



Monetary Policy Report

February 2014

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 "Account of 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 12 February 2014. 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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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 STRATEGY²

- 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.

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■ CHAPTER 1 – The economic outlook and inflation prospects

International growth will rise during the forecast period, supported by a continued expansionary monetary policy. GDP growth in the United States is expected to remain high and a recovery is expected in the euro area in the coming years. The recent financial market turbulence has had limited contagion effects and is not expected to prevent a recovery in the global economy.

After just over a year of weak growth, the prospects for the Swedish economy appear brighter. The labour market has improved and confidence in the Swedish household and corporate sectors has continued to rise. Together with a gradually higher demand from abroad, this creates the right conditions for growth to accelerate this year, which will lead to further improvement in the labour market and to rising resource utilisation.

Inflation is still low despite the stronger economic activity. The decline in inflation in recent years has been broad and price increases have been low in relation to developments in companies' costs. As the demand situation normalises, however, companies are expected to increasingly pass on their costs to consumers. CPIF inflation is expected to begin to rise towards the end of the year and to attain 2 per cent during 2015.

The economic outlook and inflation prospects are well in line with the assessments in the December Monetary Policy Update, and the risk outlook for household debt is also roughly the same. The repo rate and repo-rate path are therefore held unchanged. It is considered appropriate to allow the repo rate to remain at 0.75 per cent until the beginning of 2015, after which it will slowly begin to be raised, to support economic activity and contribute to CPIF inflation rising towards 2 per cent. Inflation will then have picked up and the recovery will be on firmer ground. Households' high indebtedness remains a risk to sustainable long-run development.

Summary: Economic upturn in sight, with continued low interest rate as support

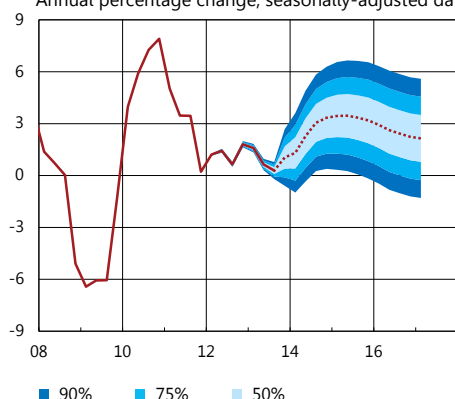
■ Rising international growth

International growth is improving at the same time as inflationary pressures remain low. After a couple of relatively weak years, growth in the developed economies is expected to accelerate. The emerging markets are also expected to grow at a faster rate. A slow normalisation of monetary policy has begun in the United States, but policy rates in developed economies are expected to remain low throughout the forecast period. The financial markets have recently been affected by currency turbulence and stock market falls, partly linked to economic and political challenges in a number of emerging markets. This has had limited contagion effects and is not expected to prevent a recovery in the global economy.

The US economy is continuing to grow and the United Kingdom and Denmark are showing clear signs of a recovery after some years of weak growth. GDP growth has been strong in Japan over the past year, supported by the expansionary economic policy conducted by the government and the central bank. In Norway, on the other hand, growth has slowed down, but is expected to gradually pick up in the coming period.

Figure 1.1. GDP with uncertainty bands

Annual percentage change, seasonally-adjusted data

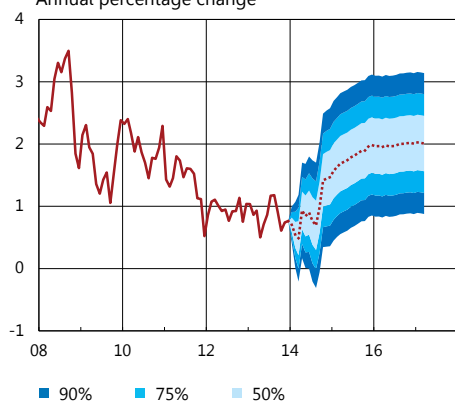


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The outcomes for GDP are also uncertain, as the National Accounts figures are revised several years after the first publication.

Sources: Statistics Sweden and the Riksbank

Figure 1.2. CPIF with uncertainty bands

Annual percentage change

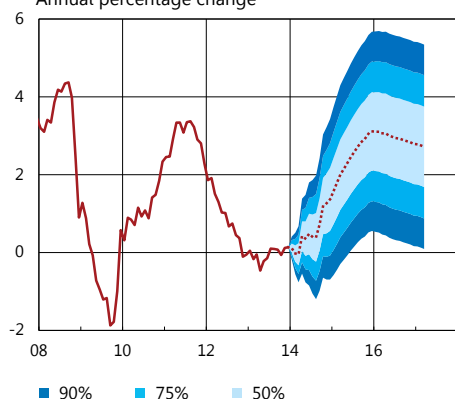


Note. The uncertainty bands are based on the Riksbank's historical forecasting errors. The CPIF is the CPI with a fixed mortgage rate.

Sources: Statistics Sweden and the Riksbank

Figure 1.3. 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

In the euro area, there are signs that developments are moving in the right direction. GDP is growing again and in the countries with debt problems the work on improving competitiveness and managing sovereign debt and weak banks is continuing. However, the recovery is progressing slowly (see the article "Adjustments in the euro area: an update" in this report). Major challenges still remain for several euro area countries that have high debt in both the private and public sectors.

The krona has strengthened against most of the larger currencies since the Monetary Policy Update in December, and this appreciation is expected to be maintained during the forecast period. The forecast for the exchange rate in the longer run is however largely unchanged since the Monetary Policy Update in December.

■ Good prospects of an upturn in Sweden

Signs of an improvement are discernible in the Swedish economy, both with regard to households and companies, and GDP growth is expected to accelerate this year (see figure 1:1). It is important for growth that households increase their consumption. Households have a high level of savings that they are expected to reduce as confidence strengthens. Combined with rising employment, lower taxes and low interest rates, this should contribute to good scope for an increase in consumption. Rising international growth will at the same time contribute to a gradual increase in demand for Swedish export goods, which in turn will lead to a recovery in the manufacturing industry. As demand raises, both international and domestic demand, investment growth in the business sector will also pick up.

The labour market has developed relatively well in recent years. Employment and the labour force have increased. As in December, the assessment is still that unemployment will not begin to fall markedly until the second half of 2014. At the end of the forecast period, it is expected to be around 6.5 per cent.

Inflation is low. Most of the sub-indexes in the CPI increased at a slower pace than normal last year (see the article "Perspectives on the low rate of inflation" in this report). However, inflation is expected to increase gradually during the forecast period as economic activity improves. When measured as an annual percentage change, CPIF inflation will be low until the end of 2014. After that, it will rise and attain 2 per cent in 2015 (see figure 1:2).

CPI inflation, which is now lower than CPIF inflation, will rise faster during the forecast period, due to households' mortgage interest expenditure gradually beginning to rise when the repo rate is raised (see figure 1:3). The rate of increase in the CPI is expected to be just over 2.7 per cent towards the end of the forecast period.

■ Low interest rate until inflation picks up

It is considered appropriate to hold the repo rate at the current low level for the whole of 2014, to support economic activity and contribute to CPI inflation picking up. Economic developments both in Sweden and abroad have been well in line with the Riksbank's most recent forecasts. The adjustments now being made to the forecasts are therefore minor. The repo rate is expected, as was forecast in December, to remain at 0.75 per cent until the beginning of 2015. Inflation will then have picked up and the recovery will be on firmer ground. After that, the repo rate will be raised gradually to 2.7 per cent at the end of the forecast period (see figure 1:4).

Household debt as a percentage of disposable income is currently at a historically-high level and is expected to grow somewhat further during the forecast period. Households' high indebtedness remains a risk to sustainable long-run development. Several policy areas need to cooperate to manage this risk.

Higher global growth

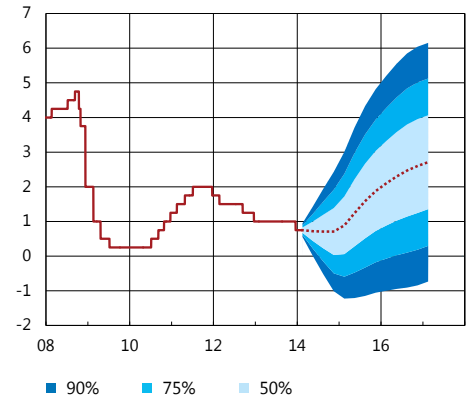
■ Currency turbulence and continuing expansionary monetary policy

The financial markets have recently been affected by the currency turbulence in emerging markets. However, it is mainly countries with large current account deficits, funded by short-term capital flows that have been hit, although stock markets in developed economies have also been affected. No major contagion effects are expected to arise as long as growth prospects continue to improve in the developed economies.

Central bank communications since the Monetary Policy Update was published in December have confirmed that short-term interest rates abroad will remain at the current low levels for a long period to come. The Federal Reserve has announced that its policy rate may well remain at the current level for a longer period of time, even after unemployment has fallen below the stated threshold level of 6.5 per cent. However, the Federal Reserve has begun tapering its monthly bond purchases. So far, decisions have been made to reduce these purchases by a total of USD 20 billion, to USD 65 billion a month. Market participants are expecting the Federal Reserve to reduce its bond purchases by a further USD 10 billion at each coming MPC and to phase out the purchases completely during the second half of 2014. The normalisation of monetary policy, primarily in the United States, means that financial conditions abroad will gradually become less expansionary, despite the low policy rate. This means in the long run that interest rates will rise globally.

The ECB, on the other hand, has communicated that it is prepared to cut its policy rate further if inflation prospects in the medium term fall too far, or if short-term interest rates in the euro area rise too much. The President of the ECB has also made a

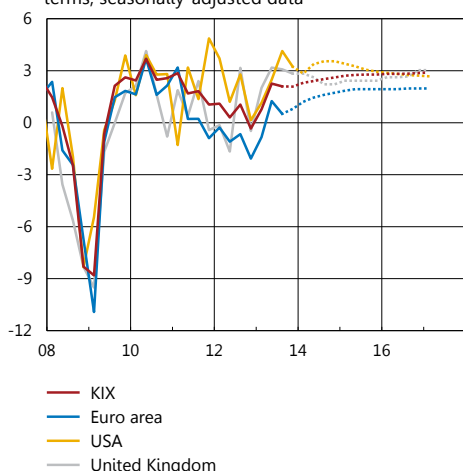
Figure 1:4. Repo rate with uncertainty bands
Per cent



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors and on risk premium-adjusted forward rates' forecasting errors for the period 1999 until the Riksbank began publishing forecasts for the repo rate, in 2007. The uncertainty bands do not take into account the fact that there may be a lower bound for the repo rate. Outcomes are daily rates and the forecasts refer to quarterly averages.

Source: The Riksbank

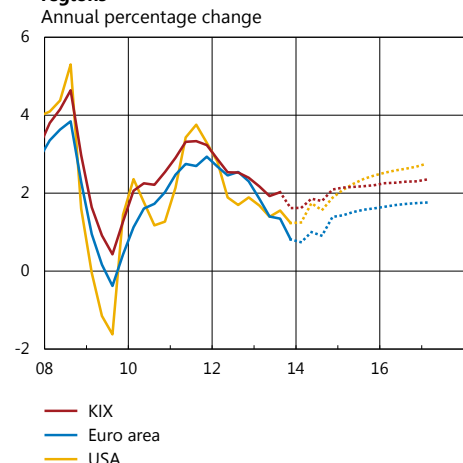
Figure 1.5. Growth in various countries and regions
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



Note. KIX is an aggregate of the countries that are important to Sweden's international transactions.

Sources: Bureau of Economic Analysis, Eurostat, Office for National Statistics, national sources and the Riksbank.

Figure 1.6. Inflation in various countries and regions
Annual percentage change



Note. KIX is an aggregate of the countries that are important to Sweden's international transactions. KIX-weighted inflation refers to HICP for the euro area and CPI for the other countries.

Sources: The Bureau of Labor Statistics, Eurostat, national sources and the Riksbank

statement opening up for the possibility of buying assets directly from euro area banks in certain circumstances, to facilitate lending.

■ Faster recovery in the USA, with reduced uncertainty over fiscal and monetary policies

In the United States, GDP growth has been relatively strong during the second half of 2013, and it is expected to remain high in the coming period (see figure 1:5). Households' endeavours to reduce their debts following the crisis are no longer expected to have a restraining effect on growth. Company profits are high, and this, combined with relatively high confidence among companies, creates good conditions for a continued increase in employment and investment in the coming period. When the labour market strengthens and incomes increase, consumption is also expected to continue to rise rapidly. At the same time, the uncertainty over the fiscal policy direction has declined somewhat, as the political parties have reached agreement on the budget for the current budget year. The general assessment is that fiscal policy will be less tight in the period ahead. The US congress is now close to an agreement on a new level for the debt ceiling for the coming year. The Riksbank's forecasts assume that an agreement will be reached.

Compared with the Monetary Policy Update published in December, the forecast for GDP growth in the United States has been revised up slightly for 2014 and revised down slightly for the following years. This is partly because the assessment of potential GDP growth has been revised down marginally as the labour supply has developed weakly and is expected to grow at a somewhat slower pace in the coming period than was previously assumed. All in all, GDP growth is expected to be just over 3 per cent in 2014 and 2015, and then to fall back somewhat. Inflation, which has been relatively low during the past two years, is expected to rise gradually during the forecast period as the spare capacity in the economy declines (see figure 1:6). The recovery is also supported by the expectation that the Federal Reserve will conduct a very expansionary monetary policy during the entire forecast period.

■ Economic activity improving slowly in the euro area

After showing negative figures for a year and a half, GDP growth in the euro area became positive once again during the second and third quarters of last year. The growth rate is expected to slowly increase as confidence continues to improve (see figure 1:5). At the same time, major challenges remain for several euro area countries that have high debt in both the private and public sectors (see figure A25 and A26). Several countries still have public-finance deficits, which, combined with the low GDP growth, means that it will take time before debts can fall as a percentage of GDP. Credit granting in the euro area countries with sovereign debt problems is also still weak.

Work still remains to be done on the underlying structural problems in a number of countries. Several countries have managed to reduce their relative cost situations and improve their competitiveness in recent years, but further adjustments to the cost situation are necessary. One sign that developments are moving in the right direction is that exports have recently shown a more tangible increase. It is also positive that the differential between long-term interest rates in, for instance, Italy and Spain in relation to Germany has continued to decline (see figure 1:7). Companies in the highly-indebted countries still have to pay much higher interest rates than companies in other euro area countries, which will contribute to dampening development in the period ahead. Investment as a percentage of GDP is also low at present (see figure 1:8), and is expected to return to a more normal level at a very slow pace. Compared with the assessment in the December Monetary Policy Update, the forecast for growth in the euro area during 2015 and 2016 has been revised down marginally, as the adjustment process in larger countries with debt problems is proceeding slowly (see the article "Adjustments in the euro area: an update" in this report).

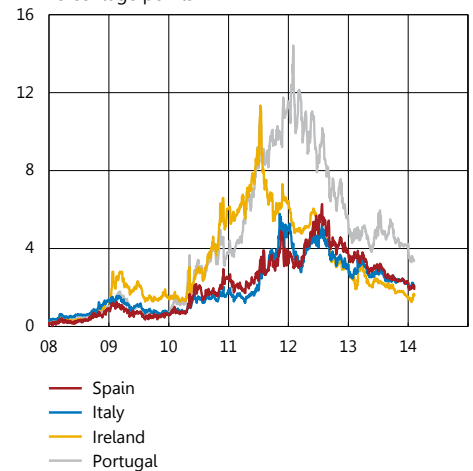
The slow recovery means that resource utilisation in the euro area is expected to be low in the years ahead. HICP inflation is expected to be lower in 2014 than in 2013 (see figure 1:6). After that, it is expected to gradually rise during the forecast period in line with a gradual increase in resource utilisation. It is expected that monetary policy will continue to be highly expansionary.

■ Clear recovery in the United Kingdom and Denmark

GDP growth in the United Kingdom is expected to be relatively high during the forecast period (see figure 1:5). The housing market is expected to recover gradually and fiscal policy is expected to become less tight, which will contribute to an upturn in domestic demand. Unemployment has fallen and is now close to 7 per cent. Productivity growth has been very weak in recent years, but is expected to rise in the coming period. This will lead to relatively low cost pressures, which will contribute to inflation being close to the Bank of England's inflation target of 2 per cent for the remainder of the forecast period. Monetary policy is expected to remain expansionary throughout the forecast period.

The recovery in the Danish economy has begun after a couple of years of weak growth. This is partly the result of an increase in export demand from the euro area, but the fact that the housing market has stabilised has probably also contributed. Inflation, which fell to historically-low levels during 2013, partly due to tax cuts, now shows signs of having stabilised (see figure 1:9). The rate of inflation is expected to rise to around 2 per cent in the years ahead.

