# Monetary Policy Report

July 2012

SVERIGES RIKSBANK

## Monetary Policy Report

The Riksbank's Monetary Policy Report is published three times per year. The report describes the deliberations made by the Riksbank when deciding what would be an appropriate monetary policy.[1] The report contains a description of the future prospects for inflation and economic activity based on the interest rate path that the Riksbank currently considers will provide a well-balanced monetary policy. Each report also contains a description of the new information received since the previous report and an assessment of how the Riksbank views the current economic situation.

The purpose of the Monetary Policy Report is to produce background material for monetary policy decisions, and to spread knowledge about the Riksbank's assessments. By publishing the reports, the Riksbank aims to make it easier for external parties to follow, understand and assess its monetary policy.

The Riksbank must submit a written report on monetary policy to the Riksdag (Swedish Parliament) Committee on Finance at least twice a year (see Chapter 6, Article 4 of the Sveriges Riksbank Act (1988:1385)). In the spring this takes the form of a report entitled "Material for assessing monetary policy". In the autumn it takes the form of the Monetary Policy Report.

The Executive Board decided to adopt the Monetary Policy Report at its meeting on 3 July 2012. The Report is available on the Riksbank's website, www.riksbank.se. From this address a printed version of the report can be ordered free of charge or the report can be downloaded as a PDF file.

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Further information on the Riksbank can be found at: www.riksbank.se

[1] See *Monetary policy in Sweden* on the following page for a review of monetary policy strategy and of what can be regarded as an appropriate monetary policy.

# Monetary Policy in Sweden

## MONETARY POLICY STRATEGY [2]

- According to the Sveriges Riksbank Act, the objective for monetary policy is to maintain price stability. The Riksbank has specified this as a target for inflation, according to which the annual change in the consumer price index (CPI) is to be 2 per cent.
- At the same time as monetary policy is aimed at attaining the inflation target, it is also to support the objectives of general economic policy with a view to achieving sustainable growth and high employment. This is achieved through the Riksbank, in addition to stabilising inflation around the inflation target, also striving to stabilise production and employment around long-term sustainable paths. The Riksbank therefore conducts what is generally referred to as flexible inflation targeting. This does not mean that the Riksbank neglects the fact that the inflation target is the overriding objective.
- It takes time before monetary policy has a full impact on inflation and the real economy. Monetary policy is therefore guided by forecasts for economic developments. The Riksbank publishes, among other things, its own assessment of the future path for the repo rate. The interest rate path is a forecast, not a promise.
- In connection with every monetary policy decision, the Executive Board makes an assessment of the repo-rate path needed for monetary policy to be well-balanced. A well-balanced monetary policy is normally a question of finding an appropriate balance between stabilising inflation around the inflation target and stabilising the real economy.
- There is no general answer to the question of how quickly the Riksbank aims to bring the inflation rate back to 2 per cent if it deviates from the target. A rapid return may in some situations have undesirable effects on production and employment, while a slow return may have a negative effect on confidence in the inflation target. The Riksbank's ambition has generally been to adjust the repo rate and the repo rate path so that inflation is expected to be fairly close to the target in two years' time.
- According to the Sveriges Riksbank Act, the Riksbank's tasks also include promoting a safe and efficient payment system. Risks linked to developments in the financial markets are taken into account in the repo rate decisions. With regard to preventing an imbalance in asset prices and indebtedness, the most important factors, however, are effective regulation and supervision. Monetary policy only acts as a complement to these.
- In some situations, as in the financial crisis 2008-2009, the repo rate and the repo rate path may need to be supplemented with other measures to promote financial stability and ensure that monetary policy is effective.
- The Riksbank endeavours to ensure that its communication is open, factual, comprehensible and up-to-date. This makes it easier for economic agents to make good economic decisions. It also makes it easier to evaluate monetary policy.

## DECISION-MAKING PROCESS

The Executive Board of the Riksbank usually holds six monetary policy meetings during a year, at which it makes decisions regarding the repo rate. In connection with three of these meetings, a Monetary Policy Report is published and in connection with the other three meetings, a Monetary Policy Update is published. Approximately two weeks after each monetary policy meeting the Riksbank publishes minutes from the meeting, in which it is possible to follow the discussion that led to the interest rate decision and to see the arguments made by the different Executive Board members.

## PRESENTATION OF THE INTEREST RATE DECISION

The interest rate decision is presented in a press release at 9.30 a.m. on the day following the monetary policy meeting. The press release also states how the individual members of the Executive Board voted and provides the main motivation for any reservations entered. A press conference is held on the day following the monetary policy meeting.

[2] A detailed description of the monetary policy strategy is given in the document *Monetary Policy in Sweden*. This document is available as a PDF file on the Riksbank's website www.riksbank.se.

# Contents

# Monetary policy considerations – a summary

## Repo rate unchanged at 1.50 per cent

**Following a bright start to the year, the unease in Europe is now casting a shadow over the Swedish economy. Despite the unease, the Swedish economy is still growing, albeit weakly. At the same time, inflation is low. The repo rate needs to remain low to support economic activity and ensure inflation is in line with the target of 2 per cent. The Executive Board of the Riksbank has therefore decided to hold the repo rate unchanged at 1.50 per cent and to revise the repo-rate path downwards somewhat.**

## Unease in Europe casts a shadow over the Swedish economy

The unease on the financial markets in Europe has increased and the economic downturn in the euro area is expected to be protracted. Several euro area countries are facing considerable challenges. The work on rectifying the problems is continuing but a lot of work remains before long-run sustainable solutions have been implemented. At the same time as GDP in southern Europe will fall in the coming period, however, many of Sweden's most important trading partners are expected to continue growing, albeit at a slow rate.

The Swedish economy has developed more strongly than expected so far this year. Household consumption and corporate investment increased relatively strongly at the beginning of the year, while unemployment has been lower than expected. The weak developments in the euro area subdue Swedish exports and the increased unease affects sentiment among households and companies. GDP growth is therefore expected to be weak for some time to come, and unemployment is expected to rise slightly.

Inflation is low at present, which is mainly due to cost pressures being low and the krona having strengthened after the financial crisis 2008-2009. As the unease in the euro area abates, it is expected that the economic activity in Sweden will strengthen, resource utilisation will increase and inflation will rise.

## Continued low repo rate stimulates the economy

The Executive Board of the Riksbank has decided to hold the repo rate unchanged at 1.50 per cent to support economic activity and ensure that inflation is in line with the target of 2 per cent. The repo rate is expected to remain at this low level for just over a year. Later on, when inflationary pressures increase, the repo rate will need to be gradually raised. This repo-rate path will contribute to stabilising inflation around 2 per cent and resource utilisation in the economy around a normal level. Compared with the decision in April, the repo-rate path has been adjusted downwards somewhat as a result of the poorer outlook abroad.

## Economic developments are uncertain

There is considerable uncertainty concerning economic developments. The situation in the euro area is problematic and could worsen, which could have further negative effects on the Swedish economy. In this situation, the repo rate may need to be lower. However, it is also possible that confidence in economic developments could return sooner than expected, which could lead to higher demand in the Swedish economy. This would justify a higher repo-rate path.

# ■ CHAPTER 1 – The economic outlook and inflation prospects

**The Swedish economy grew at a good rate during the early part of this year. Groth prospects have detoriated, however, partly because unease on the financial markets over the debt crisis in the euro area has increased once again. This poses major challenges to the euro area and leads to a high degree of uncertainty regarding the future course of development. The Riksbank assumes that the problems can be managed so that a more severe financial crisis can be avoided. The assessment is that GDP will continue to grow in the euro countries that are most important to Swedish exports, although at a slower rate than normal. The US economy is expected to grow at a normal rate in the period ahead, while the emerging economies will contribute to hold up growth in the global economy.**

**The development of the Swedish economy in the early part of the year was stronger than expected. However, weak demand for Swedish exports is expected to dampen growth in the period ahead. The confidence of the Swedish households and companies is affected by the increased financial unease. Nevertheless, demand is expected to continue to grow and the assessment is that the labour market will develop relatively well. The Riksbank's assessment is that inflation will continue to be low in the period immediately ahead. As the unease in the euro area abates, it is expected that the state of the Swedish economy will strengthen and that inflation will rise.**

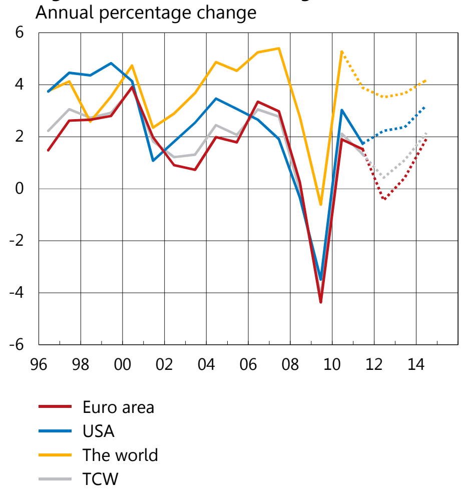
**Monetary policy needs to be expansionary to support economic activity and to bring inflation in line with the target. The Executive Board of the Riksbank has therefore decided to hold the repo rate unchanged at 1.50 per cent. The repo rate is expected to remain at approximately this level for just over a year. Compared with the monetary policy decision in April, the repo-rate path has been adjusted downwards somewhat as a result of the poorer outlook abroad. All in all, monetary policy will contribute to CPIF inflation stabilising around 2 per cent and resource utilisation stabilising around a normal level in the latter part of the forecast period.**

## Unease in Europe casting a shadow over the Swedish economy

### ■ Developments in southern Europe have led to increased unease

Unease on the financial markets increased once again in the late spring, with the spotlight on developments in Greece and Spain. Spain continues to struggle with public finance problems at the same time as problems in the Spanish banking sector have become more acute. In June, the Eurogroup promised to provide loans of up to EUR 100 billion, and the Spanish government has applied for support to increase the capital adequacy of the country's banks. Following the parliamentary elections in Greece in May, the political parties that negotiated the support package from the EU and the IMF were not able to form a sustainable government coalition and this has led to speculation about a Greek exit from the EMU. Despite the fact that the parties behind the support package have now formed a government following the new election on 17 June, uncertainty about their ability to implement adequate reform measures remains. New measures to help the debt-ridden countries were adopted at the European Council meeting on 28 June. It remains to be seen what

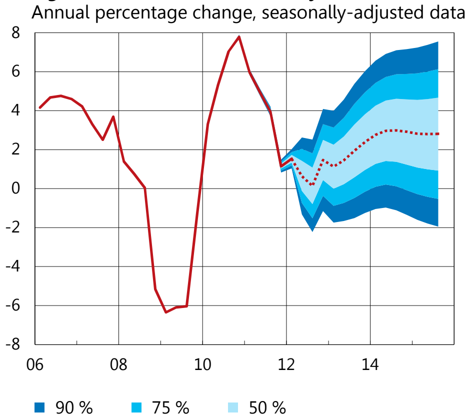
**Figure 1:1. GDP in different regions**
Annual percentage change




Note. TCW refers to a weighting of Sweden's most important trading partners.

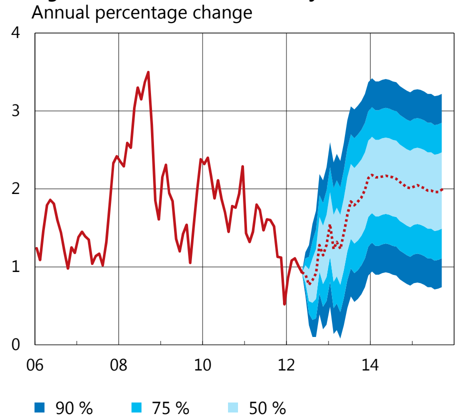
Sources: Bureau of Economic Analysis, Eurostat and the Riksbank

**Figure 1:2. GDP with uncertainty bands**
Annual percentage change, seasonally-adjusted data



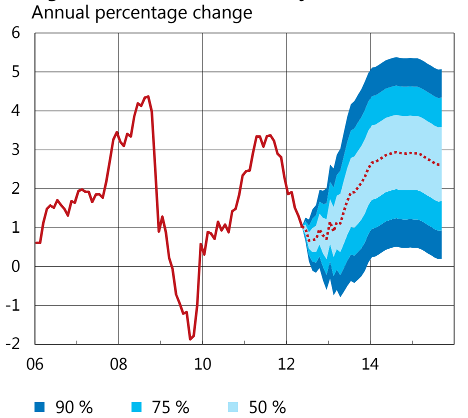

Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. There is also uncertainty for the outcomes for GDP, as the figures in the National Accounts are revised several years after the preliminary publication.
Sources: Statistics Sweden and the Riksbank

**Figure 1:3. CPIF with uncertainty bands**
Annual percentage change




Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Figure 1:4. CPI with uncertainty bands**
Annual percentage change




Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.
Sources: Statistics Sweden and the Riksbank

the impact of these measures will be (see the article "The debt crisis in Europe – developments during the spring).

The global economy is expected to grow by an average of 3.8 per cent during the forecast period (see Figure 1:1), which is in line with the historical average. However, the growth of TCW-weighted GDP, which is a measure of global GDP on the basis of Swedish trade patterns, will fall from 1.3 per cent in 2011 to 0.4 per cent this year. This is mainly due to the weak development in the euro area, which is a large component of TCW-weighted GDP. There are major differences between the euro countries. At present, the acute problems are limited to a handful of countries. However, the effects of the renewed unease will be evident throughout the euro area and economic development is therefore expected to be weaker than was assumed in the Monetary Policy Update published in April. On the other hand, there is continued growth in important trading partners nearby Sweden, although at a slower rate than normal.

Although the risk of much weaker development in the euro area has increased, the Riksbank assumes that the debt crisis in southern Europe, which comprises both weak public finances and problems in the banking sector, will be managed so that the acute phase will gradually fade and sustainable solutions will eventually be implemented. There are still major challenges, however, and further measures will be required from governments and central banks. Compared to the assumptions made in the Monetary Policy Update in April, the assessment now is that the unease and uncertainty regarding developments in the euro area will remain for a longer period and not begin to fade before 2013.

## ■ Developments in the euro area are dampening growth in Sweden

The Swedish economy grew at a relatively good rate during the early part of this year. However, the Riksbank's assessment is that the effects of the renewed unease during the spring will dampen growth in the period ahead (see Figure 1:2). This is partly due to weak demand abroad and partly due to the fact that the renewed financial unease is expected to weaken the confidence of the Swedish households and companies. However, the Riksbank also believes that the consequences for the Swedish economy will be mitigated by factors such as good competitiveness, sound public finances and resilient banks.

Despite the increased uncertainty about the economic outlook since the summer of 2011, including the recent renewed unease, the Swedish labour market has performed better than expected. However, weak growth in the period immediately ahead is expected to mean that employment will remain largely unchanged this year and then begin to increase again during the course of 2013.

Inflation in the Swedish economy is low at present. The strengthening of the Swedish krona after the financial crisis of 2008-2009 has helped to dampen inflation. In addition, resource utilisation has been lower than normal and a low rate of increase in labour costs has also helped to keep down inflation (see Figures 1:3 and 1:4). Inflation will rise again during the course of 2013, in part because growth will pick up and resource utilisation will be higher.

### ■ Continued low repo rate will stimulate the economy

With low inflation and lower resource utilisation than normal, monetary policy will need to continue to be expansionary.[3] The Executive Board of the Riksbank has therefore decided to hold the repo rate unchanged at 1.50 per cent and expects the repo rate to remain at this low level for just over a year. Compared with the monetary policy decision in April, the repo-rate path has been adjusted downwards somewhat against the background of the poorer outlook abroad. When inflationary pressures increase, the repo rate will need to be gradually raised (see Figure 1:5). This repo-rate path will contribute to stabilising inflation around 2 per cent and resource utilisation in the economy at a normal level.

A precondition for this assessment is that the European debt crisis is managed so that the acute phase of the crisis gradually fades and sustainable and credible solutions are eventually implemented. If the financial unease were to dramatically escalate and spread, then monetary policy in Sweden would have to face an entirely different situation and probably have to become more expansionary.

## Risks in the euro area dampening economic activity abroad

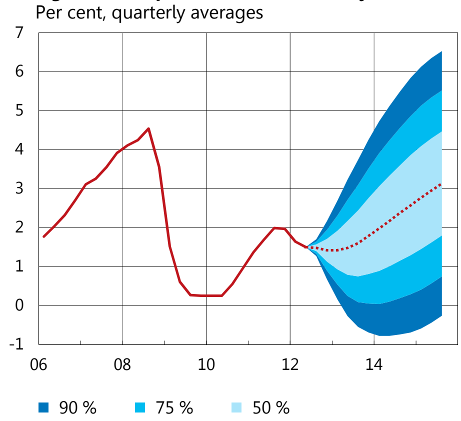
### ■ Increased unease on the financial markets

Concern about the situation regarding public finances and the problems in the banking sector in the euro area is continuing to affect the financial markets. The three-year loans that the European Central Bank (ECB) offered at the turn of the year to banks with operations in the euro area helped to reduce unease on the financial markets somewhat in early 2012. Government bond rates in, for example, Italy and Spain also fell, as banks in these countries partly used the loans to fund purchases of government bonds. However, despite these loans and other measures, uncertainty about developments in several euro countries increased during the spring. This is reflected, for example, by the increases in government bond rates in Spain and Italy (see Figure 1:6).

The increased unease is due in part to the fact that developments in Greece have once again fuelled speculation that Greece may exit the EMU. The parties that negotiated the support package did not receive the backing of the electorate in the parliamentary elections in May. Despite the fact that the parties behind the support package have now formed a government following the new election on 17 June, uncertainty about their ability to implement adequate reform measures remains. At the same time, Spain continues to wrestle with problems in the banking sector and its public finances. At the beginning of June, the Eurogroup announced that it had promised loans of up to EUR 100 billion in order to increase capital adequacy in the Spanish banks, and Spain has formally

[3] Expansionary monetary policy refers here to the repo rate being low in relation to an historical average.

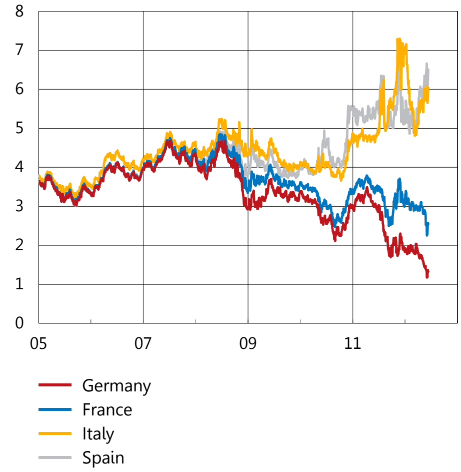
**Figure 1:5. Repo rate with uncertainty bands**
Per cent, quarterly averages




Note. The uncertainty bands for the repo rate are based on the ability of risk-adjusted market rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007. The uncertainty bands do not take into account the fact that there may be a lower bound for the repo rate.

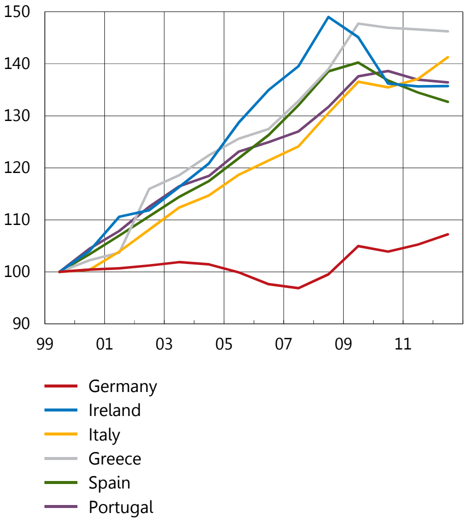
Source: The Riksbank

**Figure 1:6. Government bond rates with 10 years left to maturity**
Per cent



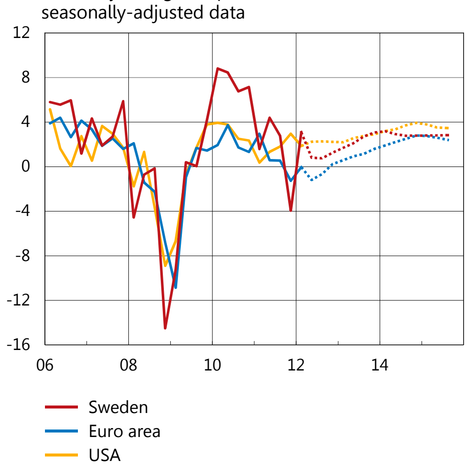

Source: Reuters EcoWin

**Figure 1:7. Unit labour cost**
Index, 1999 = 100




Source: OECD

**Figure 1:8. GDP in Sweden, the euro area and the USA**
Quarterly changes in per cent, annual rate, seasonally-adjusted data




Sources: Bureau of Economic Analysis, Eurostat, Statistics Sweden and the Riksbank

applied for support. The increased concern over the situation in Spain has also put further focus on Italy. Concern among investors is primarily based on uncertainty about the ability to implement the necessary measures to manage Italy's large national debt.

To stabilise the situation in the euro area, the European Council reached agreement at the end of June on a number of different measures related to how the EFSF and ESM crisis mechanisms can be used. For example, it is possible to draw on these funds to recapitalise the banking system directly, without burdening the national debt of the country concerned. In this way, it is hoped that the link between the banks' and the country's credit ratings can be broken. The initial market reaction has been positive, but uncertainty over the implementation and certain details, such as the crisis mechanisms having insufficient capacity, mean that that it is as yet too early to say anything about the effect of the agreements (see the article "The euro crisis – developments during the spring" in this Report).

Coming to terms with underlying structural weaknesses such as large public debts, problems in the banking sector and weak competitiveness will take time.[4] Financial unease is expected to remain until a credible strategy for the long-term management of these problems is in place. Compared to the assumptions made in the Monetary Policy Update in April, the assessment now is that the unease and uncertainty regarding developments in the euro area will remain for a longer period and not begin to fade before 2013.

The financial markets are highly integrated, which means that financial conditions in Sweden are also affected by the unease abroad. The impact is limited, however, due to the relatively strong state of the Swedish economy and Sweden's sound public finances. The Riksbank's assessment is that the major Swedish banks are well capitalised in an international perspective and that they will be able to cope with a much weaker development of the economy than in the forecast.[5]

## ■ Prolonged downturn in the euro area

The development of the real economy in the euro area continues to be marked by the debt crisis and the prospects for growth have weakened compared to the Riksbank's forecast in April. This is because the renewed unease during the spring is expected to lead to a tighter credit situation and lower confidence on the part of the households and companies, which will dampen investment and consumption. In 2012-2013, fiscal policy in the euro area is expected to be marked by the consolidation measures needed to redress the debt situation in several countries. Alongside the acute measures required to resolve liquidity problems and restore confidence on the part of the financial markets and the public, a continued strong focus on implementing long-term solutions will also be required. For example, many countries in the euro area need to improve their competitiveness (see Figure 1:7) in order to create the potential for sustainable growth. An ongoing adjustment of cost pressures to more

[4] See the article "The EMU and the debt crisis" in the Monetary Policy Report of February 2012.
[5] See Financial Stability Report 2012:1.

competitive levels is an important component of these long-term solutions.

The overall assessment is that growth in the euro area will be slightly negative in 2012 and slightly positive in 2013. Thereafter growth will gradually increase (see Figure 1:8). Development is thus expected to be weaker than forecast in the Monetary Policy Update in April.

There are major differences between the euro countries with regard to economic development. At the same time as GDP in southern Europe is expected to fall in 2012, many of Sweden's most important trading partners continue to grow, although growth is weak. Germany has a strong labour market development and a rate of wage increase that is above the historical average. This may help to support demand in the euro area to a certain extent and thus partly compensate for the weak demand in southern Europe.

In relation to the weak state of the economy, inflation in the euro area is expected to be high in the period immediately ahead. This is partly because import prices increase when the euro weakens (see Figure 1:9). Increases in administrative prices and VAT rates, as well as the German wage agreements to some extent, will also contribute to higher inflation. On the other hand, falling energy prices will have a dampening effect on inflation in the period ahead.

There will continue to be ample spare capacity in the euro area as a whole and it is expected that underlying inflationary pressures will be low over the next few years. Monetary policy is therefore expected to remain highly expansionary throughout the forecast period. The large amount of liquidity that the European Central Bank has provided to the European banking system is expected to continue to keep short-term interest rates close to the ECB's deposit rate, which is currently 0.25 per cent.

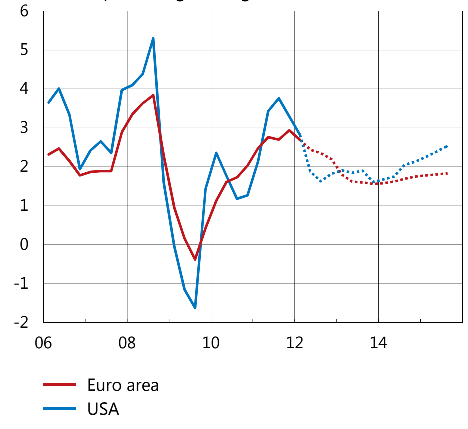
## ■ Recovery continues in the United States

In the United States, the recovery following the financial crisis of 2008-2009 is continuing and unemployment has fallen, although from a high level. Growth is expected to be moderate in the period immediately ahead. The forecast assumes that a long-term budget consolidation process will begin in 2013. However, there is a lot of uncertainty about the course of fiscal policy, which largely depends on the results of the presidential and congressional elections in the autumn. The Riksbank's assessment is that the problems in the euro area will have some impact on growth in the United States, but only to a limited extent.

Despite budget consolidation, growth in the US economy is expected to gradually increase in the course of 2013-2014. A gradually stronger development of the US labour and housing markets (see Figures 1:10 and 1:11) is expected to lead to rising incomes, increased confidence and thus higher growth in household consumption. Corporate profits are also high at present, which creates scope for increases in investment and employment going forward.

The assessment is that unemployment is still higher than the long-run sustainable rate, and resource utilisation is still low (see Figure 1:10).

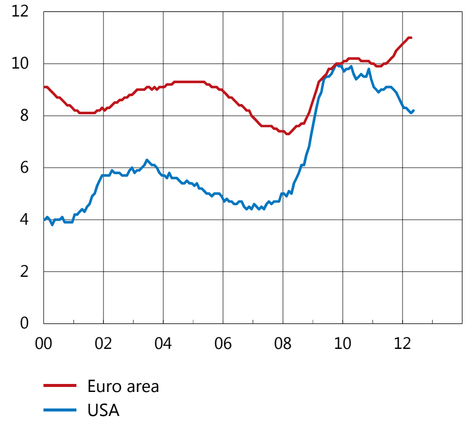
**Figure 1:9. Inflation in the euro area and the USA**
Annual percentage change




Note: This refers to HICP for the euro area and CPI for the United States.

