5 percent of GDP.

²⁹ The Swedish Financial Supervisory Authority (2009).

Since government intervention may be needed when financial institutions have financial problems, both efficiency and fairness reasons justify their paying most of the costs in normal times. There are therefore reasons to consider some kind of special tax on banking. The fees paid to the stability fund can be regarded as such a tax, but the establishment of the fund was nevertheless too hasty in our opinion. The fund does not form part of the current crisis management but is meant to contribute to the financing of *future* crises. The design of such financing should hence be decided in a more orderly way. One issue that should be analysed in that context is how the stability fees should be designed. It is true that under the current proposal, the fees will in future be differentiated according to the risks credit institutions take, but the total fee paid by the sector will be independent of its total risk-taking.³⁰ An alternative, and probably more effective, tax should also take the aggregate risk taken by the financial sector into account.³¹ Another issue is the extent to which the guarantee fees do need to be funded.

Other measures

The National Debt Office has issued treasury bills over and above the central government borrowing requirement in order to meet the market's increased demand for safe assets. The Debt Office has also helped improve the liquidity in the mortgage market by investing the proceeds from the issued bills in housing bonds.³²

Previously, the government deposit guarantee covered deposits up to SEK 250 000 in liquid bank accounts. However, larger amounts and deposits in other accounts were not covered. In early October, the guarantee ceiling was raised to SEK 500 000 and the guarantee was broadened to cover additional kinds of accounts.³³ As a result of these changes, bank customers will be less inclined to transfer their savings from banks that may be in some danger of insolvency. Without a well-functioning deposit guarantee scheme, there could be a run on a bank based only on loose rumours, but the run could then make these rumours self-fulfilling.

³⁰ Ministry of Finance (2009c).

³¹ See Bergström (2009) for a more detailed discussion.

³² National Debt Office (2008).

³³ Bill 2008/09:49. According to the Spring Fiscal policy Bill 2009 (p 42) the extension of the guarantee increased its size by about SEK 100 billion.

The Government has also (in cooperation with the International Monetary Fund) agreed to give emergency loans to Iceland and Latvia, two economies hit very hard by the crisis. Without the emergency loans, Latvia would not have been able to maintain the fixed exchange rate to the euro. It is likely that a depreciation of the currency would rapidly have resulted in payment difficulties for many companies and households with euro-denominated debts. Swedish banks with large outstanding loans in Latvia would then be forced to make substantial write-downs of their assets in the country.³⁴ Therefore, Sweden's support to Latvia can also partly be seen as an indirect support to the Swedish banks.

The financial crisis has caused increased credit losses and extensive depreciation of various assets globally. This has in turn resulted in a reduction in the banks' capital, i.e. the value of their assets minus the value of their external debts. The size of the banks' capital determines how much the banks are allowed to lend under the authorities' regulations. As a result of shrinking capital, the banks must either restrict their lending, which can damage the whole economy, or get injections of new capital.

The authorities have reacted to these developments by making it easier for banks to strengthen their capital base and by contributing to the credit supply in the economy. In December 2008 the Swedish Financial Supervisory Authority changed the capital adequacy requirements for banks, allowing them to include a larger share of hybrid instruments in their primary capital.³⁵ In February 2009 the Government also presented a scheme for the injection of state equity capital into the banks. As a shareholder in Nordea, the State participated in the bank's new share issue with a capital injection of some SEK 5 billion under this scheme in spring 2009.

³⁴ Maintaining the exchange rate of the Latvian currency will hardly eliminate these payment difficulties. The problems for the Swedish banks can be mitigated to some extent, since the adjustment in Latvia will then be more evenly distributed (but not necessarily more fairly) among the people. A devaluation would lead to major problems for households with foreign currency loans, i.e. the customers of the Swedish banks. Furthermore, the problems could be expected to emerge over a more extended period if the exchange rate remains fixed than would be the case with a devaluation, which would rapidly increase the debt burden of some households.

³⁵ Capital adequacy measures the capital base of a bank in relation to its risk-weighted assets. One measure of the capital base is the primary capital. The primary capital includes a bank's equity capital and to some extent hybrid instruments, which are loans with a higher priority than equity but lower priority than other debt in the event of bankruptcy. The assignment of risk weights to the assets is done in such a way that secure assets (such as government bonds) get a small weight whereas risky assets (such as unsecured loans to companies) get a large weight. The regulations define minimum levels for a bank's capital ratio.

The authorities have contributed to the credit supply in the economy in several ways. Facilitating the financing of export credits has supported exporters. ALMI Företagspartner has received a capital injection and is now able to lend to larger companies than before. A one-year deferment of certain taxes and contributions in 2009 improves the financing situation of the business sector generally. The automotive industry has benefited from targeted measures in the form of credits and credit guarantees.³⁶

The effects of measures targeting the financial markets

The financial crisis that hit the world economy in autumn 2008 is in many ways unique. It is true that several banking and financial crises have occurred before, but the current crisis is global in a way that has not happened since the depression of the 1930s. In addition, unlike previous crises, the core of the crisis turned out to be complex and opaque financial instruments. Therefore, research cannot provide any answer based on previous experience to the question of how crises like the current one should be handled.

The measures taken in Sweden have to a large extent followed experiences from previous, more limited banking crises. One important insight from these crises is that the national central bank has an important role as a *lender of last resort*, i.e. the central bank is to provide solvent banks with unlimited access to credit if the market is unable to fill this function. Another insight is that government guarantees for both the customers' bank savings and the banks' lending can stabilise the markets and prevent the financial system's collapse.

No one knows what would have happened if the Riksbank had not injected liquidity into the markets and if the Government had not introduced the guarantee programme. It is reasonable to assume that these measures have been of great importance in stabilising the Swedish financial markets. One indication of their impact is how the TED spread, i.e. the difference between the interest rates for three-month interbank loans and treasury bills with the same maturity, is affected.

³⁶ ALMI Företagspartner is a state-owned company whose purpose is to promote the development of small and medium-sized enterprises and stimulate the formation of new enterprises. The support for the automotive industry is discussed further in Section 1.2.3.

The TED spread rose sharply in early autumn 2008 but it subsequently fell again, albeit not to the low levels prevailing until mid-2007. Other indications that the policies have been effective are that various measures of lending in the Swedish market did not fall significantly in spite of the financial turmoil. Figure 1.1 shows, for example, that bank lending to the business sector has been relatively stable during and after the acute financial crisis. This stability is actually somewhat surprising since shrinking lending volumes should have been a natural consequence of the sharp cyclical downturn. The downturn resulted in falling house prices and sharp falls in investment and exports, which should lead to less demand for credit.

One concern that has been expressed is that large companies have transferred their borrowing from international to domestic markets and crowded out borrowing by small companies. If so, the aggregate volumes in Figure 1.1 would conceal that process. Figure 1.2, showing that bank lending to entrepreneurial households has been stable, and Figure 1.3, showing that Swedish companies' borrowing in international bond markets did not fall significantly during the crisis, provide arguments against this hypothesis.

It is likely, however, that large companies' borrowing from foreign banks has gone down. And the entrepreneurial households included in Figure 1.2 are not necessarily typical of the entire group of small and medium-sized enterprises. Figure 1.4 indicates that lending to small and medium-sized enterprises has actually fallen. The figure shows the results of interview surveys of bank branch managers. The survey covers lending to all companies, but about 75 per cent of the branches lend only to companies with less than 250 employees.

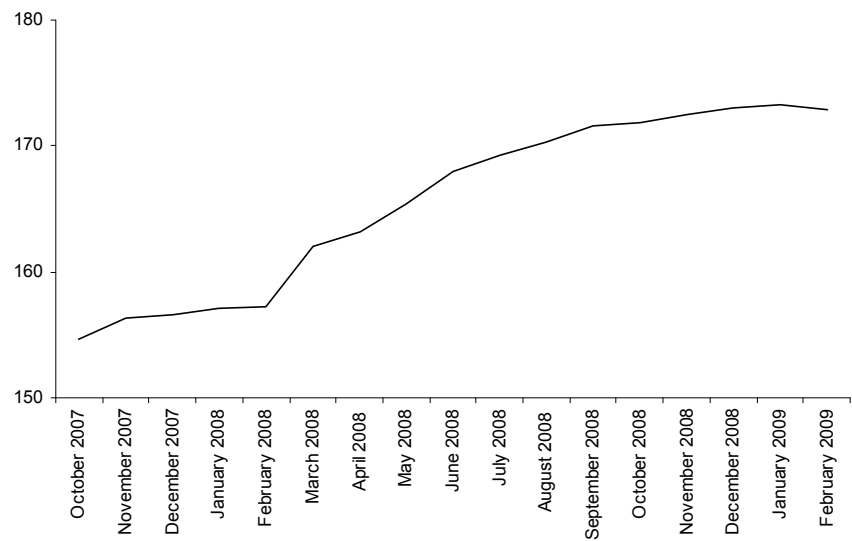
The statistical base is too small to make it possible to assess the extent to which small and medium-sized companies have been subject to a credit crunch. In our view, however, there are no clear indications that more forceful measures than those already taken by the Government are required.

Figure 1.1 Swedish banks' lending to non-financial companies, SEK billion



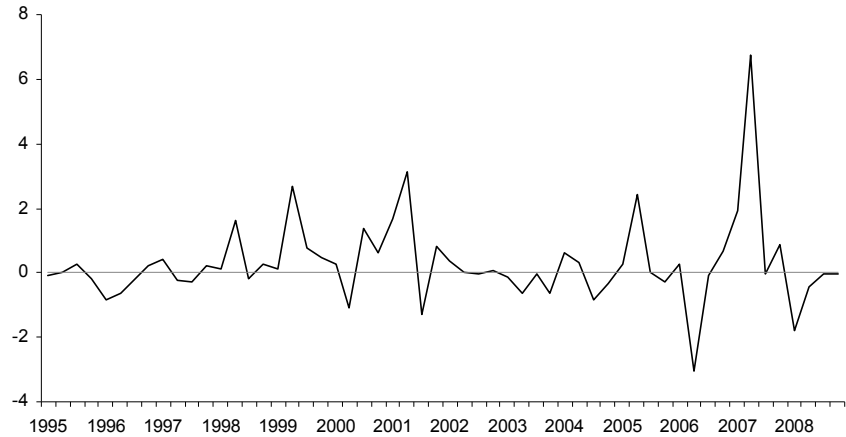
Note: Monthly data.
Source: Statistics Sweden.

Figure 1.2 Swedish banks' lending to entrepreneurial households, SEK billion



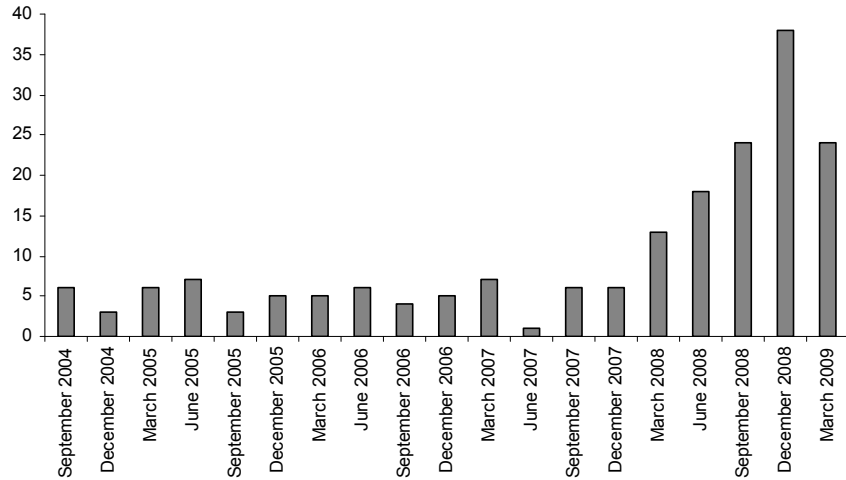
Source: Statistics Sweden.

Figure 1.3 New borrowing by Swedish non-financial companies in international bond markets, net, USD billion



Note: Quarterly data.
Source: BIS.

Figure 1.4 Bank branches with reduced lending to companies compared with the previous quarter, per cent



Source: ALMI Företagspartner (2009).

1.2.2 Fiscal policy in a recession

It was soon clear that the turmoil in the financial markets would also have negative consequences for the real economy. Even before the Budget Bill was presented on 22 September, the Ministry of Finance had begun to analyse new, more pessimistic scenarios. The Ministry of Finance had also noted that developments could possibly justify fiscal stimulus measures beyond those that would be presented in the Budget Bill. Nevertheless, it would take until December before further fiscal stimulus measures were announced.

During the autumn of 2008 it was very difficult to grasp how the financial market turmoil would affect the real economy. A common pattern was that forecasters gradually became increasingly pessimistic. Table 1.5 shows how the 2009 GDP forecasts of the National Institute of Economic Research and the Riksbank were gradually revised downwards. Other forecasters have followed a similar trend. It is thus unreasonable to demand that the Ministry of Finance and the Government should have been able to foresee the full impact of the financial crisis immediately.

In late autumn 2008 it became obvious that the cyclical situation both in Sweden and globally was going to be very weak in 2009 and probably for several years thereafter.³⁷ A key question then is how fiscal policy should respond to such a sharp downturn.

Table 1.5 Forecasts of GDP growth 2009

	2008					2009		
	July	Aug	Sept	Oct	Dec	Feb.	March	April
National Institute of Economic Research		1.4		-0.1	-0.9		-3.9	
The Swedish central bank (the Riksbank)	1.2		0.8	-0.1	-0.5	-1.6		-4.5

Note: The table shows the Riksbank and the National Institute of Economic Research's forecasts for real GDP growth in 2009 at different times.

³⁷ Tables 1.6 and 1.7 summarise various forecasters' current views of Sweden's future economic developments.

In last year's report, we noted that stabilisation policy is to rely primarily on monetary policy and the automatic stabilisers, but we also emphasised that discretionary fiscal policy measures may be justified in extraordinary situations.³⁸ As examples we mentioned liquidity traps, uncertainty about whether the monetary policy and the automatic stabilisers would be sufficient and certain types of conflicting objectives. A liquidity trap occurs when the key interest rate of the central bank is close to zero and cannot be lowered further. Monetary policy then becomes less effective as a stabilisation policy instrument. This may contribute to uncertainty about what monetary policy can achieve. But such uncertainty may also arise if other factors make the normal transmission mechanisms of monetary policy ineffective.

In autumn 2008 the risks were growing both that the economy would get caught in a liquidity trap and that monetary policy would not be sufficiently effective for other reasons. Already at that time, it was clear that the economic downturn could be the most severe since World War II. In such a sharp economic downturn, fiscal stimulus measures may be needed even if monetary policy works well. But there was also a concern that the problems in the financial markets – with increased spreads between the banks' lending rates and the Riksbank's repo rate – might have weakened the effectiveness of monetary policy to the extent that a lowering of the repo rate would not result in the normal decrease in firms' and households' borrowing costs.³⁹ These factors justified considering further fiscal stimulus measures in addition to the measures aimed at restoring the functioning of the financial markets.

³⁸ Fiscal Policy Council (2008), Sections 1.3 and 2.4.

³⁹ It is not clear, however, if such a concern is justified. For example, the Riksbank's interest rate reductions in autumn 2008 made their full impact on households' mortgage costs. At the same time, other factors pushed interest rates upwards. Rather, the concern reflects the risk that monetary policy is not forceful enough to balance these other factors.

Table 1.6 Macroeconomic key indicators, spring 2009

	MoF April	MoF Jan	NIER March	RB April	OECD Dec	IMF April
GDP growth^a						
2003-2007	3.2					
2008	-0.2	1.0	-0.2	-0.2	0.8	-0.2
2009	-4.2	-0.8	-3.9	-4.5	0.0	-4.3
2010	0.2	1.5	0.9	1.3	2.2	0.2
Inflation^b						
2003-2007	1.5					
2008	0.9	0.9	3.4	0.9	3.5	2.1
2009	0.0	-0.4	-0.3	0.7	1.5	-0.5
2010	0.7	1.3	0.8	1.9	1.1	0.5
Unemployment^c						
2003-2007	7.1					
2008	6.2	6.2	6.1	6.2	6.1	6.2
2009	8.9	7.8	8.7	8.7	7.0	8.4
2010	11.1	8.6	10.7	10.7	7.7	9.6
Net lending^d						
2003-2007	1.4					
2008	2.5	2.3	2.5	2.3	2.8	2.5
2009	-2.7	-1.1	-2.7	-1.7	0.5	-3.0
2010	-3.8	-1.1	-4.6	-2.6	0.4	-3.8

Notes: ^a Volume change, per cent on previous year ^b CPI inflation, per cent December-December (Ministry of Finance, Riksbank and IMF), annual average (National Institute of Economic Research, OECD). ^c Per cent of labour force, ILO definition (Ministry of Finance, National Institute of Economic Research, OECD and IMF), EU definition (Riksbank). ^d General government net lending as percentage of GDP; Riksbank figures as of February 2009.

Sources: Ministry of Finance, 2009 Spring Fiscal Policy Bill and Govt. Bill 2008/09:97; National Institute of Economic Research, The Swedish Economy March 2009; Riksbank, Monetary Policy Update April 2009 and Monetary Policy Report 2009:1; OECD, Economic Outlook December 2008; IMF, World Economic Outlook April 2009.

Table 1.7 Indicators of capacity utilisation, spring 2009

	MoF April	MoF Jan	NIER March	RB April	OECD Dec	IMF April
Output gap						
2003-2007	0.8	0.4	-0.6	1.3	0.0	0.3
2008	-1.8	-1.5	-2.4	2.1	-1.2	-0.6
2009	-7.1	-4.5	-7.1	-3.7	-3.7	-6.5
2010	-8.7	-5.3	-7.8	-4.3	-3.9	-7.7
Labour market gap^a						
2003-2007			-1.7	-0.7		
2008			-0.1	2.7		
2009			-3.9	0.2		
2010			-6.5	-1.6		
Equilibrium unemployment^b						
2003-2007			6.0		7.3	
2008			6.0		7.0	
2009			6.3		6.8	
2010			6.5		6.7	
Structural general government net lending						
2003-2007	0.7	0.9	2.2		1.4	0.9
2008	3.3	2.9	3.8		3.2	1.8
2009	1.2	1.5	1.6		2.2	0.2
2010	1.0	1.9	0.3		2.2	0.2

Notes: ^a) Riksbank figures as of February 2009. ^b) ILO definition (National Institute of Economic Research), old Swedish definition (OECD).

Sources: See Table 1.6.

The automatic stabilisers

What fiscal measures would be appropriate in a situation like that in autumn 2008 and how large should they be? A good point of departure for an analysis of this question is the automatic stabilisers, i.e. the automatic fiscal policy reactions to changes in the cyclical situation. As the economy weakens, the public sector tax revenues decrease and disbursements of unemployment benefits and other social transfers to households increase. This makes fiscal policy more expansionary and counteracts the downturn even without any new active decisions. Since Sweden has a large public sector, its automatic stabilisers are stronger than in most other countries. There has, however, been a concern that the tax system and unemployment

insurance reforms in recent years have weakened the automatic stabilisers.⁴⁰ But our calculations indicate that there has only been a marginal weakening (see Box 1.1).

Another fundamental problem could be that the public finances are too weak to allow the automatic stabilisers to take full effect. If the cyclical downturn is partly explained by weak public finances, there is a risk that the automatic stabilisers make the problems worse. There are studies showing that the positive impact of fiscal stimulus measures is larger if public finances are in good shape and that an expansionary fiscal policy may be ineffective in a downturn if public finances are too weak.⁴¹

Such a concern may be justified in the current situation in countries that already had a large public debt before the financial crisis, but not in Sweden. Sweden's public finances have become much stronger in the last decade. Even though the ageing population will put strains on fiscal policy in future, various sustainability estimates show that public finances are in much better shape in Sweden than in most other countries.⁴² This picture is confirmed by the fact that Sweden's borrowing costs in the markets for long-term bonds are among the lowest in Europe. Various aspects of the strength of public finances are discussed in Box 1.2. Overall Sweden's good public finances provide for a fiscal policy in which stabilisation policy has ample room for manoeuvre. Public finances are substantially stronger today than when the 1990s crisis began.

Box 1.1 The automatic stabilisers

Fiscal policy reacts automatically when the cyclical situation changes. In good times, tax revenues increase and public expenditures, for example unemployment benefits, decrease. The reverse happens in bad times. These automatic reactions make fiscal policy restrictive in an upturn and expansionary in a downturn.

Let f denote general government net lending as a percentage of GDP. Net lending can be split into two components, $f = f^* + \tilde{f}$, where \tilde{f} is the automatic stabilisers, i.e. fiscal policy's automatic

⁴⁰ For example, the OECD (2008b p. 42) writes: "recent income tax cuts and reductions in unemployment benefits may have weakened the automatic stabilisers".

⁴¹ See, for example, Giavazzi and Pagano (1990) and Perotti (1999).

⁴² See also Sections 3.2.1 and 3.2.2 in this report.

reaction to changes in the cyclical situation. The second component, f^* , consists of net lending which does not vary with the business cycle and of discretionary fiscal policy reactions.

The strength of the automatic stabilisers is normally measured by a *budget elasticity*. It shows the percentage change in net lending relative to GDP for each one per cent change in GDP. The budget elasticity is captured by the parameter ε in the equation

$$\tilde{f}_t = \alpha + \varepsilon(y_t - \bar{y}_t),$$

where y is the logarithm of GDP and \bar{y} the logarithm of potential GDP, so that $y - \bar{y}$ is the output gap, approximately showing actual GDP's percentage deviation from potential GDP.

There is a close relationship between the size of the public sector and the strength of the automatic stabilisers. In a country with large tax revenues and large public expenditures, the automatic stabilisers are normally strong. This is confirmed by a study by Girouard and André (2005) (see Figure 1.5).⁴³ Sweden's budget elasticity was estimated at 0.55, which was higher than the OECD average of 0.44.⁴⁴

In recent years, Swedish income taxes have been lowered and unemployment insurance has been made less generous. One would expect Sweden's automatic stabilisers to have been weakened by these reforms. The study by Girouard and André was based on the 2003 tax and expenditure systems. Flodén (2009) updated the Swedish estimates for subsequent years using the same method.⁴⁵

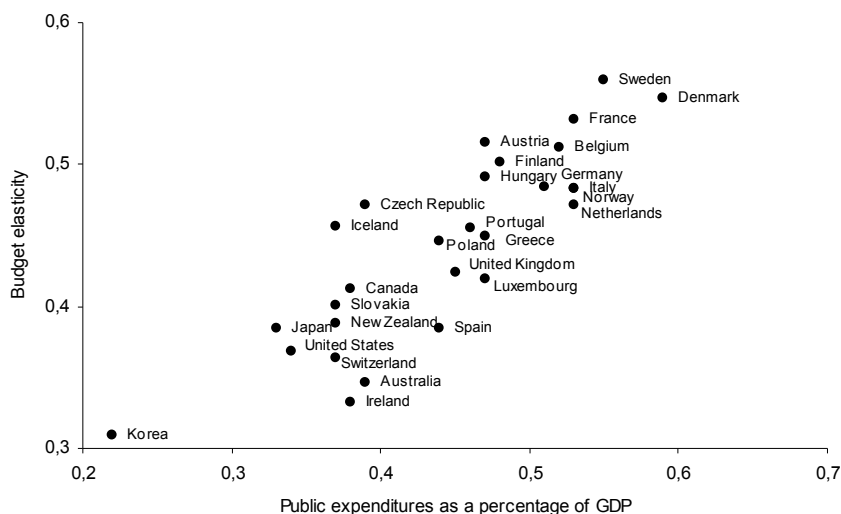
⁴³ Fatás and Mihov (2001) found a similar relationship also among states in the United States and they also found support for the hypothesis that the automatic stabilisers contribute to stabilising GDP.

⁴⁴ The Ministry of Finance uses this budget elasticity to estimate the structural budget balance. If we disregard adjustments for various one-off effects, it can be estimated as $f_t^* = f_t - 0.55(y_t - \bar{y}_t)$.

⁴⁵ This method has been used in a number of OECD studies: Giorgio et al. (1995), van den Noord (2000) and Girouard and André (2005).

⁴⁶ The contribution to the budget elasticity depends on how the tax or the expenditure varies in relation to GDP and on its level in relation to GDP.

⁴⁷ This relationship is clearly demonstrated in Section 5.2, where we analyse the active labour market policy.

Figure 1.5 Budget elasticity and the size of the public sector

Note: Public expenditure refers to total expenditure as a percentage of GDP in 2005.

Sources: Girouard and André (2005) and OECD (2008a).

Girouard and André's method takes into account how four different taxes (personal income taxes, social security contributions, consumption taxes and corporate taxes) and expenditures for unemployment benefits react to a change in GDP. Table 1.8 summarises the contributions of these components to the automatic stabilisers in Sweden.⁴⁶ The study confirms that the unemployment insurance reforms have weakened the automatic stabilisers, but the effect seems to be small.

Even though personal income taxes have fallen sharply (see the left panel in Figure 1.6), the tax changes do not seem to have weakened the automatic stabilisers. The reason is that the budget elasticity depends both on the size of the ratio of tax revenue to GDP and households' average *marginal* tax rate. The fall in income taxes relative to GDP is mainly due to the earned income tax credit introduced in several steps in 2007-2009. The tax credit has resulted in a substantially lower average tax rate for all employed workers, but the marginal tax rate has only fallen for low-income households (see Figure 1.6). Higher municipal taxes have actually led to a slight increase in the marginal tax rate for high-income earners since 2003.

Table 1.8 Budget elasticity over time

	Contribution to budget elasticity					Budget elasticity
	Income tax	Social security contributions	VAT	Corporate tax	Unemployment insurance	
1998	18.0	12.8	12.0	3.5	12.1	58.4
1999	17.7	13.0	12.8	3.8	11.1	58.4
2000	17.2	13.1	12.7	4.9	11.3	59.2
2002	16.5	13.3	12.9	2.7	19.3	54.7
2003	16.9	12.6	13.0	2.9	19.0	54.4
2004	16.8	12.3	12.9	4.1	18.3	54.4
2005	16.9	12.2	13.1	5.2	18.0	55.4
2006	16.8	11.9	12.9	5.2	17.2	54.0
2007	17.0	12.0	13.0	5.0	17.3	54.3
2008	17.6	12.2	13.5	4.6	15.4	53.3
2009	17.4	12.2	13.3	4.9	15.4	53.2

Note: Elasticities in per cent. Data for the tax systems 1998-2007 are based on various annual issues of the OECD Taxing Wages where 2001 is not reported. Data for 2008 and 2009 are partly based on forecasts from the 2009 Budget Bill and the National Institute of Economic Research (2008a).

Source: Fiscal Policy Council calculations.

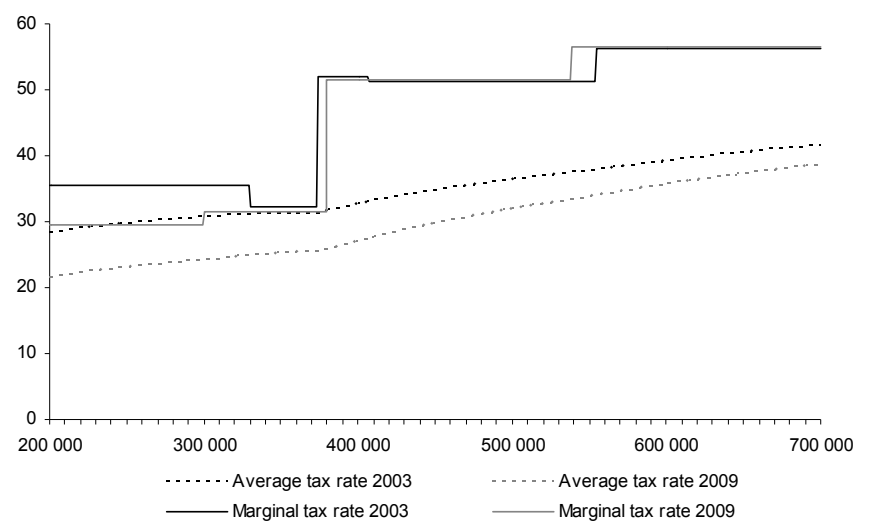
The introduction of the earned income tax credit may have weakened the automatic stabilisers in a way not captured by Girouard and André. According to them, a weaker economic development is assumed to have about the same impact on all households' earned income. In fact, the impact on households varies widely in an economic downturn. Some individuals become unemployed and suffer large losses of income, whereas most people keep their jobs without any major income change. The earned income tax credit has reduced the tax on the employed relative to the tax on the unemployed. When the economy weakens and unemployment increases, a smaller part of the population will receive an earned income tax credit. Consequently, the automatic tax reductions in a downturn will be lower than before the introduction of the earned income tax credit. Rough estimates in Flodén (2009) indicate, however, that the impact on the automatic stabilisers is small.

An earlier OECD study by van den Noord (2000) was based on the study by Girouard and André with the exception that active labour market policy expenditure was also included in the automatic stabilisers. Active labour market programmes are usually more

extensive in downturns when unemployment is high than in upturns when unemployment is low.⁴⁷ The automatic stabilisers therefore look stronger when these measures are included.

Sweden’s active labour market policy has become less extensive during the last decade. According to Flodén (2009), this has reduced the budget elasticity by some five percentage points. According to this broad definition, the estimated budget elasticity is 0.63 for 2009 compared with 0.72 for 1999. The estimate for 2009, however, is based on the forecast for the extent of labour market policy reported in the 2009 Budget Bill. The Government has subsequently decided new labour market measures. Even though the unemployment forecast for 2009 has increased, there is therefore reason to believe that the broad budget elasticity actually has fallen less than indicated by these estimates.

Figure 1.6 Average and marginal tax rates 2003 and 2009

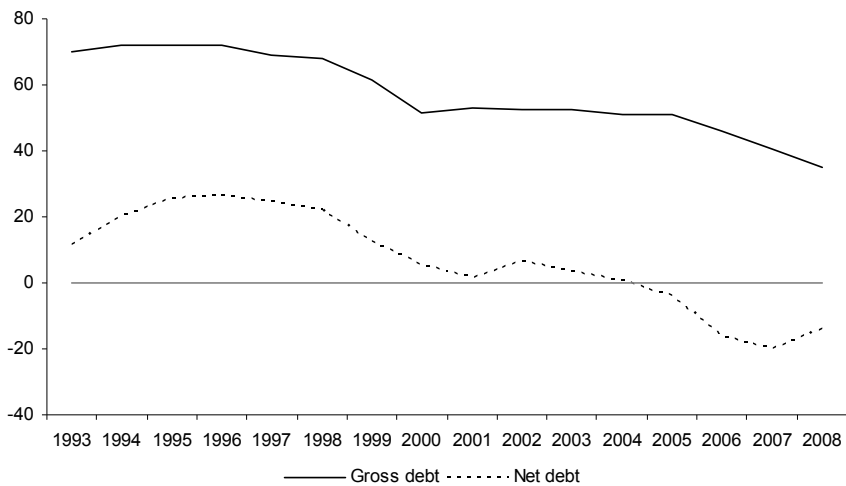


Note: The figure shows taxes (including the general pension contribution) on household earned income in relation to earned income. The 2003 tax system has been adjusted to 2009 income levels.
Source: Fiscal Policy Council calculations.

Box 1.2 Strong public finances

As shown in Figure 1.7, Sweden's public finances have strengthened significantly in the decade prior to the financial crisis. Thus when the crisis began, Sweden's public finances were strong compared to those of other countries. Figure 1.8 shows that general government gross debt was among the lowest in the OECD.

Figure 1.7 General government gross and net debts as percentages of GDP



Note: See Box 3.1 for a definition of gross and net debts.

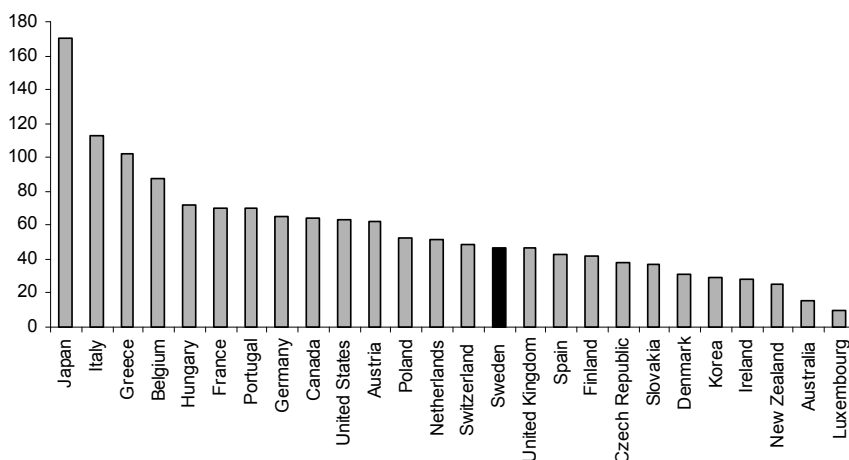
Source: National Institute of Economic Research.

The sustainability estimates are another indicator of the strength of public finances. According to the Stability and Growth Pact, EU Member States are to regularly estimate a measure of long-term fiscal sustainability, the S2 indicator.⁴⁸ This indicator shows the size of the permanent budget strengthening (positive sign) or budget weakening (negative sign), measured as a percentage of GDP, required for the long-term stability of the public sector financial position. Figure 1.9

⁴⁸ The sustainability estimates are discussed in more detail in Section 3.2.2. We note in that section that the Government's S2 indicator previously underestimated the strength of public finances. This was concealed by a so called *technical adjustment*. Consequently, the S2 indicator shown on the vertical axis in the figure is too high. See also the European Commission (2006) and the Fiscal Policy Council (2008).

shows both the estimates made by the Member States and estimates of a similar indicator made by the OECD (2009). The figure shows that according to both estimates, Sweden's public finances are very strong in an international comparison.

Figure 1.8 General government gross debt in per cent of GDP

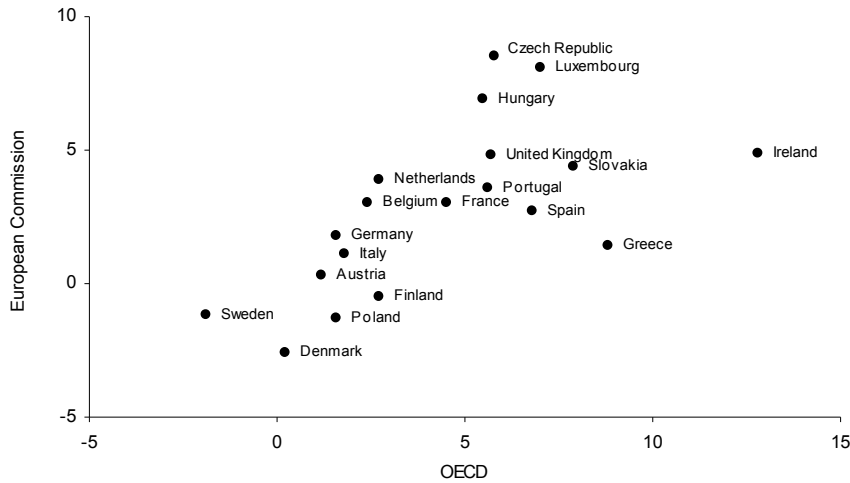


Source: OECD (2008a).

Another indicator of the sustainability of public finances is the interest rate on long-term government bonds. If the public finances weaken, there is usually a concern that the country's central bank will eventually allow higher inflation or that the country may have future payment difficulties. The long-term interest rates will rise in both cases. Figure 1.10 indicates that no such concerns have arisen with respect to Sweden. Interest rates on government bonds are lower than in most other countries. Furthermore, long-term rates have fallen both in Sweden and in other developed countries. Exceptions are Greece, Ireland, Italy, Portugal and the Czech Republic. All these countries have weak public finances according to the sustainability indicators in Figure 1.9.

⁴⁹ See, for example, McGuire and von Peter (2009).

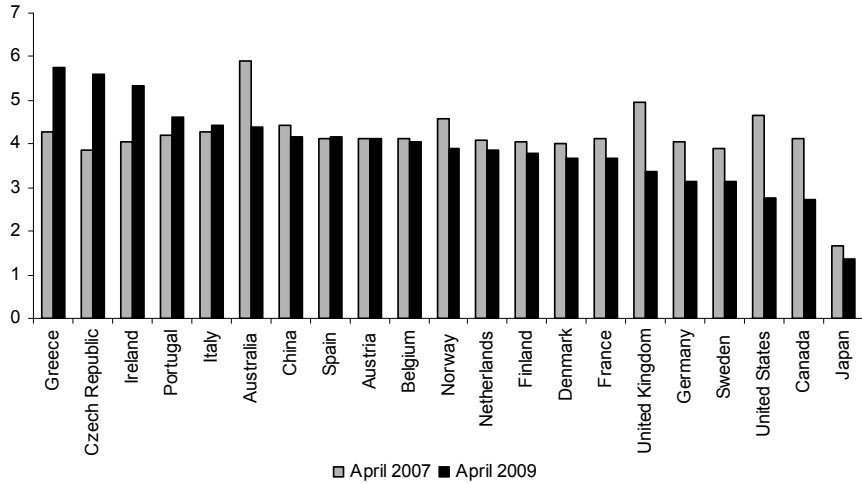
Figure 1.9 Long-term sustainability of public finances (S2 indicator)



Note: The European Commission figures refer to 2007 and the OECD's to 2008.

Sources: European Commission (2008) and OECD (2009).

Figure 1.10 Interest rates on 10-year government bonds



Source: Datastream.

The government bond rate cannot, however, be used as a measure of the strength of public finances without reservations. First, the financial crisis has led to a decline in the market's risk tolerance and an increase in the demand for government bonds and other high-quality assets. The increased demand for high-quality assets has pushed up the price of government bonds and thus pressed down their interest rate.

Also the fact that the interest rate on Swedish government bonds has fallen relative to rates in other countries should be interpreted with caution. From August 2008 to April 2009, the Swedish krona fell by about 15 per cent against the euro and 25 per cent against the U.S. dollar. According to many experts, the krona's depreciation was at least to some extent due to a temporary need in the markets for liquidity in the major currencies.⁴⁹ It is natural that the interest rate on government bonds is lower in Sweden than in other countries if the krona is deemed to be temporarily undervalued and expected to rise in the future.

The weakening of the krona may also indicate concerns about future problems in the Swedish economy. The risks in this context are the Swedish banks' exposure in the Baltic states and some other Eastern European countries. The public sector's possible implicit commitments to the banking sector are not included in the debt and sustainability indicators mentioned above. These indicators may therefore be misleading. But any widespread concern about excessive implicit public commitments should have been reflected in rising interest rates on government debt.

Principles of discretionary fiscal policy

Our conclusion is that the Swedish economy in autumn 2008 was heading towards a situation where additional stimulus measures would be desirable. The financial crisis rapidly inspired a discussion about fiscal policy, both in Sweden and internationally. At an early stage of the international debate, widespread agreement developed among academics, international organisations and politicians that the circumstances justify extraordinary measures, including discretionary

fiscal policy.⁵⁰ But there is less agreement on *which* fiscal measures would be most effective or *how large* a stimulus would be justified.

Three basic principles for a successful fiscal policy are usually mentioned.⁵¹ The measures are to be *timely*. The stimulus effects are to be at their strongest at that point in time when the downturn would otherwise have been deepest. This sounds self-evident, but in practice it is difficult to achieve because of the many lags that tend to affect fiscal policy.⁵² The measures are also to be *targeted*. A general tax reduction or an increase in public expenditure may be a costly way of stimulating the economy from a public finance perspective. Households and firms may choose to increase their savings while weaker public finances may cause concern in the financial markets and drive up long-term interest rates. The stimulus measures should therefore target groups with a high marginal propensity to consume (typically low-income households) or be designed to help redistribute consumption or investment over time.

The usual view is that the measures should be *temporary*. The principal justification for this is to avoid weakening the public finances unnecessarily in the long run. It may therefore be wise to make the fiscal stimulus measures temporary at the time the decision is taken. Thus, for example, taxes could be reduced for a limited time. An increase in benefits can be designed as an extra monthly benefit instead of a (permanent) increase in the benefit level for each disbursement.⁵³ But permanent measures too may work if they are justified in the long term. For example, planned permanent reforms (or investment projects) could be brought forward in a downturn.

Various kinds of fiscal stimuli

Possible fiscal stimulus measures can be divided into three main categories: public investment, public consumption and tax reductions and increased transfers. According to basic Keynesian theory,

⁵⁰ See for example IMF (2008b), G20 (2008) and contributions in Eichengreen and Baldwin (2008).

⁵¹ See for example Elmendorf and Furman (2008) and the Congressional Budget Office (2008).

⁵² For example, it often takes time to identify the need for measures, to decide on appropriate measures and to implement the measures. It may also take time before the measures have any effect on economic activity. The latter lag, however, is of greater importance for monetary than for fiscal policy. See Fiscal Policy Council (2008), Section 1.3.

⁵³ If a slowdown is expected to be of long duration, very short-term measures may be less effective. Since the experiences of previous financial crises indicate that the current crisis may be protracted (see Reinhart and Rogoff 2009), Spilimbergo et al. (2008) argue that the stimulus measures should be prolonged.

increased public investment and public consumption have greater stimulus effects than tax reductions or increased transfers. The reason is that the latter are first received by households as increased disposable income. Households use the increase in income both for increased consumption and increased savings, but only the part used for consumption will result in an immediate demand increase in the economy.⁵⁴ Public investment and public consumption affect demand without savings leakages of this kind.

But empirical studies do not unambiguously support these conclusions. There are a number of methods for trying to identify the effects of fiscal policy, but the methods often lead to differing conclusions.⁵⁵ Still, most studies support the hypothesis that an expansionary fiscal policy (increased public expenditure or reduced taxes) will boost GDP.⁵⁶ Many studies also find that the short-term increase is larger than the fiscal stimulus (i.e. that the fiscal multiplier is larger than one).⁵⁷

On the other hand, the studies result in very divergent conclusions on what impact different stimulus measures have on the various GDP components. In theory, increased public consumption may either decrease or increase private investment and private consumption. *Decreased private activity* may be due to crowding-out effects because the increased public consumption leads to price increases for capital and consumption goods. Also, households may reduce their consumption because they expect future tax hikes. According to Keynesian theory, increased public consumption results instead in an *increase* in private consumption, and possibly also in private investment. These theories assume that there is available production capacity. If so, increased public demand results in increased output. The increased output, in turn, makes household incomes rise and consequently private consumption increases.

⁵⁴ Furthermore, there is an import leakage, since households' consumption partly consist of foreign goods. However, the import leakage does not have to be regarded as a problem in a global economic downturn, since it increases demand in other economies.

⁵⁵ See Beetsma (2008), IMF (2008a) and Ramey (2008) for overviews.

⁵⁶ A clear exception is Giavazzi and Pagano (1990) who find some support for the hypothesis that a fiscal tightening could boost demand in economies with very weak public finances.

⁵⁷ Based on U.S. data Romer and Romer (2007), for example, find that a tax reduction of one dollar will increase GDP by some three dollars in a little more than two years and Ramney (2008) that one dollar of increased military spending will boost GDP by about one and a half dollars. Barro (2009) on the other hand is of the view that the multiplier effects of increased public expenditure normally are smaller than indicated by these studies. Furthermore, Cogan et al (2009) find that studies based on more modern model assumptions result in very small multipliers except in the very short run.

Empirical studies do not provide any unambiguous answer to which of these theories are most strongly supported by data. According to some studies, increased public consumption will crowd out both private investment and private consumption, whereas other studies indicate that private investment and private consumption will rise (owing to Keynesian multiplier effects).

The differing results obtained in various studies may partly be explained by the different methods used. But the impact of fiscal stimulus measures is also likely to vary according to economic conditions and the precise design of the measures. For example, several studies based on U.S. data have focused on increased public expenditure in times of war. In wartime, resource utilisation is often strained. Reactions to economic policy may then deviate from reactions in a downturn, when crowding-out effects are less likely. And the impact of a lump-sum tax rebate which is not linked to the labour input of households may be quite different from the reactions to a temporary reduction of consumption taxes or introduction of investment subsidies.

Some studies have focused on evaluating a single ‘event’ which improves the possibilities of taking the precise policy design into account. This applies particularly to the evaluation of stimulus measures in the United States in recent years. In the wake of the IT crash and the 2001 downturn, the Bush administration introduced a stimulus package with transfers to households (USD 300 per taxpayer) and tax subsidies to business investment. Evaluations show surprisingly large effects. Almost two thirds of the funds disbursed appear to have been spent within half a year, with the strongest impact on low-income households’ consumption.⁵⁸ A preliminary evaluation of the transfers to U.S. households in early summer 2008 (USD 600 for a typical taxpayer and a further USD 300 per child) indicates that the stimulus effect was weaker than in 2001.⁵⁹ Most of the income increase appears to have been used for increased savings or reduced debts. This also applies to low-income earners.

⁵⁸ Johnson et al. (2006) found that two thirds of the disbursements to households were spent within half a year. Agarwal et al. (2007) found smaller but clearly positive effects on household consumption expenditure (40 per cent of the package was used for increased consumption expenditure during the first nine months). Both studies also show that the impact on consumption expenditure was particularly large for low-income households and households with small (liquid) assets. Previous studies of similar stimulus packages in 1975 indicated smaller effects.

⁵⁹ Shapiro and Slemrod (2009).

Thus, research does not give an unambiguous picture of the effects of fiscal stimulus measures. Expansionary fiscal policy normally leads to increased GDP, but the effects on private consumption and investment are unclear. Furthermore, it may in practice be difficult to ensure that temporary stimulus measures remain temporary, that their impact is correctly timed and that they are cost effective by being targeted at the right areas.

Stabilisation policy in a global downturn

The current downturn is *global*. Experience from earlier economic downturns affecting a large part of the global economy shows that such downturns tend to be more protracted than downturns affecting only one country.⁶⁰ A small, export-dependent country like Sweden is strongly affected by international economic developments and by other countries' stimulus measures.

There is a risk of individual countries taking measures to stimulate their own economy at the expense of other countries to a disproportionate extent. In their most extreme form, those measures may include protectionist elements, such as increased import duties, political campaigns urging consumers to buy domestic goods or political demands that producers move production to their home country. It is important to combat such tendencies, since all countries would stand to lose.

But the problems may also take more subtle forms. According to Keynesian analysis, fiscal stimulus measures in a small economy like Sweden's generate an *import leakage*. Since household consumption includes foreign goods, some part of the fiscal stimulus measures will benefit other countries rather than the home country. Conversely, a monetary policy stimulus usually results in an additional domestic stimulus via the *exchange rate channel*. An interest rate reduction (or an increase in the money supply) will normally result in a currency depreciation, which stimulates exports at the expense of imports from other countries.

Because of these international spillover effects, there is a risk of small open economies preferring monetary stimulus measures to fiscal stimulus measures, even if fiscal measures would be more effective for the global economy as a whole. As a result, the total

⁶⁰ See for example IMF (2009b), Chapter 3.

effect of fiscal stimulus measures may be too small. We do not mean to say that this reasoning should speak against monetary stimulus measures in the current global downturn. But it is our view that when choosing stimulus measures, import leakage should not be seen as a complete waste or exchange rate depreciation as desirable. There are strong general arguments against individual countries trying to achieve advantages at the expense of other countries in a downturn that affects many countries in a similar way.

Principles of discretionary fiscal policy: summary

How then, should fiscal policy be designed in the current situation? In our view, fiscal stimulus measures are justified. There are a number of principles they should follow:

1. The public sector should avoid contributing to a contraction. The automatic stabilisers should be allowed to work fully, at least as long as no large structural budget deficits exist. Dwindling tax bases and increasing outlays to the unemployed should thus not be met by tax increases or reduced public consumption during the downturn.
2. The measures should be targeted at reducing the uncertainty firms and households experience. Increased uncertainty makes firms more cautious when investing and hiring, while households save more. Their increased caution may contribute to a deeper downturn. The major risk for households is unemployment. Measures mitigating the consequences of unemployment may reduce this concern and thus contribute to stabilising demand, which in turn may decrease uncertainty for firms.
3. Planned public investment and reform programmes, which are to be carried out in any case, should as much as possible be brought forward. Planning and initiating large investment projects, however, is usually a time-consuming process. So it may be difficult in practice to substantially increase public investment in the short run. Furthermore, permanent reforms resulting in an expansionary fiscal policy may have been put on hold earlier because of the strained cyclical situation. This could apply to both tax reductions and expenditure increases. Such reforms should of course be carried out in a downturn, provided that the

public finances are not so strained that other, more urgent temporary stimulus measures, are crowded-out.

4. Stimulus measures should be as industry neutral as possible. Often, a downturn depends to some extent on built-up imbalances, which have to be adjusted. In that case, the downturn may in part be due to a necessary structural change. In the current crisis, an adjustment of this kind is probably underway primarily in the financial sector and the automotive industry. But it is neither in the Government's area of expertise nor in ours to determine the exact nature of this adjustment. Therefore, measures should mostly be general and should not target certain industries.
5. Stimulus measures to households should be targeted rather than general. Research indicates that stimulus measures are more effective if they target low-income households rather than high-income ones. Low-income households often have limited access to credit and are therefore largely dependent on their disposable income for their daily consumption. They therefore tend to spend a large part of an income increase. A transfer to high-income earners is saved to a larger extent and may thus largely imply a redistribution to them from the public sector without any significant demand effect.

1.2.3 Government measures to mitigate the recession

The Government early realised that stimulus measures beyond those announced in the Budget Bill might be necessary. Even before the Budget Bill was presented, the Ministry of Finance had started studying the possibility of supplementing it. In late October last year, the consequences of various fiscal stimulus measures had been analysed in internal memoranda. A first fiscal stimulus package was presented in December 2008 and became a formal Government proposal in the bill Measures for Jobs and Adjustment (*Åtgärder för jobb och omställning*) in January 2009.⁶¹ More stimulus measures were added in the Spring Fiscal Policy Bill 2009.

⁶¹ Govt. Bill 2008/09:97. This bill has the character of an extraordinary Budget Bill.

Apparently the internal Ministry of Finance memoranda were written in autumn 2008 in great haste and under great uncertainty about future economic developments. But the memoranda are of high quality. The measures analysed include most of those which later became part of the Government's December stimulus package (see Table 1.9). Other measures considered include those that were later discussed frequently in the Swedish debate: a temporary VAT reduction, increased central government grants to local governments and temporary increases of various grants to households. The effects of these measures were, as far as possible, analysed using simulation models. The analysis was also based on previous experience. One cannot help noting the contrast between the very clear statements by the Government during the autumn that fiscal stimulus measures in addition to those in the Budget Bill were inappropriate and the intensive work in the Ministry of Finance to analyse the effects of various possible stimulus measures.⁶²

The stimulus package presented by the Government on 5 December 2008 was largely based on the conclusions in these studies. The measures in the internal analysis expected to have the greatest impact on employment per krona of tax revenue were also the measures included in the package.

⁶² See for example Borg (2008).

Table 1.9 The Government's stimulus measures

	Cost/amount			Type of measure	See Section ^a
	2009	2010	2011		
The stimulus package, January 2009					
RMI deduction (repair, maintenance and improvement)	3.5	3.5	3.5	permanent	7.4
Operation and maintenance of roads and railway tracks	0.4	0.4	0.2	temporary	
Employment services and activation measures (mainly coaching and work experience placements)	2.6	2.4	0.4	temporary	5.2.8
Additional measure for long-term unemployed (double compensation for new start jobs)	0.9	1.4	1.4	permanent	5.2.8
Adult vocational training and vocational higher education (more places 2009-2011, more students can get study support with a higher grant portion)	0.5	0.7	0.2	temporary	5.2.5
Swedish Export Credit Corporation gets a lending limit of SEK 100 bn and a capital injection of up to SEK 3 bn ^b					1.2.1
The Export Credits Guarantee Board limit for guarantees is raised by SEK 150 bn				temporary	1.2.1
Capital injection of up to SEK 2 bn into ALMI Företagspartner ^b					1.2.1
Tax deferral for employers (payment of preliminary tax for employees for two months in 2009 may be deferred for one year)	0.4	0.1		temporary	1.2.1
Start-up of research and development firms in the automotive sector (SEK 3 bn) ^{b,c}					1.2.3
Government credit guarantees to the automotive industry via the European Investment Bank, limit SEK 20 bn ^c				temporary	1.2.3
SEK 5 bn limit for rescue loans to the automotive industry ^c				temporary	1.2.3
2009 Spring Fiscal Policy Bill					
Higher central government grants to local governments ^d		7.0	5.0	permanent ^e	1.2.3, 1.3
Active labour market policy ^f	3.0				5.2.8

Notes: Most of the stimulus package was presented at the beginning of December 2008. The package became a formal government bill in January 2009 (Govt. Bill 2008/09:97). Amounts in SEK bn. a) The measure is discussed in more detail in this report in the section indicated. b) Decided in November 2008 and charged to the 2008 budget. c) Measures targeting the automotive industry were presented in a separate government bill in December 2008 (Govt. Bill 2008/09:95). d) The increased central government grant to local governments for 2010 announced in the 2009 Spring Fiscal Policy Bill will be paid in December 2009 and thus charged to the 2009 budget, but we nevertheless include this as a stimulus measure for 2010. e) There is a permanent increase in the central government grant of SEK 5 bn. This does not, however, mean that the central government grants are being raised permanently in relation to GDP. f) The Fiscal Policy Council's rough estimate based on the volume changes reported in the 2009 Spring Fiscal Policy Bill.