Figure 1:7. Differences in government bond yields compared to Germany
Percentage points



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

Source: Macrobond

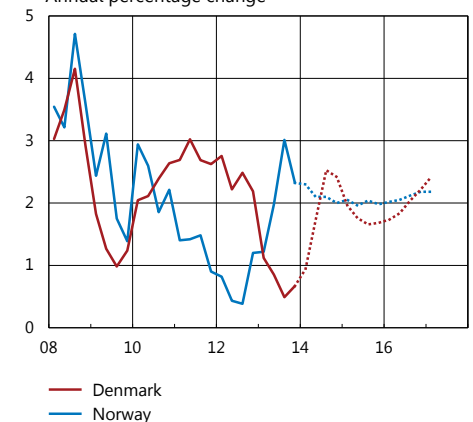
Figure 1:8. Investments in the euro area
Per cent of GDP



Note. Data for 2013 are based on the IMF's forecast for the fourth quarter of 2013.

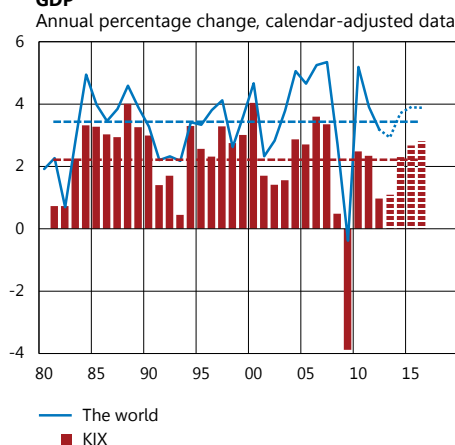
Source: IMF

Figure 1:9. Inflation in Denmark and Norway
Annual percentage change



Sources: Statistics Denmark, Statistics Norway and the Riksbank

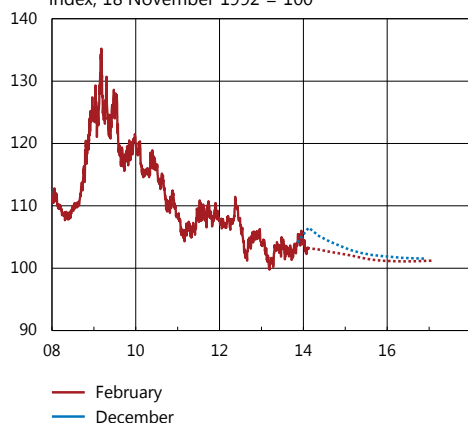
Figure 1:10. GDP in the world and KIX-weighted GDP



Note. The broken lines represent the average for the period 1981–2012. KIX is an aggregate of the countries that are important to Sweden's international transactions.

Sources: IMF, national sources and the Riksbank

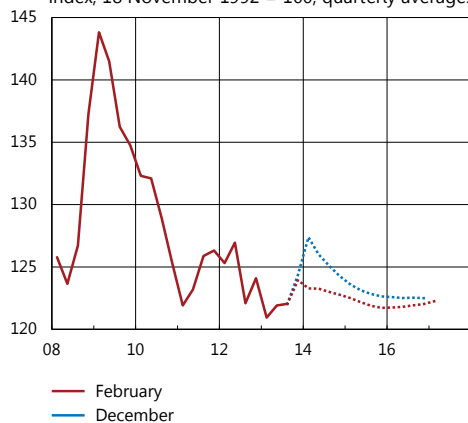
Figure 1:11. KIX-weighted nominal exchange rate Index, 18 November 1992 = 100



Note. Outcomes are daily rates and forecasts refer to quarterly averages. KIX is an aggregate of the countries that are important to Sweden's international transactions.

Source: The Riksbank

Figure 1:12. KIX-weighted real exchange rate Index, 18 November 1992 = 100, quarterly averages



Note. The real exchange rate has been deflated with the CPI for Sweden and the CPI for the rest of the world. The CPI is the CPI with a fixed mortgage rate. KIX is an aggregate of the countries that are important to Sweden's international transactions.

Sources: National sources, Statistics Sweden and the Riksbank

■ Low but rising growth in Norway

In Norway, growth has slowed down, partly in the wake of a lower level of housing construction and a somewhat slower increase in household consumption. Housing prices fell last year and are now expected, in line with Norges Bank's forecast, to stop falling during the first quarter of this year and thereafter to grow at a moderate rate. Growth during the forecast period is expected to increase gradually apace with the global recovery. Inflation, which was 2.3 per cent in January, is expected to remain at approximately this level during the forecast period (see figure 1:9). In line with Norges Bank's forecast from December 2013, the policy rate in Norway is expected to remain at the current level of 1.5 per cent until summer 2015.

■ Continued improvement in Japan

GDP growth was strong in Japan during 2013, supported by the highly expansionary fiscal and monetary policy conducted since the start of last year. Growth is expected to continue to be relatively high in the near term. After several years with deflation problems, Japan now has positive inflation. Coming VAT increases mean that inflation is expected to rise further and be almost 2 per cent at the end of the forecast period.

■ Good growth in the global economy as a whole

The global economy is expected to grow by almost 4 per cent a year during the period 2014–2016. This is a somewhat higher growth rate than the average during the past thirty years, which is not surprising, given that the global economy is still recovering from a deep recession (see figure 1:10). International GDP growth aggregated according to the significance different countries have for the Swedish economy, that is, according to the weights in the KIX index, will also be somewhat higher than the historical average. KIX-weighted GDP growth is expected to be just over 2 per cent this year, which is an improvement on last year's growth of around 1 per cent. It is expected to be just under 3 per cent a year in 2015 and 2016. The rate of inflation is expected to rise, in KIX-weighted terms, from just under 2 per cent this year to just over 2 per cent a year at the end of the forecast period (see figure 1:6).

Several emerging markets have shown somewhat slower growth in 2013 than in previous years. Economic growth is however expected to pick up during the forecast period. In connection with the recent turbulence on the financial markets, these countries' growth prospects have come under focus. Compared with the Monetary Policy Update published in December, the Riksbank has revised down the growth forecast for some emerging markets included in the KIX aggregate, such as Russia, Brazil and Turkey. In China, growth is expected to be around 7 per cent during the coming years, and inflation is expected to be around 3 per cent.

■ Stronger krona

The Swedish krona has strengthened since the monetary policy meeting in December. The reasons for this are relatively strong economic developments in Sweden and expectations of more expansionary monetary policy from the ECB, which have led to an increase in the differential between Swedish and German bond yields and forward rates.

The main krona appreciation has been against the euro, though it has also strengthened against the US dollar. The nominal value of the krona is thus somewhat stronger in trade-weighted terms than was expected in December. The forecast for the nominal exchange rate in the longer term is based, as before, on an assessment of the development of the real exchange rate. The Riksbank's assessment is that the real exchange rate is currently close to its long-term level. The krona is expected to strengthen only marginally during the forecast period, both in nominal and real terms (see figure 1:11 and figure 1:12)

Good prospects of an upturn in Sweden

■ Increasing domestic and international demand driving economic upturn in Sweden

GDP growth is expected to accelerate this year. Sentiment in most business sector industries and among households has risen and is better than normal (see figure 3:19). Household consumption is expected to rise at an increasingly rapid rate this year and housing investment will continue to increase rapidly. Rising international growth will at the same time contribute to demand for Swedish exports gradually increasing, which will lead to a recovery in the manufacturing industry. Rising demand from both the domestic and international markets will mean that growth in investments in other parts of the business sector will also pick up.

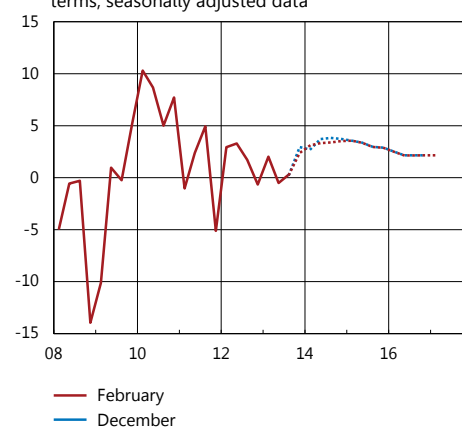
GDP growth in Sweden is expected to be 2.4 per cent this year and 3.6 per cent in 2015. As resource utilisation increases and the interest rate is raised, growth will gradually slow down towards the end of the forecast period. GDP is expected to grow by 2.8 per cent in 2016 (see table 5 and figure 1:13). That is roughly the same as the assessment made in December.

■ Increased international demand boosts Swedish exports

Demand in the Swedish export market has been subdued for some time. This is reflected in the fact that Swedish exports have been falling on a quarterly rate since the middle of 2012. As growth abroad increases, Swedish exports will pick up again (see figure 1:14). Signs of improvement can be seen in the increased orders to the manufacturing industry.

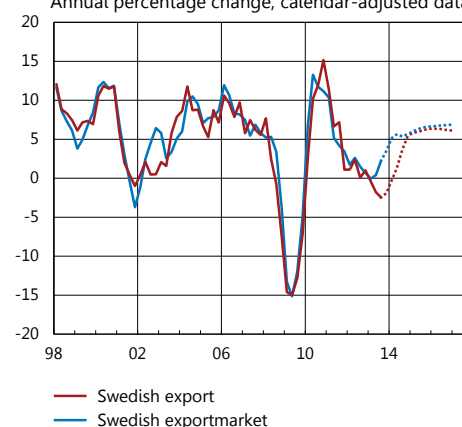
Figure 1:13. GDP

Quarterly changes in per cent, calculated in annualised terms, seasonally adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 1:14. Exports and the Swedish export market
Annual percentage change, calendar-adjusted data

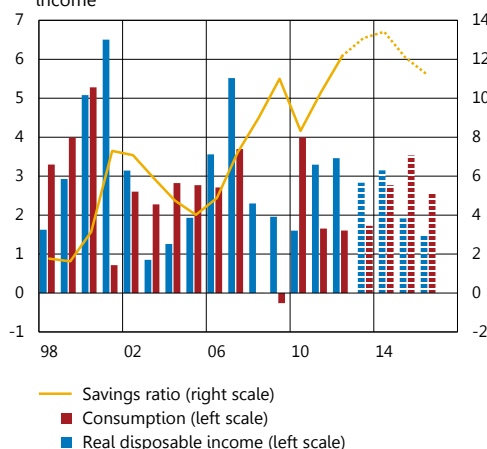


Note. The Swedish export market index aims to measure import demand in the countries to which Sweden exports. This is calculated by aggregating 32 countries and covers around 85 per cent of the total Swedish export market.

Sources: Statistics Sweden and the Riksbank

Figure 1:15. Households' real disposable incomes, consumption and saving ratio

Annual percentage change and per cent of disposable income

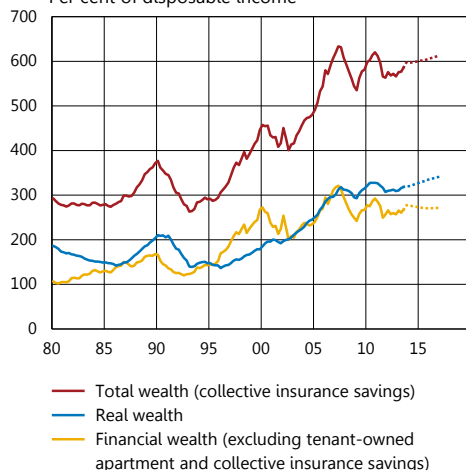


Note. The savings ratio includes collective insurance schemes. Disposable income has been deflated using the household consumption deflator.

Sources: Statistics Sweden and the Riksbank

Figure 1:16. Household wealth

Per cent of disposable income

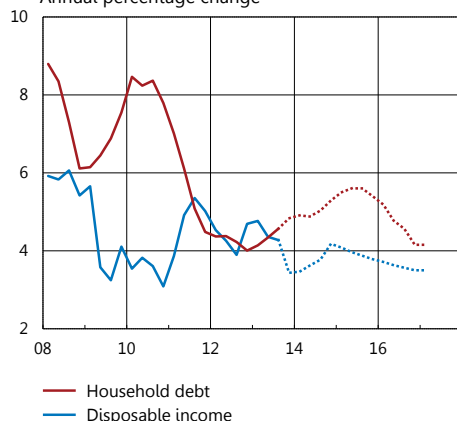


Note. There is no regular publication of official data for households' total wealth. The series refers to the Riksbank's estimate of households' financial assets and assets in the form of housing.

Sources: Statistics Sweden and the Riksbank

Figure 1:17. Household debts and disposable incomes

Annual percentage change



Sources: Statistics Sweden and the Riksbank

Swedish imports have also declined since the middle of 2012 in that developments in sectors with a large import content have been slow. Growth in both exports and imports is expected to rise to annual growth rates of around 6-7 per cent in 2015 and 2016.

■ Good potential for strong consumption growth

There is scope for good growth in consumption in the coming period. Despite the slowdown in the Swedish economy in recent years, households' disposable incomes have increased relatively rapidly and savings ratios have risen (see figure 1:15). Employment is expected to continue to rise, and together with low interest rates and tax cuts this is expected to contribute to a good rate of growth in incomes in 2014. Moreover, low inflation will contribute to real incomes rising at a good pace.

The favourable conditions are mirrored in the confidence indicator for the household sector, which reflects households' views of their own finances and the Swedish economy. This is now higher than its historical average (see figure 3:19). Household consumption is expected to grow at an increasingly rapid rate in 2014 and 2015. As mortgage rates then begin to rise, the growth rate will slow down in 2016 (see figure 1:15). Household consumption will increase faster than incomes during 2015 and 2016, which will reduce the saving ratio in these years.

■ Household wealth and debt increasing

Rising housing prices and equity prices contributed to an increase in household wealth in 2013 (see figure 1:16). Housing prices are expected to continue rising in the years ahead. Higher housing prices will mean that household debt also increases, as house purchases are largely financed through loans. During the forecast period, both wealth and debts will increase faster than incomes. Households' total wealth, as a percentage of disposable income, is expected to increase to just over 600 per cent at the end of the forecast period (see figure 1:16). At the same time, household debt is increasing somewhat faster than household incomes (see figure 1:17). Household debt as a percentage of disposable income will rise to 180 per cent and is thus still high in both an historical and international perspective.

Compared with the assessment in December, the forecast for the debt ratio has been revised up slightly (see figure 1:18). The revision is partly due to Statistics Sweden revising up the outcomes for debt in the first half of 2013 when they published the Financial Accounts for the third quarter. Moreover, household incomes are expected to increase at a somewhat slower pace during the forecast period. Debt is expected to rise in the coming years at around the same pace as was forecast in December.

■ Rising demand will lead to increased investment needs

Total fixed gross investment developed weakly in 2013. Although housing investment increased rapidly, developments were weak in other parts of the business sector.

Capacity utilisation is low in the manufacturing industry (see figure 1:19), but is expected to rise in line with the acceleration in exports and production. The rising demand from both the domestic and international markets will lead to investment growth also accelerating. In addition, this will benefit from interest rates charged to companies having continued to fall, at the same time as conditions on the bond market are favourable for companies using market funding. The positive picture of investment is supported by Statistics Sweden's investment survey, which indicates a broad upturn in investment in 2014, compared with 2013. Housing investment is also expected to continue to increase rapidly.

All in all, total investment is expected to grow by almost 4 per cent this year and by just over 7 per cent in 2015. After that, investment growth is expected to slow down somewhat when investment volumes approach normal levels in relation to production.

■ General government net lending will improve going forward

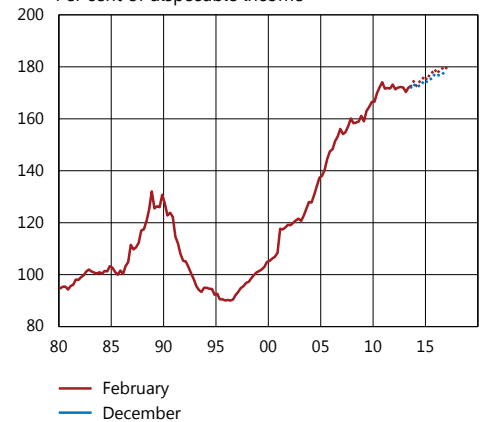
This year, general government net lending is expected to show a deficit of 1.7 per cent of GDP. The fiscal policy measures announced will contribute to a decline in net lending of around 0.6 per cent of GDP and thus stimulate demand in the Swedish economy. At the same time, the stronger economic activity means that net lending as a share of GDP is somewhat lower than last year.