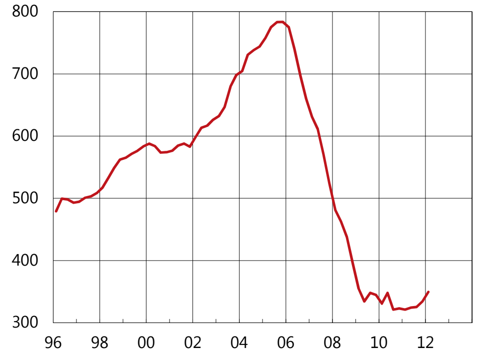
Sources: Bureau of Labor Statistics and Eurostat

**Figure 1:10. Unemployment in the euro area and the USA**
Per cent of the labour force



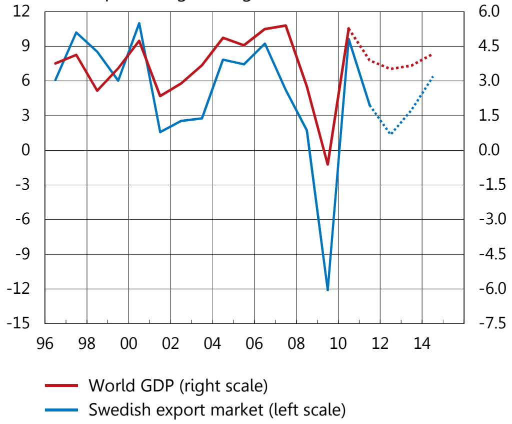

Sources: National Sources and the Riksbank

**Figure 1:11. Housing investments in the USA**
Billion USD




Source: Bureau of Economic Analysis

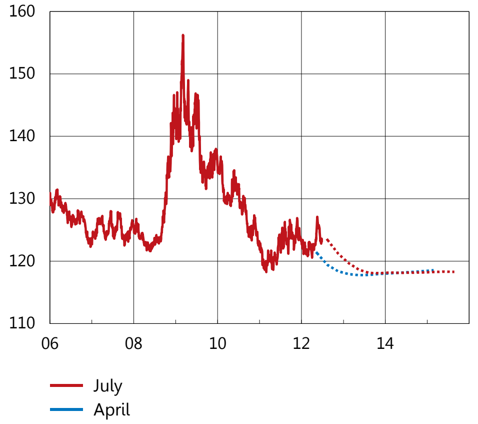
**Figure 1:12. World GDP and the world market for Swedish exports**
Annual percentage change




Note. The export market aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating the imports of the 15 countries receiving the most Swedish exports.

Sources: IMF and the Riksbank

**Figure 1:13. TCW-weighted nominal exchange rate**
Index, 18 November 1992 = 100




Note. Outcome data are daily rates and forecasts are quarterly averages. TCW refers to a weighting of Sweden's most important trading partners.

Source: The Riksbank

Together with the low inflationary pressures, this means that the Federal Reserve is expected to retain low policy rates for a long time.

## ■ Mixed outlook on other important export markets

Growth of 3.7 per cent is expected in Norway this year. This strong growth is due to major oil investments and to a high level of activity in oil-related sectors and in the construction sector. A significant increase in real wages, large oil investments and an expansionary monetary policy are expected to contribute to a GDP growth rate of around 3 per cent in the years ahead. Inflation in Norway is low and is expected to rise only slowly towards the inflation target of 2.5 per cent.

Growth in the United Kingdom is expected to be close to zero this year, which has led the British government and central bank to announce new measures aimed at stimulating demand. Growth will gradually strengthen during the forecast period as uncertainty about the situation in Europe fades, real wages begin to increase and fiscal policy becomes less tight. At present, inflation is higher than the target of 2 per cent, but is expected to fall during the year as a result of subdued domestic cost pressures, lower energy prices and a stronger pound. Inflation is expected to be close to the inflation target for the major part of the forecast period.

Growth in Denmark is expected to be weak this year, which is partly due to the continuing weak development of the labour and housing markets. Rising global demand, reduced uncertainty about developments in Europe and improved competitiveness are expected to lead to gradually higher growth in the years ahead. On the other hand, growth will be restrained from 2013 and onwards by a tighter fiscal policy. Inflation is expected to decrease due to lower energy prices and falling unit labour costs, and to stabilise at around 2 per cent from the beginning of next year.

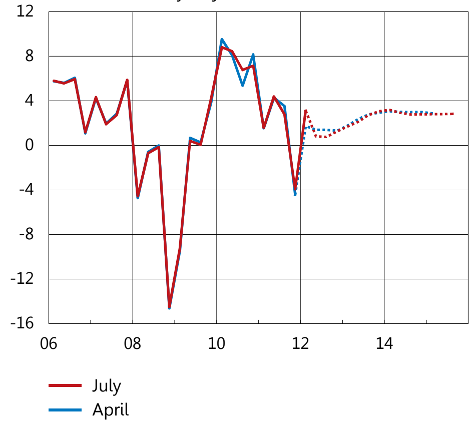
## ■ Emerging economies supporting global growth

Despite the weak development in the euro area, the Riksbank's assessment is that global growth will average 3.8 per cent during the forecast period, which is in line with an historical average (see Figure 1:12). One of the factors behind this assessment is that the emerging economies, above all in Asia and Latin America, are continuing to experience rather rapid growth. However, some dampening in demand is expected in the emerging economies in the period ahead. In China, for example, the property market has continued to slow down, although there are some signs of stabilisation. In combination with weaker demand from Europe, this is expected to lead to weaker GDP growth in China in the period ahead than in 2010-2011. Nevertheless, growth is expected to exceed 8 per cent per year in the years immediately ahead.

### ■ The krona will strengthen when the financial unease fades

The unease that has marked the financial markets has led to major fluctuations on the foreign-exchange markets and the krona has weakened since the monetary policy meeting in April (see Figure 1:13). It is not unusual for the krona to weaken in periods of financial unease. When the financial unease fades, it is expected that Sweden's relatively good economic growth and sound public finances will lead to a gradual strengthening of the krona again.

**Figure 1:14. GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data




Sources: Statistics Sweden and the Riksbank

## Ongoing Swedish growth despite increased unease

### ■ Swedish growth surprisingly positive in the early part of the year

The rate of growth in the Swedish economy was higher than expected in the first quarter of this year. This is partly because stronger domestic demand compensated for the weak demand from abroad. However, the Riksbank's assessment is that the rate of Swedish growth will be low in the months ahead. This is mainly because the weak growth in the euro area will reduce the demand for Swedish exports. Concern about a worsening public-finance crisis in several countries in Europe is also expected to affect the confidence of the Swedish households and companies, which will dampen the growth of consumption and investment.

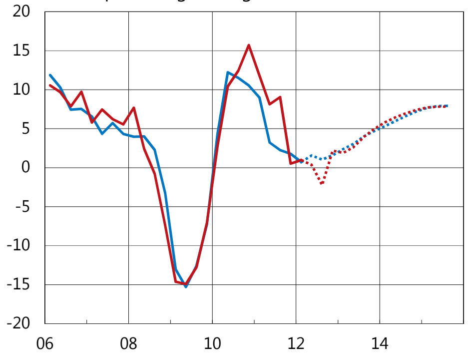
However, the development of the emerging economies will underpin growth in the global economy as a whole. There are also domestic factors that support the Swedish economy. These include, for example, the fact that the Swedish labour market has developed relatively well, that Sweden's public finances are strong and that the Swedish banks are relatively well capitalised. All of these factors help to maintain confidence in the Swedish economy on the part of companies, households and the financial markets. All in all, the Swedish economy is therefore expected to continue to grow in the period ahead, although at a slower rate than normal.

Growth is expected to be 0.6 per cent this year, which is slightly higher than forecast in the April Monetary Policy Update. This upward revision is due to the unexpectedly strong GDP outcome for the first quarter of 2012, which affects the figure for 2012 as a whole. Quarterly growth for the next six months has, on the other hand, been revised downwards, partly as a result of the weaker development in the euro area (see Figure 1:14). The figure for GDP growth in 2013 has also been revised downwards slightly to 1.7 per cent. The forecast for GDP growth in 2014 is unchanged at 2.8 per cent. All in all, the revisions in the GDP forecast are limited.

### ■ Weak European demand for Swedish exports

Over two-thirds of Swedish exports go to Europe. The weak development of the European economy will thus contribute to a reduction in the

**Figure 1:15. Swedish exports and the world market for Swedish exports**
Annual percentage change

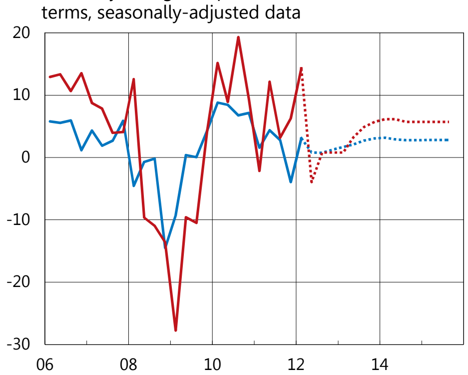



Swedish exports
Swedish export market

Note. The export market aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating the imports of the 15 countries receiving the most Swedish exports.

Sources: Statistics Sweden and the Riksbank

**Figure 1:16. Gross fixed capital formation and GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data




Gross fixed capital formation
GDP

Sources: Statistics Sweden and the Riksbank

overall growth of the Swedish export market from 3.9 per cent in 2011 to 1.4 per cent in 2012. Indicators such as orders to the Swedish export industry also suggest that development will be weak in the coming period. Swedish exports are expected to fall by 0.3 per cent in 2012, which can be compared to an increase of 6.9 per cent in 2011 (see Figure 1:15). This sharp slowdown is partly due to the composition of Swedish exports. The demand for engineering goods such as machines and lorries, which lifted exports of Swedish goods last year, is expected to be weaker now that economic activity is declining abroad.

Growth in Sweden's export markets is expected to gradually increase as the concern about a worsening crisis fades. The assessment is that this will contribute to an export growth of 3.4 per cent in 2013 and 6.5 per cent in 2014. Compared with the Monetary Policy Update in April, the figures for export growth have been revised downwards for the entire forecast period.

## ■ Investment growing despite declining demand

Total fixed gross investment has continued to increase at a good rate since summer 2011, despite declining economic prospects. This is partly because companies still have a need to recoup the fall in investment that took place in the financial crisis 2008-2009 (see Figure 1:16).

It is primarily investments in the service sector that have driven the development of investment recently, while investments in the cyclically-sensitive manufacturing industry have been weak. The investment ratio, that is investment as a percentage of production, thus continues to be much lower than normal in the manufacturing industry. This indicates that there is an underlying need for investment in the manufacturing industry.

Housing investment has fallen in recent quarters and is expected to continue to fall in the near future, and then gradually pick up as the economic prospects for the economy as a whole stabilise.

All in all, total investment volumes are expected to be roughly unchanged at the current levels until some time next year. Investment is expected to grow at a faster rate in 2013 (see Figure 1:16). This gives a growth rate of 4.7 per cent in 2012, 1.5 per cent in 2013 and 5.5 per cent in 2014.

Companies were reducing inventories at the beginning of 2012, after a period when inventories had been built up following the financial crisis. As the economic situation is uncertain, the companies are not expected to build up inventories in the period immediately ahead. This will entail a negative contribution from inventories in 2012. In the slightly longer term, inventories are expected to grow in line with demand, which entails small positive contributions from inventories in 2013 and 2014.

## ■ Cautious Swedish households

Household consumption will rise during the forecast period, but the rate of increase is expected to be lower than normal in the period ahead. This is mainly because the unease over the debt crisis in the euro area is expected to remain for a while.

Employment will remain more or less unchanged in the year ahead, a factor that will hold back improvements in the households' disposable incomes, and thus consumption. Price falls on the stock market and weaker growth in the housing market have also led to a decline in household wealth. This, together with uncertain economic prospects, is expected to make the households more cautious, which normally means that they consume less and save more. The households saving ratio is already at a relatively high level, however, and is thus not expected to increase further (see Figure 1:17).

All in all, this means that household consumption is expected to increase by around 1.5 per cent in both 2012 and 2013. As the economic situation improves, employment is expected to increase and household wealth to stabilise. Households' disposable incomes will thus increase at the same time as saving will decline. This in turn entails higher growth in consumption. At the end of the forecast period, consumption is expected to increase by almost 2.5 per cent.

Over the past year, growth in household indebtedness has continued to decline, which is due among other things to a weaker development of housing prices, higher mortgage rates and the introduction of loan ceilings. Household debt is expected to increase at a moderate rate in the coming period. Debt as percentage of the households' disposable incomes is thus expected to remain at just over 170 per cent in the years ahead (see Figure 1:18).

## ■ Public finance surplus

The Riksbank's fiscal policy forecasts are based on what can be regarded as a normal historical development in fiscal policy over an economic cycle. It is also assumed that the target for public finances, a surplus of 1 per cent of GDP on average over an economic cycle, is achieved in the long term.[6]

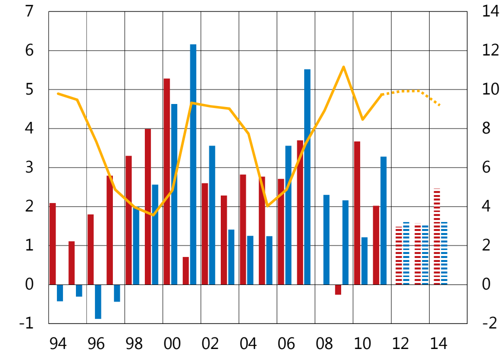
The weakening in economic activity is expected to contribute to saving excluding interest expenditure falling in 2012, before increasing again as demand and employment begin to rise. At the same time, the low and falling national debt in combination with low government rates mean that the government's interest expenditure as a percentage of GDP will be low during the forecast period.

All in all, this means that public net lending is expected to remain roughly unchanged as a percentage of GDP over the next two years and then to strengthen in 2014. This entails small surpluses that amount to 0.1 and 0.2 per cent of GDP respectively in 2012 and 2013 and a surplus of 1 per cent of GDP in 2014.

The government is therefore expected to propose expenditure and income changes corresponding to a total of SEK 30 billion for the years 2013 and 2014. This assumption is the same as in the April Monetary Policy Update.

[6] See the article "Fiscal policy: assumptions and forecasts" in Monetary Policy Report 2008:3.

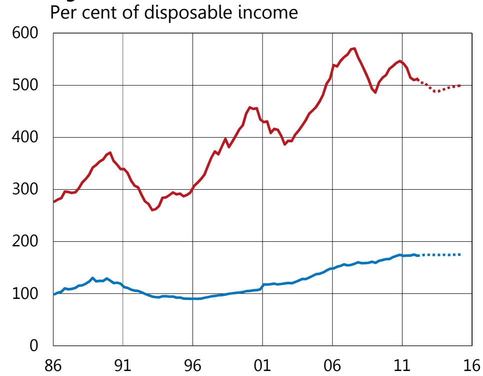
**Figure 1:17. Households' disposable incomes, consumption and saving ratio**
Annual percentage change and per cent of disposable income




Note. Saving ratio including saving in collective insurance schemes.

Sources: Statistics Sweden and the Riksbank

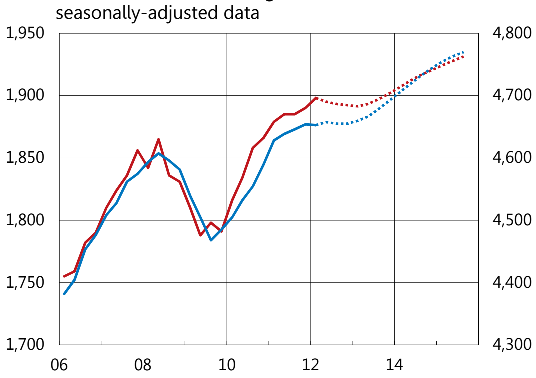
**Figure 1:18. Households' wealth and debt**
Per cent of disposable income




Note. There is no regular publication of official data on household total wealth. The series refers to the Riksbank's estimate of households' financial assets and property assets. Q1 2012 is largely outcomes, while with effect from Q2 2012 the data is based on the Riksbank's assessments.

Sources: Statistics Sweden and the Riksbank

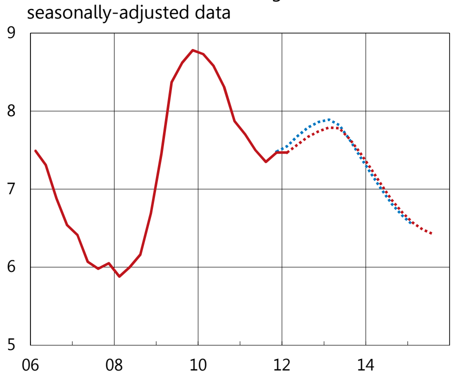
**Figure 1:19. Number of hours worked and employed**
Millions and thousands, aged 15-74, seasonally-adjusted data




Number of hours worked (left scale)
Number of employed (right scale)

Sources: Statistics Sweden and the Riksbank

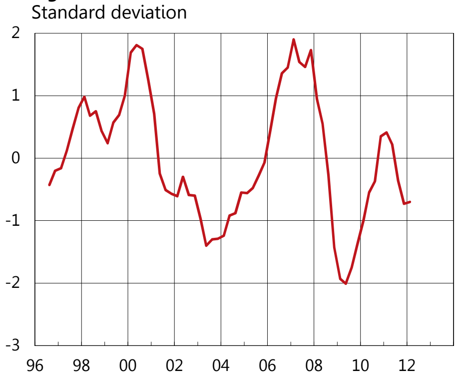
**Figure 1:20. Unemployment**
Per cent of the labour force, aged 15-74, seasonally-adjusted data




July
April

Sources: Statistics Sweden and the Riksbank

**Figure 1:21. RU indicator**
Standard deviation




Note. The RU indicator is normalised so that the mean value is 0 and the standard deviation is 1.
Source: The Riksbank

## ■ The Swedish labour market has been stronger than expected

The Swedish labour marked has performed better than expected in the April Monetary Policy Update. Unemployment and employment remained largely unchanged in the first quarter. However, unemployment is still higher than it was before the financial crisis.

The National Institute of Economic Research's business tendency survey indicates that companies' recruitment plans have been reduced for the period ahead, which is normal given that demand is expected to be weaker. However, the Riksbank's assessment is that there will be no substantial weakening of the labour market. This is supported by both the Riksbank's own company interviews and by other labour market indicators. The number of new vacancies is, for example, still high, although it is no longer increasing. Nor is there any clear upturn in redundancy notices.

Weaker growth in the period ahead will entail a slight reduction in the number of hours worked, a lower employment rate and a higher unemployment rate in 2012 (see Figures 1:19 and 1:20). Employment is expected to remain largely unchanged this year and unemployment is expected to reach at most 7.8 per cent during the first half of 2013. During the course of 2013, employment will increase at a faster rate and towards the end of the forecast horizon unemployment will fall gradually to just above 6 per cent.

Compared with the forecast in the Monetary Policy Update in April, the figures for the labour force, employment and the number of hours worked have all been stronger than expected. The labour force and employment rates are now expected to be higher in the longer run. This is mainly due to a new forecast for population growth from Statistics Sweden. According to this forecast, the number of people of working age is expected to be much larger than previously assumed in the period ahead, which will contribute to higher levels of employment and a larger labour force.

## ■ Monetary policy helping to increase resource utilisation

There is no generally-accepted view of how resource utilisation should be calculated. The Riksbank therefore uses a number of different indicators and statistical methods to assess resource utilisation and how it will develop over the next few years.

Capacity utilisation in manufacturing industry is now relatively normal and in line with the historical average. The shortage of labour has fallen clearly in most branches, except in the manufacturing industry (see Figure 3:27). The Riksbank's indicator of resource utilisation, which with the aid of a statistical method summarises the information from surveys and labour market data, points to resource utilisation remaining below a normal level in the first quarter of this year at roughly the same level as during the fourth quarter of last year (see Figure 1:21). Various measures of resource utilisation in the labour market, such as unemployment, the employment rate and the hours worked gap, all indicate that there is spare capacity in the economy.

The Riksbank's overall assessment is that resource utilisation will be lower than normal in 2012 and 2013. However, keeping the repo rate low will contribute to a more rapid rise in GDP and hours worked during the course of 2013. This in turn means that resource utilisation will normalise and that most gaps, which show the difference between actual and sustainable levels, will close in the later part of the forecast period (see Figure 1:22).

## ■ Higher cost pressures in the Swedish economy

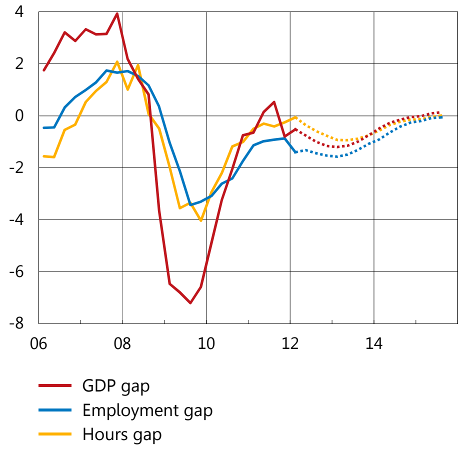
The wage agreements signed in the manufacturing industry in December last year established a wage norm for the rest of the labour market. Wage increases corresponding to 2.6 per cent per year were awarded. Most of the wage agreements signed since then closely follow this norm. The agreements apply for periods of 12 to 14 months. By the end of June, approximately 400 agreements had been signed, covering approximately two million employees. Almost 200 additional agreements remain to be negotiated during the autumn of 2012. These cover around 500 000 employees. At the end of 2012, new wage bargaining rounds will begin, which will proceed throughout 2013.

The assessment of a majority of the companies in the Riksbank's company interviews, which were conducted in May this year, is that wage costs will rise at an unchanged or slightly higher rate 12 months ahead. The Prospera survey in June this year shows that the employee and employer organisations expect the rate of wage increases to be around 3 per cent both one and two years ahead, which is largely unchanged compared to the previous survey.

According to the short-term wage statistics, wages are expected to increase more quickly during 2013 and 2014 than this year (see Figure 1:23). Short-term wage are expected to increase by on average around 3.2 per cent a year, which is slightly less than the historical average.

The assessment is that cost pressures in the Swedish economy will increase this year but then fall back during 2013 and 2014 (see Figure 1:24). Lower growth in labour productivity, which is normal in a situation with weaker economic activity, means that unit labour costs will increase more quickly this year than last year. At the end of the forecast period the rate of growth in unit labour costs will be in line with the historical average.

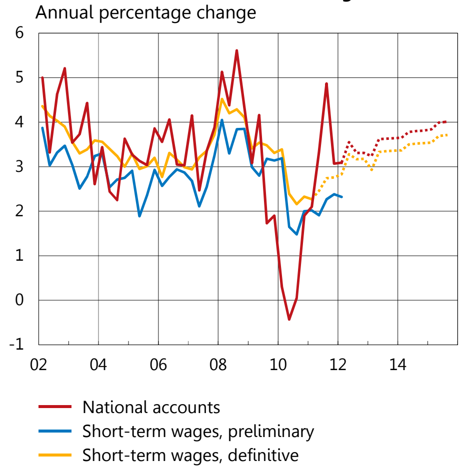
**Figure 1:22. GDP-gap and the labour market gap**
Per cent




Note. GDP gap refers to the deviation from trend in GDP calculated with a production function. The hours gap refers to the deviation in the number of hours worked from the Riksbank's assumed trend for the numbers of hours worked.

Sources: Statistics Sweden and the Riksbank

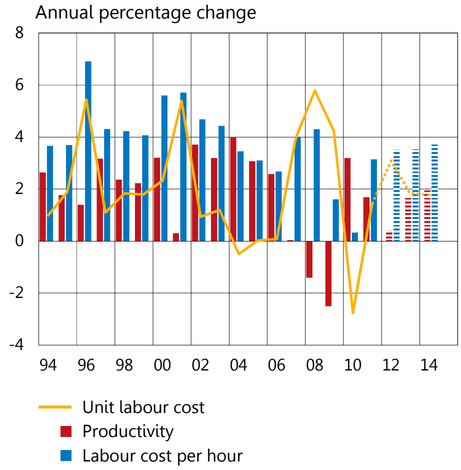
**Figure 1:23. Wages according to the National Accounts and to the short-term wage statistics**
Annual percentage change




Note. The short-term wage statistics for the last 12 months are preliminary and are usually revised upwards. The dashed yellow line in the figure show the Riksbank's assessment of the final outcome according to the statistics.

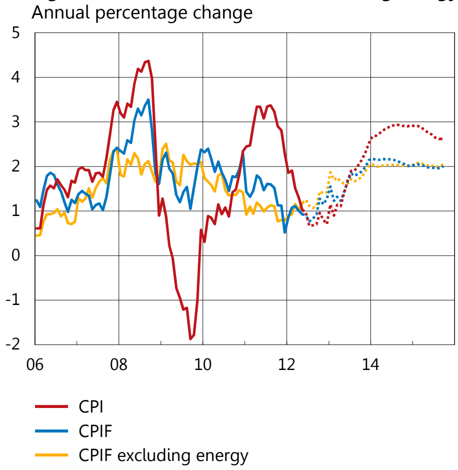
Sources: National Mediation Office, Statistics Sweden and the Riksbank

**Figure 1:24. Cost pressures in the economy as a whole**
Annual percentage change



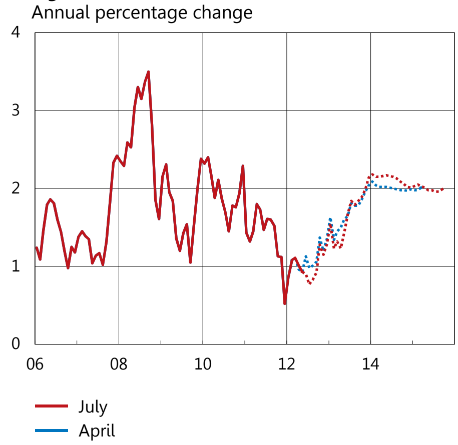

Sources: Statistics Sweden and the Riksbank

**Figure 1:25. CPI, CPIF and CPIF excluding energy**
Annual percentage change




Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Figure 1:26. CPIF**
Annual percentage change




Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

## ■ Low but gradually increasing inflation

Inflation is low at present. In May, the annual rate of increase in the CPI was 1.0 per cent. The corresponding rate of increase in the CPIF, that is the CPI with a fixed mortgage rate, was a tenth lower. The low resource utilisation, the prolonged effects of the stronger exchange rate following the financial crisis of 2008-2009 and the low rate of increase in unit labour costs in recent years have helped to hold back CPIF inflation. CPIF inflation is expected to remain around 1 per cent for most of this year (see Figure 1:25). CPI inflation is expected to fall further, partly as a result of the Riksbank's earlier repo-rate cuts, and to reach a low point of 0.7 per cent at the end of 2012.

During the course of 2013, CPIF inflation will then rise gradually to around 2 per cent towards the end of the year, partly because resource utilisation will increase and the rate of wage increases will rise. The Riksbank's repo-rate increases from mid-2013 mean that CPI inflation will rise more quickly to just below 3 per cent in 2014.

The figure for the CPIF excluding energy has been revised upwards in the short term compared to the Monetary Policy Update in April due to a weaker krona and higher unit labour costs in the period ahead. However, energy prices are expected to increase more slowly than was assumed in April, which means that CPIF inflation excluding energy has been revised downwards for this year and some way into the next year. Energy prices are expected to increase more rapidly in 2014 than previously assessed and the figure for CPIF inflation has therefore been revised upwards (see Figure 1:26). As a result of the direct effect of a lower repo-rate path on the interest rate component of the CPI, the forecast for CPI inflation has been revised downwards more than that for CPIF inflation.

