

# Summary

The main purpose of sustainability assessments is to pick up on signs of whether public finances are unsustainable in the long term and attempt to identify future problems in good time. The assessments focus on the current design of welfare systems and whether they can respond to future challenges in the form of demographic, economic or other types of trends in society that can be reasonably expected. The basic question may also be expressed as follows: can today's public welfare commitments, for example in the form of pensions, medical care and elderly care, continue to be financed in the future, given current tax rates? In concrete terms, the task is to try to estimate whether revenues or expenditures might change in such a way that the public sector budget becomes unbalanced over time. If the budget balances over time, it may be said that public finances are sustainable. If the budget does not balance, this means that public finances are unsustainable and that measures must be taken.

## **Sooner or later, long-term unsustainable public finances must be reformed**

The early identification of long-term public finance problems creates opportunities, not least political, and provides time for well-considered reforms. Postponing measures to maintain sustainability is likely to exacerbate the problems and worsen the prospects for well-founded reforms.

Crises in government finances and recessions have diminished the ability of several European countries to pursue long-term fiscal policies. In the worst-affected countries, policy focus has shifted to trying to solve the most urgent financial problems in the short-term. For example, in Greece, Ireland and Portugal, this includes attempts to balance rising public expenditures with falling

revenues, as well as stabilise soaring public debt. Public finance imbalance has been a very strong contributor to the problems faced by these countries today. At the same time, other factors, such as the efficiency of the labour market, have also contributed. Even if these countries' economies were otherwise well-functioning, their public finances were severely strained. These examples clearly illustrate that long-term unsustainable public finances must be reformed sooner or later.

### **Sustainability assessments have become increasingly important instruments**

To prevent countries from getting into this situation, the evaluation of public finance sustainability has become an increasingly important instrument. The European Commission makes regular assessments of sustainability. Several Member States also conduct their own assessments. In Sweden, such assessments are conducted annually by the Ministry of Finance and the National Institute of Economic Research. In the United States, the Congressional Budget Office reviews the long-term financial situation annually. In Denmark and the Netherlands, special institutions carry out independent assessments and evaluations. In addition, both the OECD and the IMF conduct assessments of various countries' sustainability. The methods used are largely similar and have a common basis. This particularly applies to how general government revenues and expenditures are calculated. However, the methods are controversial and have certain shortcomings.

### **Sustainability assessments form the basis of reform proposals**

Assessments of sustainability now form the basis of recommendations to individual countries to change policy in the form of changes to their welfare systems, tax policies and other measures to improve the functioning of the economy. The recommendations given are often extensive and affect large sections of the population, for example, when pension systems or other welfare systems need to be reformed. If the assessments are misleading, problems may be overestimated or underestimated and

the recommendations will be incorrect and the measures too strong or too weak. The picture painted by sustainability assessments also affects how financial markets perceive individual countries and public sector ability to pay. If this picture is only negative, it can affect public sector borrowing conditions. It is therefore of great importance that assessments and calculations of sustainability are essentially fair and based on solid foundations.

## Two problems with sustainability assessments

In this report, we identify and discuss two overall problems with sustainability assessments:

1. Sustainability assessments include assessments of national economic trends in the very long term, which creates a strong need for simple models and assumptions if the assessments are to be comprehensible and possible to discuss. The starting point is therefore usually a relatively simple and stylised main scenario for future trends. To compensate for this simplicity, alternative scenarios are produced in which the assumptions are varied. The assessment of sustainability as a whole is then conducted on the basis of all scenarios. One problem is that the scenarios often lack, or have weak, empirical support. An example is how a later labour market exit age can affect sustainability. Here empirical support is lacking with regard to how much labour market exit age can be expected to increase by over time, which policies can lead to an increase in labour market exit age and what the costs of the measures are. It is most definitely warranted to include a scenario in which labour market exit age increases at the rate life expectancy increases. The lack of empirical support means, however, that the scenarios are based on an ad-hoc assumption of how many years labour market exit age can be expected to increase. This assumption lacks both empirical basis and support in active policy to support such a trend. If the scenario instead could be underpinned with solid empiricism and theory, its relevance would significantly increase and thus also the credibility of the sustainability assessment as a whole.
2. In the sustainability assessments, often no account is taken of the long-term consequences of already implemented political