We would like to commend the Ministry of Finance for having attempted to base policy on solid economic analysis despite serious time pressures. The Ministry could possibly be criticised for trying to rely too heavily on research results, even when there were few such results to be found. One example is the Government's choice to wait until the 2009 Spring Fiscal Policy Bill to give increased central government grants to local governments rather than including it in the autumn stimulus package. According to the Ministry's analysis in the early days of the crisis, the effects of higher central government grants were very difficult to assess. Only a few research studies have examined how changes in the central government grant affect local governments' behaviour (see Box 1.3). These studies indicate that a higher grant would have little effect on employment in local governments, particularly in schools and elderly care. The studies thus indicate that increasing the central government grant is an expensive method of maintaining local government employment. However, it is doubtful that the results are applicable during the current economic crisis as the balanced budget requirement for local governments threatens to impose a binding restriction on their behaviour.⁶³

The data we report in Box 1.3 indicate that local government employment is procyclical, i.e. it covaries with the economic situation in such a way that cyclical swings are amplified. Local government consumption and investment expenditures also show some procyclical pattern, at least compared with central government resource utilisation. The balanced budget requirement for local governments may contribute to these pro-cyclical tendencies in local government resource utilisation. Given the current design of the balanced budget requirement, we see it as the Government's task to use discretionary decisions to counter the amplification of cyclical swings by local governments. These decisions could, for example, concern the central government grants to local governments or changes to state transfers that affect local government revenue.

⁶³ Under the local government balanced budget requirement, a local government's budget is to be drawn up so that revenue exceeds expenditure. See Box 1.3.

Box 1.3 Fiscal policy over the business cycle

The balanced budget requirement for local governments

The balanced budget requirement was introduced after a change in the Local Government Act in 1997. This requirement means that the municipal and county council budgets are to be drawn up in such a way that revenue exceeds expenditure.⁶⁴ If expenditure nevertheless exceeds revenue, the deficit is to be settled in the three following years.

The balanced budget requirement means that local governments' possibilities of pursuing stabilisation policy are very limited. In practice there is a risk that local governments' policy will be procyclical, i.e. that it will be more expansionary in an economic upturn and tighter in an economic downturn. The reason is that local governments' tax revenue falls when the economy is weak. To meet the balanced budget requirement, local government may thus be forced to save in an economic downturn. From a stabilisation policy perspective, this is unfortunate.⁶⁵

Central government's effect on local governments

Only a few studies have examined the effects of increasing central government grants to local governments. Bergström et al. (2004) found that the 1993 changeover from targeted to general central government grants made local government hiring less sensitive to the grant level. Their results indicated that an increase of one per cent in the general grants to local governments results in an increase in employment of 0.1 per cent in the long run, and even less in the short run. It is true that Dahlberg et al. (2008) found that increasing the general grants during the period 1996-2004 had a significant effect on local government employment, but the effect applied exclusively to administrative personnel. According to this study,

⁶⁴ Under an exceptional circumstances clause, however, local governments that have accumulated sizeable equity are allowed to plan for expenditures that exceed revenues (Govt. Bill 2003/04:105, pp. 18-19). In addition to the balanced budget requirement, the Local Government Act also stipulates that municipalities and county councils are to have sound financial management. This provision already existed before the balanced budget requirement was introduced.

⁶⁵ See Chapter 7 in SOU 2002:16 for a more detailed discussion.

employment in schools and elderly care was not affected by the increase.

These studies thus seem to indicate that increasing central government grants to local governments is a very expensive method of maintaining employment in schools and elderly care. It is true that according to Dahlberg et al., local government employment can be maintained, but the study can be interpreted to mean that it is maintained through unnecessary increases in local government administration.

However, the studies are probably of limited value in the current situation. The study by Bergström et al. (2004) examined a period before the introduction of the balanced budget requirement for local governments. Moreover, their results were derived from a policy change that coincided with a deep economic downturn in the early 1990s. Their results can therefore be questioned, even though the authors of course tried to control for cyclical developments. It is true that the balanced budget requirement for local governments was in effect for part of the time covered by the Dahlberg et al. study (it has been in force since 2000). But the strains on local government finances can be expected to be far more serious in the current economic downturn than in the cyclical weakness about 2002.

Historical relationships

Table 1.10 shows how resource utilisation in the total economy and in the public sector has varied over the business cycle.⁶⁶ The table confirms the pattern found in many countries and periods: consumption, investment and employment in the total economy are procyclical, i.e. these variables covary positively with GDP. Consumption and employment are somewhat more stable than GDP, but investment is substantially more volatile. The changes in employment occur with some lag.

With a well-designed stabilisation policy, fluctuations in public

⁶⁶ The Table is based on growth rates four quarters back for the period 1995:I-2008:IV. The results for the period 1980:I-2008:IV are similar if we instead use seasonally and trend adjusted variables for the growth rates. For the period 1980:I-2008:IV, central government consumption and investment are more clearly countercyclical and local government consumption is more clearly procyclical. Employment data for the public sector for the longer period are of inferior quality, but they do not contradict the picture in Table 1.10.

sector resource utilisation do not amplify the cyclical swings. Public sector resource utilisation should therefore be acyclical (not related to cyclical developments) or preferably countercyclical (so that resource utilisation in the public sector increases in a downturn). Table 1.10 shows that public sector consumption, investment and hiring are at least significantly less procyclical than corresponding variables for the economy as a whole. Central government resource utilisation in particular tends to counteract cyclical swings, while local government resource utilisation is acyclical or weakly procyclical.

Table 1.10 The Swedish business cycle 1995-2008

Variable, x	Average relative GDP ^a	Volatility (%) ^b	Correlation with Δy_t			Cyclicity
			Δx_{t-4}	Δx_t	Δx_{t+4}	
GDP	1.00	1.88	-0.03	1.00	-0.03	procyclical
Consumption	0.75	1.26	0.02	0.68	-0.09	procyclical
public	0.26	1.83	0.15	0.16	-0.32	-
central govt.	0.08	3.54	0.00	-0.11	-0.24	countercyclical
local govt.	0.18	2.18	0.18	0.28	-0.23	-
Investment	0.17	4.69	-0.03	0.55	0.29	procyclical
public	0.03	7.36	0.05	0.08	-0.01	acyclical
central govt.	0.01	11.44	0.09	0.15	-0.16	-
local govt.	0.01	8.03	-0.03	-0.08	0.22	-
Employment	0.66	1.29	-0.28	0.29	0.59	procyclical, lag
public ^c	0.23	-	0.17	0.21	0.17	procyclical
central govt. ^c	0.04	-	-0.01	0.05	-0.07	acyclical
local govt. ^c	0.19	-	0.20	0.23	0.20	procyclical

Notes: The variables are in real terms. 'Employment' refers to the number of people aged 16-64 who are employed in relation to the population aged 16-64. ^a) Average of X/Y where Y is GDP and X is the row variable. ^b) Standard deviation for Δx_t , where Δx_t is the percentage growth in X for the four quarters up to period t . ^c) Public services provided by the private sector are generally reported as employment in the private sector; as a result, there are inadequate data on employment in the public sector. We have as much as possible controlled for Statistics Sweden's reclassification from 2001. Measurements in the Labour Force Surveys (LFS) are also associated with relatively large standard deviations, particularly for small samples such as employees in the in the state sector. The correlations reported for employees in subsectors are therefore approximate and the volatility of these variables is not comparable to the volatility in the National Accounts.

Sources: Statistics Sweden's National Accounts and LFS and Fiscal Policy Council calculations.

According to our analysis, the package proposed in the Government's January bill for the most part contained the stimulus measures that ought to be given high priority. Government initiatives to provide credit were also justified since the financial markets were not functioning satisfactorily.⁶⁷ Some of the stimulus measures justify further discussion.

Resources for *active labour market policy* have declined in recent years. When the business cycle turns downward and unemployment rises, an expansion of labour market programmes is appropriate. They mitigate the consequences unemployment has for the individual. We therefore have a generally positive view of increasing resources for labour market programmes. Nevertheless, labour market policy may now face a next-to-impossible task. We would also like to see another programme mix. This is discussed in more detail in Section 5.2.

The RMI tax credit diverges somewhat from our list of principles since it is aimed at a particular sector. But there had earlier been plans to introduce the RMI tax credit as a structurally desirable reform. This measure is estimated to have relatively little effect on public finances but nonetheless provides a sizeable stimulus to the construction sector which has been hard hit by the economic crisis. It may be objected that the RMI tax credit would have been more effective if it had been *temporary* rather than permanent. According to the Ministry of Finance's own estimates in internal memoranda, however, the stabilising effect of a temporary credit would have been only marginally larger. In Section 7.4, we note that a RMI tax credit has some support in economic theory, even though this support is not as significant for household-related services which had previously been made tax deductible. Since the RMI tax credit can thus be seen as a structurally justified, it can hardly be criticised for being permanent rather than temporary.

⁶⁷ These initiatives are particularly justified if they can be channelled via existing institutions such as ALMI Företagspartner, the Swedish Export Credit Corporation and the Swedish Export Credits Guarantee Board. The Government has (30 January 2009) also made it possible for SBAB (a state-owned home loan company) to conduct general banking operations. At present SBAB's focus is mainly on mortgage loans to households and firms. It is still not clear what SBAB's expanded mandate is to involve. One possibility is that the Government wants to create a direct channel for lending to medium-sized enterprises. Such a measure could be effective in a situation in which commercial banks are unwilling or unable to provide viable firms with sufficient credit. But we see major problems in the short run in building a sufficiently qualified organisation.

The stimulus package also contained extra initiatives for the operation and maintenance of roads and railways amounting to SEK 1 billion over a three-year period. Bringing forward public investments like these is an excellent contribution to stabilisation policy. Seen in the current context, however, the initiative is of modest size. This can be explained by the difficulty in starting completely new projects at short notice. There may, however, be reason to consider further measures, for example, renovating the local government housing stock.

In connection with the stimulus package proposed in the January bill, *an action programme for the automotive industry* was also presented.⁶⁸ This sector has been particularly hard hit during the current crisis. The downturn has been particularly severe in the Swedish car industry. For example, car exports plummeted by as much as 52 per cent in the fourth quarter of 2008, compared with the same quarter the year before.⁶⁹ The government action plan consists of three main parts:

- A state-owned development and research company in the automotive industry will be established. SEK 3 billion will be allocated to it.
- The State can issue credit guarantees up to SEK 20 billion for switching to green technology. The guarantees will be issued to firms receiving loans from the European Investment Bank.
- The State may give emergency credit up to a total of SEK 5 billion to firms in the automotive industry which are in an acute crisis. The loans are short term and require full collateral.

The credit guarantees have made it possible for Sweden's automotive industry to use the borrowing opportunities created at the European level. Scania and Volvo Lastvagnar's loan applications for EUR 400 million each were approved by the European Investment Bank (EIB) in spring 2009. Volvo Personvagnar applied for EUR 500 million and

⁶⁸ The programme for the automotive industry is analysed in Rikard Forslid and Karen Helene Ulltveit-Moes' background paper for the Fiscal Policy Council (Forslid and Ulltveit-Moe 2009). Also Clas Bergström's background paper (Bergström 2009) deals with the loans and credit guarantees targeting the automotive industry.

⁶⁹ Statistics Sweden (2009).

was granted EUR 200 million. Saab's application of EUR 500 million has not yet been considered. The other measures have had little effect so far. Establishing the research and development company takes time. No firm has been granted a rescue loan so far.

We noted earlier that stimulus measures should not target individual industries. The main reason for avoiding targeted measures is that the Government normally cannot judge if the problems in a certain industry are temporary or are due to structural problems that must be solved by a permanent scaling down of the industry. The Swedish automotive industry is no exception to this problem. Nevertheless, it is our view that some measures targeting this industry are justified. This is particularly true of liquidity support, one example being the credit guarantees the Government has decided to provide. The reason is the exceptionally strong and rapid decline in the automotive industry combined with the problems in the financial markets. The current contraction in the automotive market is not justified in the long run, even though there seems to be overcapacity in the world market. Furthermore, the automotive market is highly dependent on various forms of credit. In the absence of well-functioning financial markets, the state is therefore justified in trying to improve the access to credit through temporary measures, such as credit guarantees targeting the industry or general trade credits. It is therefore our view that the credit guarantees to the automotive industry are well designed.

We are more doubtful about the establishment of a research and development company. It will take time for this measure to yield any results. It is thus not an effective cyclical measure. It should therefore be regarded as a long-term support for the automotive industry. It is difficult to justify such a support and it is in conflict with established principles that support to individual industries should be avoided, even if they do not breach the formal EU regulations on state subsidies.

Finally, we also note that the terms for getting emergency credit for firms in the automotive industry are very strict.⁷⁰ Loans are only granted against full collateral and with a maximum maturity of six

⁷⁰ After the presentation of the Swedish automotive package, the EU Commission opened up the possibility of temporarily providing loans with certain subsidies to the automotive industry. Swedish loan terms may therefore be modified.

months. The strict conditions are likely to make the measure ineffective.

1.3 The fiscal framework in a recession

During the current recession, the *automatic balancing mechanism* (also known as *the brake*) in the pension system will be activated and the *expenditure ceiling* approved before the recession as well as the *local government balanced budget requirement* will limit fiscal policy's room for manoeuvre. A legitimate question is whether these rules should be able to limit policy during a deep recession. Another question is whether some transfer systems can be *indexed to the business cycle*. We have in mind here both the central government grants to local governments and unemployment insurance. When monetary policy is limited because no further cuts in the interest rate are possible, the distinction between fiscal policy and monetary policy becomes blurred. The appropriate *division of responsibility* between *the Ministry of Finance and the Swedish National Debt Office* on the one hand and *the Riksbank* on the other may then need reconsideration.

1.3.1 The pension system's automatic balancing mechanism

According to the Swedish Social Insurance Administration (2009), the pension system's balance ratio was 0.9672 at the end of 2008. This means that the pension system's liabilities were more than three per cent higher than its assets and therefore the upward adjustment of pensions for 2010 will be reduced by a corresponding amount. Pension adjustments are usually due to increases in prices and incomes. Since these increases are expected to be small in 2009, the total effect of the brake and indexing would be a 3.5 per cent reduction in pensions in 2010 if the previous rules were followed. The Government and the Social Democrats have, however, agreed to change the pension system's automatic balancing mechanism so that its assets will be valued as an average over a three-year period instead of on a specific date.⁷¹

⁷¹ The Ministry of Health and Social Affairs (2009). In February 2009, the Government instructed the Swedish Social Insurance Administration to examine alternative automatic balancing mechanisms. It was noted that the solution now proposed would lead to a more even income development for pensioners,

Smaller pension payments during a recession would be inappropriate from a stabilisation perspective. Nevertheless, in our opinion, there is no reason to change the current design of the pension system. The intention of the brake in the pension system is that it will be applied only in a situation like the current one when the value of pension system assets has fallen sharply. If the economy continues to be weak next year, temporary measures to counter the fall in disposable incomes for pensioners are certainly justified. But it is better for the long-term credibility of the pension system if such measures are primarily discretionary via the central government budget than by changes in the rules for balancing the pension system.

1.3.2 The expenditure ceiling

According to the forecast in the Spring Fiscal Policy Bill, the expenditure ceiling for 2009 will not be binding. Table 1.11 shows that the budget margin, i.e. the difference between the expenditure ceiling and projected expenditure, is SEK 15 billion. Next year the situation is more problematic. According to the Government's forecast, the budget margin is likely to be SEK 15 billion again in 2010. However, there is considerable uncertainty about next year. A worse-than-expected outcome implies that the expenditure ceiling puts restrictions on economic policy's room for manoeuvre. Moreover, the Government's accounting is misleading since the higher central government grants (SEK 7 billion) to local governments for 2010 have been reported as a central government expenditure in 2009. The actual budget margin for 2010 is thus already as small as SEK 8 billion.

There is a fundamental difference between the expenditure ceiling and the automatic balancing mechanism in the pension system. The brake in the pension system is intended to apply in a situation precisely like the one we have now. The principal aim of the expenditure ceiling, however, is to avoid unplanned large expenditures in good times when tax revenues are higher than expected. This will leave room so that downturns like the current one can be managed without expenditure cuts in the public sector.

over time but also to weaker pension growth in the coming years and it will take longer to return the pension system to balance (the Swedish Social Insurance Administration 2009b).

The expenditure ceiling for 2010 was presented in the 2007 Spring Fiscal Policy Bill and includes central government and pension system expenditures (excluding interest). However, the expenditure ceiling is not legally binding.⁷² The Riksdag can therefore always reconsider ceilings decided earlier. In the preparatory work for the Budget Act, it is stated that the expenditure ceiling can be changed, for example, after an election when a new government takes office. There are no formal obstacles to reconsideration of an expenditure ceiling for other reasons too. Changing the budget ceiling may, however, reduce the regulatory framework's credibility.

In spite of this risk, it is our opinion that the expenditure ceiling should not be defended at any price during a deep recession like the current one. First, the expenditure ceiling has no intrinsic value. It is an instrument for achieving an effective fiscal policy. If in a deep recession, the regulatory framework limits the policy so that it is obviously ineffective, the short-term cost of keeping the ceiling may exceed the long-term gains.

Second, we do not believe that the regulatory framework's credibility will necessarily fall sharply if the expenditure ceiling is revised upwards in an orderly manner. In such cases, the Government should try to get as much support as possible in the Riksdag.

Table 1.11 The budget margin under the expenditure ceiling

	2008			2009		
	Aug	Sep	Dec	Jan	(Mar)	April
Expenditure ceiling 2009						
Ministry of Finance		38		28		15
National Institute of Economic Research	35		27		23	
Expenditure ceiling 2010						
Ministry of Finance		35		29		15
National Institute of Economic Research	12		15		6	

Note: The table shows the National Institute of Economic Research and the Ministry of Finance budget margin forecasts (SEK bn) under the 2009 and 2010 expenditure ceilings at different times.

⁷² Furthermore, under the Budget Act, the Government is free to choose whether or not it will use the expenditure ceiling. A ministerial publication (Ds 2009:10) proposes making the three-year expenditure ceiling mandatory. We agree with this proposal.

At present there are no urgent reasons for reconsidering the expenditure ceiling for 2010 if the Government sticks to its restrictive fiscal policy. However, it becomes a relevant question if the Government – as we argue for in Section 1.4 – takes further fiscal stimulus measures or if the recession is deeper than expected.⁷³ It is thus our opinion that in such a situation, the Government should consider what policy is most effective in combating the crisis without taking the expenditure ceiling into account. If the expenditure ceiling is taken into account, the Government may be forced to reduce spending even though the public finances are judged to be strong. Since the expenditure ceiling does not limit central government revenue or borrowing, there is also a risk that the Government will choose less effective stimulus measures in the form of tax cuts rather than stimulus measures that raise expenditures subject to the ceiling.⁷⁴

1.3.3 The local government balanced budget requirement

We noted in Section 1.2.3 that local governments' ability to pursue stabilisation policy is limited by the local government balanced budget requirement. In order for local government resource utilisation not to amplify cyclical swings under the current regulatory framework, central government grants to local governments must be adjusted to the economic situation. These grants are not indexed to economic growth but are changed from one year to the next by discretionary decisions by the Riksdag. One way of achieving a well-designed stabilisation policy is therefore to raise central government grants during downturns and lower them during upturns.

In the 2009 Spring Fiscal Policy Bill, the Government opens the door to relaxing the balanced budget requirement to permit local governments with well-managed finances to plan for deficits in bad years.⁷⁵ We do not think that a change of this kind would improve stabilisation policy. It is hardly in individual local government's interest to pursue stabilisation policy since local governments are

⁷³ Measures that temporarily counteract pension reductions due to the brake in the pension system in 2010-2012 are, however, already included in the expenditure forecast in the Spring Fiscal Policy Bill.

⁷⁴ Our point is that a larger toolbox is preferable to a smaller one. We do not mean to say that expenditure increases are generally more effective stimuli than tax cuts are.

⁷⁵ The 2009 Spring Fiscal Policy Bill, p. 65.

small and highly dependent on developments in nearby municipalities. The STEMU Committee (the Committee for Stabilisation Policy to Promote Full Employment in the Event of Swedish Membership of the Single Currency) also rejected the idea of giving local governments more leeway for running deficits in a recession.⁷⁶ Instead the Committee proposed introducing some form of automatic adjustment of central government grants to local governments. One possible solution is to adjust the grants in accordance with a rule designed to counteract temporary fluctuations in local governments' tax base.

Such a system is preferable to the current rules since the cyclically dependent measures can then clearly be separated from discretionary decisions about the resources available to local governments in the long run. Furthermore, the system would be more predictable and thus facilitate local government planning. In addition, the political and media bargaining games between the central and the local governments may then be less problematic, since the recurrent negotiations on the size of the grants would be avoided.

1.3.4 Unemployment insurance

In last year's report, we criticised the Government's reform of unemployment insurance financing. We were in fact positive to the increased differentiation of the fees between different funds, but we criticised the way in which the reform was made as it led to a decline in the coverage of the unemployment insurance. The decline in membership in the unemployment insurance funds is a particularly serious problem in the current recession. Unemployment is rising sharply and many people do not have adequate insurance.

In Section 5.3 we present a proposal for more far-reaching changes to the unemployment insurance: a *mandatory and state-administered insurance*, a *cyclically dependent insurance*, and, if the existing organisation of the insurance is preserved, *cyclically adjusted central government grants* to the insurance. All these proposals would mean that unemployment insurance strengthens fiscal policy's automatic stabilisers.

⁷⁶ SOU 2002:16.

1.3.5 Fiscal policy's relation to monetary policy

Monetary policy is normally the Riksbank's responsibility and its independence of fiscal policy is considered of great importance. During the financial crisis, the borders between fiscal and monetary policy have, however, become more blurred. This has been particularly true of financial market measures outside the usual monetary and fiscal policy. The Riksbank has ultimate responsibility for liquidity in the financial markets. During the financial crisis, the Riksbank has taken a number of measures to increase general access to liquidity. It has also taken certain measures to deal with the acute liquidity problems in individual financial institutions.

The Government and their subordinate authorities have a clearer role when financial institutions' liquidity problems turn into solvency problems. Thus the Carnegie Investment Bank's initial problems in October 2008 were handled by the Riksbank, but when the bank's problems grew in November, the National Debt Office (which is accountable to the Ministry of Finance) took over. The Debt Office has also taken part in the more general management of the problems in the financial markets. During the acute financial crisis in September 2008, the Debt Office issued extra treasury bills and at the same time bought mortgage bonds. Similar measures have subsequently been taken on several occasions, albeit in a more planned manner.

This arrangement appears to have functioned well and we do not see any indication that the Riksbank's independence has prevented an effective division of responsibilities between the Riksbank on one hand and the Ministry of Finance and the Debt Office on the other. Future developments, may, however, make closer cooperation desirable. We have in mind here primarily the risk of the economy entering a phase in which the price level is falling, inflation expectations even in the long term are negative and the Riksbank has lowered the repo rate to zero so it cannot be reduced any further. In such a situation, making monetary policy more expansionary requires unconventional measures.

Monetary policy is not ineffective when the key interest rate cannot be reduced any further, but the possible measures are more closely linked to fiscal policy. If this situation were actually to occur, the Riksbank, like the American and UK central banks, would

presumably begin buying various financial assets with longer maturities than it has thus far. These assets may be corporate and mortgage bonds as well as government bonds.

This type of monetary policy is more complicated than normal monetary policy, which is conducted by changes in the repo rate. The considerable independence given the Riksbank from the political sphere is to a large extent justified in that monetary policy decisions involve a clear variable (the repo rate) with few and predictable consequences for income distribution. If the Riksbank begins to intervene in the markets for corporate and mortgage bonds with the aim of influencing the prices of these assets, the income distribution effects may be greater. We view this as a potential problem, but not as an impediment that would prevent the Riksbank from taking such measures.

However, in our opinion, a better arrangement might be for the Government, for example, via the Debt Office, to manage these interventions.⁷⁷ For this to function, central government borrowing would presumably need to rise, and the Riksbank's measures should then focus on buying government bonds.⁷⁸

1.4 Additional fiscal stimulus measures

One key issue is whether the stimulus measures in the January Jobs and Adjustment Bill and the Spring Fiscal Policy Bills go far enough. In the international debate, Krugman (2008, 2009) has argued that stimulus measures must be very large and that the problems associated with too big an intervention are significantly smaller than the consequences of too small a stimulus package. Similar but more carefully formulated arguments have been made by Spilimbergo and others (2008). In the Swedish debate, Lindbeck (2009) and the National Institute of Economic Research (2009) have recommended very large stimulus measures. Calmfors (2008a) has argued for somewhat less extensive stimulus measures.

How extensive then have the Swedish stimulus measures been? Table 1.9 summarises the measures taken after the autumn Budget Bill. The target set for 2009 is at least 0.3 per cent of GDP. These

⁷⁷ As we noted earlier, the Debt Office has already intervened in the market for mortgage bonds.

⁷⁸ Under the Sveriges Riksbank Act, the Riksbank cannot buy government bonds directly from the Government. It may, however, buy them in the secondary market.

stimulus measures are small in international terms and also in terms of the EU's recommended stimulus of 1.5 per cent of GDP.⁷⁹ It is the Government's opinion, however, that the expansionary reforms (about one per cent of GDP) in the 2009 Budget Bill should also be considered part of the Swedish stimulus. With these reforms included, the Swedish stimulus measures are much more extensive. In Box 1.1, we noted that the Swedish automatic stabilisers are strong. Figure 1.11 also confirms that these automatic stimulus measures have been more extensive in Sweden than in other countries.

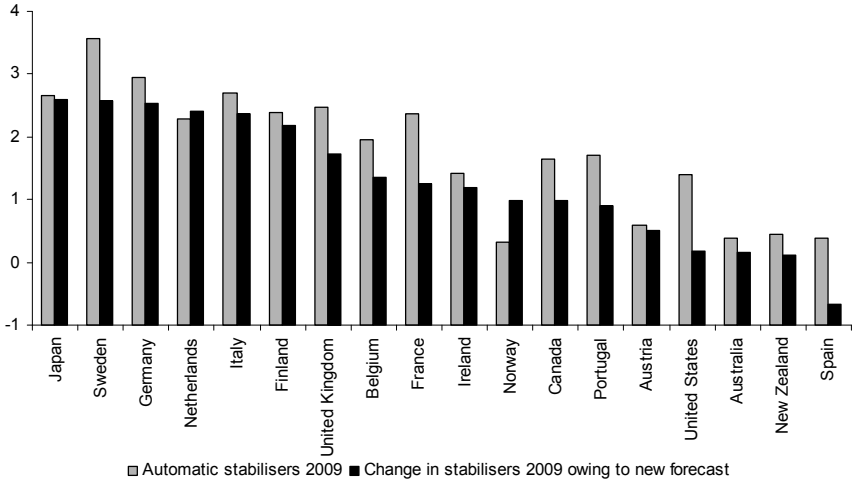
There are three arguments in particular that emphasise the need for a considerably more expansionary fiscal policy than that in the autumn Budget Bill. First, the reforms in the Budget Bill were not designed primarily to stimulate the economy. So they cannot be expected to provide an economic stimulus as effective as measures designed for that purpose. This is particularly true of the tax reduction as a result of the higher tax threshold in the state income tax since it benefits income earners with higher incomes, who can be expected to have a lower propensity to consume than income earners with lower incomes.⁸⁰ The policy cannot thus be said to have been well targeted from a stabilisation policy perspective.

Second, the macroeconomic picture has completely changed since the Budget Bill in September. The National Institute of Economic Research's estimates of GDP growth and the output gap for 2009 fell by 5.3 and 5.5 percentage points respectively from August 2008 to March 2009. The Government has similarly revised downwards its estimates of these variables by 5.5 and 5.4 percentage points from September 2008 to April 2009. This drastic change in the economic forecast is a strong argument for the view that the stimulus measures in the Budget Bill should have been supplemented with additional measures.

⁷⁹ See Table 1.3.

⁸⁰ See also Sections 1.2.1, 7.2 and 7.6 in this report.

Figure 1.11 Automatic stimulus measures



Note: Percentage of GDP. The grey bars show the size of the automatically generated stimulus measures, calculated as the OECD's budget elasticity multiplied by the IMF's estimate of the production gap in 2009. The black bars show how much these automatically generated stimulus measures have increased as a result of the IMF's revision of its estimate of the output gap in the past year.

Source: Fiscal Policy Council calculations.

Third, the unemployment insurance reforms which have been implemented, and which overall can be expected to have positive long-term effects on employment, meant that there was less insurance in the event of unemployment. This is due both to the lower benefit levels (and that the earned income tax credit by definition only applies to earned income) and to the many people who have left the unemployment insurance funds. Thus, for many people, the consequences of increased cyclical unemployment will be much worse than before. It is therefore more important than earlier to use stabilisation policy to try to stop people from becoming unemployed due to deficient demand (and not due to a poorly functioning labour market).

However, there are also arguments for a more cautious approach. First, more extensive stimulus measures would weaken public finances. Weaker public finances may pose a problem if they bring uncertainty about long-term fiscal sustainability. But in our opinion, there is little risk of this in Sweden. Further temporary fiscal stimulus measures equalling a few per cent of GDP would not cause any such uncertainty. If the economic downturn becomes both very protracted and very deep, a bigger stimulus package now could limit the room

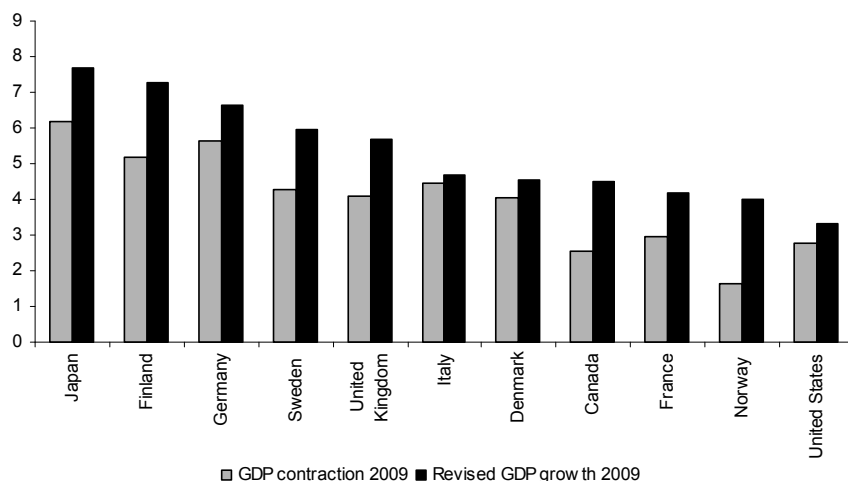
for new stimulus measures later when there could be an even greater need of them.⁸¹ This could be the case, for example, if acute rescue operations in the banking sector or crisis support for other parts of the business sector is required. This latter risk is the more serious one.

Second, it is questionable whether additional stimulus measures would be effective. In many cases, it may be problematic to increase the scope of the measures. This is particularly true of planned public investment that has been brought forward. There are simply a limited number of investment projects that can actually be brought forward. Likewise, labour market programmes can also be expected to be less effective as they increase in size. Any possible additional stimulus measures would therefore mostly need to have a different focus than previous measures.

The appropriate size of the fiscal stimulus depends on a number of factors. The *need* for discretionary fiscal stimulus measures depends on the severity of the economic downturn, the possibility of conducting an expansionary monetary policy and the size of the automatic stabilisers. Sweden has thus far been fairly hard hit by the economic downturn (see Figure 1.12 for an international comparison). The monetary policy pursued has been very expansionary, but the possibility of further monetary stimulus measures is now limited since the repo rate is close to zero. This is an argument for further discretionary fiscal stimulus measures.

The *possibility* of pursuing an expansionary fiscal policy depends both on the state of public finances and on the availability of effective measures. In our opinion, the public finances are sufficiently sound and the economic downturn so sharp that more stimulus is justified on the condition that these measures have a significant positive effect on cyclical developments.

⁸¹ The United Kingdom is an example of this type of problem. In autumn 2008, the British decided on a stimulus package that principally consisted of a temporary VAT reduction from 17.5 to 15 per cent. From January 2010, the VAT will return to its previous level. The need for further stimulus measures, particularly from 2010, has been discussed. Since the public finances have deteriorated sharply, it is, however, uncertain whether further fiscal stimulus measures are possible (see, for example, King 2009).

Figure 1.12 GDP contraction in 2009 in per cent

Note: The grey bars show the IMF forecast for the contraction in GDP in 2009. The black bars show how much the GDP forecast has been lowered in the past year.

Sources: IMF (2008a) and IMF (2009b).

We think that such stimulus measures do exist. In particular, central government grants to local governments can be increased more than the Government has announced. The Ministry of Finance forecast of local government tax revenue in 2009 fell by SEK 19 billion from the autumn budget forecast to the 2009 Spring Fiscal Policy Bill. For 2010 it fell by SEK 35 billion. In our opinion, the Spring Fiscal Policy Bill should have included increased central government grants to local governments in 2009. Moreover, a decision on such stimulus measures should have been announced earlier in the year to facilitate local government planning and prevent unnecessary layoffs. We also share the National Institute of Economic Research's opinion that local government finances need more strengthening in 2010 than what has so far been announced.⁸²

How much grants to local governments should be raised depends partly on what other stimulus measures are taken and how they affect local government finances. There is, of course, some uncertainty about the extent to which local governments will actually spend the increased grants. Part of these grants may be saved. But if so, this does not mean any deterioration in general government finances as a whole: it only means that net lending is transferred from one part of

⁸² See the National Institute of Economic Research (2009).

the general government sector (the central government) to another (local government).

The National Institute of Economic Research (2009) proposes a stimulus in 2010 of about SEK 40 billion in addition to what the Government has already announced. Most of these stimulus measures are vaguely defined, however, and we doubt that measures this large will be effective. In the current situation, we would advise against any further broad stimulus measures in the form of general tax reductions or universal increases in transfers, since the growth in disposable income has been favourable for most households in spite of the cyclical weakness. Such universal measures are costly for the public finances and presumably would to a large extent only increase private savings and thus limit the effects of the stimulus. However, in our opinion, a number of more targeted stimulus measures should be considered.

These targeted measures should primarily concern low income groups who can be expected to have a high propensity to use increases in income for higher consumption. One such group is obviously the *unemployed*. In our previous report, we concluded that the reduction in unemployment benefits carried out will lower unemployment significantly in the long run. Increasing the return on work increases the incentives to find a job and helps to restrain wage increases. These effects are crucial for high employment in normal economic times when unemployment is mainly due to shortcomings in the functioning of the labour market. Now, however, we find ourselves in an extreme economic downturn with a very large increase in unemployment as a result of a lack of demand and with the incentives to look for a job playing a smaller role than they normally do. This is an argument for *temporarily* increasing unemployment insurance benefit levels.

In Section 5.3.2, we argue that in principle unemployment insurance would be more effective if it were made *cyclically dependent*. The United States and Canada have systems like this, where the benefit periods are, as a rule, extended during recessions. Such a system can hardly be rapidly put in place in Sweden. But a decision on a temporary change could represent a first step towards a cyclically dependent insurance. One possibility would be to extend the period with a benefit of 80 per cent of the previous wage. Today

this period is 200 benefit days. It could be extended for two years, for example.

As discussed at length in Section 5.3.2, one problem with such a measure is that it may be difficult to lower the benefit level again when the economy picks up. The change we have recommended would obviously be made easier if a decision on a temporary extension of the period with high benefits could be taken in a cross-party agreement and as part of a broader agreement to make unemployment insurance cyclically dependent.

In the unemployment insurance, there is also a minimum and a maximum daily amount for the benefit: the basic amount and the ceiling. The basic amount is SEK 320 per day and is provided to those who are not members of an unemployment insurance fund or have been members for less than twelve months and thus do not fulfil the membership requirements. For those who do meet membership requirements, benefits are between 65 and 80 per cent of their previous income, but with a ceiling of SEK 680 a day. The basic amount and the ceiling do not follow general income developments. Instead they are changed by discretionary decisions by the Riksdag. However, this has not happened since 2002 when both amounts were raised.⁸³

So that unemployment benefits will not continue their gradual decline relative to wages – which would be unreasonable – discretionary decisions on raising the levels will eventually be required. It is advisable to take these decisions in a downturn like the current one. In this way, the unemployment benefits will be more countercyclical. Such a policy thus stimulates the economy in a recession by raising unemployed people's disposable income, whereas it restrains it in an upturn, since the unemployment benefits then lag behind the general increase in income.

Furthermore, an *increase in study support* should be considered. In Section 6.2, we show that study support has fallen sharply in relation to the average wage since the beginning of the 1990s. An increase in the level of study support is justified in the long run. Since students often live with small financial margins, an increase in study support, particularly the grant part, can be expected to increase consumption. It is timely to raise the level of support during a recession. In Section

⁸³ From 2002 to 2006, moreover, the ceiling was higher for the first hundred days of unemployment.

5.2.5, we also argue for an extra temporary increase in the study grant for those unemployed who choose to take adult vocational training. The aim is to strengthen the incentives to do this.

In addition, the ‘brake’ in the pension system will be applied in 2010. Under the previous regulations, old-age pensions would have fallen by 3.5 per cent next year. The Alliance Government and the Social Democrats have agreed to take corrective action by changing the pension system’s balancing rules. A cut in pensioners’ income during an extreme economic downturn is ill-advised, but we think that this should primarily be remedied by discretionary decisions outside the pension system, for example, by a *temporary* tax rebate on pension income.

Possible further stimulus measures could take the form of support for improving the municipal housing stock. Another possibility would be a temporary tax credit for low-income earners generally.

We thus conclude that further fiscal stimulus measures should have been taken – and still should be taken – already this year. In all likelihood, further measures will be needed next year. These measures should be announced as soon as possible, since expectation effects may be of great importance to local governments, households and firms.

2 The surplus target and the fiscal framework

The surplus target is the most important fiscal target. To meet this target, general government net lending is to show a surplus of one per cent of GDP over the business cycle. The target was introduced in 1997 and has been fully in force since 2000.

Most economic analysts seem to agree that the surplus target has worked well as an anchor for fiscal policy and has contributed to the large improvement in public finances over the past decade.⁸⁴ At the same time, the issue of whether the target is too ambitious has been raised.⁸⁵ Moreover, it is obvious that the original formulation of the surplus target was never preceded by any broad discussion. Instead it was seen more as a way of codifying the policy conducted to consolidate the public finances in the years after the crisis of the 1990s. Since then, the focus has gradually shifted to other and more forward-looking motives.⁸⁶

A review of the fiscal framework is currently underway in the Ministry of Finance. It is to be presented during the Government's current term of office. This means that there could be changes in the near future. The budget deficits now being experienced as a result of cyclical developments bring to a head a number of questions about how the surplus target is to be interpreted. Furthermore, fiscal policy's stabilisation policy effectiveness is largely dependent on the credibility of budget policy objectives. There are therefore reasons both for reviewing the current framework and for analysing possible changes.

2.1 Motives for the surplus target

Primarily two types of motives have been cited for the surplus target. The first type concerns fiscal policy's long-term sustainability. The second category has instead focused on short-term stabilisation

⁸⁴ See, for example, IMF (2008c), OECD (2008b) and Swedish National Audit Office (SNAO) (2008a, b).

⁸⁵ Lindbeck (2008a) is an instructive presentation of this argument.

⁸⁶Section 2.3.1 in our 2008 report discusses the motives cited in various government budget bills (Fiscal Policy Council 2008).

policy risks and stressed the importance of adequate safety margins so that the budget deficit in an economic downturn does not become too large and/or come into conflict with the rules in the EU Stability Pact.⁸⁷ In the discussion that follows, we will focus on the long-term motives.⁸⁸

The long-term sustainability of fiscal policy has two main aspects. The first concerns *income distribution*, and thus the distribution of well-being, between different generations. If one generation leaves behind it a public sector in debt, it means that it has redistributed income and consumption to its own advantage to the detriment of future generations. The second aspect is that public sector savings affect *economic efficiency*, i.e. how large aggregate income will be across all generations. Since the distortionary costs of taxation can be expected to grow more than proportionally with tax rates, there is an efficiency argument for trying to smooth these tax costs over time (*tax smoothing*). According to this argument, a budget surplus is desirable when public expenditure is lower than normal and a budget deficit when it is higher than normal.⁸⁹

Both these arguments have been used to justify the existing surplus target. The background is the strains on the public finances expected in the future on account of an ageing population, “both because of higher age-related costs and because of an increase in the dependency burden for the working part of the population”.⁹⁰ The Government has asserted that “relatively high medium-term net lending during demographically favourable years, which substantially reduces the central government debt,” contributes to “intergenerational equity” because “the large generations that in future will demand health care and social services” will then themselves help finance the services. It has also been stressed that high net lending promotes economic efficiency “by creating better

⁸⁷ For several years running, the emphasis on stabilisation policy motives has been diminishing. They were not mentioned at all in the 2009 Budget Bill or in the Government Bill titled Measures for Jobs and Adjustment (Govt. Bill 2008/09:97), which may be regarded as a supplementary fiscal policy bill for the 2008/09 fiscal year. But in the 2009 Spring Fiscal Policy Bill, it was again stated that “a surplus target also helps provide a buffer that makes it possible to mitigate more severe downturns in the economy” and that it is a policy strength “to have room for manoeuvre in fiscal policy in such a situation” (p. 66).

⁸⁸ The stabilisation policy aspects are analysed in Section 1.

⁸⁹ These arguments were discussed at length in our 2008 report (Fiscal Policy Council 2008, Section 1.1.1).

⁹⁰ The 2009 Budget Bill, p. 88.

conditions so that the tax ratio will not need to be raised as a consequence of the demographic trend”.⁹¹

Prudence may be another reason for high net lending. If the costs of a worse-than-expected public finance outcome are estimated to be larger than the gains from a better outcome, an argument exists for *precautionary savings* with the aim of building up a buffer to be able to handle an unexpected negative long-term development. This argument has also been used by the Government.⁹²

In principle, the Government can make a new estimate every year of what net lending best fulfils the fundamental objectives for the distribution between generations, economic efficiency and long-term safety margins. Both practical experience and theoretical research have, however, shown that such discretionary decision-making easily leads to the domination of short-term over long-term considerations in the political process. This is one reason why it was decided in Sweden, as in many other countries, to formulate a clear *budget balance target* for net lending over a longer period. The idea is that long-term considerations will exercise more influence on the choice of a medium-term target than on budget decisions taken for an individual year at a time without the guidance of some budget norm. Another motive for a medium-term target, instead of targets that vary from year to year, is the desire to avoid policy shifts when estimates of fiscal policy’s long-term sustainability are changed. The balance target has no value in itself, of course, but represents an *intermediate* or *operational* target, making it easier to achieve the basic overall fiscal policy objectives.

Our 2008 report criticised the Government because it merely cited various motives for the surplus target without specifying their relative importance.⁹³ One of the things we pointed out was that in the absence of clearly reported generational accounting, no definite conclusions could be drawn about how general government net lending affects the distribution between generations. The same criticism can be made of both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill. In the latest Budget Bill, the various motives for the surplus target are indeed discussed in a more instructive way

⁹¹ The 2009 Spring Fiscal Policy Bill, p. 64.

⁹² See, for example, the 2009 Budget Bill, pp. 90 and 93. See also Frederick van der Ploeg’s background report to our 2008 report (van der Ploeg 2008).

⁹³ See Section 2.3.1 in Fiscal Policy Council (2008). Similar criticism has come from the Swedish National Audit Office (2008c).

than before, but the description of their relative importance has not become any clearer. We therefore want to emphasise once more the importance of clarifying this.

The importance assigned the various motives for the surplus target is crucial to how this target is to be interpreted (see also the discussion in Section 2.2 about various indicators) and how future budget balance targets should be designed (see Section 2.5). This in turn determines how fiscal policy should react in the long run to temporary budget deficits. From an intergenerational distribution perspective, it may be justified to ‘compensate’ for such deficits by *temporarily* raising taxes in the future so that the surpluses then are correspondingly higher and general government debt returns to its earlier level. But from a tax smoothing perspective, this should not happen. Instead, the aim should be to hold future tax rates constant. This means that in the future there should be a *permanent* increase in the tax ratio equivalent to no more than the permanent budget weakening that has taken place (the increase in net interest payments as a result of the reduction in net worth). However, according to this argument, there is no reason to restore the financial position. Instead bygones should be bygones. Here budget policy is only forward-looking.

2.2 Monitoring the surplus target

The lack of clarity surrounding the fundamental motives for the surplus target is reflected in the indicators that the Government uses to follow up whether the target has been met and to estimate the future room for reform. Beginning with the 2007 Spring Fiscal Policy Bill, three different indicators have been used:

1. The *historical average indicator*, which is estimated as average net lending since 2000 (this was the first year that the surplus target was fully implemented).
2. The *moving average indicator*. This is a seven-year moving average of net lending centered on the current year. The moving average for a particular year thus includes the specified year, the three years immediately preceding it and (a projection for) the coming three years.
3. The *structural net lending*, i.e. the cyclically adjusted net lending, for the current year.

The three indicators have been introduced in response to earlier criticism from the IMF, the OECD and the Swedish National Audit Office and others that the surplus target had been too imprecisely defined.⁹⁴ The Government justified the use of several different indicators, saying “Since it is not possible to establish with certainty the length of a business cycle or the exact cyclical situation at a particular moment, the surplus target needs to be followed up with several indicators, all with different strengths or weaknesses, but at the same time mutually complementary”.⁹⁵ The appropriate room for reform is then to be estimated based on “an overall assessment of all these indicators”.⁹⁶

2.2.1 The different indicators in principle

One fundamental problem is that the different indicators measure different things and reflect different fundamental motives for the operational surplus target. As long as relative weights are not specified for the different indicators, they do not make how the surplus target is to be viewed any clearer. This is shown, for example, by the completely different interpretations that the Swedish National Audit Office and the National Institute of Economic Research appear to have made. While the National Audit Office recommended using only the historical average indicator, the National Institute of Economic Research has refrained from commenting on this and has instead focused exclusively on the moving average indicator and structural net lending.⁹⁷

It is indeed true that if the forecasts for future net lending are correct, then in principle, it is possible to meet the surplus target according to all three indicators. But if the forecasts are systematically wrong, the historical and the moving average indicators will over time increasingly deviate from each other. Assume, for example, that net lending has been zero for the three preceding years and that it is forecast at one per cent of GDP in the current year (year t) and two per cent of GDP in the coming three years. That being so, the moving average indicator will be one per cent of GDP, which shows

⁹⁴ See, for example, IMF (2005), OECD (2005) and Swedish National Audit Office (2006).

⁹⁵ The 2009 Budget Bill, p. 91.

⁹⁶ Ibid.

⁹⁷ See National Audit Office (2006b, 2008a) and National Institute of Economic Research (2009).

that according to this indicator, the surplus target has been met. Assume now that it *ex post* appears that net lending in year t was zero, but that the forecast for next year (year $t + 1$) is again one per cent of GDP and for the three years thereafter it is again two per cent of GDP. Assume that this pattern is repeated for several years. In this case, the surplus target will always be met according to the moving average indicator, while the historical indicator will show gradually growing deviations.

There is an obvious risk that such a systematic discrepancy between the moving average and the historical indicators will emerge. The reason is that in the Budget Bill the Government does not make forecasts for its own policy for any years other than the year to which the Budget Bill refers. For future years, there are only projections based on decisions already taken, but at the same time it is understood that new reforms will be implemented. The moving average indicator is thus based on deliberately misleading 'forecasts'. This is not a problem if this indicator is only used as an aid in the political decision-making process to estimate the future room for reform. It is, however, a problem if the indicator is used to evaluate the extent to which the target is being met.

The problem is in principle the same as the Riksbank has had in its inflation forecasts. These were originally based on an unchanged interest rate. Later the Riksbank switched to using market 'interest rate forecasts'.⁹⁸ Today the Riksbank instead bases its inflation forecast on its own estimate of future interest rates. The equivalent for the Government would be if in each budget bill, it forecast its future fiscal policy. One potential disadvantage of this is, of course, that the Government would then have an instrument (its own forecast of future fiscal policy) that could be used to manipulate the extent to which the target is being met. One alternative would be instead to calculate the moving average indicator based on external forecasts of future fiscal policy, for example, those of the National Institute of Economic Research.⁹⁹

One way of interpreting the historical average indicator is as an approximation of the change in general government net financial worth in relation to GDP. But this raises the question of whether it

⁹⁸ These were derived by estimating implicit forward rates based on market interest rates for bonds with longer maturities.

⁹⁹ See also Section 1.1.1.

would not be better to evaluate the development of the net financial worth directly if that is what one is basically interested in. The historical average for net lending is an imprecise measure of how net financial worth has developed. The reason is that it is not only the average for net lending over a period, but also its time profile, that plays a role, since the latter affects the magnitude of the net financial worth ratio at different points in time and thus the rate at which the ratio tends to erode when GDP grows.¹⁰⁰ The longer the period considered, the bigger the problem is. In addition, various valuation changes have a significant impact on net financial worth.¹⁰¹

The historical average indicator can be said to reflect a *stock target* with memory. If the surplus target is exceeded during a period, this should be compensated for by a correspondingly lower surplus (or a deficit) later on if the target according to this indicator is to be met. The structural balance is instead an indicator for an annual *flow target* without memory. Future values for this indicator are not affected by today's policy. Such a flow target therefore does not require a deviation in one direction one year to be compensated for by a deviation in the opposite direction in the future. It is more suited to a fundamental objective of tax smoothing over time than to targets for intergenerational distribution. The moving average indicator reflects something in between a flow and a stock target. The seven-year perspective means that *ex ante* there will be an *attempt* to compensate for earlier deviations during the period. But the indicator does not have any memory beyond this period that requires compensating measures if the target has been missed *ex post* during preceding seven-year periods.

It may be a pedagogical exercise to compare the different budget policy indicators with different possible targets for the Riksbank. There is a debate as to whether the monetary policy targets would be better designed as an *inflation target* or a *price level target*.¹⁰² A target for

¹⁰⁰ This is because the following (approximate) relationship holds true:

(The change in net financial wealth as a percentage of GDP) = (Net lending as a percentage of GDP) – (Net financial wealth as a percentage of GDP) × (the growth rate) + (valuation change as a percentage of GDP).

The second term after the equality sign shows the erosion of the net financial wealth ratio, which occurs automatically when GDP grows. How large this erosion is at a given time depends on the value of the net wealth ratio, which in turn depends on net lending in previous years. See Section 2.2.2 and Appendix 1A in Fiscal Policy Council (2008) for a detailed discussion.

¹⁰¹ These arguments were discussed at length in our 2008 report (Fiscal Policy Council 2008, p. 73).

¹⁰² See, for example, Giavazzi and Mishkin (2006).

the path of the price level is, just like a target for the historical average for net lending or the path of financial worth, a stock target with memory, where deviations in one direction during a period should be compensated for by a deviation in the opposite direction during a later period. The Riksbank's inflation target (like a target for the structural balance) is, however, a flow target without such a memory, where it is undesirable to compensate for inflation that is lower than the inflation target for a few years with higher inflation at a later time. No central bank has yet come up with the idea of simultaneously trying to achieve an annual inflation target and a price level target for a longer period. This would not work except in the unlikely case that the central bank always succeeded in holding inflation at the target, so that no deviations ever arose. For similar reasons, it will normally be impossible for fiscal policy to achieve the one percent target according to all three indicators simultaneously.

2.2.2 A gradual increase in the number of indicators

The analysis of the indicators for following up the surplus target has developed gradually. This has also implied an increase in the number of indicators. A visual illustration of this is given in Table 2.1 which shows the indicators that have been reported for the current and coming year in three budget bills.

The 2008 Budget Bill focused almost entirely on the three indicators that we discussed above. The 2009 Budget Bill expanded the analysis by also taking the cyclical situation into account in the assessment of both historical net lending and the current average indicator.

This was done by comparing indicators with the average GDP gap for the corresponding period. If the average GDP gap deviates from zero, it can, according to this analysis, justify deviations by the indicators in question from the surplus target.¹⁰³ The 2009 Spring Fiscal Policy Bill goes a step further by cyclically adjusting both the historical and the moving average indicators. This is done by correcting the indicators for the automatic stabilisers, i.e. for the changes in the budget balance that ensue when GDP deviates from

¹⁰³ The 2009 Budget Bill, Section 4.3.

its potential level.¹⁰⁴ This means that the historical average since 2000 and a moving seven-year average are calculated not only as before for the actual budget balance, but now also for the structural budget balance. The reader is left puzzled, however, because this is not clearly stated.

Table 2.1 also illustrates how the various indicators can give a very different picture of how the surplus target is being met. This is particularly true of the 2009 Spring Fiscal Policy Bill. According to this bill, the policy is near the surplus target of one per cent of GDP in 2009, both if one looks at the (unadjusted) historical indicator (1.1 per cent) and the year's structural net lending (1.2 per cent), but not if one instead looks at the (unadjusted) moving average indicator (-0.5 per cent). In 2010-2012, structural net lending remains above one per cent of GDP, while the historical average moves downwards towards zero. For 2009 both the cyclically adjusted historical indicator and the cyclically adjusted moving average indicator are substantially over the one per cent target (1.5 and 1.7 per cent of GDP respectively). The cyclically adjusted historical indicator remains at 1.5 per cent of GDP in 2010-2012.¹⁰⁵

¹⁰⁴ The 2009 Spring Fiscal Policy Bill, pp. 156-161. The cyclical adjustment is made by adding $0.55 \times$ (the negative) GDP gap to the budget balance in a recession, where 0.55 is the budget elasticity that the automatic stabilisers are estimated to give rise to. For further details, see Box 1.1.

¹⁰⁵ The reason that the moving average indicator, which is a moving seven-year average centred on the year when the Budget Bill is presented, is only reported for 2009 is that the Ministry of Finance makes projections for the public finances for three years but not for later years.

Table 2.1 Different indicators of whether the surplus target is met

	2008 Budget Bill				2009 Budget Bill				2009 Spring Fiscal Policy Bill			
	2007	2008	2009	2010	2008	2009	2010	2011	2009	2010	2011	2012
Net lending	2.9	2.8	3.1	3.6	2.8	1.1	1.6	1.5	-2.7	-3.8	-3.1	-2.0
Historical average indicator	1.3	1.5	1.7	1.8	1.5	1.5	1.5	1.6	1.1	0.7	0.4	0.2
Moving average indicator	2.3				2.1				-0.5			
Structural net lending	2.2	2.0	2.8	3.6	2.8	1.9	2.2	2.7	1.2	1.0	1.2	1.4
Cyclically adjusted historical average indicator									1.5	1.5	1.5	1.5
Cyclically adjusted moving average indicator									1.7			
GDP gap					-0.7	-1.7	-1.4	-0.5	-7.1	-8.7	-7.9	-6.1
GDP gap historical average					0.0	-0.2	-0.3	-0.3	-0.7	-1.4	-2.0	-2.3
GDP gap moving average					-0.1				-3.9			

Sources: 2008 Budget Bill, 2009 Budget Bill and 2009 Spring Fiscal Policy Bill.