## Monetary policy considerations

### ■ Continued low repo rate will stimulate the economy

The Swedish economy continues to grow despite increased unease abroad. In the early part of this year, GDP growth and the development of the labour market were stronger than expected. However, the Riksbank's assessment is that the effects of the renewed unease in the euro area will lead to somewhat weaker growth in Sweden and an unchanged employment rate in the remaining part of 2012. As the unease in the euro area fades in 2013, growth will pick up, resource utilisation will increase and inflation will rise from its current low level.

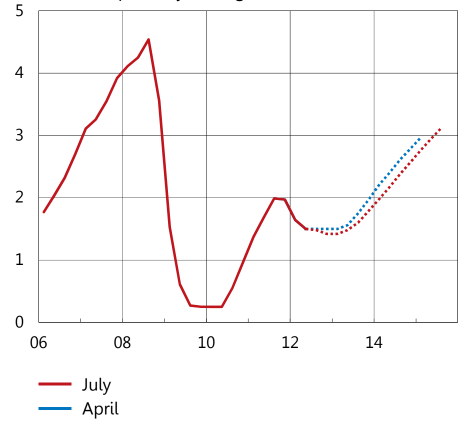
A central issue for the monetary policy decision has been how the unexpectedly strong development of the Swedish economy should be seen in relation to the increased concern about weaker development in the euro area. The Executive Board of the Riksbank has decided to leave the repo rate unchanged at 1.50 per cent and to adjust the repo-rate path downwards somewhat against the background of the poorer economic outlook abroad (see Figure 1:27). In order for inflation to rise towards the target and resource utilisation towards a normal level, the repo rate needs to remain at the current low level for just over a year. As a result of the low repo rate, the real repo rate is expected to be negative in 2012-2013 (see Figure 1:28). Later on, when inflationary pressures increase, the repo rate will need to be gradually raised and the real repo rate will be positive.

The downward adjustment of the repo-rate path means that the likelihood that the repo rate will be cut in the autumn of 2012 is now somewhat higher than the likelihood that it will be raised. At the same time as it is expected that the repo rate will be raised somewhat more slowly from mid-2013 compared to the assessment in April.

### ■ Economic developments are uncertain

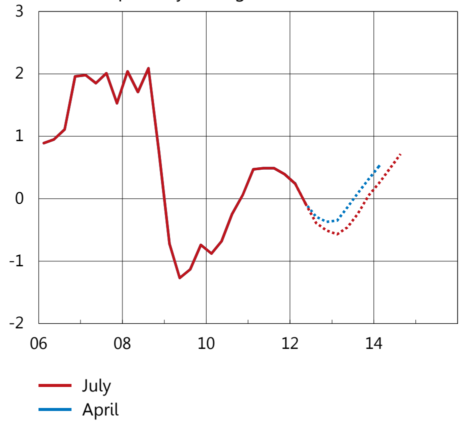
There is considerable uncertainty regarding economic developments abroad at present. The situation in the euro area is problematic and the public finance problems may worsen and have further negative effects on the Swedish economy. This could justify a lower repo rate in Sweden. On the other hand, confidence in the development of the economy could also return sooner than expected, which could lead to higher demand in the Swedish economy and justify a higher repo-rate path. Two such scenarios are discussed in more detail in Chapter 2.

**Figure 1:27. Repo rate**
Per cent, quarterly averages




Source: The Riksbank

**Figure 1:28. Real repo rate**
Per cent, quarterly averages




Note. The real repo rate is calculated as an average of the Riksbank's repo rate forecasts for the coming year minus the inflation forecast (CPIF) for the corresponding period.
Source: The Riksbank

# CHAPTER 2 – Alternative scenarios and risks

**The financial markets are marked by an increasing concern over how the debt crisis in Europe will be managed. If the debt crisis worsens further, loan losses in European banks could increase and the opportunities for obtaining funding on the financial markets could deteriorate. Confidence in economic developments in the euro area would then deteriorate substantially. Monetary policy would then need to be more expansionary than in the main scenario to counteract the negative effects on inflation and resource utilisation in Sweden.**

**A credible and rapid management of the acute debt problems, combined with long-term measures could on the other hand cause the financial unease to abate more quickly than in the main scenario. This could lead to a rapid increase in consumer confidence in Sweden and to companies beginning to invest and recruit at a faster rate. It would mean that the repo rate needed to be raised more quickly than in the main scenario.**

It is assessed in the main scenario that the unease regarding the debt crisis in Europe will persist for a long time. Credit conditions on the financial markets in the euro area will be tightened further and fiscal policy will be very restrained. Households are pessimistic about the future and confidence in economic developments is low. However, long-run sustainable solutions will gradually be implemented and the financial unease will subside during 2013.

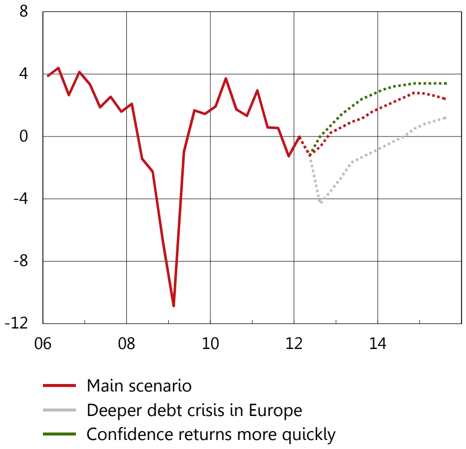
However, the development of the economy in the period ahead is uncertain. There are a number of circumstances that could lead to a different course of economic development and thus justify a different direction for monetary policy than the one described in the main scenario. This Chapter presents two alternative scenarios for economic developments abroad that differ from the main scenario. The aim of the scenarios is to highlight the uncertainty prevailing and the risks that are regarded as being particularly important at present.[7]

The first alternative scenario illustrates the effects of a deeper debt crisis in Europe. Credible solutions to the acute debt crisis take time, and confidence in economic developments in the euro area deteriorates substantially. This leads to the banks suffering increased losses, at the same time as their possibilities to obtain funding on the financial markets declines. This in turn leads to increased risk premiums, further credit crunches and greater strain on the government finances. The financial unease also spreads to some extent to countries outside of the euro area and economic activity abroad weakens considerably. This results in both inflation and resource utilisation in Sweden being lower than in the main scenario. The repo rate is therefore cut to limit the negative effects on inflation and resource utilisation. However, this scenario does not mean that the financial unease escalates and spreads in the same dramatic way as after the Lehman Brothers bankruptcy in autumn 2008.

If, on the other hand, credible measures to resolve the acute debt crisis are put in place sooner than expected, the financial unease can be resolved more quickly than in the main scenario. The second alternative scenario illustrates the effects of this type of development. If this occurs,

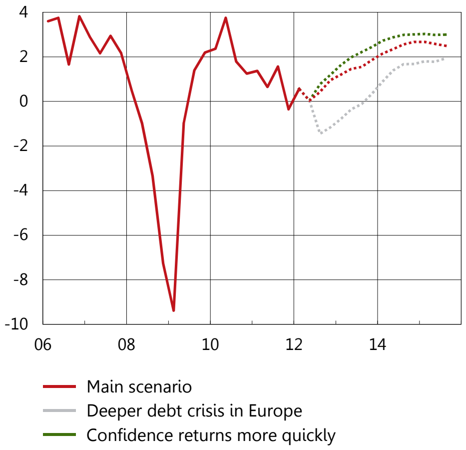
[7] The scenarios in this chapter are based on the Riksbank's general equilibrium model, Ramses. For a description of the model see Christiano, L., Trabandt M. and Walentin, K. (2007), "Introducing financial frictions and unemployment into a small open economy model", Working Paper no. 214, Sveriges Riksbank.

**Figure 2:1. GDP in the euro area**
Quarterly changes in per cent calculated in annualised terms



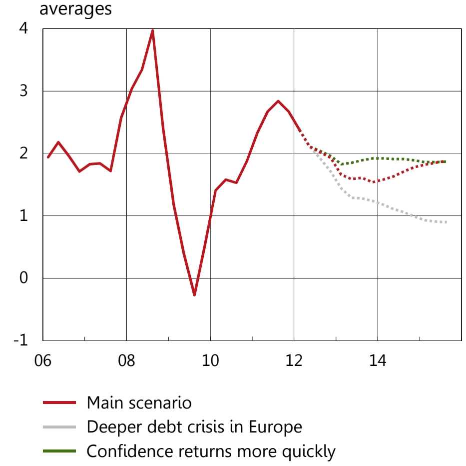

Sources: National sources and the Riksbank

**Figure 2:2. GDP abroad**
TCW-weighed, quarterly changes in per cent calculated in annualised terms




Note. TCW refers to a weighting of Sweden's most important trading partners.
Sources: National sources and the Riksbank

**Figure 2:3. Inflation abroad**
TCW-weighted, annual percentage change, quarterly averages




Note. TCW refers to a weighting of Sweden's most important trading partners.
Sources: National sources and the Riksbank

consumer confidence may return more quickly in Sweden and companies will begin to invest and recruit at a faster pace. Resource utilization and inflation will then be higher than in the main scenario and the need for more expansionary monetary policy will be smaller. The repo-rate path will therefore be higher than in the main scenario.

In conclusion, this chapter shows two illustrative examples of how alternative repo-rate paths affect inflation and resource utilisation. In the first example, the repo rate is raised slightly more than in the main scenario; while the reverse applies in the second example. The purpose is to capture the direction in which inflation and resource utilisation might be affected by a slightly more and slightly less expansionary monetary policy respectively. The illustrative examples comprise part of the material used as a basis for the monetary policy decision which as a whole aims to illustrate what comprises a well-balanced monetary policy.

## Alternative scenario: Deeper debt crisis in Europe

Several countries in the euro area still have problems with their public finances. Greece, Ireland and Portugal have received extensive loans from the EU and the IMF to manage their public finance deficits. The situation in Spain and Italy is also problematic. Spain, for instance, has applied for an extensive loan to support its banking sector. This also has an effect on the financial markets, where there is still concern over the debt crisis.

The main scenario assumes that the most acute public finance problems are resolved in an orderly manner and that long-run sustainable solutions are gradually put in place, but that unease on the financial markets will not subside until 2013. It is assumed in the first alternative scenario that the public finance problems and the unease on the financial markets will be deeper and more prolonged than in the main scenario. Concerns will increase that banks with direct exposures to the countries with problems will suffer substantial loan losses.

A similar scenario with sovereign debt problems in the euro area was presented in the Monetary Policy Report published in October 2011. This scenario is partly different. Confidence in economic developments is poorer and the credit crunch is tighter. The fiscal policy tightening in the euro area is also greater.

The public finance problems, together with the problems in the banking sector, mean that GDP growth in the euro area falls to around -4 per cent at the end of 2012 (see Figure 2:1). But as the rest of the world is not affected to the same extent, the fall in average GDP abroad (weighted according to TCW weights) is slightly less (see Figure 2:2). Inflation abroad falls, primarily because of low inflation in the euro area, which remains lower than the ECB's target throughout the forecast period (see Figure 2:3). Policy rates are already very low in both the euro area and the United States, which means that the scope for further interest rate cuts is limited (see Figure 2:4).

## ■ Demand from abroad for Swedish goods declines and exports fall

The deeper debt crisis in Europe mainly affects Swedish exports in two ways. Firstly, the downswing in demand from abroad leads to a decline in Swedish exports. Secondly, exports are affected by developments in the exchange rate.

There are reasons why the exchange rate should strengthen when growth abroad deteriorates and interest rates fall. However, historical experiences show that the Swedish krona usually weakens in times of financial unease. This is partly because the market then demands an additional risk premium for investing in Swedish assets. This was the case, for instance, during the financial crisis in 2008-2009.

In accordance with past experience, the krona is assumed to weaken more than in the main scenario (see the blue line in Figure 2:5). This means that Swedish goods become relatively cheaper than foreign goods, which in itself has a positive effect on net exports. The downswing in demand from abroad is thus counteracted by a weaker krona. However, this scenario is dominated by the effect from demand and export falling (see the blue line in Figure 2:6).

Exchange rate forecasts are always very uncertain and particularly when there is unease on the financial markets. It is therefore important to also look at the effects of alternative scenarios on the exchange rate. This was done in the Monetary Policy Report in February 2012, which showed how different paths for the exchange rate and assumptions for events abroad can affect inflation and resource utilisation in Sweden. For instance, it was shown how a weaker krona dampens the effects of weaker developments abroad, while a stronger krona reinforces these effects.

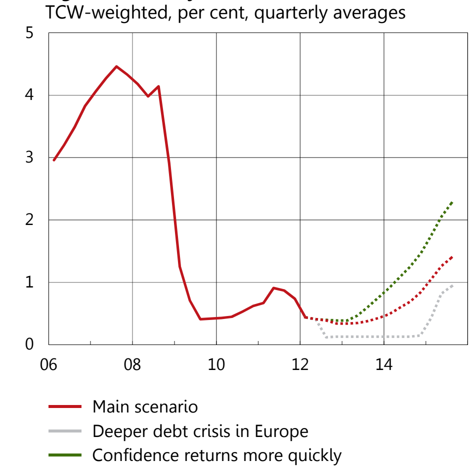
## ■ Consumption and demand also declining

One effect of the deeper debt crisis is that the functioning of the financial markets deteriorates. This means that risk premiums increase and market rates rise, and that the banks become more restrictive in granting credit to both companies and households. This makes it more difficult and more expensive for companies to obtain funding from the banks, which leads to a decline in investment (see the blue line in Figure 2:7).

Household consumption also becomes weaker than in the main scenario (see the blue line in Figure 2:8). The high market rates mean that it becomes more expensive to borrow and that interest payments on existing loans rise. This results in the scope for consumption declining. The poorer developments abroad mean the consumer confidence also falls, which further dampens consumption.

All in all, the deeper sovereign debt crisis in the euro area means that demand falls, that is, consumption, investment and exports are lower than in the main scenario. The rate of growth in GDP will be around three percentage points lower during 2013 than in the main scenario (see the blue line in Figure 2:9). Lower demand means that resource utilisation measured in terms of the GDP gap, the hours gap and unemployment

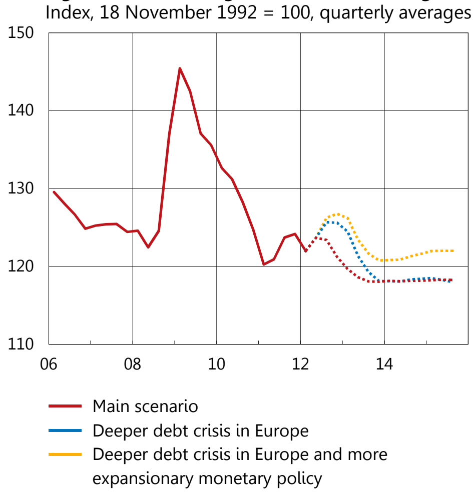
**Figure 2:4. Policy rate abroad**
TCW-weighted, per cent, quarterly averages




Note. TCW refers to a weighting of Sweden's most important trading partners.

Sources: National sources and the Riksbank

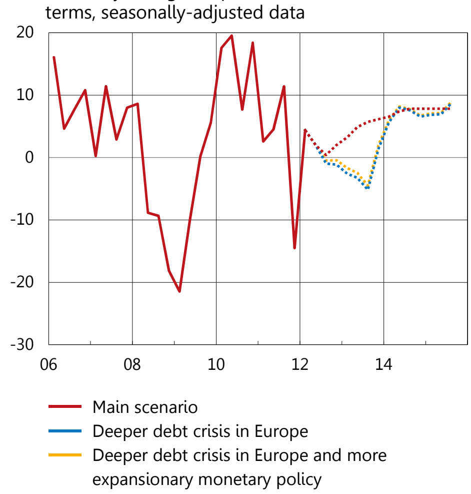
**Figure 2:5. TCW-weighted nominal exchange rate**
Index, 18 November 1992 = 100, quarterly averages




Note. TCW refers to a weighting of Sweden's most important trading partners.

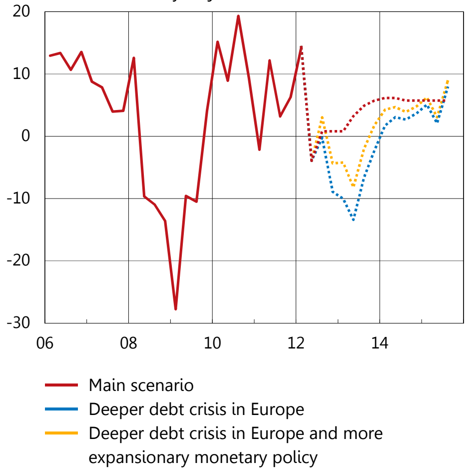
Source: The Riksbank

**Figure 2:6. Export**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



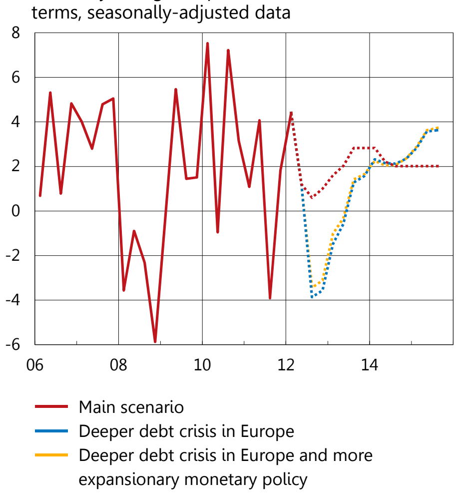

Sources: Statistics Sweden and the Riksbank

**Figure 2:7. Gross fixed capital formation**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



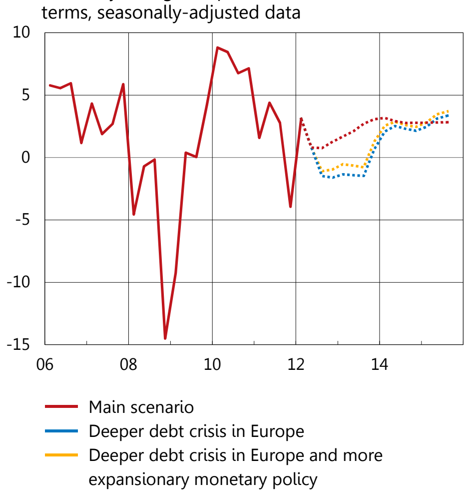

Sources: Statistics Sweden and the Riksbank

**Figure 2:8. Household consumption**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data




Sources: Statistics Sweden and the Riksbank

**Figure 2:9. GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data




Sources: Statistics Sweden and the Riksbank

deteriorates (see the blue line in Figure 2:10 which shows how the hours gap, that is, the difference between the actual number of hours worked and the long-run level, develops).

## ■ Lower resource utilisation and inflation motivate more expansionary monetary policy

When resource utilisation falls, companies' demand for labour declines, whereby wages rise at a slower pace. This reduces companies' costs. Companies' costs also decline as a result of inflation abroad falling. Imported intermediate goods become cheaper, even though this is partly counteracted by the krona weakening. All in all, companies' costs decline and they therefore raise their prices at a more modest pace. CPIF inflation thus becomes lower than in the main scenario (see the blue line in Figure 2:11). Lower inflationary pressures together with lower resource utilisation justify a lower repo rate (see the blue line in Figure 2:12).

## ■ Monetary policy deliberations

In normal times monetary policy can be described relatively well with a simple policy rule that takes into account deviations in inflation from the target of 2 per cent and deviations in resource utilisation from a normal level. But there may sometimes be reason to also explicitly take other factors into account particularly in the event of major shocks. One example was the financial crisis in 2008-2009, when risks linked to the financial system and financial stability were also considered when making large cuts in the repo rate.

The blue lines in Figures 2:5-2:12 show the effects on the Swedish economy of a deeper debt crisis in Europe, under the assumption that the Riksbank follows the simple policy rule that only takes into account the deviation in inflation from the target of 2 per cent and the deviation in resource utilisation from a normal level. With this type of policy rule, CPIF inflation falls below 1 per cent at the end of the forecast period and resource utilisation measured as the hours gap is almost -3 per cent. A more expansionary monetary policy would better stabilise inflation around the target, while resource utilisation improves (see the yellow lines in Figures 2:10 and 2:11). By conducting a more expansionary monetary policy, the negative effects on the Swedish economy can be limited to some extent.

However, it is not self-evident what type of monetary policy should be conducted in such a scenario. On the one hand, the Swedish banks' funding may become more expensive, which could lead to higher mortgage rates despite the poorer economic activity. This, together with rising unemployment could lead to a fall in housing prices. Then the real economic effects are reinforced in a way that is not captured in the scenario. This would call for a more expansionary monetary policy.

On the other hand, housing prices and indebtedness may remain at a high level if the banks do not suffer funding problems. Large interest rate cuts could then contribute to the build-up of debt continuing in a way that is ultimately untenable, and which could have severe consequences for resource utilisation when the imbalances are later corrected. Such effects are not captured in the scenario either, but may need to be considered when monetary policy decisions are made, to attain a suitable balance between attaining the inflation target and stabilising resource utilisation.

The extent to which monetary policy should take into account the build-up of debt also depends on which measures are taken by other authorities. If macroprudential policy, that is the oversight of risks in the financial system as a whole, does not function well, monetary policy may need to give greater consideration to factors such as household indebtedness to ensure that financial stability is not jeopardised.

## Alternative scenario: Confidence returns more quickly

The problems linked to the debt crisis in Europe may also be less extensive than has been assumed in the main scenario. If the political leaders in the euro area present a credible plan for managing the debt crisis, confidence may return more quickly. Continued fiscal policy and structural reforms are important components of such a plan, as is a continued adjustment of wages to more competitive levels. With this type of development the financial unease could abate more quickly and the economic downturn could come to an end.

Increased confidence and less strict credit granting means that GDP growth in the euro area becomes positive in the second half of 2012 in this scenario. Inflation is higher than in the main scenario. However, there is still considerable spare capacity, which means that inflation will subside during the forecast period and be just under 2 per cent.

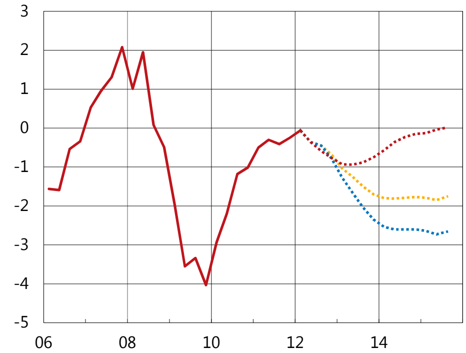
The positive developments in the euro area mean that production abroad rises faster than in the main scenario (see Figure 2:2). Inflation abroad becomes higher than in the main scenario, but does not rise above 2 per cent (see Figure 2:3). The higher path for inflation and a higher resource utilisation mean that the increases in policy rates abroad begin earlier than is the case in the main scenario (see Figure 2:4).

- **Increased confidence in the euro area justifies a higher path for the repo rate**

The effects on the Swedish economy in this scenario are the reverse of those in the previous scenario. The higher GDP growth abroad results in increasing demand for Swedish export goods. The demand for consumer and investment goods also increases, driven by increased optimism regarding the future and more liberal credit granting. This means that GDP growth becomes higher (see the blue line in Figure 2:13).

The Swedish economy is currently marked by good competitiveness, sound public finances and resilient banks. This means that there are

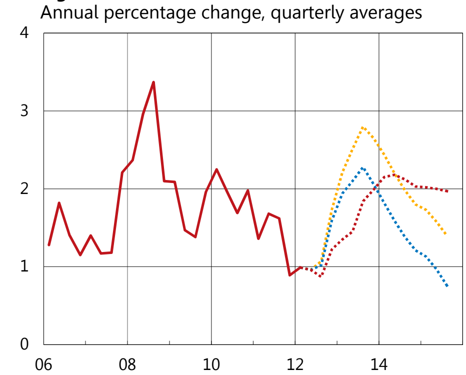
**Figure 2:10. Hours gap**
Per cent




Main scenario
Deeper debt crisis in Europe
Deeper debt crisis in Europe and more expansionary monetary policy

Sources: Statistics Sweden and the Riksbank

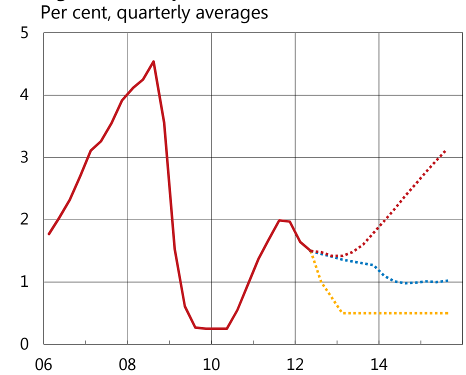
**Figure 2:11. CPIF**
Annual percentage change, quarterly averages




Main scenario
Deeper debt crisis in Europe
Deeper debt crisis in Europe and more expansionary monetary policy

Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

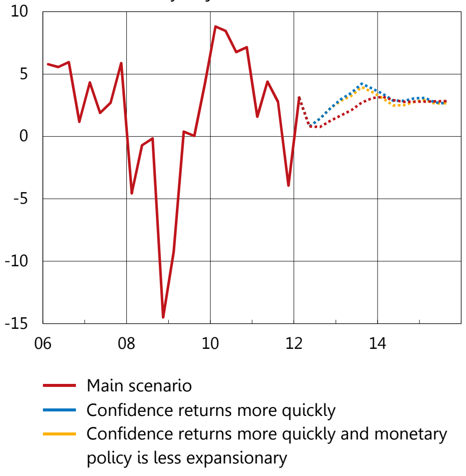
**Figure 2:12. Repo rate**
Per cent, quarterly averages




Main scenario
Deeper debt crisis in Europe
Deeper debt crisis in Europe and more expansionary monetary policy

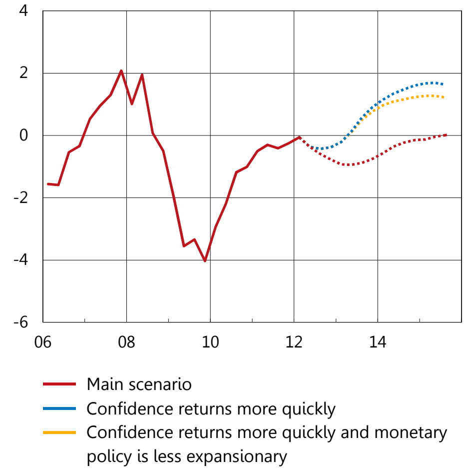
Source: The Riksbank

**Figure 2:13. GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



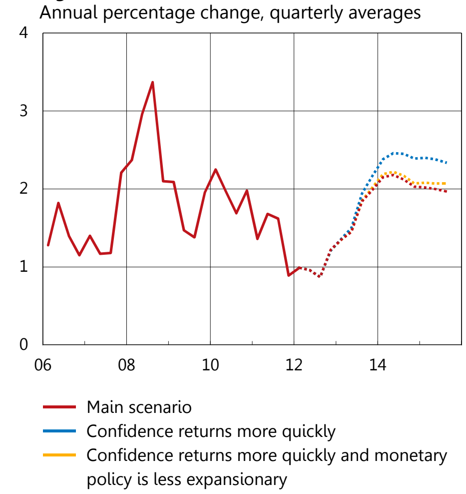

Sources: Statistics Sweden and the Riksbank

**Figure 2:14. Hours gap**
Per cent




Sources: Statistics Sweden and the Riksbank

**Figure 2:15. CPIF**
Annual percentage change, quarterly averages




Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

good conditions for a rapid recovery if confidence in the euro area returns and optimism increases. The Riksbank's company surveys in May 2012 also show that there is a pent-up demand, but that it is hampered by the uncertain situation currently prevailing. In other words, the conditions are right for a rapid recovery if the unease among consumers and customers subsides. The effect on GDP growth will therefore be somewhat greater in Sweden than abroad.