The Riksbank's forecast for public sector net lending is in turn based on announced measures and is complemented by an assessment based on how fiscal policy is usually adjusted to the state of the economy and the policy objectives set by the fiscal-policy framework. As economic activity improves, general government net lending is expected to strengthen in 2015 and show a deficit of 0.6 per cent of GDP. The strengthening will continue in 2016, when net lending is expected to be 0.1 per cent of GDP. Compared with the forecast in the December Monetary Policy Update, general government net lending has been revised down by between two and three tenths of GDP (see table 3). The lower net lending is because the forecast for corporate tax revenue has been revised down and the forecast for expenditure on transfers has been revised up.

■ Substantial but falling surplus on the current account

Sweden has had substantial surpluses on its current account since the mid-1990s. The current account is equivalent to total general government net lending, that is, total saving minus domestic investment. The surplus on the current account thus means that net lending in the economy as a whole is high (see figure 1:20). In the

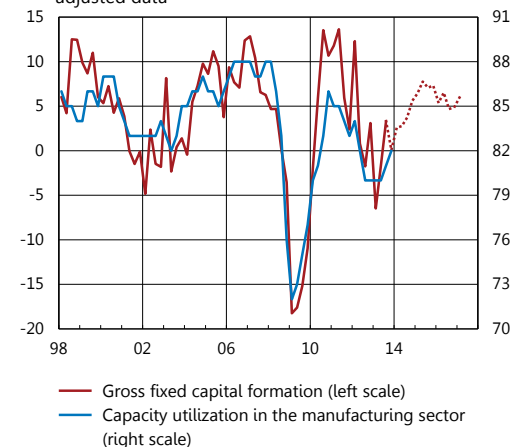
Figure 1:18. Household debt ratio
Per cent of disposable income



Note. Households' total debts as a share of their disposable incomes, totalled over the past 4 quarters.

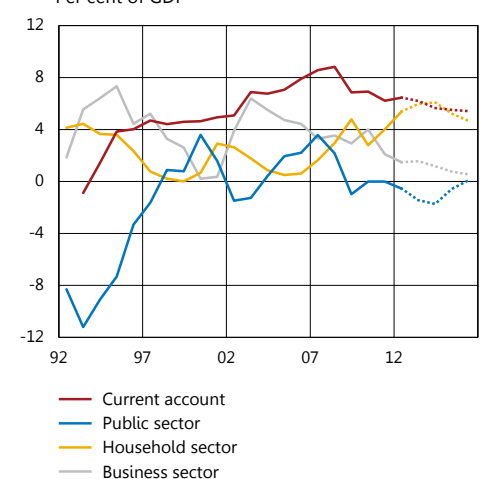
Sources: Statistics Sweden and the Riksbank

Figure 1:19. Gross fixed capital formation and capacity utilisation
Annual percentage change and per cent, seasonally-adjusted data



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

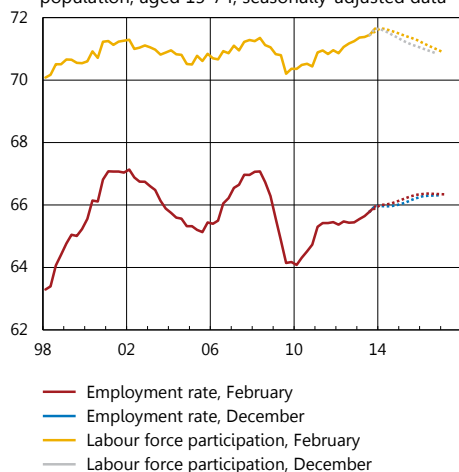
Figure 1:20. Current account and net lending in different sectors
Per cent of GDP



Sources: Statistics Sweden and the Riksbank

Figure 1:21. Employment rate and labour force participation

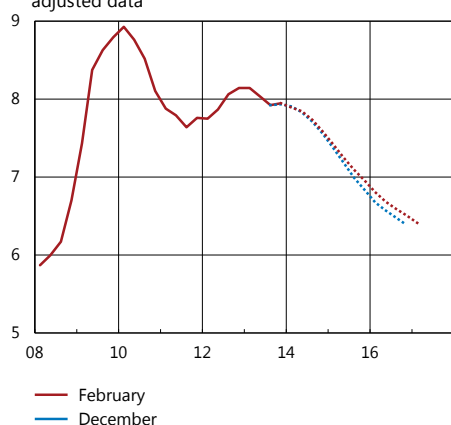
Employment and labour force as percentage of the population, aged 15-74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 1:22. Unemployment

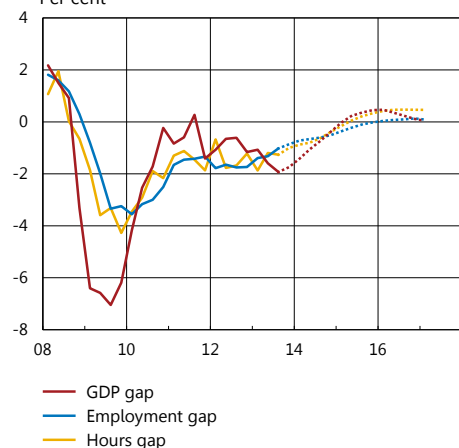
Per cent of the labour force, aged 15-74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 1:23. GDP gap, employment gap and the hours gap

Per cent



Note. The GDP gap refers to the GDP deviation from trend, calculated using a production function. The hours gap and the employment gap refer to the deviation of the number of hours worked and the number of those employed from the Riksbank's assessed trends.

Sources: Statistics Sweden and the Riksbank

forecast, it is primarily the household sector that has a high net lending.

At the end of last year, the current account surplus was revised down for 2011-2012. Although the current account surplus will continue to be relatively substantial it will fall by approximately 1 percentage point between 2012 and 2015 when households reduce their saving somewhat at the same time as the companies increase their investment (see table 5).

■ Continued improvement in the labour market

Despite the fact that GDP growth was relatively weak in 2013, the situation on the Swedish labour market improved gradually. Both labour force participation and the employment rate rose last year and unemployment fell slightly (see figure 1:21 and figure 1:22). Unemployment amounted to 7.9 per cent in the fourth quarter, which was in line with the Riksbank's forecast in the December Monetary Policy Update.

Indicators point to the labour market continuing to improve in the coming period. Companies have an increasingly positive outlook on the future, which is reflected in their positive employment plans, for instance. As economic activity strengthens in the coming years, the demand for labour will rise. The fall in unemployment is partly counteracted by matching problems, which make it harder for jobseekers and employers to find each other (see the article "Perspectives on the development of the Swedish labour market" in Monetary Policy Report October 2013). At the end of the forecast period, unemployment is assessed to be almost 6.5 per cent, which is roughly in line with the Riksbank's assessment in December.

The Riksbank has made a slight upward revision to its assessment of long-term labour force participation and the employment rate, in relation to the assessment in December. In recent years, labour force participation has grown more strongly than expected. On the other hand, the demographical contribution to the labour force has been weak, in the sense that the working age population (15-74) now consists to a larger degree of groups with relatively lower average work force participation. This has, however, been counteracted by the fact that there has been a trend increase in labour force participation in most age groups. The reforms in the Swedish labour market over the past decade are assessed to be one reason for this.

■ Resource utilisation lower than normal but will rise

The Riksbank's overall assessment is that resource utilisation is at present lower than normal (see figure 1:23 and figure 1:24). However, the low interest rate and the good access to funding for companies and households, together with higher global demand, will lead to growth in the economy rising in the coming period and thus to an increase in employment and the number of hours worked. Towards

the end of the forecast period, resource utilisation is expected to be more or less normal. That is roughly the same as the assessment made in December.

■ Rate of wage increases rising

During 2014 and 2015, a small number of central wage agreements, covering around 270,000 employees, will expire. The next large-scale wage bargaining rounds will be in 2016, when more than 420 wage agreements, covering around 2.7 million employees, are expected to expire. The level of the centrally-agreed wage increases in the economy as a whole will average 2.2 per cent in the period 2014–2015, according to the National Mediation Office's compilation. Local wage formation and wage drift will contribute to the outcomes for the wage increases in the economy as a whole normally being higher than indicated by the trade union agreements.

The improved economic activity and labour market situation mean that the rate of wage increase will rise gradually during the forecast period. Wage increases in the economy as a whole will rise from almost 3 per cent this year to almost 3.5 per cent in 2016 (according to the short-term wage statistics). That is roughly the same as the assessment made in December.

The rate of increase in labour productivity has been low in recent years, but an improvement is expected going forward (see figure 1:25). Productivity is assessed to have increased by 0.4 per cent in 2013. This year, the increase is expected to be 1.2 per cent, and a further rise to 1.9 per cent is expected in 2015. The rate of productivity will decline slightly in 2016, to 1.6 per cent.

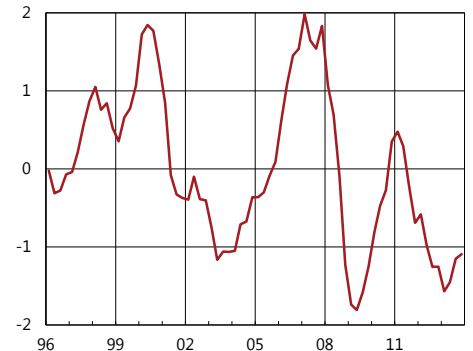
During 2014 and 2015, unit labour costs are expected to increase more slowly than in the years 2011 to 2013. However, in 2016, the rate of increase will rise again to just over 2 per cent (see figure 1:25). The forecast for growth in unit labour costs remains largely unchanged in relation to the December assessment.

■ Low inflation in the coming year

Inflation was somewhat higher than expected in December. But it is still low and is expected to remain low over the coming year, according to all measures (see figure 1:26). Most of the sub-indexes in the CPI increased at a slower pace than normal last year (see the article "Perspectives on the low rate of inflation" in this report). One important explanation for the low inflation rate is thus assumed to be that companies have found it difficult to pass on their cost increases to prices. This could in turn be because demand is, and has been, weaker than normal. The broad downturn in inflation in recent years indicates that underlying inflationary pressures are low.

An expansionary monetary policy contributes to resource utilisation rising during the forecast period, which will lead to faster wage increases and greater scope for companies to raise their prices. In addition, international goods prices are expected to rise as global

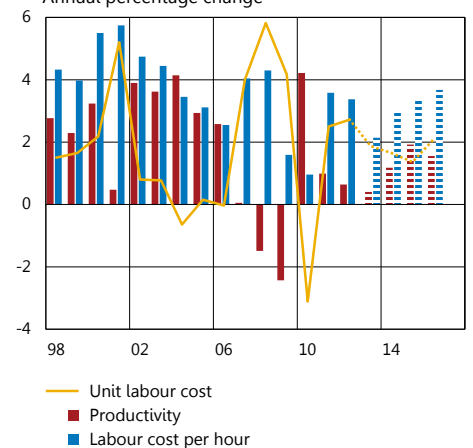
Figure 1:24. RU indicator
Standard deviation



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

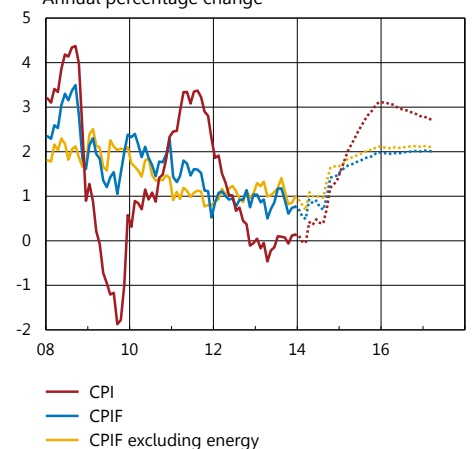
Sources: National Institute of Economic Research, Statistics Sweden and the Riksbank

Figure 1:25. Cost pressures in the economy as a whole
Annual percentage change



Sources: Statistics Sweden and the Riksbank

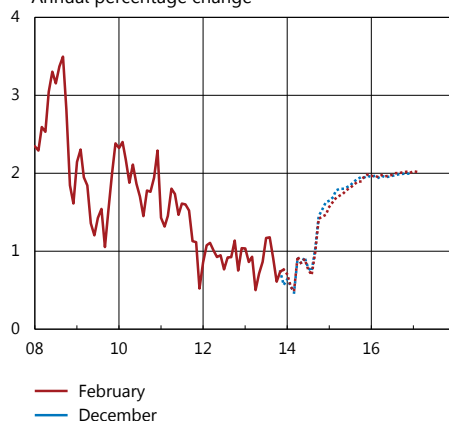
Figure 1:26. CPI, CPIF and CPIF excluding energy
Annual percentage change



Note. The CPIF is the CPI with a fixed mortgage rate.

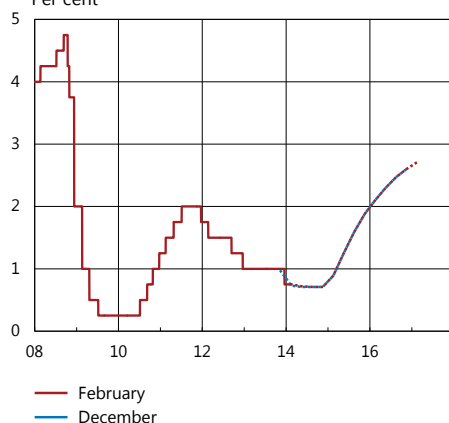
Sources: Statistics Sweden and the Riksbank

Figure 1:27. CPIF
Annual percentage change



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

Figure 1:28. Repo rate
Per cent



Note. Outcomes are daily rates and the forecasts refer to quarterly averages.
Source: The Riksbank

economic activity improves. The krona is expected to strengthen somewhat during the forecast period and to be stronger than the assessment made in December, especially in the coming year. Import prices in the producer channel (which are measured in Swedish krona) are nevertheless expected to increase during the forecast period, after falling since the start of 2012.

Inflationary pressures will therefore increase gradually over the forecast period. Measured as an annual percentage change, CPIF inflation will be low in the coming year and will then increase relatively rapidly towards the end of the year, when the low outcomes of recent months no longer impact the annual rate of increase. After that, CPIF inflation is expected to continue to rise gradually and attain 2 per cent in 2015 (see figure 1:27). Compared with the forecast in December, CPIF inflation is expected to be somewhat lower next year as a result of the expectation that the krona will strengthen.

When the repo rate increases begin, this will contribute to household mortgage rate expenditure increasing. Then CPI inflation will increase faster than CPIF inflation (see figure 1:26). The rate of increase in the CPI is expected to be around 3 per cent at its highest, towards the end of 2015. After that, CPI inflation will slowly fall towards the target. During periods with large interest rate adjustments, measures of inflation that do not include the direct effects of interest rate adjustments, such as the CPIF, provide a better picture of underlying inflationary pressures than the CPI. In the longer run, when the repo rate has stabilised, CPI inflation and CPIF inflation will coincide, however.

Monetary policy considerations

The Executive Board of the Riksbank has decided to hold the repo rate unchanged at 0.75 per cent. The repo rate is expected to remain at this level for around a year (see figure 1:28). It is assessed as appropriate to slowly begin raising the repo rate at the beginning of 2015. At the end of the forecast period, the repo rate will be 2.7 per cent. Compared to the Monetary Policy Update in December, the repo-rate path remains unchanged.

■ Economic activity strengthening, but inflation still low

Economic developments in Sweden and abroad have been in line with the Riksbank's assessment in the December Monetary Policy Update.

International growth will rise during the forecast period, supported by a continued expansionary monetary policy. In the United States, GDP is continuing to increase at a good pace and in the euro area a gradual recovery is taking place. The recent financial market turbulence has had limited contagion effects and is not expected to prevent a recovery in the global economy.

After just over a year of weak growth, the prospects for the Swedish economy appear brighter. The labour market has improved and confidence in the Swedish household and corporate sectors has risen. Together with a gradually higher demand from abroad, this creates the right conditions for growth to accelerate this year, which will lead to further improvement in the labour market and to rising resource utilisation.

Inflation is still low despite the stronger economic activity. The decline in inflation in recent years has been broad and price increases have been low in relation to developments in companies' costs. As the demand situation normalises, however, companies are expected to increasingly pass on their costs to consumers. CPIF inflation is expected to begin to rise towards the end of the year and to reach 2 per cent during 2015 (see figure 1:27).

■ Low interest rate until inflation picks up

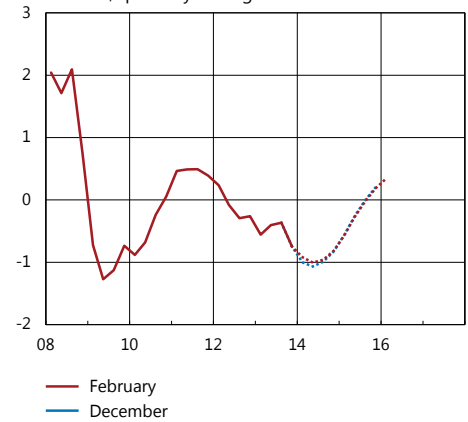
Monetary policy needs to remain expansionary to support economic activity and contribute to inflation picking up. The repo rate is therefore expected to remain at the current low level of 0.75 per cent for around one year. It is assessed as appropriate to slowly begin raising the repo rate at the start of 2015. Inflation will then have picked up and recovery will be on firmer ground. At the end of the forecast period, the repo rate will be 2.7 per cent. The forecast for the repo rate, both nominal and real, is thus in principle unchanged since the Monetary Policy Update in December (see figure 1:28 and figure 1:29).