The cyclical adjustments of both the historical and the moving average indicators in the Spring Fiscal Policy Bill raise questions about how the GDP gap, i.e. the difference between actual and potential GDP, should be calculated. It is well known that the GDP gap according to most estimates is on average negative over longer periods. Potential GDP is usually defined as the level of GDP at which inflation can be held constant (at the central bank's inflation target). If prices are more rigid downwards than upwards and output varies around the potential level over the business cycle, it follows that the negative GDP gaps must on average be greater than the positive ones if inflation on average is to be at the inflation target. Consequently, calculations of structural net lending, estimated on such estimates of the GDP gap, will be higher than actual net lending over longer periods and gives too positive a picture of the public finances.¹⁰⁶ In a deep economic downturn like the current one, this problem is much more important. The Spring Fiscal Policy Bill discusses this and comes to the conclusion, for example, that “the large negative GDP gap that will arise at the end of the forecast period will probably not be offset by equally big positive gaps when the economy improves after 2012”. It further states that “this indicates that average net lending from 2000 will not automatically exceed the targeted level when the economic situation returns to normal”.¹⁰⁷ One way of handling this problem could be to estimate the GDP gap as the difference between actual and average GDP instead of as the difference between actual and potential GDP.

It is obvious that the choice of indicator is absolutely decisive for how future fiscal policy is to be adjusted if the surplus target is to be met again. This was pointed out earlier – before the economic downturn – by the National Audit Office (2008c) which showed that net lending will have to follow completely different paths in the coming years, depending on whether the one per cent target is to be met in terms of the historical or the moving average indicator.

Our conclusion is that the different indicators reflect different fundamental objectives. It is not a question of whether the indicators are better or worse measures of the desired objective. Instead the problem is that there is a basic lack of clarity about what the surplus target actually means. This lack of clarity has not diminished over

¹⁰⁶ This problem was discussed in our 2008 report (Fiscal Policy Council 2008, pp. 87-88).

¹⁰⁷ The 2009 Spring Fiscal Policy Bill, p. 159.

time. Rather the opposite. It has increased in that the cyclical adjustment of both average indicators means that there are now five instead of three indicators. This could – if one wants to be unkind – be expressed as a clear fiscal policy target that ‘something’ is to be one per cent of GDP, but there is a basic lack of clarity as to what this ‘something’ is.

The current review of the fiscal framework should clarify what the fundamental objectives are and then, based on that, derive *one* clear intermediate budget target that can easily be followed up. Without such clarifications, there is a large risk that a government could opportunistically choose the surplus indicator that is best suited in the short term. It is, of course, not wrong to take the cyclical situation into consideration when deciding an appropriate fiscal policy – on the contrary, we have, in Section 1, argued that this should be taken into account more than the Government has done. Our argumentation is that the fiscal balance target should be clearly formulated. Then a position can be taken on whether and to what extent the cyclical situation or other circumstances justify deviations from the target. This assessment should, however, be made in a transparent manner and not hidden by way of a vague formulation of objectives which makes it possible to hop from one budget balance indicator to another.

To sum up, in our opinion the attempts made thus far to follow up the surplus target in a more transparent way have not succeeded because the target’s meaning and the motives for it have not been stated clearly enough. The current cyclical developments, and the deterioration in the budget balance that these imply, make it extra important to better define the surplus target in the near future. It is a prerequisite for a more rational discussion of the balance to be struck between various fiscal policy objectives.

2.3 Alternative strategies for meeting the demographic challenges

Sweden – like other developed countries – is faced with a gradually ageing population. This trend is analysed in detail in Section 6. With current tax rates and rules in various transfer systems, the growing dependency burden can be assumed to cause large strains on the public finances. Weakening public finances are not due to increased

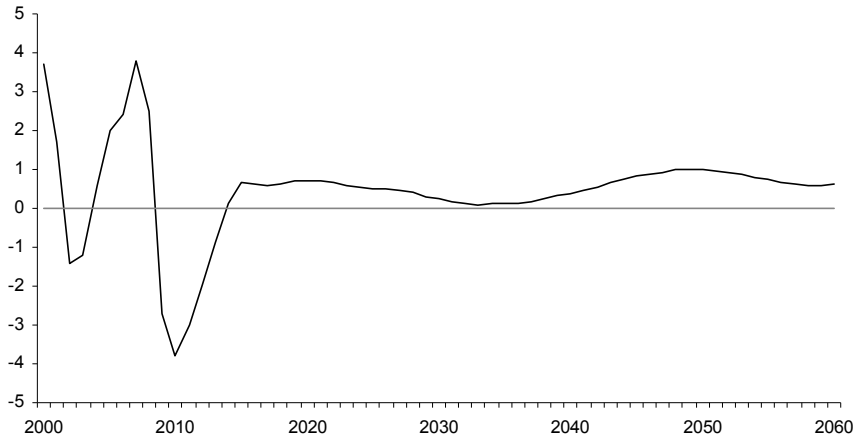
pension payments, since the pension system is constructed so that these will automatically adjust to the resources in the system. This is done through an automatic balancing mechanism (*the brake*) that will guarantee that future pension commitments do not exceed the sum of future contributions and the funded assets.¹⁰⁸ Instead the reason is the negative effects on tax revenue from a smaller percentage of the population in work and higher costs for health care and social services when the population ages. The pressure on public finances will be even greater if the quality and/or extent of public activities increases without a matching increase in taxes.

The surplus target implies that a strategy of *pre-funding* in the public sector has been chosen to meet this development. Figure 2.1 shows that the average actual surplus in recent years was considerably above the target of one per cent of GDP. The figure also shows future net lending according to the Ministry of Finance's base scenario, which is based on unchanged rules for taxes and grants and public consumption growth attributable only to the demographic changes. After substantial budget deficits in the next few years on account of the recession, general government net lending is expected to be positive again after 2013. Net lending will then remain positive but decline after 2025 and eventually increase again.¹⁰⁹

One alternative to the pre-funding strategy is to *increase lifetime working hours*, i.e. total working hours over the life cycle, in line with increases in longevity. The current surplus target can be criticised for not being based on any clear assessment of the balance between the consequences of pre-funding and longer lifetime working hours. This section analyses this balance.

¹⁰⁸ One condition for maintaining the pension system's financial stability automatically is full respect for the rules system. The discussion that has taken place about taking the brake out of operation because it will reduce pensions in 2010 and the agreement between the Government and the Social Democrats about changing the brake shows, however, that the system can be vulnerable to political pressure (see also Section 1.3.1). The fact that future pensions will fall in relation to the average wage may also expose the current rules system to large political strains (see, for example, Fiscal Policy Council 2008, p. 128 or the 2009 Spring Fiscal Policy Bill, p. 195).

¹⁰⁹ See the 2009 Spring Fiscal Policy Bill, Section 12. The base scenario in the Spring Fiscal Policy Bill differs sharply from the base scenarios that the Government has previously presented (see, for example, the 2009 Budget Bill, Section 8). In these earlier scenarios, general government net lending falls over the period reported and eventually (around 2025) turns to a deficit, which from 2030 is 1-1.5 per cent of GDP. The differences between the calculations in the Spring Fiscal Policy Bill and previous Budget Bills are discussed in detail in Section 3.2.2 of this report.

Figure 2.1 General government net lending, per cent of GDP

Note: Net lending refers to the base scenario in the Government's sustainability calculations.

Source: The 2009 Spring Fiscal Policy Bill, Figure 12.9.

2.3.1 The surplus target does not guarantee an equal distribution of the dependency burden

Fiscal sustainability calculations are used to assess whether in the long run current tax rates can be expected to yield sufficient tax revenue for the public sector both to pay interest on possible outstanding public debt and meet future expected expenditure. If so, the current fiscal policy can be considered sustainable in the long run, i.e. no changes in the tax rates and rules in various expenditure systems are required in order for the public sector to remain solvent. This type of calculation is discussed in more detail in Section 3.2.

Even though fiscal sustainability estimates are an aid in judging whether the current strategy with pre-funding is *sufficient* to meet the rising dependency burden, they do not say anything about whether this is an *appropriate* method for achieving long-term sustainable public finances. The Spring Fiscal Policy Bill's conclusion that current fiscal policy with today's tax rates and welfare systems is "almost sustainable in the long run"¹¹⁰ can, for example, not be interpreted as justification that the surplus target guarantees an equitable distribution of the dependency burden between generations. How the increased dependency burden is to be

¹¹⁰ The 2009 Spring Fiscal Policy Bill, p. 190.

distributed between generations depends to a large extent on political values. But one prerequisite for a rational choice of strategy is that the consequences of the various alternative strategies are made clear. This has not been done in the current fiscal framework, and thus there is a risk of undermining its legitimacy in the long run.

Whether pre-funding leads to an equal distribution between different generations depends largely on what is causing a rise in the future dependency burden. It can be argued that if it increases because fewer children are being born, then current generations should also bear part of the burden by saving in advance.¹¹¹ A lower number of births and smaller cohorts entering the labour market lead to lower future income growth. Since it is a result of decisions already taken, and that cannot be undone, it has the same implications as a reduction in wealth. If all generations are given the same weight, it is then reasonable to distribute the reduction in consumption that must occur over all generations, including the current generation.¹¹² Pre-funding is one way of letting the generation that had fewer children – and thus did not need to provide for so many – help finance the higher dependency ratio.

Pre-funding has, however, completely different distribution consequences if the larger dependency burden is due to increased life expectancy. Longer life expectancy can, in itself, be expected to contribute to enhanced well-being. For example, longer life expectancy has a weight of 1/3 in the index of ‘human development’ that is usually used in international comparisons of well-being.¹¹³ Pre-funding as the only method of handling the budget strains that may occur because of increased life expectancy therefore involves favouring generations with a longer life expectancy, and thus already higher welfare, at the cost of generations with a shorter life expectancy.

Economists usually perceive there to be a welfare cost (‘effort’) for the individual from working that is to be compared with the utility of the higher consumption possible when one has earned

¹¹¹ The analysis in Flodén (2003) can be given this interpretation. See also Andersen (2008).

¹¹² The conclusion is based on the assumption that consumption has diminishing marginal utility, which means that gradual increases in consumption for a group give less extra utility. The other side of this is that gradual *reductions* in consumption for a group provide increasingly *larger* reductions in utility. If future consumption must shrink, the aggregate utility losses will therefore be smallest if the consumption reductions are divided as equally as possible between generations (given that all generations are given the same weight).

¹¹³ See UNDP (2007).

income. It is reasonable to believe that this welfare cost will be higher, the higher the retirement age and lower, the greater expected longevity is. The underlying assumption then is that a longer life expectancy goes hand in hand with better health in the last part of life. With these assumptions, stylised analytical models lead – not surprisingly – to the conclusion that the retirement age should gradually be raised when life expectancy increases.¹¹⁴ In these models, such a strategy contributes not only to an equal distribution of welfare between generations, but also to economic efficiency, since it counteracts future tax increases and thus involves tax smoothing.¹¹⁵

In the event of an increase in the future dependency ratio, the concern will thus be to find the most appropriate combination of a pre-funding strategy and what some would call an *adjustment strategy*. The pre-funding strategy means accumulating resources in advance that are then consumed when the demographic changes kick in. The adjustment strategy means instead that *lifetime working hours* gradually increase in order to maintain the balance between the number of years that individuals contribute to and receive benefits from the social insurance system. The longer lifetime working hours are in relation to life expectancy, the less need there is for pre-funding. The combination of pre-funding and adjustment strategies chosen is crucial for the distribution of welfare between current and future generations. Cohorts born earlier are not favoured by high pre-funding and are favoured by future increases in lifetime working hours, while the reverse is true for cohorts born later.

An additional question that usually comes up in the discussion on future financing of the public sector is the supply of welfare services. The demand for health and hospital care per person will likely increase in the future since future generations will be better off and progress in medical science makes new – and increasingly expensive – methods of treatment possible. This implies financing problems of the same type as when the percentage of elderly in the population increases and raises similar questions about the most appropriate

¹¹⁴ This has been analysed by Andersen (2008) in a model with overlapping generations. In the model, all generations are given equal weight. The welfare cost of working when ‘elderly’ is assumed to depend on the ratio between retirement age and life expectancy. The conclusion according to the model is that this ratio should be held constant. This means that the retirement age should be raised in line with the increase in life expectancy. However, this is not sufficient for fiscal sustainability. It also requires some pre-funding. According to the model, however, an increase in the dependency ratio due to a smaller number of children born can only be met by pre-funding.

¹¹⁵ See Section 2.1.

method to achieve fiscal sustainability.¹¹⁶ It seems difficult to justify why current generations should finance costs that will largely arise because future generations are richer than current generations.

The obvious conclusion is that we should not rely solely on pre-funding to meet the future fiscal sustainability problems that an ageing population, higher quality health care and rising demands for welfare services can be expected to entail. An increase in lifetime working hours should also be part of the long-term strategy to achieve fiscal sustainability. The issue of an appropriate budget surplus target is thus intimately connected with how to design the rules that affect how long – and how much – people work. It can be considered a shortcoming of the current fiscal framework that the interplay between the fiscal balance target and, for example, the pension rules is not clear enough and that the key trade-offs that have to be made are not explicitly discussed.¹¹⁷ The 2009 Spring Fiscal Policy Bill took one small step in this direction: for the first time, fiscal sustainability calculations included a scenario where the labour market exit age is assumed to increase when average life expectancy increases.¹¹⁸

2.3.2 Methods for increasing lifetime working hours

An increase in the time that an average person works over the life cycle can be accomplished in two ways: (1) time spent in work can increase (increased supply at the *intensive margin* in economics jargon) and (2) the percentage of people in work can increase (increased supply at the *extensive margin*). Since the potential for increasing the labour supply in the long run is presumably much greater at the extensive margin, we focus on that.

In principle, labour force participation, and thus the employment rate, can increase in three ways: earlier labour market entry for young

¹¹⁶ The Fiscal Policy Council (2008) presented estimates of the impact of both higher standards in health care and social services and higher standards for public services generally on fiscal sustainability. Both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill discuss scenarios with higher health care costs.

¹¹⁷ Similar reasoning could be applied to more private financing of public services through user charges and measures to increase productivity in the production of public services. We focus on lifetime working hours, since changes here have a major impact on fiscal sustainability. If effects of the same magnitude are to be achieved by increased user charges, the changes required would be so radical that in principle, the principle of a tax-financed welfare state would have to be abandoned.

¹¹⁸ See the 2009 Spring Fiscal Policy Bill, Section 12. The calculation made was close to the one we made in our 2008 report (Fiscal Policy Council 2008, Section 2.6.4).

people, higher labour force participation by people in age groups that normally are in the labour market, and later exit in connection with retirement.¹¹⁹ Section 6.3 provides an in-depth analysis of the possibilities that exist for earlier labour market entry and later exit.

The fiscal sustainability problem is mostly due to the expectation that the number of years outside the labour force, given unchanged rules, will increase when life expectancy rises. It therefore follows that a later exit from the labour market should be an important part of any strategy for increasing lifetime working hours.¹²⁰

One way of gradually increasing the exit age is to link the retirement age directly to life expectancy. One such example is the automatic adjustment of the retirement age to life expectancy introduced in Denmark. The retirement age is 'indexed' to the expected remaining life expectancy for 60-year-olds so that the expected time as a retiree will be 19½ years.¹²¹ Possible adjustments are decided ten years in advance to clarify for the individual what pension terms apply. If the retirement age is changed, the change is either six or twelve months, depending on how life expectancy has evolved. Decisions on possible adjustments are to be made every fifth year. The advantage of such adjustments is that there is no need to take a position on how life expectancy will change in the future, since the retirement age is automatically adjusted after the actual change has taken place. A further advantage is that the system is rules based. This implies greater credibility that the changes will actually be implemented than if they were based on discretionary case-by-case decisions.

The Danish model cannot be directly transferred to Sweden since Sweden no longer has any formal retirement age. If one wants to introduce an automatic link of the actual retirement age to life expectancy, one would instead need to adjust several different parameters in the pensions system: for example, the minimum age for claiming an old-age pension (now 61 years), the obligatory retirement age (now 67 years) and the 'normal' pension age used in other social benefit systems (usually 65 years). For these changes to

¹¹⁹ Immigration is also often mentioned as an additional method. But it contributes to fiscal sustainability only if the immigrants' labour force participation is sufficiently high.

¹²⁰ For further details, see Section 6.6.6.

¹²¹ Indexation of the retirement age was introduced as part of a welfare reform that first in several steps increases the eligibility age for early retirement ('*efterlön*', the early retirement pension) by a total of two years before the automatic adjustment is to begin to apply from 2027.

be effective, they must also be coordinated with the rules in various occupational pension systems to prevent these systems from compensating for the changes in the state old-age pension system. These issues are discussed in detail in Section 6.3.

In the end, fiscal sustainability is determined by how actual working hours develop over the entire life cycle. Actual working hours are affected not only by the labour market exit age discussed above, but also by the entry age as well as by how much one works in between. The best measure of the contribution that an adjustment strategy can provide for meeting the demographic challenges is therefore how *the total number of hours worked per person in the population* develops. This should therefore be regularly evaluated and the pace at which a possible upward adjustment in the retirement age is to take place should accordingly take the actual development of lifetime working hours into consideration.

2.3.3 The need for employment targets and the Government's employment framework

Our conclusion is that there should be clear targets both for general government net lending and for how much we are to work, since the requirements for pre-funding and the future number of hours worked are interdependent. The Government's position on quantitative employment targets, however, does not concur with this conclusion. Earlier there were quantitative targets both for (open) unemployment (four per cent of the labour force) and for (regular) employment (80 per cent of the population aged 20-64). However, there are no quantitative targets in the new *employment framework* that the Government has begun to use. This framework was outlined for the first time in the 2008 Spring Fiscal Policy Bill, expanded on in the 2009 Budget Bill and used as instrument for analysis in the 2009 Spring Fiscal Policy Bill.

The employment framework instead appears highly sceptical of quantitative targets. This is surprising, given that one of the stated aims of the employment framework is precisely "to specify the objectives of employment policy".¹²² However, no definition more precise than "the most important task of employment policy is to

¹²² The 2009 Spring Fiscal Policy Bill, p. 67.

increase (the italics are ours) the employment level consistent with stable inflation and macroeconomic equilibrium” was provided.¹²³

The Government justifies its aversion to quantitative targets on the grounds that earlier such targets could be achieved without more people beginning to work, for example, by moving people from open unemployment to labour market policy programmes or to systems for sickness leave, disability pension or early retirement.¹²⁴ We share the criticism of the previous target for unemployment. We also see considerable value in the employment framework’s ambitions to follow labour market developments of varying dimensions in more detail with the help of a number of different indicators. But in our opinion it is still a mistake to abandon the principle of clear, quantitative targets. The balance target for public finances combined with the need for long-term fiscal sustainability implies that there are *implicit* targets for how much we are to work in the future. It is therefore inconsistent, and makes a rational discussion of economic policy considerations more difficult, if such targets are not explicitly stated.

The concern should be to formulate *well-designed* quantitative targets for labour market developments. The most relevant target from a sustainability perspective is, as was pointed out above, the total number of hours worked per person in the population. A general target like this can then be supplemented with sub-targets, for example, for the employment rate, the percentage of the population in work and the average ages of labour market entry and exit. There could also be similar quantitative targets for individual groups, for example, immigrants.

The Government’s fiscal and employment frameworks need to be better integrated. There is no such integration at present. Instead the Government appears to see the two frameworks as more or less independent of each other, though a key premiss of the policy is awareness that “a generous and publicly financed welfare presupposes that a high percentage of the population is working”.¹²⁵ One explanation for the lack of coordination between the two frameworks is that the employment framework has its origins more

¹²³ Ibid, p. 79.

¹²⁴ The 2009 Budget Bill, p. 27.

¹²⁵ The 2009 Spring Fiscal Policy Bill, p. 67. The integration of the fiscal and employment frameworks in the Spring Fiscal Policy Bill consists primarily of placing the texts one after the other in the text.

in social policy to reduce exclusion in the labour market. This was very clearly expressed in the 2008 Spring Fiscal Policy Bill, which points out that the work on the employment framework is aimed at increasing sustainable employment “primarily through measures that lead to less exclusion”.¹²⁶ These social policy objectives of getting more people in work are extremely important in themselves, but at the same time there is an obvious need for better coordination of the fiscal and employment frameworks since the surplus and employment targets are closely connected.

2.4 The budget balance target and the future fiscal framework – possible starting points

Our analysis indicates a number of problems with the current fiscal framework and surplus target that urgently need to be addressed in the current review. These shortcomings can be summarised as follows:

- The long-term fiscal policy objectives are not clearly defined. It is not clear what weight the various objectives have been assigned: equitable distribution between generations, tax smoothing over time to minimise the economic efficiency losses of taxation, and building up a buffer against any unexpected future deterioration in the public finances. Nor is it clear to what extent stabilisation policy safety margins are an aim. From this it follows that the justification for the level of the current surplus target is unclear.
- It is also unclear what the surplus target actually means, since the indicators used to evaluate whether the target has been met have completely different meanings. Is the actual objective to achieve a particular path for general government net worth? Has the target ‘memory’ so that earlier deviations from it should be compensated for in the future? If deviations from the target – as interpreted by the Government in a particular situation – occur, how rapidly should these deviations be corrected? The large budget deficits now building mean that clarification is urgently

¹²⁶ The 2008 Spring Fiscal Policy Bill, p. 61.

needed. Such clarification is completely lacking in the Spring Fiscal Policy Bill, which only states that “the now serious deterioration in the public finances must be swiftly remedied” and that “the deficit that has been incurred as a result of the deep recession must be temporary and manageable in order to maintain confidence in the Swedish economy”.¹²⁷ What this involves, however, is not spelled out.

- Are exceeding and falling short of the surplus target evaluated differently? One obvious conclusion is that upward deviations seem to be considered less serious than downward deviations since the quite substantial overshooting of the target that – according to all the indicators – happened in 2007-2008 nevertheless led the Government to the overall assessment that fiscal policy was largely “in line with the surplus target”.¹²⁸ In conformity with this assessment, the Government never presented any plan for how the surplus would be reduced except a vague ‘technical adjustment’ in the sustainability estimates it reported: in the 2009 Budget Bill it implied that the surplus would be gradually reduced to one per cent of GDP between 2012 and 2015.¹²⁹
- How long the surplus target is to remain in force has never been stated. The lack of precision is, for example, shown in the wording in the most recent Budget Bill that “the one per cent surplus is to be maintained during the Government’s current term of office and as long as it is needed”, which has to be labelled the most imprecise statement imaginable.¹³⁰ In the Government’s sustainability calculations, the previous surplus declined gradually and eventually turned into a deficit.¹³¹ In this vein, the 2009 Budget Bill opened the door for a future downward adjustment of the fiscal balance

¹²⁷ The 2009 Spring Fiscal Policy Bill, p. 34.

¹²⁸ The 2008 Spring Fiscal Policy Bill, p. 141. The National Audit Office (2008a) has criticised the discrepancy between the reported outcome and the Government’s assessment.

¹²⁹ The 2009 Budget Bill, Section 8.4.2. The technical adjustment implies an assumption of a permanent increase of transfers to households. See also Section 2.6.5 in Fiscal Policy Council (2008) for a detailed discussion and critique of the technical adjustment. In the 2009 Spring Fiscal Policy Bill, this technical adjustment has disappeared. For further details see Section 3.2.2 in this report.

¹³⁰ The 2009 Budget Bill, p. 258.

¹³¹ See, for example, the 2009 Budget Bill, Section 8.4.

target, but did not provide any guidance on how such a downward adjustment would be made.¹³² This position was not repeated, however, in the 2009 Spring Fiscal Policy Bill, which did not contain any discussion at all about how the fiscal balance target is to be designed in the future.

- There is a built-in time inconsistency problem in a strategy with pre-funding, i.e. a risk that the strategy will not be fulfilled as intended. One reason is that it may be tempting for future governments as part of their short-term election tactics to quickly spend the net worth that has been accumulated. If so, this strategy will not help in the way intended to smooth taxes over time.¹³³
- There is also the opposite problem that future governments will not want to consume the wealth accumulated by pre-funding, for example, through fear that one period with a deficit will risk the credibility of fiscal policy. In that case, pre-funding will not be used as originally intended either.
- Section 2.3 discussed how a pre-funding strategy and an adjustment strategy with increasing lifetime working hours represent alternative methods of meeting the demographic expenditure pressure. The pre-funding required for fiscal sustainability depends on what changes there are in lifetime working hours. This means that the budget balance target and how much we work are interdependent. But there is no such obvious link in the current fiscal framework. It therefore does not provide the public with any clear picture of the trade-offs that have to be made.

It is to be hoped that the current review will further develop the fiscal framework in line with the points we have discussed. It is particularly important in the current situation when the substantial cyclical budget deficits may cause a lack of clarity about what the long-term budget targets actually are and how we are to get back to them. There definitely needs to be an open discussion so that decisions on the future fiscal balance target are not perceived to be the result of technocratic considerations within the Ministry of

¹³² See p. 258.

¹³³ This is analysed by Frederick van der Ploeg in his background report to our 2008 report (van der Ploeg 2008).

Finance. This argues for a broad Parliamentary inquiry of the kind we recommended in our 2008 report, rather than solely an internal process in the Government Offices. It is to be hoped that a broad political agreement can be reached to implement changes in the fiscal framework. It would increase the credibility of fiscal sustainability. It would also make future fiscal policy more predictable.

One issue that needs to be taken up in a review such as this is whether intermediate general government budget balance targets should be formulated in terms of net lending as they are now or whether they should instead be formulated in terms of a broader savings concept that also includes all or some part of public investment (a *golden rule*). This issue was discussed in detail in our 2008 report, where we presented arguments both for and against.¹³⁴

2.5 How can the budget target be determined and reviewed over time?

Given the problems discussed in previous sections, what would be an appropriate way of determining future fiscal balance targets? This section outlines how this could be accomplished. The basis for the discussion is that the fiscal balance target will refer to net lending, but a balance for total savings can be handled in a similar way. The outline is not to be viewed as a final proposal but only as an illustration of one possible way of designing a consistent framework based on clear overall objectives.

One cornerstone should be to forge a clearer link between the considerations about general government net lending and how much people are to work over the life cycle. The aim is to clarify the balance to be struck between pre-funding and various reforms, principally provisions in the pension system, that affect lifetime working hours.

2.5.1 An outline for an integrated framework for fiscal sustainability

An outline for a more integrated framework for fiscal sustainability could look like the following:

¹³⁴ Fiscal Policy Council (2008), pp. 49-53. See also Sections 3 and 4 in this report.

1. The usual definition of fiscal sustainability is that public finances must satisfy an *intertemporal budget constraint*. This means that the difference between primary expenditure and income (that is excluding net interest payments) in the future should not exceed net financial worth.¹³⁵ Otherwise the public sector would be insolvent and unable to meet its payments. Fiscal sustainability is usually measured with the *S2 indicator*, which states what permanent annual budget improvement (through tax increases and/or expenditure cuts) would be needed for the intertemporal budget restriction to be satisfied exactly.¹³⁶ The indicator is based on the hypothesis that such a budget improvement is immediately realised and then permanently maintained. The first step in formulating the budget target that will be in effect in the future should be to calculate an interval for this indicator based on the most reasonable assumptions about future expenditure development, given the current rules systems, future employment and so forth. Calculations like this are nothing new. They are already being done regularly in the budget bills.¹³⁷
2. Step 2 could be to expressly incorporate *prudence* into the considerations. This can be done by deciding appropriate safety margins, i.e. for how big ‘negative’ deviations from the most likely developments (in the form of lower employment, slower productivity growth in the public sector, more rapid cost growth there and so forth) the policy must be able to accommodate. This means that the S2 indicator is recalculated for a more negative combination of events than that considered most likely. The indicator will then show what permanent budget improvement is needed to meet such a situation. By doing so, a clearer picture emerges

¹³⁵ If the public sector instead has a net debt, the difference between revenue and expenditure excluding interest (*primary net lending*) in the future must be at least as large as the current outstanding net debt. This means that future surpluses must be sufficient either to pay back the existing net debt or to always pay the interest on it. These two requirements are equivalent, since the discounted present value of future interest payments on a particular net debt is equal to this net debt. See also Section 3.2.1 and Appendix 1.

¹³⁶ Appendix 1 contains a more technical discussion of the S2 indicator. See also Section 3.2.1. Section 3.2.3 discusses a measure of public sector intertemporal net financial wealth, which can also be used. This is an alternative way of presenting the same information as the S2 indicator provides.

¹³⁷ See, for example, Section 8.4 in the 2009 Budget Bill or Section 12 in the 2009 Spring Fiscal Policy Bill.

showing how the Government tries to guard against the risk of serious negative outcomes.

3. In a third stage, *estimates* showing how the S2 indicator is affected by various developments in lifetime working hours (the number of hours worked per person in the population) are made. The aim is to illustrate the balance to be struck between requirements for pre-funding and for increased lifetime working hours, i.e. how much the need for pre-funding decreases if lifetime working hours increase. Generational calculations to illustrate the consequences for income distribution/welfare between generations may also be made at this stage. The 2009 Spring Fiscal Policy Bill presented for the first time an alternative scenario where the S2 indicator was also estimated for a case in which the labour market exit age increases as life expectancy increases.¹³⁸ There would, however, need to be a whole 'bouquet' of such alternative scenarios with different assumptions about changes in lifetime working hours as a basis for decisions.
4. Then an explicit *choice of strategy combinations* could be made. It should include a target for how lifetime working hours (the number of hours worked per person in the population) are to grow over time. Given this target, the requirement for pre-funding can be derived by estimating the S2 indicator.
5. In step 5, the means that are to be used to achieve the desired path for lifetime working hours can be specified. One instrument that should be considered is an *automatic adjustment of pension system provisions* in the way discussed in Section 2.3.3. The adjustments should be decided in good time (say five to ten years) before they are to enter into force and be made only in large steps (for example, six months or a year). The S2 indicator should also be translated into a fiscal *balance target* for net lending. This could tentatively be decided for a *set time period*, say ten years, and designed so that a particular average balance would be achieved over the period. In that way, the lack of clarity about what the surplus target actually means that the current use of various

¹³⁸ The 2009 Spring Fiscal Policy Bill, Section 12. See also Section 3.2.2 in this report.

monitoring indicators implies is removed. If some of the sustainability problems are handled by the introduction of a rules system that automatically raises the retirement age, an immediate downward adjustment of the fiscal balance target might be possible.

6. During the set time when the fiscal balance target is to be in effect, there should be *ongoing evaluations* of the probability of achieving the target. Evaluations could be made by both the Government and external bodies (such as the National Institute of Economic Research, the National Audit Office and the Fiscal Policy Council). Likewise there should be an ongoing evaluation of lifetime working hours (the number of hours worked per person in the population) to see if they follow the targeted path. The Government could be obliged in the event of significant deviations from the targets to present a *plan* for future fiscal and employment policy.¹³⁹ It would be best if this plan were based on principles discussed in advance. These should include striking a balance between the objective of promptly correcting deviations to guarantee fiscal sustainability and the objective of not changing the policy too often and overreacting to temporary economic disturbances. The current situation with large deviations between actual developments and fiscal balance targets is a typical example of when such a plan would be needed.
7. At the end of the set time, the process described *is repeated* with new targets for net lending and lifetime working hours. Since these are to be based on new fiscal sustainability calculations, earlier deviations from the targets set will automatically be taken into account. If, for example, earlier balance targets were not met and thus net financial worth developed less favourably than expected, the calculation of the new S2 indicator will indicate a greater need for budget improvement in the future than it otherwise would. This may be achieved either by an upward adjustment of the balance target or by measures to increase lifetime working

¹³⁹ One equivalent in the monetary policy area is the Bank of England's obligation in the event of deviations from its inflation target to write to the Chancellor of the Exchequer and publicly explain the reasons for the deviations and how and at what pace inflation is to be returned to the inflation target. See, for example, Calmfors (1999).

hours. This may involve changes in the rules system for how pension provisions are to be adjusted to life expectancy, as well as other reforms aimed at affecting the number of hours worked over a lifetime. There is obviously substitutability between various reforms: the more impact earlier labour market entry or increases in hours worked by those already in the labour market can make on lifetime working hours, the less need there will be to raise the exit age.

2.5.2 Alternative constructions

The process described is one possible outline of how a rational system for deciding and monitoring the balance target for the public finances could be designed. The outline takes into account the interdependence between a pre-funding requirement on one hand and the pension and other rules on the other hand that affect how large a part of life we work. The outline of ideas raises a number of questions.

One question concerns the choice of the fiscal balance target as an intermediate fiscal objective. An argument could be made that the S2 indicator itself could constitute the intermediate target for the public finances.¹⁴⁰ It would be logical since a principal objective is to guarantee long-term fiscal sustainability. But the sustainability indicator has the disadvantage that it is calculated using a complicated method and it is difficult to explain pedagogically.¹⁴¹ The estimates are also based on a number of assumptions that it may be tempting to manipulate in the short-term political process to show that fiscal policy is in line with long-term objectives.

It may also be argued that an intermediate target for the path for general government sector net financial worth (net debt) in relation to GDP may be appropriate if the principal objective in the long term is to achieve an equitable distribution between different generations. A target formulated like this is easy to understand. But one disadvantage is that net financial worth in relation to GDP can vary sharply, owing to changes in asset prices: one current example is the SEK 252 billion decline in the public sector's holdings of non-

¹⁴⁰ The National Audit Office (2008a) has discussed such a possibility.

¹⁴¹ See also Sections 3.2 and Appendix 1 in this report.

interest bearing securities (primarily shares) that took place in 2008.¹⁴² It is unfortunate if such temporary variations, which usually do not reflect a permanent change in the wealth position, trigger major changes in policy. The principal reason we recommend a target for net lending (a *flow* target) as an intermediate fiscal policy goal, though net financial worth (a *stock* target) may be perceived as more adequate, is that there is a closer connection between the balance achieved in net lending and the economic policy conducted.¹⁴³ It is also an advantage that the net lending target has been in effect for almost a decade and is therefore well known.

Another issue concerns the *length of time* for which the targets for net lending and the number of hours worked per person are to be formulated. Here there is an obvious trade-off in the sense that short time horizons involve more flexibility, while long time horizons increase the target's credibility.

One further question concerns whether targets are to be stated as exact targets or as *target zones*. A target zone specifies an interval within which a target variable, for example, net lending, is to stay. Target zones are commonly found in monetary policy, where the inflation target is commonly stated with a 'tolerance band'. For example, the Riksbank has defined its inflation target as 2 +/- 1 per cent. But tolerance intervals are also found in fiscal policy.¹⁴⁴ It would in principle be completely possible – and perhaps also desirable – to state the fiscal balance target in this way in the future, since it implies that the flexibility permitted is decided in advance. A target zone should, however, be quite narrow if it is to have an impact on the policy. One potential risk of target zones is that the target variable is systematically allowed to be close to the limit on one side of the zone, thus increasing the risk of exceeding the limit. If so, it can lead

¹⁴² See Section 3.1.1 in this report.

¹⁴³ See Fiscal Policy Council (2008), Section 2.3.3. One alternative to a target for actual net lending is a target for structural (cyclically adjusted) net lending. One problem with this target is that the structural budget balance is a non-observable variable that can be calculated in many ways. Targets for structural net lending are found in both Denmark and Germany (see, for example, the European Commission 2006b). The difference between targets for structural and actual net lending gets smaller the longer the period the target applies to, since the cyclical variations then tend to be evened out.

¹⁴⁴ In its 2015 fiscal policy plan, Denmark has specified a target zone for structural net lending of between 0.75 and 1.75 per cent of GDP (Ministry of Finance, Denmark 2007). One example of an asymmetric target zone is the EU Stability Pact, which has an upper limit for both budget deficits (three per cent of GDP) and the debt level (60 per cent of GDP). Furthermore, the UK has a target zone for general government net debt, which is not to exceed 40 per cent of GDP.

either to abrupt policy reversals or having to abandon the targets formulated.¹⁴⁵

2.5.3 Summary conclusions

To sum up, experience with fiscal balance targets for general government net lending, in spite of some unclear points, has been so good that continuing with such a target is justified. But in a revised fiscal framework, the balance target and the target for how long (and how much) people should work ought to be more clearly linked. In addition, what the fiscal balance target includes needs to be defined and a process established for its regular review.

A gradual increase in lifetime working hours should be made part of a long-term fiscal sustainability strategy. This can be achieved in a number of ways. As discussed in Section 6.2, there is considerable potential for getting young people into the labour market earlier. But a gradual increase in lifetime working hours when life expectancy rises in all probability also implies an increase in the average labour market exit age. Some spontaneous rise can be expected in the next few years when the rules in the current pension system gradually have a greater impact.¹⁴⁶ But it is presumably also useful to have rules that automatically adjust pension provisions to life expectancy. Given that a rules system like this can be established, a one-off reduction in the current balance target could be considered. But such a reduction should only be made if other measures to maintain stability in the public finances are implemented at the same time. If the surplus target is abandoned and these measures are postponed, it may mean that the fiscal policy credibility developed will be lost.

There are also strong arguments for not relying solely on future changes in pension provisions to solve fiscal sustainability problems even if rules are introduced guaranteeing automatic adjustments. The discussion that has taken place about taking the brake out of operation and the change that has been agreed demonstrate what powerful temptations there are to deviate from established rules.¹⁴⁷

¹⁴⁵ In the United Kingdom, general government net debt was for a long time close to the 40 per cent limit. The large budget deficits now being incurred will therefore lead to a massive overshoot. Consequently, the target zone – at least temporarily – has been abandoned.

¹⁴⁶ For further details, see Section 6.3.

¹⁴⁷ See also Section 1.3.

The deep recession necessitates shifting the focus of fiscal policy towards stabilisation policy considerations. Thus there is a risk of devoting less interest to the long-term framework issues, for example, the determination of the fiscal balance target. But this should not be allowed to happen. On the contrary, in a situation with large deviations between actual budget developments and long-term budget targets, improving the framework and clarifying future targets is particularly important. The more credibility there is that the fiscal framework will contribute to sustainable public finances in the long run, the more room available to fiscal policy for stabilisation purposes.

3 Public finance reporting

Irrespective of exactly how fiscal policy targets are formulated, a clear and easily accessible report of public finances in the budget bills is a core requirement. There should be information about the following main points:

- The current changes in public finances
- The public sector balance sheet
- The financial risks assumed by the public sector through its lending activities and various guarantee commitments
- The long-run sustainability of public finances

The main emphasis in the budget bills is, for obvious reasons, on the current changes in the public finances, which are reported as the sector's net lending. The surplus target also refers to this variable. Our 2008 report discussed the deficiencies in reporting of total saving in the general government sector, i.e. the sum of financial saving and real saving. Real saving consists of net investment in real capital. This problem persists for the most part, since reporting public sector investment is still very inadequate. This is discussed in more detail in Section 4.

This section focuses on the budget bills' reporting of the public sector balance sheet and the long run sustainability of public finances. We see three principal problems. The first concerns the one-sided emphasis on the public sector's *financial* position, while the information about the *total* net worth position is very limited. The second principal problem is that the analysis of central government *risk-taking* in connection with the guarantees and loans now being given to the private sector is inadequate. A third problem is that the fiscal *sustainability analysis* for the most part is not integrated with the follow-up of net lending. This – together with how best to integrate them – was a main theme of Section 2.

Box 3.1 Concepts used in reporting

- The central government budget balance consists of the difference between total income and expenditure. This is measured on a cash basis, i.e. when payments are made. The budget balance determines the central government borrowing requirement and thus reflects the change in the central government debt.
- Central government net lending measures the difference between central government income and expenditure as they are defined in the national accounts. The national accounts use accrual accounting, i.e. income and expenditure are booked when the underlying transactions take place, which is primarily of importance for taxes and interest expenditure. Net lending shows the change in general government financial net worth, excluding valuation changes. Net lending is therefore not affected by the sale or purchase of financial assets, such as shares, since these transactions do not change financial net worth.
- General government net lending is the main fiscal policy variable that the surplus target applies to. The general government sector includes the central government, the old-age pension system and the local government sector.
- General government primary net lending is the difference between the sector's revenue and expenditure excluding net interest payments (the difference between interest income and interest expenditure).
- The consolidated central government debt is total borrowing by the central government minus its own holdings of government securities. This concept of debt refers to the central government's net debt to other sectors in the economy, including the old-age pension system and local government.
- Consolidated general government gross debt (Maastricht debt) is the concept of debt used in EU fiscal rules. It is defined as the public sector's total debt after internal claims and liabilities in the sector (for example, the old-age pension system's claims on the central government) have been netted out. However,

claims on the private sector are not deducted. General government net financial worth is composed of the total financial assets, including shares and claims on the private sector, minus total liabilities.

- The general government stock of real capital includes all real capital assets. These include both tangible assets (for example, buildings) and intangible assets (for example, software for computers).
- General government total net worth is the sum of the sector's financial net worth and its stock of real capital. Sometimes the pension liabilities for public sector employees (accrued contractual pension rights, but not pension rights under the state old-age pension system) are also deducted here.

3.1 The public sector balance sheet

3.1.1 General government total net worth

One important criticism of the budget bills in our 2008 report concerned the failure to report the public sector's total net worth position.¹⁴⁸ Previous bills reported different debt measures only. Total balance sheets for the central government – and the central government sector¹⁴⁹ – are instead reported in the Annual Report for the Swedish Government, which is published as an appendix to the Spring Fiscal Policy Bill. The Annual Report, however, gets very little attention. The central government balance sheet is also only one part of the total balance sheet for the entire public sector. The principles used to decide the value of various assets and liabilities in the Annual Report for the Swedish Government, moreover, differ from those used in the national accounts, which underlie the budget bills.

General government total net worth was reported for the first time in the 2009 Budget Bill.¹⁵⁰ Numbers for the components of net

¹⁴⁸ See Fiscal Policy Council (2008), Section 2.2.2.

¹⁴⁹ The Annual Report defines the central government sector as 'all the activities that the central government has significant influence over'. These include central government authorities including public enterprises, the Premium Pension Authority (PPM), the AP Funds, the Riksbank and state-owned companies. State-owned companies and now the Premium Pension Authority are not included in the public sector according to the national accounts. However, the entire local government sector is included.

¹⁵⁰ See pp. 247-249.

worth – financial assets, financial liabilities, pension liabilities for public sector employees and the stock of real capital and net worth for various parts of the public sector (the central government, the old age pension system and the local government sector) – were also reported. There was also an analysis of how various factors (government saving, growth and valuation changes) contributed to the large increase in general government net worth as a percentage of GDP over the last decade. The 2009 Spring Fiscal Policy Bill has considerably less information, but nevertheless reports general government total net worth for 2007 and 2008 and how it is allocated to various items.¹⁵¹

We welcome the move to begin reporting general government sector total net worth in the budget bills. But we are surprised that the most recent Spring Fiscal Policy Bill contains substantially less information about this than the 2009 Budget Bill. The trend appears to have gone in the wrong direction. It is also obvious that there is insufficient analysis. According to the Spring Fiscal Policy Bill, general government total net worth grew by SEK 4 billion in 2008, while financial net worth declined by SEK 173 billion. Expressed as a percentage of GDP, this means that total net worth has fallen by only 1.8 percentage points (from 66.0 to 64.2 per cent), while financial net worth has fallen by as much as 6.1 percentage points (from 19.9 to 13.8 per cent). The fall in financial net worth is primarily due to the decline in value of public sector holdings of non-interest bearing assets, i.e. mostly the Swedish National Pension Funds' holdings of shares, totalling SEK 252 billion. The more favourable outcome for total net worth is due to an increase in the reported value of the capital stock totalling SEK 188 billion. This means a percentage increase in the value of the capital stock in one year of almost 10 per cent. It is worth noting that that this is not commented at all, even though it seems highly unlikely: if it is correct, it would mean that we need to be much less concerned about the outlook for the general government financial position than would otherwise be the case.

We are also critical of the reporting of the general government total net worth, which is still tucked away in an odd corner in the budget bills. In both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill, it is near the end.¹⁵² It is only retrospective. There is no

¹⁵¹ See pp. 145-146.

¹⁵² Section 8.3.2 in the 2009 Budget Bill and Section 9.3.1 in the 2009 Spring Fiscal Policy Bill.

analysis of how total net worth may develop in the future. The forecasts for the coming years report only the development of different measures of financial net worth and financial liabilities.¹⁵³ The estimates of the future sustainability of public finances do not include any information on the growth of general government total net worth either.¹⁵⁴ Neither the Budget Bill's Budget Statement nor the Spring Fiscal Policy Bill's Summary contains any reference to the general government total net worth even though it should also provide an important basis for policy. The only balance sheet item reported there is the central government debt.¹⁵⁵

We recommend reporting the change in general government total net worth more prominently in the budget and financing bills. This variable should play a major role in economic policy considerations. Our proposal is in line with recommendations from both the IMF and the OECD.¹⁵⁶ The IMF in particular has in recent years increasingly incorporated analysis of general government net worth in its country studies. This has been done for a number of middle-income countries that had previously experienced financial crises, but also for developed countries such as Germany and Switzerland.¹⁵⁷ This type of analysis can also be found in the IMF's 2008 Country Report on Sweden.

Easily accessible information on the development of general government net worth makes it easier to get a balanced picture of public finances. For example, a change in the general government net financial position should be judged differently, depending on developments in the stock of real capital (cf. the above discussion of developments in 2008).

One key issue is how to evaluate the public sector real capital stock. This depends on the purpose of the evaluation. There may therefore be an argument for publishing alternative measures. If the purpose is to assess the public sector's ability to meet its *financial*

¹⁵³ See pp. 249-250 in the 2009 Budget Bill and pp. 148-150 in the 2009 Spring Fiscal Policy Bill.

¹⁵⁴ See Section 8.4 in the 2009 Budget Bill and Section 12 in the 2009 Spring Fiscal Policy Bill.

¹⁵⁵ See p. 21 in the 2009 Budget Bill and p. 16 in the 2009 Spring Fiscal Policy Bill. The reported central government debt refers to the consolidated central government debt, but this is not specified. The Budget Bill's Budget Statement and the Spring Fiscal Policy Bill's Summary report neither the consolidated gross debt (the Maastricht debt) nor the general government financial net worth. The gross debt, but not the financial net worth, is, however, discussed in the chapter in the Spring Fiscal Policy Bill on the economic and budget policy guidelines (Section 4, pp. 49-50). See also Box 3.1 above.

¹⁵⁶ See IMF (2008c) and OECD (2008b).

¹⁵⁷ See IMF (2006, 2007), da Costa and Juan-Ramon (2006) and Traa and Carare (2007). There is also a survey in Per Molander's background report to the Fiscal Policy Council (Molander 2009).

commitments, the real capital stock should be evaluated at market prices, i.e. it should be reported at the value it can fetch if sold.¹⁵⁸ But large parts of general government real capital do not yield any pecuniary return, but only a return in the form of the benefit for the citizens. If a broader measure of all wealth that can be used to produce social benefits is desirable, the capital that cannot be disposed of, and therefore lacks a market value, should also be included. In that case it should be evaluated in accordance with people's willingness to pay.¹⁵⁹ In this case, methods for making such an evaluation in practice must be developed. In this connection, it should be observed that the demarcation line for what capital can be valued at market price is not static: the political view on what can be privatised has changed over time.¹⁶⁰

The IMF has, for a number of countries, made calculations on extended measures of wealth which also include natural resources such as oil, a good environment, and biological diversity.¹⁶¹ It goes without saying that the valuation problem then becomes much larger. At the same time, these calculations can provide important information. But it would not be meaningful to include such calculations in the annual budget bills. However, they could be made within the framework of special reports – for example, in connection with the Long-Term Economic Surveys – that are published less frequently.

3.1.2 Guarantees and credit risks

The current financial crisis brings to the fore a more immediate question, namely, how to evaluate and report the central government's various guarantee commitments and unsecured claims. During the crisis over the past year, the central government has been forced to provide a number of different loan guarantees (for bank loans, export credits and so forth) and also to provide rescue loans to financial institutions and individual firms (see our earlier discussion in Section 1.2).

¹⁵⁸ A market valuation of public sector real capital assets is, however, not a trivial pursuit. This is because the sector is such a big player that a sale of a substantial part of these real capital assets would have a major impact on market prices.

¹⁵⁹ See also Section 4.1.2.

¹⁶⁰ See Per Molander's background report to the Fiscal Policy Council (Molander 2009).

¹⁶¹ One example is Ecuador. For further details, see Traa and Carare (2007).

The 2009 Spring Fiscal Policy Bill summarises the support measures for the financial markets.¹⁶² The Annual Report for the Swedish Government gives a detailed review of the situation at the turn of the year 2008/2009.¹⁶³ According to the Spring Fiscal Policy Bill, central government guarantee commitments are estimated to have increased by about SEK 350 billion in 2008 to total about SEK 1 150 billion at the end of the year. The guarantee ceilings (maximum guaranteed amount including guarantees not yet used) that have been set are, however, substantially higher.¹⁶⁴ The guarantees may thus eventually have an important impact on public finances. It is, however, very difficult on the basis of reporting in the Spring Fiscal Policy Bill to get a complete picture of what the central government's commitments involve.

With the guarantees and its increased lending, the central government has significantly raised the risk profile in the public sector balance sheet. The Spring Fiscal Policy Bill points out that most support measures for the financial system do not affect central government net lending in the current situation.¹⁶⁵ This obviously applies to guarantees that have not been triggered. But it also applies to capital injections to banks that are not used to cover losses and loans that may eventually be repaid: in these cases, the difference between central government revenue and expenditure (net lending) is not affected, since one financial asset is only exchanged for another. Only the central government budget balance (i.e. its borrowing requirement) is affected.¹⁶⁶ Even though one financial asset is exchanged for another, and this technically does not affect net lending, such transactions do, however, lead to risk-taking of a completely different magnitude.

The Spring Fiscal Policy Bill does not provide a thorough enough review of the risks and expected costs that the central government financial commitments made on account of the crisis might lead to. To some extent this is due to the nature of things, since there is genuine uncertainty about the future course of events in the financial markets, but a clearer analysis of various possible risk scenarios, for example, based on experience from previous financial crises in

¹⁶² The 2009 Spring Fiscal Policy Bill, Sections 4.5.1 and 11.3.

¹⁶³ Annual Report of the Swedish Government (2008), note 53 and chapter 6.

¹⁶⁴ See Bergström (2009).

¹⁶⁵ The 2009 Spring Fiscal Policy Bill, p. 41.

¹⁶⁶ See also Box 3.1 above.

different countries, should have been included. But here the Government confines itself to declaring that it is not “possible at present to estimate how much the measures taken will ultimately affect central government finances”.¹⁶⁷ This is, of course, true, but in our opinion, a more open reporting of various alternative scenarios would build credibility.

The text in the Spring Fiscal Policy Bill on the central government’s increased financial risk-taking is highly ambivalent throughout. On one hand, it heavily emphasises the risks that budget deficits may be much higher and that “this calls for a high degree of prudence with respect to the possibilities of additional stimulus measures” in the general discussion of economic policy guidelines.¹⁶⁸ On the other hand, there is no evaluation of these risks in the report of the various measures. Nor are these risks discussed in the analysis of net lending and budget policy objectives (chapters 9 and 10 in the Spring Fiscal Policy Bill). Furthermore, it points out that a deeper and more drawn-out crisis (probably also including emergency expenditures to support banks, etc., *our comment*) would only have a marginal effect on the sustainability of public finances in the long run “as long as the crisis does not involve structural changes for the Swedish economy or a sizeable increase in the debt”.¹⁶⁹

The IMF has recently tried to estimate the impact of different countries’ financial market support programmes on public finances.¹⁷⁰ The IMF estimates that for Sweden, these costs can be expected to come to 7.7 per cent of GDP.¹⁷¹ Even though these estimates are extremely uncertain, they illustrate the significant effects that the support measures could have on public finances. This may be of great importance for the possibilities of conducting a sustainable stabilisation policy, even though such *one-off costs* have a negligible effect on the long-run sustainability of public finances.¹⁷²

Since the financial crisis developed so swiftly, and the Government was compelled to improvise a number of emergency

¹⁶⁷ The 2009 Spring Fiscal Policy Bill, p. 41.

¹⁶⁸ See p. 36.

¹⁶⁹ See p. 197.

¹⁷⁰ IMF (2009c).

¹⁷¹ The direct costs of the support measures are estimated at 2.2 per cent of GDP, the expected net costs of the guarantees at 4 per cent of GDP and the costs of providing liquidity to the financial sector at 1.5 per cent of GDP.

¹⁷² Using the same assumptions as in Table 3.1, the costs estimated by the IMF can be compensated for by a permanent future annual budget improvement of around 0.08 per cent of GDP.

support measures, it is in a way understandable that the reporting of financial risk-taking is incomplete. But there is an urgent need to rapidly – i.e. for the 2010 Budget Bill – develop the analysis in this area.

3.2 Fiscal sustainability calculations

Since the 2001 Budget Bill, budget and financing bills have included calculations of the sustainability of public finances. These shed light on whether an *unchanged* fiscal policy is sustainable in the long run or will lead to a run-away build-up of debt. These sustainability calculations are now viewed as an international standard by organisations such as the IMF, the OECD and the EU Commission and are made in one form or another in most developed countries. In the EU, they are now a mandatory element of the annual stability and convergence programmes that Member States are obliged to prepare.¹⁷³

3.2.1 Previous criticisms and subsequent improvements

Both the National Audit Office (2007) and the Fiscal Policy Council in its 2008 report have previously criticised the sustainability calculations in the budget and financing bills.¹⁷⁴ There have been a number of shortcomings. The assessment of sustainability has been based on a public debt ratio at an arbitrarily chosen final year. The central government debt, not the public sector net debt, has been used as the debt measure. The assumptions behind the calculations have not been clearly reported, nor has it been made clear how these assumptions have changed from one bill to another and why the results have differed. The uncertainty in the calculations has been inadequately stated and there have been few alternative scenarios. Their presentation has generally been complicated and difficult to follow.