decisions and reforms. As a rule, calculations are based on changes to the welfare systems having already had an impact on how the systems are used today. Examples of this are assumptions concerning future trends for labour market participation or the number of people receiving compensation within various insurance systems. The starting point is current labour market participation or the proportion of people receiving compensation and that these patterns will also apply in the future. However, certain reforms have long-term consequences on the behaviour of individuals and how welfare systems are used. One example is the trend in sickness and activity compensation, where the number of people receiving compensation has strongly declined in recent years as a result of a number of reforms in sickness benefit and the introduction of the earned income tax credit. By not including scenarios featuring long-term dynamics, relevant and available information that deepens the analysis is excluded, which can lead to the assessment of sustainability becoming incomplete.

We cannot see into the future, so sustainability assessments will always be based on incomplete data. By taking the problems we have identified more seriously and trying harder to find relevant empirical data on which to base the scenarios, as well as the increased use of stock and flow approaches, the problems could be mitigated and the picture become less incomplete. In the light of the fact that the assessments have grown in importance as an instrument for providing concrete recommendations for regulatory changes of important welfare systems, it is becoming increasingly important that the assessments have empirical support and include long-term effects of already implemented reforms in a better way. The backgrounds to the emergence of the two problems mentioned above differ.

In the first case, the background is mainly the lack of empirical material to support a certain trend. For instance, there is good reason to believe that labour market exit will be delayed. Improved health among older people means that they can keep working longer, which is also linked to higher education levels of the labour force. In addition, as a result of the new pension system and the earned income tax credit, the financial incentives to work longer are strong. However, empirical support for a higher labour market exit age is weak. It is therefore very difficult to estimate by how

much labour market exit age may increase. The methods to calculate the consequences of an increased labour market exit age are available, but all estimates will be of an 'if-then' character and, as such, can be criticised for being speculative. This type of problem is fundamental and is unlikely to be remedied without research and studies that can show a causal connection in a convincing way. These problems can probably never be fully overcome. In this sense, long-term sustainability assessments will always be speculative to some extent. However, it is important that this is clearly expressed in the presentation of a particular scenario that is based on less substantiated assumptions.

In the second case, the problem is also linked to some extent to the lack of empirical evidence. However, here the lack of methodology is the biggest obstacle. Certain types of reforms have a rapid impact on behaviour and can be evaluated more or less immediately. Cases in which a change in behaviour can be substantiated can also be used in the long-term analyses. In other cases, the reforms or implemented policy will first have an impact in the very long-term. In the case of sickness and activity compensation, the problem is that the large group of people who today receive compensation will be phased out over a very long time, which means that the number of people receiving compensation can be expected to decrease slowly over time. Another example is that the population's level of education is expected to increase strongly over the course of time, which may affect sustainability. To a certain degree, today's sustainability calculations lack methods to handle such a problem or include the effects of such long-term changes. However, it is possible to develop such methods and remedy the problems. In this way, it is possible to reduce the risk that the sustainability assessments will be incomplete, while they can be more reliable at the same time.

### **The purpose of this study**

This report seeks to draw attention to and assess the problems, as well as highlight alternative methods in order to improve the quality of the assessments. With new approaches, the sustainability assessments will be further developed and improved, thus reducing the risk of incorrect policy recommendations.

We do this through three different case studies. The areas we have chosen to study are all of current interest in the debate on sustainability and have also been deliberately chosen because they are likely to strengthen public finances and thereby improve sustainability. The reason for this is that sustainability assessments naturally focus on possible future problems. The questions asked are often based on examining whether different welfare systems will also be financially stable in the future. Changes that may improve sustainability are sidelined or are not taken into account to the same extent. Our methodology and discussion are, however, general in nature and can also be applied in cases in which sustainability can be expected to deteriorate.