The low inflation rate has led to short-term inflation expectations falling and being low at present (see figure 1:30). Inflation expectations in the long term have also fallen somewhat in recent years, but are nevertheless close to 2 per cent. An important condition for monetary policy is that the long-term inflation expectations are firmly anchored around the inflation target.

For some time now, monetary policy has involved balancing how low the repo rate needs to be for inflation to approach the target soon enough against the increased risks linked to households' high indebtedness that can stem from a low interest rate. In December, the Riksbank cut the repo rate and the repo-rate path because inflation was lower than expected and inflationary pressures were assessed as lower. The assessment was that a more expansionary monetary policy is required for inflation to reach 2 per cent in the coming years. At the same time, the assessment was still that household indebtedness remains a risk to sustainable long-run development.

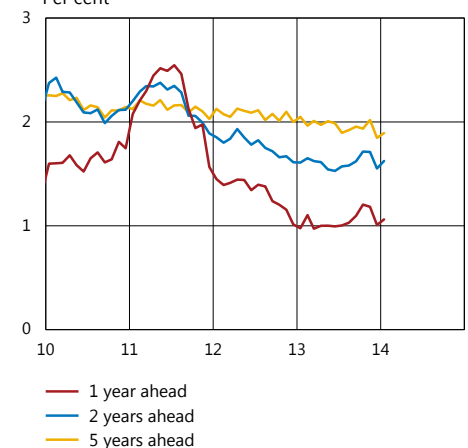
New information received since December confirms the picture that inflationary pressures are low, even though economic activity is now strengthening. The low inflationary pressures justify continued expansionary monetary policy. At the same time, household debt as a

Figure 1:29. Real repo rate
Per cent, quarterly averages

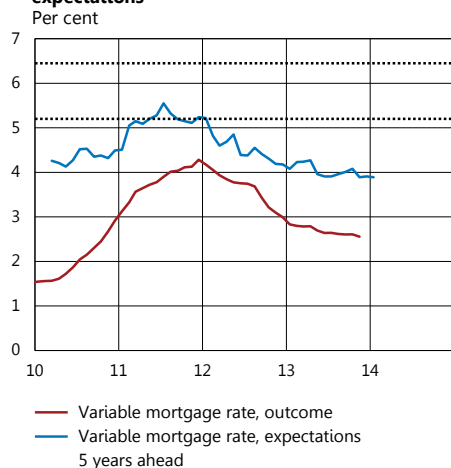


Note. The real repo rate is calculated as a mean value of the Riksbank's repo rate forecast for the year ahead minus the inflation forecast (CPIF) for the corresponding period.
Source: The Riksbank

Figure 1:30. Money market participants' expectations of inflation
Per cent



Source: TNS SIFO Prospera

Figure 1:31. Variable mortgage rate and household expectations

Note. The broken lines show an interval for the long-term level of the variable mortgage rate. The interval is based on an interval for the long-term repo rate of 3.5–4.5 per cent and on an interval for the difference between a three-month mortgage rate and the repo rate of 1.7–2 percentage points.

Sources: The National Institute of Economic Research, Statistics Sweden and the Riksbank

share of income is expected to rise somewhat more in this forecast than was expected in December.

In the forecast, CPIF inflation reaches 2 per cent in 2015. An even more expansionary monetary policy could lead to inflation attaining the target somewhat sooner. But a lower repo rate could also lead to resource utilisation being higher than normal in the long run and to the risks linked to household debt increasing further. The current repo-rate path is expected to stimulate economic developments and contribute to inflation rising towards 2 per cent, at the same time as taking into account the risks linked to household indebtedness.

As described in the article "The effects of monetary policy on household debt", the estimates imply that household debt as a percentage of disposable income increases if the interest rate is cut, but that the effects of temporary changes in the repo rate are on average fairly small. However, it is probable that the effects on indebtedness that would arise from a change in the interest rate would be perceived as much greater in the long run. Such a situation could arise if households' expectations of future mortgage rates are too affected by current low interest rates. Surveys show that households' expectations of mortgage rates five years ahead are lower than is compatible with the Riksbank's assumptions regarding the repo rate in the long term (see figure 1:31). This could lead to a stronger upward trend in both housing prices and debt. If households were for some reason to reduce their debts quickly, there is a risk that demand and unemployment would be affected, which could lead to long-term difficulties in stabilising inflation around the inflation target.

Several policy areas need to cooperate to manage the risks linked to household indebtedness. Finansinspektionen, the Swedish financial supervisory authority, has been given the main responsibility for macroprudential tools in Sweden and the measures taken should contribute to increasing the resilience of the financial system in the long run. However, it is difficult to judge the effects of these measures on household indebtedness. If macroprudential policy were to lead to a decline in the risks linked to household indebtedness, this would ease the monetary policy considerations associated with these risks. The Riksbank will, as before, monitor and analyse risks and resilience in the financial system and ascertain how these affect general economic development and thereby monetary policy.

■ Uncertainty over economic outlook and inflation prospects

Developments abroad, and thus the demand for Swedish exports, remain an important source of uncertainty in the forecasts. The prospects for the euro area have improved, but much work still remains to be done to rectify structural problems (see the article "Adjustments in the euro area: an update"). The recent financial unease in several emerging markets is also a source of concern. If the situation abroad were to worsen again or alternatively if the recovery

were to be faster than forecast, this would have consequences for developments in Sweden and for monetary policy.

The fact that inflation in Sweden has been low for a long time, and moreover fell unexpectedly at the end of last year, also entails uncertainty for the forecast. In addition to economic activity, inflation in Sweden is also affected by developments in the exchange rate and in companies' domestic costs, as well as how quickly companies can pass on their cost increases to consumer prices. It is difficult to assess exactly how these factors affect developments in inflation and one cannot rule out the possibility that inflation will remain low for a longer period of time or that it will rise faster than expected when it actually begins to rise. Chapter 2 describes a scenario where companies increase their profits faster than in the main scenario, and how this could lead to either higher or lower inflation. A different development in inflation than described in the main scenario could affect the monetary policy stance.

CHAPTER 2 – Alternative scenarios and risks

Inflation is low and has fallen gradually in recent years. One explanation for this is that the weak demand has led to company prices rising less than their costs. If prices rise more slowly than costs, companies' profits normally decline. In the National Accounts this corresponds to a fall in the so-called profit share. Stronger demand in the coming period will mean that companies have greater scope to raise their prices. However, it is difficult to predict how quickly companies can pass on their cost increases to consumer prices. In this chapter we describe a scenario where the profit share rises faster than in the main scenario, either due to higher demand or as a result of higher growth in productivity, and how monetary policy may react to this. The scenario illustrates how a faster increase in the profit share could lead to either higher or lower inflation, depending on the causes of the increase.

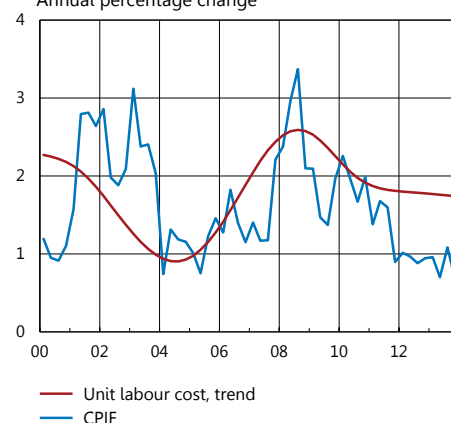
A number of circumstances could give a different course of economic development than the one described in the main scenario of Chapter 1. This is reflected in the uncertainty bands around the forecasts in figures 1:1-1:4. This chapter describes an alternative scenario for economic developments. The aim is to highlight the uncertainty that prevails regarding development in the period ahead and how an alternative scenario could affect the monetary policy stance.

Inflation in Sweden has been low for a long time.³ The article "Perspectives on the low rate of inflation" in this report discusses the low inflationary pressures in recent years. One important explanation for the low inflation in recent years is thus assessed to be that companies have found it difficult to pass on their cost increases to consumers (see figure 2:1). In other words, the price mark-ups, that is, how much prices exceed costs, can be said to have declined. If companies' costs rise rapidly in relation to the value of their production, their profitability declines, which is reflected in the National Accounts as the profit share falling (see figure 2:2). The profit share, which is a measure of companies' profitability, is thus also a rough measure of the companies' price mark-ups. The fact that price mark-ups are low and the profit share is falling could in turn be because demand is, and has been, weaker than normal and because there has been considerable uncertainty over international developments.

The scenario in this chapter focuses on how costs and price mark-ups can affect the labour market, inflation and monetary policy in the coming years. The scenario illustrates how a faster increase in the profit share could lead to either higher or lower inflation, depending on the causes of the increase.

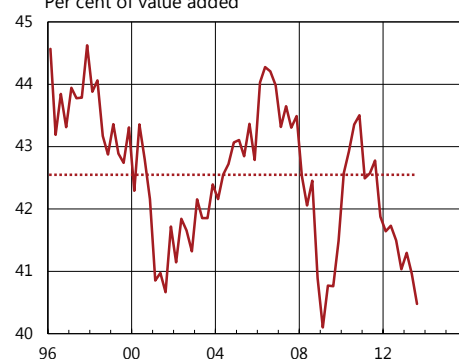
The scenario is depicted in two different versions. In the first version, profit shares are affected by an increase in demand, and in the second version profit shares increase primarily as a result of

Figure 2:1. Unit labour costs and the CPIF
Annual percentage change



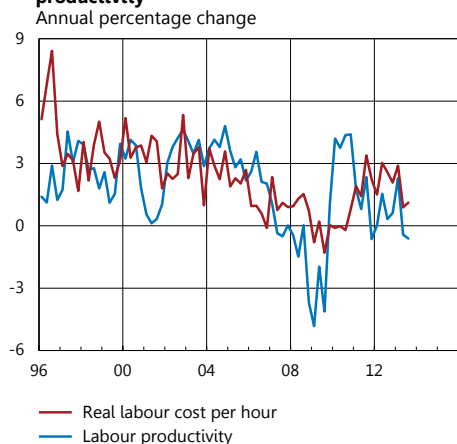
Note. The trend line is estimated using a Hodrick-Prescott-filter (lambda=1600). The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

Figure 2:2. Profit share in the economy as a whole
Per cent of value added



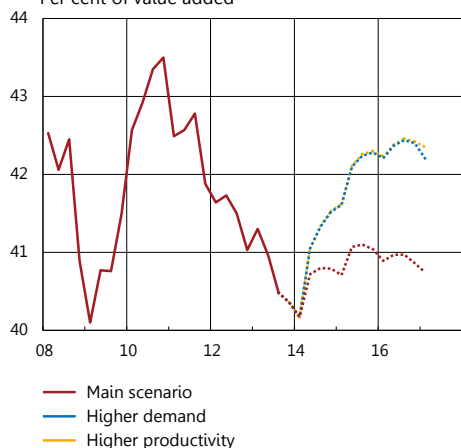
Note. Profit share refers to the gross operating surplus, as a percentage of the total value-added in production. The broken line represent the average for the period 1996 Q1 - 2013 Q3.
Sources: Statistics Sweden and the Riksbank

³ Several articles in the Monetary Policy Reports have been about the various factors that have affected inflation. The article "The development of costs and inflation" in the Monetary Policy Report July 2013 discusses, for instance, companies' costs and pricing.

Figure 2.3. Real labour cost per hour and labour productivity

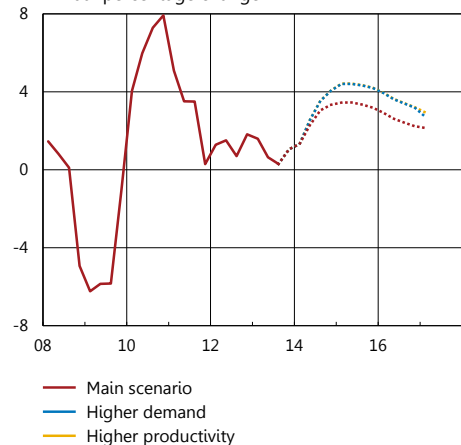
Note. Real labour cost per hour is defined as labour costs in the economy as a whole deflated with the GDP deflator. Labour costs per hour are defined as the sum of actual wages, collective charges and wage taxes divided by the total number of hours worked, seasonally-adjusted data. Labour productivity is defined as production per hour worked.

Sources: Statistics Sweden and the Riksbank

Figure 2.4. Profit share in the economy as a whole

Note. In the alternative with higher demand and higher productivity, the profit share rises by an equal amount. The yellow and blue lines therefore overlap one another.

Sources: Statistics Sweden and the Riksbank

Figure 2.5. GDP

Note. In the alternative with higher demand and higher productivity, GDP rises by an equal amount. The yellow and blue lines therefore overlap one another.

Sources: Statistics Sweden and the Riksbank

higher productivity growth. In both cases, companies' profit shares rise in an identical manner, but costs, inflation, resource utilisation and monetary policy, are affected in different ways. In the first case, inflation and demand for goods and services, as well as labour, rise. In the second case, inflation is instead weaker, as the higher productivity makes it possible to use the existing staff more efficiently, which gives lower production costs. In the first case, the repo-rate path is raised in relation to the main scenario, while in the second case it is cut. Making a correct assessment of the effects a higher profit share has thus ultimately requires a correct assessment of the causes of the increase.

The scenario has been constructed using the Riksbank's macroeconomic model, Ramses. In the model the repo rate is determined by the level of CPIF inflation and resource utilisation.⁴ But in practice monetary policy also takes into account factors that the simplified model does not capture. One such factor is the long-term risk of an overly rapid build-up of debt in the household sector. The results reported below are based on the monetary policy rule of action in Ramses, however.

The chapter concludes with a discussion of two different monetary policy courses of action. The first entails the repo rate being raised more than in the main scenario, whereas the second alternative entails the reverse.

Scenario: Cost developments and inflation

Inflation is low at present. When economic activity in Sweden improves, companies are expected to raise their prices slightly more than their costs rise, which means that the profit share will rise. All in all, rising labour costs, import prices and price mark-ups mean that CPIF inflation will rise to 2 per cent in 2015. But the amount by which inflation increases will depend on the causes behind the current low inflation and on how these factors develop during the forecast period. Several of these factors are difficult to measure, such as costs and, in particular, the extent to which companies pass these on to the consumers. There is also uncertainty over the causes behind the changes in these factors.

■ Which factors affect inflation?

Companies' pricing decisions and how they process information prior to these decisions comprise a central part of modern theories on business cycles and monetary policy. The price a company sets for a certain product or service can be divided up into price mark-up and marginal costs and developments in these factors thus govern the development of inflation. The marginal costs measure what it costs the company to produce one more unit of the product they

⁴ For a description of Ramses, see Adolfson, Malin, Laséen, Stefan, Christiano, Lawrence, Trabandt, Mathias and Walentin, Karl, (2013), "Ramses II: Model description", *Occasional Paper no. 12*. Sveriges Riksbank. The model describes monetary policy with a simple rule of action, where the repo rate depends on the deviation in inflation from 2 per cent and on resource utilisation, measured by the hours worked gap.

manufacture. The marginal costs are affected by the prevailing labour market situation through wage formation. They are also affected by interest rates, which are an important component in the cost of investing. The price mark-up states how much the price a company is paid for its products or services exceeds the company's marginal costs. The price mark-up is thus closely related to the company's profit, and is affected by the competitive situation. Moreover, all of these factors are affected by the prevailing economic situation.

As there is some sluggishness in company pricing behaviour, for various reasons, the prevailing circumstances and expectations of the future will govern companies' pricing decisions.

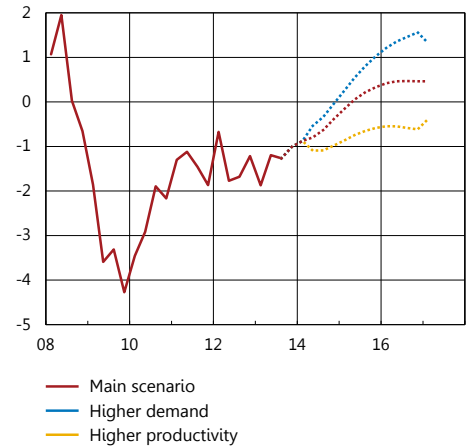
It is difficult in practice to measure marginal costs and price mark-ups. A rough measure of marginal costs is provided by unit labour costs (see figure 2:1). A rough measure of price mark-ups is provided by the so-called profit share (see figure 2:2).⁵ The profit share depends on how companies' real hourly labour costs develop in relation to labour productivity. Higher productivity or lower real hourly labour costs mean, all else being equal, that companies' profitability improves and that the profit share rises. An improved profitability also means that companies' prices rise relatively more than their costs, which means that the price mark-up, as it is defined above, will also increase. The profit share can thus, in addition to providing a measure of companies' profitability situation, also provide a rough measure of the price mark-up. By studying data on profit shares and unit labour costs, one can thus obtain an indication of how the cost situation and price mark-ups vary over time.