¹⁷³ Member States in the monetary union are required to prepare stability programmes, while other EU countries must prepare convergence programmes. Review of these programmes is part of the multilateral surveillance in the EU. The ECOFIN Council (the EU finance ministers) adopts an opinion on the programmes after recommendations from the Commission (see Calmfors 2005).

¹⁷⁴ Fiscal Policy Council (2008), Section 2.6.

The Ministry of Finance has taken these criticisms into account and gradually improved the calculations and their reporting. From the 2007 Budget Bill onwards, the S2 indicator recommended by the EU Commission has been used. As discussed in Section 2.5, this indicator is based on meeting an *intertemporal budget constraint* on the public finances. This means that *primary* net lending in the future, i.e. the difference between revenue and expenditure excluding interest, must be at least as large as the outstanding net debt.¹⁷⁵ If, like Sweden, a country instead has a positive financial net worth, the sum of future budget deficits must not be allowed to exceed this net worth. The S2 indicator shows the permanent annual budget improvement that would be needed to just meet the intertemporal budget constraint

Both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill explain how the assumptions behind the calculations have changed in relation to previous calculations and what effect this has had on the results. Furthermore, a number of alternative scenarios (six in the Budget Bill and nine in the Spring Fiscal Policy Bill) with different assumptions on developments in employment, productivity and the level of service in public consumption are reported.

One remaining problem in the sustainability calculations, however, is the difficulty in relating alternative scenarios to specific policy instruments. This applies, for example, to the scenarios for better integration of immigrants found in both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill. Can better integration like that proposed in the scenarios be achieved at no cost? If not, then the sustainability calculations should take into account the public expenditure that may be required to improve employment in this way.

The models used in the sustainability analyses also need to be further developed. The models are very detailed as to the mechanics of various taxes and benefits systems, for example, but are much sparser in systematically describing individuals and firms' behaviour, i.e. how they react to various economic incentives. An expanded analysis of key behavioural relationships is desirable and would make it possible to better evaluate alternative scenarios.

¹⁷⁵ A more technical presentation can be found in Appendix 1.

3.2.2 Sustainability calculations in the Spring Fiscal Policy Bill

According to the 2009 Budget Bill, the current fiscal policy was sustainable in the long run. The base scenario described implied an S2 indicator of -0.1, which should be interpreted as indicating room for a permanent budget weakening of 0.1 per cent of GDP.¹⁷⁶ The 2009 Spring Fiscal Policy Bill includes new sustainability calculations. According to its base scenario, the value of the S2 indicator instead comes to 0.5, which means that fiscal sustainability will require a permanent budget improvement of 0.5 per cent of GDP. The conclusions drawn are that “fiscal policy is virtually sustainable in the long run” and that primary net lending (i.e. net lending excluding interest) in the period 2013-2019 should be 0.8 per cent of GDP for the policy to be exactly sustainable (i.e. give an S2 indicator equal to zero).¹⁷⁷

The Spring Fiscal Policy Bill gives the impression that the new calculations only involve a minor change in the assessment of fiscal sustainability in relation to the Budget Bill: a worsening of the S2 indicator by 0.6 percentage points. But the change is actually much greater. The estimates in the Budget Bill included a *technical adjustment*, which is based on an assumption of a permanent increase in transfers to households of as much as 3.3 per cent of GDP, which would be gradually phased in over the period 2012-2015. According to earlier calculations, there was thus room for much larger future public expenditure increases or tax reductions without causing any sustainability problems. According to the base scenario in the Spring Fiscal Policy Bill, however, sustainability problems (though relatively small) will also occur if there are no such permanent expenditure increases or tax reductions in the years 2012-2015. This accordingly implies a very dramatic revaluation of earlier sustainability assessments with potentially major consequences for future economic policy. The Spring Fiscal Policy Bill falls short in clearly reporting and commenting on this.

If the technical adjustment is correctly taken into account, the S2 indicator has actually changed from -3.4 to 0.5, i.e. by as much as 3.9

¹⁷⁶ See the 2009 Budget Bill, Section 8.4.

¹⁷⁷ See p. 190.

percentage points, which should have been clearly pointed out.¹⁷⁸ We criticised the technical adjustment in our 2008 report because it decreased the transparency of the sustainability estimates and proposed that it be eliminated.¹⁷⁹ It is good that this has now been done, but at the same time the incomplete discussion of this change makes it difficult to understand the differences compared with previous calculations.

According to the sustainability calculations in previous budget and financing bills, general government net lending would decline sharply after 2020 and eventually turn into a deficit of about 1-1.5 per cent of GDP. But according to the Spring Fiscal Policy Bill, surpluses of varying size are expected to continue throughout the period 2015-2060.¹⁸⁰ It may seem difficult to square this with the fact that the S2 indicator in the Spring Fiscal Policy Bill shows a worse outcome than in previous bills. The explanation quite likely is that there will be systematic budget deficits after 2060. This should have been clearly explained.¹⁸¹

The revised sustainability estimates are also based on a number of other changes in the assumptions. One important change is a revised estimate of the growth in public consumption. The relative price of public consumption increases more than it did in previous calculations, but the volume increases less. The change in the relative price prevails, however, and as a result, future public consumption makes up a larger percentage of GDP in the Spring Fiscal Policy Bill than in the Budget Bill. These changes in the assumptions may well be justified, but it is difficult to decide, based on the information provided.

We welcome the expanded sensitivity analysis of the sustainability calculations and the increase in the number (to nine) of different scenarios analysed.

¹⁷⁸ There is now a discussion of the removal of the technical adjustment only in a footnote in the main text (p. 196), which in all likelihood means that many readers will not understand its significance. What discussion there is can now be found in Appendix 4, which provides a more technical report of the sustainability calculations. The appendix begins with the statement: "To avoid burdening the chapter with too much detail, this is instead reported in this appendix" (p. 5). It is an understatement, to say the least, to consider the removed 'technical adjustment' a technical detail.

¹⁷⁹ See Fiscal Policy Council (2008), Section 2.6.5.

¹⁸⁰ See Figure 2.1 above.

¹⁸¹ Now it says only in Appendix 4 that "the worsening in the S2 indicator may intuitively be difficult to understand" and that primary net lending will be negative in 2099, which is the final year used in the estimates (p. 15). The meaning of the latter information would escape most readers.

According to the base scenario in the Spring Fiscal Policy Bill's sustainability calculations, the severe economic crisis will have only marginal effects on fiscal sustainability, in spite of the deficits expected in the next few years.¹⁸² We share this assessment: there will be significant effects only if the recession has long-term structural effects, for example, on employment. The estimates assume that there will be some permanent effects on employment, but that they will gradually disappear (by 2027). These may be reasonable assumptions, but the brief text makes an evaluation difficult.¹⁸³ Generally speaking, it would have been desirable to have had more sensitivity analyses of what impact the length and depth of the recession and possible additional fiscal stimulus measures would have on long-term fiscal sustainability. This is a serious deficiency since a principal message in the Spring Fiscal Policy Bill is that the long-term fiscal sustainability requirement sets narrow limits on the extent to which fiscal stimulus measures can be used to counteract the economic downturn. This conclusion should have been better substantiated with the help of more alternative scenarios. These scenarios should also have described the long-term sustainability consequences of various assumptions about the possible need to redeem some of the central government credit guarantees, since it is precisely that risk that has been emphasised in the guidelines chapter of the Spring Fiscal Policy Bill.¹⁸⁴

One important improvement in the sustainability calculations in the Spring Fiscal Policy Bill is that they contain explicit estimates of how later labour market exit may be one method of safeguarding fiscal sustainability. The assumption is that the exit age increases at the same pace as longevity. This has a sizeable effect. The S2 indicator improves by as much as 1.3 percentage points. The comment on this is:¹⁸⁵

Otherwise a policy resulting in long-term sustainability implies that current generations will finance the increase in future generations' percentage of years spent solely in leisure.

¹⁸² See p. 190.

¹⁸³ Appendix 4, p. 7.

¹⁸⁴ See, for example, p. 36.

¹⁸⁵ See Appendix 4, p. 15.

However, this analysis represents only an embryo for a more complete analysis of the trade-offs between working more and pre-funding of the type we argue for in Section 2.5, where we discuss the possibilities of integrating the fiscal and employment frameworks. This trade-off is crucial for economic policy. It should therefore be given a prominent place in the Government's considerations rather than only a mention *in passing* in a few sentences in an appendix.

3.2.3 Intertemporal worth

One way of connecting sustainability calculations to a 'snapshot' of the public sector wealth situation is to supplement the usual measure of wealth with a measure of what the IMF calls *intertemporal net worth*. This is something the IMF recommends and has done for countries such as Germany, Switzerland and Sweden.¹⁸⁶

In the IMF's latest Country Report on Sweden, first public sector *current* net worth is estimated as the difference between existing assets and liabilities in 2007.¹⁸⁷ Then a projection of public revenue and expenditure is made so that the future path for net worth can be estimated. This is then discounted back to its present value and added to current net worth to get a measure of the intertemporal total net worth. The public finances are regarded as sustainable in the long run if the intertemporal total net worth is zero or positive. A negative value means that the public sector, given no policy change, would be living beyond its means.

A similar calculation can be made – and has also been made by the IMF – for the intertemporal *financial* net worth. This calculation includes in principle the same information as the S2 indicator discussed earlier.¹⁸⁸ The S2 indicator states the permanent annual budget improvement that would be needed to exactly meet the intertemporal budget constraint. A positive S2 indicator is offset by a negative value for intertemporal financial net worth. This is simply the discounted present value of the S2 indicator (with the opposite sign), i.e. a conversion of the S2 indicator to the increased financial net worth that would be required to provide a return as large as the

¹⁸⁶ IMF (2006, 2007, 2008c). An alternative name for the term 'intertemporal net worth' is 'comprehensive net worth'. See also Bradbury et al. (1999) or Milesi-Ferretti and Moriyama (2004). Appendix 1 provides a more technical discussion.

¹⁸⁷ IMF (2008c).

¹⁸⁸ See Sections 2.5.1 and 3.2 in this report.

value for the S2 indicator. Table 3.1 shows the relationship between the S2 indicator and the intertemporal financial net worth. The three scenarios and the resulting S2 indicators are taken from the 2009 Spring Fiscal Policy Bill.¹⁸⁹

A positive intertemporal *financial* net worth requirement for fiscal sustainability is tighter than a positive intertemporal *total* net worth requirement, since the stock of real capital is included in the latter measure. This is a truer measure of public sector solvency since it takes into account that future commitments can in principle be financed by the sale of real capital.

One prerequisite, however, is that the real capital stock is valued at market value, i.e. the value at which it can be sold. If setting a market value is not possible, but real capital with no or a low pecuniary return is valued at historical costs exceeding the market value, the measure of intertemporal total net worth will overestimate fiscal sustainability. In this case the relevant measure of intertemporal worth – as an indicator of public sector solvency – is somewhere between the measure of intertemporal total net worth and intertemporal financial net worth.

In our opinion, it could be pedagogically valuable if the budget bills also presented the fiscal sustainability calculations using the intertemporal net worth measures as the IMF recommends. One proposal would be to present estimates for both total and financial net worth as well as the S2 indicators. (The estimate of the intertemporal total net worth can be converted to an S2 indicator in a manner analogous to the estimate of the intertemporal financial net worth.¹⁹⁰)

Table 3.1 The S2 indicator and intertemporal financial net worth, per cent of GDP

	S ₂	Intertemporal financial net worth
Base scenario	0.5	-52.5
Higher exit age	-0.8	84.0
Higher health care costs	8.2	-861.0

Note: The nominal interest rate is expected to be 5 per cent and the nominal GDP growth rate 4 per cent (2 per cent real growth and 2 per cent inflation).

Sources: The 2009 Spring Fiscal Policy Bill and the Council's own calculations.

¹⁸⁹ See Sections 12 and Appendix 4.

¹⁹⁰ See Appendix 1.

Such supplementary reporting could increase understanding of fiscal sustainability problems. This can be illustrated by Table 3.1. The first row in the table shows that a permanent annual budget improvement of 0.5 per cent of GDP (the S2 indicator) is required to achieve sustainable public finances in the Government's base scenario and that this would correspond to an immediate increase in public sector net financial worth today of 52.5 per cent of GDP. The second row shows that if the labour market exit age were to rise at the same pace as longevity, then annual net lending as a percentage of GDP could be 1.3 percentage points lower than in the base scenario ($0.8 + 0.5$). The effect of the higher exit age on fiscal sustainability would be equivalent to an increase in current financial net worth as a percentage of GDP of 136.5 percentage points ($84.0 + 52.5$).

Finally, the third row in the table clearly shows the sustainability problems that occur in a scenario with higher health care costs (where public consumption increases by 0.2 percentage points more per year as a percentage of GDP than it does in the base scenario). According to the S2 indicator, an annual permanent budget improvement of as much as 8.2 per cent of GDP will then be required. The sustainability problem can, however, also be expressed in terms of the future budget deficits that would emerge, given no change in policy. They would entail sustainability problems on the scale of a public sector net debt today of 861 per cent of GDP (instead of the current 13.8 per cent). Also reporting a forward looking net worth measure (debt measure) should help improve insight into the sustainability problems that may arise.

4 Public investment

Public sector production capacity is determined not only by the number of people employed but also by the amount of capital in the form of buildings, machines and so forth that the sector has at its disposal. In turn, the available capital stock is determined in the long run by public investment. The public sector capital stock is also an important component in assessments of the public sector net worth and fiscal sustainability.¹⁹¹

In our 2008 report, we criticised the shortcomings in the reporting of public sector real savings.¹⁹² This criticism remains valid. Both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill still lack a report of the development, level and composition of public investment. Nor is any attempt made to analyse whether the level of public investment is optimal. This means that there is no proper basis for deciding whether the current fiscal framework with a surplus target for public sector net lending crowds out public investments in favour of other public expenditures. This chapter describes and discusses trends in public investment and the public capital stock in recent decades. Unfortunately, the analysis is limited by significant deficiencies in the official statistics. This reflects the lack of policy interest in public investment.

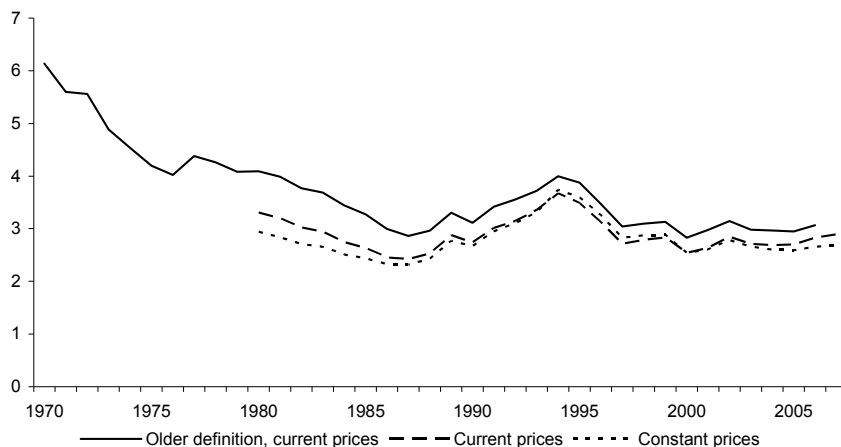
4.1 Trends in public investment

Public investment as a share of GDP has declined since the 1970s (see Figure 4.1). After having represented more than five per cent of GDP in the early 1970s, public investment fell to barely three per cent of GDP in the 1980s. Since the mid-1980s, there has no longer been any clear trend in public investment as a share of GDP.

After a temporary increase during the economic crisis in the early 1990s, public investment as a percentage of GDP has returned to the level of about three per cent of GDP where it had stood before the 1990s crisis.

¹⁹¹ See Section 3.1.

¹⁹² Fiscal Policy Council (2008), Section 2.2.

Figure 4.1 Public investment, per cent of GDP

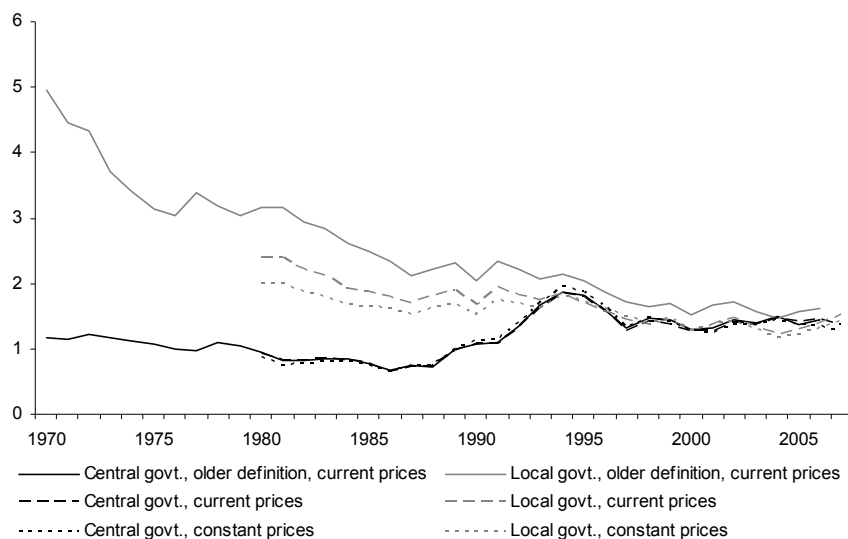
Note: The older definition is taken from Statistics Sweden (2008). Other series are from the National Accounts. Deviations between the older definition and the National Accounts series in current prices is due to several statistical changes. Investment is calculated in constant prices using 2000 as the reference year.

Sources: Statistics Sweden and the National Institute of Economic Research.

The main explanation for the decline in public investment as a percentage of GDP since the beginning of the 1970s is that investment in the local government sector (municipalities and county councils) declined in relation to GDP. This can be seen in Figure 4.2. During the first half of the 1970s, local government investment came to more than four per cent of GDP and at that time made up most of the public investment. Since then the local government sector's investment has fallen as a percentage of GDP and today is about 1.5 per cent of GDP.

Central government investment has, on the contrary, not fallen as a percentage of GDP. Figure 4.2 shows that central government investment in the period 1970-1990 was stable at just under one per cent of GDP. During the years of economic crisis in the 1990s, central government investment as a share of GDP increased sharply. Thereafter it has stabilised at a higher level than in the 1970s and 1980s.

Figure 4.2 Local government and central government investment, per cent of GDP



Note: See Figure 4.1.

Sources: Statistics Sweden and the National Institute of Economic Research.

The decline in local government investment can partly be explained by the trend in local government consumption. From the beginning of the 1950s to the mid-1980s, local government consumption increased from 5 to 20 per cent of GDP. Central government consumption has, however, accounted for approximately the same percentage of GDP since the 1950s.¹⁹³ It is natural that the expansion of local government consumption in earlier periods required large local government investment and that investment then fell when the expansion came to an end. Since investment normally precedes consumption (a hospital is first built, then it provides medical treatment), it is also logical that investment declined as a percentage of GDP already before local government consumption stopped growing.

Many municipalities may also for strategic reasons have chosen to finance major investments by borrowing prior to the municipal amalgamations of the 1970s.¹⁹⁴ A small municipality about to merge with a large one had strong incentives for such behaviour. By

¹⁹³ Statistics Sweden (2008), p. 35.

¹⁹⁴ See Hinnerich-Tyrefors (2009).

investing in real capital, future municipal consumption was tied to the inhabitants of the previously small municipality, whereas the future borrowing costs were then borne by all the inhabitants of the expanded municipality.

4.1.1 What public investment has declined?

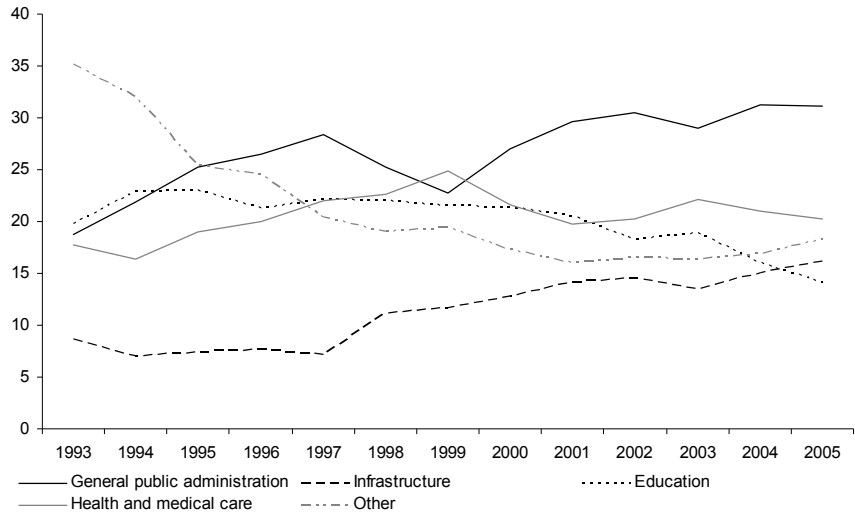
The purpose of central government sector investment and the local government investment differs. Health care, schools and social services are mostly conducted on the local government level, while the central government is responsible for most of the transportation infrastructure and defence, for example.

Figure 4.3 shows local government investment for various purposes over the period 1993-2005. The shares of infrastructure investment and investment in general public administration have increased, while the shares of other investment (including housing provision and leisure/culture) have decreased.¹⁹⁵ The shares allocated to education and health care and medical treatment have been relatively constant during this period.

Figure 4.4 shows that most of central government investment is investment in infrastructure. The share of central government investment allocated to infrastructure decreased in the period 1995-2000, but has now recovered its earlier levels. At the same time, as Figure 4.2 shows, total central government investment was approximately the same percentage of GDP as it was at the end of the 1990s. Central government infrastructure investment is thus now responsible for a higher percentage of GDP than it was in the latter part of the 1990s.

¹⁹⁵ The official COFOG classification of what we call infrastructure investment has the somewhat peculiar name 'investment in economic affairs'. For the short period that data are available (2001-2006), more than 95 per cent of the 'investment in economic affairs' consisted of investment in transport infrastructure.

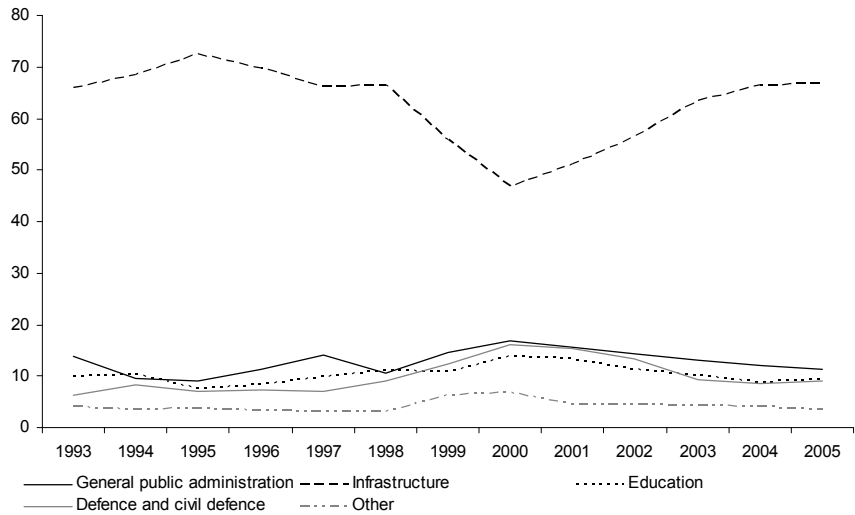
Figure 4.3 Local government investment for various purposes, per cent of total local government investment



Note: All series are in current prices.

Sources: Statistics Sweden and the National Institute of Economic Research.

Figure 4.4 Central government investment for various purposes, per cent of total central government investment



Note: All series are in current prices.

Sources: Statistics Sweden and the National Institute of Economic Research.

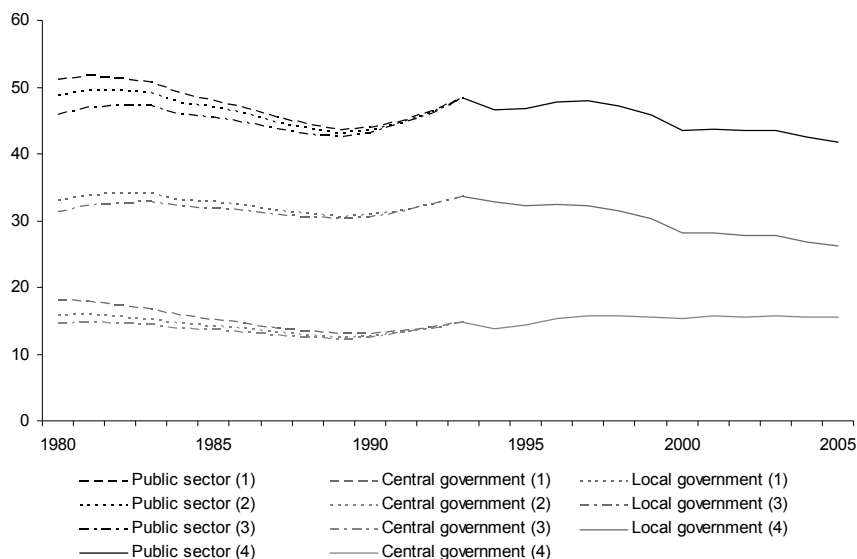
4.1.2 Trends in public capital stock

The public capital stock consists of the present value of historical public sector investments, i.e. the sum of all investment minus accumulated depreciation.¹⁹⁶ Figure 4.5 shows the development of the capital stock in various parts of the public sector. Statistics Sweden provides the official public sector capital stock statistics from 1993. Since then, the public sector capital stock has declined from 48 to 42 per cent of GDP, i.e. by six percentage points. There are no official statistics available for 1980-1992. Therefore we have made our own estimates for this period.¹⁹⁷ There appears to have also been some decrease in the capital stock as a percentage of GDP in the 1980s, but in the early 1990s, public sector capital stock as a percentage of GDP rose again. The weak GDP development in this period provides one explanation while high public investment is another (see Figure 4.1).

Like investment, the capital stock as a percentage of GDP has declined in the local government sector. Unlike investment, this decline cannot be explained by trends in local government consumption. After a build-up phase, the capital stock as a percentage of GDP should be expected to follow the same trend as consumption as a percentage of GDP. Local government consumption has remained relatively constant as a percentage of GDP since the beginning of the 1980s. The decrease in local government capital stock as a percentage of GDP thus raises the issue of whether production capacity in the sector is sufficient to maintain local government consumption at the current level in relation to GDP in the future. Moreover, demographic trends, indicate rather that there is a demand for, and a need of, increased local government consumption relative to GDP going forward (see Sections 2.3 and 6.3 for a more in-depth analysis). If this turns out to be the case, increased investment in the local government sector will be necessary in the future.

¹⁹⁶ Depreciation ideally measures the *economic* depreciation of the capital stock rather than the *physical* depreciation. If the depreciation of fixed capital is estimated in this way, the value of the capital stock reflects the market value of the real capital assets. Since there are no markets for much of the real capital that the public sector invests in, the estimated depreciation is in practice often based on assumptions about physical depreciation.

¹⁹⁷ See Appendix 2 for a description of these estimates.

Figure 4.5 Public sector capital stock, per cent of GDP

Note: All series are in constant prices, reference year 2000. The series prior to 1993 are estimated using the method described in Appendix 2. (1)-(3) indicate different methods of estimation, which are presented in Appendix 2. (4) are from the National Accounts.

Sources: Statistics Sweden, National Institute of Economic Research and the Fiscal Policy Council.

There are several other reasons for studying the public sector capital stock. It represents an important part of public sector total net worth.¹⁹⁸ It is also necessary to have an understanding of how large the public capital stock is to take a position on whether public investment should increase or decrease. An assessment of this type is, however, very difficult to make. If an assessment of whether the capital stock is too big or too small is to be based on efficiency criteria, it is the utility the capital stock can provide, rather than the market value, that is relevant. Whether these variables differ or not depends on whether there are any external effects. External effects are effects that do not involve but that still affect the utility of those who do not own the capital stock.¹⁹⁹

If there are no external effects, the market value of the capital stock is a measure of the willingness to pay for the capital stock and reflects the utility that the capital stock can provide. For public capital, there are, however, substantial positive external effects, which

¹⁹⁸ For further details, see Section 3.1.1.

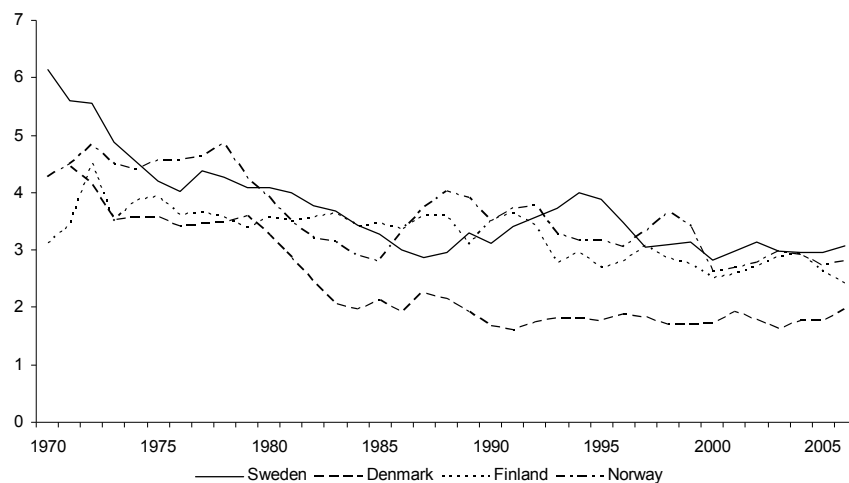
¹⁹⁹ See Section 4.2 for a more detailed discussion of the external effects of public investment.

mean that the market value understates the value.²⁰⁰ Even in a social cost-benefit appraisal of an individual investment project, the size of the public sector capital stock is relevant, since the utility of a further investment probably is greater the smaller the capital stock is. Against this background, the official historical statistics covering the public sector capital stock are unsatisfactory. Statistics Sweden should as soon as possible be instructed to produce better statistics of this kind.

4.1.3 Is Sweden any different from the rest of the world?

It is natural to compare public investment in Sweden and the other Nordic countries. One reason is that relative factor price developments, for example, of labour costs in relation to capital costs, can be expected to be relatively similar. Thus, the economic incentives for public investment should not have differed so much. As Figure 4.6 shows, public investment was substantially higher in Sweden than in the other Nordic countries at the beginning of the 1970s. From the mid-1980s, when the Swedish investment ratio fell relatively sharply, public investment as a percentage of GDP has been approximately the same in Sweden, Norway and Finland. Denmark has consistently had lower public investment than other Nordic countries. Seen over the entire period, investment in the public sector as a percentage of GDP has been substantially more stable in Denmark, Finland and Norway than in Sweden.

²⁰⁰ For certain goods that the public sector invests in, the market prices are also very uncertain since the public sector totally dominates these markets. For this reason, public sector decisions have a major impact on market prices, which makes it difficult to assess trends in the public sector capital stock with the help of market prices.

Figure 4.6 Public investment, per cent of GDP

Note: Series for both investment and GDP are in current prices.

Sources: OECD, Statistics Sweden and the National Institute of Economic Research.

4.2 The need for public investment

Public investment is needed to make public production possible. It can also be motivated by market failures implying that socially desirable investments do not take place.

Sweden has a large public sector. The public sector invests, for example, in schools and hospitals since these activities are largely conducted in the public sector. Neither public production nor public funding, however, require public investment. One can very well conceive of private ownership of schools and hospital buildings, for example. One complication, however, is that investment for public production often has a limited alternative value. If a private firm owns a hospital building, it will require compensation for the risk of the hospital being closed down, since the building then can hardly be sold at a price equivalent to the investment cost. This can justify public investment.

From society's perspective, an investment should be carried out if revenues to society as a whole exceed the costs of the investment to society. Such investments are deemed socially desirable. This criterion is valid irrespective of whether or not the return is monetary

and irrespective of whether or not the entity financing the investment receives the return.

Most socially desirable investments are profitable for the private sector to carry out. There are no economic grounds for public sector financing of these investments. Public investment is needed when an investment is socially efficient, but the private sector nevertheless does not have the incentive to carry out the investment.

One usual argument for the need for the public sector to carry out certain investments is the prevalence of *external effects*, as discussed above.²⁰¹ For example, infrastructure investment in roads is not only of value to people using them but also to others in the general proximity of the road. If a private firm builds a motorway with the intention of financing the investment through tolls, it will not take into account the increased earnings potential which will be generated for the rest of the regional economy. If the private sector is to finance investments with large external effects, this investment will likely be too small.

Moreover, the production of many goods is associated with *increasing returns to scale*. This implies that the higher the production volume is, the lower the unit cost of production will be. One firm can then produce a given amount of goods at a lower cost than several firms can. Markets characterised by falling unit costs are called natural monopolies, since it is socially efficient that only one firm produces the good. Typical examples of natural monopolies are networks, such as sewage systems, electricity, telephone and broadband, where the fixed cost of constructing the network is very large but it costs very little to connect additional users. Private monopolies, however, generally imply that output of the good is too small compared with what is socially desirable. Public sector operation of natural monopolies may therefore be justified.

Imperfect capital and insurance markets may also signify that socially desirable investments will not be carried out by the private sector. The corporate finance literature points out that imperfect and/or asymmetric information may prevent investments that benefit society from being realised.²⁰² Asymmetric information between an insurer

²⁰¹ Public goods have particularly large external effects. A public good is a good for which the consumption value for the individual is not affected by others consuming the same good. A good environment is a classic example.

²⁰² See, for example, Tirole (2006) for a number of examples of this.

and an agent that wants to insure an investment project may mean that it is not possible for the latter to get any insurance. If there is no possibility of insuring an uncertain project, there is a risk that investments with a positive expected present value will not take place in the private sector. The relatively large size of the public sector provides scope for risk diversification in the public sector. If this is the case, it may be socially desirable that the public sector makes the investments.

4.3 Risk of over- and under-investment

Despite the theoretically simple criterion of what constitutes a socially desirable investment, in practice it is genuinely difficult to decide the appropriate level of public investment. It is difficult to estimate the social value of public goods and external effects since they are not priced in a market. This is particularly true for soft values such as improved health and a better environment.

Furthermore, the cost of a public investment is difficult to estimate. Public investment is financed with taxes, either at the time the investment is made or in the future. A cost-benefit analysis must therefore take into account the cost of higher taxes. This cost depends on how much higher taxes distort the private sector's economic decisions and is thus determined by factors that are difficult to estimate, for example, how sensitive the labour supply is to tax changes. Moreover, more complex general equilibrium effects have to be taken into account. Private investments may, for example, be crowded out by the higher real interest that may follow increased borrowing by the public sector to finance its investments.

The difficulty of making adequate social cost-benefit analyses indicates that such analyses should be made by expert authorities and serve as a basis for decision-making in the political process. This helps clarify what priorities have been assigned various objectives such as efficiency and equity.

Against this background, it is positive that the Government, in connection with the 2008 Infrastructure Bill, announced an effort to improve cost-benefit analyses.²⁰³ Both the 2009 Budget Bill and the Infrastructure Bill state that in future, such analyses will be made a

²⁰³ Govt. Bill 2008/09:35.

more important part of the decision-making basis when investing in infrastructure than has previously been the case.

Even in the hypothetical case where the social cost-benefit calculations are correct, there is reason to fear that public investment may end up at the wrong level. In our 2008 report, we pointed out that the fiscal objective for general government net lending risks displacing public investment for the benefit of public consumption.²⁰⁴ International experience has also shown that public investment is often disproportionately cut back during budget crises when public finances must be consolidated.²⁰⁵ One explanation often given is that it is more difficult to cut back on transfers and consumption since these generally affect groups with great voting strength.

Political economy research has also analysed how political polarisation – combined with uncertainty about the outcome of future elections – may give rise both to too high and to too low public investment because politicians give a higher priority to short-term than to long-term considerations. Peletier et al. (1999) argue that a balanced budget requirement may lead to too little public investment. The reason is that the type of public consumption preferred differs between political camps. The incumbent government therefore attempts to increase expenditure on consumption that its voters are most concerned about. With an ambitious budget balance target for *net lending*, there are strong incentives to finance consumption increases by cutting back on public investment. Beetsma and van den Ploeg (2007) assume instead that political disagreement concerns what investments should be carried out. In their model, the incumbent makes investments that its voters will benefit from. This results in too high investment.

4.4 Public sector size and public investment

There are several reasons why the size of the public sector affects the level of public investment. The most obvious is that some public investment is necessary in order to carry out public production. This tends to create a positive relationship between the level of public investment and the size of the public sector. This relationship should

²⁰⁴ Fiscal Policy Council (2008), pp. 49-53.

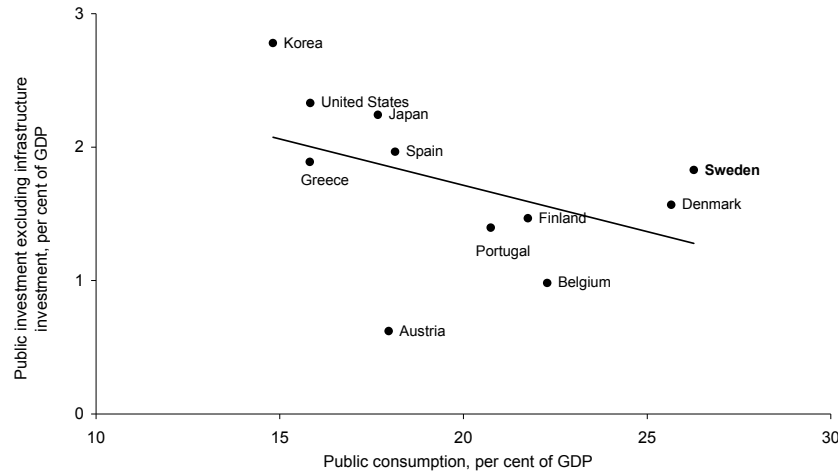
²⁰⁵ Turrini (2004).

be particularly strong between public consumption (which is more or less the same thing as public production) and public investment excluding infrastructure investment (which is public investment which is largely made for the benefit of the private sector).

Figure 4.7 shows that there is a weak *negative* relationship between public investment for consumption (investment excluding infrastructure investment) and public consumption, the exact opposite of the argument above. There are several possible explanations for this. If a country aims to increase public consumption in relation to GDP, this tends to lead to relatively high investment at a low (but steadily increasing) consumption level. Spain, Greece, Japan and Korea are examples of countries which have increased public consumption as a percentage of GDP from low levels over the past 20 years. In Sweden, Denmark and Finland, however, public consumption as a percentage of GDP has been fairly stable. It is natural that public investment is highest when the public sector is expanding, which may contribute to the negative relationship in Figure 4.7. For those countries that already had high public consumption in the 1980s, i.e. Sweden, Denmark, Finland, Belgium and Austria, there is also a clearly positive relationship between investment for public consumption and public consumption as a percentage of GDP.

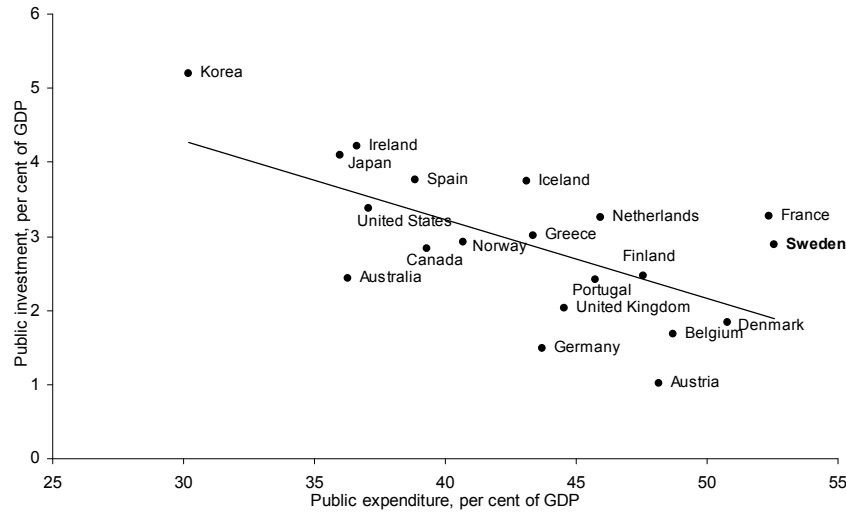
There are also other effects that can create a negative relationship between public sector size and the level of public investment. Investment in the public sector is financed with taxes. According to established economic theory, efficiency losses caused by higher taxation grow with the tax rate. Countries that have high egalitarian ambitions, and thus high taxes to finance large transfers, therefore have a higher marginal cost for public investment. This may crowd out such investment. Figure 4.8 also shows that there is a clearly negative relationship between total public expenditure and total public investment, both as percentages of GDP, in the OECD.

Figure 4.7 Relationship between public investment excluding infrastructure investment and public consumption for OECD countries, 2006



Note: Infrastructure investment refers to the COFOG category 'economic affairs'.
Source: OECD.

Figure 4.8 Relationship between total expenditure and public investment for OECD countries, 2006



Note: Public expenditure refers to what the OECD calls 'government total expenditures'.
Source: OECD.

4.5 Current public investment

The 2009 Budget Bill contains a short-term transport investment package of SEK 7.6 billion for 2009 and 2010. This short-term package is a part of an increase in the expenditure level in the transport area by SEK 3.85 billion. According to the Infrastructure Bill, the increase in the level is intended also to apply in the period 2011-2020. The bill, Measures for Jobs and Adjustment (*Åtgärder för jobb och omställning*) from January 2009 involves a further increase of investment in transport infrastructure in the period 2009-2011 of SEK 1 billion compared with the Budget Bill.²⁰⁶ In the 2009 Budget Bill, public sector investment was estimated to average 3.1 per cent of GDP from 2009 to 2011. According to the 2009 Spring Fiscal Policy Bill, public investment as a percentage of GDP will be higher and is expected to average 3.4 per cent of GDP from 2009 to 2011. The difference compared with the Budget Bill is due both to the measures in the January bill and to a lower estimate of GDP than in the Budget Bill.

The justification for the Government's policy is that there are deficiencies in the transport system where maintenance work is needed. The Infrastructure Bill in addition includes measures to expand the transport system. It is beyond our competence to judge the extent to which roads and railways need maintenance and what means of transport will be in demand in the future. We would, however, criticise the lack of an adequate basis in the Budget Bill, the Infrastructure Bill and the Spring Fiscal Policy Bill for judging if, and if so, the extent to which, it is justified to increase central government investment. There is an acute need to improve the decision-making basis in this area.

To the extent that these initiatives are needed, cyclical reasons justify bringing some of them forward. This has been done with the extra initiatives in the January bill. This is discussed in more detail in Section 1.2.3.

4.6 Conclusions

To sum up, we are surprised at the lack of good statistics with respect to investment and the capital stock in the public sector. There

²⁰⁶ Govt. Bill 2008/09:97.

has been much too little interest devoted to this area. Consequently, the Riksdag has not had a satisfactory basis for making decisions. This needs to be substantially improved. It requires action from Statistics Sweden and a better analysis in the budget bills.

We have made a first attempt to provide a better overview of investment and capital stock in the public sector. Our analysis does not provide any strong evidence that central government investment has been neglected. However, there is much to indicate that there may be a need to increase local government investment in the future. The lack of a satisfactory statistical base, however, makes these conclusions very uncertain. To make more definite conclusions requires Statistics Sweden to improve its statistics. It also requires the Ministry of Finance and the Ministry of Enterprise, Energy and Communications to produce better analytical material.

5 Labour market policy

When the current Government took office in autumn 2006, the principal problem in the labour market was persistent low employment in a boom. This could be construed as a situation of low equilibrium employment resulting from a badly functioning labour market. The new Government's labour market policy was designed to address this problem. In our 2008 report, our assessment of the employment reforms implemented to date was that they can be expected to have significant employment effects in the long run.

The rapid deterioration in the labour market situation, however, now forces labour market policy – just like other economic policy – to shift much of its focus to confronting challenges other than those it was designed for. One major issue is therefore how well the labour market policy implemented when the current Government took office suit the labour market situation we now face.

Section 5.1 provides an overview of labour market developments. Section 5.2 discusses active labour market policy, while Section 5.3 deals with unemployment insurance.

5.1 Labour market developments

Labour market developments have been positive in recent years until autumn 2008 when the financial crisis deepened. From the last quarter of 2006 up to the end of the second quarter 2008, employment increased from 74.0 to 75.3 per cent of the population aged 16-64. At the same time, unemployment fell from 6.8 to 5.9 per cent of the labour force (see Figure 5.1).

The Government's policy has focused on reducing equilibrium unemployment, i.e. the unemployment that is consistent with stable inflation and around which unemployment fluctuates over the business cycle. In the favourable cyclical situation that prevailed during the Government's first 18 months in office, this was a very reasonable strategy. In our 2008 report, we estimated that the first two steps of the earned-income tax credit, together with the changes in unemployment insurance will in the long run result in a decline in

equilibrium unemployment of about one percentage point.²⁰⁷ It normally takes time before lower equilibrium unemployment has an impact on actual unemployment. Therefore it was our opinion that the declining unemployment in 2007 and the first half of 2008 was primarily due to the favourable cyclical situation.

Unemployment will rise sharply over the next few years. In autumn 2008, redundancies increased substantially and this has continued during spring 2009. About two per cent of the employed were given notice from September 2008 through February 2009.²⁰⁸ The National Institute of Economic Research (NIER) predicts that unemployment will rise to 10.7 per cent and that the employment rate will decline to 70.9 per cent in 2010.²⁰⁹ The Government's forecast in the Spring Fiscal Policy Bill is that unemployment will rise to over 11 per cent and that the employment rate will decline to 70.6 per cent in 2010. In 2011 unemployment is expected to be almost 12 per cent.

The expected steep rise in unemployment may have long-term consequences in the form of higher equilibrium unemployment and lower equilibrium employment. In its latest forecast, the NIER estimates that equilibrium unemployment will rise by one percentage point by the end of 2010. There are several reasons why higher cyclical unemployment may lead to higher equilibrium unemployment. Those laid off from declining industries lose sector-specific human capital and may have difficulty getting jobs with wages as high as before. This weakens the incentives to look for a job.²¹⁰ Rising unemployment also affects wage formation. This affects primarily those with a weak attachment to the labour market (outsiders) and reduces their chances of competing with insiders for jobs. As a result, wage increases in a future economic upturn may become so high that the increased unemployment will become permanent.²¹¹

²⁰⁷ Fiscal Policy Council (2008), p. 213. See also Forslund (2008). The National Institute of Economic Research has also revised its estimate of equilibrium unemployment downwards, partly as a result of the Government's labour market reforms and partly because the low wage increases in recent years indicate that wage formation now functions better than before (National Institute of Economic Research 2006, 2008b).

²⁰⁸ This corresponds to almost 100 000 people. The corresponding figures for the same period 2007-2008 were just under 18 000.

²⁰⁹ National Institute of Economic Research (2009).

²¹⁰ See Ljungqvist and Sargent (2006) for an analysis of the impact of such effects on unemployment in Sweden in the 1990s.

²¹¹ See, for example, Lindbeck and Snower (1988).

Figure 5.1 Unemployment, equilibrium unemployment and employment in per cent



Note: Unemployment as a percentage of the labour force according to the ILO definition, which includes students seeking work (left axis). Employment as a percentage of the population aged 16-64 (right axis). Equilibrium unemployment estimated by the National Institute of Economic Research (left axis). Forecasts for 2009-2010 are by the National Institute of Economic Research from *The Swedish Economy*, March 2009.

Source: National Institute of Economic Research.

Employment can be expected to decline more than unemployment will increase. Figure 5.1 shows that this is what happened during the 1990s crisis. This can be explained by the decline in the labour supply when unemployment is high since the return to labour force participation then decreases.

During the 1990s, unemployment rose from about 2 per cent in 1990 to about 12 per cent in 1997. In the same period, equilibrium unemployment climbed from 3 to 7 per cent, according to the NIER.²¹² According to this estimate, equilibrium unemployment has since remained at a higher level than before the crisis. These estimates illustrate the risk that the upturn in cyclical unemployment now taking place may have long-term effects on equilibrium unemployment. There are, however, some reasons to believe that the potential effects may be smaller now than during the 1990s crisis. Unemployment benefit levels are lower, they decline with the length

²¹² A similar picture is given in Assarsson and Jansson (1998). According to Lindblad and Sellin (2003), however, equilibrium unemployment was largely unchanged during the 1990s.

of the unemployment period and it is no longer possible to re-qualify for unemployment benefits by participating in labour market programmes. Wage formation also appears to function better today. This may be due to the Government's labour market policy reforms, but also to more coordination of wage formation today than in the 1990s and to the credibility that has been established for the Riksbank's inflation target.²¹³

The Government stated that the most important task of employment policy is "to increase the employment level that is consistent with stable inflation and economic equilibrium in general" and that this means that "it is the average level of employment over a business cycle that is to increase".²¹⁴ This can be construed as an objective to raise equilibrium employment. Estimates of equilibrium employment are, however, always very uncertain. This is particularly true now as actual employment will probably fall far below the equilibrium level because of the economic downturn. This will make it next to impossible to draw well-founded conclusions about how equilibrium employment is developing. In the prevailing cyclical situation, the main task of labour market policy cannot, however, be to increase equilibrium employment. Instead, its most important ambition should be as far as possible to stop the higher cyclical unemployment from leading to lower equilibrium employment and thus lower employment in the long run. It is also the main objective of the labour market policy as stated by the Government in the 2009 Spring Fiscal Policy Bill.²¹⁵

5.2 Active labour market policy

It is common to distinguish between *active* and *passive* labour market policy. Various measures that activate the unemployed are usually classified as active policy. Included here are matching and job search activities, training, work experience placement and subsidised employment. Paying unemployment benefits is usually classified as passive labour market policy. This distinction is actually misleading. A well-designed unemployment insurance should not only give the

²¹³ The greater coordination has largely been achieved through the Industry Agreement on Cooperation and Pay from 1997 and other similar agreements. For further details, see Calmfors (2008b).

²¹⁴ See, for example, the 2009 Budget Bill, p. 27.

²¹⁵ See, for example, p. 37 in the Bill.

unemployed good insurance protection, but also provide strong incentives to look for work. At the same time, ‘active’ labour market programmes may often have locking-in effects and thus make participants more passive. Active labour market policy and unemployment insurance are also interdependent, since the offer to participate in labour market programmes is often used as a method to test the unemployed’s willingness to work. The more labour market policy is used to monitor that the unemployed are actually available for employment, the less risk there is that high unemployment benefits will reduce the unemployed’s interest in looking for and taking available jobs.

The principal objective of active labour market policy is to improve the unemployed’s chances of getting regular employment. This may be done by job search and vocational guidance, various activities to maintain the unemployed’s links to the labour market or education and training aimed at improving their productivity. Finding meaningful activities for the unemployed and giving them some form of employment where they can contribute to production can also be an objective in itself.²¹⁶ The latter objectives are particularly important in a recession.

The Government has had an explicit strategy to shift the focus of active labour market policy towards “effective matching and greater competitiveness among those most detached from the labour market”.²¹⁷ The 2007 Budget Bill stated that the most important task of the Swedish Public Employment Service is “to match jobseekers with job vacancies instead of arranging labour market programmes”.²¹⁸ According to the Government Bill, Measures for Jobs and Adjustment (*Åtgärder för jobb och omställning*), presented in January this year²¹⁹ and this year’s Spring Fiscal Policy Bill, these fundamental principles of labour market policy will continue firmly in place in the future. In the recession, the policy must, however, according to the Government “be supplemented with temporary measures that try to prevent unemployment from becoming stuck at

²¹⁶ See, for example, Calmfors (1994), Martin and Grubb (2001) or Calmfors et al. (2004) for discussions of the objectives of active labour market policy.

²¹⁷ See, for example, Govt. Bill 2008/09:97, p. 15.

²¹⁸ See p. 75.

²¹⁹ Govt. Bill 2008/09:97, pp. 15-16.

a high level and people from being permanently excluded from the labour market’.²²⁰

5.2.1 Changes in active labour market policy in 2007/2008

In 2007/2008 a number of changes were made to the labour market policy programmes. They are summarised in Box 5.1. Several of the earlier recruitment incentives for the long-term unemployed were abolished and replaced by new start jobs, which, however, are not reported as a labour market programme. The formal reason for this is that the Public Employment Service cannot assign the unemployed a new start job: these are instead an entitlement for those who meet the requirements and can find an employer who is willing to hire them. The earlier activity guarantee was also replaced by a job and development guarantee, where all the remaining long-term unemployed are to end up after a specified time. A job guarantee for young people – which is actually not a job guarantee but rather an *activity* guarantee – has also been introduced.

Another important change is that participation in a labour market programme can no longer extend the entitlement period for unemployment benefits: the benefit level declines at the same pace regardless of whether the jobseeker is openly unemployed or participating in some programme. (However, ‘the clock does not tick’ for those who have got a new start job, which can re-qualify the holder for unemployment benefits.)

In addition to the programme changes, there have also been major administrative changes. At the end of 2007, the National Labour Market Board (AMS) and the county labour boards, which together made up the Swedish Labour Market Administration (AMV), were shut down. Instead an integrated authority, the Swedish Public Employment Service, responsible for all active labour market policy, was created.

The changes in the labour market policy may appear to be quite extensive. But it should be clearly understood that there are few areas of economic policy as exposed to constant change as active labour market policy.²²¹ This appears to be true of most countries. The

²²⁰ The 2009 Spring Fiscal Policy Bill, p. 74.