When aggregate demand increases, the labour market improves and employment increases. This means that wage demands increase at a faster pace than in the main scenario. The faster developments in wages and the higher employment give households the scope to further increase their consumption. The improvement in the labour market also means that resource utilisation increases (see the blue line in Figure 2:14).

The exchange rate strengthens somewhat in this scenario, which tends to hold back inflationary pressures. However, inflation nevertheless is higher, partly because higher wages push up companies' costs (see the blue line in Figure 2:15).

The increased inflationary pressures and higher resource utilisation lead to the repo rate being raised (see the blue line in Figure 2:16). The increase in the repo rate is slightly greater than the increase in inflation. This means that the real interest rate is also higher than in the main scenario.

When the Riksbank follows the simple policy rule, CPIF inflation rises above 2 per cent and resource utilisation becomes relatively high (see the blue lines in Figures 2:14 and 2:15). This could motivate a higher path for the repo rate, that is, faster increases in the repo rate (see the yellow line in Figure 2:16). CPIF inflation will then come closer to 2 per cent at the end of the forecast period and resource utilisation will develop in a more stable manner (see the yellow lines in Figures 2:14 and 2:15).

## Alternative paths for the repo rate

This section illustrates how inflation and some different measures of resource utilisation may develop if the Riksbank were to follow another path for the repo rate than that in the main scenario. Two alternative illustrative examples for the repo rate are shown. In the first one, the repo rate is set at a level 0.25 percentage points higher than in the main scenario for four quarters. The other example shows what the effects would be if the repo rate were instead set 0.25 percentage points lower than the repo rate path in the main scenario for four quarters (see Figure 2:17). The purpose is to capture the direction in which inflation and resource utilisation might be affected by a slightly less expansionary monetary policy. The example comprises part of the material on which the monetary policy decision is based, which as a whole aims to illustrate what comprises a well-balanced monetary policy.

## ■ The effects on inflation and resource utilisation of a higher or lower repo-rate path

An increase in the repo rate means that interest rates in the economy in general rise, which makes it more attractive for households to save and more expensive for companies to finance their investments. This means that consumption and investment slow down. A higher interest rate also leads to the krona strengthening, which means that foreign goods become relatively cheaper than goods produced in Sweden. This dampens exports. The lower demand leads to lower resource utilization and a poorer development of the labour market, with lower employment and higher unemployment.

A lower resource utilisation tends to reduce companies' demand for labour and wages thus rise at a more modest rate. The stronger krona also entails lower prices on imported goods. Companies may therefore slowdown their rate of price increase and CPIF inflation will be lower than in the main scenario. The effects on CPI inflation will be somewhat less initially, as the households' interest costs increase when the repo rate is raised. A higher interest rate means on the whole that resource utilisation develops more weakly than in the main scenario and inflation becomes lower.

With a lower interest rate the effects are the opposite. Households increase their consumption, companies increase their investment and the exchange rate weakens, which leads to more exports. Consequently, both resource utilisation and inflation become higher than in the main scenario. The effects on CPI inflation are initially slightly less than on CPIF inflation, as interest costs are lower.

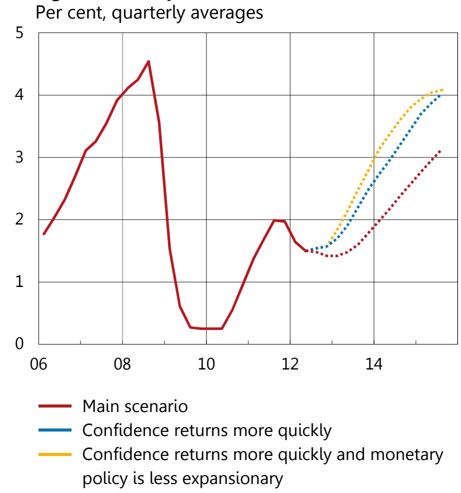
Figures 2:18-2:21 summarise how inflation and resource utilisation (measured in terms of the hours gap and unemployment) are affected by the different repo-rate paths. The lower path means that both CPI and CPIF inflation reach the target level of 2 per cent more quickly than in the main scenario. But CPIF inflation overshoots the target, particularly in 2014. The higher path means that CPIF inflation reaches 2 per cent more slowly than in the main scenario, but on the other hand it does not overshoot the target; it levels off at around 2 per cent.

The Riksbank's overall assessment, as illustrated in the main scenario, is that resource utilisation will normalise during the latter part of the forecast period in the main scenario. With a lower repo-rate path, resource utilisation will be higher during the forecast period and will normalise slightly earlier than in the main scenario. The higher repo-rate path will lead to somewhat lower resource utilisation.

## ■ Illustrative examples do not capture all the important factors

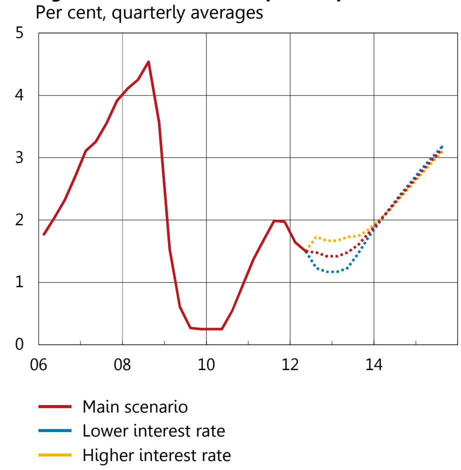
The illustrative examples for the repo rate are based on a general equilibrium model of the Swedish economy, which takes into account many different factors that affect inflation and resource utilisation. However, there are number of factors that can affect inflation and resource utilisation, but are not captured in the illustrative examples.

**Figure 2:16. Repo rate**
Per cent, quarterly averages



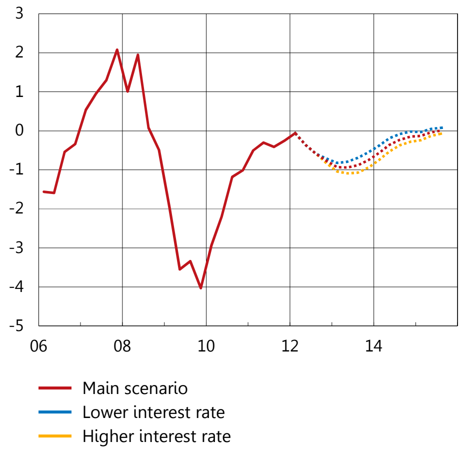

Source: The Riksbank

**Figure 2:17. Alternative repo-rate paths**
Per cent, quarterly averages



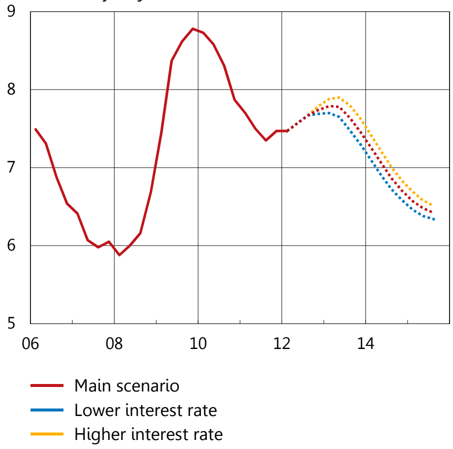

Source: The Riksbank

**Figure 2:18. Hours gap**
Per cent



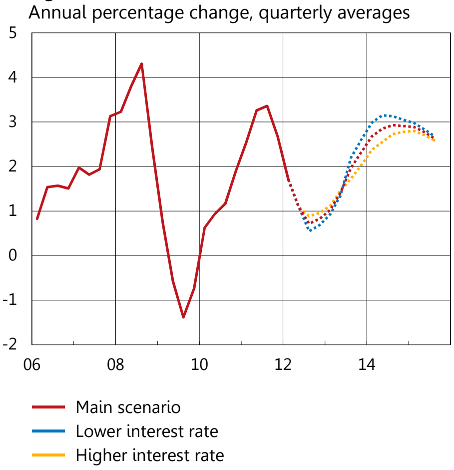

Sources: Statistics Sweden and the Riksbank

**Figure 2:19. Unemployment**
Per cent of the labour force, aged 15-74, seasonally-adjusted data



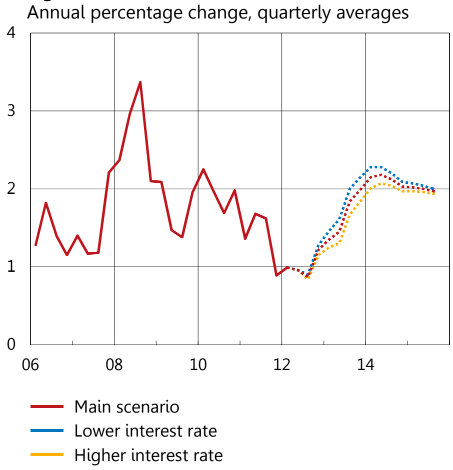

Sources: Statistics Sweden and the Riksbank

**Figure 2:20. CPI**
Annual percentage change, quarterly averages




Sources: Statistics Sweden and the Riksbank

**Figure 2:21. CPIF**
Annual percentage change, quarterly averages




Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

One such factor at present is indebtedness in the household sector, which has increased substantially in recent years. Developments in certain countries since the financial crisis in 2008-2009 show that the costs to the economy of excessive indebtedness can be substantial. Even if indebtedness is assessed as tenable, in that financial stability is not threatened, a rapid build-up of debt could make the economy more sensitive to shocks. Then monetary policy might need to be somewhat less expansionary to subdue indebtedness and reduce the risk of large fluctuations in resource utilisation and inflation in the future.

Another factor is that the calculations behind the lines shown in Figures 2:18-2:21 are based on empirically-estimated relationships between changes in the repo rate and their effects on the real economy and inflation. According to these estimates, changes in the repo rate have a relatively rapid effect on economic developments. Despite the fact that international demand will be weak over the entire forecast period, Sweden may be able, according to these estimated links, to withstand the effects of this decline providing that the repo rate is sufficiently reduced. The slowdown in economic activity is, however, at present largely due to the fact that companies and households are reluctant to invest and consume because of the uncertainty over future economic developments, particularly abroad. In such a situation, it is not certain that monetary policy will have the same rapid impact as indicated by the illustrative example.

If the effects of changes in the repo rate were instead to come more gradually, the lower repo-rate path would still eventually stimulate demand and increase inflation. However, the greatest effects of a lower repo rate would come during the latter part of the forecast period, when the main scenario indicates that resource utilisation will be close to or slightly above a normal level, CPIF inflation will be around 2 per cent and CPI inflation will be considerably above the inflation target.

# ■ CHAPTER 3 – The current state of the economy

**This chapter presents new information received since the Monetary Policy Update was published in April and an assessment of the development of the economy in the quarters immediately ahead.**

**During the spring, the financial markets have once again been marked by increased unease, mainly because of developments in southern Europe. This renewed market unease is affecting real-economic development abroad. GDP in the euro area remained largely unchanged in the first quarter of this year, but the Riksbank's assessment is that it will fall again during the second quarter. Unemployment in the euro area has continued to increase during the first half of this year from already high levels. The US economy has continued to grow at a moderate rate, at the same time as something of a slowdown is evident in the rapidly-growing emerging economies.**

**Sweden has coped well so far, with GDP growth being stronger than expected during the first quarter. However, weak development abroad is affecting Sweden, for example due to a fall in demand for Swedish export goods. A somewhat slower rate of GDP growth can therefore be expected in the quarters immediately ahead. The labour market has developed better than expected recently, while inflationary pressures remain low.**

## The debt crisis has led to renewed market unease

### ■ The differential between government bond rates has increased again

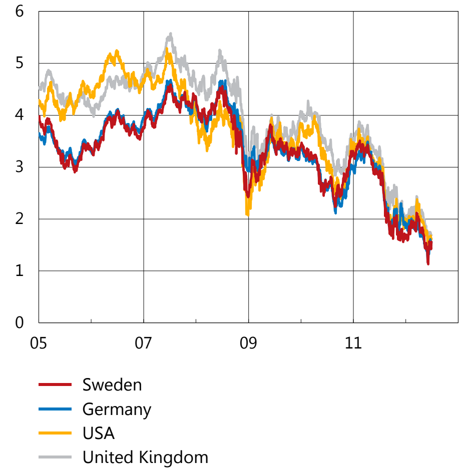
The unease on the financial markets increased during the spring after the period of relative calm that followed the major three-year loans that the ECB offered in December and February.

In May, 10-year government bond rates in Germany and Sweden fell to their lowest-ever levels (see Figure 3:1). There is an increasing demand for bonds issued by countries with well-managed public finances, as opposed to bonds issued by countries hit by the debt crisis, where rates have risen once again.

Borrowing costs have risen to high levels for Spain and Italy as the market participants believe it will be increasingly difficult for these countries to implement the required fiscal-policy reforms (see Figure 3:2). In the case of Spain, the ability to take care of weak banks and regions is also a factor. It is probably also the case that the borrowing costs of these countries have been affected by the concern about Greece. At the end of June, the Spanish government applied for financial support from the Eurogroup countries in order to recapitalise the Spanish banks. The Spanish application did not specify any amount for this support, but the Eurogroup countries have previously promised to provide loans of up to EUR 100 billion.

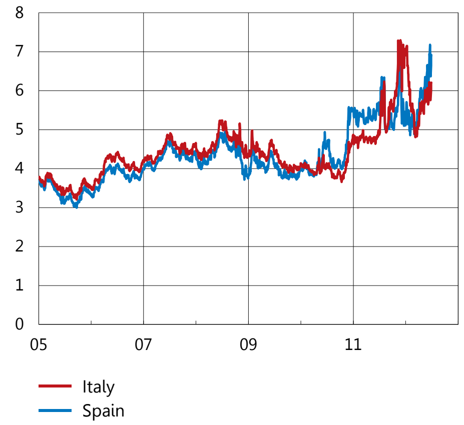
At the end of June, borrowing costs declined substantially for both Spain and Italy. One reason was that the representatives of the euro countries agreed that the rescue loan to Spain should not be given priority, which makes investment in Spanish government bonds less risky. Moreover, the agreement means that the ESM is given the possibility to capitalise banks directly without burdening the country's national debt,

**Figure 3:1. Government bond rates with 10 years left to maturity**
Per cent



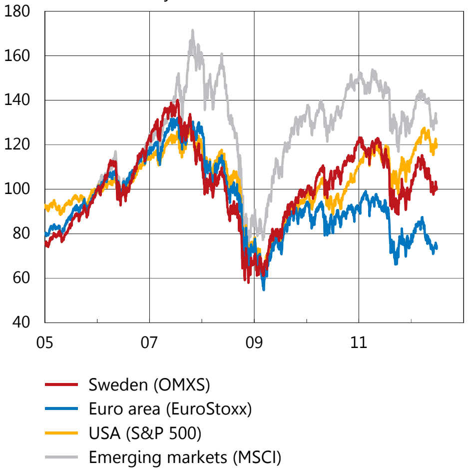

Source: Reuters EcoWin

**Figure 3:2. Government bond rates with 10 years left to maturity**
Per cent



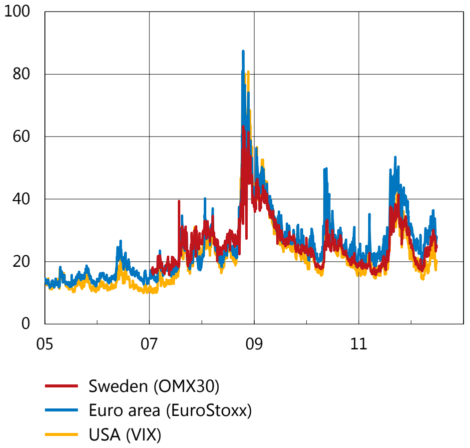

Source: Reuters EcoWin

**Figure 3:3. Stock market movements**
Index, 3 January 2006 = 100




Sources: Morgan Stanley Capital International, Reuters EcoWin, Standard & Poor's and STOXX Limited

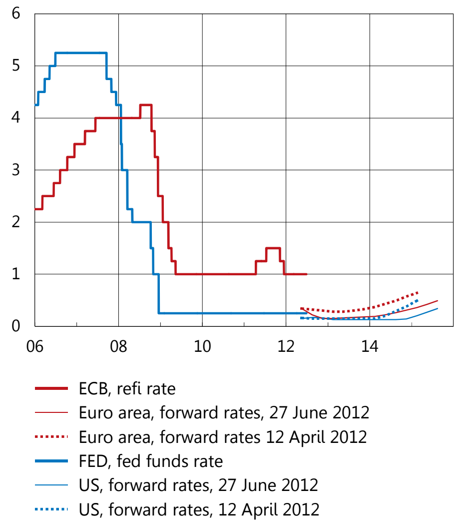
**Figure 3:4. Stock market volatility**
Per cent




Note. Implicit volatility is estimated on the basis of index-linked option prices.

Sources: Chicago Board Options Exchange, Reuters EcoWin and STOXX Limited

**Figure 3:5. Policy rate expectations measured in terms of market prices in the euro area and the US**
Per cent




Note. Forward rates have been adjusted for risk premiums and describe the expected overnight rate, which is not always equivalent to the official policy rate.

Sources: Reuters EcoWin and the Riksbank

and euro area countries that observer the EU's economic regulations will have the possibility to apply to the ESM for relief purchases of their government bonds (see the article "The debt crisis in Europe – developments during the spring" in this report).

## ■ Uncertainty has increased on the financial markets

There has been a general fall in the prices of various types of financial assets since the monetary policy meeting in April. Concern that the debt problems in Europe will be followed by weak global growth and lower profit growth at the companies has contributed to a fall in share prices (see Figure 3:3). Increasing volatility on the share markets indicates that uncertainty on the financial markets has increased (see Figure 3:4). The increased concern about an acute debt crisis in the euro area with subsequent tensions on the financial markets has reduced the demand for assets that carry a higher risk. Share indexes in Europe and the United States have thus been negatively affected by the weak development of shares in, above all, companies in the financial sector. The decline in demand for shares in this sector became particularly clear after the much-publicised losses in the US bank J.P. Morgan and in connection with the Spanish government's takeover of Bankia.

The ECB's three-year loans have probably alleviated the funding problems of many banks in the short term, but have at the same time made it more difficult for the banks to access market funding at longer maturities. As government bonds have often been provided as collateral for the ECB loans, creditors with non-covered bank bonds will now have lower priority in the event of a suspension of payments. Uncertainty has thus increased for the other creditors as a result of the ECB's loans. As the risk of suspensions of payments has increased, the positive impact of the ECB loans has faded during the spring and summer.

The risk that the economic situation in Europe will deteriorate has also led to falls in the prices of various commodities. As commodities are priced in US dollars the increasing strength of the dollar has contributed to these falls in commodity prices.

## ■ Policy rates expected to remain low

Expectations abroad are that policy rates will be very low for quite some time. Forward rates in the United Kingdom and the euro area have fallen since the monetary policy meeting in April. The ECB's is expected to lower its policy rate by 0.25 percentage points to 0.75 per cent in 2012, while the US central bank, the Federal Reserve, is expected to hold its policy rate unchanged at a low level for a long time to come (see Figure 3:5).

At its meeting in June, the Federal Reserve decided to continue to extend the maturity of its holdings in government securities during the second half of 2012. A weak development of the US labour market could lead the Federal Reserve to expand its portfolio of assets. The ECB is expected to continue to supply the market with extra liquidity by providing unlimited lending. Some market participants also expect the

ECB to offer the banks a third three-year loan. Together with the British government, the Bank of England has announced measures to ease lending to companies and households. The central bank will provide the banks with loans running over several years against collateral that was not accepted previously. Loans with a maturity of six months that aim to strengthen the banks' liquidity were also announced.

Expectations that the Riksbank will cut the repo rate have increased since the monetary policy meeting in April. Pricing on the money market indicates that the Riksbank is expected to lower the repo rate to 1.0 per cent by the end of 2012 (see Figure 3:6). Various surveys also show that the market expects a lower repo rate. According to the latest Prospera survey, the Riksbank's repo rate is expected to be 1.3 per cent in 12 months' time. The Riksbank's forecast is that it will be approximately 1.5 per cent. In the Prospera survey, which was conducted in June, the repo rate is expected to be just below 1.7 per cent in mid-2014, while the Riksbank's forecast is that it will be approximately 2.2 per cent.

## ■ Good funding opportunities for Swedish banks

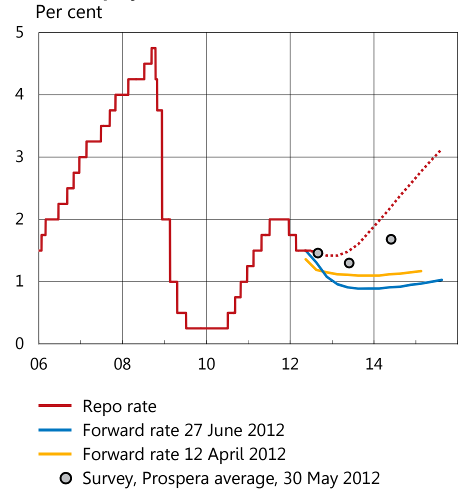
In the euro area, several banks' access to market funding has deteriorated in pace with the weakening of their balance sheets. These banks have instead borrowed from the ECB. The considerable amount of extra liquidity that has consequently become available has continued to push down short-term market rates in the euro area. This may also have had an indirect effect on short-term market rates in Sweden. The rates that the Swedish banks offer to each other for short-term loans without collateral are still lower than they were before the ECB's three-year loans were introduced. For borrowing at longer maturities the Swedish banks also have good opportunities to find funding on the international capital markets by issuing bonds and money-market instruments.

The recent problems in the European banking sector have thus not appreciably affected the Swedish banks. The two Swedish banks that had their credit ratings lowered by Moody's in May still have high credit ratings in an international comparison and all the Swedish banks were also deemed to have "stable prospects".

## ■ Lower interest rates for companies and households

The average mortgage rate for households continued to fall in May (see Figure 3:7). The listed mortgage rates of the banks and mortgage institutions also indicate that the rates offered to households continued to fall in May. The difference between the Riksbank's repo rate and the variable mortgage rates has thus decreased somewhat since the monetary policy meeting in April, which is due to a fall in the funding costs of the banks and mortgage institutions for their shortest borrowing. The average interest rates offered to companies have also fallen in 2012. It is above all rates at maturities of up to one year that have fallen.

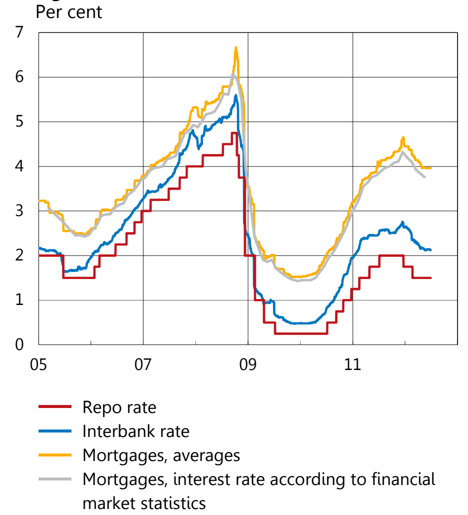
**Figure 3:6. Repo rate expectations in Sweden measured as market prices and survey, money market players**




Note. Forward rates have been adjusted for risk premiums and describe the expected overnight rate.

Sources: Reuters EcoWin, TNS SIFO Prospera and the Riksbank

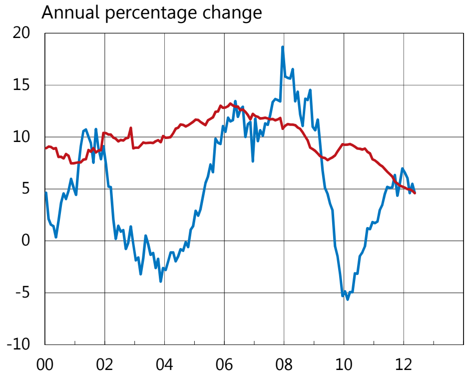
**Figure 3:7. Interest rates in Sweden**




Note. Referes to average of three-month listed mortgage rates from banks and mortgage institutions, the three month interbank rate and the monthly average for three month mortgage rates for new loans according to financial market statistics. Listed mortgage rates are the rates published by Nordea, SBAB, SEB, Swedbank Hypotek and Stadshypotek, for example in the daily press.

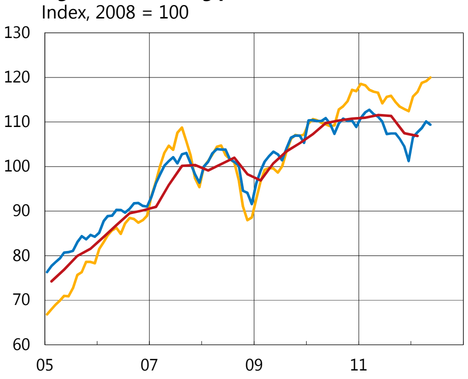
Sources: Reuters EcoWin, Statistics Sweden and the Riksbank

**Figure 3:8. Bank lending to companies and households**
Annual percentage change




Source: Statistics Sweden

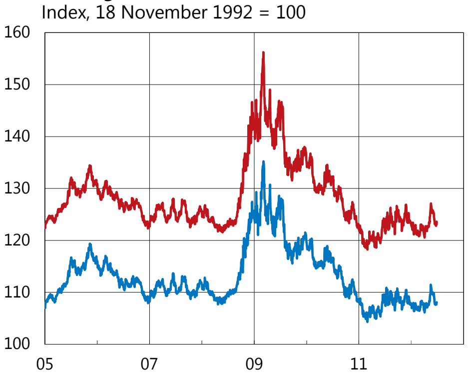
**Figure 3:9. Housing prices**
Index, 2008 = 100




Note. The data from Valueguard is on a monthly rate and the data from Statistics Sweden is on a quarterly rate. Statistics Sweden's real estate price index is based on land registration data, while Valueguard's index is based on purchasing contracts. Purchasing contracts are normally registered about two months before land registration, which means that SCB's statistics lag behind the statistics from Valueguard.

Sources: Statistics Sweden and Valueguard

**Figure 3:10. TCW- and KIX-weighted nominal exchange rates**
Index, 18 November 1992 = 100




Note. TCW and KIX refer to different aggregates of currencies on the basis of trading patterns. KIX weights are updated regularly and cover a larger group of countries.

Sources: National Institute of Economic Research and the Riksbank

## ■ The rate of household borrowing has continued to fall

The rate of increase in the mortgage institution's lending to households has shown a declining trend since the beginning of 2010 and continued to decline in May this year (see Figure 3:8). Price increases on the housing market have been subdued for some time (see Figure 3:9). However, according to the Valueguard index, the prices of both houses and tenant-owned apartments have increased somewhat since the beginning of 2012.