As illustrated in figure 2:2, the profit share varies over the business cycle. It tends to be relatively low in a recession and relatively high in a boom. Real labour costs per hour are relatively sluggish in the short term, which means that changes in the profit share covary with growth in labour productivity (see figure 2:3). There are in turn several reasons for the variation in productivity.

Firstly, progress in the companies' work on improving efficiency and developing products is not always at an even and continuous pace. Sometimes, innovations and new production methods may lead to improvements that are quickly adopted by many companies in several different branches. But sometimes, it may instead take a long time before changes are visible at an aggregate level. Factors such as these can contribute to variations in productivity growth over time. Secondly, changes in productivity depend on the fact that time and resources are needed for companies to adapt their workforce to changes in the business cycle. Companies often retain more staff than they need when demand falls, or grow slowly as this reduces the

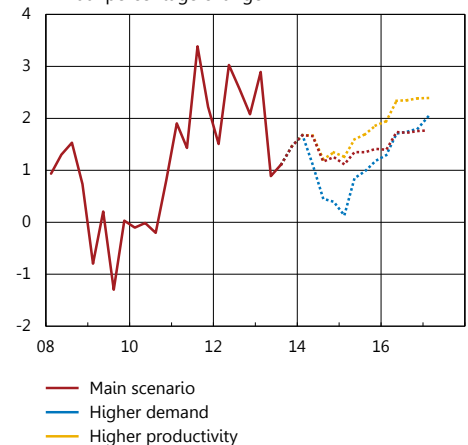
⁵ According to theory (as companies operate under so-called monopolistic competition), prices are determined by price mark-ups and marginal costs as follows: $P = m \times MC$, where P is the price, m is the mark-up, and MC is the marginal cost. MC shows how much it costs companies to manufacture a further product, or carry out a further service. One usually studies how the labour input must vary to change production. The marginal cost is then closely related to the unit labour cost, which can be written as $W \times H / Y$ where $W \times H$ is the wage sum and Y is real GDP. To measure the price mark-up, one needs to divide the price by the marginal costs according to $m = P / (W \times H / Y)$. This is the same as $1 / \text{wage share}$. If the wage share is high, this means that the price mark-up, measured in this way, is low. As the added value can by definition be divided into the wage share and profit share, the price mark-up is thus related to the profit share according to $m = 1 / (1 - \text{the profit share})$. If the profit share is low, this also means that the price mark-up is low.

Figure 2:6. Hours gap
Per cent



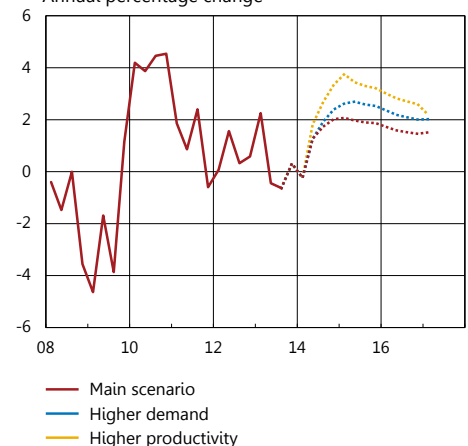
Sources: Statistics Sweden and the Riksbank

Figure 2:7. Real labour cost per hour
Annual percentage change



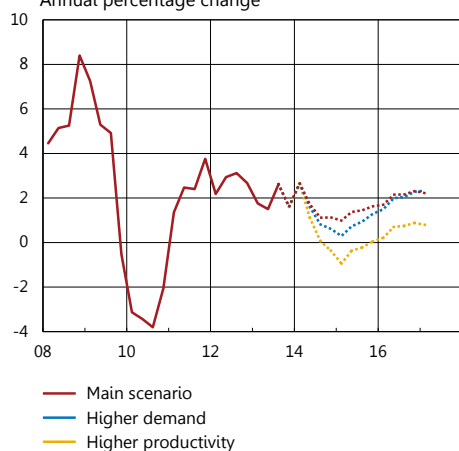
Note. Labour cost per hour is deflated using the GDP deflator.
Sources: Statistics Sweden and the Riksbank

Figure 2:8. Labour productivity
Annual percentage change



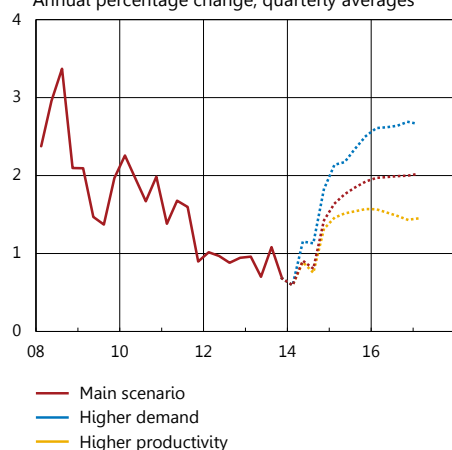
Sources: Statistics Sweden and the Riksbank

Figure 2:9. Unit labour cost
Annual percentage change



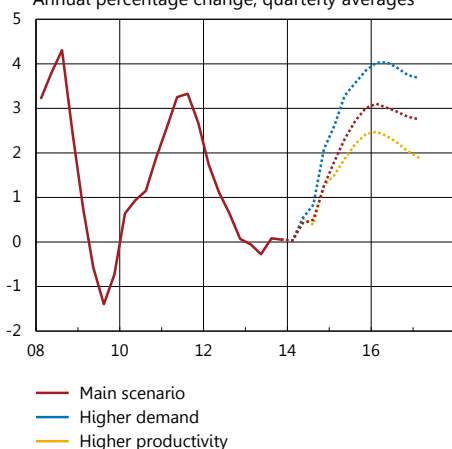
Sources: Statistics Sweden and the Riksbank

Figure 2:10. CPIF
Annual percentage change, quarterly averages



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

Figure 2:11. CPI
Annual percentage change, quarterly averages



Sources: Statistics Sweden and the Riksbank

costs for staff turnover (what is known as labour hoarding). When demand rises again, companies can use existing staff more efficiently and produce more without the number of hours worked rising significantly, which entails a higher growth in productivity.⁶ As real labour costs per hour are relatively sluggish, an economic upturn therefore usually means that the profit share increases.

There are, however, substantial variations in how quickly the profit share increases. The fact that price mark-ups and profit shares increase in an economic upturn may also have different effects on inflation, depending on how the marginal costs develop in the same period.

For these reasons, it is difficult both to measure the factors affecting inflation and to know what effects a given change in the price mark-up, or profit share, will have on resource utilisation, inflation and the repo rate.

■ Rising demand entails a rising profit share and higher inflation

The profit share is low at present and in the main scenario the profit share for the economy as a whole is moderate (see figure 2:4). In the alternative scenario, the profit share rises more than in the main scenario. To begin with, we assume that the profit share rises as a result of demand rising faster. Households' expectations of future developments improve in this scenario. The uncertainty declines and better growth prospects make households and companies more optimistic. This leads to higher domestic demand. Consequently, consumption and investment grow at a faster rate than in the main scenario, and the savings ratio is lower. Companies increase their production to adapt to the higher demand and growth is higher (see figure 2:5).

When companies are to increase their production, they must increase their input of labour and capital. Overtime becomes more common and some companies increase their workforces. Resource utilisation in the labour market rises faster than in the main scenario and is higher than normal throughout most of the forecast period (see figure 2:6). This means that the nominal labour cost per hour rises faster than in the main scenario. The real labour cost per hour grows at a slower rate, however (see figure 2:7). The fact that the real labour cost per hour rises more slowly is a necessary condition for the profit share to rise faster than in the main scenario in that the increase in productivity is only slightly higher than in the main scenario (see figure 2:8). As demand rises, companies raise their price mark-ups and even if the nominal unit labour costs grows at a somewhat slower rate, this results in inflation rises faster than in the main scenario (see figure 2:9 and figure 2:10). Consequently, the repo rate is raised more than in the main scenario, to stabilise CPIF inflation around the inflation target and production and employment

⁶ See the article "What form does the recovery of productivity usually take?" in Monetary Policy Report, July 2010.

around long-run sustainable paths of development (see, for instance, figure 2:6 and figure 2:12). CPI inflation is affected directly by the variation in the repo rate, which means that it varies more than CPIF inflation in the scenario (see figure 2:11).

■ Higher productivity entails a rising profit share and lower inflation

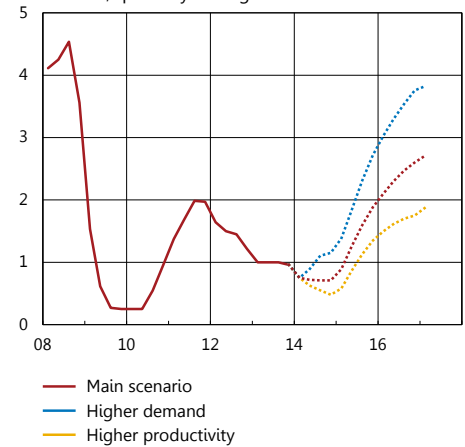
In addition to the variations in demand and real labour costs, changes in labour productivity are an important factor that affects the profit share. In the other version of the scenario, we describe how the economy develops if the higher profit share in Figure 2:4 is generated by higher productivity rather than higher demand (see figure 2:8).

The fact that productivity improves means that companies can produce more with a given input of labour and capital. Thus, companies' unit labour costs rose more slowly than in the scenario above, at the same time as the profit share rises (see figure 2:9). If costs pressures are lower, some companies choose to cut their prices or to raise them more slowly. In this scenario, inflation thus rises more slowly than in the main scenario, despite the profit share rising. This is illustrated in figure 2:10 with inflation measured in terms of the CPIF.

When prices are relatively lower, demand for the companies' products increases. The change in prices is thus important for demand to increase and thus adjust to the higher production volume that companies can attain with the given input. Various price rigidities mean, however, that not all companies have the possibility to immediately cut their prices when circumstances change. Such price rigidities may mean that the average change in prices is not sufficiently large for demand to completely adapt to the new circumstances. Quite simply, total demand does not rise as much as productivity. The consequence of this is that some companies reduce their input of labour. Figure 2:6 illustrates how resource utilisation in the labour market becomes lower than in the main scenario.

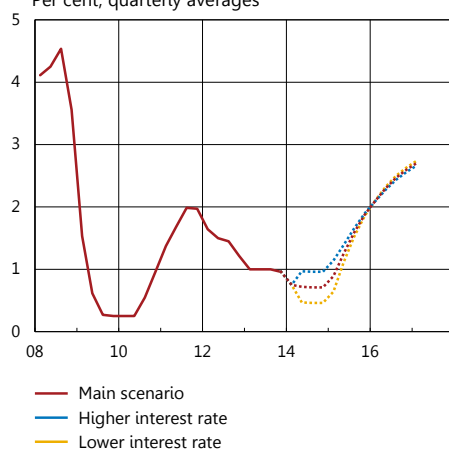
When the profit share rises as a result of productivity developing better than expected, there is reason for the Riksbank to choose a somewhat lower path for the repo rate. Demand is therefore higher than if the repo-rate path had been unchanged. Monetary policy thus contributes to holding up inflation and resource utilisation (see figure 2:12). The fact that the interest rate initially falls means that the difference between CPI inflation in the productivity scenario and in the main scenario is somewhat greater than the corresponding difference in CPIF inflation (compare figure 2:11 and figure 2:10).

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



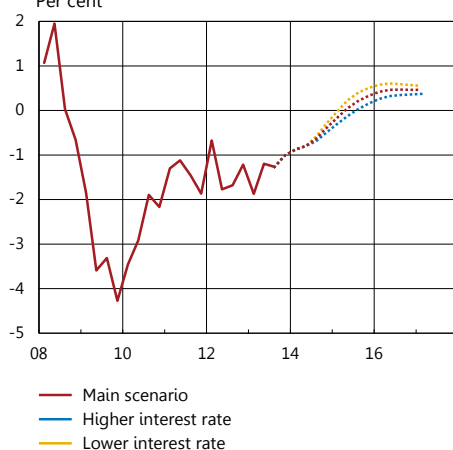
Source: The Riksbank

Figure 2:13. Alternative repo rate paths
Per cent, quarterly averages



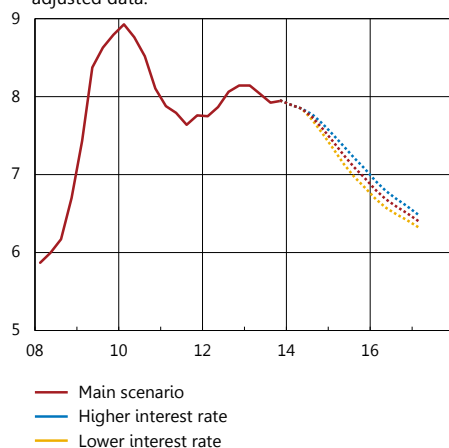
Source: The Riksbank

Figure 2:14. Hours gap
Per cent



Sources: Statistics Sweden and the Riksbank

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



Sources: Statistics Sweden and the Riksbank

■ Monetary policy reacts differently

In the two alternatives with a rising profit share reported here, inflation and resource utilisation are affected in different ways. In the case with higher demand, inflation rises and there is thus reason for the Riksbank to choose a somewhat higher path for the repo rate, while the reverse applies in the case of higher productivity, where inflation is lower. However, in both cases the deviation in CPIF inflation from 2 per cent is greater than in the main scenario. An even higher repo-rate path and an even lower one respectively could thus bring CPIF inflation back to the target somewhat faster during the forecast period.

However, determining exactly how monetary policy should react in these different alternatives is largely a question of judgement. Monetary policy also takes other factors into account. One such important factor is the risk of financial imbalances building up. An excessively rapid build-up of debt and excessive level of debt in the household sector can increase the risk of poorer economic developments in the longer run. If a low repo rate is expected to increase this risk, it may instead justify the repo-rate path being set slightly higher.

Alternative scenarios for the repo rate

This section shows how inflation and resource utilisation could be affected if the Riksbank were to follow a different repo-rate path than the one in the main scenario.⁷ Two alternative repo-rate paths are shown. In the first alternative, the repo rate is set 0.25 percentage points higher for four quarters. In the second alternative, the repo rate is instead set 0.25 percentage points lower for four quarters (see figure 2:13).

■ A higher repo rate leads to lower inflation and lower resource utilisation

A higher repo rate leads to higher market rates, for instance, higher interest on savings accounts. It becomes more favourable for households to save, compared with borrowing, and at the same time it becomes more expensive for companies to fund investments. This means that consumption and investment slow down. This in turn leads, with some time lag, to the demand for labour slowing down, which means that unemployment is higher than in the main scenario (see the blue curve in figure 2:14 and figure 2:15).

Higher interest rates also mean that prices of Swedish assets, for instance bonds, fall. When the demand for these assets increases, the krona strengthens. This in turn means that the prices of imported goods will be lower, at the same time as the demand for Swedish-

⁷ The effects of these alternative scenarios for the repo rate are also based on the Riksbank's macro model, Ramses. Other empirical approaches could lead to other estimates of the effects of a change in the repo rate. The effects on the debt ratio are the same as in the article "The effects of monetary policy on household debt" in this report.

produced goods and services declines. All in all, GDP growth will thus be lower than in the main scenario.

When resource utilisation falls, wage developments will be more restrained. This, together with lower prices for imported intermediate goods, means that companies' costs decline. This in turn means that companies raise their prices at a slower pace and this results in lower CPIF inflation (see the blue curve in figure 2:16). However, higher interest rates mean that households' mortgage costs rise, which means that the effects on CPI inflation will be smaller initially (see the blue curve in figure 2:17).

■ A lower repo rate gives higher inflation and higher resource utilisation

A lower repo rate, on the other hand, will mean that it becomes less attractive to save, and consumption will rise. Lower interest rates will also mean that more potential investments become profitable. When the return on Swedish assets falls, the demand for the krona will decline, so the krona depreciates. This means that demand for Swedish-produced goods and services will increase. All in all, this leads to higher GDP growth and higher resource utilisation than in the main scenario. Higher demand leads, with some time lag, to higher employment and a higher rate of wage increase. At the same time, the krona depreciation contributes to imported intermediate goods becoming more expensive. This means that companies' costs will increase, which in turn will lead to a higher rate of price increase. CPIF inflation thus rises (see the yellow curve in figure 2:16). CPI inflation rises somewhat less, as households' interest expenditure falls initially when the repo rate is cut (see the yellow curve in figure 2:17).