²²¹ This has been discussed *inter alia* by Calmfors (1995) and Saint-Paul (1996).

explanation is that the task of labour market policy is largely to deal with those unemployment problems that remain after other policies have done what they can. That is, in reality, an impossible task. It is thus quite natural that labour market policy is always a source of dissatisfaction and hence new methods are tried all the time.

It is also very politically tempting for each government to reform labour market policy to show it can act resolutely. As a result, old programmes are regularly abolished and replaced with new ones. Sometimes there are real changes, but sometimes old programmes are only given new labels. So it is important to closely examine how major the changes in the labour market policy actually are and if the new programmes are actually better than the previous ones.

5.2.2 The scope of active labour market policy

The Government has been criticised for reducing programme volumes too much in 2007/2008. It is difficult, however, to get a good picture of the scope of active labour market policy and how it has been changed over time. Neither the Public Employment Service nor the Government's budget bills provide any readily accessible overview of the total volume of labour market programmes.²²²

One problem is that new start jobs are not reported as a labour market programme. This is misleading since new start jobs are in practice subsidised employment of the same kind as the previous recruitment incentives and are largely aimed at the same groups. It is also not obvious how participation in the guarantees is to be counted. If these involve active job search activities, participants should be classified as included in an active programme. But at the same time we know from previous experience that much of what is termed active job searching in reality are rather passive activities.²²³ If so, active programmes are overestimated if participants in job search activities are included. Moreover, an upturn in unemployment will then automatically increase the reported extent of labour market programmes, since everyone who has been unemployed for a specified period will end up participating in the guarantees.

²²² See also Box 5.2.

²²³ See Fröberg and Persson (2002) and Fröberg and Lindqvist (2002).

Box 5.1 Changes in the active labour market programmes 2007/2008

Job and development guarantee in the event of long-term unemployment

The previous activity guarantee has been replaced by the job and development guarantee, to which the unemployed are referred after 300 days of unemployment. One important difference from the activity guarantee, to which referrals often were made after 600 days, is that the job and development guarantee is deployed sooner. The job and development guarantee is described in more detail in Section 5.2.6.

Job guarantee for young people

The local government youth programme and the youth guarantee have been replaced by a job guarantee for young people. The guarantee covers people between the ages of 16 and 24 who have been unemployed and registered with the Public Employment Service for at least three months. The job guarantee for young people is discussed further in Section 5.2.7.

New start jobs

New start jobs were introduced on 1 January 2007. These involve a subsidy corresponding to the employer's social contribution when hiring a person who has been out of work for more than one year. The subsidy is paid for the same length of time that the person has been out of work. The terms were made even more advantageous for young people and newly arrived immigrants. The new start jobs replaced the general and enhanced recruitment incentives. One important difference is that new start jobs are an entitlement for all unemployed persons who satisfy the eligibility requirements and can find an employer who wants to hire them, while the recruitment incentives required a referral from the Public Employment Service. When new start jobs were introduced, bonus jobs, another form of subsidised employment for the long-term unemployed in the public sector, were also abolished. In the 2008 Budget Bill, new start jobs were supplemented by 'well-again' jobs (for those absent due to illness) and 'step-in' jobs for immigrants.

Unemployment benefits

Unemployment benefits previously decreased for some unemployed after 100 days when the highest benefit paid was reduced from SEK 730 to SEK 680. Today the SEK 680 ceiling applies to all benefit recipients, but after 200 days of unemployment, the benefit is reduced from 80 to 70 per cent of previous income. After 300 days (450 for parents responsible for the support of children of minor age), benefits are further reduced, since the unemployed then lose their eligibility for unemployment insurance and instead end up in the job and development guarantee. There one receives activity support corresponding to 65 per cent of earlier income. A person can no longer qualify for a further period of benefits by participating in a labour market programme.

For young people, benefits decline more rapidly. After just 100 days, unemployment benefits are reduced to 70 per cent of previous income and to 65 per cent after a further 100 days. People in the job guarantee for young people, who have not qualified for unemployment benefits instead receive a 'development benefit'. For people aged 18 to 20, this benefit is SEK 1050 a month and for those over 20 it is SEK 2 528 every four weeks. Young people under the age of 18 who are not eligible for unemployment benefits do not receive any compensation at all from the guarantee.

Table 5.1 Changes in the programmes on offer

Type of programme	Previously	Now
Measures aimed at the long-term unemployed	Activity guarantee	Job and development guarantee
Measures for young people	Local government youth programme and the youth guarantee	Job guarantee for young people
Subsidised employment	General and enhanced recruitment incentives and bonus jobs	New start jobs, new start jobs for part-time unemployed, step-in jobs, well-again jobs
Other programmes abolished	Sabbatical years, educational leave replacement positions, jobs for recent graduates, computer activity centres and international work placement grants	

Measures retained	Workplace introduction, business start-up, special employment support, work experience placements, vocational rehabilitation, projects with an employment policy focus, detailed skills analysis and counselling, labour market training and apprenticeships
-------------------	--

Box 5.2 Labour market programmes: reporting problems

The current statistics published on the website of the Public Employment Service report the number of participants in each programme. These statistics are based on search category codes assigned to jobseekers. One problem is that participants in the job and development guarantee and the job guarantee for young people can also participate in other programmes within the framework of the guarantees. If a person in the guarantees is assigned vocational labour market training, preparatory training or a work experience placement, that person continues to be counted under the search category code for the job and development guarantee. Participation in these programmes is consequently underestimated since those participants who are also in the guarantees are not counted.

Reporting of labour market programmes in the Government's budget bills must be reckoned as deficient, since it does not provide a complete picture of the extent of these programmes. Both the 2009 Budget Bill and the 2009 Spring Fiscal Policy Bill report the percentage of the labour force participating or expected to participate in cyclically dependent labour market programmes each year, but new start jobs are not included in this reporting.²²⁴ Since the ratio of the programme volume to unemployment is not reported, it is also difficult to form an opinion of whether the extent of the programmes in the prevailing economic situation is 'normal' or not. There is, however, one instance of such reporting in the jobs and adjustment bill presented in January, but it instead has no information on the percentage of the labour force participating in these programmes (which there, however, are not called 'cyclically dependent programmes').²²⁵ In the Budget Bill, the previous recruitment incentives appear to be included in the programmes, but this does not seem to be the case in the January bill

²²⁴ See the 2009 Budget Bill, Appendix 2, p. 10 and the 2009 Spring Fiscal Policy Bill, Table 6.4.

²²⁵ Govt. Bill 2008/09:97, p. 35.

(which does not include new start jobs either).

A further shortcoming is that neither the 2009 Budget Bill nor the 2009 Spring Fiscal Policy Bill (nor the January bill) clearly report how participation is distributed over the different programmes. The clearest reporting is a table in an appendix where the cyclically dependent programmes are classed as either ‘employment’ or ‘training’ (16 000 and 69 000 participants respectively in 2008, according to the Spring Fiscal Policy Bill).²²⁶ The categorisation is, however, confusing since it does not specify what is included in training. As seen in Section 5.2.3, there were only about 6 500 participants in labour market training in 2008. This is due to the reporting of the guarantees as training in the budget bills, which is a serious misrepresentation.

Finally, there is no information on the distribution over various activities within the framework of the guarantees in the budget (the same is true of the current statistics on the Public Employment Service website). This lack of a statistical basis makes it difficult to conduct a well-founded discussion of how the guarantees function. To make our own assessment, we have been forced to commission a special study by the Public Employment Service (see Section 5.2.6 below).

With the help of the Public Employment Service’s statistical division, we have produced our own figures on *cyclically dependent programmes*. This means that we have excluded the disabled where possible (1992-2008). From 2001 we report both a minimum and a maximum figure. Included in the minimum figure are those in labour market training (both vocational and preparatory), work experience placements and subsidised employment (including new start jobs). The maximum figure includes in addition those participating in various job search activities. The difference between the maximum and the minimum measure thus consists mainly of participants in the guarantees (the activity guarantee 2000-2007, the job and development guarantee and the job guarantee for young people 2007-2008) who are actively engaged in job search activities.

Figure 5.2 shows the programme volume in relation to the labour force. On average, over two per cent of the labour force participated in cyclically dependent programmes over the period 1980-2008.

²²⁶ The 2009 Spring Fiscal Policy Bill, Appendix 1, Table 14.

During the 1990s crisis, programme participation as a percentage of the labour force rose quite sharply, but has subsequently declined. Both measures show a similar trend, even though the reduction in volume in recent years is larger for the minimum measure, which excludes job search activities.²²⁷ In 2007-2008 programme volumes declined compared to the immediately preceding years. The programme volume was equivalent to 1.4 per cent of the labour force in 2007 and 1.3 per cent in 2008. These reductions can be regarded as a continuation of the earlier trend.

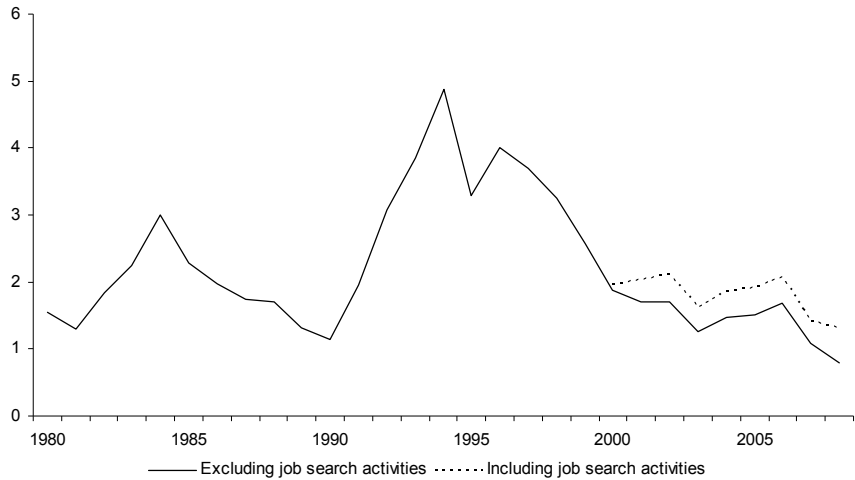
Programme participation as a percentage of the labour force is a poor measure of the active labour market policy's level of ambition since it does not take variations in the cyclical situation into account. The ratio between the number of programme participants and the total number of unemployed (including programme participants) is a better measure. This measure, which we choose to call the labour market policy's *activation rate*, can under certain conditions be interpreted as the probability that a jobseeker will participate in a labour market programme.²²⁸ Figure 5.3 shows that the activation rate fell sharply during the 1990s crisis. With our maximum measure, this rate has since varied around a fairly stable level. With the minimum measure, however, there has been some reduction since the beginning of the 2000s. The activation rate measured in this way was lower in 2007-2008 than the average for the 2000s, but still at approximately the same level as in 2003-2005.

To sum up, the drawdown of the programme volumes in 2007-2008 generally follows a normal cyclical pattern, where the number of participants in labour market policy programmes has co-varied with unemployment. This pattern can be seen in Figure 5.4.

²²⁷ Before 2000 there was no search category code for job search activities. Therefore there is no information on how extensive these activities then were. This limits comparability between periods.

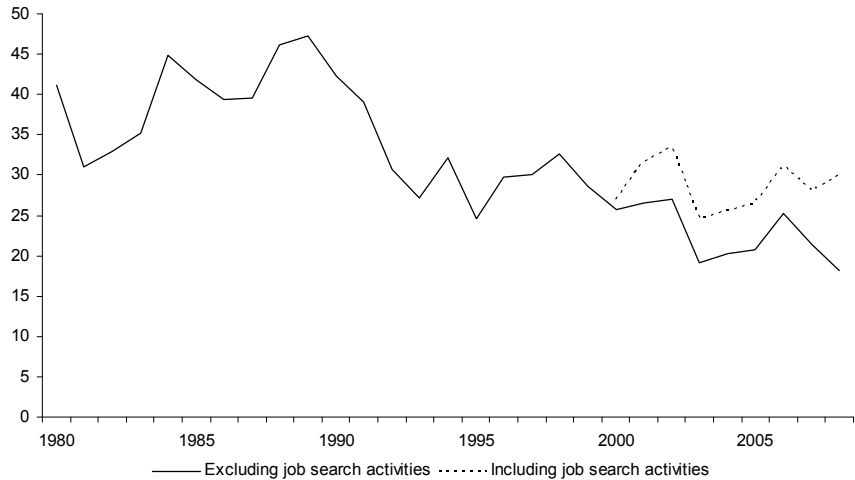
²²⁸ See Calmfors and Forslund (1990) and Calmfors and Lang (1995).

Figure 5.2 Number of participants in cyclically dependent labour market programmes, annual average, per cent of the labour force



Note: Programme volume excluding disabled people. Included in the programmes are training, work experience placements, subsidised jobs and job search activities (only the maximum measure).
Source: The Public Employment Service.

Figure 5.3 Labour market policy activation rate, annual average of number of programme participants, per cent of total unemployment



Note: Total unemployment is the sum of the programme participants and the openly unemployed. See Figure 5.2 for the programmes that are included. The unemployed are those who have registered with the Public Employment Service.
Source: The Public Employment Service.

Figure 5.4.a Relationship between programme participation (including job search activities) and total unemployment, 1980-2008

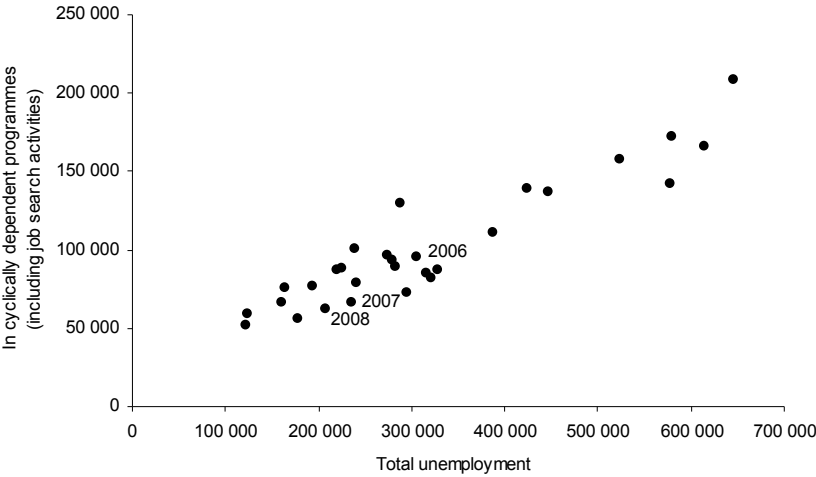
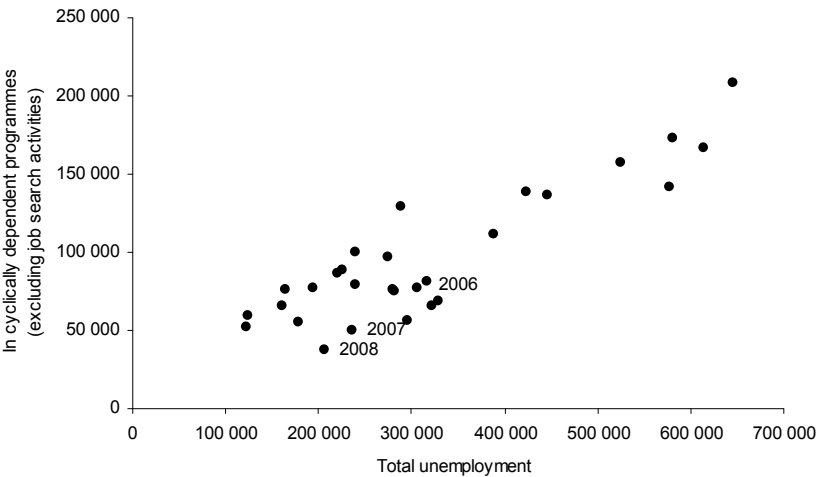


Figure 5.4.b Relationship between programme participation (excluding job search activities) and total unemployment, 1980-2008



Note: See Figure 5.2.

Source: The Public Employment Service.

5.2.3 Composition of active labour market programmes

Figure 5.5 shows how the composition of the cyclically dependent programmes has changed over time. The columns display the percentage of total participants in cyclically dependent programmes on average per year for each programme category. The most important change since the 1980s is the reduction in the fraction of participants in training and work experience placement programmes. Training programmes represented only about 10 per cent of the programme volume in 2008. Between 1988 and 1992 they made up as much as 65 per cent of the programme volume. After that, the volume declined before reaching a new peak in 2000. Since then there has been a downward trend in the percentage of training places.

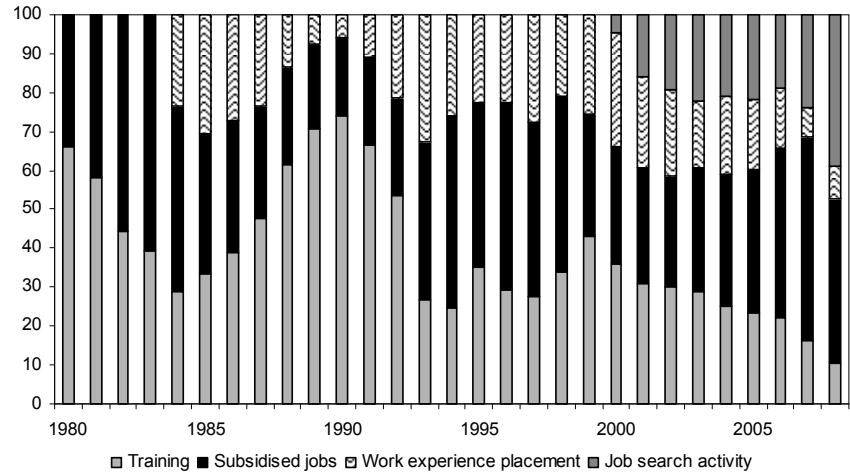
The percentage of people with subsidised employment has varied over time. Subsidised employment, including new start jobs, made up 42 per cent of the total programme volume in 2008. In 2007 the percentage was as high as 52 per cent, which is the highest figure since 1983. The sizeable decline in the percentage having subsidised jobs between 2007 and 2008 is largely due to the phasing out of bonus jobs.²²⁹ The percentage of job search activities has also risen in recent years. In 2008 job search activities made up 39 per cent of the programmes, which is substantially more than in previous years.²³⁰

The large percentage of participants with subsidised jobs in recent years is not primarily due to an expansion of these programmes but mostly to the reduction in training and work experience placement programmes. This can be seen in Figure 5.6. The number of participants in training (preparatory or vocational) declined steadily from over 1.5 per cent of the labour force in 1992 to 0.1 per cent (about 6 500 people) in 2008. The number of work experience placements has declined as a percentage of the labour force. The percentage of work experience placements peaked in 1994 at almost 1.3 per cent of the labour force, compared with 0.1 per cent in 2008. Job search activities have, however, increased. In 2008, 0.5 per cent of the labour force participated in job search activities.

²²⁹ See Box 5.1 for a description of bonus jobs.

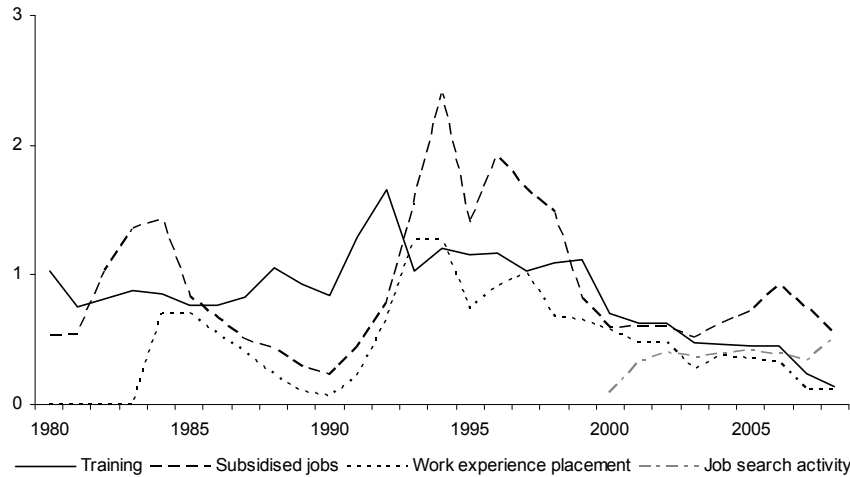
²³⁰ See the preceding section.

Figure 5.5 Composition of the cyclically dependent programmes, per cent of all programmes



Note: Programmes include new start jobs.
Source: The Public Employment Service.

Figure 5.6 Participants in various programmes, per cent of the labour force



Source: The Public Employment Service.

5.2.4 The effects of labour market policy

The effectiveness of active labour market policy can be evaluated both at the micro level and the macro level. A micro evaluation studies how the probability of an unemployed person getting regular employment or a higher income is affected. Macro studies instead examine how labour market policy programmes affect employment in the economy as a whole. Both approaches have advantages and disadvantages. Micro studies do not take the effects on groups other than those participating in the programmes into account. Such effects can arise, for example, because subsidised employment directly displaces regular employment when employers choose to hire subsidised instead of regular workers. Labour market programmes can also have indirect effects on aggregate employment because wage formation is affected or the costs of the programme lead to higher taxation.²³¹ Micro studies are best suited for studying the effects on individual programme participants and identifying groups for whom a programme functions well or poorly. Micro studies also have the advantage that they can work with very large data sets covering many individuals. Macro studies can in principle capture the total effects on the economy, but one disadvantage is that as a rule there is only access to a limited number of observations, which reduces reliability.²³²

The emphasis of the current labour market policy on job search and matching activities is supported by evaluations showing that these activities appear to be cost effective.²³³ However, the research yields less clear conclusions about the trade-off between subsidised employment and labour market training. On the one hand, micro

²³¹ The effects on wage formation can in principle work both ways. If participation in labour market programmes is a more positive experience than open unemployment, a larger programme volume reduces the ‘cost’ to the employees of high wage increases that reduce employment and may then result in less wage restraint. If, however, programme participation is perceived to be more demanding than open unemployment, more referrals to programmes may instead make it more disagreeable to be unemployed and thus entail incentives for lower wage increases with the aim of maintaining employment levels. In cases where labour market programmes maintain unemployed people’s ability to compete for jobs, a wage-dampening effect also occurs (Calmfors et al. 2004).

²³² One way of increasing the number of observations is to use panel data which contain both time series and cross-section observations. One can, for example, study the covariation between unemployment and labour market programmes both among countries (or different regions in one country) and over time.

²³³ See, for example, Kluge (2006) for an overview.

studies indicate that for individual participants, subsidised employment has larger positive employment effects – and by far the largest effect if the positions are much like regular positions – than labour market training.²³⁴ On the other hand, macro studies have shown that subsidised employment has large displacement effects, which do not appear to be the case with labour market training.²³⁵

New start jobs provide support for individuals with weak links to the labour market.²³⁶ The only evaluation thus far indicates sizeable direct displacement of regular jobs.²³⁷ The same evaluation, however, also indicates that new start jobs led to more jobs for those with weak links to the labour market than did the previous recruitment incentives. This can contribute to positive employment effects via wage formation. The reason is that subsidised jobs to outsiders in the labour market increases their competitiveness in relation to employed insiders. This can be assumed to dampen wages and thus increase regular employment. The design of new start jobs is therefore well in line with research, since the (unavoidable) displacement effects that occur redistribute employment in a way that promotes wage restraint.

In its budget bills, the Government has not clearly justified the sharp drawdown of labour market training. But it seems obvious to suppose that there was an (over)reaction to the large number of evaluations in the 1990s showing poor results. According to a number of studies, participants in labour market training had more difficulty finding regular employment than did the openly unemployed who had not participated in any of these programmes.²³⁸ These poor results for labour market training in the 1990s are, however, not so surprising, since the conditions for effective training programmes were quite bad. At that time labour market training was systematically used to re-qualify participants for unemployment benefits rather than to improve their job skills. The volumes were extremely high (see Figure 5.6), which made it difficult to conduct these programmes effectively. The economic downturn was also so deep that it was difficult to know what people should be trained for.

²³⁴ See OECD (2006) and Kluve (2006) for international overviews. Calmfors et al. (2004) have summarised the results of Swedish studies.

²³⁵ Lundin (2001) and Calmfors et al. (2004).

²³⁶ See Box 5.1.

²³⁷ Lundin and Liljeberg (2008) report a survey where employment officers estimated the direct displacement effects at between 50 and 70 per cent.

²³⁸ These studies have been summarised in Calmfors et al. (2004).

Moreover, the evaluations did not differentiate between vocational labour market training and preparatory training (so that participants would later be able to take advantage of vocational training or participate in other labour market programmes), which can be assumed to have very different effects on transitions to regular employment.

The conditions for effective labour market training are much better today than in the 1990s. Labour market training can no longer be used to extend the benefit period for the unemployed. The benefit levels are lower, which reduces the risks of driving up wages. But above all, programme levels are now so low that the risks of decreasing effectiveness given a moderate expansion appear to be very small. These assessments are supported by micro studies of the effects of labour market training on participants in recent years, which show positive results (just as with earlier evaluations referring to the 1980s when the volumes were also smaller than in the 1990s).²³⁹

In our opinion it is difficult to justify keeping labour market training at such a low level. This does not imply that we prefer any return to the extreme volumes of the early 1990s, when the policy was driven by an excessive ‘training optimism’. But it is difficult to see why it would not be feasible to conduct an effective vocational labour market training with an average of 15 000 participants a month and perhaps half that many participants again in preparatory programmes.²⁴⁰ This would correspond to less than half the average level in the 1980s.

5.2.5 Adult vocational education

Instead of expanding labour market training, the Government has focused more on vocational training in the regular education system. In the 2009 Budget Bill, the Government announced a new vocational college, a higher priority for a pilot project for an upper secondary school apprenticeship programme and more places for vocational training in municipal adult education (adult vocational education).

²³⁹ See Okeke (2005), AMS (2007a,b) and de Luna et al. (2008).

²⁴⁰ This is the level proposed by the Committee on More Flexible Labour Market Training (SOU 2007:112). The Government decided not to circulate the Committee’s final report for comments.

The aim of adult vocational education is to counteract future labour shortages by providing vocational education to groups without an upper secondary education or with a vocational training that needs supplementing. Adult vocational training differs from labour market training in that it is run by the municipalities, not the Public Employment Service. Furthermore, the individual must apply for a place in adult vocational education. This means that people who are not unemployed can also study there and that unemployed people are not referred to it. Compensation for adult vocational education is ordinary study support, while participants in labour market training receive unemployment benefits or activity support.

It is unclear what is behind the Government's re-allocation of resources from labour market training under the Public Employment Service to vocational education in the regular education system. There have been far fewer evaluations of adult education than of labour market training. The Adult Education Initiative (Kunskapslyftet), which from 1997 to 2002 offered upper secondary education primarily to unemployed adults who lacked a three-year upper secondary school education, has found weaker positive results for participants than labour market training did.²⁴¹ These results should not, however, be interpreted to mean that vocational adult education is less effective than labour market training, since the focus of adult vocational education is on vocational training, while the Adult Education Initiative in the traditional municipal adult education system consisted of a broader education.

The conclusion is, nevertheless, that the Government has chosen to redistribute resources from labour market training to vocational training in the regular education system, even though there is no research clearly supporting this decision. It is by no means obvious that vocational education should be seen as a substitute for traditional labour market training. One advantage of labour market training over adult vocational education is that it provides more possibilities for steering the unemployed towards areas where there are labour shortages. At the same time there are reasons for also providing support to those who are not unemployed to retrain themselves, since it is not always certain that those who are unemployed are the best cut out for it. In principle it can also be

²⁴¹ Stenberg (2003, 2007), Axelsson and Westerlund (2005) and Stenberg and Westerlund (2008).

argued that individual choice should be allowed to play a greater role in retraining decisions, given that the individual has to bear the greater part of the costs of the training. But it would all the same be more natural to view the expansion of adult vocational education as a complement to labour market training instead of as a substitute.

5.2.6 The job and development guarantee

The job and development guarantee is a programme for the long-term unemployed, which was introduced in July 2007 when the activity guarantee was abolished. The Government justified the change by the argument that the activity guarantee was unsuccessful in ending the vicious circle between programmes and open unemployment.²⁴²

The unemployed are referred to the job and development guarantee after 300 days of unemployment benefits.²⁴³ The unemployed who do not have the right to unemployment benefits and who have been unemployed without interruption or have participated in labour market programmes for at least 18 months can also be referred. A referral will be revoked if the person assigned a place in the guarantee refuses a labour market programme or a suitable job without acceptable reasons or does not report job search activities. This means that the unemployed person loses the right to activity support.

The job and development guarantee has three different phases. These are illustrated in Figure 5.7. *Phase 1* mainly includes job search activities, coaching and preparatory programmes (guidance, rehabilitation and orientation) and is to last a maximum of six months. *Phase 2* may in addition include work experience placements, on-the-job training or enhanced on-the-job training for up to six months. *Phase 3* begins after 450 days in the guarantee. In this phase the individual will be offered permanent employment of public benefit. A participant in the job and development guarantee may also

²⁴² The objective of the activity guarantee was to activate the long-term unemployed. Hägglund (2002) did not, however, find any positive effects on the transition to regular employment. Fröberg and Lindqvist (2002) found that in many cases, the programmes did not involve any real activation.

²⁴³ Even though the aim is that anyone who has exhausted their unemployment benefit days is to be offered a place in the job and development guarantee, this is not a legal entitlement. This was a criticism made in some of the comments when the proposal for the guarantee was originally presented (Govt. Bill 2006/07:89, p. 58).

be referred to other programmes. In addition to other activities, opportunities will be provided for individuals to conduct their own job searches.

Reporting of activities under the job and development guarantee currently is very deficient. This lack of information is serious as it makes it difficult to assess the guarantee's effectiveness. With the help of the Public Employment Service's statistical division, we have tried to put together the necessary information (see Table 5.2). It shows that the emphasis is on jobseeker competence appraisals and job search activities. Job search activities with coaching run parallel to many other activities and therefore are by far the most common activity. Over time the percentage of participants who get work experience placements, work retraining, intensive work retraining or training increases, but the percentage is still relatively low even in the early stage of Phase 2. Towards the end of this phase, there is a further reduction in the percentage participating in these activities. Apparently getting the work experience placements and work retraining measures the Government intended up and running has so far not made much progress. Many participants are getting a competence appraisal even after 105 days in the guarantee. One explanation is that the Public Employment Service has had difficulty getting employers to offer work experience and work retraining placements.²⁴⁴ These difficulties are expected to be even greater in the recession.

The introduction of the job and development guarantee has come to mean that activation measures have first been taken after the time limit set for participation in the guarantee has passed and to a much lesser extent than before after individual testing earlier in the unemployment period.

²⁴⁴ See Hammar (2008).

Figure 5.7 Phases in the job and development guarantee

Unemployment benefits /activity support SEK 680 ceiling per day Day 1-200: 80 per cent Day 201-300: 70 per cent Or basic allowance up to a maximum of SEK 320 per benefit day		I - - - - - Activity support (65 per cent of previous earnings, at least SEK 320 per benefit day) - - - - - I	
Openly unemployed or in programmes 300 benefit days	Phase 1	Phase 2	Phase 3
	Maximum 150 benefit days Competence assessment Job search activities Preparatory measures	300-450 benefit days Work experience placement Work retraining Intensive work retraining	520 benefit days Permanent employment of public benefit with providers who may be public or private employers, social firms or non-profit organisations. The participant's labour supply is reviewed after two years, then one is referred for another two years.
300 benefit days 420 calendar days	450 benefit days 630 calendar days	900 benefit days 1050 calendar days	

Note: Parents responsible for the maintenance of children also receive 70 per cent of their previous earnings between days 301 and 450 of unemployment benefits.

Table 5.2 Activities in the job and development guarantee, percentage of participants in different activities in different registration periods

Number of calendar days	1-104	105-209	210-419	420-
Work retraining	4.0	8.5	13.7	17.2
Projects	0.7	1.1	0.8	0.6
Competence assessment	25.0	14.6	11.3	6.9
Intensive work retraining	2.7	5.8	11.8	13.8
Vocational rehabilitation	0.8	1.4	3.1	3.6
Work experience placement	7.3	13.9	18.3	18.4
Business start-up	0.5	1.5	2.2	2.4
Job search activity with coaching	69.3	78.0	76.6	79.2
Labour market training	2.2	4.9	8.6	7.5
Preparatory measures	2.1	3.3	4.5	4.7
Detailed assessment/ counselling	4.8	4.5	7.3	9.2
Practical skills development	0.0	0.0	0.0	0.0
No registered activity	24.1	21.8	10.2	3.6
Number of individuals	22 878	14 273	12 879	6 747

Note: Refers to activities during the respective period for those persons who on 6 April 2009 had been registered in the job and development guarantee the stated number of days. The number of individuals shows how many were that day registered in the guarantee for the stated number of days. One person can take part in several activities at the same time.

Source: The Public Employment Service.

There are good arguments for not starting active measures too early since most unemployed find work relatively quickly without more extensive help from the Public Employment Service. Measures begun too early may therefore lead to unnecessary costs. People participating in programmes also are less apt to look for work than the openly unemployed. Programme participation thus causes locking-in effects.²⁴⁵ Avoiding a too early start is particularly important when the demand for labour is strong. But a policy that identifies ‘problem cases’ principally via long periods of unemployment has the disadvantage that many in need of activation

²⁴⁵ Calmfors et al. (2004).

measures get them far too late. There is no research to support that late starting labour market measures would be less effective once they are begun than earlier measures are,²⁴⁶ but it is desirable that those with the greatest need of support get it as quickly as possible. There is also much evidence that labour market programmes may sometimes have a deterrent effect that should not come too late: for young people in particular, the transition to employment appears to increase *prior to* referrals to various programmes.²⁴⁷

One aid in the early identification of those most at risk of becoming long-term unemployed is *profiling*. This means that with the help of background data on job seekers, a statistical estimate can be made of the risk of long-term unemployment. This analysis can be used as a complement to the Public Employment Service Officers' own assessments. It can also be used on its own as the basis for decisions on early measures.²⁴⁸ There is also another type of statistical analysis, *targeting*, in which one estimates the expected outcome when a job seeker participates in various measures. Lechner and Smith (2007) have evaluated profiling in Switzerland. Their results indicate that profiling identifies the risk of long-term unemployment better than employment officers do. We therefore take a very positive view of the profiling pilot trials (in Gävleborg county) conducted by the Public Employment Service in cooperation with the Institute for Labour Market Policy Evaluation (IFAU).²⁴⁹ The employment officers had a positive view of this tool, even though no significant positive effects on the transition to regular employment could be found. A study by IFAU shows that this statistical analysis yields good results in predicting long-term unemployment.²⁵⁰ In our opinion, it is worth trying to further develop these statistical tools and beginning to use them at the Public Employment Service on a regular basis.

²⁴⁶ See de Luna et al. (2008).

²⁴⁷ This has been observed frequently in Denmark (see, for example, Rosholm and Svarer 2008). Carling and Larsson (2005) and Forslund and Nordström Skans (2006) found similar results in Sweden.

²⁴⁸ Profiling is used in many other countries. Australia and the United States have long experience with the method. It has also been used in Denmark, the Netherlands, Switzerland, South Korea and Germany.

²⁴⁹ See the Public Employment Service (2008).

²⁵⁰ Bennmarker et al. (2007).

5.2.7 The job guarantee for young people

The job guarantee for young people is similar to the job and development guarantee. Young people between 16 and 25 who have been unemployed for three consecutive months are eligible for participation. In *Phase 1*, which lasts at least three months, participants are to get a detailed skills assessment, study and vocational guidance and job search activities with coaching. In *Phase 2*, participants may also be offered a work experience placement or shorter training, but at least four hours a week should consist of job search activities. Participation in the guarantee is for a maximum of 15 months, and at most until participants reach the age of 25. After that, participants qualify for the job and development guarantee. Those with the right to unemployment benefits receive activity support while participating in the job guarantee for young people. The others receive development benefits.²⁵¹ One important aspect of the job guarantee for young people is that the benefits for those eligible for activity support decline at a faster pace than in the job and development guarantee. The benefit is 80 per cent the first 100 days, 70 per cent for the next 100 days and 65 per cent thereafter.²⁵²

The job guarantee's name is obviously misleading. The measures just described do not, of course, guarantee that participants will get a job. The job guarantee for young people is thus rather an *activation* guarantee for unemployed young people.

The job guarantee for young people entails a shift towards more job search activities compared with previous measures for young people. Job search activities with coaching are the most common activity and are provided to over 70 per cent of the participants. This focus is supported by existing research. International experience indicates that job search activities are the most cost-effective measure for fighting youth unemployment.²⁵³ Evaluations of traditional labour market programmes for young people often find locking-in effects.²⁵⁴ One possible explanation for this is that the rate of inflow into unemployment is higher for young people than for unemployed older

²⁵¹ See Box 5.1.

²⁵² This applies to participants who have no children. For young people who are parents, the benefit is 80 per cent the first 200 days, 70 per cent the next 100 days and 65 per cent thereafter.

²⁵³ OECD (2006).

²⁵⁴ See, for example, Larsson (2003).

people and they therefore have more to lose by spending time in a programme.²⁵⁵

Box 5.3 Measures for young people in Denmark and the UK

The Government appears to have been strongly influenced by experience from Denmark and UK when it designed the job guarantee for young people.

Denmark introduced a special activation initiative for young people in 1996 which is thought to have been an important factor behind the very low youth unemployment today. The aim was to strengthen the incentives to get an education and avoid young people getting stuck in long periods of passivity. The programme involves an activation of unemployed young people with no vocational training after six months of unemployment. When the initiative began, activation was effected by offering young people training lasting at least 18 months. More recently, the programme has been expanded to include those who have vocational training. Activation now takes place as early as after 13 weeks. Enrolling in training is encouraged by reducing the unemployment benefit for unemployed young people who do not participate in training to an amount equal to 50 per cent of the highest unemployment benefit, which is at parity with the compensation in the form of study support that young people can get when they are students. Unemployed young people get unemployment benefits only if they meet specified activity requirements.

The UK's youth programme, *New Deal for Young People*, was introduced in 1998. The programme is mandatory for everyone aged 18-24 who has been unemployed with unemployment benefits for six months. The programme has three phases. The first phase consists of frequent contacts with a personal mentor who provides intensive counselling and guidance and may last up to four months. If unemployed people do not find a job during this phase, they are offered four different activities in phase 2: subsidised employment, labour market training, work in an NGO or work on the physical environment in local government. Phase 3 includes support and

²⁵⁵ See also Section 3.2.2 in this report.

counselling for job searching.

The initiatives for young people described appear to have functioned well. Jensen et al. (2003) show that the outflow from unemployment, particularly to education, has increased as a result of the Danish reform. Blundell et al. (2004) found that the first phase of the New Deal for Young People has yielded positive effects on the transition to work. The effects were particularly pronounced for young men: the transition to work for this group increased by 20 per cent as a result of the programme. Furthermore, the programmes have a significant impact even before young people begin them, both in Denmark and the UK. This indicates that the programmes act very much as a deterrent and that young people accept jobs to avoid participating in the programmes.

There is also reason to believe that the steeper decline in unemployment benefits for young people relative to their elders may be an effective measure for getting young people into work. Theoretical models, for example, reach the conclusion that the more rapid the decline in the benefit, the shorter the average period of unemployment is.²⁵⁶ Since the average period of unemployment is decidedly shorter for young people than for their elders, this indicates that the benefit for young people should decline more rapidly than the benefit for others.²⁵⁷

5.2.8 Labour market policy in the recession

The labour market policy strategy adopted by the Government when it took office in 2006 was primarily suited to an economic upturn with lingering long-term unemployment. The policy had two main objectives. One was to achieve effective matching between the unemployed and job vacancies by putting more focus on employment services and on the unemployed's job search activities. The other objective was to reduce the *stock* of long-term unemployed through more activation measures within the framework of the job and development guarantee and through new start jobs.

²⁵⁶ See, for example, Hopenhayn and Nicolini (2005) and Höglin (2008).

²⁵⁷ See also Section 6.2.2 and Oskar Nordström Skans' background report to the Fiscal Policy Council (Nordström Skans 2009). It has also been argued that young people have better insurance protection against loss of income than their elders as it may be possible for them to live with their parents and get financial support from them (Kaplan 2009).

With the sharp deterioration in the economy, the problems now confronting labour market policy differ significantly from those in 2007-2008. It is also essential to deal with a large *inflow* into unemployment and try to prevent it from leading to a persistent increase in long-term unemployment, which then in turn worsens the way in which the labour market functions in the future and raises equilibrium unemployment. This new objective is clearly expressed in the 2009 Spring Fiscal Policy Bill which argues that it is now “necessary to channel more resources to people with short periods of unemployment to prevent long periods without work”.²⁵⁸

More focus on the short-term unemployed

Measures directed at the short-term unemployed are to be primarily of a kind that “support and encourage those who lose their job to keep looking for work”. People who need to improve their job skills or remain in contact with the labour market are to be offered work experience placements. No labour market training programmes have been introduced. Instead people in need of training are expected to resort to the regular education system. According to the Spring Fiscal Policy Bill and the bill Measures for Jobs and Adjustment (*Åtgärder för jobb och omställning*) presented in January, the principles set out earlier for labour market policy will be observed, even in the deep recession. The competitiveness of people with long periods of unemployment is to be improved by ensuring a high standard in the job and development guarantee and the job guarantee for young people.²⁵⁹

The January bill and the Spring Fiscal Policy Bill included a number of new temporary labour market initiatives:²⁶⁰

- The Public Employment Service has been instructed to “improve matching activities and provide individually tailored support early on to help job seekers get back to work”. This will be accomplished by more opportunities for *personal coaching*. The Government estimates that a total of 31 500 people (full-

²⁵⁸ The 2009 Spring Fiscal Policy Bill, p. 74.

²⁵⁹ Ibid.

²⁶⁰ See Budget Bill 2008/09:97, pp. 15-16 and pp. 86-88 and the 2009 Spring Fiscal Policy Bill, pp. 45-48 and 74-75.

year equivalents) will be able to take advantage of this opportunity in 2009.

- The opportunities for a *work experience placement* have been increased (about 21 600 new full-year positions in 2009). Some of these placements are a ‘traditional’ work experience placement for unemployed people with little work experience. But a new form of work experience placement, one with practical skills development, which will make it easier for unemployed people with more work experience to keep up and develop their skills, has also been introduced.
- Subsidies for *new start jobs* have been doubled. New start jobs target those who have been unemployed or on sick leave or a disability pension for more than one year. Previously the employer who hired a person in a new start job received compensation equivalent to the full employer’s contribution, including the pension contribution, for a period as long as the person hired had been absent from the labour market.
- There has been an expansion in the number of places in the vocational higher education college (about 1 000 more in 2009) and in adult vocational education (about 3 600 more in 2009). Furthermore, study support has been temporarily increased for the unemployed over the age of 25 who choose adult vocational education in 2009 and 2010.
- There has been an expansion in the number of places in the job and development guarantee and the job guarantee for young people. The number of participants in the guarantees (annual average) is expected to increase by about 26 000 to 103 000 this year and by about 100 000 people to 175 000 in 2010. This is the area of labour market policy with the largest volume increase.

A large number of the expanded labour market initiatives were introduced in the January bill. The Spring Fiscal Policy Bill in comparison contained only marginal increases in the number of people who this year are to get support early on in the form of individual coaching (4 000 more), the number of work experience

places (2 600 more) and the number of places in adult vocational education (400 more). These increases may appear surprisingly small, given that the unemployment forecasts for 2009 have been revised upwards from 7.7 per cent in the January Bill to 8.9 per cent in the Spring Fiscal Policy Bill. The largest change between the Spring Fiscal Policy Bill and the January bill concerns the expansion in the number of places in the job and development guarantee.

Both the intensified coaching and the expansion in the number of work experience placements increase the possibilities of getting early support outside the guarantees. This is in line with our argumentation in Section 5.2.6. In our opinion, this expansion of support to the short-term unemployed is reasonable in a situation with a sharp increase in the inflow into unemployment. It is also unavoidable that the Public Employment Service must to a greater extent set priorities for the use of its resources; they simply will not be sufficient to provide intensified support for all those who will sooner or later pass the time limit after which they are eligible for the job and development guarantee.

Further emphasis on search activities

The January bill cautions that “there is always a risk that labour market programmes will result in locking-in effects in the form of reduced geographic mobility and less search activity”.²⁶¹ This leads to the conclusion that it is “even more important to stimulate search activity among the unemployed when there is a temporary increase in labour market programmes at the same time that it remains essential to improve the competitiveness of those most detached from the labour market”.²⁶²

We question how effective the intensified coaching activities will be. Existing research certainly does not have much to say about how the effectiveness of labour market policy varies over the business cycle, but changes in search intensity likely have substantially less effect on unemployment when, as now, it is largely cyclical (and to a lesser extent is due to a high equilibrium unemployment) than was the case in 2006-2008. The Government’s argumentation that it is particularly important to increase search intensity during a downturn

²⁶¹ Govt. Bill 2008/09:97, p. 15.

²⁶² Ibid.

is therefore questionable. Intensive job search activities coupled with low labour demand and few job vacancies must unavoidably result in many meaningless activities. The question is whether it will not be largely a waste of resources to hire in a short time a large number of coaches with varying backgrounds for a new activity. The criticism also directed at the measure from parts of the job coaching industry is a sign that the Government has overestimated the potential for this measure.²⁶³ In our opinion, the Government is excessively reliant on what can actually be achieved by job search activities in a deep recession.

Probably work experience placement is the potentially most effective programme during the current economic situation, but we fear that it might be very difficult to actually procure all the work experience placements that the Government is trying to obtain.

We endorse the doubling of subsidies for new start jobs. It will be much more difficult in the deep recession for those who are already long-term unemployed to find a job. Temporarily high subsidies to hire the long-term unemployed are thus well-motivated, but nevertheless an increase in the number of new start jobs when there is low labour demand can hardly be expected.

A dearth of labour market training

Our criticism in Section 5.2.4 of the low volumes in labour market training is even stronger in the current economic situation. It is surprising that the Government does not increase the volume of labour market training but instead only focuses on more training in the regular education system. The motive for not expanding labour market training can hardly be a fear that it is difficult in a recession to know what to train people for, since regular vocational education – which is being expanded – faces the same problem. Presumably this is less of a problem today than during the 1990s crisis, since the high number of retirements we are faced with – for example, in health care – make it possible to identify areas where new recruitment will be needed in the coming years.

A major expansion of labour market training is justified in the current recession. At the same time, there are good reasons for trying

²⁶³ See the Dagens Nyheter's interview with the CEO of the training and job coaching firm Lernia's (Dagens Nyheter 2009b).

to steer unemployed young people to vocational education in the regular education system. But in our opinion, a further increase in study support for this group is required to bring it closer to parity with unemployment benefits and activity support. In 2009 and 2010 adult vocational education does entitle unemployed people over 25 to (untaxed) study support with a grant portion that is higher (80 per cent) than for regular students. The total amount is about SEK 7 800 a month, of which SEK 6 250 is a grant (plus about SEK 850 if one has at least two children).²⁶⁴ Unemployment benefits and activity support in labour market training may amount to a maximum of about SEK 15 000 a month before tax (about 12 000 after tax). The notably lower remuneration in adult vocational education likely means that many unemployed cannot afford to choose this type of training.

A matter that has been much discussed is whether the state should provide support for training within firms. The main argument *against* this is that a substantial part of the structural change that is desirable in the long run takes place in a downturn. It is therefore in principle ill-timed to lock in labour in existing companies, since it will hinder the transfer to expanding firms when the business cycle heads upwards again. One argument *for* such training in the current situation is that for most firms, the reduced demand is entirely cyclical and has nothing to do with any desired structural change. It is difficult to find a balance between these two arguments. One possibility would be for the central government to provide support only for the costs of arranging training in firms where work-sharing agreements have been concluded with the union on shorter working hours and scaling down pay correspondingly. If such agreements have been made, the employers have obviously deemed it likely that the downturn in demand is cyclical and that in future, they will need the labour not made redundant. In these cases the Government has also saved on unemployment benefit costs.

Problems for the job and development guarantee

During the 1990s crisis, there was an unduly large expansion of labour market programmes. These could not be conducted in an effective manner. The Government seems to be well aware that some

²⁶⁴ Moreover, study support is only paid out during the academic year.

labour market programmes may have large locking-in and displacement effects. This lowers the risk of an overexpansion of such programmes. At the same time the Government is faced with a situation that is vastly different from that which its basic strategy addressed. We perceive a risk that as a result of the negative experiences with excessively large labour market programmes in the 1990s, programmes that have real content will now instead be too small.

One key issue is how the job and development guarantee and the job guarantee for young people will function when the number of participants increase dramatically. As the Government describes it, the increasing number of participants in the guarantees is a sign of an unusually forceful labour market initiative (“the biggest expansion of active measures in any European country and one of the biggest efforts ever”).²⁶⁵ This is, however, a very doubtful description: the increasing participation in the guarantees is a purely mathematical consequence of the increase in long-term unemployment, since the Government pledged to place the unemployed who lose the right to unemployment benefits in the job and development guarantee.

It remains to be seen what real content can be injected into the guarantees in an economy with high unemployment and few job vacancies. It is desirable to distribute unemployment as evenly as possible and avoid concentrating it among a core of marginalised long-term unemployed. Activation measures for those at risk of becoming long-term unemployed, or who already are, may help achieve this objective. But we fear that it will be very difficult to find meaningful activities that actually are activating for the vast majority of participants in the guarantees when there will be so many. There are strong indications that the new guarantees, particularly the job and development guarantee, will for the most part be purely a means of support for the long-term unemployed. If so, this could hardly be described as “a broad range of active measures”²⁶⁶ but rather the opposite.

Despite high ambitions and new labels for the labour market measures, the problems may be largely about the same as in the 1990s crisis. This is true not only of the activation measures in the guarantees, but also of the third phase with ‘activities of public

²⁶⁵ Borg and Littorin (2009).

²⁶⁶ Ibid.

benefit'. Just as with the ALU work placement scheme in the 1990s crisis, the policy will be confronted by the impossible task of finding activities for the unemployed that do not displace regular employment but at the same time are meaningful (and thus not only constitute 'terminal storage' but also improve participants' chances of finding regular employment). How successful labour market policy will be in this recession will, to a large degree, depend on how this problem is handled.

One particular problem is that sustainable public finances will probably require a higher labour market exit age (see Sections 2.3-2.5 and 6.3). At the same time we know that all economic downturns create incentives to offer older workers early retirement in order to create more room in the labour market for younger workers. An important aim of labour market policy should be to avoid such a development.

5.3 Unemployment insurance

The Government has made extensive changes to unemployment insurance. These changes concern both its financing and the benefit levels. This section discusses the decline in membership in the unemployment insurance funds as well as the issue of whether unemployment benefits could be more generous in economic downturns than in economic upturns.

5.3.1 Membership fees and membership in the unemployment insurance funds

The changes that the Government has made in the financing of the unemployment insurance funds are one of the features of its labour market reforms. The changes have been made in two steps. In a first step in effect from 1 January 2007, a higher financing charge was introduced. It involves an increase of about SEK 220 in the average membership fee per month and some, but quite marginal, differentiation of the fees between the funds. In a second step, in effect from 1 July 2008, the higher financing charge was replaced by an unemployment contribution which involves a sharper differentiation in membership fees. The funds that are below the SEK 300 a month ceiling for the unemployment contribution must

now cover a third of their costs for income-related unemployment benefits in the form of membership fees. When the increased differentiation was introduced, the average membership fee was reduced by about SEK 70.

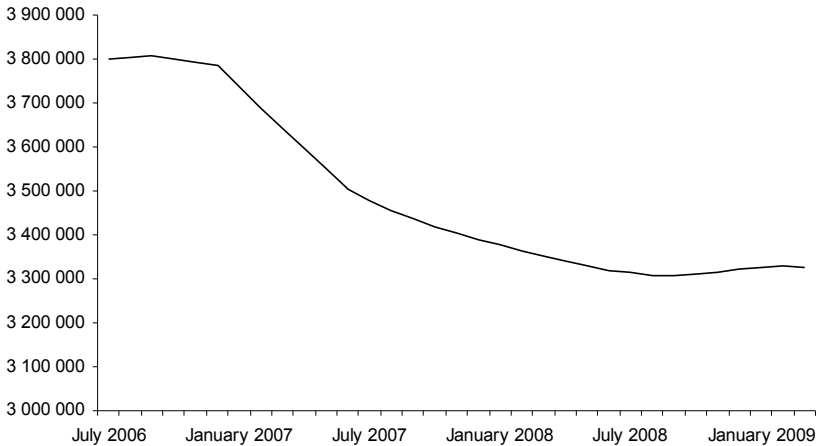
Our 2008 report sharply criticised the unemployment insurance fund financing reforms.²⁶⁷ We were positive to the differentiation of the fees but critical of the increase in the average contribution level because it had led to a collapse in unemployment insurance fund membership. As Figure 5.8 shows, the unemployment insurance funds lost about half a million members between the end of 2006 and September 2007. Since then there has been some recovery in membership numbers. But in March 2009, the number of members was still 481 000 fewer than in September 2006.

The 2009 Budget Bill stresses that “it is important that people who work have income-related protection in the event of unemployment”.²⁶⁸ The Government obviously shares the view that the decline in unemployment insurance fund membership is a problem. Therefore a number of measures have been introduced with the aim of facilitating new entry and re-entry. From 1 July 2009 the unemployment contribution paid by the funds to the central government has been lowered by a further SEK 50 a month for funds below the ceiling of SEK 300. At the same time, the entry rules have been temporarily changed for 2009 to make it possible to qualify for membership sooner. One condition for the right to income-related benefits is to have been a member of a fund for twelve months. For every month of membership in 2009, a member will be able to count an extra month. This means that someone who is a member of a fund in 2009 can qualify for income-related benefits after a membership of only six months. Furthermore, the requirement to have worked for a specified time before joining an unemployment insurance fund has been eliminated as of 1 July 2009.

²⁶⁷ See Fiscal Policy Council (2008), Section 7.1.

²⁶⁸ See p. 40.