The rate of corporate borrowing decreased somewhat in May, and is now slightly below the mean value for the last 12 months (see Figure 3:8). According to the monthly survey of the National Institute of Economic Research in June, three out of four companies still feel that that their funding situation is more or less as normal. Nor do the Riksbank's company interviews, which were conducted in May, indicate that access to funding has deteriorated. According to Almi Företagspartner's loan indicator, the assessment of more than half of the interviewed bank managers is that lending to companies will increase over the next 12 months. However, this survey was conducted in mid-March; that is before unease increased on the financial markets in May.

## ■ The krona and the euro have weakened during the spring

The krona weakened temporarily against the euro during the market unease that arose when the parliamentary elections in Greece in May did not lead to the formation of a government (see Figure 3:10). In May and early June, the krona tended to weaken in the same way as during previous periods of financial unease. However, in recent weeks the krona has strengthened against the euro, which shows that there is a demand for the krona despite a high degree of financial and macroeconomic uncertainty.

The euro has weakened against the dollar as speculation about Greece leaving the EMU has increased. However, the euro recovered somewhat in June.

# Weak growth but major differences abroad

## ■ Low growth and high unemployment in the euro area

Economic growth is weak in the euro area. GDP in the first quarter of 2012 was unchanged compared to the fourth quarter of 2011 (see Figure 3:11). GDP growth fell in most of the euro countries but this was counteracted above all by positive contributions from exports and consumption in Germany.

The statistics published so far indicate that GDP will fall in the second quarter. Turnover in the retail sector fell in April, although there were significant differences between the euro countries. Industrial output also fell marginally in April (see Figure 3:12). The fall was largest in Portugal, Germany and Italy. Indicators also show that the companies have become increasingly pessimistic. Purchasing manager indexes in both the manufacturing and service sectors fell in all of the euro countries in April and May (see Figure 3:13). The aggregate purchasing managers' index for the euro area is now close to the lowest level for three years. The European Commission's indicator of household and corporate confidence in the euro area has fallen in recent months and is now down to the same level as in the autumn of 2009.

The labour market has weakened further. Employment declined during the first quarter and unemployment rose to 11 per cent in April (see Figure 3:14). However, there are substantial differences between the various euro area countries; unemployment continues to be low in Germany, while it is increasing from already high levels in, for example, Spain and Italy. Indicators do not suggest that there will be any immediate improvement in the labour-market situation in countries that already have a high rate of unemployment.

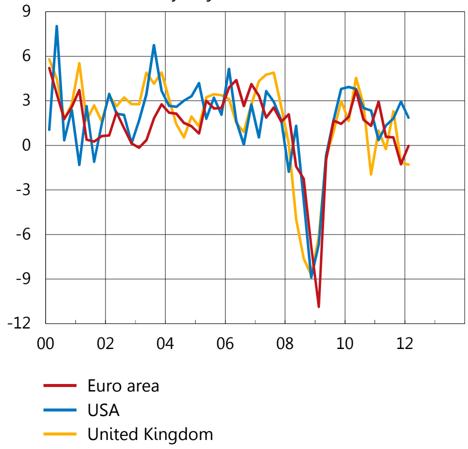
## ■ Weak growth in the United Kingdom and Denmark, but high growth in Norway

The predominant component of Swedish exports relates to trade with Germany and the Scandinavian countries. This area accounts for approximately one third of Swedish exports. The United Kingdom is also an important trading partner. Growth in these countries is therefore of major importance to the development of Swedish exports.

In the United Kingdom, GDP fell by 1.3 per cent, calculated as an annual rate, during the first quarter of 2012 compared to the fourth quarter of 2011 (se Figure 3:11). This was the second consecutive quarter with a fall in GDP. The fall was largely the result of a substantial decrease in investment in construction as a result of a weaker housing market. There was only a marginal increase in household consumption, which among other things reflects the fact that the labour market is still weak. Unemployment fell somewhat in April to just over eight per cent, which is much higher than the level before the financial crisis (see Figure 3:14).

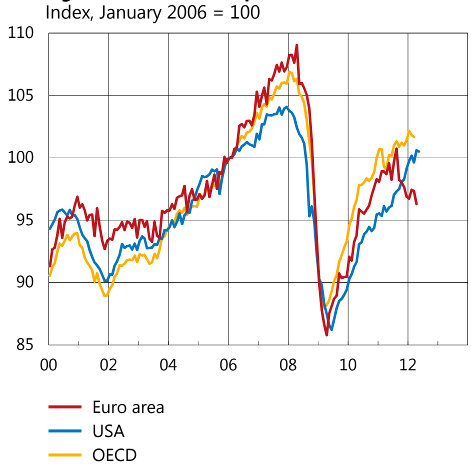
Growth continues to be weak in Denmark and GDP increased by 1.3 per cent, calculated as an annual rate, in the first quarter of 2012 compared with the fourth quarter of 2011 (see Figure 3:15). The

**Figure 3:11. GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



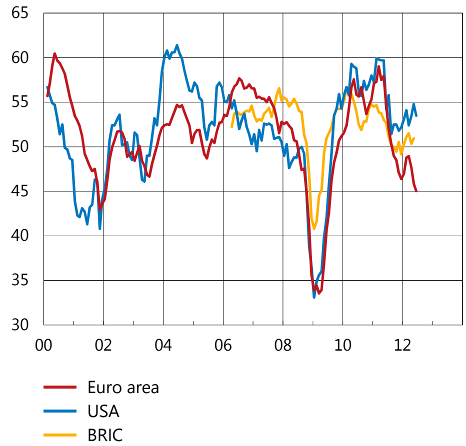

Sources: Bureau of Economic Analysis, Eurostat and Office for National Statistics

**Figure 3:12. Industrial production**
Index, January 2006 = 100



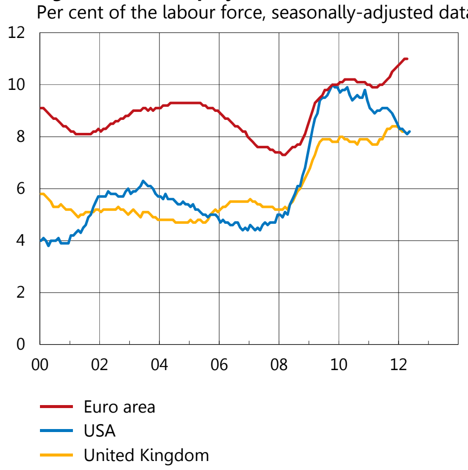

Sources: National sources and the Riksbank

**Figure 3:13. Purchasing managers' index, manufacturing sector**
Index



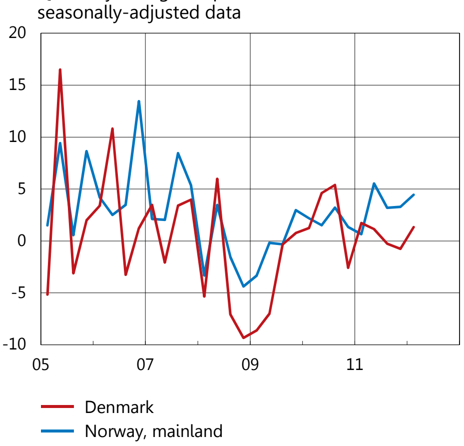

Note. Values above 50 indicate growth.
Source: Markit Economics

**Figure 3:14. Unemployment**
Per cent of the labour force, seasonally-adjusted data



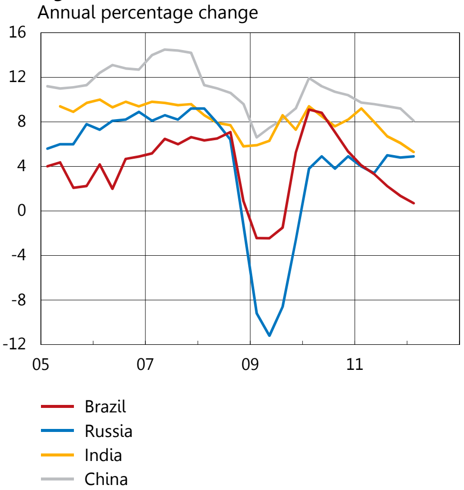

Sources: Bureau of Labor Statistics, Eurostat and Office for National Statistics

**Figure 3:15. GDP in Denmark and Norway**
Quarterly changes in per cent, annual rate, seasonally-adjusted data




Sources: Statistics Denmark and Statistics Norway

**Figure 3:16. GDP in the BRIC countries**
Annual percentage change




Note. The BRIC countries consist of Brazil, Russia, India and China.

Sources: Central Statistical Organisation, India, Federal State Statistics Service, Russia, Instituto Brasileiro de Geografia e Estatística and National Bureau of Statistics of China

households have become increasingly pessimistic in recent months. Falling employment and rising house prices have probably contributed to this.

Growth has been stronger in Norway, however, and GDP increased by 4.4 per cent, calculated as an annual rate, in the first quarter of 2012 compared with the fourth quarter of 2011 (see Figure 3:15). Rapid growth in both household consumption and investments in the oil and gas sector lies behind this positive development.

## ■ Relatively good growth in the United States despite the unease in Europe

In the United States, GDP increased by 1.9 per cent, calculated as an annual rate, during the first quarter of 2012 compared to the fourth quarter of 2011 (see Figure 3:11). The statistics published so far indicate that growth may be somewhat higher in the second quarter. The scope for consumption has increased recently as a result of falling energy prices. Household confidence continued to improve in May but was more subdued in June and is still below the historical average. Employment growth was relatively strong in the winter, but weakened in April and May. Unemployment, which has shown a falling trend since the beginning of 2010, was 8.2 per cent in May (see Figure 3:14). The situation on the housing market has improved, but the construction of housing is still at a low level.

The companies are rather optimistic and confidence indicators point to continued growth in the period immediately ahead. In May, confidence among the companies remained at a level clearly above what is regarded as a marker for growth in the survey. Company profits have continued to increase and were at an historically high level in early 2012.

## ■ Unexpectedly rapid growth in Japan

GDP growth in Japan was unexpectedly high during the first quarter of this year at 4.7 per cent calculated as an annual rate. Surprisingly strong growth in household consumption and the public investments in connection with reconstruction following the tsunami contributed to this. However, the recent period of financial unease has led to a strengthening of the yen, which in combination with a weakening of the purchasing managers' index indicates that there will be somewhat weaker growth in the second quarter.

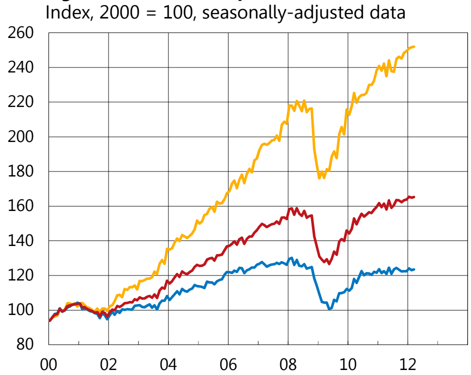
## ■ Slight slowdown in the rapidly-growing emerging economies

There are some signs of a slowdown in the emerging economies. In China, GDP increased by approximately 8 per cent in the first quarter of 2012, compared to the first quarter of 2011 (see Figure 3:16). The statistics published so far indicate more subdued growth during the second quarter. In May, the statistics for both the retail sector and industrial output were weaker than expected. However, the figures for exports were surprisingly positive, with a substantial increase in exports to the United States, Japan and the ASEAN countries.[8] The government has emphasised that growth is now a priority and has therefore brought forward infrastructure projects and increased public investment. In June, the Chinese central bank, the People's Bank of China, cut its policy rate by 0.25 percentage points, the first cut since 2008, as a further step in the stimulation policy pursued by the government and the central bank.

Growth in India has also slowed down over the last year. In the first quarter of this year, GDP was 5.3 per cent higher than one year ago, which is the lowest rate of growth since 2003 (see Figure 3:16). Growth continued to be weak in Brazil in the first quarter of 2012. This is largely due to the fact that the manufacturing industry has been hampered by a strong currency. GDP in Russia increased by 4.9 per cent during the first quarter compared with the corresponding quarter last year. Increased domestic demand and a high oil price are the main factors that have contributed to this growth.

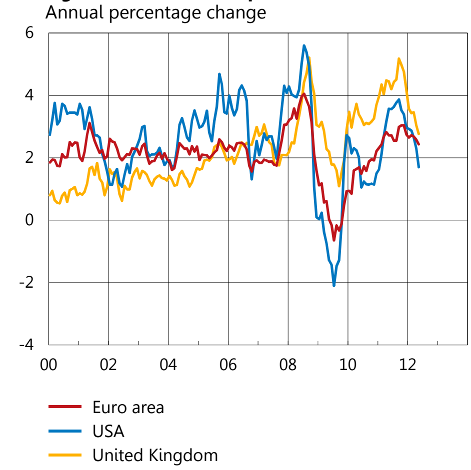
World trade has largely been governed by developments in the emerging economies (see Figure 3:17). While the developed economies have had largely unchanged or slightly increasing trade volumes since mid-2010, the trade volumes of the emerging economies have continued to grow at a relatively good rate. However, the latest statistical outcomes show a slight decline in the trade volumes of the emerging economies.

**Figure 3:17. World Import Volume**
Index, 2000 = 100, seasonally-adjusted data




Source: Netherlands Bureau for Economic Policy Analysis

**Figure 3:18. Consumer prices**
Annual percentage change




Note. This refers to HICP for the euro area and CPI for the United States and the United Kingdom. '

Sources: Bureau of Labor Statistics, Eurostat and Office for National Statistics

## ■ Falling inflation in most areas

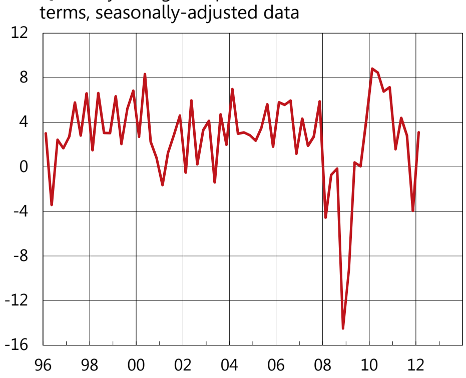
In the euro area, inflation has been above the ECB's target since the end of 2010, largely due to high energy prices. In addition to high energy prices, higher taxes and administrative fees are factors that have contributed to holding inflation up. At the start of 2012, a couple of the countries raised their VAT rates, while Italy raised the duty on petrol. The rate of inflation has decreased during the spring and in May it was 2.4 per cent (see Figure 3:18). The rate of inflation is lower if energy and food prices are excluded. Underlying inflation (excluding energy, food, alcohol and tobacco) amounted to 1.6 per cent in May.

In the United Kingdom, inflation has fallen substantially since the end of last year (see Figure 3:18). CPI inflation was 2.8 per cent in May and underlying inflation (excluding energy and food) was 2.5 per cent. This decrease is partly due to the fact that the previous increases in energy prices and VAT at the start of last year no longer form part of the 12-month figures. A more subdued rate of wage increases and an appreciation of the pound have also helped to dampen inflation.

In the United States, inflation has fallen due to lower energy prices (see Figure 3:18). In May, CPI inflation fell to 1.7 per cent, while underlying inflation remained at 2.3 per cent. Inflation expectations have generally fallen in recent months.

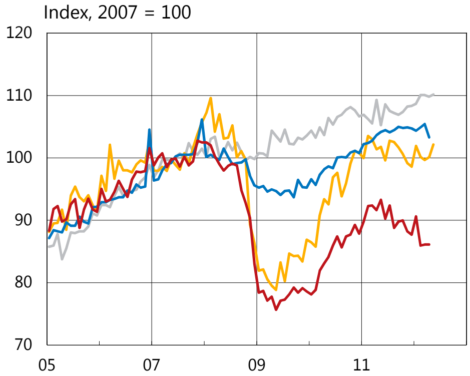
[8] ASEAN is an economic organisation and free-trade area consisting of the countries Brunei, Burma, the Philippines, Indonesia, Cambodia, Laos, Malaysia, Singapore, Thailand and Vietnam.

**Figure 3:19. GDP**
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



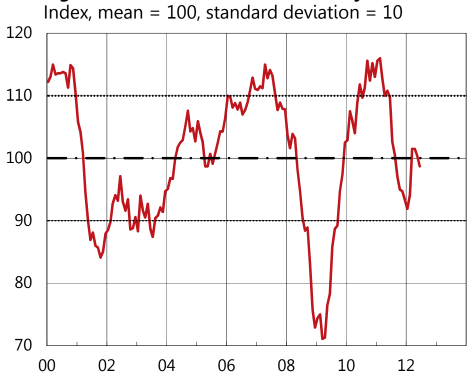

Source: Statistics Sweden

**Figure 3:20. Production, export of goods and the retail sector**
Index, 2007 = 100




Source: Statistics Sweden

**Figure 3:21. The Economic Tendency Indicator**
Index, mean = 100, standard deviation = 10




Source: National Institute of Economic Research

# The Swedish economy will weaken in the period ahead

## ■ Unexpectedly high GDP growth in the first quarter

The Swedish economy slowed down at the end of last year, partly as a result of the lower demand for Swedish export goods and the financial unease that dampened the mood of the households and companies. In the first quarter, Sweden's GDP increased by 3.1 per cent, calculated as an annual rate, compared to the preceding quarter (see Figure 3:19). This was higher than the Riksbank expected in April and significantly higher than the average of all the forecasters' forecasts. The figures for business sector investment and household consumption were surprisingly positive.

However, the prospects for the quarters immediately ahead are weak, which is mainly due to the fact that unease about the debt situation in southern Europe has flared up again. This primarily affects Swedish exports and industrial output. The production of services index has tapered off, while the corresponding index for the manufacturing industry continues to increase slightly (see Figure 3:20). Increased unease and falling share prices are also factors that make the Swedish households more cautious.

At the same time as the actual outcomes indicate weaker development, household and corporate sentiment is also weakening. However, sentiment is still stronger than it was in the autumn. In June, the survey indicator covering both households and companies fell for the third consecutive month and is now once again below its historical average (see Figure 3:21). However, the levels of the indicator in recent months indicate that the Swedish economy has grown at a normal rate during the second quarter. In the survey of the National Institute of Economic Research, consumer confidence fell in June and is therefore once again somewhat lower than normal. The confidence indicators for all the sectors except the manufacturing sector are now below their historical averages. The confidence indicator for the manufacturing sector is on a par with its historical average.

## ■ The slowdown is dampening Swedish exports

Economic activity abroad weakened in the second half of last year and Swedish exports declined towards the end of the year. Exports increased again in the first quarter of this year, but the prospects for the next few quarters are weak. The development of goods exports, which make up approximately 70 per cent of Swedish exports, has been subdued in recent months, although exports increased in May. The figures for new export orders in the manufacturing industry remain low (see Figure 3.22).

Economic development in the euro area is expected to continue to be weak in the coming period. The emerging economies are holding up global growth to some extent, but somewhat lower growth is expected in these economies too in the period ahead. Growth on the Swedish export market as a whole is thus expected to be weak in 2012. Swedish exports are expected to be marginally higher at the end of 2012 than they were prior to the summer of 2011, when international unease flared up again.

## ■ Imports fall when demand slackens

Imports of goods and services decreased during the first quarter of this year. However, monthly data indicates that imports will increase somewhat in the second quarter. Subdued domestic demand is dampening imports of consumer and investment goods, at the same time as the weak level of exports is dampening imports of intermediate goods for the Swedish manufacturing sector.

## ■ Investment resisting the decline in economic activity

Gross fixed capital formation has increased at a good rate since the beginning of 2010. This strong trend continued during the first quarter of this year, partly due to an increase in investment in several parts of the service sector and in the energy sector. However, investment volumes in the economy as a whole are not expected to continue increasing during the second and third quarters of this year.

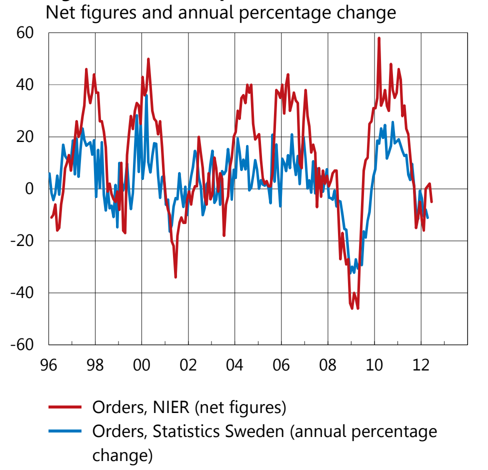
Inventory levels have now been restored following the major reductions during 2008-2009, and as demand is now weak the assessment is that the companies will not need to increase their inventories in the period immediately ahead. Nor are the companies expected to reduce their inventories, which is supported by the Business Tendency Survey of the National Institute of Economic Research, which indicates that the companies are satisfied with the current inventory levels. During the first quarter of this year, the companies reduced their inventories for the first time since the first quarter of 2010.

## ■ Strong private consumption will be more subdued in the period ahead

The value of the shares on the stock exchange fell relatively steeply during the spring and is now back to approximately the same level as at the beginning of the year. The housing market, on the other hand, has performed somewhat better than earlier. At the same time, there has been a clearly declining trend in the rate of increase in household borrowing over the past year (see Figure 3:8). However, the figure for debts as a percentage of disposable incomes is relatively high and is now over 170 per cent.

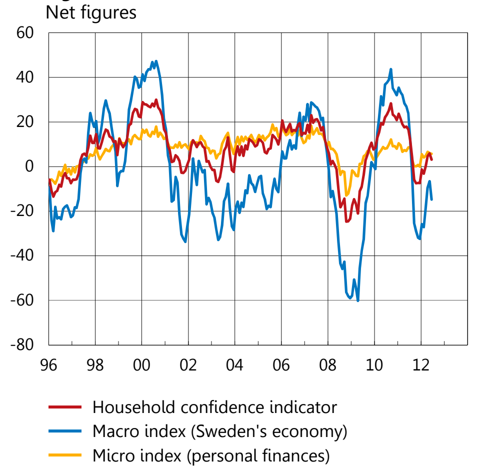
Household consumption increased substantially during the first quarter of this year. This increase was broadly based, but the consumption of durables was particularly strong, although car purchases declined. The household-confidence indicator of the National Institute of Economic Research fell in June and now once again shows that the households' view is somewhat more negative than normal. The households' view of their own financial situation as well as their view of the Swedish economy have both become more pessimistic (see Figure 3:23). At the same time, turnover in the retail sector has been

**Figure 3:22. New export orders**
Net figures and annual percentage change



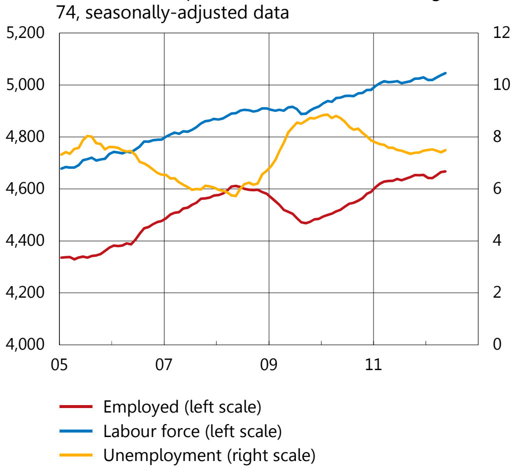

Sources: National Institute of Economic Research and Statistics Sweden

**Figure 3:23. Confidence indicators for households**
Net figures



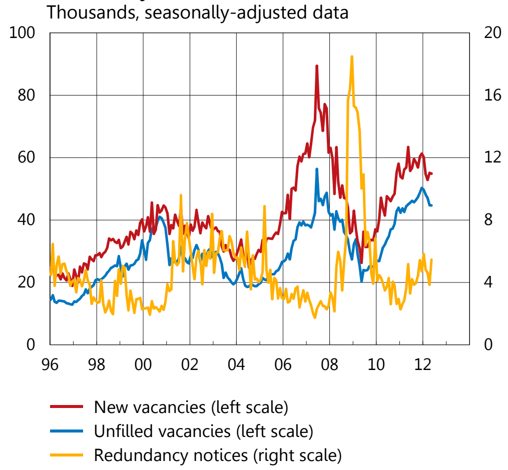

Source: National Institute of Economic Research

**Figure 3:24. Employment, labour force and unemployment**
Thousands and per cent of the labour force, aged 15-74, seasonally-adjusted data




Note. Three-month moving averages.
Sources: Statistics Sweden and the Riksbank

**Figure 3:25. New and unfilled vacant jobs and redundancy notices**
Thousands, seasonally-adjusted data




Sources: Employment Service and the Riksbank

weak (see Figure 3:20). The development of household consumption is expected to be relatively weak over the next few quarters.

## ■ Surplus in public sector net lending

Public sector net lending was positive once again in the first quarter of this year following a weak outcome in the fourth quarter of 2011. Net lending amounted to just over 0.5 per cent of GDP in the first quarter. Compared to a year ago, this entails a fall of 0.5 percentage points. This fall is due to the fact that investment, consumption and transfers to the households have increased as a percentage of GDP. For the whole year 2012, public sector net lending is expected to amount to 0.1 per cent of GDP.

## ■ The labour market is developing better than expected

The recent development of the labour market has been better than expected. In the Monetary Policy Update published in April, the number of hours worked was expected to fall during the early part of 2012. However, new statistics from the National Accounts show instead that the number of hours worked increased during the first quarter. The rate of increase in the number of those employed and those in the labour force has slowed down markedly and is now close to zero, but this is still better than was expected in the latest Monetary Policy Update. Nor has unemployment, which was 7.5 per cent during the first quarter, increased to the extent that the Riksbank previously expected, according to the labour market surveys (see Figure 3:24).

Outcomes and indicators do not suggest any deterioration in the immediate future. Although the number of new job vacancies has decreased somewhat it is still at a relatively high level, and the number of redundancy notices remains at a relatively low level (see Figure 3:25). However, the Business Tendency Survey of the National Institute of Economic Research shows that in the business sector as a whole companies expect that employment will be unchanged in the months ahead (see Figure 3:26). Labour shortages have declined in most sectors, apart from in the manufacturing industry where there are still significant shortages (see Figure 3:27). Employment is thus expected to remain unchanged during the first six months of this year. However, as there will be a marginal increase in the number of people in the labour force, unemployment will increase somewhat during this period.

## ■ Rate of wage increases will rise in the second quarter

According to the short-term wage statistics from the National Mediation Office, wages in the economy as a whole increased by 2.8 per cent, calculated as an annual rate, in the first quarter of this year. In the first quarter, wages in the business sector continued to increase more rapidly than wages in the public sector (see Figure 3:28). The rate of wage increases in the Swedish economy will increase over the rest of the year, largely because the latest round of collective bargaining resulted in higher wage increases compared with the wage agreements for 2010-2011. The wage increases in the manufacturing sector, which set the norm for the rest of the labour market, were 2.6 per cent per year. The wage agreements reached since the agreements in the manufacturing sector were signed in December last year have closely followed the norm set in this sector.

According to the National Accounts, unit labour cost increased by 2.7 per cent in the first quarter of this year, calculated as an annual percentage change, which was less than the assessment in April. The rate of growth in labour productivity, measured as an annual percentage change, was 0.5 per cent in the first quarter, which was in line with the assessment in April. All in all, this meant that the annual rate of increase in domestic cost pressures was lower than expected. However, cost pressures are expected to be higher this year than last year.