The case studies are:

1. Long-term effects of the changes to the sickness and activity compensation regulations.
2. The significance of level of education on employment in the long-term.
3. Long-term effects of improved health among older people.

The focus of this report is on the situation in Sweden, but our discussion also has significance for sustainability calculations in other countries. Since the methods for assessing public finance sustainability are similar, many of our conclusions can be transferred to other countries and organisations, such as the European Commission.

### **The long-term effects of changes to the sickness and activity compensation regulations**

During the last decade, the regulatory framework for sickness insurance has undergone a number of changes. Some of these changes have consequences for public finances in the very long term. This particularly applies to sickness and activity compensation. The inflow to this insurance system has declined substantially during the past decade. However, the outflow from the insurance system takes place only gradually and over many years, because compensation in most cases is paid out until the person transfers to an old-age pension. This means that the number of people receiving sickness and activity compensation can be expected to decrease slowly and over a long time to come.

In their assessments, the Ministry of Finance, the National Institute of Economic Research and the European Commission do not analyse how changes to sickness and activity compensation might affect sustainability. We show that if we take into account the expected reduction in the number of people receiving compensation under the insurance, Swedish public finance sustainability improves considerably. For example, general government primary net lending improves by up to almost one per cent of GDP in the long term. The calculations show that taxes can be reduced, or expenditure increased, by 0.8 per cent of GDP. The picture of Swedish public finance sustainability can therefore be nuanced by including analyses of the possible future trends in sickness and activity compensation and their consequences.

### **The long-term effects of higher education levels**

The Swedish population's level of education has increased over time. Younger generations hold significantly higher qualifications than older generations. At the same time, level of education correlates with both employment rate and when labour market exit takes place. In sustainability assessments, employment trends are not normally linked to future changes in education levels. One reason is that it is difficult to show empirically that there is a causal connection between higher education levels and higher employment levels. However, Klevmarken (2010) and the Swedish Pensions Agency (Olsson, 2011 and 2012) argue that the increase in labour market exit age in recent years is due in large part to increased education levels among the elderly. In the Danish DREAM model (DREAM 2011a), the future education levels of the population are used to model labour force behaviour. They believe that this gives a better picture of the labour market attachment of the future labour force, but also that it affects productivity, unemployment and competitiveness. Thus in their assessments of sustainability, future education levels have a significant impact. The education level of the population is therefore a very interesting aspect that can have a significant effect on public finance sustainability.

Our calculations show that the number of people in employment can be expected to increase significantly, particularly in the older age groups if future trends in education levels are taken

into account. We calculate that the effects of a more highly educated workforce can improve general government primary net lending by up to one per cent of GDP in the long term. However, this result depends on the assumption that there is a strong empirical causal link between education level and employment. The effects on sustainability are large, which indicates that there is reason to take a closer look at how higher education levels might affect employment and public finances.

The higher levels of education that are expected in the future are also likely to lead to an increase in the labour market exit age. The reason is that the employment rate among older people is rising. However, the employment rate for the group who are over 65 years is not expected to increase appreciably due to rising education levels. We confirm the picture painted by the Swedish Pensions Agency (Olsson, 2012) that the norm of taking retirement at 65 years is strong. The proportion of people who continue to work after 65 can still be expected to be relatively small in spite of higher education levels.

### **The long-term effects of improved health among older people**

Utilisation of both medical services and elderly care is highly correlated with individual health status. In the forecasts of Statistics Sweden, elderly people are expected live longer and longer. To a large extent, the reason for this is that elderly people in the future are expected to be in better health than elderly people today. At the same time, it is usually assumed in sustainability calculations that health among the elderly will remain unchanged over time in the sense that their need of both medical services and elderly care will be the same as it is today.