Figure 5.8 Number of members in unemployment insurance funds



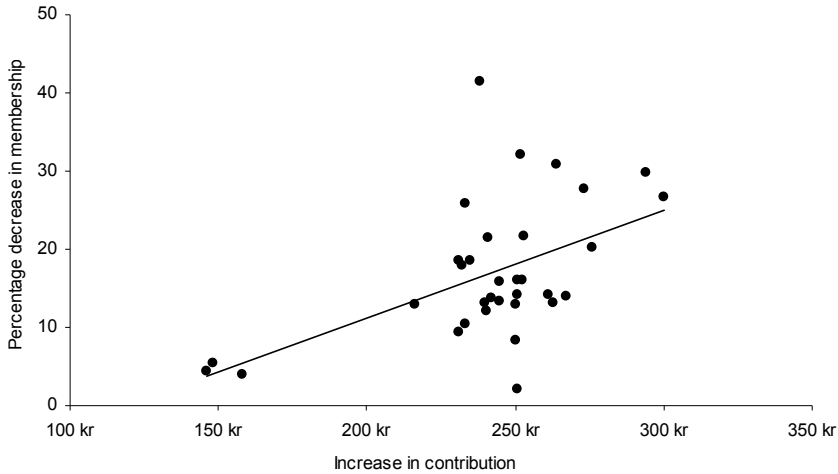
Source: The Swedish Unemployment Insurance Board.

Correlation between fees and membership

There is an evident correlation between the change in the membership fee and the drop in membership when developments at the unemployment insurance fund level are examined. Figure 5.9 shows how much the fee for different funds was raised on 1 January 2007 and how large the drop in membership was up to 30 June 2008. A regression analysis indicates that the number of members in a fund declined by over one per cent for each SEK 10 increase in the fee.

If instead one studies the aggregate membership developments for the unemployment insurance funds, and assumes a linear relationship between the average increase in the membership fee and the total drop in membership between 31 December 2006 and 30 June 2008, each SEK 10 increase in the membership fee would seem to lead to a decrease in membership of 21 000 people, or 0.55 per cent.

Figure 5.9 Fee increase (SEK) and membership decrease (in per cent) in the different unemployment insurance funds



Note: The fee increase in January 2007 and the percentage decrease in membership between 31 December 2006 and 30 June 2008.

Source: The Swedish Unemployment Insurance Board.

This difference in effect reflects that as a result of a fee increase in one unemployment insurance fund, members may either leave the unemployment insurance fund system or switch to another fund with lower fees. At the unemployment insurance fund level, the estimated sensitivity therefore overestimates the effect of a change in fees on the total membership in unemployment insurance funds.

Who has left the unemployment insurance funds?

It has been pointed out in the debate that who has left the unemployment insurance funds plays an important role. If low-income earners with high unemployment risk drop out, these people do not have sufficient insurance protection against unemployment. To the extent that the drop in membership refers to people with low unemployment risk, there is instead an income distribution problem: these people are not contributing through membership fees to financing the income-related unemployment insurance.²⁶⁹

²⁶⁹ See, for example, the Committee on Finance's public hearing concerning the Fiscal Policy Council's 2008 report (Appendix 4 to the Committee on Finance Report 2007/08:FiU20).

In September 2008, the Government instructed Statistics Sweden to investigate who had left the unemployment insurance funds. It was not possible, however, to carry out this inquiry, since only two unemployment insurance funds submitted the information requested by Statistics Sweden. Consequently we still do not have sufficient knowledge about the fall in membership. It is unclear to us how this situation came about. But it is most unsatisfactory that relations between the Ministry of Employment, Statistics Sweden and the unemployment insurance funds have been such that the survey could not be completed. We therefore welcome the proposal in a recently issued ministerial publication that the unemployment insurance funds are to be obliged to submit information of this type to Statistics Sweden.²⁷⁰

The Swedish Unemployment Insurance Board (IAF), the Swedish Federation of Unemployment Insurance Funds (SO) and a couple of unemployment insurance funds have evaluated the effects of the fee increase, but these evaluations are less ambitious than what was intended by the Statistics Sweden survey. Most studies point out some of the main groups that have left the unemployment insurance funds:²⁷¹

- Older members who are close to retirement. The unemployment insurance fund for local government employees (Kommunal) stated that 8 per cent of members over 55 had left the unemployment insurance funds six months after the fee increase, compared with 3 per cent of those between 35 and 54. In the unemployment insurance fund for persons with higher academic education (Akademikernas arbetslöshetskassa), almost half of those who dropped out of the fund between November 2006 and August 2008 were over 60.
- People in sectors with low unemployment.
- Those on sick leave, students and part-time unemployed who no longer receive benefits.
- People who do not think they can afford the higher fee.

²⁷⁰ Ministry Publication Series Ds 2009:7.

²⁷¹ See Dagens Nyheter (2008), IAF (2007a), IAF (2007b), IAF (2007c), IAF (2008), Kommunal (2007) and SO (2007).

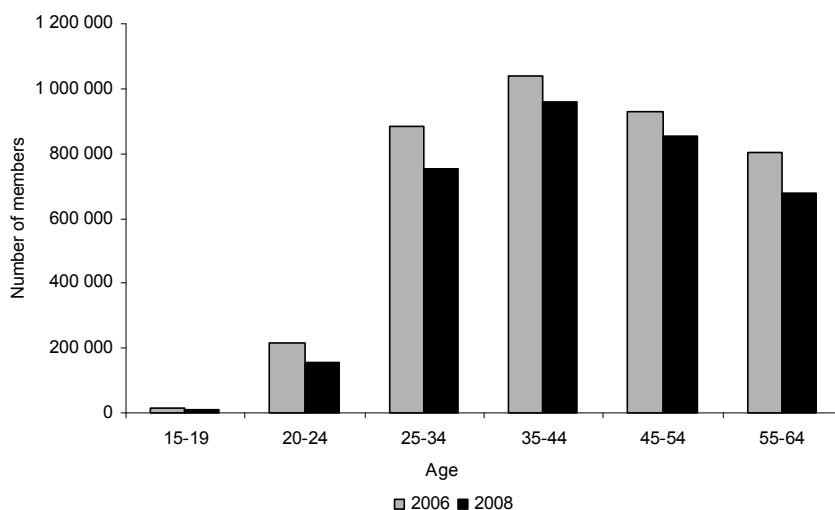
In November 2008, Swedish Television (SVT) in the programme 'Aktuellt' reported that in the three largest unemployment insurance funds, more than 40 per cent of those who have withdrawn in the past two years have been over 55.²⁷² Studying only those who have left the unemployment insurance funds, however, gives a somewhat misleading picture, since the drop in membership is also due to a reduced inflow of new members and there was a substantial outflow of older members even before the fee increase. In a report from November 2008, the Federation of Unemployment Insurance Funds reports how the number of members in each age group has changed since 2004 (see Figure 5.10).²⁷³

The figure shows that the number of members has fallen sharply in all age groups. In relative numbers, the 15-19 and 20-24 age groups have declined the most, but since membership rates from these groups were already very low earlier, they do not account for more than ten per cent of the total drop in membership. The 55-64 age group accounts for 27 per cent of the decline. Even though this is less than what the data from the three largest unemployment insurance funds suggest, it still involves a sizeable fraction of those who have left funds. Older people can be assumed to have a relatively low risk of unemployment and thus less insurance protection is not as serious a problem for them. But this is presumably largely due to their prospects for early retirement, should they lose their job. If this happens, it is still a problem from an aggregate point of view, since older workers who are laid off may then permanently leave the labour force. One important conclusion, however, is that it is groups other than the oldest that account for the major part of the membership decline that has taken place.

²⁷² SVT (2008).

²⁷³ SO (2008).

Figure 5.10 Age distribution of unemployment insurance fund members 2006 and 2008



Source: The Federation of Unemployment Insurance Funds.

Unemployment insurance funds and the business cycle

It is more attractive to be a member in an unemployment insurance fund when the risk of becoming unemployed is high. This should mean that the number of members increases during an economic downturn and decreases in an upturn.²⁷⁴ To study the cyclical variations in membership rate (the number of members as a fraction of the labour force), we have decomposed both this variable and unemployment into two parts: a trend component (which reflects long-term developments) and a component that shows temporary deviations from this trend. Figure 5.11 shows a clear cyclical correlation between trend deviations for the membership rate and unemployment. An increase in unemployment by one percentage point appears to go hand in hand with an approximately equally large increase in membership frequency.

²⁷⁴ For Denmark, which has a similar system with unemployment insurance funds, Parsons et al. (2003) have shown a similar cyclical pattern in membership.

Figure 5.11 Percentage deviations from trends for unemployment and for the membership rate in the unemployment insurance funds



Note: The trend has been estimated with a Hodrick-Prescott filter, smoothing parameter 100. This filter creates a smooth, non-linear trend from a time series and is more sensitive to long-term rather than short-term variations. The figure shows the deviation from this trend in percentage points.

Source: Fiscal Policy Council calculations.

It is difficult to judge how the cyclical variations in unemployment insurance fund membership may be affected by the financing reforms carried out. These imply that the fees will rise in a downturn when unemployment increases and decline in upturns when unemployment falls. This should reduce the cyclical variations in the membership rate.

Leaving and returning

The Government has reduced by SEK 50 a month the unemployment contribution that the unemployment insurance funds are to pay to the central government from 1 July 2009. The intention was to make it possible to reduce the unemployment insurance fund membership fees and thus reverse the membership flow. The increase in unemployment now taking place means, however, that some of these reductions in membership fees will not materialise. On the contrary, several funds have announced substantial increases. The largest increase is in the unemployment insurance fund of workers in the engineering industry (IF Metall) where the monthly fee increased by SEK 175 from 1 May 2009.

Before the Budget Bill, the Government estimated that the reductions in membership fees made possible by the lower financing charge for the unemployment insurance funds and the changes making it easier to meet membership terms would lead to an increase in membership of 175 000 people. With the dramatic economic developments since the Budget Bill was presented, there has been a fundamental change in the bases for estimating future membership growth. Our guess is that the sharp increase in the risk of unemployment in the recession will play a more significant role in membership growth than the increases in membership fees now taking place. We therefore expect that the number of members in unemployment insurance funds will increase, but developments thus far indicate that the increase will be modest.

Our policy evaluation

We welcome the Government's attempt to encourage people to enter or re-enter the unemployment insurance funds. The criticism of the unemployment insurance fund financing reforms has obviously been absorbed. At the same time, it is even more obvious than when we wrote the 2008 report that there will be long-term effects on the extent of unemployment insurance coverage. The Government when it took office obviously made a serious error of judgement as to how the increase in unemployment insurance contributions would affect membership. It is difficult to know what the reasoning was, but in the public debate it has often been pointed out – quite correctly – that the tax reductions implemented were much larger than the increases in membership fees.²⁷⁵ But it should of course be expected that increases in income on account of lower taxes will be allocated to increased consumption of a large number of goods and services. Higher incomes cannot therefore counterbalance the reduced demand for unemployment insurance that resulted from the increase in the relative price of the insurance when fees were raised.

The fee increases now being made by several unemployment insurance funds point out another weakness in the reforms of unemployment insurance fund financing. The Government has

²⁷⁵ Thus, for example, the Government in Govt. Bill 2006/07:15 wrote that “the objection that some members would consider themselves unable to afford to remain members is not tenable. The aggregate effect of the earned income tax credit proposed in the Budget Bill and the rules now proposed signify a positive net effect for the gainfully employed”.

attempted to create a link between membership fees in an individual unemployment insurance fund and the unemployment in a collective bargaining area where the members of the fund are found. The idea – which has support in economic theory – is, that differentiated fees create incentives for wage moderation, and thus higher employment, in a collective bargaining system where wage negotiations are conducted at the industry level.²⁷⁶ One problem, however, is that the automatic stabilisers in fiscal policy are weakened if the average fee level rises in a downturn, since household purchasing power is then reduced.²⁷⁷

The current financing system is good in that it to some extent differentiates the *relative* fees after unemployment in the individual bargaining areas but not as good in that the *average* fee level rises when unemployment in the economy overall increases. A better system – both to create incentives for wage moderation at the level of the individual union and to avoid a weakening of the automatic stabilisers – would be to keep the differentiation, but prevent changes in total unemployment in the economy from having an impact on the average membership fee. With the current ceiling on the unemployment contribution that the unemployment insurance funds pay to the central government of SEK 300 a month, a change in the system like this would also mean that the differentiation in the membership fees would be retained in an economic downturn when many funds hit this ceiling.

The fall in membership in the unemployment insurance funds could have been avoided if unemployment insurance had been made mandatory, which was the Government's original intention. According to the 2009 Budget Bill, there are still reasons to “try to see to it that all people who work and fulfil the conditions of the insurance are covered by compulsory unemployment insurance with the right to an income-related benefit in the event of unemployment”.²⁷⁸ But the Bill also makes it clear that the Government does not intend to go ahead with an insurance of this type as proposed in a report by a government commission in this

²⁷⁶ See Fiscal Policy Council (2008), Section 7.1.

²⁷⁷ The automatic stabilisers' role in fiscal policy is discussed in Box 1.1. The aim of automatic stabilisers is that tax payments automatically decline and expenditure on various social benefits rises in an economic downturn and this counteracts a general decline in demand.

²⁷⁸ See p. 40.

area in May 2008.²⁷⁹ Instead it was said that a government commission on reforming social insurance announced by the Government will consider how a mandatory unemployment insurance system can be achieved in the future.

We share the Government's opinion that the proposal for mandatory unemployment insurance should not be pursued. But at the same time we regret that the terms of reference given the commission were inappropriate: designing an insurance that is both mandatory and based on the existing organisation with funds linked with trade unions. This is a hybrid not found anywhere else. The result was that the commission proposed lower fees in the union-affiliated funds than in the government funds that one also would have the option of joining. Favouring the funds associated with trade unions is difficult to justify in a mandatory system.

In our opinion, unemployment insurance should be made a mandatory state-run social insurance covering all employees. There are two main reasons for this. One is the 'paternalistic' motive that guarantees that everyone, including low-income earners with high unemployment risk, should have sufficient protection against unemployment. The other main reason is ensuring that everyone contributes to the insurance, even high-wage groups at low risk of unemployment. These reasons are much like those used to justify mandatory state-run sickness and pension insurance schemes and they are at least as valid when used as arguments for unemployment insurance. It would be quite possible to keep the fee differentiation between groups in a mandatory insurance scheme of this kind: the fees could even be differentiated so that they better corresponded to the different collective bargaining areas than they do now (when unemployment insurance funds and collective bargaining areas only partially overlap).

5.3.2 Cyclically dependent unemployment insurance?

The Government's reduction of unemployment benefits has been very controversial. These have involved a reduction in the replacement rate from 80 to 70 per cent after 200 benefit days and anyone still unemployed after another 100 days (250 for those

²⁷⁹ SOU 2008:54.

responsible for dependent children under 18) gets a benefit of 65 per cent in the job and development guarantee.²⁸⁰ In addition, the ceiling for benefits during the first 100 days has been lowered.

There was a detailed analysis of the benefit reductions in our 2008 report.²⁸¹ There is strong support showing that a generally lower benefit level reduces equilibrium unemployment, i.e. the unemployment that is consistent with stable inflation and around which actual unemployment varies over the business cycle. Research also provides support indicating that an unemployment benefit that gradually declines as the unemployment period lengthens provides a desirable balance between the insurance and incentive motives.²⁸² The assessment in our 2008 report was that the reductions in the average benefit level may well reduce equilibrium unemployment, and thus also unemployment in the long run, by 0.4-0.8 percentage points. This does not imply that we have taken any position on whether or not the lower benefit levels are desirable when one weighs the income distribution effects against the employment effects. Our conclusion was simply that the policy may in the long run be assumed to contribute to lower unemployment.

In connection with the rapid economic slowdown, there have been arguments from several quarters for higher unemployment benefits.²⁸³ The basis for the argument is both that the deep recession increases the need for income protection in the event of unemployment since it becomes more difficult to find a job and that increased income for the unemployed is an effective method of counteracting falls in consumption and thus mitigating the economic downturn. The line of argument is closely related to the idea that the unemployment benefit should be *cyclically dependent*. This is the case in the United States and Canada, which have long had such systems. In the current recession, several countries have also chosen to take discretionary decisions to make unemployment benefits more generous.²⁸⁴ There are grounds for discussing the advantages and

²⁸⁰ See also Figure 5.7 in this report and Box 7.1 in our 2008 report.

²⁸¹ See Section 7.1 in Fiscal Policy Council (2008).

²⁸² See, for example, Shavell and Weiss (1979), Hopenhayn and Nicolini (1997) and Fredriksson and Holmlund (2001).

²⁸³ TCO (2008), Becker (2008) and the Swedish Trade Union Confederation (LO) (2009) are examples of this.

²⁸⁴ These include Belgium, Finland, Greece, Japan, Norway and Portugal. Unemployment benefits in Canada and the United States have also been made more favourable by discretionary decisions.

disadvantages of adjusting unemployment insurance in line with the economic situation.

Unemployment benefits can be made cyclically dependent in a number of ways. Benefit levels can be higher in downturns than in upturns. The unemployed could also collect benefits for a longer time in bad times than in good times. In Sweden there is in practice no time limit on how long an unemployed may receive benefits, since participation in the job and development guarantee does not have any time limit.²⁸⁵ In such a system, cyclically dependent unemployment insurance would involve either benefit levels that are generally higher or a decrease in the levels over an unemployment spell that is slower in downturns than in upturns.

Insurance versus incentives

A key balance to be struck in unemployment insurance is that between insurance and incentives. There needs to be insurance protection against the loss of income from unemployment. The benefit level, however, also affects how high unemployment will be: the higher the benefit level, the weaker the incentives for the unemployed to look exhaustively for work, to be prepared to move to where there are jobs, to retrain and so forth. Furthermore, the higher the benefit level is, the higher the wage level can be assumed to be, since the benefit level constitutes a floor for wages. The result will be that the higher the unemployment benefit paid out, the higher the equilibrium unemployment rate will be.²⁸⁶

It is reasonable to think that the desired balance between insurance and incentives changes with the economic situation.²⁸⁷ The need for insurance increases during an economic downturn when unemployment is higher than average. Likewise the incentive problems are presumably more important during a boom when there are plenty of job vacancies and the return to searching for a job is high. In a slump with few job vacancies, however, the intensity with which the unemployed look for a job plays a smaller role in

²⁸⁵ See Section 5.2.6.

²⁸⁶ See, for example, Nickell and Layard (1999), Calmfors and Holmlund (2000) and Cahuc and Zylberberg (2004). See also Alan Krueger and Mikael Lindahl's background paper for the Council (Krueger and Lindahl 2009).

²⁸⁷ See Andersen and Svarer (2009).

unemployment.²⁸⁸ The distortionary effects of unemployment benefits are thus greater in booms than in slumps. A cyclically dependent unemployment insurance means that the insurance is at its highest when it does the most good (in an economic downturn) while the distortions decline when they do the most harm (in an economic upturn). An unemployment benefit that varies with the business cycle around a given level can thus reduce the average distortions so that average unemployment is lower.²⁸⁹ Economic theory thus argues that an unemployment benefit that is more generous in downturns than in upturns provides a better balance between insurance and incentive considerations than a system that is independent of the cyclical situation.²⁹⁰

One important question is how a cyclically dependent unemployment benefit affects the variation in unemployment over the business cycle. Here there are opposing forces.

On one hand, with a benefit that varies with the cycle, the incentives to look for work are strengthened in economic upturns and weakened in downturns. The wage-dampening effect of economic downturns is also weakened if the unemployment benefit rises during such times. When unemployment insurance is cyclically dependent, equilibrium unemployment thus probably increases during downturns and declines during upturns. This tends to lead to higher variations in unemployment even if the average level falls.

On the other hand, a cyclically dependent unemployment benefit strengthens the automatic stabilisers.²⁹¹ Higher benefits in downturns and lower benefits in upturns weaken the public finances more in downturns and strengthen them more in upturns than a system in which the benefit is independent of the cyclical situation. As a result, aggregate demand is stabilised over the business cycle. This tends to reduce the fluctuations in unemployment. There is reason to believe that varying the unemployment benefit may be an effective stabiliser, since the unemployed probably consume a greater share of an increase in income than the employed would.²⁹²

²⁸⁸ This has led Sanchez (2008) to the conclusion that an optimally designed unemployment benefit decreases over an unemployment spell at a slower rate during a downturn than in an upturn.

²⁸⁹ This is shown by Andersen and Svarer (2009) in a theoretical search and matching model like that in Mortensen and Pissarides (1999).

²⁹⁰ This section discusses benefit terms in the unemployment insurance. But what job search activities should be required of the unemployed could be discussed in a similar way. See also Section 5.2.8.

²⁹¹ See Section 1.2.2 and Box 1.2 for a more detailed discussion of the automatic stabilisers.

²⁹² See also Section 1.2.2 in this report.

On balance, it is not clear whether the improved insurance protection that a cyclically dependent unemployment insurance would provide has any economic cost. It is impossible to tell whether cyclical fluctuations in unemployment would be smaller or larger. However, unemployment may decline on average over the business cycle if the benefit level is allowed to vary with the business cycle around a given level.

Rules system or discretionary decisions?

A cyclically dependent unemployment benefit can be based either on fixed rules or on discretionary decisions (decisions from case to case).

With a rules-based system, unemployment insurance terms can automatically be made more generous if unemployment exceeds a threshold. One potential problem, however, is that an automatic rule of this kind does not take into account that changes in unemployment may have different causes. The aim is to make the terms more generous when cyclical unemployment increases. But an increase in unemployment may also be due to a rise in equilibrium unemployment resulting from a deterioration in the functioning of the labour market. If so, it is presumably desirable that higher unemployment not lead to an automatic increase in the benefit level, which further increases equilibrium unemployment and so forth.²⁹³

It is genuinely difficult to know both how high equilibrium unemployment is and how it may change in the future. This may make it difficult to design fixed rules. One alternative that partly takes this problem into account is to compare current unemployment with an average for the immediately preceding years and tie changes in benefit terms to deviations of a certain size from a moving average of this kind.

The alternative to a rules-based system is to take discretionary decisions on adjusting the benefits to the cyclical situation. This improves the possibilities of taking the specific situation into account. But there is still, of course, the basic difficulty of judging the cyclical situation. With discretionary decisions, however, it may be very difficult to actually stick to the principle of cyclically dependent

²⁹³ One complication is that equilibrium unemployment may not be independent of cyclical unemployment. On the contrary, it is likely that an increase in cyclical unemployment with some time lag increases equilibrium unemployment. For further details, see Section 5.1.

unemployment insurance: it is presumably politically much simpler to raise the benefit level in a downturn than to reduce it again when the economy turns upwards.

Discretionary problems may also involve time inconsistency problems of the type that have received a great deal of attention in economic research in recent decades. If the unemployed believe that the benefit level will be reduced in the next upturn, they will look for work more intensively when the economy recovers. Given that the unemployed act in this way, it may create political incentives to defer the reduction of the benefits in order to accelerate the recovery in demand. If the unemployed realise this, they will not increase their job search intensity and unemployment will remain unnecessarily higher. A rules-based system is thus preferred for efficiency reasons.²⁹⁴

Experience in other countries

A cyclically dependent benefit may seem to be a purely theoretical idea that lacks practical application. This, however, is not the case. The United States and Canada have such systems.

The American system has both rules-based and discretionary elements. The length of the benefit period in a US state is dependent on the unemployment rate in accordance with rules established in advance. In addition, Congress has sometimes taken discretionary decisions on changes justified by the cyclical situation. This has happened in the current recession, for example.²⁹⁵

There is a very detailed rules system for unemployment insurance in Canada. Under this system, the labour market situation at the regional level decides the unemployment insurance terms. This applies to the qualification time for benefits, the length of the benefit

²⁹⁴ An analysis of the time inconsistency problem was first made by Kydland and Prescott (1977), who were later awarded the 'Nobel Prize' in economics for this and other research. As did Barro and Gordon (1983) later, they showed that a central bank may have incentives to allow more inflation than economic agents expect in order to generate higher employment. But when expectations eventually adjust to this behaviour, there will be no employment effect. The only result will be higher inflation. This problem is of the same type as that discussed in the text.

²⁹⁵ In autumn 2008, the benefit period was extended by 13 weeks in all states. In the most recent stimulus package, the benefit period was extended by a further 7 weeks to 46 weeks. In states with more than 6 per cent unemployment, the benefit period was extended to 59 weeks. In addition the benefit level was raised by 25 dollars a week and the first 2 400 dollars in unemployment benefits were exempted from federal income tax.

period and the benefit level. Box 5.3 describes in more detail how the American and Canadian unemployment insurance systems have been made cyclically dependent.

Box 5.3 Cyclically dependent unemployment insurance in the United States and Canada

In most American states, an unemployed person who is qualified receives unemployment insurance benefits for 26 weeks in a 'normal' economic situation. Under the existing rules system, the benefit period in a state with high unemployment can be extended a further 13 weeks. This is done if:

- (i) the average unemployment in the state for that part of the labour force that is qualified for unemployment benefits during a 13-week period exceeds 5 per cent and in addition, constitutes at least 120 per cent of the average unemployment during the same 13-week period in the past two years; or
- (ii) for the past 13 weeks, average unemployment has exceeded 6.5 per cent.

These rules apply in all states. In addition, states can join a system allowing extension of the benefit period by 13 weeks if in the past three months, seasonally adjusted unemployment exceeds 6.5 per cent and this is equivalent to at least 110 per cent of unemployment in the past two years. This system also allows an extension of a further 20 weeks if unemployment in the state is over 8 per cent and this is more than 110 per cent of average unemployment over the past two years.

The rules in the United States give only limited consideration to the level of equilibrium unemployment, i.e. the level of unemployment around which cyclical fluctuations take place. It has therefore been argued that the rules have become less and less relevant since equilibrium unemployment appears to have declined in the past two decades. As a result, extensions of the benefit period in recent years have instead been made by discretionary decisions by Congress. The current administration has plans to change the rules so that automatic changes in the benefit period will also take place in the course of normal cyclical swings.

The *Canadian* unemployment insurance is dependent on the

cyclical situation in several respects. This is done at the regional level.

(i) The higher the regional unemployment is, the shorter the qualifying period for entitlement to unemployment benefits. If unemployment is less than 6 per cent, a person must have worked at least 700 hours in the past year. The requirement then declines by 35 hours for each percentage point rise in regional unemployment, up to 13 per cent unemployment.

(ii) The length of the benefit period also depends on unemployment. For an unemployed person with more than 1 820 insurable hours worked (about one year), the benefit period varies from 36 weeks, if unemployment is less than 6 per cent, to 45 weeks, if unemployment is higher than 16 per cent. The cyclically dependent variation in the benefit period is even greater for those who have not reached 1 820 insurable hours worked. For example, for an unemployed person with 1 000 insurable hours worked (about 25 weeks), the benefit period varies between 20 and 42 weeks, depending on the regional unemployment level.

(iii) Benefit levels are also dependent on the labour market situation to some extent. Unemployed people with less than 22 weeks of insurable working hours get lower benefits than those who have worked a longer time. This reduction in benefits decreases as unemployment increases.

One problem with the strong link between the regional labour market situation and the generosity of unemployment insurance in Canada is that geographic mobility declines, since there is less incentive for the unemployed to move from regions with high unemployment to regions with low unemployment. The rules also seem to be so complicated that it is probably difficult for the individual to grasp them.

A cyclically dependent unemployment insurance should be introduced in Sweden

To sum up, there are good theoretical arguments for basing the terms for unemployment insurance on the cyclical situation. It probably provides a better balance between income distribution and employment objectives than an insurance that does not take the business cycle into account. It is more appropriate to base such an

insurance system on fixed rules than on discretionary decisions. The smaller the country is, the stronger the arguments are for tying the insurance terms to national labour market developments rather than the regional situation as the United States and Canada have done. This is due to the assumption that the smaller the economy is, the greater the need for geographic mobility between regions, since there is then less probability that the cyclical situation will vary between different areas in each region.

There are strong arguments for making unemployment insurance cyclically dependent in Sweden. This could be done by decreasing the benefit level over the unemployment spell more slowly in an economic downturn. The period with a benefit of 80 per cent of the previous wage, could, for example, be extended by a specified number of days when unemployment exceeds a specified level. Furthermore, the basic allowance in unemployment insurance paid to the unemployed who are not qualified for income-related unemployment benefits, could then be increased. Just as in the American system, there could be an additional requirement that unemployment must also exceed the average over the preceding year by a specified magnitude. The aim of this supplementary provision is to ensure that a permanent increase in unemployment (an increase in equilibrium unemployment) is not reinforced by a permanently higher unemployment benefit.

One problem is that for a cyclically dependent insurance like this to work well, it presumably requires a fundamental political consensus on how the terms in the insurance are to be designed. Without this consensus, there is a significant risk that changes in benefit terms justified by temporary changes in the cyclical situation will actually become permanent and thus increase unemployment in the long run. It would thus in our opinion be desirable to introduce a cyclically dependent unemployment benefit as part of a broad cross-party political agreement.

A changeover to cyclically dependent unemployment insurance may take time. A discretionary decision on a more generous unemployment benefit could therefore be justified in the current crisis. This is discussed in more detail in Section 1.4. Such a decision should then be seen as a step towards a cyclically dependent unemployment benefit and be clearly designed as a temporary measure.

6 Labour supply in a life cycle perspective

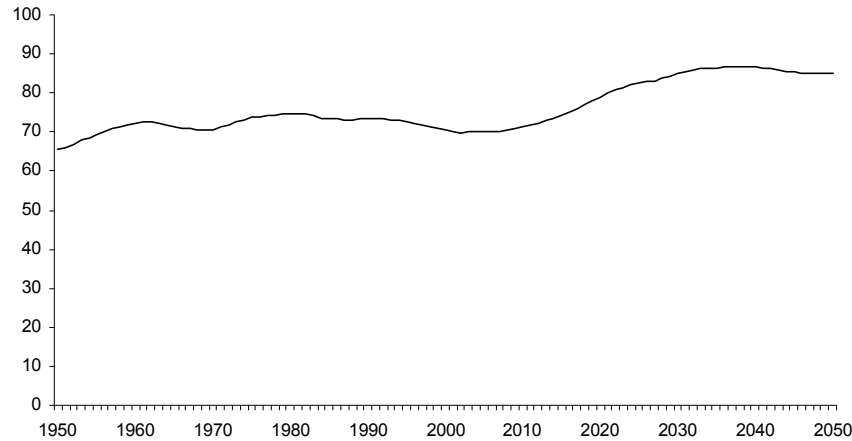
Labour supply developments are of critical importance not only for the labour market and production capacity, but also for long-term sustainable public finances. Section 2 described how demographic changes will exert pressure on public finances and argued that an increase in the time in work over the life cycle should be part of a strategy for managing this situation. This section discusses how such an increase can be achieved. The section focuses on labour market entry and exit.

In most economically advanced countries, the fraction of people of working age is declining. The percentage of older people is increasing, owing to both rising life expectancy and low birth rates. The population pyramid is no longer a pyramid. Instead it looks more like a high-rise that gets higher the longer we live.

According to Statistics Sweden's population projections, this trend will continue. Figure 6.1 illustrates the age dependency ratio, i.e. the ratio of the number of children and older people (under 20 or over 64) to the number of people aged 20-64. Figure 6.2 shows that the increased dependency burden is due to both lower birth rates and increased longevity.

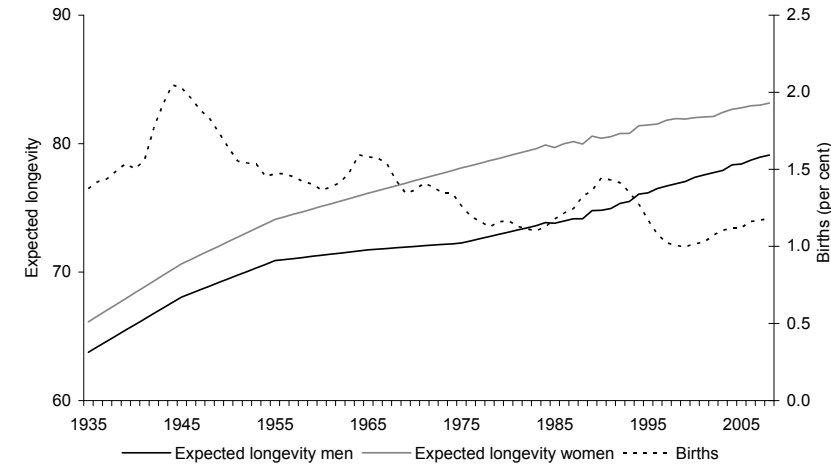
With the temporarily high birth rates in the 1940s and the declining trend since then, the cohorts leaving the labour market in the next few years will be larger than those entering. Consequently, a growing percentage of the population will not be in the labour force. If the labour market exit age does not rise in line with longevity, the percentage of the population not in the labour force will increase. Figure 6.3 shows a projection of the percentage of the population in the labour force to 2050 under the assumption that labour force participation remains constant in each age group. Up to 2030, labour force participation is estimated to decline from 53 to 48 per cent.

Figure 6.1 Age dependency ratio



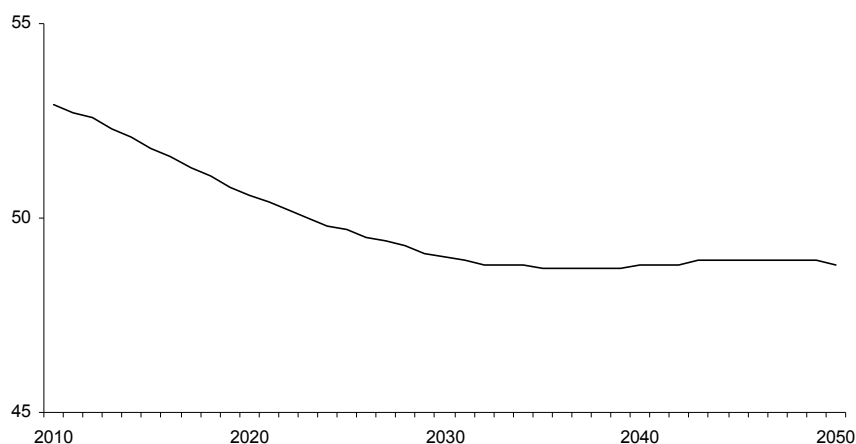
Note: The age dependency ratio shows the ratio of the number of children (people under 20) and older people (people over 64) to the number of people aged 20-64.
Sources: Statistics Sweden.

Figure 6.2 Birth rates (per cent) and expected longevity



Note: The number of births as a percentage of the population and expected longevity at birth.
Sources: Statistics Sweden and the Fiscal Policy Council.

Figure 6.3 Projected labour force participation, percentage of the population



Note: The figure shows the labour force as a percentage of the population, assuming that labour force participation in each age group remains unchanged.

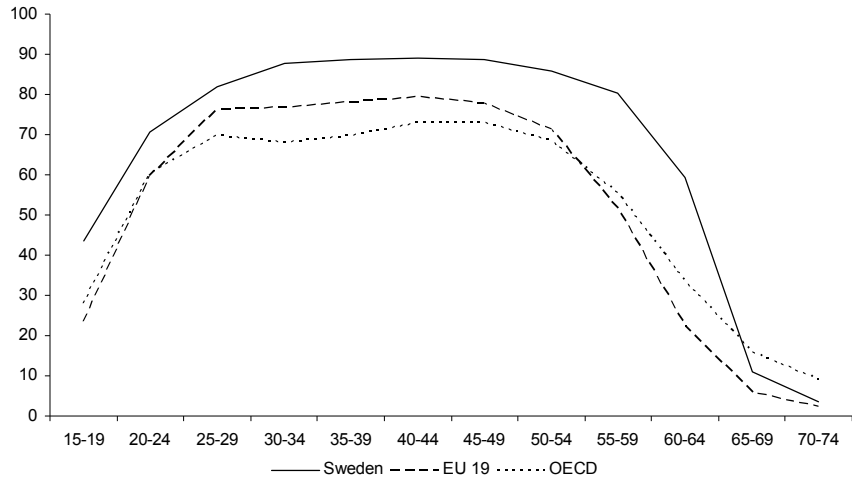
Sources: Statistics Sweden and the Fiscal Policy Council.

6.1 Labour force participation in different age groups

Labour force participation can increase in three ways. First, labour market entry can take place at an earlier age. Second, exit on retirement can take place later. Third, more of those between the entry age and retirement may join the labour force.

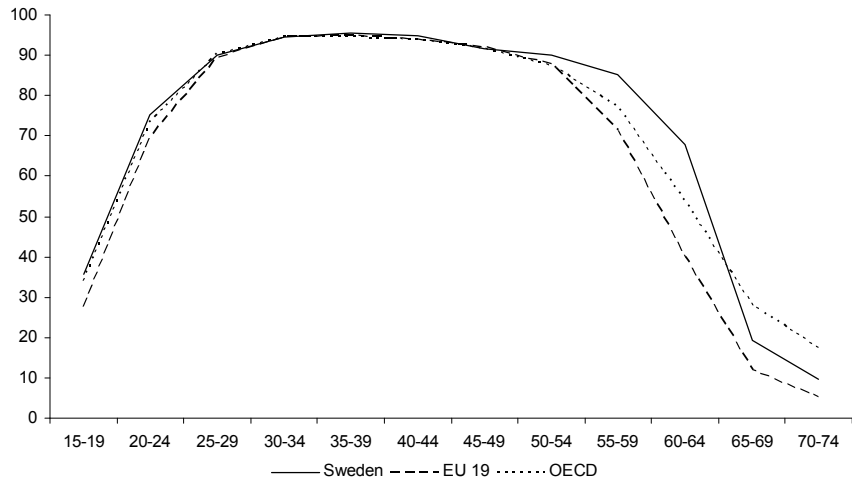
Compared with other industrialised countries, labour force participation in Sweden is high over the entire life cycle. Female labour force participation is particularly high in an international perspective (see Figure 6.4). Participation is also relatively high the last ten years before retirement in Sweden. There are, however, fewer who continue to work after the age of 65 in Sweden than in the OECD on average (see Figures 6.4 and 6.5). The relatively low labour force participation by people over 65 may seem remarkable since expected longevity is comparatively high. The low labour force participation among those over 65 indicates a potential supply that could be realised if labour market exit took place later.

Figure 6.4 Labour force participation among females in various age groups in 2007, per cent of the number of people in the age group



Note: The figure shows the percentage of the population in various age brackets who participate in the labour force. The EU19 refers to the 15 Member States in the EU before the 2004 expansion and the four Eastern European OECD members: Poland, Slovakia, the Czech Republic and Hungary.
Source: OECD.

Figure 6.5 Labour force participation among males in various age groups in 2007, per cent of the number of people in the age group



Note: The figure shows the percentage of the population in various age brackets. See also Figure 6.4.
Source: OECD.

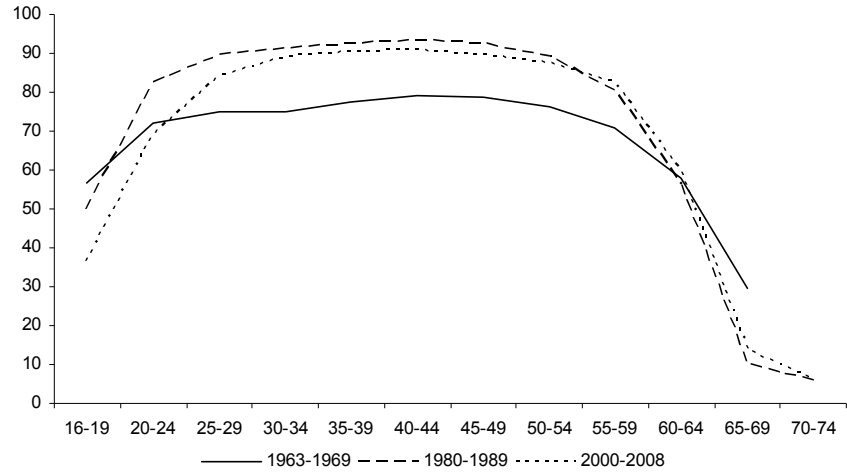
Labour force participation among women increased sharply up to the beginning of the 1990s and has remained relatively constant since then. The fraction of men in the labour force has been on a downward trend and is currently about ten per cent lower than it was in the early 1960s.

Sweden is more dependent than most other countries on a high labour force participation since there is a very large public sector. The main part of public sector funding comes from taxes on income generated in the labour market and by taxes on consumption when the income from labour is spent. Labour is also needed to produce welfare services. A high labour force participation over the life cycle is therefore required to maintain publicly funded welfare.

Figure 6.6 shows how labour force participation at various ages has changed since the 1960s. Labour force participation over the life cycle varies more than before and is lower for both young people and older people now than in the period 1963-1969. Moreover, it is substantially higher for those aged 25-59 (as a result of increased female participation). The decrease in labour force participation among young people is primarily explained by increased enrolment in higher education.

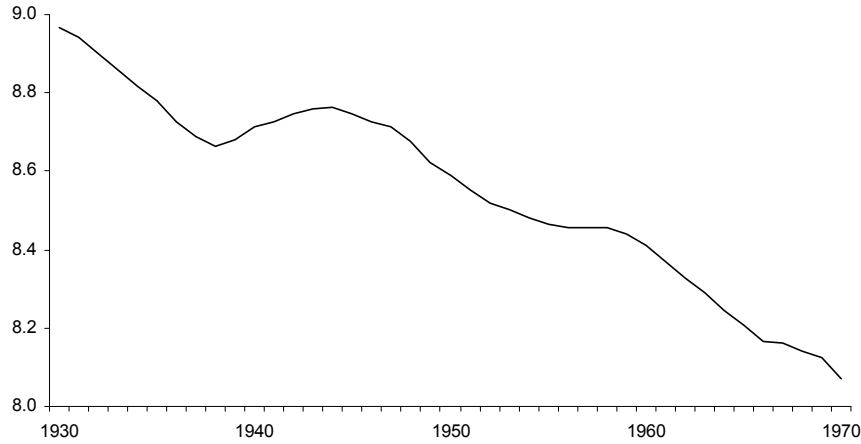
Figure 6.7 shows that the percentage of work over the life cycle has decreased steadily. A person born in 1930 has on average worked barely nine per cent of his or her life (in the labour market). If employment in various age groups does not change in the future, the percentage of time at work for a person born in 1970 will fall to eight per cent on average. The main explanation for this trend is that people live longer now than before and have shorter hours of work. Women's increased participation in the labour market has offset this trend to some extent.

Figure 6.6 Labour force participation over time in different age brackets



Note: The figure shows the percentage of people in various age brackets who are in the labour force.
Source: OECD and Statistics Sweden.

Figure 6.7 Percentage of lifetime in work by year of birth



Note: The percentage of work over the life cycle has been estimated with the help of historical data on population, deaths, employment and hours worked. A number of simplified assumptions have been made for years lacking data. This means that the figure should be interpreted with particular caution.
Source: Fiscal Policy Council calculations.

6.2 Labour market entry

Labour market entry age has been on an upward trend in Sweden. The most important cause is that more people are studying for a longer time. Since a later labour market entry due to education may be positive both for the individual and for society, increasing the labour force participation of young people is not a goal in itself. The task is rather one of creating an appropriate balance between the incentives to work and to get an education in order to achieve an efficient allocation.

6.2.1 The education decision

The basis of human capital theory is that the individual's education decision is an investment decision. The individual compares the benefits that further education would yield with the costs associated with the education. The benefits are the permanent increase in income as a result of education, while the costs consist of the income foregone during the years of education and direct study costs. If the discounted present value of the income stream exceeds the costs, it is assumed that the individual will choose to get an education.

The return to education will be higher if this takes place as early in life as possible. This is because the higher annual return gained from getting an education is earned over a longer period. For the same reason, the return to a particular education increases if the time spent getting it is as short as possible. Interruptions in studies for low productivity work and recreational activities reduce the return to education. If a person is to go on to higher education after completing upper secondary school studies, this should be done as quickly as possible.

A late start to higher education studies and a longer time to complete them in Sweden

The median age for beginning higher education studies in Sweden is 22.4 years, which is higher than in all other OECD countries except Denmark and Iceland. This primarily reflects the one- to two-year

interruption in studies many take after completing upper secondary education. Swedish students not only begin higher education studies later, but also study for a longer time. The average length of studies is 4.7 years, which is longer than in most other OECD countries.

Interruptions in studies can involve large economic efficiency losses. One study estimates the loss from a two-year interruption in studies at half a year's income by the time a person reaches the age of 40.²⁹⁶ This is due to the low productivity of jobs students normally have in addition to their studies compared with the jobs they will have after they graduate. One reason that studies commence so late and there are so many interruptions in Sweden may be the incentives created by the tax and transfer systems. The private economic costs of postponing one's post-secondary education are much lower than the social costs, given the progressivity in the tax and benefits systems.

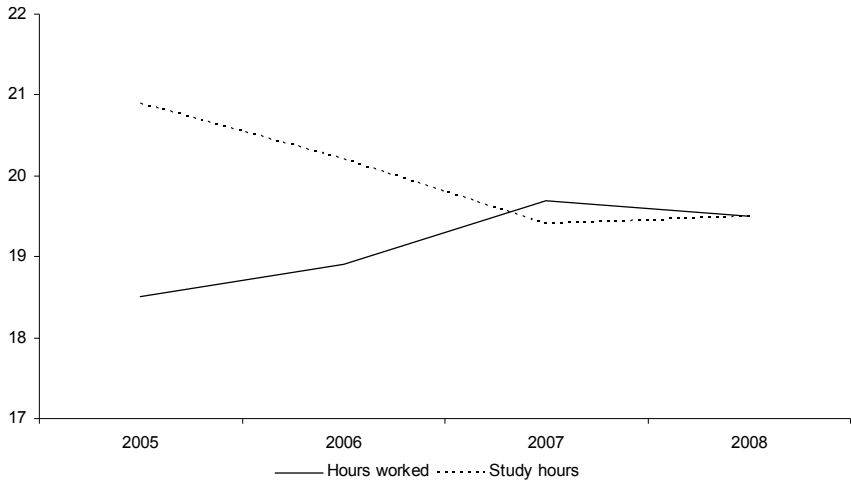
Some of the Government's labour market reforms have created incentives for students to postpone their studies. For example, the earned income tax credit also gives students an incentive to work more and thus may reduce the time devoted to studies. Figure 6.8 shows that the number of hours worked by employed students has increased in recent years and at the same time the number of hours this group has spent studying has fallen. The sharp reduction in social contributions for young people creates more room for wage increases and may, in the long run, be expected to lead to higher wages for young people. It strengthens students' incentives to supplement their finances with earned income while they study.

Study support

Study support today comes to almost SEK 2000 a week (1/3 is a grant and the rest is a loan). Students who work and study at the same time may keep the full amount of the study support if their income does not exceed the exempt amount. This comes to SEK 107 000 a year for full-time studies. When income exceeds this amount, study support decreases by half of what the student earns over the exempt amount. To get study support on a steady basis requires proof of academic achievement. Study support may be collected for a maximum of six years.

²⁹⁶ Holmlund et al. (2008).

Figure 6.8 Average hours worked and study hours per week for employed students

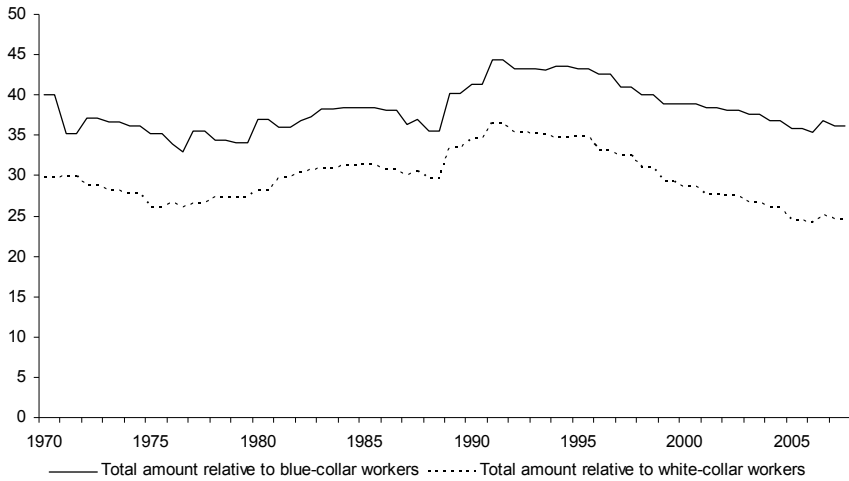


Source: Statistics Sweden.

Figure 6.9 shows that study support (the sum of the grant and the loan) has fallen sharply in relation to wages since the beginning of the 1990s. Today most people with unemployment benefits have an income substantially higher than the maximum amount of study support. This is also true for long-term unemployed low-income earners who receive 65 per cent of their previous income in the job and development guarantee or the job guarantee for young people.

Limiting the number of years that study support may be collected would in all likelihood reduce the average study time. This was also stressed by the Student Welfare Inquiry (Studiesociala utredningen) which recommended lowering the general study support eligibility period for higher education studies from six to four years for full-time studies.²⁹⁷

²⁹⁷ This reduction applies to shorter programmes of study. Students pursuing longer programmes of study will be able to get study support for a longer time. See SOU 2009:28.

Figure 6.9 Study support as a percentage of wages and salaries

Source: Fiscal Policy Council calculations.

Reducing the exempt amount would presumably decrease students' propensity to work during their student years. The Student Welfare Inquiry, however, proposed the opposite. The reason given was that the exempt amount to a great extent limits students' chance to earn their own living parallel to their studies. Since the social returns to avoiding long study times exceed the private, the exempt amount, in our view, should be lowered rather than raised.

To encourage students to begin their studies soon after completing upper secondary school, study support could also be made more generous the younger the higher education students are.²⁹⁸ This could be done, for example, by making the grant part higher for younger than for older students.

Study support should be at a level at which students can manage on their own without parallel incomes, to prevent students from working too much during their study time. Study support is currently tied to the consumer price index. The result is that higher real wages cause students' relative remuneration to fall, compared to those who work. Since it is the remuneration when studying compared to the remuneration when working that is key to students' propensity to

²⁹⁸ This proposal was made earlier by the Globalisation Council (2007).

work, it is important that the relative remuneration for studying is not too low.

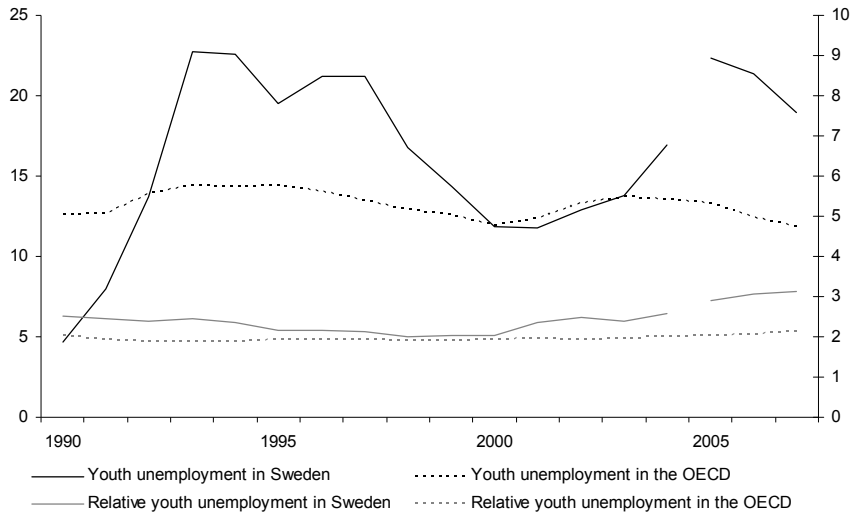
Permanently raising study support is not only desirable. It is also an appropriate measure in the current economic situation. Students can be assumed to have a high propensity to consume, which means the extra funds directed at this group will mostly be consumed rather than saved. So a permanent increase in study support should be implemented as soon as possible.²⁹⁹

6.2.2 Youth unemployment

Youth unemployment is higher in Sweden than in many other countries. Figure 6.10 shows that Swedish youth unemployment has been far higher than the OECD average for most of the years since the early 1990s. Relative unemployment among young people in Sweden (youth unemployment compared with unemployment in the population as a whole) is higher than the OECD average. Moreover, relative unemployment has increased in Sweden in the past ten years, while it has remained almost unchanged in the OECD as a whole. Today unemployment among young people in the OECD is approximately double that of the population as a whole, while in Sweden it is more than triple. Despite the high youth unemployment, employment is high among Swedish young people. Figure 6.11 shows that the employment rate for young people (i.e. the percentage of young people in the population who are employed) has remained at about the OECD average and somewhat above the average for the EU19 since the 1990s crisis.

²⁹⁹ See also Section 1.4.

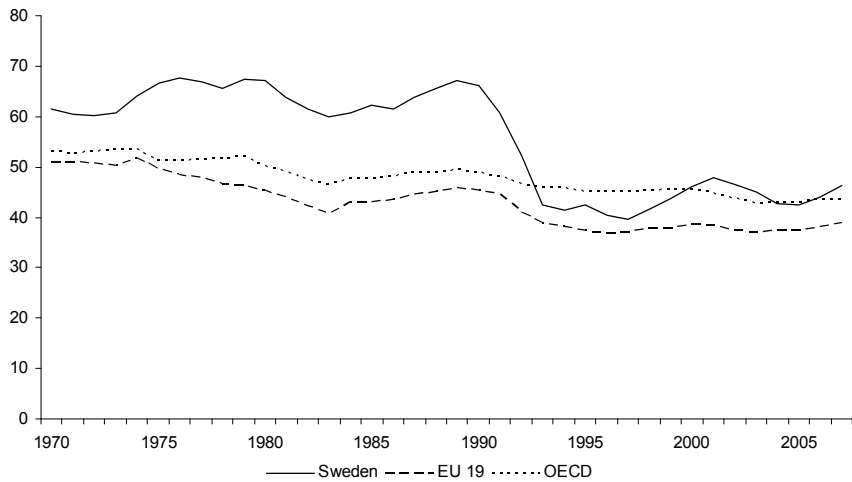
Figure 6.10 Youth unemployment



Note: Youth unemployment as a percentage of the labour force (left axis). In 2005, there is a break in the time series for unemployment in Sweden because the Labour Force Survey (LFS) begins using the international definition of unemployment, which means that full-time students looking for work are counted as unemployed. Relative youth unemployment is the ratio between the youth unemployment rate and the total unemployment rate (right axis).