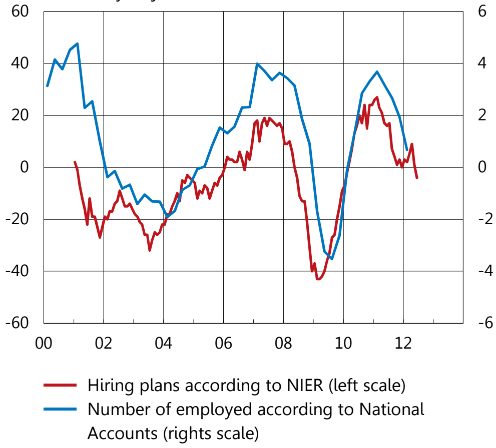
## ■ Inflationary pressures remain low

Inflation has been lower in Sweden than in the euro area for some time, despite a stronger real economy in Sweden. The low cost pressures have contributed to subdued inflation in Sweden, but it is primarily the strengthening of the krona and the low rate of increase in electricity prices that explain why inflation is lower in Sweden than in the euro area (see the article "Why has inflation been lower in Sweden than in the euro area?" in this report).

The annual rate of increase in the CPIF, that is, the CPI with a fixed mortgage rate, amounted to 0.9 per cent in May (see Figure 3:29). The CPIF excluding energy increased by 1.2 per cent. The outcomes for all the measures of inflation were in line with the Riksbank's forecast in the latest Monetary Policy Update.

CPIF inflation is expected to remain low for the rest of the year as only slight increases are foreseen in electricity and oil prices. This also means that the annual rate of increase in the CPIF in the period ahead will be somewhat lower than that for the CPIF excluding energy. Prices for the services included in the CPI will increase at an annual rate of approximately 2 per cent, while the prices of goods will fall.

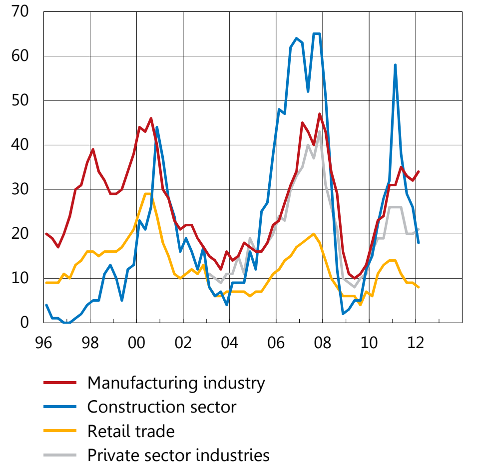
**Figure 3:26. Hiring plans and number of employed in the business sector**
Net figures and annual percentage change, seasonally-adjusted data




Note. The net figures are defined as the difference between the proportion of firms reporting a wish to increase the number of employees and the proportion of firms reporting a wish to reduce numbers. Employment plans are on a monthly basis, number of employed is on a quarterly basis.

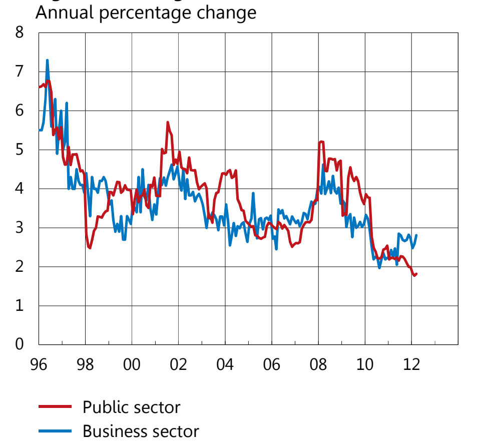
Sources: National Institute of Economics research and Statistics Sweden

**Figure 3:27. Proportion of companies reporting a shortage of labour**
Per cent, seasonally-adjusted data




Source: National Insitute of Economic Research

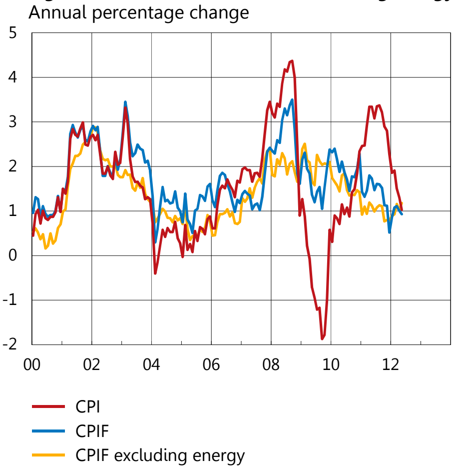
**Figure 3:28. Wages**
Annual percentage change




Note. Preliminary outcomes in the past 12 months, usually revised upwards.

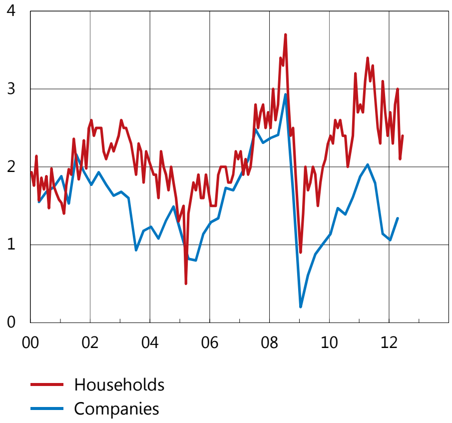
Sources: National Mediation Office and the Riksbank

**Figure 3:29. CPI, CPIF and CPIF excluding energy**
Annual percentage change



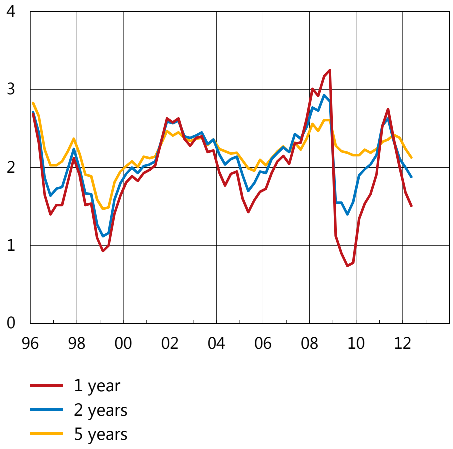

Note. The CPIF is the CPI with a fixed mortgage rate.
Source: Statistics Sweden

**Figure 3:30. Expectations of inflation one year ahead**
Per cent




Note. Company figures are quarterly, while households are monthly.
Source: National Institute of Economic Research

**Figure 3:31. All respondents' expectations of inflation one, two and five years ahead**
Per cent




Source: TNS SIFO Prospera

The annual rate of increase in the CPI will be somewhat lower than for the CPIF over the next few months as the households' interest expenditure will increase at a slower rate than previously. The spreads between mortgage rates, and especially in the case of variable mortgage rates, are expected continue to decrease somewhat. As the repo rate will remain unchanged in the period immediately ahead, this means that mortgage rates are expected to fall.

## ■ Inflation expectations well anchored in the long term

In the longer term, inflation expectations are well anchored around the inflation target. Prospera's monthly survey for June shows that money market participants' inflation expectations five years ahead amounted to 2.1 per cent, which is unchanged since the previous survey. Their inflation expectations one year ahead fell from 1.4 per cent to 1.3 per cent. Expectations two years ahead fell from 1.9 per cent to 1.8 per cent. According to the June survey of the National Institute of Economic Research, the households' inflation expectations one year ahead increased to 2.4 per cent at the same time as corporate expectations increased to 1.3 per cent (see Figure 3.30).

Prospera's quarterly survey of all the participants, which was published in June, shows that inflation expectations have fallen for all horizons, from 1.7 to 1.5 per cent one year ahead, from 2.0 to 1.9 two years ahead and from 2.2 per cent to 2.1 per cent five years ahead (see Figure 3:31).

# The debt crisis in Europe – developments during the spring

**The debt crisis in Europe has recently been mainly characterised by the elections in Greece, the problems in the Spanish banking sector and the concern that problems would spread to Italy. This has contributed to increased financial unease in the euro area, which has a negative effect on the conditions for growth. The following article aims to provide a general outline of the recent sequence of events in the debt crisis.[9]**

### Ireland says yes to fiscal package and Portuguese bank support

At the beginning of June, Irish voters said yes to the EU's fiscal compact (see the Monetary Policy Report published in February 2012 for a more detailed description of the fiscal compact). This means that Ireland's budget deficit in relation to GDP must be reduced to the limit of 3 per cent stipulated in the EU Stability and Growth Pact, by 2015. At the end of 2011, the deficit amounted to just over 13 per cent of GDP.

It is also clear that Portugal will inject new capital into three of its largest banks. All in all, this involves an additional EUR 6.6 billion to meet the European Banking Authority's requirement that core Tier 1 capital in the banks should amount to 9 per cent, with effect from the end of June 2012.

### Greek election leads to new government

Greece has earlier been granted two loans by the IMF and the EU which amount to a total of EUR 180 billion. The background to the loans is that the country's national debt is at an unsustainable level and they have not succeeded in refinancing it on the market. The loans are part of a support programme that is conditional on Greece strengthening its public finances, which has been difficult to achieve. The savings requirements led to a new election at the beginning of May 2012. The election entailed successes for parties opposed to the agreed savings programme. The difficulties in forming a majority government led to an extra election being called on 17 June. The new democracy party, which expressed support for the savings programme, has since been able to form a government together with two support parties.

When the IMF approved the second programme for Greece in March 2012, a first review was planned for the end of May. However, the review was postponed while waiting for a government with which to hold a dialogue. Prior to this first review, a number of criteria were to be met for Greece to receive the next payment. However, there is a large risk that Greece will not have succeeded in fulfilling the requirements.

### Cyprus has also applied for assistance

At the end of June, Cyprus also applied for assistance from the EU. This was done with reference to the financial sector's large exposure to Greece. Preliminary data points to the need for assistance amounting to

[9] See also the article "The debt crisis in Europe" in the Monetary Policy Report of October 2011.

almost EUR 10 billion, which corresponds to more than half of the country's GDP.

**Spanish banking crisis caused by problems in the property sector**

The Spanish banks' total lending to the property sector amounts to around 30 per cent of Spain's GDP. This, together with housing prices having declined by 25 per cent over the past four years, has led to a large percentage of problem loans. In April this year the percentage of loans with late payment amounted to almost 9 per cent of the total outstanding loans, which is the highest figure since April 1994, according to the Spanish central bank. The credit rating agency Moody's cut the credit ratings for a large number of Spanish banks in May and June, with reference to their exposures to the Spanish state and the risk of further losses in the wake of the on-going property crisis. Spanish banks are also among those who have increased their borrowing from the ECB the most during the spring.

The problems in the banking sector have become clear in the case of Bankia, which is a merger of seven smaller savings banks. Bankia is the Spanish bank with the largest exposure to the property sector. At the end of May, the bank requested EUR 19 billion in government support, which has given the state a controlling share in the bank of around 90 per cent.

**Support to Spanish banks**

Parts of the banking sector now need to be recapitalised. The Spanish government therefore requested support for its banking system from the other euro area countries in June. Prior to this they had issued a promise of loans of up to EUR 100 billion. This amount is much larger than the 40 billion that would be needed according to an IMF report to recapitalise the banking system and the 62 billion that a preliminary, independent evaluation had calculated in June. A loan of EUR 100 billion corresponds to scarcely 10 per cent out of Spain's GDP. The cost of the loan caused Moody's to cut Spain's credit rating by three stages in the middle of June.

The condition for the support is that Spain reforms its financial sector. The support will be administered by the Spanish state bank fund, Fondo de Reestructuración Ordenada Bancaria (FROB). At present, there is no fiscal policy measures package to accompany the loan; more than that Spain shall follow the regulations regarding budget discipline in the so-called "Six Pack" agreement (see the Monetary Policy Report in February 2012 for a more detailed description of the "Six Pack" agreement).

**Public finance deficit in the Spanish regions**

The market unease regarding Spain has also been affected by the deficits in the Spanish regions' finances. The region of Catalonia, which accounts for 20 per cent of the Spanish economy, has loans maturing that amount to almost 7 per cent of the region's GDP in 2012. This has recently made the regional president request assistance from the Spanish state to finance the deficit. The regions' indebtedness led to Moody's downgrading the credit rating for Catalonia and three other Spanish regions in May.

### Concern that problems may spread to Italy

The increased concern over the situation in Spain has put further focus on Italy. Concern among investors is largely based on uncertainty over whether the Italian government has the capacity to implement the necessary measures to manage the country's large national debt. This is reflected in, for instance, the fact that Italian government bonds, like Spanish interest rates have increased recently. In addition, there are also problems in the banking sector in Italy. The government decided at the end of June to lend EUR 2 billion to Banca Monte dei Paschi di Siena. The bonds issued by the bank should be convertible to share capital at a later date and the aim is that the bank can then meet the European Banking Authority's requirement for core Tier 1 capital to amount to 9 per cent with effect from the end of June.

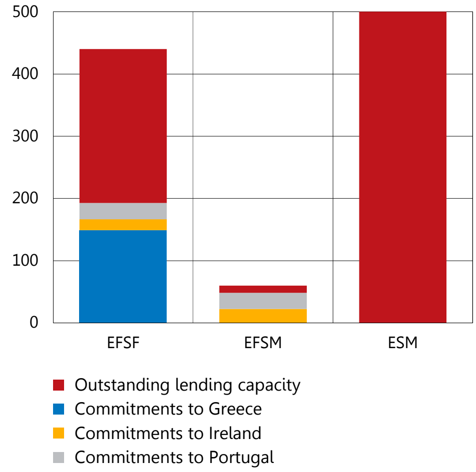
### Support programme aimed at helping countries in crisis

At the same time as Greece was granted the first support package in May 2010, two temporary support facilities were established: the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF). The EFSM is guaranteed by the EU budget, while the EFSF is guaranteed by the euro area countries. These temporary facilities will be replaced by the permanent European Stability Mechanism (ESM), which will come into force at the beginning of July 2012 (given that all of the euro area countries have ratified the ESM treaty). On 30 March the Eurogroup decided that the EFSF and the ESM will run parallel to one another from July 2012 until the end of June 2013.

The EFSF's commitments to Greece, Ireland and Portugal amount to EUR 193 billion, and the EFSM has commitments to a value of EUR 48 billion to Ireland and Portugal (see Figure A1). To fund its lending, the ESM will take loans on the open market. To ensure that the ESM receives the highest credit rating, it has been given a capital structure similar to that of the IMF, with capital paid in. The euro area countries will gradually pay in capital so that in 2014 the total capital will amount to EUR 80 billion. This is assessed to be compatible with the intended lending capacity of EUR 500 billion. If the ESM needs to borrow money prior to this, the euro area countries have undertaken to ensure that the capital paid in always amounts to at least 15 per cent of the ESM's borrowing.

Despite the support programmes, the financial unease in the euro area has not abated. It has mainly affected Spain, through higher yields on the country's government bonds (see Figure A2). The ten-year rate has at times been above 7 per cent during the spring, which is the same level as prior to aid loans being granted to Greece, Ireland and Portugal (see Figure A3).

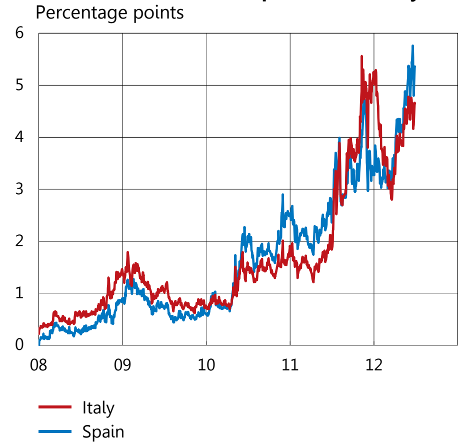
**Figure A1. Support programme measures**
Billion EUR




Note. Lending capacity in the ESM is attained through payments of capital made up to the end of 2014. The remaining lending capacity in the EFSF and the EFSM is only intended for use while waiting for the ESM to attain full capacity. This means that the total outstanding lending capacity will not exceed EUR 500 billion.

Sources: European Financial Stability Facility (EFSF) and European Financial Stability Mechanism (EFSM)

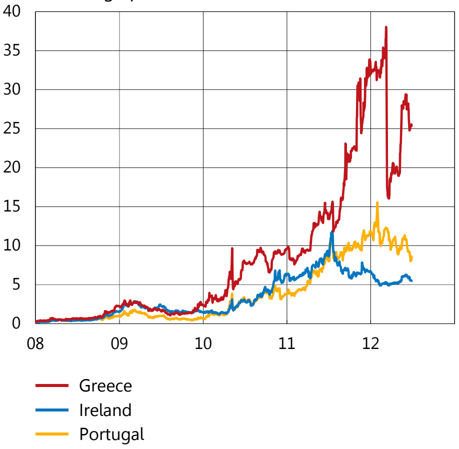
**Figure A2. Government bond rates in various countries (difference compared to Germany)**
Percentage points




Note. Government bonds with approximately 10 years left to maturity.

Source: Reuters EcoWin

**Figure A3. Government bond rates in various countries (difference compared to Germany)**
Percentage points




Note. Government bonds with approximately 10 years left to maturity.

Source: Reuters EcoWin

**New agreements on how the relief mechanisms will be used**

At the meeting of the European Council on 28-29 June an agreement was reached regarding the use of the rescue funds, which aims to break the links between banks' and countries' credit ratings.

The ESM relief fund is given the opportunity to recapitalise banks directly so that, for instance, the relief loans to Spanish banks will no longer be added to the Spanish national debt. Bank recapitalisation within the scope of the on-going relief programmes, for instance, in Ireland, may also be affected. One condition for direct recapitalisation of banks is that a joint banking supervision facility is first established under the ECB.

Further, the agreement means that the relief loans to Spanish banks will not have priority over other claims in the way that normally applies to loans from the ESM, which reduces the risk for private lenders and is expected to contribute to lower interest rates.

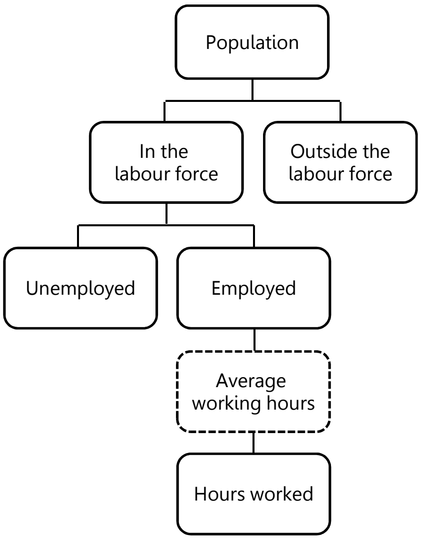
It was also proposed at the meeting of the European Council that the relief funds shall be used in a flexible way to stabilise the markets, which could entail relief purchases of government bonds to hold down interest costs for countries that observe the agreed budgetary regulations.

# Long-run developments in the Swedish labour market

**The labour market is showing both short-run cyclical fluctuations and more long-run changes that are independent of the economic cycle. Two central factors for the long-run development of the Swedish labour market in the coming period are demographical developments and the effects of the government's reform programme since 2006, which is aimed in particular at increasing the incentives to work.**

**The Riksbank's assessment is that these factors together will lead to higher long-run labour force participation and a lower long-run unemployment rate, which is expected to be in the interval of 5-7.5 per cent. However, there is a considerable amount of uncertainty in the assessment. The level of long-run unemployment depends on which assumptions are made regarding the initial level and the effects of demography and economic policy. One particularly important uncertainty factor is how long-run unemployment is affected by new groups with a weaker position in the labour market entering the labour force.**

**Figure A4. Relationship between different labour market variables**



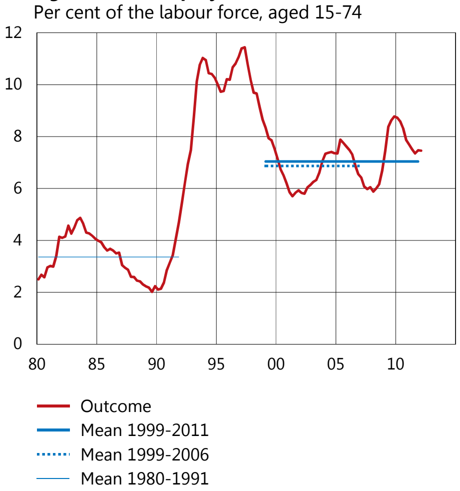

The objective of monetary policy is to stabilise inflation around 2 per cent. Without neglecting the inflation target, the Riksbank also strives to stabilise production and employment around long-term sustainable paths. For this reason it is important for the Riksbank to make assessments, for instance, of long-run developments in the labour market. The long-run production level is linked to developments on the labour market, as if more hours are worked they will contribute to an increase in production.[10] The number of hours worked is affected by several factors: the size of the working age population, the percentage of the population of working age who are part of the labour force (labour force participation), the percentage of employed in the labour force and the average working hours among those who are employed (see Figure A4).

### The Riksbank's assessment of long-run labour market developments

The Government has implemented a number of reforms since 2006, which are aimed at increasing labour force participation and employment and reducing unemployment. At the same time, a change is under way in the composition of the working age population. The assessment of the long-run sustainable levels for the labour market is made in two steps. The first step consists of assessing the long-run equilibrium that prevailed before the government's reforms were begun in 2006. A second step concerns assessing how the long-run developments are affected by the government's reforms and by the expected demographic changes. This article focuses mainly on the long-run sustainable unemployment rate, but the assessments of other variables are made in a similar manner.

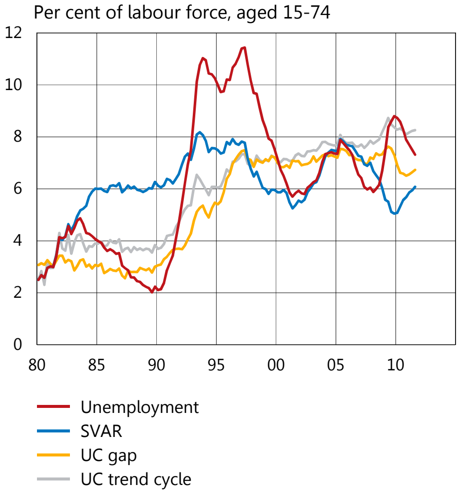
[10] Production can also increase in that labour productivity – production per hour worked – increases. For a discussion of how long-run production can be divided up into different components, see the article "*The driving forces behind trends in the economy can be analysed using a production function*", Monetary Policy Report, October 2010.

**Figure A5. Unemployment**
Per cent of the labour force, aged 15-74




Source: Statistics Sweden

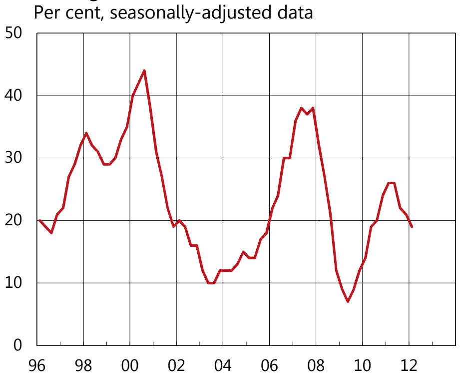
**Figure A6. Model estimates of unemployment trends**
Per cent of labour force, aged 15-74




Note. SVAR is a structural VAR model. UC stands for unobserved component, which is a statistical method for estimating unobserved trends.

Sources: Statistics Sweden and the Riksbank

**Figure A7. Proportion of companies reporting a shortage of labour, total for the business sector**
Per cent, seasonally-adjusted data




Source: National Institute of Economic Research

"Long-run sustainable unemployment rate" here means the level of unemployment that is expected to prevail when all cyclical shocks have abated, and when on-going structural changes have had a full impact.[11] A fundamental difficulty linked to this concept is that real economies are rarely or never in steady state; in fact economies are constantly affected by various shocks that cause deviations from the long-run equilibrium. It is therefore not possible to observe the long-run unemployment rate. Conclusions regarding the level of this must instead be drawn on the basis of the level of actual, observed unemployment.

### Initial status for the labour market prior to the Government reforms

One can obtain an idea of long-run unemployment by studying the average level of actual unemployment over a long period of time. However, this method is substantially complicated with regard to Sweden as unemployment appears to have fluctuated around different long-run levels during different time periods (see Figure A5).

From the end of the 1990s and up to 2006, unemployment varied between 6 and 8 per cent with an average of around 7 per cent (see Figure A5). During this period unemployment did not show any clear trend change, and although the time period is relatively short, it is reasonable to assume that long-run unemployment should have been between 6 and 8 per cent. This conclusion is supported by estimates made using econometric models (see Figure A6).[12]

However, if it takes a very long time for unemployment to return to the long-run level after a shock, it may be difficult to draw conclusions for the long-run unemployment rate on the basis of historical averages. The reason is that unemployment will then for long periods deviate substantially from the long-run level.[13] This also affects the model-based estimates to some extent, as they are dependent on the actual average unemployment rate.

One alternative means of accessing long-run unemployment is to draw conclusions on resource utilisation at a particular point in time on the basis of various indicators. Normal resource utilisation would then indicate that actual unemployment is close to long-run unemployment. Several indicators point to unemployment having fallen below the long-run rate during 2000 and 2001. In 2000 a large percentage of companies reported that there was a shortage of labour, which is shown in Figure A7. During 2001 the vacancy rate was high and the average recruitment times in the business sector were long (see Figures A8

[11] In such a situation there is what is known as a *flow equilibrium*, which means that the flow into unemployment in each period is as large as the flow out from unemployment. In economic models the mathematical representation for this is *steady state* or a long-run, stable equilibrium. Normally this equilibrium is defined using the assumption that the economy grows along a balanced growth path and that companies and households have expectations that coincide with actual outcomes. In this article the term "long-run" is used synonymously with "long-run sustainable".

[12] These estimates should not be regarded as more than indicators of the level of long-run unemployment, as they sometimes capture fluctuations that are too short term.

[13] This is because of what are known as persistence effects, that is, various rigidities in unemployment following cyclical shocks; see for instance B. Holmlund, "The Swedish Unemployment Experience", *Oxford Review of Economic Policy,* 2009. See also L. Ljungqvist and T.J. Sargent, "How Seden's Unemployment Became More like Europe's", in R.B. Freeman, B. Swedenborg and R.H. Topel (eds), *Reforming the Welfare State: Recovery and Beyond in Sweden,* NBER Books, 2010. The average level of unemployment may also be difficult to interpret for other reasons. One such reason may be the differences between expected and actual inflation. There are also theories that say that such differences, if they persist for a long period of time, can lead to average unemployment differing from the long-run level. See, for instance, G.A. Akerlof, W.T. Dickens and G.L. Perry, "Near-Rational Wage and Price Setting and the Long-Run Phillips Curve", *Brookings Papers on Economic Activity,* 2000 and L.E.O. Svensson, "The possible unemployment cost of average inflation below a credible target", unpublished manuscript, www.larseosvensson.net, 2012.

and A9). The rate of wage increase was also relatively high and on average unemployment was just over 6 per cent during these years (see Figures A10 and A5). A similar pattern was repeated in 2006 and 2007, when unemployment was just over 6.5 per cent on average.

During 2003 and 2004 the shortage figures in the business sector were very low, however, and the vacancy rate had fallen substantially. Recruitment times were on average much shorter, and rates of wage increase slowed down. This statistic indicates that resource utilisation on the labour market was lower than normal and that actual unemployment rose above the long-run level. Unemployment was on average just over 7 per cent during 2004, and during 2005 unemployment rose further and was then on average just over 7.5 per cent.