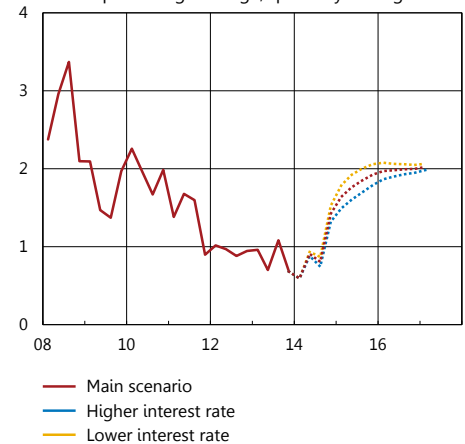
■ Lower repo rate contributes to higher debt

A lower repo rate could thus bring CPIF inflation back to 2 per cent somewhat faster than in the main scenario (see the yellow curve in figure 2:16). At the same time, a lower repo rate would mean that resource utilisation was higher than normal during the latter part of the forecast period (see the yellow curves in figure 2:15 and figure 2:18).

However, a lower repo rate would also lead to a faster increase in household indebtedness (see figure 2:19). This is already high in an international and historical perspective. A rapid increase in debt, even if it is not considered to threaten financial stability, could make the economy more sensitive to shocks. By not cutting the repo rate, the Riksbank can then contribute to holding back the rate of increase in debt and thereby reduce the risk of major fluctuations in inflation and resource utilisation in the future.

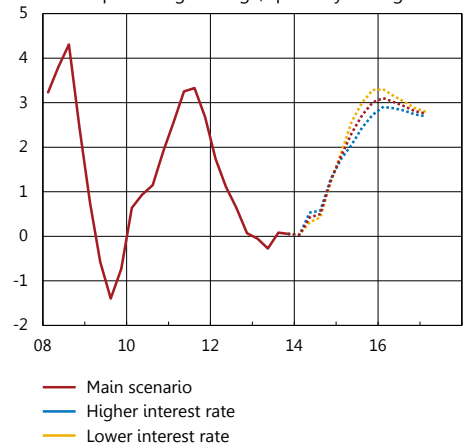
The article "The effects of monetary policy on household debt" in this report assesses the effects and describes the uncertainty linked to these calculations. The results, which are also illustrated in this

Figure 2:16. CPIF
Annual percentage change, quarterly averages



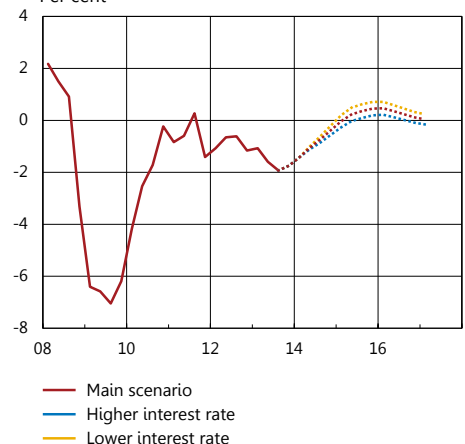
Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

Figure 2:17. CPI
Annual percentage change, quarterly averages



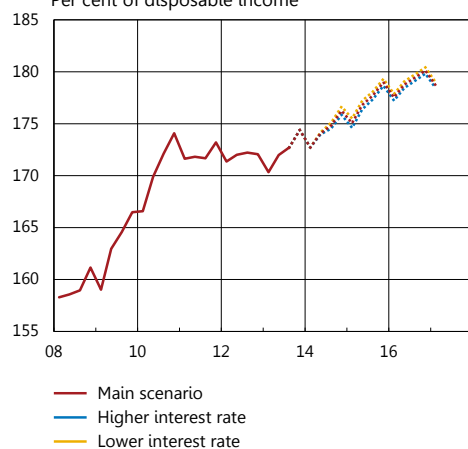
Sources: Statistics Sweden and the Riksbank

Figure 2:18. GDP gap
Per cent



Sources: Statistics Sweden and the Riksbank

Figure 2:19. Household debt ratio
Per cent of disposable income



chapter, indicate that individual and temporary changes in the repo rate have an effect on debt and the debt ratio, but that these effects are probably small, compared with those that would arise with a lasting change in the interest rate. One risk of keeping the repo rate low for a long time is that this may affect the households' expectations of future interest rates so that they overestimate how long interest rates will remain low.

Another important aspect is that the results here reflect an average relation. It may be the case, for example, that the effects of the repo rate on debts are different in a downturn than it would be in an upturn, or that the level of the rate may have an impact.

■ CHAPTER 3 – The current state of the economy

This chapter presents new information received since the Monetary Policy Update was published in December and an assessment of economic prospects in the coming quarters.

The economic recovery in the global economy is continuing. For example, GDP in the United States increased faster than expected during the second half of 2013. As a result of the recovery, prices of high-risk assets rose in December 2013. At the beginning of 2014, however, many stock market indices showed a downturn, due to concern over economic and political challenges in several emerging markets.

Improvements in the US economy have led to the Federal Reserve initiating a normalisation of its monetary policy. However, the ECB has announced that the bank is prepared to take further expansionary measures if short-term interest rates rise or inflation expectations become too low.

Swedish GDP growth was low in the third quarter of last year, but the assessment in the Monetary Policy Update in December was that growth picked up again at the end of 2013. New information regarding, for instance, an increase in production in the business sector and rising global demand, confirms this picture.

The labour market situation is continuing to improve, with rising employment and labour force. Unit labour costs are assessed to have increased at a normal rate in 2013, but inflation is still low. Although inflation was somewhat higher than expected in December, CPI inflation is expected to be just below 1 per cent in the first quarter of 2014, partly due to low increases in services prices.

Financial markets

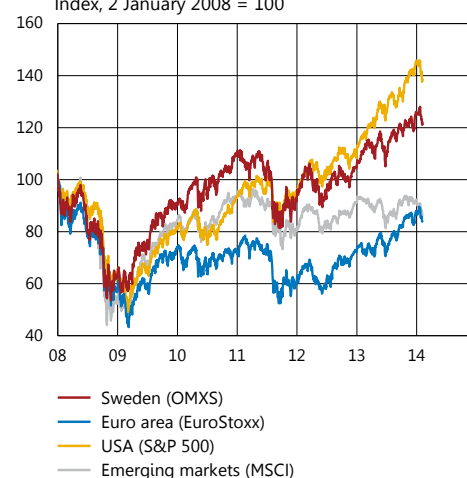
■ Economic recovery continuing, but financial unease has dampened asset prices

The economic recovery in the global economy is continuing, and prices of high-risk assets rose on the whole in December 2013. At the beginning of 2014, however, many stock market indices showed a downturn, due to concern over economic and political challenges in several emerging markets. This means that broad share indexes in Sweden, the euro area and the United States are at roughly the same levels as when the Monetary Policy Update was published in December, while a broad share index for emerging markets is at a lower level (see figure 3:1).

The Federal Reserve decided in December to start tapering its asset purchases. Price movements on the financial markets as a result of the decision were initially small, especially in view of the rather dramatic fluctuations in prices in 2013, when expectations of tapering shifted on several occasions.

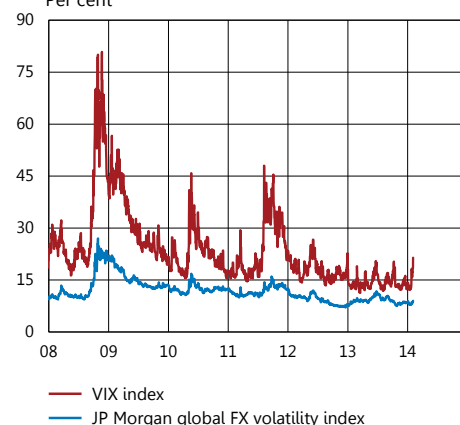
At the beginning of 2014, the weakening of several emerging markets' currencies that took place in 2013 was further accentuated. The emerging markets concerned show different individual weaknesses, such as large current account deficits, large public sector deficits and poorly functioning domestic capital markets. Common to all these countries, however, is that they are sensitive to changes in capital flows from abroad, which in turn are affected by expectations of normalisation of monetary policy in the developed economies. All

Figure 3:1. Stock market movements
Index, 2 January 2008 = 100



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

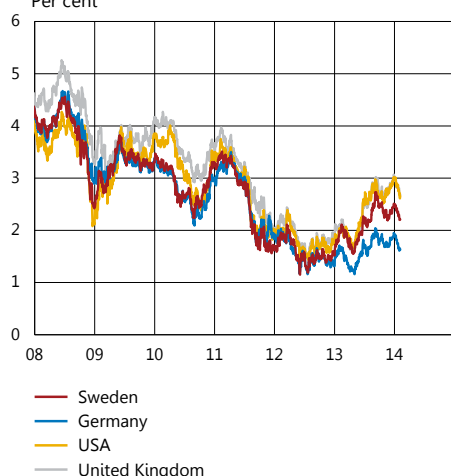
Figure 3:2. Volatility on the stock and currency markets
Per cent



Note. Implied volatility calculated on the basis of share index and currency options pricing.

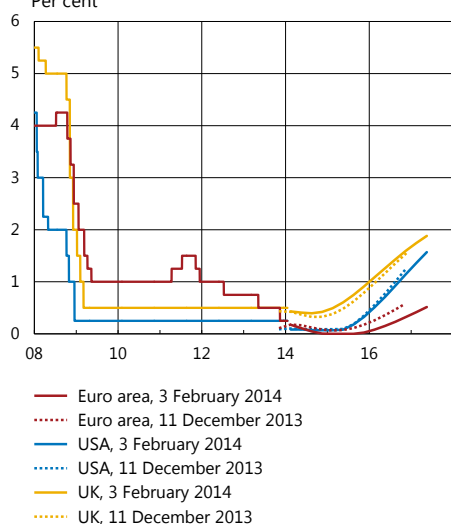
Sources: Chicago Board Option Exchange and JP Morgan

Figure 3.3. Government bond rates with 10 years left to maturity
Per cent



Source: Macrobond

Figure 3.4. Policy rates and rate expectations according to forward rates
Per cent



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

Sources: Macrobond and the Riksbank

Figure 3.5. KIX-weighted nominal exchange rate
Index, 18 November 1992 = 100



Note. KIX is an aggregate of countries that are important to Sweden's international transactions.

Source: The Riksbank

in all, indicators of risk have risen and government bond yields in the developed economies have fallen (see figure 3:2 and figure 3:3).

One indicator of continued economic recovery is that the difference between yields on, for instance, corporate bonds and government bonds has continued to decline in the euro area and the United States. The decline in these so-called spreads is a reflection of the brighter prospects for companies. Moreover, government bond yields in several European countries with debt problems have fallen since the Monetary Policy Update was published in December. Relatively strong indicators and economic statistics from the euro area have contributed to recent developments, as have expectations that the ECB will continue to contribute to the recovery with expansionary monetary policy. Several countries suffering debt crises have managed to obtain funding through new issues on the capital markets, including Ireland, which exited its bailout programme in December.

■ World's central banks in different phases

Central banks in the developed economies are continuing to conduct expansionary monetary policy, but are in different phases. While the US and British central banks have begun or are expected to begin normalising their monetary policy after the expansionary measures of recent years, the ECB and the Japanese central bank are preparing to take further expansionary measures.

The US economy is improving, and at meetings in both December and January the Federal Reserve decided to reduce its purchases of government bonds and housing-related securities, from a total of USD 85 billion to 65 billion per month. Market participants are expecting the Federal Reserve to reduce its asset purchases by a further USD 10 billion per meeting in the coming period. However, at the same time, the Federal Reserve has signalled that its policy rate will be held at a low level for a long time to come. Market pricing indicates that the US policy rate will not be raised until the second half of 2015 (see figure 3:4). The British economy has recently performed better than expected, which has resulted in market participants now expecting the Bank of England's first policy increase to come sooner.

In contrast, ECB President Mario Draghi has announced that the bank is considering further expansionary measures to attain its inflation target. The ECB has communicated that it may take action if short-term interest rates rise or if inflation expectations in the medium term fall too far. The ECB held its policy rate unchanged in December, January and February, following the cut in November. In Japan, market analysts are predicting that the Japanese central bank may extend the volume of its asset purchases from the current level, to attain the inflation target of 2 per cent.

■ Stronger krona following better Swedish statistics

The Swedish krona has strengthened against several currencies since the monetary policy decision in December, particularly against the euro. The krona has also strengthened against the US dollar, while most other currencies have weakened against the dollar following the Federal Reserve's monetary policy announcements in December and January. In competition-weighted terms, that is, using the KIX index, the Swedish krona has strengthened nominally by just over 2 per cent (see Figure 3:4). This strengthening can be partly explained by economic statistics for the Swedish economy being somewhat better than expected.

■ Lower interest rates for households and companies

The Riksbank's repo-rate cut in December 2013, and expectations of a lower policy rate over a longer period of time, have contributed to mortgage institutions' rates being cut, particularly with regard to mortgages with short maturities (see figure 3:6). Interest rates on mortgages with longer maturities have also been cut (see figure 3:7). Households continue to expect only a moderate increase in the variable mortgage rate over the coming five years. Household expectations are thus lower than is compatible with the Riksbank's assumptions regarding the repo rate in the long run (see figure 1:31). The currently low variable mortgage rates mean that an increasing number of households have recently chosen loans with variable mortgage rates. Around three out of four new and renegotiated mortgages taken out in December 2013 were at a variable interest rate, which is more than usual.

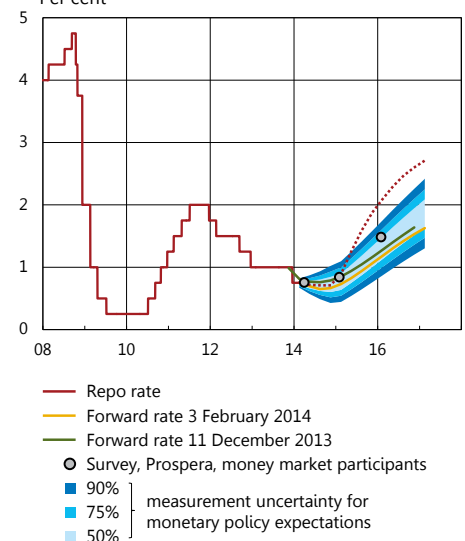
The banks' average lending rates to companies fell in December, as a result of a lower variable rate. Borrowing from banks accounts for almost three quarters of corporate funding. However, the percentage of funding from the bond market is continuing to increase gradually. The costs for this form of market funding have also fallen, in line with the international trend.

■ Household borrowing increasing and apartment prices rising

When Statistics Sweden's Financial Accounts for the third quarter were published, the outcome for household debt in the first half of 2013 was revised upwards. This means that the household debt ratio, that is, household debt as a percentage of their incomes, is higher than the assessment in the most recent Monetary Policy Update (see figure 1:18).

However, there are signs that the debt ratio rose more slowly than expected in the fourth quarter. According to Statistics Sweden's financial market statistics, household borrowing increased by almost 5 per cent on an annual rate during the fourth quarter of 2013 (see figure 3:8). Loans with single-family dwellings as collateral increased at a somewhat slower rate than the average. At the same time, loans to buy tenant-owned apartments, which comprise just over one

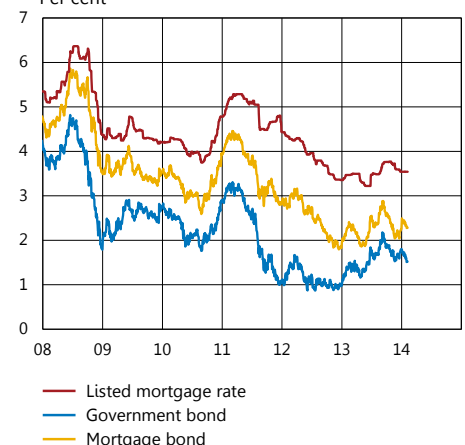
Figure 3:6. Repo-rate expectations in Sweden measured in terms of forward rates and surveys
Per cent



Note. Forward rates have been adjusted for risk premiums and describe the expected overnight rate. As neither surveys nor forward rates are exact measures of monetary policy expectations, the uncertainty of the measurement is illustrated by an interval.