Source: OECD.

Figure 6.11 Youth employment, per cent



Notes: The employment rate is the number of employed young people in relation to the number of young people in the population (15-24 years). EU19 refers to the 15 Member States in the EU before the 2004 expansion and the four Eastern European OECD members Poland, Slovakia, the Czech Republic and Hungary.

Source: OECD.

Is youth unemployment worse than other unemployment?

In debating unemployment, it is often argued that high youth unemployment is a particularly serious problem. Youth unemployment, like all other unemployment, implies that available resources are not being used. It also implies a lower well-being for the individuals involved.³⁰⁰ There are, however, several reasons why unemployment is less of a problem for many young people than for older workers.

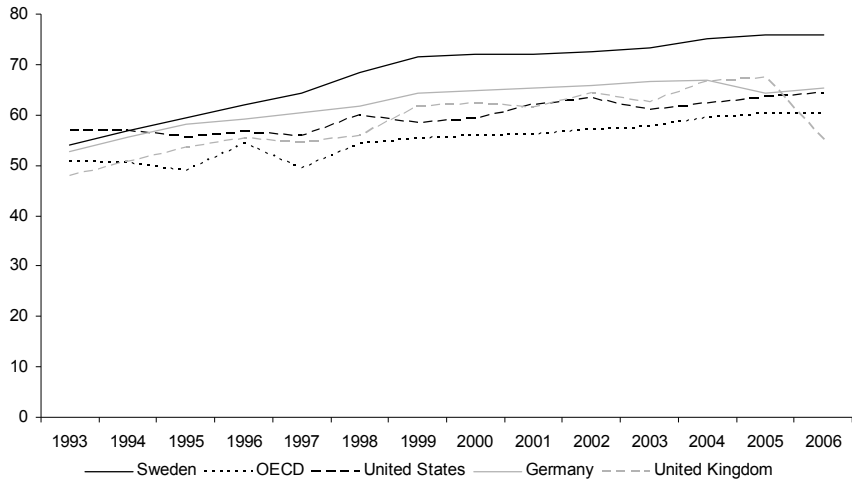
A partial explanation for the high youth unemployment in Sweden is that there are many full-time students, many of whom are also looking for work. As can be seen in Figure 6.12, Sweden has a high fraction of young people in education compared with other countries. The percentage has also increased substantially since the beginning of the 1990s.³⁰¹ Figure 6.13 shows that there is a large share of full-time students among both unemployed and employed young people. This implies that both the unemployment rate and the employment rate for young people would fall if full-time students did not participate in the labour market. The difference is quite noticeable; for example, the unemployment rate would fall by 5 percentage points. That part of youth unemployment is attributable to young people who look for a job while they study full-time at college is, in our opinion, less of a social problem than other unemployment. Moreover, young people have shorter spells of unemployment than the population at large. Figure 6.14 shows the length of time people aged 15-24 and people aged 25-54 were unemployed. Unemployed young people were unemployed an average of 11.2 weeks in 2008. The corresponding time in the 25-54 age group was 30.2 weeks.³⁰² Unemployed young people thus leave unemployment at a faster rate than older unemployed people. They exit unemployment both to take a job and to pursue other activities, particularly education.

³⁰⁰ See Frey and Stutzer (2002).

³⁰¹ Since youth as young as 15 are included in the group, people who are still in upper secondary school are also included. The trend is driven, however, by changes in the number of university students, even though the level is of course lower if the youngest in the age group are excluded.

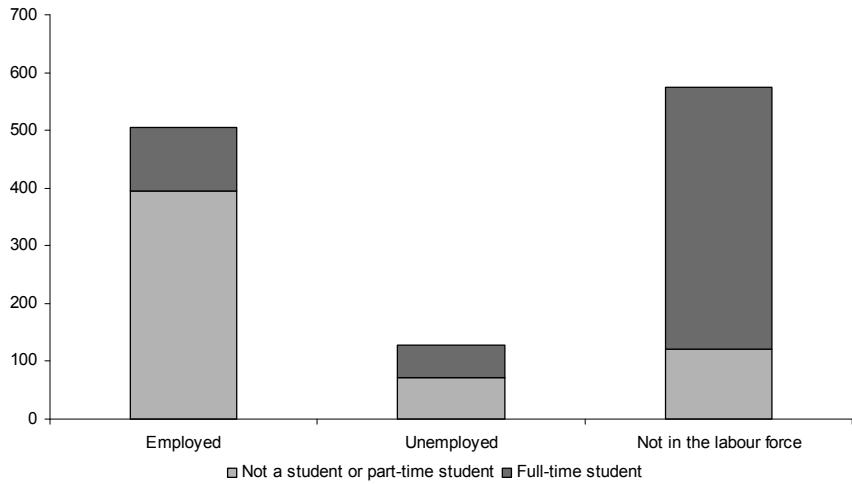
³⁰² It should be noted that it is in the nature of things for young people not to have been unemployed as long as their elders. When one compares short-term unemployment, this is less of a problem.

Figure 6.12 Young people (15-24) in education, per cent of the population in that age bracket

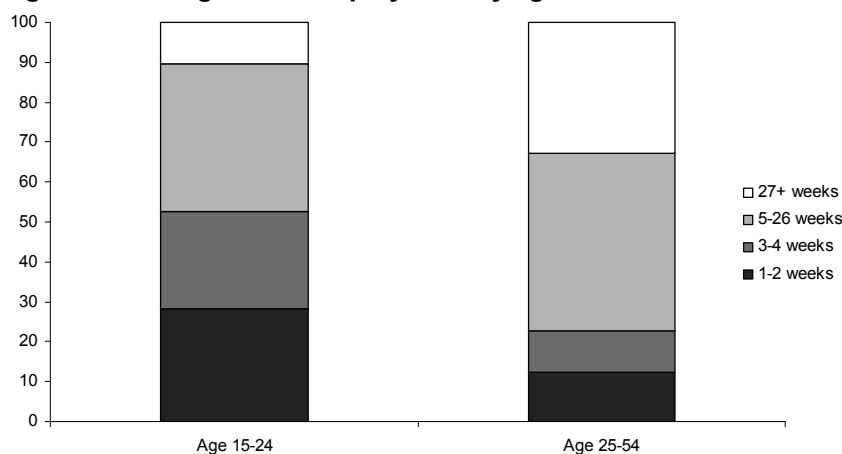


Source: OECD.

Figure 6.13 Young people (15-24) in employment, unemployment and not in the labour force, Sweden, 2008



Source: Statistics Sweden.

Figure 6.14 Length of unemployment by age

Source: Statistics Sweden.

It is natural that labour market entry is associated with unemployment since it takes time to find a job. Another characteristic of the labour market for young people is that young people typically try out various jobs. There are short periods of unemployment in connection with these job changes. Such short periods of unemployment are less of a social problem than other unemployment.

Short unemployment spells signify that young people are less apt to suffer from long-term unemployment than their elders are. The short spells of unemployment among young people also indicate that the labour market to some extent functions better for young people than for older people.³⁰³

It is likely, however, that high minimum wages put young people at a disadvantage relative to older workers and push up relative unemployment for young people. Stringent labour laws in all likelihood also put young people at a disadvantage relative to older workers. A high level of employment protection makes it more costly to hire and thus affects those who are entering the labour market to a

³⁰³ One more aspect is that the percentage of temporary employment has increased sharply, particularly among young people, in the last 15 years. It is difficult to know whether this trend favours young people by mitigating the effects of strict labour legislation or if it primarily leads to unnecessary periods of short-term unemployment between different temporary jobs. The sharp increase in students who are willing to take temporary jobs may explain part of the increase in temporary jobs. A rough estimate in Nordström Skans (2009) shows that if *all* students are assumed to have temporary jobs, this would imply that 43 per cent of all young people who have temporary employment are students.

greater extent than others. Strong employment protection reduces employment more if minimum wages are high since lower wages can otherwise compensate for the extra costs to employers that such legislation involves.³⁰⁴

Our main conclusion, however, is that there may be a tendency in the public debate to put too much stress on the unemployment problem for young people relative to other groups. Unemployment is a serious problem for all affected groups, but it is doubtful that it is a bigger problem for young people generally than for other groups. The problem is rather that there is a sizeable group of young people with less education who have difficulty getting a foothold in the labour market and therefore risk ending up in long-term unemployment.³⁰⁵ These young people are to a large extent unemployed because their productivity is low relative to the wages in collective agreements. This constitutes a strong argument that measures should primarily target this group rather than be broad measures supporting all young people. Measures for those young people having the most difficulty getting established in the labour market should take particular aim at improving their productivity.

Measures to reduce youth unemployment

The Government has implemented a number of broad measures directed at young people. These include sharp reductions in social contributions. The measures are summarised in Box 6.1.

The social contributions reductions shift demand in favour of young people. Employment can thus be expected to increase among younger people but decrease among older people. It is not clear what will happen to total unemployment. Since young people have relatively short unemployment spells, it may be that total unemployment will rise. Economists usually argue that employment subsidies should focus on those with long spells of unemployment.³⁰⁶ It may lower total unemployment even though employment for other groups is displaced. This is because the long-term unemployed become more competitive in the labour market, which in turn may act to dampen wage increases. These considerations have largely

³⁰⁴ See Skedinger (2007, 2008).

³⁰⁵ The OECD (2008b) shows that poor study results are often associated with long spells of unemployment later in life.

³⁰⁶ See, for example, Fiscal Policy Council (2008), Section 8.3.2.

guided other parts of the Government's labour market policy.³⁰⁷ The sharp reductions in social contributions for *all* young people violate this principle, since the probable effect is that older workers, who have long expected unemployment spells, are displaced by a group with shorter spells of unemployment.

We are therefore critical of the broad social contributions reductions for young people. The Government has not provided any satisfactory justification for why the employment policy for young people is to be guided by principles other than those for employment policy in general. In our opinion, the measures should instead focus on those unemployed young people who have the biggest problems in the labour market. Here statistical profiling methods should be used to a greater extent in order to better identify those young people expected to be long-term unemployed.³⁰⁸

Some of the Government's reforms in the education system can be expected to favour those young people most at risk of long-term unemployment. Apprenticeships in the upper secondary school, upper secondary school studies with a vocational orientation and vocationally oriented education programmes in adult education will probably improve the labour market situation for this group. Evaluations of the earlier changes when all upper secondary school programmes became three-year programmes with a more theoretical focus show that the probability of not completing an upper secondary school education increased.³⁰⁹ We are therefore positive to the changes planned or implemented by the Government in this area.

The job guarantee for young people introduced in December 2007 puts more focus on job search activities and training than the previous youth guarantee. All experience shows it to be a better construction as the locking-in effects associated with traditional programme participation appear to affect young people harder than other groups.

³⁰⁷ See, for example, Budget Bill 2008/09:97, p. 15 and the 2009 Spring Fiscal Policy Bill, p. 37.

³⁰⁸ See Section 5.2.6.

³⁰⁹ See Hall (2009) who also found that the probability of continuing on to higher education after completing upper secondary school decreased as a result of the reform. Also, American studies show that vocationally oriented elements in upper secondary education improve labour market outcomes. See Mikael Lindahl and Alan Krueger's background paper for the Fiscal Policy Council (Lindahl and Krueger 2009).

Box 6.1 Measures for young people

- Reduced social contributions for young people (18-24) from 32.42 per cent to 21.30 per cent. Effective from 1 July 2007.
- Further reduction in social contributions for young people. From 21.30 per cent to 15.49 per cent for young people who had not turned 26 at the beginning of the year. Effective from 1 January 2009.
- Job guarantee for young people. Effective from December 2007. The job guarantee is described in more detail in Section 5.2.7.
- Unemployment benefits for young people have been lowered from 80 to 70 per cent of previous income after 100 days. After another 100 days, the benefit is reduced to 65 per cent of previous income. This is a more rapid decrease than for older workers. This is described in more detail in Section 5.2.7.

Another reason for the difficulties of some young people to establish themselves in the labour market can be found on the supply side. The incentives to look for and accept a job are lower for people whose income from work is expected to be low. This argument has been emphasised by the OECD. Introducing a more rapid decrease in unemployment benefits for young people is similar to the programmes Denmark introduced for young people in the second half of the 1990s. Evaluations of the Danish system show that the outflow from unemployment, particularly to education, increased. We therefore have a positive view of the design of the job guarantee for young people.³¹⁰

Youth unemployment in the economic downturn

The question is whether the depressed labour market situation in the current cyclical crisis should make us particularly concerned about youth unemployment. Young people always experience more

³¹⁰ See also Section 5.2.7.

unemployment than the rest of the population in an economic downturn. Youth unemployment is also rising more rapidly now than total unemployment is. This was pointed out in the Spring Fiscal Policy Bill.³¹¹ Table 6.1 shows the changes in unemployment, employment and labour force participation for young people and the population as a whole from the first quarter of 2008 to the first quarter of 2009.

One important conclusion, however, is that the negative long-term effects of unemployment appear to be less severe for young people than for others. Young people who were unemployed between 1992 and 1995 had a lower risk of getting trapped in unemployment than older workers hit by unemployment in the same period. Both people aged 16-20 and 21-25 had a lower risk of becoming long-term unemployed than those between the ages of 26 and 30.³¹² This goes against the argument that relative youth unemployment will increase in the long run as a result of the current recession.

Our conclusion is that a policy directed at counteracting youth unemployment in general through measures that are stronger than those for other groups is misguided. The policy instead should have as its primary objective to prevent total unemployment from increasing and to provide particular support to exposed groups to the greatest extent possible. Among them are young people who drop out of upper secondary school and therefore have too little education to succeed in the labour market.

Table 6.1 Labour market developments from first quarter 2008 to the first quarter 2009, change in percentage points

	Young people 15-24 years	Population 15-74 years
Labour force participation	-1.2	-0.4
Employment rate	-2.8	-1.5
Unemployment	3.9	1.5

Source: Statistics Sweden.

³¹¹ See the 2009 Spring Fiscal Policy Bill, pp. 48 and 71.

³¹² Information based on estimates from the IFAU data base by Anders Forslund and Linus Liljeberg.

6.3 Labour market exit³¹³

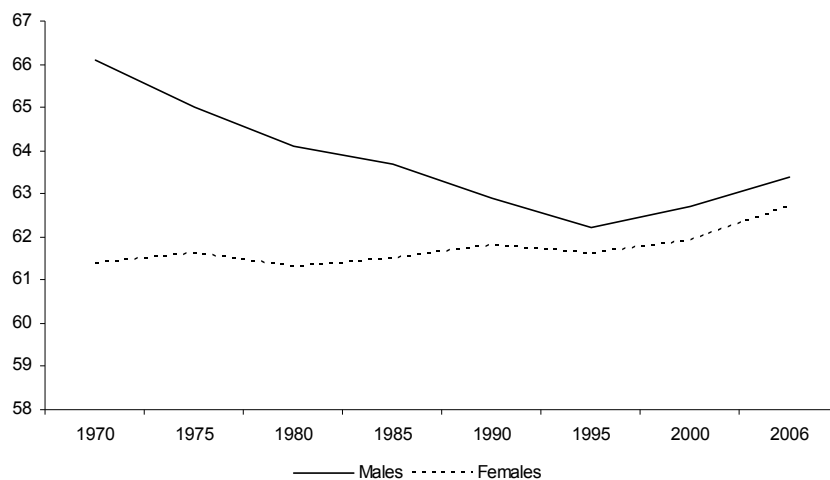
It is important to differentiate between claiming a pension and stopping working. In many pension systems, including the Swedish, it is possible to claim a pension but still continue to work. On the other hand, it is possible to exit the labour market via other benefit systems without immediately claiming the old age pension. Today the average age for claiming an old-age pension in Sweden is close to 65, while the average age of labour market exit is almost two years lower.

The average exit age in the population as a whole has declined for several decades. But there are gender differences. These can be seen in Figure 6.15. For women, the exit age has increased steadily since the 1970s: from over 61 to almost 63 currently. For men the trend has changed: after having fallen sharply from over 66 years in 1970 to about 62 in the mid-1990s, the trend has since reversed and the exit age has again risen. In 2006, the average exit age for men was 63.4 years. At the same time, longevity increased. The expected remaining length of life for a 65-year old man increased from 14.1 years in 1970 to 17.4 years in 2006. For a 65-year old woman, the corresponding increase was from 17.5 to 20.6 years.³¹⁴

In an international comparison, Sweden ranks among those countries having a late exit age (see Table 6.2). Labour force participation among Swedish women aged 55-64 is substantially higher than in most other OECD countries. Among the Nordic countries, all of which rank among the top, only Iceland has higher figures. Among men in the same age category, Switzerland and Japan (in addition to Iceland) come before Sweden. Most countries exhibit the same pattern as Sweden: a sustained decline in labour force participation until the mid-1990s, after which the trend turns upward. For older women, labour force participation in most countries has increased over a long period.

³¹³ This section is based in large part on Gabriella Sjögren Lindquist and Eskil Wadensjö's background paper for the Fiscal Policy Council (Sjögren Lindquist and Wadensjö 2009).

³¹⁴ These figures are taken from SOU 2008:105.

Figure 6.15 Average labour market exit age

Source: SOU 2008:105.

Table 6.2 Labour force participation in 1994 and 2007 among men and women aged 55-64

Country	Men		Women	
	1994	2007	1994	2007
Denmark	63.8	66.9	43.1	55.7
Finland	43.9	59.2	38.9	58.3
Iceland	95.9	90.4	80.5	80.7
Norway	71.5	74.7	55.4	64.6
Sweden	70.5	76.4	62.6	69.6
France	42.1	42.6	30.1	38.0
Netherlands	41.8	63.3	18.5	41.1
Switzerland	82.9	78.4	47.2	60.3
UK	64.0	68.9	40.7	50.1
Germany	53.1	66.5	28.3	49.8
Austria	41.3	51.3	18.4	28.9
United States	65.5	69.6	48.9	58.3
Canada	59.5	67.1	36.9	53.3
Japan	85.0	84.9	48.1	52.5

Source: OECD (2008a).

6.3.2 Importance of factors at the level of the individual for exit age

Health, family circumstances, education and occupation are examples of factors that the literature has pointed out as important in the exit decision. Unsurprisingly, a large number of studies indicate that poor health covaries with an earlier exit. But it is not entirely clear in which direction the causality goes. Other studies indicate that those who remain in working life longer enjoy better health. The only study that, as far as we know, has reliably identified the effect of health on labour market exit age does not find any correlation.³¹⁵

Furthermore, health is of key importance in the discussion of economic incentives for a later exit. Stronger economic incentives risk hitting those people who, for health reasons, are incapable of continuing to work. It is therefore important that people have good insurance against the risk of needing to stop work early for health reasons. There is, however, substantial empirical support indicating that a higher life expectancy also implies more years without health problems. One such study for the United States found that the expected number of years without health problems increased by three years for men aged 50 between 1970 and 2000.³¹⁶ This was primarily due to the increase in the fraction of people with more education and the better health they enjoy. Several studies for Sweden also indicate that a large percentage of old people are in good health.³¹⁷

The more education people have, the later they leave the labour force. Burtless (2008), for example, points to large differences depending on education for 15 OECD countries.³¹⁸ But at the same time, we know that the individual's educational background covaries with a number of other factors, which in turn govern the exit age,

³¹⁵ Coe and Lindeboom (2008).

³¹⁶ Munnell et al. (2008). See also Sjögren Lindquist and Wadensjö (2009).

³¹⁷ Jagger et al. (2008) estimate that Swedish 50-year olds have about 20 remaining years of good health. Furthermore, over 60 per cent of individuals between 55 and 74 respond that they are in 'good' or 'very good' health (Alfredsson 2006). Of those aged 65 and older who have left the labour force, only 23 per cent stated that they did so for health reasons (Börsch-Supan et al. 2008). For some of the health problems that come with advanced age, the right treatment can sustain both the ability to work and remaining life expectancy. It is, however, obvious, that there are very large differences between individuals. Some enjoy a healthy old age while increased longevity for others is primarily due to progress in health and medical care. These differences among individuals appear to be largely related to socioeconomic factors, particularly education level (see Sjögren Lindquist and Wadensjö 2009).

³¹⁸ Other studies too give the same results. See, for example, Gutiérrez-Domènech (2006).

such as occupation and type of work assignments. The university educated generally have less physically demanding and psychologically more stimulating work and therefore greater chances of working longer. People with university education also have higher incomes, which in many studies have proven to be an important factor in better health, even though the direction of causality has not been explained.

We thus know that education level varies with exit age, but we cannot for certain substantiate what this is due to. Moreover, the studies indicate that the individual's *relative* position in the distribution of education covaries with the exit age. What importance the individual's absolute level of education has is less clear. This means that we do not know whether the average exit age can be raised by improving the average level of education. This statement is also valid for other factors' significance for the exit age. Most of the studies mentioned have examined the importance of factors at the individual level, but do not provide any answers to the question of whether the effects are the same at an aggregate level. The long-term improvement in public health has not led to a later labour market exit age either. Instead the correlation appears to have been quite the reverse.

6.3.3 Importance of institutional factors for the exit age

A number of Swedish and international studies have shown the importance of institutional factors for actual retirement and exit ages.³¹⁹ This section discusses what role the Swedish pension and social insurance systems, including labour market policy, have in this context.

The public pension system

Even though claiming a pension and stopping work are two different decisions, changes in the pension system most likely heavily influence exit age trends. For a long time, better terms for pensioners encouraged an early labour market exit. A change came with the major pension reform adopted by the Riksdag in 1994, which

³¹⁹ See, for example, Gruber and Wise (1999, 2002) and Duval (2003).

involved a tightening of pension terms. A step-by-step introduction of the system began in 1999. The expressed aim of the reform was to postpone labour market exit and make the pension system sustainable in the long run. The new system is being phased in over a long period; people born in 1953 or earlier receive all or part of their pension under the old pension rules. Many older workers are thus still covered by the earlier rules. It is therefore likely that the effects of the pension reform on older people's labour force participation have not yet been fully realised.

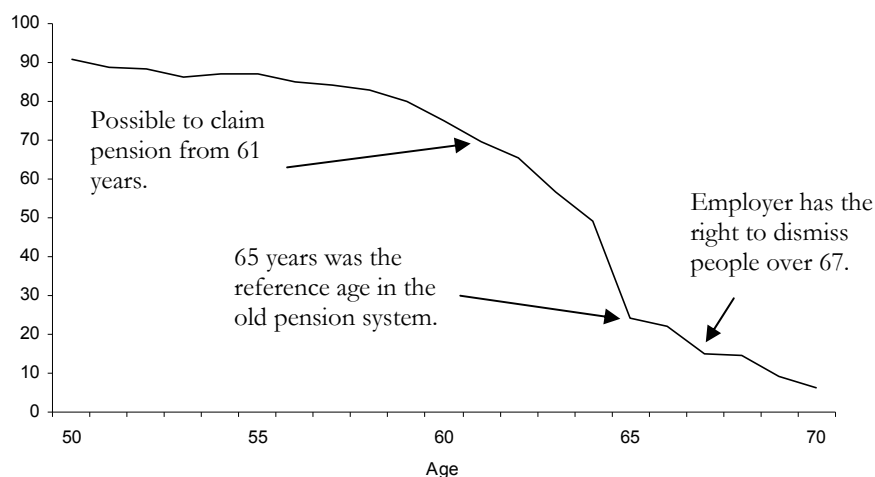
We have made a calculation of how the exit age may develop, assuming pension rules remain unchanged. If so, the primary factor governing its development will be the gradual increase in the number of people covered by the pension reform. According to this calculation, the average exit age would rise from about 63 years today to nearly 64.5 years in 2024.³²⁰ The calculation is, however, very rough and associated with a high level of uncertainty.

Figure 6.16 shows the percentage of different older age groups included in the labour force in 2008. Labour force participation is relatively high until the age of 65 when it falls sharply. In the old pension system, 65 years was the reference point. If one retired earlier, the pension was reduced and if one claimed one's pension after 65, it increased. The incentives to keep on working one more year were, however, the same at 64 years as they were at 65. This is also true of the new pension system. That labour force participation nevertheless falls so sharply at 65 years shows the large role that social norms and traditions play.

In the new pension system, there is no fixed pension age, but the income and premium pension can be claimed from the age of 61 and the guaranteed pension from the age of 65. Employees are covered by the customary employment protection legislation up to the age of 67, and thus have the right to remain in their position till this age. So, the *statutory minimum age* for obligatory retirement is 67 years.

³²⁰ See Appendix 3 for a description of the calculation and the underlying assumptions.

Figure 6.16 Older people's labour force participation in 2008, per cent of population in age group



Source: Statistics Sweden.

Supplementary agreed pension schemes

Over 90 per cent of employees are covered by supplementary pension schemes under collective agreements. There are four principal systems for supplementary pensions: one for local government employees, one for central government employees, one for privately employed white-collar workers and one for privately employed blue-collar workers.

All supplementary pension schemes have a flexible retirement age with a minimum requirement. The supplementary pension for central government employees can be claimed from age 61, the rest from age 55. The earlier the supplementary pension is claimed, the lower it is. The state scheme is flexible to the extent that employees can work full-time and draw their occupational pension at the same time (as one can do with the public old age pension from 61 years).

On the whole, the rules for the supplementary pension schemes are similar to those for the public system and thus presumably reinforce the effects of the latter on labour market exit. The supplementary pension schemes, however, still include defined benefits to a larger extent than the public pension system. Defined benefit supplementary pension schemes provide incentives for an

earlier labour market exit. There is a trend, however, towards more defined contribution supplementary pension plans.

Other social insurances and labour market policy

Many exit the labour market system via other social security systems before they claim the old age pension. So it is important to also take into account the design, for example, of partial pensions, sickness insurance, and unemployment insurance.

The latest partial pension in the social insurance was granted in 2000. A study made of the impact of partial pensions on labour supply shows that partial pensions may have increased the total number of hours worked in the economy.³²¹ Today partial pensions are found as a benefit in both the state (since 2003) and the local government agreements (since 2007). The National Audit Office has analysed the former and found that the total labour supply for central government employees has probably declined.³²² It is consequently unclear what effect partial pensions have on the number of hours worked. One obvious problem related to labour force participation is that partial pensions in the collective agreement for central government employees are only granted to the age of 64. At the age of 65, one is referred to the old age pension system or obliged to work full time, which in most cases likely leads to the person leaving the labour force. In the local government agreement, however, one can be a part-time pensioner until the age of 67.

Even though the retirement age under the Employment Protection Act is now 67 years, 65 is still considered the retirement age in the majority of social insurances and to a large extent in the occupational schemes. People who become unemployed after the age of 65 are therefore obliged to claim the old age pension instead of getting unemployment benefits. There is, however, no age limit on how long one can be registered with the Public Employment Service, but people over 65 are hardly a high priority when resources are allocated among jobseekers.

If one gets sick after age 65, one does not have the same right to sickness benefits that younger people have, so there is a risk of getting fewer sickness-benefit days awarded. Someone who has

³²¹ Lachowska et al. (2008).

³²² The National Audit Office (2008b).

turned 65 and received a sickness benefit for at least 180 days *may* lose the right to any further sickness benefit, depending on the Swedish Social Insurance Administration's judgement. People on long-term sick leave are therefore often obliged to claim their old-age pension even though they have not turned 67. For those who have turned 70 and are still gainfully employed, the rule is even more stringent: these people *never* have the right to sickness benefit for more than 180 days. Furthermore, a sickness allowance (disability pension) is converted to an old age pension at age 65 instead of 67 years, for example.

The social insurances, including unemployment insurance, have together with the supplementary occupational schemes traditionally provided a high total benefit for a long benefit period. This has made it relatively attractive for the individual to leave the labour market via social insurances other than the old age pension. These incentives in the form of generous benefits combined with the age rules that apply after 65 years mean that design of the social insurance systems weakens the incentives to stay in the labour market.

6.3.4 Demand for older workers

It is not only the supply side that is of importance to the labour market exit age. The demand for older workers also plays a key role. Both age discrimination and falling productivity may affect demand. There is some empirical support that these factors may reinforce each other. Declining productivity among some older workers may lead to statistical age discrimination.³²³

Unemployment is also high among older people. This is not due to a higher risk of dismissal for older workers but primarily to the difficulty that unemployed older people have in finding a new job. One possible explanation zeros in on the employer's fixed costs for employing new labour: the shorter the expected time in work is, i.e. the closer the person is to retirement age, the higher these costs are in relation to what the person can be expected to produce. High unemployment among older workers is sometimes used as an argument against a higher retirement age. According to the reasoning

³²³ For an overview of labour productivity and age, see Skirbekk (2004). Johnsson and Neumark (1997) is one study that finds support for age discrimination. For a discussion of the importance of occupational pensions in the demand for older workers, see Ministry of Finance (2007).

above, this is a weak argument since any such unemployment problems can automatically be expected to be moved to a higher age if the retirement age is raised.

One important factor in the demand for older workers is the added cost that the premiums for the occupational pensions generate. The reason is that the premiums, which are paid by the employer, often increase with age. In some occupational pension schemes, the pension premiums also increase with the employee's length of service, which is closely related to age. Older workers often have a high salary and long service, and thus premiums for older workers may be very high. These added costs reduce the demand for older workers.

The Parliamentary auditors' review of occupational pensions in the previous collective agreement for central government employees (PA-91) clearly shows these added costs. The annual cost of premiums for a 60-year old with a monthly pay of SEK 30 000, for example, was 32.5 per cent of the pay compared with 7.2 per cent for a 30 year old with the same pay.³²⁴ The cause of the problem with age-related premiums is that they are based on earned pension rights in the occupational pension system. As long as occupational pensions are at least partly defined benefit plans, pension rights are based on the employee's earnings during the years immediately before retirement, retirement age and length of service.

In recent decades, it has also been fairly common in Sweden to pay older workers to retire. The exact design of these retirement pensions has varied, but payment has often been made in the same form as most ordinary supplementary pension schemes. There may be many reasons, for example, the aforementioned added costs for older workers and declining productivity. As a rule, these added costs are seen as a bigger problem in a recession, when the work force in many firms has to be reduced. Employment protection legislation makes it difficult to lay off older workers. That being so, retirement pensions have acted as 'a generally accepted' way of laying off older rather than younger workers.

³²⁴ See Parliamentary Auditors (2002).

6.3.5 Expected effects of the Government's reforms

During its term of office, the Government has implemented several reforms that affect older people's incentives to work. These reforms are summarised in Box 6.2.

Earned income tax credit for older people

The earned income tax credit reduces taxes on earned income. The tax reduction as a percentage of income is largest for people with a low income. At the same time, it only applies to earned income and not, for example, to pensions. It creates very strong economic incentives to work at least part time instead of being a pensioner full time. The credit is also approximately double the size for people over 65 than for others: it comes to 20 per cent of earned income up to SEK 100 000 and 5 per cent of earned income between SEK 100 000 and 300 000. One important difference in the earned income tax credit for people over 65 compared with those under 65 is that the credit for the older group does not depend on other income.

The earned income tax credit for older people provides strong incentives to work longer, but this contribution to the public finances may vary. The reason is the way in which the old age pension system is designed: the size of the pension is based on expected longevity. People who work one year extra and wait to claim their pension get a higher annual pension and thus the pension cost is only deferred. So if the earned income tax credit gets older people to work instead of claiming their pension, the contribution to the public finances is reduced.

In those cases where the earned income tax credit gets older people working instead of claiming unemployment insurance, for example, there are two effects on the public finances: on the one hand, an improvement since the state saves paying unemployment benefits and on the other hand, a weakening since the taxes on earned income are lower than on unemployment benefits. The net effect is an improvement in the public finances.

Box 6.2 The Government's reforms affecting the labour market for older workers

Payroll tax reduced or abolished

From 1 January 2008, employers do not pay any social contributions other than the old age pension contributions of 10.21 per cent for people who have turned 65 but were born in 1938 or later. For people born in 1937 or earlier, the employer does not have to pay any social contributions at all. The same rules apply to the self-employed.

Earned income tax credit simplified and increased

On 1 January 2009 a third step in the earned income tax credit was introduced. The tax reduction for people over 65 is significantly larger than for people under 65. The credit comes to 20 per cent of that part of income below SEK 100 000 and a further 5 per cent on income between SEK 100 000 and 300 000.

Basic allowance raised

From 1 January 2009 the basic allowance has been raised for pensioners with a low taxable income. For a person over 65 who gets the full guaranteed pension, this involves a tax reduction of about SEK 2 600 a year.

Changes in sickness insurance

During the Government's term of office, sickness insurance has been reformed in several respects. The rehabilitation chain, the extended sickness benefit, which involves a reduction in the benefit after one year on sick leave, and the abolition of the temporary sickness benefit have tightened insurance terms and made them less generous. All these rules came into effect on 1 July 2008.³²⁵ Beginning 1 January 2009, it is possible (for a limited time) to work or study and keep the sickness benefit. In such cases the employer does not need to pay sick pay for the employee during the time on sick leave.

³²⁵ See also Fiscal Policy Council (2008), Section 7.

There is no tax credit on earned income over SEK 300 000. The design creates incentives for older people to work only a little, for example to make their old age pension go further. At worst, the result is some tax relief for older people without much impact on their hours worked. In conclusion, the earned income tax credit for older workers is a measure that is less well-targeted from a sustainability perspective.

Increased basic allowance for pensioners

The Government has also raised the basic allowance for pensioners, particularly for those with a low income. This involves an increase in income for those with the very lowest pensions, but since the deduction decreases when income increases, it strengthens the incentives to retire earlier for people who otherwise would not get the full deduction.

Social contributions for older people

The Government has in two steps abolished the special payroll tax, which employers previously paid instead of social contributions for employees over the age of 65. Since the tax came to 16 per cent (24 per cent for those who did not pay the old-age pension contribution), the reform implies an immediate sharp reduction in the cost of employing older people. We believe that the reform may have a large permanent effect on the employment of older people. How large it will be depends on how older people's wages are affected by the reduction in the employers' contribution. A general reduction in the employers' contributions leads as a rule to higher wages, which in turn dampen the increase in the demand for labour. There is, however, reason to believe that older people have less upward wage flexibility than do young people, because older people already have higher wages from the start in relation to their productivity.

Disability pensions, sickness benefits, and older people

The reforms of disability pensions and sickness benefits can be expected to increase labour force participation by older people. First, the reforms can be expected to reduce the flow into disability retirement, since the temporary disability pensions has been

abolished. More (reduced work capacity) is now required in order to be granted permanent disability pension.

Second, the reforms can be expected to increase the flow from disability pensions back to work. Dormant disability pensions and more generous terms for maintaining sickness benefits while working part time make it more attractive to try working again. However, the effects are presumably not large.

Third, the labour market exit route via sickness insurance has become less attractive as a result of stricter assessments of work capacity and reduced benefits after one year. This applies to all age groups, but among older people there has been a particularly large risk that a (long) period of sickness benefits constitutes the end of working life.

6.3.6 Methods for increasing older people's lifetime working hours

One way of gradually raising the exit age is to directly link the retirement age to longevity. One such example is the automatic adjustment of the retirement age to life expectancy introduced in Denmark, which is discussed in more detail in Section 2. Table 6.3 shows how the pension age would have developed in Sweden since the 1970s (including a forecast to 2020) if it had followed life expectancy. Column 2 shows the retirement age if the expected number of years with a pension for a 65-year old had remained unchanged since the 1970s (15.8 years), while column 3 shows the corresponding figure if instead the expected ratio between retirement age and life expectancy had remained unchanged (at around 80 per cent). It shows that the retirement age from the 1970s to 2020 would have increased by 4.5 years in the first case and by 3.6 years in the second.

Since there is not any formal retirement age, several different parameters in the pension rules would need to be adjusted to achieve an automatic link between labour market exit age and longevity. The minimum age for claiming an old-age pension, which is now 61 years, the statutory minimum age for obligatory retirement, currently 67 years, and the 'normal' pension age used in other social benefit systems and which now (most often) is 65 years could be changed.

Table 6.3 Estimated retirement ages when adjusting for expected longevity

	Expected remaining years of life at age 65.	Retirement age with the same expected number of years with a pension as in the 1970s at age 65	Retirement age with the same expected ratio between retirement age and life expectancy as in the 1970s at age 65
1971-1980	15.8	65.0	65.0
1981-1985	16.6	65.7	65.6
1986-1990	17.1	66.2	66.0
1991-1995	17.7	66.8	66.4
1996-2000	18.2	67.4	66.9
2001-2005	18.7	67.9	67.3
2006	19.2	68.3	67.7
2007	19.2	68.4	67.7
2008	19.3	68.5	67.8
2009	19.4	68.5	67.8
2010	19.5	68.6	67.9
2015	20.0	69.1	68.3
2020	20.4	69.5	68.6

Sources: Statistics Sweden and the Fiscal Policy Council.

Furthermore, abolishing the existing rules in some agreed pension schemes that do not allow one to continue working and collect a pension at the same time would be important.

It could be argued that there is already a link between retirement age and life expectancy in the population, since the annual pension depends on expected longevity. This implies that those who want to have a given annual pension must retire later if life expectancy increases. But there is reason to believe that a self-selected retirement age will not follow life expectancy in a socially desirable way.

One important reason why a larger increase in the exit age cannot be expected if pension rules remain unchanged is that taxes drive a wedge between the social return and the private return to continuing to work. This creates incentives for individuals to leave the labour force earlier than what is socially desirable. It also implies that the reduction in the pension that occurs when life expectancy increases does not provide sufficient incentives to defer labour market exit. The ‘signal’ to the individual via the pensions does not take into account the greater need for tax revenue on account of the increased costs of welfare services when life expectancy increases. Social norms

presumably also play a large role and they are probably only to a certain extent affected by economic incentives.³²⁶ There are many indications that it has become a more accepted social norm to use retirement as an opportunity to actively cultivate other interests.

The issue of how strong the incentives to work should be in the social insurance systems is complicated. Linking the rules in the public old age pension system to life expectancy only has the desired result if they are aligned with the rules in other benefit systems, so that the latter are not overused if it becomes less advantageous to claim the old age pension early. At the same time, it is a core objective of the welfare state that those who truly have permanently lost their ability to work are able to leave the labour market with good insurance benefits. There are convincing reasons for generous supplementary benefit systems for those who for health reasons cannot continue to work to the same age as the majority of the labour force. But if a larger percentage were to leave the labour force because of their health, then those who are healthy would have to work longer.

A simpler question concerns the possibilities of redistributing work between generations. In previous economic crises, special offers of early retirement have often been made as a way of trying to redistribute employment from older to younger people. This has never proved to be particularly effective. There is no research showing that such measures increase employment among younger people. In particular, measures that from the beginning were intended to be temporary have become permanent and led to a permanently lower labour supply among older people.³²⁷ This is an important lesson in the current recession. We want to issue a strong warning against trying to save jobs for young people by allowing older people to retire early. Solutions like this undermine the sustainability of public finances in the long run.

³²⁶ See, for example, Lindbeck (2008b).

³²⁷ See Gruber, Milligan and Wise (2009) for an introduction to a forthcoming book on this matter. The book contains a number of studies from different countries. The principal result is that measures that reduce employment among older people also reduce employment (and increase unemployment) among young people. For an illustrative example regarding Italy, see Brugiavini and Peracchi (2008).

7 Tax policy

This section discusses the changes in tax policy made or announced since our 2008 report. We analyse the changes in the tax burden on labour (the reduction in social contributions, the higher income threshold for the state tax, the third step in the earned income tax credit and the RMI tax credit), as well as the reduced corporate tax. These tax reforms are summarised in Box 7.1.

7.1 Reduced social contributions

On 1 January 2009 the Government reduced the total tax levy of social contributions and the payroll tax by one percentage point. This entails a reduction in these contributions from 32.42 to 31.42 per cent of the basis for social contributions and from 30.71 to 29.71 per cent of the basis for personal contributions. The direct tax revenue reduction for the central government is estimated at SEK 13 billion a year, while public sector net revenue is estimated to decrease by SEK 7 billion.³²⁸

7.1.1 Research in the area

The 2009 Budget Bill gives two reasons for the reduction in social contributions. It is justified both from an efficiency perspective and from an employment perspective.³²⁹ Lowering social contributions makes the tax system more efficient by decreasing the tax wedge on labour. The tax wedge distorts the incentives to work since the private return is lower than the social return. A lower tax wedge creates incentives for those who are already working to work more and reduces the welfare losses of taxation. This is discussed in our 2008 report.³³⁰

If the need for tax revenue decreases, lowering tax rates can increase efficiency in the tax system. Tax cuts should be made where

³²⁸ The 2009 Budget Bill, p. 162. The difference between gross and net cost is mostly due to the public sector's payment of social contributions to itself.

³²⁹ The 2009 Budget Bill, p. 142.

³³⁰ Fiscal Policy Council (2008), p. 161.

they are most useful. This implies that the most distortionary taxes should be lowered. Social contributions do not fall into this category.

Social contributions are in effect a proportional tax. Reducing a proportional tax can certainly provide an incentive to work longer hours, but it is very costly in terms of reduced tax revenue. A reduction in a proportional tax is much less economically efficient than a tax change that involves reducing the marginal tax without an equivalent reduction in the average tax. Raising the income threshold for the state income tax as the Government has done has this effect and is thus a substantially more efficient tax change than lowering social contributions if the objective is to encourage those who are already working to work more.³³¹ It is therefore difficult to justify lowering social contributions from an economic efficiency perspective as the Government has done. In the long run, however, this reduction has a more even distributional effect than an increase in the income threshold for the state tax, but the Government for its part has not given this as a motive.³³²

The other explanation for lowering social contributions in the 2009 Budget Bill was that this change could increase employment. That lowering social contributions reduces unemployment may at first glance appear obvious. Reduced social contributions imply, everything else equal, lower wage costs for firms. This may be expected to lead to more hiring. It should have this effect in the short term. But in the long run, the increased demand for labour resulting from the lower social contributions causes higher wages. This tends to eat up the original reduction in firms' wage costs. To the extent that unemployment benefits in turn are tied to wages, unemployment benefits rise in line with wages. This may push wages up even more, since higher unemployment benefits reduce the disadvantages for workers of wage increases that result in higher unemployment. The higher wages counter the tendency to lower unemployment.

³³¹ See Section 7.2 below.

³³² It has this effect because a general reduction in social contributions increases the room for wage increases and therefore in the long run leads to higher wages over the entire wage scale.

Box 7.1 The current government's tax policy changes

- Earned income tax credit I: a tax credit targeted at people with earned income. Larger tax credit for people aged 65 and older. Effective from 1 January 2007.
- Earned income tax credit II: a strengthening of earned income tax credit I. Effective from 1 January 2008.
- Earned income tax credit III: a strengthening of earned income tax credits I and II. The rules have also been simplified for people over 65. Effective from 1 January 2009. See Boxes 6.2 and 7.2.
- Income threshold for state income tax raised by SEK 18 100 a year. Effective from 1 January 2009.
- The total tax levy of social contributions and the payroll tax have been lowered by one percentage point. Effective from 1 January 2009.
- Corporate tax rate lowered from 28 per cent to 26.3 per cent. Effective from 1 January 2009.
- The RMI deduction is a tax credit for the repair and maintenance or renovation and expansion of single-family homes and owner-occupied flats. The tax reduction is equivalent to 50 per cent of the labour cost. Effective for work done from 8 December 2008.

This line of argument is based on well-established wage-setting theory, which has concluded that general reductions in social contributions are generally shifted on to workers in the form of higher wages. Under reasonable assumptions, there is little effect on unemployment in the long run.

The reduced social contributions may, however, have a long-term effect on employment because labour force participation is affected. Higher wages (and higher unemployment benefits to the extent that

they are linked to the wage level) as a result of the reduction in social contributions makes it more attractive to join the labour force and may therefore increase the labour supply. But it is difficult to believe that a reduction in social contributions can have a large impact on labour force participation.

It is difficult to conduct a convincing empirical study of how changes in social contributions affect wages and employment. One reason is that the social contributions seldom vary much over time; another is that the changes that do take place often affect all firms at the same time. If the contributions for all firms change, it is difficult to know if a change in behaviour is due to the change in the contribution or to another change such as the cyclical situation. If the social contributions are only lowered for particular firms, the outcome for the firms that have received a reduction can be compared with the outcome for those that have not. One remaining problem, however, may be that the firms that have got a reduction may be systematically different from the firms that have not.

The most convincing studies that have estimated the employment effects of changes in social contributions have used changes in contributions that varied between regions.³³³ Two recent analyses of this kind are Korkeamäki and Uusitalo (2008) for Finland and Bennmarker et al. (2008) for Sweden. Both studies find that reduced social contributions push up wages. However, reductions in social contributions appear not to yield any employment effects, even though the reductions are not passed on in their entirety in the form of higher wages. Bennmarker et al. (2008) find, however, that reduced social contributions may have a positive effect on the establishment of new firms. This result should, however, be interpreted with caution since measuring the entry and exit of firms is associated with problems.

7.1.2 Ministry of Finance estimates

According to Ministry of Finance internal estimates, the general reduction in social contributions by one percentage point can be expected to increase employment by 13 000 people in two years' time

³³³ See Bohm and Lind (1993) for an early study of Swedish data.

in a normal economic situation. In the long run, the number of employed is expected to increase by only 2 600 people.

The employment effects of the reduction in social contributions in both the short and the long run are not reported in the Budget Bill. Since the contributions reduction was justified from an employment perspective, it would have been reasonable to include such assessments.

In our 2008 report, estimates of the the degree of self-financing of various tax changes were discussed.³³⁴ Such calculations makes it easier to compare different tax proposals from an efficiency perspective. Since this is also the Government's motivation for the contributions reduction, an estimate of the degree of self-financing would have been informative.

7.1.3 Conclusions on the reduction in social contributions

We are sceptical that a reduction in social contributions is justified in order to make the tax system more efficient. It certainly does have this effect, but if the primary objective is to reduce the efficiency losses from taxation, other tax reductions should be given a higher priority. This is discussed in more detail in Section 7.2 below.

We would also question whether the reduction made in social contributions can be justified for employment reasons. According to existing research, one cannot expect any significant long-term employment effects from reducing the social contributions. This is also pointed out in the Budget Bill. Increasing employment through reduced social contributions is therefore an expensive way to achieve sustainable employment increases. The Government's decision to implement a contributions reduction with this aim is therefore questionable. It is even more questionable in light of the Government's declared objective that tax policy reforms are to be structurally justified in the long term.

One reason for the general reduction in social contributions presented in the 2009 Budget Bill is that it stimulates the demand for

³³⁴ The degree of self-financing measures the extent to which a reform is self-financing because it causes changes in behaviour that lead to a rise in tax revenue. If the direct effect of a tax reduction is to reduce tax revenue by SEK 1 billion, while tax revenue increases by SEK 500 million on account of an indirect effect on the labour supply, the degree of self-financing is 0.5.

labour when the cyclical situation deteriorates. Since it may take time before wages are affected, there should be a positive effect on the demand for labour in the short run. There are, however, other grounds for questioning a reduction in contributions for cyclical reasons. One obvious question is why this reduction, justified on cyclical grounds, is to be permanent rather than temporary. This is not discussed at all in the 2009 Budget Bill. One argument could be that a contributions reduction must be perceived as permanent if it is to have even a short-term effect on employment. This is because firms' hiring decisions are often seen as long-term investment decisions: if so, a temporary reduction in social contributions will not have any significant effect on firms' employment decisions.

In the short run, a reduction of social contributions may also affect overall demand via its effect on the price level. If lower costs lead to lower domestic prices relative to foreign prices (a depreciation of the real exchange rate), it strengthens the country's competitiveness and stimulates net exports. The Riksbank's monetary policy may provide another mechanism for this effect. Contributions reductions that lead to lower inflation may enable the Riksbank to set a lower (real) repo rate than otherwise. This stimulates domestic demand in the short run and therefore contributes to maintaining employment levels. These effects also require that the contributions reduction is perceived to be permanent, since it is not likely that firms' pricing decisions would be measurably affected by a temporary cost reduction.

The discussion on interest rate policy in the preceding paragraph assumes, however, that it is possible for the Riksbank to lower the repo rate. This argument does not hold in a situation in which this rate has been cut to almost zero. Hence, the mechanism discussed via inflation and interest rate policy is in practice not an option for the time being. In such a situation, the contributions reduction contributes to a *higher* real interest rate (the nominal rate minus inflation) when inflation falls, which tends to reduce demand.

To sum up, it is unlikely that the reduction in social contributions can make any significant impact on employment in the long run. If this reduction is perceived to be permanent, it is certainly justifiable on cyclical grounds. But if the reduction actually becomes permanent, it is a costly form of stabilisation policy since tax revenues will then also be permanently lower.

7.2 Higher income threshold in the state income tax

The lower income threshold in the state income tax was raised on 1 January 2009. The increase was SEK 18 100 a year in addition to the automatic upward adjustment in line with consumer prices. This means that about 180 000 people obtained a marginal tax reduction of 20 percentage points.³³⁵ After this change, 15 per cent of wage earners are estimated to pay state tax on labour income compared with 17 per cent before the change. The motive stated for the change was to strengthen individuals' incentives to work and to improve their skills, for example, through education and training.

7.2.1 Research in the area

This change has made it more worthwhile for those people who got a lower marginal tax to increase the number of hours they work (economists usually call this the *substitution effect*). At the same time, the higher return to hours worked implies that workers can now afford to work shorter hours since the average tax is lower (the *income effect*).

People in work whose income is sufficiently high that they still pay state income tax after the tax change get only a reduction in their average tax. This means that the only influence on their behaviour is an income effect, which creates incentives for them to decrease the number of hours they work. Theoretically the increase in the threshold is also assumed to strengthen the incentives to get more education or training. The return to education and training, and thus the likelihood of earning an income over the income threshold for state income tax, simply increases when the tax that an educated person has to pay decreases.

In the empirical research on labour supply, there are attempts to estimate the importance of income tax for the number of hours worked.³³⁶ The results indicate that a lower tax on labour increases the number of hours worked, but the effect is quite small. In the past decade, however, many studies have focused on a measure of the labour supply that is broader than the number of hours worked,

³³⁵ See the 2009 Budget Bill, p. 141.

³³⁶ See, for example, Blundell and MaCurdy (1999).

namely before-tax income. The effect of the tax changes on before-tax income captures not only the effect on hours worked, but also the effect on productivity that may occur because the incentives to invest in skills development and education as well as choice of occupation and so forth are affected. This research shows that before-tax income is significantly more sensitive to tax changes than only hours worked are.³³⁷

7.2.2 Conclusions on the higher income threshold for state income tax

Raising the income threshold for state income tax is probably a substantially more effective method of encouraging people to work more hours than reducing social contributions is.³³⁸ A tax cut of this kind increases the marginal return to labour without the total tax revenue having to fall too much. In our 2008 report, we found that an increase in the income threshold for state income tax has a relatively high degree of self-financing.³³⁹ This is due to the lower marginal tax that this tax change gives many people.

Raising the income threshold for the state tax is probably an effective method of increasing the number of hours worked. However, it is not an effective method of increasing the number of people employed. This marginal tax reduction may even reduce employment in the long run. The reason is that reduced tax progressivity results in wage increases that provide a higher return before tax. This may increase the incentives for large wage increases. Contrary to what most people believe, a lower progressivity may therefore drive up wages and thus have negative employment effects.³⁴⁰ A counter argument, however, is that the higher income

³³⁷ Studies of Swedish data have found that the elasticity of income before tax with respect to income after tax is between 0.25 and 0.75. The elasticity measures the percentage increase in income before tax when the income after tax increases by one per cent. American studies have found an elasticity of around 0.4. See Aronsson and Walker (2009) for a survey of the empirical research in this area with a particular focus on Sweden.

³³⁸ The argument above takes only the efficiency aspects of the tax into consideration. A complete analysis will, of course, also take into account that the various tax changes have different distributional effects (see Section 7.1.1). The reason for our focus on the efficiency aspect is that it is the motive given by the Government.

³³⁹ See Fiscal Policy Council (2008), p. 199.

³⁴⁰ A number of empirical studies have shown that an increase in a tax system's progressivity would have a wage moderating effect and could thus reduce equilibrium unemployment (see Holmlund and Kolm 1995). Later studies, however, indicate a limited effect (see Aronsson and Walker 2009).

threshold for state income tax favours only the employed, since the unemployed's benefits in most cases do not reach the income levels required to pay state tax. This increases the value of having a job, which in turn creates incentives for wage restraint.

One alternative to raising the income threshold for state income tax would have been to eliminate or reduce the tax surcharge on high incomes.³⁴¹ In our 2008 report, we compared the effects of raising the income threshold for the state income tax and doing away with the tax surcharge on high incomes. We showed that the degree of self-financing was substantially higher for an upward adjustment of the income threshold. The reason for this is that the marginal tax reduction from an increase in the income threshold affects many more people than the elimination of the tax surcharge on high incomes does. The Ministry of Finance's own internal estimates yield similar results.

The Ministry of Finance has also made impact estimates for another tax change, namely a reduction in the state income tax rate.³⁴² These calculations indicate that the implemented threshold change and a reduced state income tax rate (which would have cost about the same) have similar effects on the number of hours worked and on GDP. A plausible reason for choosing an increase in the threshold over introducing an additional income interval in the tax scale may be that the tax system is easier to grasp, the fewer the income intervals with different marginal tax rates there are.

7.3 Step three in the earned income tax credit

On 1 January 2007 an earned income tax credit was introduced. It was then expanded one year later. The third step in the earned income tax credit involves a further expansion of the previous credits. The earned income tax credit targets only people with income from work and means that income from work up to a

³⁴¹ The temporary tax surcharge on high incomes was formally abolished in 1999. It was replaced, however, by a permanent extra state income tax of five per cent on incomes over a specified level. We use the not strictly proper term 'tax surcharge on high incomes' as the name for this extra state income tax too.