Seen across the whole period 1999-2006, actual unemployment has varied between 6 and 8 per cent, with an average of around 7 per cent. Indicators of resource utilisation in the labour market give reason to believe that the long-run unemployment rate during this period was somewhat higher than 6 per cent and somewhat lower than 8 per cent. This entails a narrower interval for long-run unemployment than for actual unemployment. The Riksbank's overall assessment is that long-run unemployment was between 6.5 and 7.5 per cent during the period 1999-2006.

### Long-run effects of the Government reforms

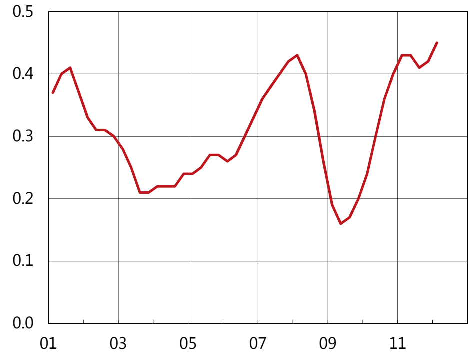
One aim of the Government's economic policy reforms since 2006 has been to increase the incentives to work. The tax deductions for those in work make it relatively more profitable for people of working age to participate in the labour force.

It is not self-evident that an increase in labour force participation leads to a decline in unemployment. However, both the tax deductions for those in work and the changes in unemployment benefits contribute to the compensation after tax for unemployment falling in relation to wages after tax for those who work. This is usually referred to as *the effective replacement rate* for unemployment declining.

The assessment of the effect on long-run unemployment in Sweden of a lower effective replacement rate has two components: an estimate of how much the effective replacement rate falls as a result of the reforms, and the effect on long-run unemployment of a lower replacement rate.[14]

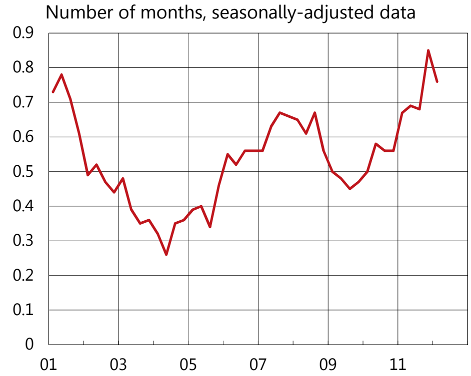
Several factors have contributed to reducing the effective replacement rate since 2006. The introduction of the tax reduction for those in work has not included any corresponding tax reduction on income in the form of unemployment benefits. The reforms in the unemployment benefit system have also contributed to reducing the effective replacement rate. For instance, the insurance regulations have been changed so that the nominal replacement rate now declines in

**Figure A8. Vacancy rate**
Per cent of labour force



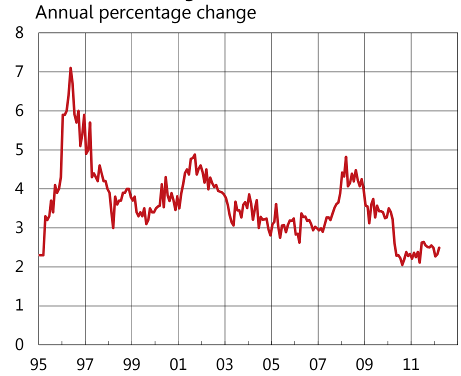

Source: Statistics Sweden

**Figure A9. Average recruitment time in the business sector**
Number of months, seasonally-adjusted data




Source: Statistics Sweden

**Figure A10. Wages in the whole economy according to short-term wage statistics**
Annual percentage change




Sources: National Mediation Office and the Riksbank

[14] Similar reasoning also applies to other labour market variables, such as the number of hours worked.

stages over time.[15] Another factor that has been important to the effective replacement rate is that the highest daily rate for unemployment benefits, what is known as the ceiling, has not been raised in line with general developments in wages.

All in all, the Riksbank assesses that the average effective replacement rate has fallen by between 8 and 13 percentage points since 2006. Around 3 percentage points of this are assessed to be due to the tax deductions for those in work. Other factors, such as changes in regulations regarding unemployment insurance and the unchanged ceiling, are expected to contribute with a fall of between 5 and 10 percentage points.[16]

A large number of research studies have examined the relationship between compensation levels in unemployment insurance and the unemployment rate. All in all, the results provide clear support for the theory that reducing the effective replacement rate leads to a shorter average period of unemployment and to a fall in unemployment.[17] A compilation of several studies indicates that reducing the replacement rate by one percentage point would lead to a reduction in unemployment of between 0.08 and 0.16 percentage points.[18] The Riksbank has used these results as a basis for assessing the effects of lower replacement rates on long-run unemployment.

As mentioned earlier, the Riksbank assesses that the average effective replacement rate has fallen by between 8 and 13 percentage points since 2006, at the same time as the effect on unemployment of a one percentage point lower replacement rate is estimated to be 0.08-0.16 percentage points. The government's reforms and the decision to leave the unemployment insurance ceiling unchanged are thus expected to lead to long-run unemployment falling by between 0.6 and 2.1 percentage points.[19]

**Long-run effects of demographic changes**

Over time the size and composition of the working age population changes, which also affects the development of the labour force. Statistics Sweden's latest population forecast entails the population in

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[15] The *nominal compensation rate* here refers to the degree of compensation stated in the regulations on unemployment benefits. The compensation rate was previously 80 per cent of the earlier salary, up to the maximum daily amount allowed by the unemployment insurance. In 2007 the regulations were changed, so that the compensation rate is 80 per cent during the first 200 compensation days and then becomes 70 per cent. After 300 days of compensation, the unemployed person is transferred to the job and development guarantee scheme, with a compensation rate of 65 per cent. Slightly different regulations apply to parents who have to support children. Another important change is that the higher ceiling during the first 100 compensation days has been abolished.

[16] The Riksbank bases its assessment of the effects on the effective compensation rate on a comparison of the calculations made by the National Institute of Economic Research, the Ministry of Finance and the Swedish Government's fiscal policy council. The difficulties with this type of calculation are illustrated by the fact that the National Institute of Economic Research and the Ministry of Finance have obtained partly different results. The National Institute of Economic Research's calculations and assessments are reported in *The Swedish Economy* published in December 2011. The bases for the Ministry of Finance's conclusions on the effective compensation rate are described in "How should the functioning of the labour market be assessed?" report 2011:1 from the Economic Affairs Department of the Ministry of Finance. See also the fiscal policy council's report from 2010.

[17] See, for example, the fiscal policy council's report from 2008. These empirical results support the results of the so-called search theory, which predicts that lower compensation levels should lead to the individual unemployed person searching more intensively for work, and to wages falling. The fact that wages become relatively lower makes it more profitable for companies to recruit and retain personnel, which also contributes to lower long-run unemployment.

[18] The compilation of the results based on data from various OECD countries can be found in "How should the functioning of the labour market be assessed?" report 2011:1 from the Economic Affairs Department of the Ministry of Finance. These results are comparable in size to the effects measured in a study of Swedish data; see B. Holmlund et al. "Do Benefit Cuts Boost Job Finding? Swedish Evidence from the 1990s", *Economic Journal*, 2001.

[19] That is, 0.08*8 percentage points (approximately 0.6 percentage points) and 0.16*13 percentage points (approximately 2.1 percentage points) respectively.

the age group 15-74 years growing by 9.5 per cent between 2006 and 2020. At the same time, the composition of the population in this age group is expected to change relatively substantially during this period of time; groups with an average lower employment rate and higher unemployment - such as those born abroad - increase as a percentage of the population. This means that demographic developments are expected to subdue labour force participation at the same time as long-run unemployment is expected to be higher.

A common means of calculating the demographic effect on the labour market is to start with Statistics Sweden's population forecast. A projection is made, based on the assumption that labour force participation and the employment rate remain constant for each sub-group of the working age population (based on gender, age and country of origin).[20] Using the levels in 2006 as a base, this means that labour force participation up to 2010 falls by 2.7 per cent, the employment rate falls by 2.9 per cent and long-run unemployment rises by 0.6 percentage points.

**Considerable uncertainty in the assessment**

The assessments of the effects on long-run levels in the labour market are highly uncertain. With regard to unemployment, the government's reforms combined with demographic effects are expected to lead to a decline of between 0 and 1.5 percentage points in the long run.[21] Table A1 shows the assessed effects regarding the long-run development of the labour market in the form of central points within an uncertainty interval. As an example, for unemployment, the total effect of -0.8 percentage points refers to the central point in an interval of 0 to -1.5 percentage points.

**Table A1. Expected changes in long-run levels from 2006**
Per cent unless otherwise stated

| | Unemployment[1] | Labour force | Number of hours worked |
|---|---|---|---|
| Political effects | -1.4 | 2.6 | 4.1 |
| of which tax deductions for those in work | -0.4 | 1.6 | 2.0 |
| of which unemployment benefits[2] | -1.0 | 0.1 | 1.1 |
| of which other reforms[3] | 0.0 | 0.9 | 1.0 |
| Demographic effects | 0.6 | 5.3 | 4.8 |
| Total effects | -0.8 | 7.9 | 8.9 |

[1] Percentage points
[2] Including unchanged ceiling
[3] Other reforms refers to reforms in sickness benefits, labour market policy and the tax deductions for household services, etc.

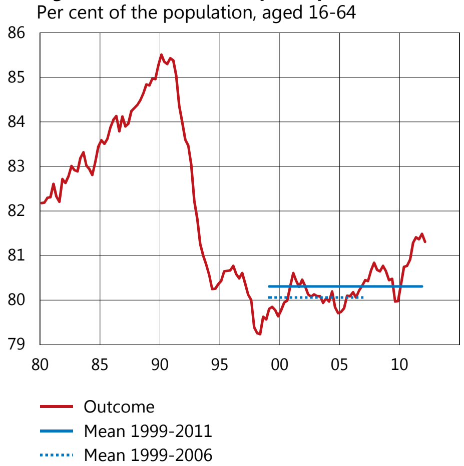
Note. The table shows the central point in an assessed interval for the effects.

Sources: Statistics Sweden and the Riksbank

One important uncertainty factor for the development of long-run labour market developments concerns changes in the composition of the labour force, other than what can be seen in the purely demographic projections. The main ambition of the government's reforms is to reduce

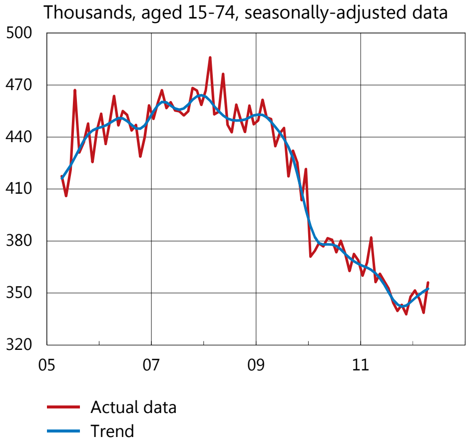
[20] These calculations use Statistics Sweden's most recent population forecast, see *"The future population of Sweden 2012-2060"*, demographic reports, Statistics Sweden, 2012.
[21] The effects of economic policy amounting to 0.6-2.1 percentage points are counteracted by demographic effects of 0.6 percentage points. All in all, the effects of reforms in addition to the tax deduction for those in work and changes in unemployment benefits are expected to offset one another, so that the effect on unemployment is zero in the long run.

**Figure A11. Labour force participation**
Per cent of the population, aged 16-64



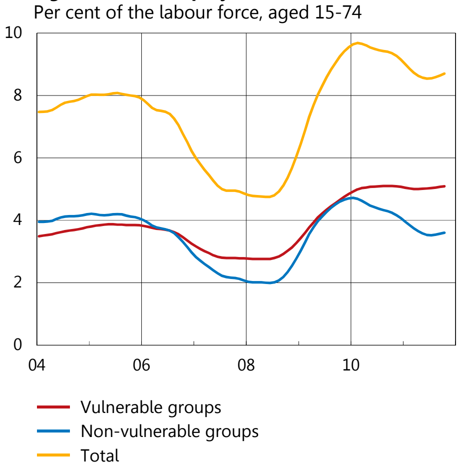

Source: Statistics Sweden

**Figure A12. Number of sick outside of the labour force**
Thousands, aged 15-74, seasonally-adjusted data




Sources: Statistics Sweden and the Riksbank

**Figure A13. Unemployment**
Per cent of the labour force, aged 15-74




Sources: Employment Service and Statistics Sweden

the number of those left outside the labour force. This means, for instance, that groups that have earlier been outside of the labour force shall be encouraged to enter the labour market and seek and find work. The possibilities for these groups to find work may differ substantially from those who have already been part of the labour force. In this case, a more flexible wage formation is required to avoid matching problems on the labour market. This contributes further to the uncertainty in the assessment of long-run unemployment.

### Tendencies in actual developments since 2006

One means of evaluating the effects of the government's reforms is to study the actual development of the labour market, as it is now almost 6 years since the reforms began. One clear change since 2006 is that labour force participation in the age group 16-64 years has increased (see Figure A11).[22] This indicates that new groups have entered the labour market.

However, there are few signs of a trend towards lower unemployment since 2006. If anything, there is a tendency towards rising unemployment (see Figure A5). One explanation for this is that the labour market has been negatively affected since 2008 by the financial crisis. Although the economic downturn 2008-2009 was followed by a period of strong recovery, from the second half of 2011 the debt crisis in Europe has once again significantly dampened economic activity.

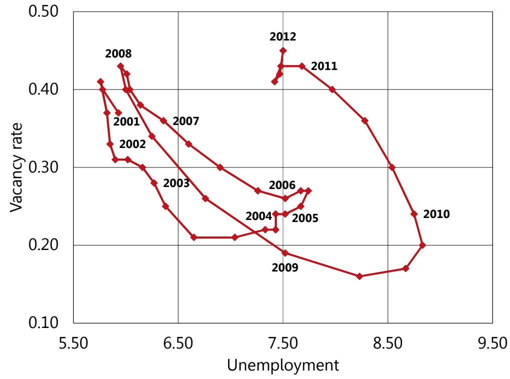
A further possible explanation for the relatively high unemployment is that the composition of the labour force has changed. During 2008, for instance, the Government made extensive changes to the sickness insurance system, which is reflected among other things in the number of people outside the work force who are stated to be sick according to the labour market surveys, having fallen substantially in recent years (see Figure A12). One interpretation is that these people have instead entered the work force, which is supported by statistics from the Swedish Public Employment Service on people with disabilities who have been transferred to them from the Social Insurance Office.[23] According to the Swedish Public Employment Service, it is this group that has the most difficulty in finding work, which may have contributed to higher unemployment. Total unemployment fell in line with the economic recovery in 2010 and the first half of 2011, but among those classified by the Swedish Public Employment Service as vulnerable groups, unemployment remained unchanged (see Figure A13).[24] This could indicate that matching on the labour market has deteriorated.

The effectiveness of matching can be illustrated using a so-called Beveridge curve, which shows the relationship between job vacancies and unemployment. A movement along the Beveridge curve is often

[22] In that the age group 65-75 years has increased as a percentage of the total population aged 15-74, and this group has a relatively low labour force participation, the tendency towards greater labour force participation is not visible in the group 15-74 years.
[23] The Swedish Public Employment Service's statistics show almost a doubling of the number of those registered with labour market-related disabilities in recent years: from around 40,000 people in 2008 to around 70,000 in 2011.
[24] According to the Swedish Public Employment Service, there are four main groups who have a relatively vulnerable position on the labour market and who find it difficult to get a new job if they become unemployed. These "vulnerable" groups include those born abroad, people with less than upper-secondary school education, people in the age group 55-64 and people with a physical disability which reduces their capacity to work.

interpreted as a cyclical change. An outward shift of the curve indicates that matching is working less effectively and vice versa. Ineffective matching means that it takes a long time to pair vacancies and the unemployed together and that unemployment is thus higher, with a given number of job vacancies. Since 2010 the Swedish Beveridge curve appears to have shifted outwards, which may be interpreted as a sign of poorer matching (see Figure A14).

**Figure A14. Beveridge curve**
Per cent of the labour force




Note. Years mark the first quarter of the respective year.
Sources: Employment Service, Statistics Sweden and the Riksbank

**Long-run higher labour force participation and lower unemployment, but assessment is very uncertain**

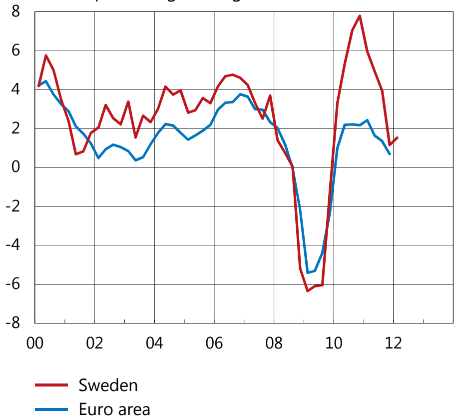
The Riksbank assesses that long-run unemployment was between 6.5 and 7.5 per cent in the period 1999-2006. The government's reforms, which were launched in 2006, are expected to lead to increased labour force participation and to lower unemployment over the long term. However, these effects are wholly or partly counteracted by on-going and expected changes in the composition of the population. From 2006 the effects of the government's policy and of demographic changes are expected to reduce long-run unemployment by between 0 and 1.5 percentage points. All in all, the Riksbank assesses that the level for long-run unemployment in the coming period will be between 5 and 7.5 per cent. The lower figure is based on the assumption that unemployment is initially 6.5 per cent and that the assessed effects of the government's policy and demographic changes amount to -1.5 percentage points. The higher figure is based on an initial level of long-run unemployment of 7.5 per cent long-run unemployment and on the assumption that the effects of the Government's policy and demography offset one another.

The assessment is marked by a number of uncertainty factors, both with regard to the original level and the effects of the government's policy. One uncertainty factor is the possibility to find work for new groups entering the labour force. More flexible wage formation would probably be required for demand to adapt to supply in the long run.

In addition, there is the issue of how quickly the labour market can adapt to new long-run levels. Even here, wage formation plays an important role. In recent years it has been possible to see signs of a deterioration in matching on the labour market, which indicates that the adjustment may take time. From a monetary policy perspective, it is very important how the functioning of the labour market develops. The Riksbank constantly monitors the developments to assess how the functioning of the labour market changes.

# Why has inflation been lower in Sweden than in the euro area?

**Figure A15. GDP growth in Sweden and the euro area**
Annual percentage change

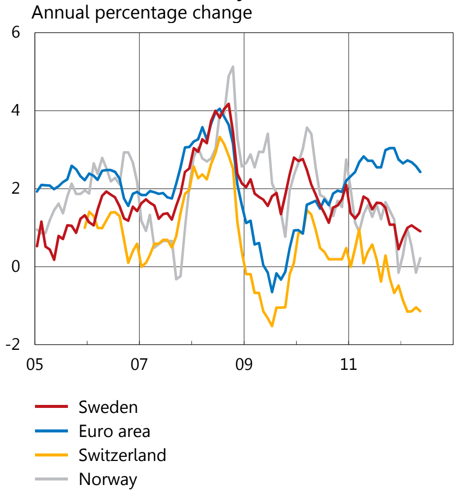



Source: OECD

**Figure A16. Unemployment in Sweden and the euro area**
Per cent of the labour force, seasonally-adjusted data


Source: OECD

**Figure A17. HICP in Sweden, the euro area, Switzerland and Norway**
Annual percentage change




Note. HICP refers to the Harmonised Index for Consumer Prices.
Sources: Eurostat and Statistics Sweden

**Inflation has been lower in Sweden than in the euro area over the past year. This is despite growth being higher and unemployment lower in Sweden than in the euro area. There are several different explanations for this. One explanation is that the Swedish krona has appreciated in recent years.**

### Lower inflation in Sweden than in the euro area

Following the financial crisis, growth has been much higher in Sweden than in the euro area (see Figure A15). Unemployment has fallen by almost 2 percentage points in Sweden, at the same time as it has continued to rise in the euro area (see Figure A16). However, inflation is lower in Sweden than in the euro area (see Figure A17). In Sweden inflation has fallen gradually in the years following the financial crisis. In the euro area inflation fell rapidly at the beginning of the financial crisis, but has risen since the middle of 2009. In May 2012 HICP inflation (Harmonised Index for Consumer Prices) was 0.9 per cent in Sweden, but 2.4 per cent in the euro area.

### Exchange rate explains large share of difference

One of the explanations as to why inflation is lower in Sweden than in the euro area is the development of the krona exchange rate. In 2008 and 2009 the krona weakened substantially, both in trade-weighted terms and against the euro, only to then strengthen towards more normal levels (see Figure A18). Sweden, unlike the euro area, is a small, open economy, and the development of the exchange rate has considerable significance for inflation. Norway, which is also a small, open economy, has seen a similar development in the exchange rate and inflation. Like the Swedish krona, the Norwegian krona weakened substantially during the financial crisis 2008-2009, and then strengthened. Inflation in Norway remained high during the financial crisis and has since fallen (see Figure A17). A further example is Switzerland, where the appreciation of the Swiss franc in recent years has had a large impact on inflation in Switzerland (see Figures A17 and A19).

### Exchange rate and cost pressures reflected in different sub-groups

The way that changes in the exchange rate affect different price groups in the HICP basket depends among other things on the size of the import content in these groups. In the HICP basket the import content is large in the groups of goods (refers to industrial goods excluding energy and food) and food (refers to unprocessed food). The rate of price increase in these groups has also been very low, with falling prices in Sweden during 2011 (see Figures A20 and A21). The corresponding prices in the euro area have at the same time continued to rise. Food prices are also affected by developments in commodity prices on the world market. Figure A20 shows how the rate of price increase for food both in Sweden and the euro area begins to rise when commodity prices increase in 2006-2007. After that, commodity prices fall back and the rate of price increase on food in the euro area falls. In Sweden, however, the rate of increase in food prices was still high, largely due to the krona weakening against the euro (see Figures A19 and A20). The impact of the weaker krona during the crisis and the strengthening that followed are perhaps even clearer in the development of goods prices (see Figure A21). Developments in prices for services, on the other hand, have recently been more similar in Sweden and the euro area (see Figure A22). As the import content in this group is less than for goods and food, prices of services are affected to a greater degree by domestic conditions, such as production costs, than by the exchange rate. Cost pressures in terms of unit labour costs have developed fairly similarly in Sweden and the euro area (see Table A2).

### Low electricity prices in Sweden contribute

A further factor that contributes to inflation being lower in Sweden than in the euro area is the development of energy prices. These are affected by developments in the exchange rate. Developments in electricity prices moreover have a somewhat larger weight in the Swedish HICP than the euro area HICP. This has recently contributed to holding back prices in the Swedish HICP. During the latter part of 2011 and in 2012, electricity prices on the Nordic electricity market Nordpool have fallen heavily, when measured in euro and even more when measured in Swedish krona.

### Changes in indirect taxes are also important

In several euro area countries they have raised indirect taxes over the past year with the aim of improving public finances. This has contributed to inflation being somewhat higher and it explains some part of the difference between HICP inflation in Sweden and in the euro area. During 2011 these tax changes contributed to increasing the difference by on average 0.3 percentage points. However, during 2012 the difference that is due to changes in indirect taxes has declined, despite the VAT on restaurants and catering services in Sweden being cut with effect from 1 January this year. According to calculations by the National Institute of Economic Research, this has contributed to inflation in Sweden becoming around 0.1 percentage points lower at the beginning of 2012.[25]

### Differences in inflation will decline in the future

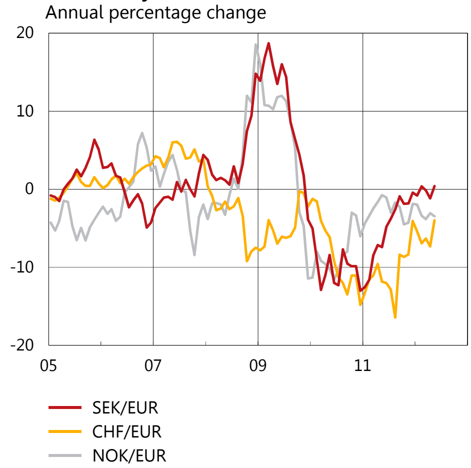
The large fluctuations in the Swedish exchange rate in recent years are thus an important explanation of the difference in inflation in Sweden and the euro area. This raises the question of why the krona first weakened during the crisis and then strengthened. Sweden is very dependent on exports, and when exports fell heavily during the crisis it contributed to weakening the krona. However, developments in recent years have also shown that in periods of great financial uncertainty, less liquid currencies, such as the Swedish krona, tend to weaken as investors prefer to invest in currencies with higher liquidity. The severe weakening of the krona in 2008-2009 was probably also due to Swedish financial

[25] See the National Institute of Economic Research, "Kortsiktiga priseffekter av sänkt mervärdesskatt på restaurang- och cateringtjänster" (short-term price effects of reduced VAT on restaurant and catering services), Article No 13, 2012 and The Swedish Economy June 2012.

**Figure A18. Exchange rate Sweden**
SEK/EUR

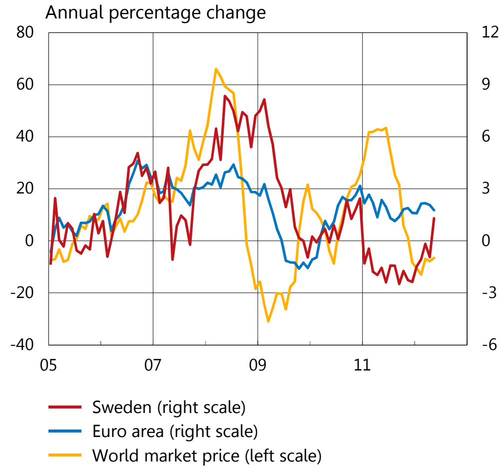

Source: Reuters EcoWin

**Figure A19. Exchange rate for Sweden, Switzerland and Norway**
Annual percentage change



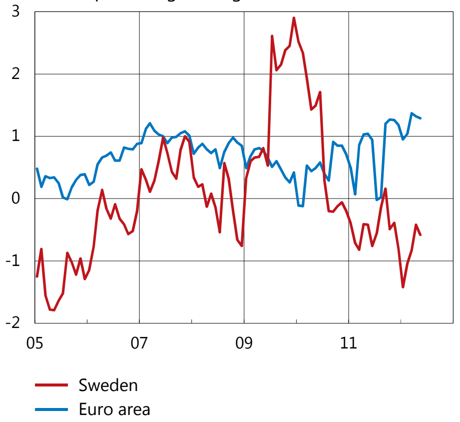

Source: Reuters EcoWin

**Figure A20. Foods in HICP and commodity prices on the world market for food**
Annual percentage change



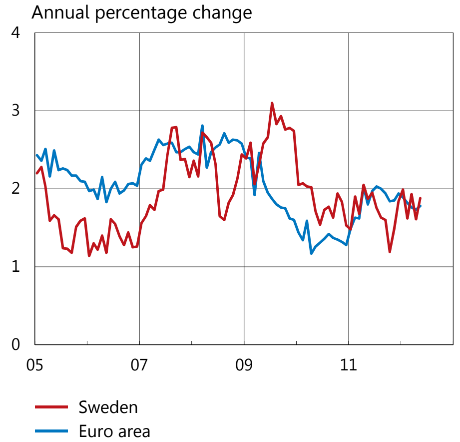

Note. World market price for food refers to The Economist's Commodity Price Index for food.
Sources: Eurostat, Statistics Sweden and The Economist

**Figure A21. Goods in HICP for Sweden and the euro area**
Annual percentage change



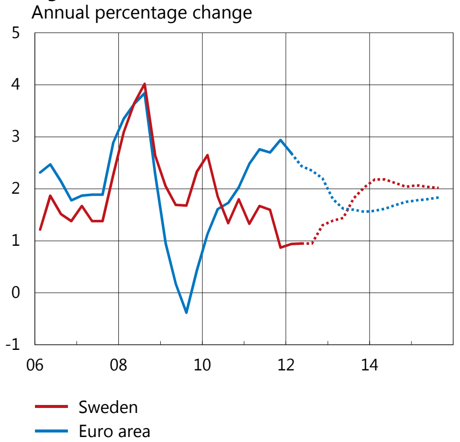

Sources: Eurostat and Statistics Sweden

**Figure A22. Services in HICP for Sweden and the euro area**
Annual percentage change




Sources: Eurostat and Statistics Sweden

**Figure A23. HICP for Sweden and the euro area**
Annual percentage change




Sources: Eurostat, Statistics Sweden and the Riksbank

assets being seen as more risky because of the Swedish banks' large exposure to the Baltic countries. The krona appreciation since the end of 2009 can therefore be regarded as implying that the unease on the financial markets mitigated at the same time as confidence in Swedish banks improved. The sovereign debt crisis in Europe has probably also contributed to increasing demand for Swedish assets, as Sweden's public finances are very strong in comparison with many other European countries.