Sources: Macrobond, TNS SIFO Prospera and the Riksbank

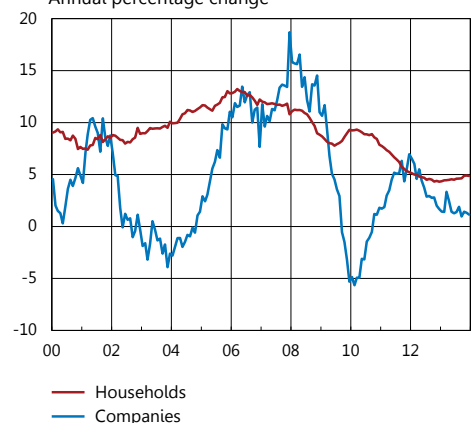
Figure 3:7. Swedish government mortgage bond yields and the average of listed mortgage rates, 5-years maturity
Per cent



Note. The listed mortgage rate is an average of the rates published by Nordea, SBAB, SEB, Swedbank Hypotek and Stadshypotek, for example in the daily press.

Sources: Macrobond and the Riksbank

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

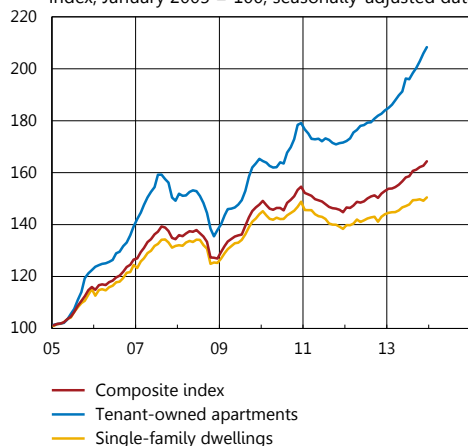


Note. Lending to households and companies according to financial market statistics.

Source: Statistics Sweden

Figure 3.9. Housing prices

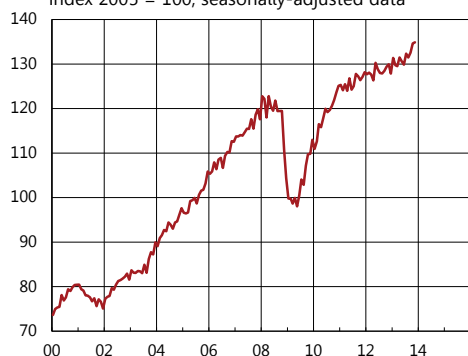
Index, January 2005 = 100, seasonally-adjusted data



Sources: Valueguard and the Riksbank

Figure 3.10. Global trade

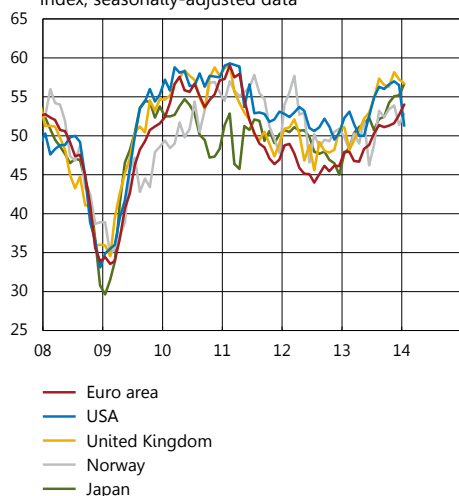
Index 2005 = 100, seasonally-adjusted data



Source: CBP Netherlands Bureau for Economic Policy Analysis

Figure 3.11. Purchasing managers' index, manufacturing sector

Index, seasonally-adjusted data



Note. Values above 50 indicate growth.

Sources: The Institute for Supply Management and Markit Economics

quarter of the total housing stock, increased at a much faster pace than total household borrowing.

Borrowing to some extent reflects developments in prices on the housing market. Tenant-owned apartments in particular rose in price during the fourth quarter of 2013, according to Valueguard (see figure 3:9). According to SEB's housing price indicator in January, a broad majority of households are expecting housing prices to rise in the coming period.

According to the National Institute of Economic Research's Economic Tendency Survey in January 2014, companies' funding opportunities improved in general over the past year. Nevertheless, according to the financial market statistics, companies' rate of borrowing was lower in November and December 2013 than on average last year. According to Almi's loan indicator for December, however, a majority of bank managers are expecting lending to companies to increase during the first quarter of 2014, which could indicate that companies' borrowing rates will rise in the coming period.

International developments

■ Rising global trade, but mixed messages from global confidence indicators

Global trade, which has grown slowly over a long period of time, increased substantially at the end of 2013 compared with the previous quarter (see figure 3:10). It was primarily an increase in imports from developed economies that contributed to the faster growth in global trade. Indicators such as global export orders and JP Morgan's global purchasing managers' index point to an increase in global trade during the first quarter of 2014, too.

Indicators for developed economies, such as the euro area, Japan and the United Kingdom generally imply an increase in economic activity in the first quarter (see figure 3:11). This also applies to the United States, although the purchasing managers' index fell in January. However, indicators in some of the most important emerging markets do not show any clear upturn in economic activity. In China, for instance, the purchasing managers' index has fallen recently (see figure 3:12). Several emerging markets are facing considerable economic and political challenges, which have contributed to some financial market turbulence recently.

■ The euro area - economic activity improving slowly

Revised data confirmed that GDP in the euro area increased by almost 1 per cent when calculated as an annual rate during the third quarter of 2013 (see Figure 3:13). Industrial production rose significantly in November, following a weak outcome in October. Retail trade turnover fell during the fourth quarter as a whole. Both households' and companies' confidence are continuing to rise from

low levels. All in all, incoming statistics confirm the picture of a slow recovery in the euro area at the end of 2013 and start of 2014.

The European banking system has still not entirely recovered from the crisis and this fragility is putting a check on GDP growth, partly because it has led to relatively stringent credit terms for households and companies. Surveys carried out over the past year imply that fewer banks have continued to tighten their terms and in the fourth quarter of 2013, credit terms were almost unchanged, compared with the previous quarter. In addition to strict credit terms, households and companies in some euro area countries are facing much higher lending rates than is the case in other countries. The discussions on the euro area's deeper cooperation on the banking sector, with joint supervision and a common bank support authority have continued in recent months. During 2014 an examination of the banks will be carried out to measure the need for capital injections in the sector.

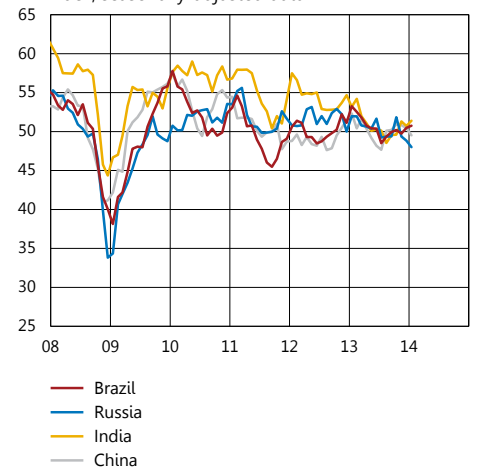
The low economic activity in the euro area, together with earlier currency strengthening and falling energy prices, has meant that inflation is still low. CPIF inflation was 0.7 per cent in January, according to preliminary statistics. Underlying inflation was 0.8 per cent (see figure 3:14). The downturn in inflation since the Monetary Policy Update in December has been in line with the Riksbank's forecast.

■ USA - recovery continuing

The economic recovery in the United States has continued at a somewhat faster pace than was forecast in the Monetary Policy Update in December. The figures for GDP growth in the third quarter have been revised up, from 3.6 to 4.1 per cent when calculated as an annual rate (see figure 3:13). GDP grew somewhat faster than expected during the fourth quarter, too. Household consumption was higher than expected and contributed to GDP growth being 3.3 per cent when calculated as an annual rate, according to preliminary statistics. Moreover, the political parties have now reached an agreement on the budget for the current budget year, which reduces the uncertainty surrounding fiscal policy and the risk that it will dampen the recovery in the near term. The US congress is now also close to an agreement on a new level for the debt ceiling.

In the wake of the continued economic recovery, the Federal Reserve decided in December to begin tapering its monthly asset purchases. However, inflation is still low; in December it was 1.1 per cent when measured using the deflator for private consumption (see figure 3:14). When adjusted for food and energy, the rate of increase was somewhat higher. The low inflation rate, combined with spare capacity in the US economy, means that monetary policy is expected to be very expansionary during the forecast period, which will support the recovery in the United States.

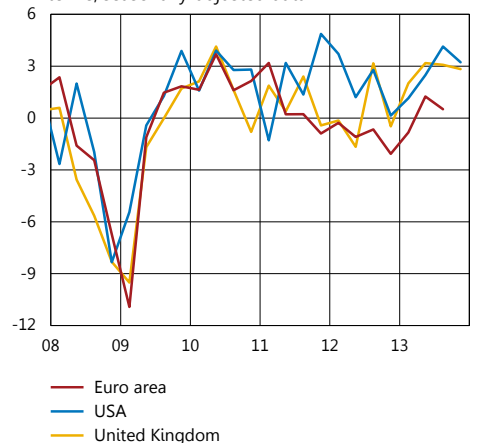
Figure 3:12. Purchasing managers' index in emerging markets, manufacturing sector
Index, seasonally-adjusted data



Note. Values above 50 indicate growth.

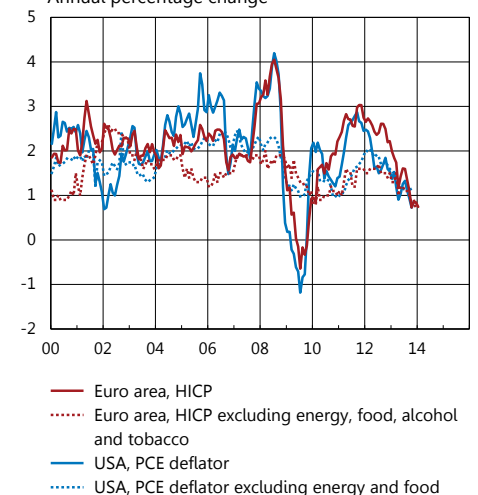
Sources: China Federation of Logistics & Purchasing and Market Economics

Figure 3:13. GDP abroad
Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



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

Figure 3:14. Consumer prices abroad
Annual percentage change

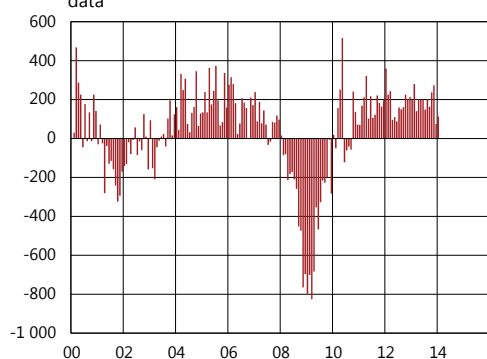


Note. PCE stands for private consumption expenditure.

Sources: The Bureau of Economic Analysis and Eurostat

Figure 3:15. Employment in the USA

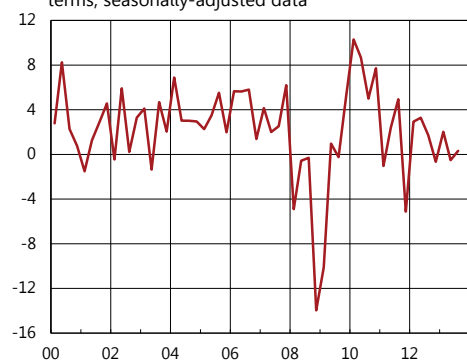
Monthly changes, thousand jobs, seasonally-adjusted data



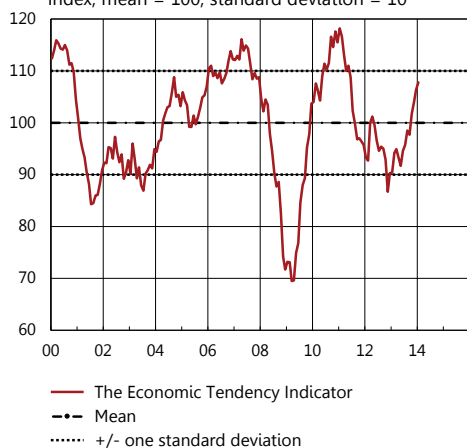
Source: Bureau of Labor Statistics

Figure 3:16. GDP in Sweden

Quarterly changes in per cent calculated in annualised terms, seasonally-adjusted data



Source: Statistics Sweden

Figure 3:17. The Economic Tendency Indicator
Index, mean = 100, standard deviation = 10

Source: National Institute of Economic Research

The factors behind the economic upturn include the situation on the housing market, which has largely continued to improve. This is positive for households, the banks and the construction industry. Sales of new housing rose last autumn to the highest level since 2008 and housing prices have continued to rise. In addition, the labour market is continuing to improve. Employment has increased, although it was temporarily slowed down by unusually cold weather (see figure 3:15). Unemployment has fallen and was 6.6 per cent in January. However, the fall in unemployment is not merely a result of rising employment; it is also due to lower labour force.

■ Gradual improvement on other important export markets

The economic situation in the United Kingdom is expected to improve slightly further at the start of 2014. Growth was low for a long time, at the same time as there were problems with high inflation. There has now been a turnaround, as GDP was clearly positive during all quarters of 2013 (see figure 3:13). In December 2013, inflation was down to 2.0 per cent. In Denmark, too, GDP growth was positive during the second and third quarters of 2013. The recovery is expected to have continued at the end of 2013 and beginning of 2014.

In Norway, on the other hand, GDP growth slowed down in 2013, but starting from the first quarter of 2014, it is expected to gradually rise towards what are more normal growth levels. During the second half of 2013, housing prices in Norway also fell. The Norwegian central bank assesses that prices will only stop falling in the first quarter of 2014, but at the same time notes that a more comprehensive fall in housing prices would entail a risk of weaker growth and also affect the banks' profits.

■ Positive inflation in Japan and rebalancing in China

After being negative for most of the past fifteen years, underlying inflation in Japan was positive in the fourth quarter of 2013. Inflation is expected to rise further during the second quarter, as a result of the coming VAT increases in April. Although GDP growth in Japan slowed down somewhat during the third quarter, an improvement in corporate sector confidence implies that the prospects for faster growth in the economy at the start of 2014 are good. For example, the purchasing managers' index has been indicating growth in the manufacturing industry for almost a year (see figure 3:11).

China is continuing to pursue a policy aimed at rebalancing the economy so that growth is driven more by private consumption and less by investment and export. GDP growth slowed down to 7.4 per cent, when calculated as an annual rate, during the fourth quarter of 2013. Growth was somewhat slower than was expected in the most recent Monetary Policy Update, but the outcome should be regarded in the light of the relatively strong GDP outcome for the third quarter. A slightly weaker outcome for industrial production and a

decline in the purchasing managers' index in December 2013 and January 2014 imply that growth will continue to slow down in the first quarter (see figure 3:12). Developments in China have contributed to dampening market expectations of growth in other emerging markets, too.

Swedish economy

■ Higher GDP growth in the quarters ahead

Swedish GDP increased by only 0.3 per cent, when calculated as an annual rate, during the third quarter of 2013 (see figure 3:16). But the prospects for the Swedish economy are brighter. Expansionary fiscal and monetary policies are contributing to relatively high increases in household incomes and provide the right conditions for high growth in consumption in the coming period. At the same time, the gradual recovery abroad will contribute to Swedish exports beginning to increase again in 2014.

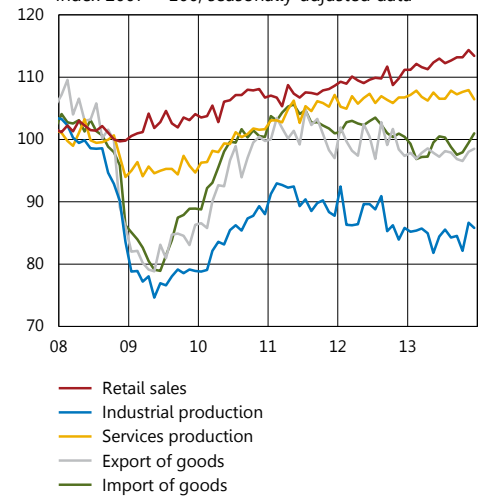
Confidence in both the household and corporate sectors has risen, and is now higher than normal. The Economic Tendency Survey, which covers both the surveys of the corporate and household sectors, was significantly higher than its historical average in January, which indicates that the sentiment in the Swedish economy is better than normal (see figure 3:17). Confidence in the business sector has increased on a broad front, so all six summarising confidence indicators are in line with, or above, their historical averages, for the first time in almost three years. The purchasing managers' index for the manufacturing industry has risen somewhat since the outcome for November, and in January it was at the highest level since the first half of 2011. The purchasing managers in the service industries also believe in growth in the coming period. According to the Riksbank's business survey for January 2014, the economic situation at present is neither good nor bad, and remains largely unchanged from September 2013. However, companies assess that the risks have declined and are lower than normal for the first time since 2010. On the other hand, the production index rose only slightly for both the manufacturing industry and the services industries in the fourth quarter of 2013 (see figure 3:18).