³⁴² Under this tax proposal, the tax rate for incomes exceeding the lower threshold would be reduced from 20 to 10 per cent up to a new intermediate threshold of about SEK 352 000. For incomes over this threshold, the tax rate would remain unchanged. See Ministry of Finance (2008).

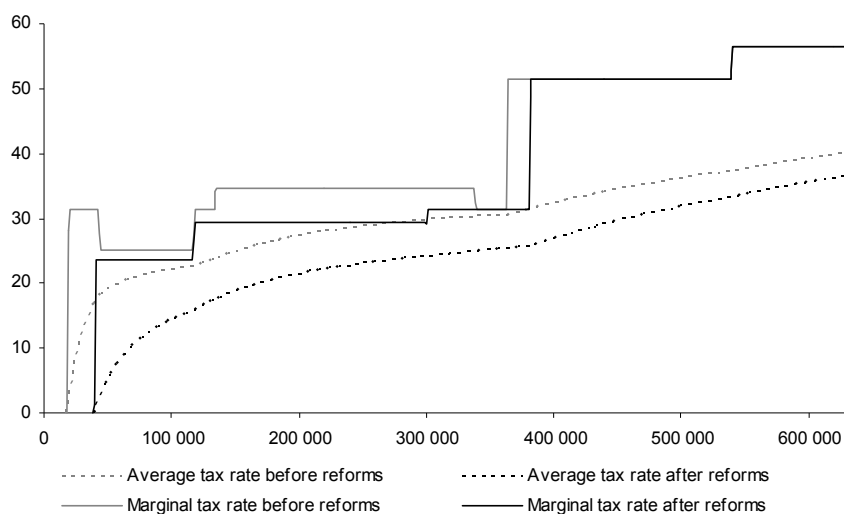
specified level is not taxed at all and the tax on income over this level is reduced. The most important aim has been to improve the incentives to begin working for people who have not worked before. Box 7.2 describes the construction of the earned income tax credit in more detail.

Figure 7.1 shows how the various steps in the earned income tax credit and the higher income threshold for the state income tax have affected the average and marginal tax rates for people who work. The earned income tax credit implies lower marginal and average taxes. In addition it has brought an end to much of the differences in the marginal tax attributable to the variation in the basic allowance according to income. The black lines show marginal and average tax rates prior to the introduction of the earned income tax credit on 1 January 2007, while the grey lines show the current marginal and average tax rates.

There have been criticisms of the earned income tax credit for being complicated, among them a criticism made in our 2008 report.³⁴³ It is difficult for an individual to foresee how large the earned income tax credit will be since it depends on the basic allowance. The basic allowance varies with *total* income. Therefore, the earned income tax credit will change if a person gets higher income from benefits even though income from work is unchanged. From 1 January 2009, however, the construction of the earned income tax credit has been simplified for people over 65. As a result of this simplification, the earned income tax credit is 20 per cent of earned income up to SEK 100 000 and 5 per cent of earned income between SEK 100 000 and 300 000.³⁴⁴

³⁴³ Fiscal Policy Council (2008), pp. 191-192.

³⁴⁴ See also Section 6.3.5.

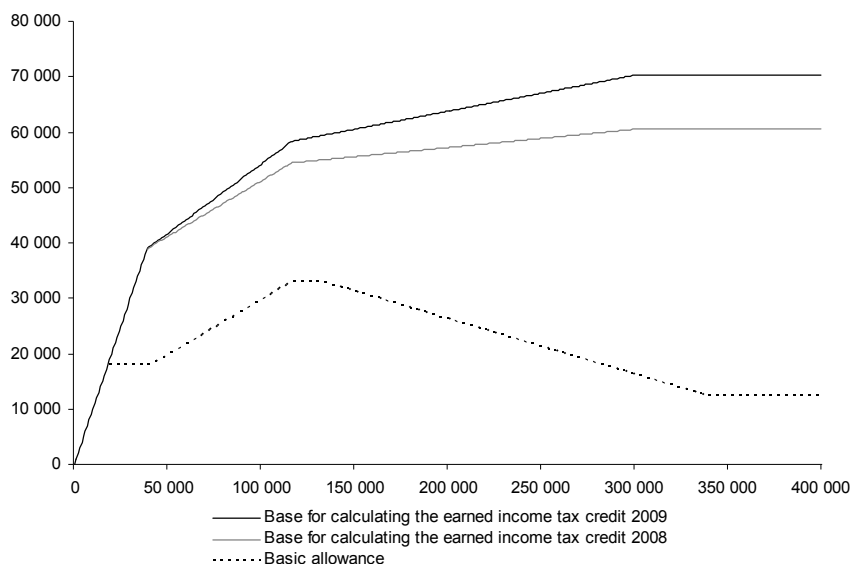
Figure 7.1 Marginal and average tax rates

Source: Fiscal Policy Council calculations.

Box 7.2. The earned income tax credit

The earned income tax credit means that income from work up to a specified level is not taxed at all and that the tax on income from work over this level is reduced. Free of tax income from labour is currently limited to just under SEK 40 000. On incomes between SEK 116 000 and 300 000, the marginal tax is reduced as the earned income tax credit increases with income. For incomes over about SEK 300 000, the tax reduction becomes a fixed amount, which after the third stage is about SEK 18 000 a year. According to the third step of the earned income tax credit, the credit is allowed to increase with income more than it did earlier. The marginal tax is reduced by a further 1.5 percentage points for people with earned income between just under SEK 40 000 and about SEK 116 000 and by one percentage point for people with earned income over SEK 116 000 but under about SEK 300 000.

Figure 7.2 Basic allowance and the base for calculating the earned income tax credit



Source: Fiscal Policy Council calculations.

Figure 7.2 illustrates how the earned income tax credit is calculated for people with only earned income. The lowest curve shows how the basic allowance varies with earned income. The uppermost curve shows the base for calculating the earned income tax credit ('särskilt belopp'). The earned income tax credit is estimated by multiplying the difference between the curves by the municipal income tax rate. The middle curve shows the base for calculating the earned income tax credit before 2009. The difference between the two upper curves depicts the expanded earned income tax credit introduced on 1 January 2009.

7.3.1 Research in the area

Both the theoretical and the empirical research have shown that the earned income tax credit appears to have positive employment

effects.³⁴⁵ In Sweden there has been no empirical evaluation of the earned income tax credit. Liang (2008), however, analyses the effects of the earned income tax credit using simulations. He finds that the earned income tax credit increases the labour supply by 3.6 per cent. Half of the effect can be traced to an increase in the number of hours worked by those who are already working, while the other half is due to higher labour force participation. In a report to the Fiscal Policy Council in 2008, the earned income tax credit introduced on 1 January 2007 was estimated to lead to about a 0.4 percentage point lower equilibrium unemployment, without taking into account possible wage effects (Forslund 2008).

7.3.2 Ministry of Finance estimates

The Ministry of Finance has not reported any separate estimates of the effect of the third step in the earned income tax credit. However, the total effect of this expansion of the earned income tax credit and the higher income threshold for the state income tax has been reported. According to the 2009 Budget Bill, these two tax changes have reduced central government gross revenue by SEK 15 billion. Employment in full-year equivalents is expected to increase by 20 000 people as a result of these two tax reductions.

7.3.3 Conclusions on step three in the earned income tax credit

Our conclusion is that the further extension of the earned income tax credit is quite justified, given the Government's employment policy objectives. Existing research indicates that the earned income tax credit reduces unemployment and increases employment in the long run. The earned income tax credit is also an appropriate measure if a more even distribution of disposable income is an objective.

³⁴⁵ These arguments were discussed at length in our 2008 report (Fiscal Policy Council 2008, pp.193-195). Meyer and Rosenbaum (2001) estimate that 63 per cent of the increase in labour force participation by single people in the United States between 1984 and 1996 can be attributed to the introduction of the *Earned Income Tax Credit*. Single people with children are the main target group in the system. Furthermore, Fang and Keane (2004) estimate that the Earned Income Tax Credit was the most important explanation for the 11 percentage point increase in labour force participation in the United States between 1993 and 2002. Similar effects have been shown for the British system (Brewer and Browne 2006 and Blundell 2006). Boone and Bovenberg (2004) as well as Kolm and Tonin (2006) have made theoretical analyses.

The increase in the income threshold in the income tax is largely motivated by efforts to increase the return to education. An earned income tax credit may, however, have the opposite effect. This is because an earned income tax credit also increases the return to labour performed by low-skilled workers. This may reduce the incentives for education (see Section 6.2.1).

7.4 RMI deduction

On 8 December 2008, the existing tax deduction for household-related services was expanded to cover labour on repair, renovation and expansion as well as maintenance of single-family homes and owner-occupied flats. The tax credit allows for the deduction of 50 per cent of labour costs, but there is a maximum of SEK 50 000 per person and year. The main reason for the credit is to reduce unregistered labour and stimulate labour supply. The Government justifies the introduction of the credit at this time by the cyclical weakness of the economy.³⁴⁶

7.4.1 Research in the area

There are well-established theoretical arguments that tax relief on goods and services which are close substitutes for home produced goods and services make the tax system more efficient. This is because market work is taxed while housework is not, a situation which can lead to too much housework and too little market work compared to what is optimal. The simpler it is to produce the goods and services at home oneself, the larger these distortionary effects will be. It is obvious that household-related services such as cleaning, lawn mowing, laundry and so forth are quite simple to do oneself, while it is considerably more difficult to do tasks such as repairing household appliances.

Even though tax relief for household-related services increases the tax system's efficiency by encouraging market work, it leads to higher consumption of the services that are supported at the cost of other consumption. The available research agrees that tax relief for

³⁴⁶ See Govt. Bill 2008/09:97, p. 94.

household-related services improves efficiency, but it does not provide any guidance on how much tax relief is appropriate.

7.4.2 Conclusions on the RMI tax credit

According to generally accepted theory, tax credits for both household-related services and RMI work may be justified. But the argument for the RMI deduction is weaker than that for household-related services. The reason is that it is not as simple to perform repair and construction work at home as it is to clean, do laundry or mow the lawn. It is therefore not clear that the tax deductions available for RMI work should be as large as those for household-related services. However, it is important for the tax system not to become unnecessarily complicated by introducing tax relief of different magnitudes for household-related services and for RMI work. An RMI deduction of the same magnitude as the existing deductions for household-related services may therefore be justified.

The introduction of the RMI deduction in the current situation has been justified on cyclical grounds. If a tax reform of this kind is judged to be structurally justified in a long-term perspective, it may indeed be appropriate to introduce the measure in an economic downturn. But as a purely cyclical policy measure, it would have been more effective to introduce a temporary RMI deduction as was done in previous economic downturns since it creates incentives to reallocate repair and construction work over time and therefore has larger demand effects.³⁴⁷ It is difficult to avoid the impression that the Government's efforts to make "long-term structurally justifiable" reforms have undermined the effectiveness of cyclical policy with these measures. There is an obvious contrast between the Government's actions here and its actions on the issue of the general reduction in the social contributions (where cyclical considerations appear to have been allowed to get the upper hand over the long-term structural aspects) which is difficult to understand based on any logical argument.³⁴⁸

³⁴⁷ See also Section 1.2.3.

³⁴⁸ See the preceding discussion in Section 7.1.

7.5 Reduction of the corporate tax rate

On 1 January 2009, the corporate tax rate was reduced from 28 per cent to 26.3 per cent. The reduction in the corporate tax rate is being financed by a reduction in the deductibility of certain interest payments in the business sector. The estimate of how much tax revenue this tightening of the deductibility will bring has determined the size of the corporate tax reduction and thus resulted in the new tax rate of 26.3 per cent.

The principal justification for the tax reduction is that Sweden's relative position has changed because several other countries have lowered corporate taxes. Multinational companies' decisions on where they base their operations and where they report most of their earnings are influenced by how high the corporate tax is in Sweden compared to other countries. The Government has therefore concluded that a reduction is needed in order for Sweden to remain an attractive destination for investment.

7.5.1 Research in the area

There are a number of studies showing that the size of the corporate tax is a significant factor in multinational companies' location decisions and in the amount of earnings they report in various countries.³⁴⁹ A relatively high tax rate makes a country less attractive for multinational companies to invest in and also appears to cause these companies to use transfer pricing to shift some of their profits to countries with lower tax rates. These mechanisms imply that the corporate tax base is very sensitive to differences in tax rates.

The bill for this reform and the 2009 Budget Bill referred to the findings of studies of this kind.³⁵⁰ In addition it has been shown that there is no clear connection between a country's corporate tax and the tax take from the corporate tax as a percentage of GDP. The Government's conclusion from this is that a reduction in the corporate tax results in an equivalent increase in the corporate tax base in the long run and that the degree of self-financing may thus be 100 per cent. This conclusion may, however, be questionable since the choice of tax rate may be influenced by how attractive business

³⁴⁹ See for example Huizinga and Laeven (2007) and Barrios et al. (2008).

³⁵⁰ See Government Bill 2008/09:65 and the 2009 Budget Bill, p. 146.

investment in the country is in other respects, which in turn affects the amount of corporate tax revenue.³⁵¹ That tax revenue as a percentage of GDP is approximately the same for countries with completely different tax rates may reflect a tendency for countries to adjust their tax rates so that this percentage ends up at a level perceived to be reasonable.

The corporate tax also affects firms' cost of capital, which is also discussed in the Bill. A reduction can be expected to result in a lower cost of capital for firms and thus to make more investments more profitable. Therefore, there should be a positive effect on investment and GDP. There are also studies that find a negative relation between the corporate tax rate and growth.³⁵²

Increased investment due to a lower corporate tax rate presumably has a minor effect on employment in the long run. In the long run, the main result of increased investment may be that the wages offered will rise. There will be a positive effect on employment only if this wage rise affects the labour supply through increased participation. An increased labour supply counteracts the increase in real wages and may thus lead to companies hiring more people.

7.5.2 Conclusions on the corporate tax

Given that the research in the area indicates quite large negative effects on the tax base when the corporate tax is high compared with other countries, the corporate tax reduction appears justified.

The bill to reduce the corporate tax also reviews much of the research in the area and discusses how the Swedish corporate tax has developed in an international perspective.³⁵³ The discussion may, however, be criticised on a couple of points. It states that the reduction may lead to higher employment via increased investment.³⁵⁴ As discussed above, the indirect effects are expected to be small. The bill does not make clear its view of the nature of the link between investment and employment and most readers will most likely assume that there is a more direct effect. A clearer analysis would have been desirable. It could also have been more clearly

³⁵¹ See, for example, Andersson and Forslid (2003) and Baldwin and Krugman (2004).

³⁵² Lee and Gordon (2005), for example.

³⁵³ Govt. Bill 2008/09:65.

³⁵⁴ Ibid, p. 23.

shown that the degree of self-financing is assumed to be zero in the estimates of the consequences for the public finances, since the whole justification for the reform is based on the perception that the degree of self-financing is high.

7.6 The tax changes and the cyclical situation

When the Government announced the forthcoming tax changes in the 2009 Budget Bill, the economic situation was completely different to what it is today. At that time we thought we faced an economic slowdown and not, as we know now, the deepest recession since the Second World War. Several of the proposed reforms were justified from a long-term structural perspective. Thus, for example, we can expect that the third step in the earned income tax credit will reduce equilibrium unemployment and that the upward adjustment in the income threshold for the state income tax will increase efficiency in the tax system by encouraging those who already have a job to work more hours.

One may, however, wonder whether these reforms should have been implemented if the sharp economic downturn had been foreseen. The budget weakening implied by the reforms could have been more effective in maintaining demand if used in a different way. For example, the higher income threshold for the state income tax favours groups having a relatively high income and thus probably a low marginal propensity to consume compared with groups with lower incomes. Likewise, high-income earners obtain the earned income tax credit. Tax reductions directed more at low-income earners would have been more appropriate, given the cyclical situation.³⁵⁵ The economic situation was, however not possible to predict at the time the Budget Bill was presented and the Government can therefore not be criticised for this.

³⁵⁵ See also Section 1.2.2.

Lars Tobisson's reservation

I share the conclusions in the report except the assessment of what fiscal stimulus measures should have been decided or promised for this year and next year.

Of course, I share the view that Sweden's economy is in a deep downturn. Furthermore, I agree that the downturn is so deep this year that – in addition to the stimulus provided first of all by monetary policy and by the automatic stabilisers – discretionary stabilisation policy measures by way of fiscal policy are required. I have, however, a different opinion about the how extensive these measures should be.

The Fiscal Policy Council endeavours to base its evaluation of the Government's economic policy on the results of current research. No scholarly findings, however, are cited as the basis for its conclusion that the Government should have conducted a more expansive policy, primarily by larger grants to local governments. The sole motivation the Council gives for this position is an assessment made by the National Institute of Economic Research. The Council's recommendation thus has more the character of an opinion without a firm basis. The Summary also notes that this is a matter of "weighing at the margin how big a fiscal stimulus should be deployed and how large a deficit in general government finances should be accepted".

The majority of the Council came to the conclusion that the temporary stimulus measures should have been SEK 15 billion larger this year and for 2010 it recommended a further SEK 30 billion.

In my opinion, there are at least equally good arguments in favour of the balance struck by the Government. Economic policy is already highly expansionary. The restrictive direction of monetary policy until September 2008 has changed to a reduction in the repo rate to a record low of 0.5 per cent, and other measures have also been taken in order for credit markets to function. The krona has weakened sharply, making it easier for exports but also increasing the risk of a spillover into inflation. In the 2009 Budget Bill, the employment policy bill in January this year and the 2009 Spring Fiscal Policy Bill, the Government has proposed extensive fiscal reform measures, which together with the automatic stabilisers will provide a

significant stimulus. The cost of the large credit and guarantee commitments that have been made cannot be predicted today.

On balance, I favour reviewing the results of these measures before deciding or proposing any further fiscal stimulus measures. At the same time, this means that there is more room for expenditure in reserve in the event that the crisis turns out to be deeper or more protracted than can be foreseen now. More importance would then also be given to the effort to keep to the rules-based fiscal policy with its fiscal balance target, expenditure ceiling and the budgeting margin to secure its long-term sustainability.

References

- Agarwal, S., Liu, C. and Souleles, N. (2007), The reaction of consumer spending and debt to tax rebates - evidence from consumer credit, *Journal of Political Economy*, forthcoming.
- Albrecht, J., van den Berg, G. J. and Vroman, S. (2004), The knowledge lift: the Swedish adult education program that aimed to eliminate low worker skill levels, IFAU Working Paper 2004:17.
- Alfredsson, J. (2006), Development and distribution of public health, *Scandinavian Journal of Public Health* 34.
- ALMI Företagspartner (2009), Låneindikator, Mars 2009.
- AMS (2007a), Arbetsmarknadspolitiska program, Årsrapport 2006, Ure 2007:1.
- AMS (2007b), Uppföljning av nystartsjobben, Dnr 0200-005426-02.
- Andersen, T. (2008), Fiscal sustainability and demographics - should we save or work more?, University of Aarhus.
- Andersen, T. and Svarer, M. (2009), Konjunkturafhængig arbejdsmarkedspolitik, rapport for den danske arbejdsmarkedskommission, available at www.amkom.dk.
- Andersson, F. and Forslid, R. (2003), Tax competition and economic geography, *Journal of Public Economic Theory* 5.
- Arbetsförmedlingen (2008), Arbetsmarknadsrapport 2008:1.
- Aronsson, T. and Walker, J. (2009), Labor supply, tax base and public policy in Sweden, in Freeman, R. B., Topel, R. and Swedenborg, B. (ed.), *Reforming the welfare state: Recovery and beyond in Sweden*.
- Assarsson, B. and Jansson, P. (1998), Unemployment persistence: the case of Sweden, *Applied Economic Letters* 5.

- Axelsson, R. and Westerlund, O. (2005), Kunskapslyftets effekter på årsarbetsinkomster - nybörjare höstterminen 1997, Umeå Economic Studies 647, Umeå universitet.
- Baldwin, R. E. and Krugman P. R. (2004), Agglomeration, integration and tax harmonisation, *European Economic Review* 48.
- Barrios, S., Huizinga, H., Laeven, L. and Nicodème, G. (2008), International taxation and multinational firm location decisions, CEPR Discussion Paper No. 7047.
- Barro, R. J. and Gordon, D. B. (1983), Rules, discretion and reputation in a model of monetary policy, *Journal of Monetary Economics* 12.
- Barro, R. (2009), Government spending is no free lunch, *Wall Street Journal*, 22 January.
- Becker, T. (2008), Höj a-kassan och sänk inte skatten! *Ekonomistas.se*, 12 december.
- Beetsma, R. M. J. V. and van der Ploeg, F. (2007), The political economy of public investment, CEPR Discussion paper 6090.
- Beetsma, R. M. J. V. (2008), A survey of the effects of discretionary fiscal policy, *Studier i finanspolitik 2008/2*, Finanspolitiska rådet.
- Bennmarker, H., Carling, K. and Forslund, A. (2007), Vem blir långtidsarbetslös?, IFAU Rapport 20.
- Bennmarker, H., Mellander, E. and Öckert, B. (2008), Do regional payroll tax reductions boost employment?, IFAU Working Paper 2008:19.
- Bergström, P., Dahlberg, M. and Mörk, E. (2004), The effects of grants and wages on municipal labour demand, *Labour Economics* 11.
- Bergström, C. (2009), Finanskrisen och den svenska krishanteringen under hösten 2008/vintern 2009, *Studier i Finanspolitik 2009/1*, Finanspolitiska rådet.
- Blundell, R. (2006), Earned income tax policies: Impact and optimality, *Labour Economics* 13.

- Blundell, R., Costa Dias, M., Meghir, C. and Van Reenen, J. (2004), Evaluating the employment impact of a mandatory job search program, *Journal of the European Economic Association* 2.
- Blundell, R. and MaCurdy, T. (1999), Labor supply: A review of alternative approaches, in Ashenfelter, O. and Card, D. (ed.), *Handbook of labor economics* 3, Elsevier, Amsterdam.
- Bohm, P. and Lind, H. (1993), Policy evaluation quality - A quasi experimental study of regional employment subsidies in Sweden, *Regional Science and Urban Economics* 23.
- Boone, J. and Bovenberg, L. (2004), The optimal taxation of unskilled labour with job search and social assistance, *Journal of Public Economics* 88.
- Borg, A. and Littorin, S.O. (2009), Tio extra miljarder till arbetsmarknadspolitiken, *Dagens Nyheter*, 15 april.
- Borg, A. (2008), Svar på interpellation 2008/09:113 om budget byggd på felaktiga prognoser, *Riksdagens protokoll*, anförande 31, 24 november.
- Bradbury, S., Brumby, J. and Skilling, D. (1999), Sovereign net worth: an analytical framework; Treasury Working Paper 1999:3, New Zealand Treasury.
- Brewer, M. and Browne, J. (2006), The effect of the working families' tax credit on labour market participation, BN 69, The Institute for Fiscal Studies.
- Brugiavini, A. and Peracchi, F. (2008), Youth unemployment and retirement of the elderly: the case of Italy, Department of Economics, Ca' Foscari University of Venice, Working Paper 2008:45.
- Börsch-Supan, A., Brugiavini, A. and Croda, E. (2008), The role of institutions in European patterns of work and retirement, Department of Economics, University of Venice, Working Paper 2008:44.
- Cahuc, P. and Zylberberg, A. (2004), *Labor Economics*, MIT Press, Cambridge, MA.

- Calmfors, L. (1994), Active labour market policy and unemployment - a framework for the analysis of crucial design features, OECD Economic Studies 22.
- Calmfors, L. (1995), What can we expect from active labour market policy?, Konjunkturpolitik 43.
- Calmfors, L. (1999), ECB, penningpolitiken och demokratin, Ekonomisk Debatt 27.
- Calmfors, L. (2005), What remains of the stability pact and what next?, Sieps 2005:8.
- Calmfors, L. (2008a), Moms och inkomstskatt måste sänkas tillfälligt, Dagens Nyheter, 25 november.
- Calmfors, L. (2008b), Kris i det svenska avtalssystemet, Ekonomisk Debatt nr 1.
- Calmfors, L. and Forslund, A. (1990), Wage formation in Sweden, in Calmfors, L. (ed.) Wage formation and macroeconomic policy in the Nordic countries, SNS and Oxford University Press.
- Calmfors, L., Forslund, A. and Hemström, M. (2004), The effects of active labour market policies in Sweden: What is the evidence?, in Agell, J., Keen, M. J. and Weichenreider, A. J. (ed.), Labor market institutions and public regulation, MIT Press, Cambridge, MA.
- Calmfors, L. and Holmlund, B. (2000), Den europeiska arbetslösheten, En strategi for sysselsetting og verdiskaping, Vedlegg 2, NOU 2000:21.
- Calmfors, L. and Lang, H. (1995), Macroeconomic effects of active labour market programmes in a union wage-setting model, The Economic Journal 105.
- Canada Department of Finance (2009), Canada's economic action plan, Budget 2009.
- Carling, K. and Larsson, L. (2005), Does early intervention help the unemployed youth? Labour Economics 12.

- Coe, N. B. and Lindeboom, M. (2008), Does retirement kill you? Evidence from early retirement windows, IZA DP No. 3817.
- Cogan, J., Cwik, T., Taylor J. and Wieland, V. (2009), New Keynesian versus old Keynesian government spending multipliers, Stanford University.
- Congressional Budget Office (2008), Options for responding to short-term economic weakness, CBO Paper, January.
- Da Costa, M. and Juan-Ramón V. H. (2006), The net worth approach to fiscal analysis: dynamics and rules, IMF Working Paper 2006:17.
- Dagens Nyheter (2008), Äldre kvinnor lämnar a-kassan, 15 november.
- Dagens Nyheter (2009a), Brist på pengar, ledare, 25 januari.
- Dagens Nyheter (2009b), Vår uppgift är att stötta - och att utmana, 25 februari.
- Dahlberg, M., Lundqvist, H. and Mörk, E. (2008), Intergovernmental grants and bureaucratic power, IFAU Working Paper 17.
- De Luna, X., Forslund, A. and Liljeberg, L. (2008), Effekter av yrkesinriktad arbetsmarknadsutbildning för deltagare under perioden 2002-04, IFAU Rapport 1.
- Ds 2007:21, Äldres arbetsutbud och möjligheter till sysselsättning.
- Ds 2009:7, Effektivare regler och bättre beslutsunderlag för arbetsmarknadspolitiken, Arbetsmarknadsdepartementet.
- Ds 2009:10, Stärkt finanspolitiskt ramverk - översyn av budgetlagens bestämmelser om utgiftstak, Finansdepartementet.
- Duval, R. (2003), The retirement effects of old-age pension and early retirement schemes in OECD countries, OECD Economics Department Working Paper 370.
- Eichengreen, B. and Baldwin, R. (2008), What G20 leaders must do to stabilise our economy and fix the financial system, VoxEU e-book, 10 November, available at voxeu.org.

- Ekström, E. (2003), Inkomsteffekter av kommunal vuxenutbildning, IFAU Rapport 13.
- Elmendorf, D. and Furman, J. (2008), If, when, how: A primer on fiscal stimulus, The Hamilton Project Strategy Paper, Brookings Institution.
- European Commission (2006a), European Economy - Public finances in EMU, Part III: National numerical fiscal rules and institutions for sound public finances, Directorate General for Economic and Financial Affairs, Brussels.
- European Commission (2006b), Public finances in the EU, Bryssel.
- European Commission (2008), Public finances in EMU - 2008, European Economy No. 4, Directorate General for Economic and Financial Affairs, Brussels.
- Fang, H. and Keane, M. (2004), Assessing the impact of welfare reform on single mothers, Brooking Papers on Economic Activity 1.
- Fatás, A. and Mihov, I. (2001), Government size and automatic stabilizers: international and intranational evidence, Journal of International Economics 55.
- Finansdepartementet (2008), Sänkt skatt på förvärvsinkomster, Promemoria, juni.
- Finansdepartementet (2009a), Regeringen beslutar om vissa justeringar av garantiprogrammet, Pressmeddelande, 29 januari.
- Finansdepartementet (2009b), Regeringen förlänger och vidgar det statliga garantiprogrammet för bankernas upplåning, Pressmeddelande, 2 april.
- Finansdepartementet (2009c), Införande av stabilitetsavgift, Lagrådsremiss, 17 april.
- Finansinspektionen (2009), Effekterna av de statliga stabilitetsåtgärderna: andra rapporten, 27 februari.
- Finansministeriet Danmark (2007), Mod nye mål - Danmark 2015, Teknisk baggrundsrapport.

- Finanspolitiska rådet (2008), Svensk Finanspolitik, Finanspolitiska rådets rapport 2008.
- Flodén, M. (2003), Public saving and policy coordination in aging economies, *Scandinavian Journal of Economics* 105.
- Flodén, M. (2009), Automatic fiscal stabilizers in Sweden 1998-2009, *Studier i Finanspolitik 2009/2*, Finanspolitiska rådet.
- Forslid, R. and Ulltveit-Moe, K. H. (2009), Industripolitik för den svenska fordonsindustrin, *Studier i Finanspolitik 2009/3*, Finanspolitiska rådet.
- Forslund, A. (2008), Den svenska jämviktsarbetslösheten: en översikt, *Studier i finanspolitik 2008/4*, Finanspolitiska rådet.
- Forslund, A. and Nordström Skans, O. (2006), (Hur) hjälps ungdomar av arbetsmarknadspolitiska program för unga?, IFAU Rapport 5.
- Fredriksson, P. and Holmlund, B. (2001), Optimal unemployment insurance in search equilibrium, *Journal of Labor Economics* 19.
- Freedman, C., Kumhof, M., Laxton, D. and Lee, J. (2009), The case for global fiscal stimulus, *IMF Staff Position Notes 2009:03*.
- Frey, B. and Stutzer, A. (2002), What can economists learn from happiness research?, *Journal of Economic Literature* 40.
- Fröberg, D. and Lindqvist, L. (2002), Deltagarna i aktivitetsgarantin, IFAU Rapport 11.
- Fröberg, D. and Persson, K. (2002), Genomförandet av aktivitetsgarantin, IFAU Rapport 2.
- Försäkringskassan (2009a), Pensionssystemet visar underskott för 2008, Pressmeddelande, 12 mars.
- Försäkringskassan (2009b), Analys av balanstalets konstruktion och funktion, Svar på regeringsuppdrag, 14 april.
- G20 (2008), Declaration: Summit on financial markets and the world economy, communiqué, 15 november, tillgänglig via www.g20.org.

- Giavazzi, F. and Mishkin, F. (2006), En utvärdering av den svenska penningpolitiken 1995-2005, Rapporter från Riksdagen 2006/07:RFR 1, Finansutskottet.
- Giavazzi, F. and Pagano, M. (1990), Can severe fiscal contractions be expansionary? Tales of two small European countries, NBER Macroeconomics Annual.
- Giorno, C., Richardson, P., Roseveare, D. and van den Noord, P. (1995), Estimating potential output, output gaps and structural budget balances, OECD Economics Department Working Paper 152.
- Girouard, N. and André, C. (2005), Measuring cyclically-adjusted budget balances for OECD countries, OECD Economics Department Working Paper 434.
- Globaliseringsrådet (2007), Kunskapsdriven tillväxt - en första rapport från Globaliseringsrådet, Utbildningsdepartementet.
- Gruber, J. and Wise, D. A. (1999), Social security and retirement around the world, in Gruber, J. and Wise, D. A. (ed.), Chicago: University of Chicago Press, 1999.
- Gruber, J. and Wise, D. A. (2002), Social security programs and retirement around the world: Micro estimation, NBER Working Paper No. 9407.
- Gruber, J., Milligan, K. and Wise, D. A. (2009), Social security programs and retirement around the world: the relationship to youth employment, NBER Working Paper 14647.
- Hall, C. (2009), Does making upper secondary school more comprehensive affect the dropout rates, educational attainment and earnings? Evidence from a Swedish pilot scheme, IFAU working paper 2009:9.
- Hammar, H. (2008), Aktiviteter inom JOB och UGA, Promemoria 28 november, Arbetsförmedlingen.
- Hinnerich-Tyrefors, B. (2009), Do merging local governments free ride on their counterparts when facing boundary reform?, Journal of Public Economics, forthcoming.

- Holmlund, B. and Kolm, A-S. (1995), Progressive taxation, wage setting, and unemployment: Theory and Swedish evidence, *Swedish Economic Policy Review* 2.
- Holmlund, B., Liu, Q. and Nordström Skans O. (2008), Mind the gap? Estimating the effects of postponing higher education, *Oxford Economic Papers* 60.
- Hopenhayn, H. and Nicolini, J. P. (1997), Optimal unemployment insurance, *Journal of Political Economy* 105.
- Hopenhayn, H. and Nicolini J. P. (2005), Optimal unemployment insurance and employment history, *Universidad Torquato Di Tella*.
- Huizinga, H. and Laeven, L. (2007), International profit shifting within European multinationals, *Journal of Public Economics*, forthcoming.
- Hägglund, P. (2002), Första året med aktivitetsgarantin – en utvärdering av aktivitetsgarantins effekter, *Ura* 2002:2.
- Höglin, E. (2008), Inequality in the labor market: insurance, unions, and discrimination, doctoral thesis, *Handelshögskolan in Stockholm*.
- IAF (2007a), Effekterna av den förhöjda finansieringsavgiften, 2007:10.
- IAF (2007b), Effekterna av den förhöjda finansieringsavgiften: Rapport 2, 2007:23.
- IAF (2007c), Effekterna av förändringarna i arbetslöshetsförsäkringen: Rapport 2, 2007:24.
- IAF (2008), Effekterna av den förhöjda finansieringsavgiften: Rapport 3, 2008:10.
- IMF (2005), Sweden - Staff Report for the 2005 Article IV consultation, *IMF Country Report* 05/343.
- IMF (2006), Germany: Article IV Consultation, *Report* 06/439.
- IMF (2007), Switzerland: Article IV Consultation, *Report* 07/186.
- IMF (2008a), Fiscal policy as a countercyclical tool, *IMF World Economic Outlook*, October.

- IMF (2008b), IMF sees major slowdown for global economy, calls for strong and coordinated policies to support a turnaround, Press Release, 8 October.
- IMF (2008c), Sweden: Article IV Consultation, Report 08/278.
- IMF (2009a), The size of the fiscal expansion: an analysis for the largest countries, February.
- IMF (2009b), World Economic Outlook: Crisis and Recovery, April.
- IMF (2009c), Companion paper - The state of public finances: Outlook and medium-term policies after the 2008 crisis, available at <http://www.imf.org/external/np/pp/eng/2009/030609a.pdf>.
- Ingves (2008), Kan myndigheterna hantera kriser i det finansiella systemet?, Tal, 13 mars, available at www.riksbank.se.
- Jagger, C., Gilles, C., Cambois, F., van Oyen, H., Nusselder, W., Rabine, J-M. and EHLEIS-team (2008), Inequalities in healthy life cycle years in the 25 countries of the European union in 2005: a cross-sectional meta-regression analysis, Lancet, November.
- Jensen, P., Rosholm, M. and Svarer, M. (2003), The response of youth unemployment to benefits, incentives, and sanctions, European Journal of Political Economy 19.
- Johnson, D., Parker, J. and Souleles, N. (2006), Household expenditure and the income tax rebates of 2001, American Economic Review 96.
- Johnson, R. and Neumark, D. (1997), Age discrimination, job separations, and employment status of older workers: Evidence from self-reports, Journal of Human Resources 32.
- Kaplan, G. (2009), Moving back home: insurance against labor market risk, New York University.
- King, M. (2009), February inflation report, Testimony to the U.K. Treasury Committee, House of Commons, 24 March.
- Kluve, J. (2006), The effectiveness of European active labour market policy, IZA Discussion Paper 2018.

- Kolm, A-S. and Tonin, M. (2006), In-work benefits in search equilibrium, Working Paper 2006:12, Stockholm University.
- Kommunal (2007), Många äldre lämnar a-kassan, pressmeddelande, available at www.internetkassan.nu.
- Konjunkturinstitutet (2006), Konjunkturläget december 2006.
- Konjunkturinstitutet (2008a), Konjunkturläget december 2008.
- Konjunkturinstitutet (2008b), Lönebildningsrapporten 2008.
- Konjunkturinstitutet (2009), Konjunkturläget mars 2009.
- Korkeamäki, O. and Uusitalo, R. (2008), Employment and wage effects of payroll tax cut - Evidence from a regional tax exemption experiment, International Tax and Public Finance, Forthcoming.
- Krueger, A. and Lindahl, M. (2009), An evaluation of selected reforms to education and labour market policy in Sweden, Studier i finanspolitik 2009/4, Finanspolitiska Rådet.
- Krugman, P. (2008), Stimulus math, The Conscience of a Liberal, 10 november, [krugman.blogs.nytimes.com].
- Krugman, P. (2009), Stimulus arithmetic, The Conscience of a Liberal, 6 januari [krugman.blogs.nytimes.com].
- Kydland, F. E. and Prescott, E. C. (1977), Rules rather than discretion: The inconsistency of optimal plans, Journal of Political Economy 85.
- Lachowska, M., Sundén, A. and Wadensjö, E. (2008), Delpension – ett sätt att öka arbetsutbudet bland äldre?, in Hartman, L. (ed.), *Välfärd på deltid*, SNS, Stockholm.
- Larsson, L. (2003), Evaluation of Swedish youth programs, Journal of Human Resources 38.
- Lechner, M. and Smith, J. A. (2007), What is the value added by caseworkers?, Labour Economics 14.

- Lee, Y., and Gordon, R. H. (2005), Tax structure and economic growth, *Journal of Public Economics* 89.
- Liang, C. (2008), Nonparametric estimation of female labor supply and the 2007 Swedish earned income tax credit reform, *Essays in political economics and public finance*, *Economic studies* 112.
- Lindbeck, A. and Snower, D. (1988), *The insider-outsider theory of employment and unemployment*, MIT Press, Cambridge, MA.
- Lindbeck, A. (2008a), Ett samhällsekonomiskt perspektiv på överskottsmålet, i Calmfors, L., Lindbeck, A. och Lundgren, B., *Statens framtida finanser*, SNS.
- Lindbeck, A. (2008b), Sociala normer och socialförsäkringar – Teori och svenska erfarenheter, *Ekonomisk Debatt* 6.
- Lindbeck, A. (2009), Regeringen måste bejaka tillfälliga budgetunderskott, *Dagens Nyheter*, 18 januari.
- Lindblad, H. and Sellin, P. (2003), The equilibrium rate of unemployment and the real exchange rate: an unobserved components system approach, *Working Paper 152*, Sveriges Riksbank.
- Ljungqvist, L. and Sargent, T. J. (2006), Hur Sveriges arbetslöshet blev mer lik Europas, in Freeman, R. B., Swedenborg, B. och Topel, R. (eds.), *Att reformera välfärdsstaten. Amerikanskt perspektiv på den svenska modellen*, SNS.
- LO (2009), LO-ekonomernas nyhetsbrev, January.
- Lundin, D. and Liljeberg, L. (2008), Arbetsförmedlingens arbete med nystartsjobben, *IFAU Rapport* 9.
- Lundin, M. (2001), Hur fungerar anställningsstöden?, *IFAU Rapport* 9.
- Martin, J. P. and Grubb, D. (2001), What works and for whom: a review of OECD countries' experiences with active labour market policies, *Swedish Economic Policy Review* 8.
- McGuire, P. and von Peter, G. (2009), The US dollar shortage in global banking, *Quarterly Review*, March, Bank for International Settlements, Basel.

- Meyer, B. and Rosenbaum, D. (2001), Welfare, the earned income tax credit and the labour supply of single mothers, *Quarterly Journal of Economics* 116.
- Milesi-Ferretti, G. M. and Moriyama, K. (2004), Fiscal adjustment in EU countries: a balance sheet approach, IMF Working Paper 2004:143.
- Molander, P. (2009), Net wealth analysis and long-term fiscal policymaking, *Studier i finanspolitik* 2009/5, Finanspolitiska rådet.
- Molander, P. and Paulsson, G. (2008), Vidareutveckling av det finanspolitiska regelverket, *Studier i finanspolitik* 2008/5, Finanspolitiska rådet.
- Mortensen, D. and Pissarides, C. (1999), New developments in models of search in the labor market, in Ashenfelter, O. and Card, D. (ed), *Handbook of labor economics* 3, Elsevier, Amsterdam.
- Munnell, A. H. and Sass, S. S. (2008), Working longer. The solution to the retirement income challenge, Washington D.C.: Brookings Institution.
- Munnell, A. H., Soto, M. and Golub-Sass, A. (2008), Will people be healthy enough to work longer, CRR Working Paper 2008:11.
- Nickell, S. and Layard, R. (1999), Labour market institutions and economic performance, in Ashenfelter, O. and Card, D. (ed) *Handbook of labor economics* 3, Elsevier, Amsterdam.
- Nordström Skans, O. (2009), Varför är den svenska ungdomsarbetslösheten så hög?, *Studier i finanspolitik* 2009/6, Finanspolitiska rådet.
- OECD (2005), *Economic Survey of Sweden*, Paris.
- OECD (2006), *Employment outlook*, Paris.
- OECD (2008a), *Economic Outlook*, November, Paris.
- OECD (2008b), *Economic Survey of Sweden*, Paris.
- OECD (2009), *OECD Economic Outlook Interim Report*, March, Paris.

- Okeke, S. (2005), Arbetsmarknadsutbildningens effekter för individen, Arbetsmarknad och arbetsmarknadspolitik, Ura 2005:6, AMS.
- Parsons, D. O., Tranæs, T. and Lilleør, H. B. (2003), Voluntary Public Unemployment Insurance, CESifo Working Paper 1010.
- Peletier, B. D., Dur, R. A. J. and Swank, O. H. (1999), Voting on the budget deficit: comment, American Economic Review 89.
- Perotti, R. (1999), Fiscal policy in good times and bad, Quarterly Journal of Economics 114.
- Ramey, V. (2008), Identifying government spending shocks: it's all in the timing, University of California.
- Reinhart, C. and Rogoff, K. (2009), The aftermath of financial crises, NBER Working Paper 14656.
- Riksbanken (2008), Reporäntan höjs till 4,75 procent, Pressmeddelande, 4 september.
- Riksgälden (2008), Extra emissioner av statsskuldväxlar, Pressmeddelande, 18 september.
- Riksgälden (2009), Statsupplåning: Prognos och analys 2009:1.
- Riksrevisionen (2006), Regeringens uppföljning av överskottsmålet, Rapport 27.
- Riksrevisionen (2007), Regeringens analys av finanspolitikens långsiktiga hållbarhet, Rapport 21.
- Riksrevisionen (2008a), Tillämpningen av det finanspolitiska ramverket - regeringens redovisning i 2008 års ekonomiska vårproposition, Rapport 15.
- Riksrevisionen (2008b), Delpension för statligt anställda – tillämpning och effekter, Rapport 27.
- Riksrevisionen (2008c), Tillämpningen av det finanspolitiska ramverket - regeringens redovisning i budgetpropositionen för 2009, Rapport 30.

- Romer, C. and Romer, D. (2007), The macroeconomic effects of tax changes: estimates based on a new measure of fiscal shocks, NBER Working Paper 13264.
- Rosholm, M. and Svarer, M. (2008), Estimating the threat effect of active labour market programmes, *Scandinavian Journal of Economics* 110.
- Saha, D. and von Weizsäcker, J. (2009), Estimating the size of European stimulus packages for 2009: an update, manuscript, Bruegel.
- Saint-Paul, G. (1996), Exploring the political economy of labour market institutions, *Economic Policy* 23.
- Sanchez, J. M. (2008), Optimal state-contingent unemployment insurance, *Economics Letters* 98.
- SCB (2008), Offentlig Ekonomi 2008.
- SCB (2009), Utrikeshandel. Varuexport och varuimport. Indextal för värden i fasta priser, fjärde kvartalet 2008, Sveriges officiella statistik, Statistiska meddelanden HA23 SM0901.
- Shapiro, M. and Slemrod, J. (2009), Did the 2008 tax rebates stimulate spending?, NBER Working Paper 14753.
- Shavell, S. and Weiss, L. (1979), The optimal payment of unemployment insurance over time, *Journal of Political Economy* 87.
- Sjögren Lindquist, G. and Wadensjö, E. (2009), Arbetsmarknaden för äldre, *Studier i finanspolitik 2009/7*, Finanspolitiska rådet.
- Skedinger, P. (2007), The design and effects of collectively agreed minimum wages, evidence from Sweden, IFN Working Paper 700.
- Skedinger, P. (2008), Effekter av anställningsskydd - Vad säger forskningen, SNS.
- Skirbekk, V. (2004), Age and individual productivity: A literature survey, i Feichtinger, G. (red.), *Vienna Yearbook of Population Research*, Vienna : Austrian Academy of Sciences Press.

- SO (2007), Konsekvensanalys avseende förändring av a-kassornas finansiering och medlemsavgifterna, Arbetslöshetskassornas samorganisation.
- SO (2008), Mer än en halv miljon borde ha ett bättre skydd vid arbetslöshet, Arbetslöshetskassornas samorganisation.
- Socialdepartementet (2009), Pensionsgruppen överens om åtgärder för att stabilisera pensionerna, Pressmeddelande, 28 april.
- SOU 2000:66, Offentlig administration av banker i kris, Banklagskommittén, Fritzes, Stockholm.
- SOU 2002:16, Stabiliseringspolitik i valutaunionen - slutbetänkande, Kommittén för stabiliseringspolitik för full sysselsättning vid ett svenskt medlemskap i valutaunionen, Fritzes, Stockholm.
- SOU 2005:16, Reformat system för insättningsgarantin, Insättningsgarantiutredningen, Fritzes, Stockholm.
- SOU 2007:112, Nya förutsättningar för arbetsmarknadsutbildning, Utredningen om en flexiblere arbetsmarknadsutbildning, Fritzes, Stockholm.
- SOU 2008:54, Obligatorisk arbetslöshetsförsäkring, Fritzes, Stockholm.
- SOU 2008:105, Huvudbetänkande av Långtidsutredningen, Fritzes, Stockholm.
- SOU 2009:28, Stärkt stöd för studier - Tryggt, enkelt och flexibelt, Fritzes, Stockholm.
- Spilimbergo, A., Symansky, S., Blanchard, O. and Cottarelli, C. (2008), Fiscal policy for the crisis, IMF Staff Position Note 2008:1.
- Stenberg, A. (2003), An evaluation of the adult education initiative relative labor market training, Umeå Economic Studies 609.
- Stenberg, A. (2007), Comprehensive education or vocational training for the unemployed? International Journal of Manpower 28.
- Stenberg, A. (2008), Hur påverkar gymnasialt komvux inkomster och vidare studier?, Arbetsmarknad och Arbetsliv 1.

- Stenberg, A. (2009), Upgrading the low skilled: Is public provision of formal education a sensible policy?, SOFI Working Paper 1, Stockholms universitet.
- Stenberg, A. and Westerlund, O. (2008), Does comprehensive education work for the unemployed? *Labour Economics* 15.
- SVT (2008), Äldre lämnar A-kassan, *Aktuellt*, 3 november.
- TCO (2008), Den ekonomiska krisen ... och vad som bör göras åt den, TCO granskar 2008:13.
- Tirole, J. (2006), *The theory of corporate finance*, Princeton University Press, Princeton, NJ.
- Traa, B. and Carare, A. (2007), A government's net worth: a new tool in surveillance, the public sector balance sheet, can help diagnose vulnerabilities that are not immediately visible in the budget, IMF.
- Turrini, A. (2004), Public investment and the EU fiscal framework, *Economic papers*, Directorate-general for Economic and Financial Affairs.
- UNDP (2007), *Human Development Report 2007/7*, New York, available at www.hdr.undp.org.
- van den Noord, P. (2000), The size and role of automatic fiscal stabilizers in the 1990s and beyond, *OECD Economics Department Working Paper* 230.
- van der Ploeg, F. (2008), Structural reform, public investment and the fiscal stance: a prudent approach, *Studier i finanspolitik* 2008/3, Finanspolitiska rådet.

Appendix 1 The intertemporal budget constraint and intertemporal net worth

The public sector is solvent at time t_0 if the current total net worth is at least as large as the present value of all future fiscal deficits, i.e. if

$$V_{t_0} \geq \sum_{t=t_0+1}^{\infty} (G_t - T_t) / (1+i)^{t-t_0}, \quad (1)$$

where

V = total current net worth in kronor.

G = public expenditure excluding interest expenditure in kronor.

T = public revenue excluding interest revenue in kronor.

i = nominal interest (which is assumed constant).

The inequality (1) can be expressed in terms of percentages of GDP as

$$v_{t_0} \geq \sum_{t=t_0+1}^{\infty} (g_t - \tau_t) \beta^{t-t_0}, \quad (2)$$

where

v = total current net worth as a percentage of GDP.

g = public expenditure excluding interest expenditure as a percentage of GDP.

τ = public revenue including interest revenue as a percentage of GDP.

$\beta = (1+\gamma)/(1+i)$ growth-adjusted discount factor.

γ = GDP growth rate (which is assumed constant).

The intertemporal total net worth as a percentage of GDP, a , is defined as

$$a = v_{t_0} - \sum_{t=t_0+1}^{\infty} (g_t - \tau_t) \beta^{t-t_0}, \quad (3)$$

i.e. as the difference between current net worth and the present value of future fiscal deficits. The intertemporal budget constraint is met if $a > 0$.

One alternative formulation of the intertemporal budget constraint is that current *financial* net worth is at least as large as the present value of all future fiscal deficits, i.e.

$$b_{t_0} \geq \sum_{t=t_0+1}^{\infty} (g_t - \tau_t) \beta^{t-t_0}, \quad (3)$$

where

b = financial net worth as a percentage of GDP.

Constraint (3) is tighter than constraint (2), since it does not allow for the sale of real capital for financing future deficits.

Intertemporal financial net worth, f , is defined as

$$f = b_{t_0} - \sum_{t=t_0+1}^{\infty} (g_t - \tau_t) \beta^{t-t_0}, \quad (4)$$

i.e. as the difference between current financial net worth and the present value of future fiscal deficits.

The S2 indicator is defined as the permanent annual budget improvement required for (3) to hold with equality, i.e. for intertemporal financial net worth f to be zero. This means that:

$$s\beta + s\beta^2 + \dots s\beta^n + \dots = \frac{s\beta}{1-\beta} = -f, \quad (5)$$

where

s = the S2 indicator.

Equation (5) can also be written as

$$s = -\frac{1-\beta}{\beta} f = -\frac{i-\gamma}{1+\gamma} f. \quad (6)$$

Since the interest rate is normally higher than the growth rate, i.e. $i > \gamma$, it follows that the S2 indicator always has the opposite sign to the intertemporal financial net worth.

Appendix 2 Estimates of the public sector capital stock

This appendix describes how we have calculated the historical capital stocks in the public sector in Section 4.1.2. Let $K(t)$ denote the capital stock in period t , $I(t)$ investment in period t and $d(t)$ the depreciation rate in period t , all in constant prices. Under the assumption that the capital stock is depreciated geometrically, the capital stock evolves according to the law-of motion

$$K(t+1) = (1-d(t)) \cdot K(t) + I(t). \quad (1)$$

For $t = 1993, 1994, \dots, 2006$ we have data on $K(t)$ and $I(t)$.

Own estimate

We have used equation (1) to calculate $d(t)$ for $t = 1993, 1994, \dots, 2006$. Thereafter we have calculated the average of $d(t)$ for the period and then used equation (1) to calculate $K(t)$ backwards given data for $I(t)$ to 1980.

Own estimate. Without 1993

As above but without using $d(1993)$ which is odd (13.7 per cent).

National Institute of Economic Research's depreciation

The National Institute of Economic Research provided depreciation rates for $t = 1993, 1994, \dots, 2006$ for the entire general government sector and the local government sector. Given the values of the capital stocks in the local government sector and the entire general government sector, one can calculate the capital depreciation in the central government for the same years. Then we worked backwards to calculate the estimates for earlier years with the help of the average depreciation rates, using the same method as above.

Appendix 3 The future development of the labour market exit age

The estimate in section 6.3.6 of how much the exit age will rise is based on the assumption that there will be no new reforms affecting exit age. Thus its development will be affected only by the factors that have affected its development up to now. The most important factor is the gradual introduction of the new pension system. The more cohorts it covers, the greater its impact on the exit age will be.

We assume that the exit age is determined by the degree to which the age group 55-70 is covered by the new pension system for the year in question. The coverage is estimated as follows:

- People born in 1937 or earlier – who were 62 or older in 1999 when the system was introduced – get their entire pension according to the old system. For people born in 1938, 4/20 of their pension is based on the new system. Thereafter the factor grows by 1/20 for each year of birth so that people born in 1954 come entirely under the new system.
- In 1999 the new system had a limited effect on the 55-61 age group and no effect on the age group 62-70.
- In 2024 the new system will have full effect for every one in the age group 55-70.
- The 'dosage' of the new system for the 55-70 age group thus grows non-linearly for each year until 2024 when the dose is equal to one. The dose was in 1999

$$\frac{1}{16} \left(\overbrace{\frac{9 \times 0}{9}}^{\text{born 1929-1937}} + \overbrace{\frac{4}{20}}^{\text{born 1938}} + \overbrace{\frac{5}{20}}^{\text{born 1939}} + \dots + \overbrace{\frac{9}{20}}^{\text{born 1943}} + \overbrace{\frac{10}{20}}^{\text{born 1944}} \right) = 0.153.$$

- Between 2000 and 2006, the dosage increased from 0.187 to 0.459, while the average exit age (according to SOU 2008:105) increased from 61.9 to 62.7 for women and from 62.7 to 63.4 for men.

An increase in the dosage from 0.459 to 1 can thus, everything else equal, be assumed to increase the exit age between 2006 and 2024 as follows:

$$\text{Women: } [(1-0.459)/(0.459-0.187)] \times (62.7-61.9) = 1.59$$

$$\text{Men: } [(1-0.459)/(0.459-0.187)] \times (63.4-62.7) = 1.39$$

The exit age in 2024 is thus calculated to be 64.3 for women and 64.8 for men.