On the basis of historical trends, we show possible trends in the utilisation of elderly care if account is taken of the expected improvements in health. The results show that a sustainability assessment based on unchanged health is likely to overestimate cost trends. By taking into account this expected future change, sustainability is strengthened considerably. For example, primary net lending improves by up to two per cent of GDP in the very long term.

Since expenditures on care of the elderly are those most affected by coming demographic changes, this is an area in which the

analyses should be deepened. Our analyses show that uncertainty is significant and that results are very sensitive to alternative assumptions.

## Conclusions and recommendations

Our analysis and our calculations show the importance of including an assessment of the long-term consequences of reforms in welfare systems as well as economic changes over a longer period.

Expected effects of recently implemented or planned reforms should be included in the sustainability assessment as alternative scenarios only after conducting well-founded impact assessments of the proposed regulatory changes. However, the weight given to such a scenario in the overall assessment should be relatively low since there is often significant uncertainty regarding the longer-term impact of reforms.

A reform that has already had an impact, such as sickness and activity compensation, should be analysed in more detail based on the effects it has had, and is likely to have in the future. Also in such cases, the consequences for sustainability should be assessed using alternative scenarios. However, it is important that these scenarios are anchored in already measurable results of the regulatory changes.

A central question with regard to sustainability assessments is whether current trends should be extended into the future and other expected changes integrated in the calculations. Our assessment is that in normal cases this should not be done; rather all relevant trends and changes that can be expected to have a significant impact on the result should be handled within the framework of alternative scenarios. On the one hand, this is a prerequisite for being able to cover the whole range of reasonable outcomes, and on the other, it strengthens confidence in the assessment if relevant alternative trends are actually analysed. Otherwise, there is a risk that the assessment may be called into question. One way of doing this is to supplement the cross-section-based snapshot methodology as the basis of modelling unchanged behaviours with stock and flow approaches so that slow-acting dynamics can be captured in an adequate manner. Our analysis of sickness and activity compensation in this report is an example of how this methodology can and should be used.

Based on our results and discussion, we recommend the following:

1. To obtain a more complete assessment of the sustainability of Swedish public finances, expected future trends in sickness and activity compensation should be included. We have demonstrated a probable future trend that will affect future public expenditures significantly. An alternative scenario in line with that presented in this report should therefore be part of the overall assessment. To implement this, trends in the number of people receiving compensation under the insurance system should be monitored closely, particularly in the light of the fact that the inflow to the insurance system has increased in recent years and the number of people receiving sickness benefit has increased.
2. We have also shown that education levels in the future can be expected to increase strongly. If linked to labour market attachment, this may have significant long-term effects on employment. Therefore, we firstly recommend a more thorough analysis of the link between education levels and employment. Inspiration for this can be obtained from the Danish DREAM project, which takes into account future trends in education levels in its sustainability analyses. There may also be other effects of higher education levels, such as productivity growth, which should be taken into account. Our second recommendation is to eventually integrate education in the analyses of sustainability. One starting point is the method we have used here, another is the DREAM project model.
3. We have presented an alternative way to calculate the number of older people who may receive elderly care in the future. The results show that this number can be expected to be significantly lower in the future than that presented in both the Budget Bill for 2014 and the 2013 Spring Fiscal Policy Bill – with considerable public finance effects. Our discussion also demonstrates other problematic areas with regard to expenditures for elderly care, such as the costs of the measures and the health status of the elderly. In conclusion, future trends in expenditure on elderly care are very uncertain and the material on which to base a credible assessment is weak. We therefore recommend that the assumptions that affect future expenditure trends be conservative. In the cases in which

alternative scenarios are used, it should be made clear that the basis for the assessment is weak and that it should rather be seen as an 'if-then' analysis. As such, the scenario should therefore not have any greater weight in the overall assessment of sustainability. This not only applies to elderly care, but also to other cases in which the analyses are not based on actual empirical evidence. There are, for example, good grounds to argue that both labour market exit age and employment among the elderly will increase with time. However, this has not been realised in the form of people older than 65 working to any greater extent. Data and studies show that the norm of retiring at 65 is very strong in Sweden.