But other factors may also have affected both the exchange rate and inflation during this period. For example, the policy rate has been higher in Sweden than in the euro area. Economic developments in Sweden have been much better, while the euro area has been hit hard by the sovereign debt crisis. The difference in inflation is expected to decline in the coming period, however. The recovery in Sweden is proceeding faster than that in the euro area, and this means that Swedish inflation is rising relatively quickly towards the target, while inflation in the euro area is falling gradually (see Figure A23).

**Table A2. Inflation and unit labour costs in Sweden and the euro area**
Annual percentage change

| | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|
| HICP, euro area | 0.29 | 1.62 | 2.72 | 2.61 |
| HICP, Sweden | 1.94 | 1.91 | 1.36 | 0.94 |
| Unit labour cost Euro area | 4.1 | -0.9 | 0.8 | 1.0 |
| Unit labour cost Sweden | 4.1 | -1.7 | -0.6 | 1.5 |

Note. The value for 2012 refers to the average until the end of May for the HICP, and to the end of Q1 for unit labour costs.

Sources: Eurostat, the OECD and Statistics Sweden

# Appendix

- Tables
- Articles 2009-2012
- Interest rate decisions 2008-2012
- Glossary

# Tables

The forecast in the previous Monetary Policy Report/Update is shown in brackets unless otherwise stated.

**Table 1. Repo rate forecast**
Per cent, quarterly average values

| | Q2 2012 | Q3 2012 | Q4 2012 | Q3 2013 | Q3 2014 | Q3 2015 |
|---|---|---|---|---|---|---|
| Repo rate | 1.5 | 1.5 (1.5) | 1.4 (1.5) | 1.6 (1.8) | 2.4 (2.6) | 3.1 |

Source: The Riksbank

**Table 2. Inflation**
Annual percentage change, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| CPI | 3.0 (3.0) | 1.1 (1.2) | 1.7 (1.9) | 2.8 (2.9) |
| CPIF | 1.4 (1.4) | 1.0 (1.1) | 1.7 (1.7) | 2.1 (2.0) |
| CPIF excl. energy | 1.0 (1.0) | 1.2 (1.0) | 1.7 (1.6) | 2.0 (2.0) |
| HICP | 1.4 (1.4) | 1.0 (1.1) | 1.7 (1.7) | 2.1 (2.0) |

Note. The rate of change in the CPI is based on revised index figures, which may differ from the established index figures. The CPIF is the CPI with a fixed mortgage rate. HICP is an EU harmonised index of consumer prices.

Sources: Statistics Sweden and the Riksbank

**Table 3. Summary of financial forecasts**
Per cent, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Repo rate | 1.8 (1.8) | 1.5 (1.5) | 1.6 (1.7) | 2.3 (2.5) |
| 10-year rate | 2.7 (2.6) | 1.6 (2.1) | 2.5 (3.1) | 3.5 (3.9) |
| Exchange rate, TCW-index, 18 Nov. 1992=100 | 122.3 (122.3) | 122.6 (120.3) | 118.6 (117.8) | 118.2 (118.2) |
| General government net lending* | 0.1 (0.1) | 0.1 (-0.1) | 0.2 (0.2) | 1.0 (0.9) |

* Per cent of GDP

Sources: Statistics Sweden and the Riksbank

**Table 4. International conditions**

Annual percentage change, unless otherwise stated

| GDP | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Euro area (0,14) | 1.5 (1.5) | -0.4 (-0.3) | 0.4 (1.1) | 1.9 (2.3) |
| USA (0,20) | 1.7 (1.7) | 2.2 (2.3) | 2.4 (2.4) | 3.2 (3.2) |
| Japan (0,06) | -0.7 (-0.7) | 2.7 (1.8) | 1.6 (1.6) | 1.0 (0.9) |
| OECD (0,55) | 1.9 (1.8) | 1.5 (1.6) | 1.9 (2.1) | 2.6 (2.7) |
| TCW-weighted (0,47) | 1.3 (1.3) | 0.4 (0.5) | 1.1 (1.5) | 2.1 (2.3) |
| World (1,00) | 3.9 (3.8) | 3.5 (3.5) | 3.7 (4.0) | 4.2 (4.3) |

Note. The figures in parentheses indicate the global purchasing-power adjusted GDP-weights, according to the IMF, 2010.

| CPI | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Euro area (HICP) | 2.7 (2.7) | 2.4 (2.3) | 1.6 (1.7) | 1.7 (1.6) |
| USA | 3.2 (3.2) | 2.0 (2.0) | 1.8 (1.8) | 1.9 (1.9) |
| Japan | -0.3 (0.0) | 0.1 (0.0) | 0.1 (0.0) | 0.3 (0.0) |
| TCW-weighted | 2.6 (2.6) | 2.1 (2.1) | 1.6 (1.7) | 1.7 (1.6) |

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Policy rates in the rest of the world, TCW-weighted, per cent | 0.8 (0.8) | 0.4 (0.4) | 0.4 (0.4) | 0.7 (0.8) |
| Crude oil price, USD/barrel Brent | 111 (111) | 105 (121) | 95 (115) | 93 (107) |
| Swedish export market | 3.9 (3.7) | 1.4 (1.9) | 3.5 (4.3) | 6.3 (6.3) |

Note. The Swedish export market index is calculated as a weighted average of the imports of the 15 countries which are the largest recipients of Swedish exports. They receive approximately 70 per cent of Swedish exports. The weight assigned to a country is its share of Swedish exports of goods.

Sources: Eurostat, IMF, Intercontinental Exchange, OECD and the Riksbank

**Table 5. GDP by expenditure**

Annual percentage change, unless otherwise stated

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Private consumption | 2.0 (2.1) | 1.5 (1.0) | 1.6 (1.8) | 2.5 (2.5) |
| Public consumption | 1.8 (1.8) | 0.5 (0.5) | 0.9 (0.7) | 0.7 (0.5) |
| Gross fixed capital formation | 6.2 (5.8) | 4.7 (0.7) | 1.5 (3.5) | 5.5 (5.6) |
| Inventory investment* | 0.6 (0.7) | -1.2 (-0.7) | 0.2 (-0.2) | 0.1 (0.0) |
| Exports | 6.9 (6.8) | -0.3 (0.5) | 3.4 (4.9) | 6.5 (6.7) |
| Imports | 6.3 (6.1) | -0.5 (-0.2) | 3.4 (4.7) | 6.7 (6.8) |
| GDP | 3.9 (3.9) | 0.6 (0.4) | 1.7 (1.9) | 2.8 (2.8) |
| GDP, calendar-adjusted | 4.0 (4.0) | 0.9 (0.8) | 1.7 (1.9) | 2.9 (2.9) |
| Final figure for domestic demand* | 2.6 (2.6) | 1.7 (0.7) | 1.3 (1.7) | 2.4 (2.4) |
| Net exports* | 0.7 (0.7) | 0.1 (0.4) | 0.2 (0.5) | 0.3 (0.4) |
| Current account (NA), per cent of GDP | 7.0 (7.2) | 6.6 (7.4) | 6.6 (7.6) | 6.5 (7.6) |

*Contribution to GDP growth, percentage points

Note. The figures show actual growth rates that have not been calendar-adjusted, unless otherwise stated. NA is the National Accounts.

Sources: Statistics Sweden and the Riksbank

**Table 6. Production and employment**
Annual percentage change, unless otherwise stated

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Population, aged 16-64 | 0.3 (0.3) | 0.1 (0.1) | 0.2 (0.0) | 0.2 (0.0) |
| Potential hours worked | 0.8 (0.8) | 0.6 (0.4) | 0.5 (0.3) | 0.4 (0.3) |
| GDP, calendar-adjusted | 4.0 (4.0) | 0.9 (0.8) | 1.7 (1.9) | 2.9 (2.9) |
| Number of hours worked, calendar-adjusted | 2.2 (2.3) | 0.5 (0.2) | 0.1 (0.1) | 0.9 (0.8) |
| Employed, aged 15-74 | 2.1 (2.1) | 0.3 (-0.1) | 0.4 (0.5) | 1.1 (0.9) |
| Labour force, aged 15-74 | 1.2 (1.2) | 0.4 (0.1) | 0.5 (0.4) | 0.3 (0.1) |
| Unemployment, aged 15-74 * | 7.5 (7.5) | 7.6 (7.7) | 7.7 (7.7) | 7.0 (6.9) |

* Per cent of the labour force

Note. Potential hours refer to the long-term sustainable level for the number of hours worked according to the Riksbank's assessment.

Sources: Statistics Sweden and the Riksbank

**Table 7. Wages and unit labour cost for the economy as a whole**
Annual percentage change, calendar-adjusted data

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Hourly wage, NMO | 2.6 (2.7) | 3.1 (3.3) | 3.2 (3.2) | 3.5 (3.4) |
| Hourly wage, NA | 3.4 (3.3) | 3.3 (3.5) | 3.5 (3.4) | 3.8 (3.7) |
| Employer's contribution* | -0.2 (-0.3) | 0.2 (0.3) | 0.0 (0.0) | 0.0 (0.0) |
| Hourly labour cost, NA | 3.1 (3.1) | 3.5 (3.8) | 3.5 (3.4) | 3.8 (3.7) |
| Productivity | 1.7 (1.7) | 0.4 (0.6) | 1.7 (1.8) | 1.9 (2.1) |
| Unit labour cost | 1.4 (1.4) | 3.1 (3.2) | 1.8 (1.6) | 1.8 (1.5) |

* Contribution to the increase in labour costs, percentage points.

Note. NMO is the National Mediation Office's short-term wage statistics and NA is the National Accounts. Labour cost per hour is defined as the sum of actual wages, collective charges and wage taxes divided by the seasonally adjusted total number of hours worked. Unit labour cost is defined as labour cost divided by seasonally-adjusted value added at constant prices.

Sources: National Mediation Office, Statistics Sweden and the Riksbank

**Table 8. Alternative scenario: deeper debt crisis in Europe**
Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| GDP abroad | 1.3 (1.3) | 0.1 (0.4) | -0.6 (1.1) | 0.8 (2.1) |
| Inflation abroad | 2.6 (2.6) | 2.0 (2.1) | 1.3 (1.6) | 1.1 (1.7) |
| Interest rate abroad, per cent | 0.8 (0.8) | 0.3 (0.4) | 0.1 (0.4) | 0.1 (0.7) |
| CPIF | 1.4 (1.4) | 1.1 (1.0) | 2.1 (1.7) | 1.5 (2.1) |
| GDP | 4.0 (4.0) | 0.5 (0.9) | -1.2 (1.7) | 1.3 (2.9) |
| Repo rate, per cent | 1.8 (1.8) | 1.5 (1.5) | 1.3 (1.6) | 1.0 (2.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.9 (7.7) | 7.9 (7.0) |
| TCW-weighted exchange rate, 18 Nov. 1992 = 100 | 122.3 (122.3) | 124.3 (122.6) | 120.8 (118.6) | 118.2 (118.2) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. TCW-weighted foreign variables. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Table 9. Alternative scenario: deeper debt crisis in Europe and more expansionary monetary policy**
Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| CPIF | 1.4 (1.4) | 1.2 (1.0) | 2.5 (1.7) | 2.1 (2.1) |
| GDP | 4.0 (4.0) | 0.6 (0.9) | -0.5 (1.7) | 1.8 (2.9) |
| Repo rate, per cent | 1.8 (1.8) | 1.2 (1.5) | 0.5 (1.6) | 0.5 (2.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.5 (7.7) | 7.2 (7.0) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Table 10. Alternative scenario: confidence returns sooner**

Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| GDP abroad | 1.3 (1.3) | 0.5 (0.4) | 1.5 (1.1) | 2.6 (2.1) |
| Inflation abroad | 2.6 (2.6) | 2.1 (2.1) | 1.9 (1.6) | 1.9 (1.7) |
| Interest rate abroad, per cent | 0.8 (0.8) | 0.4 (0.4) | 0.6 (0.4) | 1.2 (0.7) |
| CPIF | 1.4 (1.4) | 1.0 (1.0) | 1.7 (1.7) | 2.4 (2.1) |
| GDP | 4.0 (4.0) | 1.1 (0.9) | 2.8 (1.7) | 3.4 (2.9) |
| Repo rate, per cent | 1.8 (1.8) | 1.6 (1.5) | 2.1 (1.6) | 3.1 (2.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.3 (7.7) | 6.3 (7.0) |
| TCW-weighted exchange rate, 18 Nov. 1992 = 100 | 122.3 (122.3) | 122.3 (122.6) | 117.7 (118.6) | 118.0 (118.2) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. TCW-weighted foreign variables. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Table 11. Alternative scenario: confidence returns sooner and monetary policy is less expansionary**

Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| CPIF | 1.4 (1.4) | 1.0 (1.0) | 1.7 (1.7) | 2.2 (2.1) |
| GDP | 4.0 (4.0) | 1.1 (0.9) | 2.7 (1.7) | 3.1 (2.9) |
| Repo rate, per cent | 1.8 (1.8) | 1.6 (1.5) | 2.3 (1.6) | 3.5 (2.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.4 (7.7) | 6.5 (7.0) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Table 12. Alternative scenario: higher repo rate**

Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Repo rate, per cent | 1.8 (1.8) | 1.6 (1.5) | 1.7 (1.6) | 2.3 (2.3) |
| CPIF | 1.4 (1.4) | 1.0 (1.0) | 1.5 (1.7) | 2.0 (2.1) |
| CPI | 3.0 (3.0) | 1.2 (1.1) | 1.6 (1.7) | 2.6 (2.8) |
| Hours gap, per cent | -0.4 (-0.4) | -0.5 (-0.4) | -1.0 (-0.9) | -0.5 (-0.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.8 (7.7) | 7.1 (7.0) |
| GDP gap, per cent | -0.2 (-0.2) | -0.9 (-0.9) | -1.2 (-1.0) | -0.5 (-0.2) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

**Table 13. Alternative scenario: lower repo rate**

Annual percentage change, unless otherwise stated, annual average

| | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|
| Repo rate, per cent | 1.8 (1.8) | 1.4 (1.5) | 1.4 (1.6) | 2.3 (2.3) |
| CPIF | 1.4 (1.4) | 1.0 (1.0) | 1.8 (1.7) | 2.2 (2.1) |
| CPI | 3.0 (3.0) | 1.0 (1.1) | 1.8 (1.7) | 3.1 (2.8) |
| Hours gap, per cent | -0.4 (-0.4) | -0.4 (-0.4) | -0.7 (-0.9) | -0.2 (-0.3) |
| Unemployment, aged 15-74* | 7.5 (7.5) | 7.6 (7.6) | 7.5 (7.7) | 6.8 (7.0) |
| GDP gap, per cent | -0.2 (-0.2) | -0.8 (-0.9) | -0.8 (-1.0) | 0.0 (-0.2) |

* Per cent of the labour force
Note. The figures in parentheses show the forecast in the main scenario. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

# Articles 2009-2012[26]



[26] A list of the articles published since 1993 can be found on the Riksbank's website www.riksbank.se.

## Interest rate decisions 2008-2012[27]

| Date of meeting | Repo rate (per cent) | Decision (percentage points) | Monetary Policy Report |
|---|---|---|---|
| **2008** | | | |
| 12 February | 4.25 | +0.25 | 2008:1 |
| 22 April | 4.25 | 0 | Monetary Policy Update |
| 2 July | 4.50 | +0.25 | 2008:2 |
| 3 September | 4.75 | +0.25 | Monetary Policy Update |
| 8 October | 4.25 | –0.50 | *Extra meeting, no report* |
| 22 October | 3.75 | –0.50 | 2008:3 |
| 3 December | 2.00 | –1.75 | Monetary Policy Update |
| **2009** | | | |
| 10 February | 1.00 | –1.00 | February 2009 |
| 20 April | 0.50 | –0.50 | Monetary Policy Update |
| 1 July | 0.25 | –0.25 | April 2009 |
| 2 September | 0.25 | 0 | Monetary Policy Update |
| 21 October | 0.25 | 0 | October 2009 |
| 15 December | 0.25 | 0 | Monetary Policy Update |
| **2010** | | | |
| 10 February | 0.25 | 0 | February 2010 |
| 19 April | 0.25 | 0 | Monetary Policy Update |
| 30 June | 0.50 | +0.25 | July 2010 |
| 1 September | 0.75 | +0.25 | Monetary Policy Update |
| 25 October | 1.00 | +0.25 | October 2010 |
| 14 December | 1.25 | +0.25 | Monetary Policy Update |
| **2011** | | | |
| 14 February | 1.50 | +0.25 | February 2011 |
| 19 April | 1.75 | +0.25 | Monetary Policy Update |
| 4 July | 2.00 | +0.25 | July 2011 |
| 6 September | 2.00 | 0 | Monetary Policy Update |
| 26 October | 2.00 | 0 | October 2011 |
| 19 December | 1.75 | –0.25 | Monetary Policy Update |
| **2012** | | | |
| 15 February | 1.50 | –0.25 | February 2012 |
| 17 April | 1.50 | 0 | Monetary Policy Update |

[27] A list of the historical interest rate decisions with effect from 1999 onwards can be found on the Riksbank's website www.riksbank.se.

# Glossary

**Annual rate:** The annual rate means that the change between two periods following on from one another is converted into the same unit, the corresponding annual change. Recalculation to annual rate makes it easier to compare changes with different frequencies. Assume, for example, that GDP increases by 0.5 per cent between the first and second quarters, when calculated as an annual rate this is around 2 per cent and provides an indication of what the quarterly change may entail in terms of a full year change.

**Asset prices:** Refers mainly to prices of shares and properties.

**Basis spread:** Shows the difference between the interbank rate and the expected policy rate with the same maturity.

**Bond market:** See Fixed-income market.

**Business tendency survey:** A survey in which firms respond to questions about their sales, output, hiring plans, etc.

**Calendar adjustment:** Adjustment for variations in the number of working days from one year to the next. Calendar adjustment is usually used to compare developments in production, turnover and employment (number of hours worked) between quarters or months.

**Capacity utilisation:** The degree to which production capacity is utilised, i.e. the maximum output that can be achieved with the existing workforce, machinery and premises.

**Confidence indicators:** Total measure of the situation within a sector or among households. Confidence indicators are based on an average of the responses to several different questions in a survey.

**CPI:** The consumer price index is a measure of the price level and is calculated on a monthly basis by Statistics Sweden. The Riksbank's inflation target is expressed in the annual percentage change of the CPI.

**CPIF:** The CPI with a fixed mortgage interest rate. The CPIF is not directly affected by a change in mortgage interest rates. The entire change in the sub-index for interest expenditure comes from the change in the value of the housing stock.

**Credit spread:** Refers to the difference between a security with credit risk and a risk-free security with the same maturity.

**Current prices:** The current price expresses the nominal value and is not adjusted for changes in value caused by inflation. See also Fixed prices.

**ECB:** The European Central Bank.

**Econometric estimates:** Usually a statistical calculation made on the basis of historical data.

**Executive Board of the Riksbank:** The Executive Board governs the Riksbank and takes decisions concerning areas such as monetary policy.

**Export market:** Intended as a measure of the demand for imports in the countries to which Sweden exports. Calculated by weighing together imports in the 15 countries which receive the major part of Swedish exports. Approximately 70% of Swedish exports are to these countries. The weights are determined by the respective country's share of Swedish exports of goods.

**FED:** The Federal Reserve, the central bank of the United States.

**Fed funds rate:** The US Federal Reserve's policy rate.

**Financial markets:** A generic term for the markets in which financial instruments are traded. The four main financial markets are the foreign exchange market, the fixed-income or bond market, the share or equity market and the derivatives market.

**Fixed-income market:** The fixed income market is used for trading instruments that yields a specific predetermined return, an interest rate. The fixed income market is often divided into a bond market and a money market. The bond market comprises trade in securities – bonds – generally with maturities of one year and longer. Trading in the money market comprises treasury bills and certificates, usually with maturities of up to one year.

**Fixed prices:** Valuation at fixed prices means that the flows and stocks during an accounting period are valued at prices from an earlier period. The purpose of valuation at fixed prices is to break down changes in value into both changes in price and changes in volume.

**Forward prices:** The price for buying or selling an asset for future delivery.

**Forward rate:** A forward rate agreement entails a liability for the contracting parties to complete the purchase or sale of an interest rate asset at a predetermined rate, the forward rate, and at a predetermined point in time. The forward rate in a contract reflects the market participants' expected interest rates during the time until the contract matures.

**FRA:** A Forward Rate Agreement, where two parties agree to borrow and lend money respectively within the scope of a three-month interbank loan with effect from a particular date in the future at an interest rate agreed by the parties now. The market rates for these FRAs thus give an indication of market participants' expectations of future interest rates. See also the explanations of Forward rate and Interbank rate.

**HICP:** Harmonised index for consumer prices developed as a comparable measure of inflation within the EU. The HICP differs from the CPI both with regard to the measure of calculation and what it covers, for instance mortgage rates are not included in HICP.

**Hodrick-Prescott filter (HP filter):** A statistical method for breaking down the movements of a variable into trend and cyclical components. The method can be described as a weighted double-sided moving average where greater weight is placed on observations close at hand and gradually decreasing weight on observations further ahead.

**Implied forward rates:** For instance, the rate on two bonds with different maturities can be used to calculate future rates, that is, implied forward rates, during the time to maturity of the bonds. This method is used when there are no market-listed forward rates. See also Forward rate.

**Interbank rate:** The interest rate that applies when banks and large financial institutions borrow from one another on the interbank market for terms of up to one year.

**Inflation:** General price rises that cause a reduction in the value of money. The opposite is known as deflation.

**KIX index:** An index for the Swedish krona's exchange rate.

**KIX-weighted:** An aggregate of, for instance, GDP, CPI or the exchange rate in 32 countries and regions that are important to Sweden's international transactions. The KIX weights are updated regularly.

**Labour costs:** The total cost of labour according to the National Accounts, i.e. the sum of wages, including for instance bonuses, employers' contributions, agreed collective charges and payroll-based taxes on output.

**LFS:** Labour Force Surveys. Monthly surveys conducted by Statistics Sweden to measure the size of the labour force, employment and unemployment.

**Monetary base:** Defined in Sweden as banknotes and coins in circulation, monetary policy counterparties' deposits in the Riksbank and claims on the Riksbank as a result of Riksbank Certificates that have been issued.

**Monetary policy:** The measures taken by the Riksbank in order to maintain the value of money.

**Money market:** See Fixed-income market.

**Money supply:** The general public's holdings of banknotes, coins and their demand deposit. There are different measures of the money supply which include different definitions of the demand deposit.

**Money market instruments:** See Fixed-income market.

**MPR:** Monetary Policy Report.

**MPU:** Monetary Policy Update.

**Net figures:** The percentage of companies or households in a survey that state a positive development minus the percentage stating a negative development.

**Net lending (general government):** General government income minus expenditure.

**Overnight rate:** The interest rate for interbank loans overnight.

**Policy rates:** The interest rates set by central banks for conducting monetary policy. In Sweden these are the repo rate and the deposit and lending rates.

**Productivity:** The amount of goods and services produced in relation to the resources utilised in the form of labour and capital. The most common measure is labour productivity, which measures the output per hours worked.

**Purchase price coefficient:** The purchase price of a property divided by its rateable value.

**Real interest rate:** In reality the risk free real (i.e. expressed in purchasing power units) return on a real bond. As liquid real bonds are often not available for relevant maturities, the real interest rate is in practice usually calculated according to the Fisher equation as the nominal interest rate minus expected inflation.

**Refi rate:** The European Central Bank's policy rate.

**Repo rate:** The Riksbank's most important policy rate. The Executive Board of the Riksbank decides on the repo rate as the level that the Riksbank wants to steer the overnight rate towards.

**Resource utilisation:** The utilisation of the production resources labour and capital.

**Risk premium:** An extra return that an investor requires as a compensation for the risk.

**RU indicator:** A summarising measure of resource utilisation from survey data and labour market data. The indicator information is weighed together into an index with the aid of principal component analysis. The index, which is the actual RU indicator, can be regarded as a weighted average of the variables included.

**Seasonal adjustment:** Adjustment of data to even out regularly occurring variations over the year.

**Spot price:** The price of a commodity for its immediate delivery.

**Statistics Sweden:** The Swedish office of national statistics. The central government authority for official statistics.

**STIBOR:** Stockholm Interbank Offered rate. STIBOR is a reference rate used in many loan contracts.

**STINA:** Stockholm Tomorrow/next Interbank Average is an interest rate derivative contract where two parties exchange a fixed interest rate flow and a variable interest rate flow respectively with one another. The interest-rate flows are based on the STIBOR rate for the term tomorrow-to-next which is closely-related to the Riksbank's repo rate. The market-listed fixed interest rate in the STINA contracts reflects the average expected overnight rate during the term of the contract.

**Sub-prime loan:** Mortgages granted to households with low or non-verifiable incomes.

**Sveriges Riksbank Act:** The Act stipulating the tasks of the Riksbank.

**TCW index:** An index for the Swedish krona's exchange rate.

**TCW-weighted:** An aggregate of, for instance, GDP, CPI or exchange rates in 20 countries that are important to Sweden's international transactions. TCW weights are constant.

**TED spread (originally the treasury/euro-dollar spread):** Shows the difference between the interbank rate and the rate on a treasury bill with the same maturity.

**Underlying inflation:** Measures of inflation that in different ways exclude or attribute a different weighting to those goods and services included in the CPI. Underlying inflation can be calculated by excluding changes in the prices of certain goods and services for which the price tends to fluctuate sharply. Underlying inflation can also be calculated with the aid of econometric methods.

**Unit labour cost:** Labour cost (see definition) per unit produced.

**Yield curve:** The yield curve shows the relationship between yield and maturity dates.

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