All in all, Swedish GDP-growth is expected to increase from 2.4 per cent during the fourth quarter of 2013 to 3.1 per cent in the first quarter of 2014, calculated at an annual rate.

■ Good potential for continued consumption growth

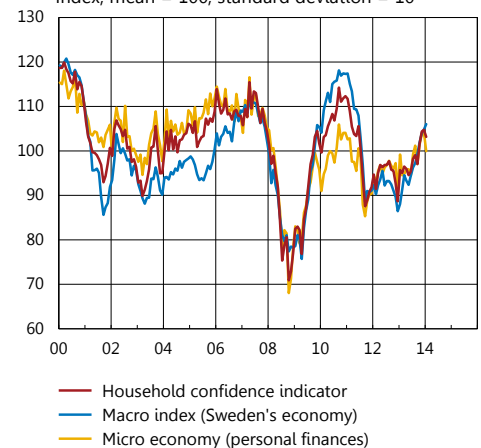
During the third quarter of 2013, household consumption increased by 1.3 per cent when calculated as an annual rate. Household incomes also increased last year and the savings ratio is still at a high level. This means that there is scope for households to increase their consumption in the coming period.

Figure 3:18. Indicators of GDP
Index 2007 = 100, seasonally-adjusted data



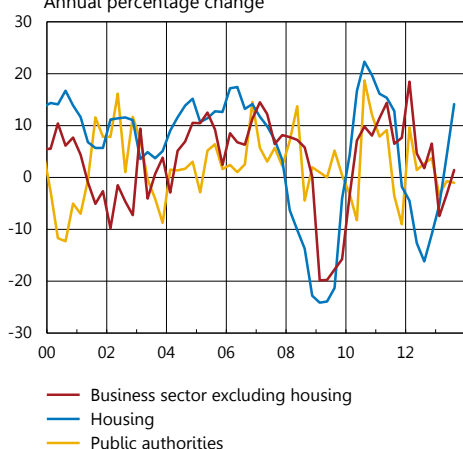
Source: Statistics Sweden and the Riksbank

Figure 3:19. Confidence indicators for households
Index, mean = 100, standard deviation = 10



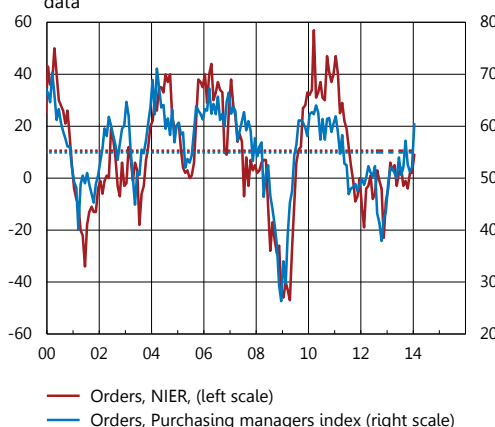
Source: National Institute of Economic Research

Figure 3:20. Gross fixed capital formation
Annual percentage change



Source: Statistics Sweden

Figure 3:21. New export orders in the manufacturing sector
Net figures and index respectively, seasonally-adjusted data



Note. Net figures are defined as the difference between the proportion of firms that have reported an increase in export orders and the proportion that have reported a reduction. The broken lines represent the average for the period 1996-2013.

Sources: National Institute of Economic Research and Swedbank/Silf

According to the Economic Tendency Survey's confidence indicator, household confidence is higher than the historical average, although it declined somewhat in January (see figure 3:19). Retail trade turnover declined somewhat in December but increased in total during the fourth quarter (see figure 3:18). At the same time Statistics Sweden's indicator for household consumption points to a weak development during the fourth quarter, partly because of falling energy consumption in December due to warm weather. Household consumption is expected to grow at a faster pace in the first quarter of 2014.

■ Investment has increased again

Investment increased by 5 per cent when calculated as an annual rate during the third quarter of 2013. The increase was mainly due to growth in housing investment remaining high (see figure 3:20).

However, investment in the rest of the business sector has been subdued. The Riksbank's business survey confirms this picture, but investment plans for six months ahead are signalling an increase in investment. There are several signs that investment will begin to increase again during 2014. Statistics Sweden's investment survey from October shows that there are plans to increase investment in the business sector in 2014. Moreover, the National Institute of Economic Research's Economic Tendency Survey for January 2014 shows that capacity utilisation in the manufacturing industry rose for the second quarter in a row and this means that investment will probably need to increase to meet the rising demand in the coming period.

During the third quarter of 2013, companies reduced their stocks substantially. Companies' opinions in the fourth quarter, as expressed in the Economic Tendency Survey, imply they have been relatively satisfied with their stock volumes and companies are assumed to have returned to a more normal build-up of stocks. The changeover from destocking to restocking means that the contribution from stocks to GDP growth will be substantial during the fourth quarter.

■ Exports beginning to rise after a long decline

Exports declined by a good 3 per cent during the third quarter of 2013, when calculated as an annual rate, which made this the fifth quarter in a row with a negative development. Exports are also expected to have fallen during the fourth quarter. However, exports of goods rose during the fourth quarter of 2013, according to Statistics Sweden's foreign trade statistics, but from low levels (see figure 3:18). Order stocks and the level of new orders at Swedish export companies are somewhat lower than normal according to the Economic Tendency Survey (see figure 3:21). Orders rose in January, however, which is confirmed by the purchasing managers' index.

Growth in the Swedish export market had already begun to pick up in 2013, as global GDP growth increased. Export market growth

was faster than expected in the third quarter of 2013 and growth in the fourth quarter is also expected to be marginally higher than the forecast in the December Monetary Policy Update. The growing export market, together with the fact that the indicators have improved, is expected to mean that Swedish exports begin to increase again in the first quarter of 2014.

Swedish imports have also shown weak development recently and during the third quarter of 2013, imports declined by 4.6 per cent, when calculated as an annual rate. However, foreign trade statistics indicate that imports of goods took an upward turn during the fourth quarter (see figure 3:18). The turnaround in investment in stocks is thought to be one of the factors behind the turnaround.

■ Employment has increased and demand for labour will continue to rise

The labour force surveys for the fourth quarter of 2013 show that both the employment rate and labour force participation rose in line with the forecast in the December Monetary Policy Update. This means that unemployment also developed as expected, and remained at just over 7.9 per cent (see figure 3:22).

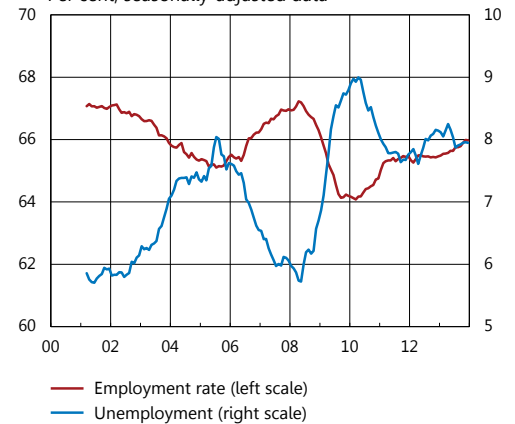
Indicators of demand for labour on the whole give the picture of a continued improvement in the labour market during the first quarter of 2014. Some indicators improved more than expected in December and January. The Economic Tendency Survey shows that companies in large sections of the business sector are now expecting to increase the number of employees during the first quarter (see figure 3:23). The fact that companies have a brighter outlook on the future is also reflected in the number of redundancies, which has fallen during the past year. However, so far not all of the indicators are showing that employment will rise significantly in the short term. For example, a somewhat gloomier situation is sketched in the Riksbank's business survey in January 2014. This survey involves interviews with major companies, who report some need to reduce the number of employees in the first quarter of 2014.

All in all, outcomes and indicators point to employment continuing to rise in the first quarter of 2014. Despite this, the assessment is that there will be only a marginal reduction in the unemployment rate in the period immediately ahead as the number of those in the labour force is also expected to continue to increase. Compared with the forecast in the December Monetary Policy Update, employment and the labour force are expected to increase marginally more quickly in the short term, while the figures for unemployment have not been revised.

■ Cost pressures rose in 2013

According to Statistics Sweden's short-term wage statistics, during the period January to November last year wages increased by on average 2.4 per cent as an annual percentage change. These statistics

Figure 3:22. Employment rate and unemployment
Per cent, seasonally-adjusted data



Note. Three-month moving average. The employment rate is measured as a percentage of the population, while unemployment is measured as a percentage of the labour force. Refers to 15-74 age group.

Sources: Statistics Sweden and the Riksbank

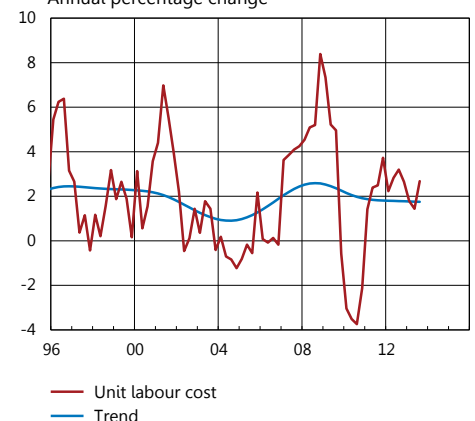
Figure 3:23. Employees in the business sector
Net figures, seasonally-adjusted data



Note. Net figures are defined as the difference between the proportion of firms that have reported an increase in export orders and the proportion that have reported a reduction. Values above zero indicate an increase.

Source: National Institute of Economic Research

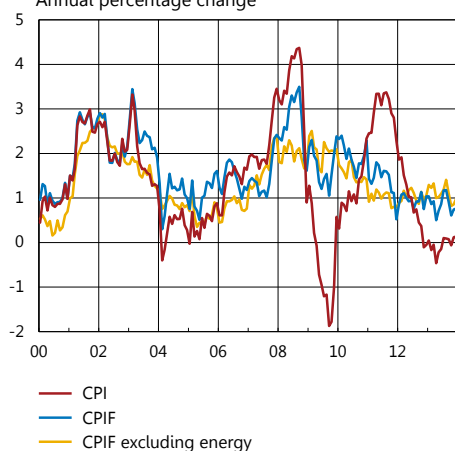
Figure 3:24. Unit labour cost
Annual percentage change



Note. Trend for the period 1994-2017:Q1. Estimated using a Hodrick-Prescott-filter (lambda=1600).

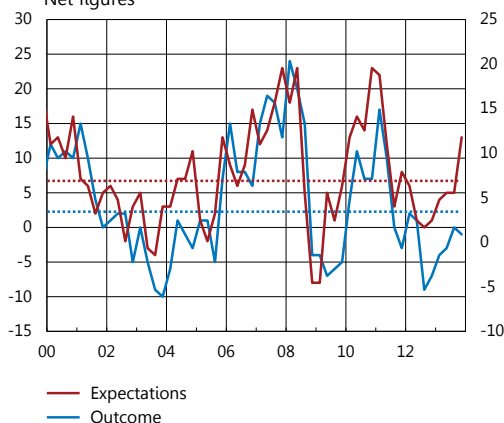
Sources: Statistics Sweden and the Riksbank

Figure 3:25. Consumer prices
Annual percentage change



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

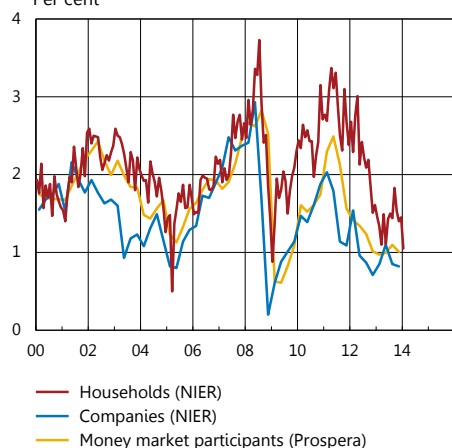
Figure 3:26. Companies' selling prices
Net figures



Note. Net figures are defined as the difference between the proportion of firms that have reported an increase in their selling prices and the proportion of firms that have reported a reduction. The broken lines represent the average for the period 1996-2013.

Source: National Institute of Economic Research

Figure 3:27. Expectations of inflation one year ahead
Per cent



Note. Households are stated monthly, others quarterly.

Sources: National Institute of Economic Research and TNS SIFO Prospera

are still preliminary and according to the National Mediation Office's most recent statistics, the new wages according to the year 2013 wage agreements have so far only been paid for around 4 out of 5 employees in the business sector. When all of the retroactive wage payments have been entered into the statistics for the whole year 2013, hourly wages in the whole economy are expected to have increased by 2.6 per cent.

However, the statistics for October and November indicate that hourly wages measured in accordance with the National Accounts did not increase as much as expected in the fourth quarter of 2013.⁸ Total labour costs per hour are now expected to have increased even more slowly than hourly wages. At the same time, labour productivity is expected to have risen somewhat, after falling during the second and third quarters. All in all, this means that unit labour costs are expected to have increased only marginally during the fourth quarter of last year. This means that unit labour costs are expected to have increased by a total of 1.8 per cent in 2013 (see figure 3:24).

■ Inflation is low at present

In December, CPI inflation increased by 0.1 per cent as an annual percentage change, that is, the same as in November (see figure 3:25). The low rate of increase is linked to a fall in households' mortgage interest expenditure, primarily as a result of the gradual cuts in the repo rate.

But even if the effect of falling interest expenditure is excluded, inflation is low at present. The rate of increase in the CPIF, that is, the CPI with a fixed mortgage rate, amounted to 0.8 per cent in December. CPIF inflation adjusted for changes in energy prices was somewhat higher, at 1.0 per cent. The outcome for all of these three inflation measures was slightly higher than the forecasts in the December Monetary Policy Update. One explanation for the outcome being somewhat higher than the forecast was an unexpectedly large upturn in prices of holidays abroad, a part of the CPI where seasonal variation has become much greater in recent years.

Prices of goods have tended to fall over time and in recent years the declines have been particularly apparent. The rate of price increase on goods became gradually less negative during 2013, however. The annual rate in December was -0.5 per cent, which is in line with the average since 2000 (see figure A2).⁹ Prices of services have increased by almost 2 per cent a year on average since 2000, but in 2013 the rate of increase was much lower (see Figure A2). In December, it was 1.0 per cent, which was nevertheless higher than the November figure. The rate of increase in services prices is expected to be lower than normal in the first quarter of 2014, too, which contributes to CPIF inflation remaining low.

⁸ Hourly wages according to the National Accounts contain a number of components that are not included in the short-term wage statistics wages measure, such as various wage benefits, bonuses and so on. This means that these two sources usually show different developments for wages.

⁹ The article "Perspectives on the low rate of inflation" in this report contains an analysis of the slow increase in services prices.

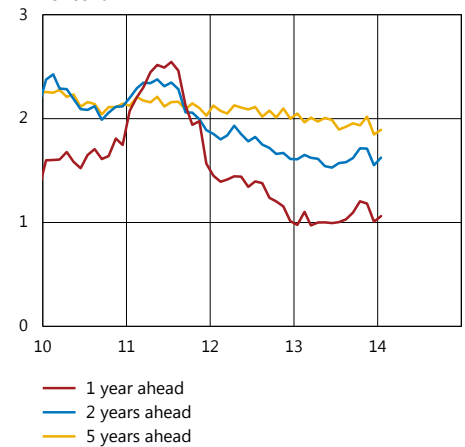
According to the Riksbank's business survey in January 2014, the low price pressures in the economy will prevail during the coming period, with only a small predominance of the companies in the business sector planning to raise their prices in the first quarter of 2014. However, as in September 2013, a clear majority of these companies are planning to raise their prices in the coming year, once demand allows. Both the business survey interviews and the producer price index point to price developments in the producer channel for consumer goods being subdued in 2013. The National Institute of Economic Research's Economic Tendency Survey has been indicating for more than one year now that a majority of companies in the business sector are intending to raise their prices, but these expectations have not been fulfilled; the outcomes reported by the companies in the ensuing surveys have been much lower (see figure 3:26). The predominance of companies expecting to raise their selling prices in the coming quarter rose substantially in January 2014.

■ Inflation expectations well anchored in the long term

According to the Economic Tendency Survey published in January, households are expecting the inflation rate to be 1.1 per cent in 12 months' time (see figure 3:27). This means that the short-term inflation expectations have fallen somewhat since the Monetary Policy Update was published in December. The Economic Tendency Survey also shows that companies' inflation expectations one year ahead have recently fallen somewhat (see figure 3:27). According to Prospera's monthly survey, which was published in January, inflation expectations among money market participants have risen marginally since the Monetary Policy Update was published in December (see Figure 3:28).

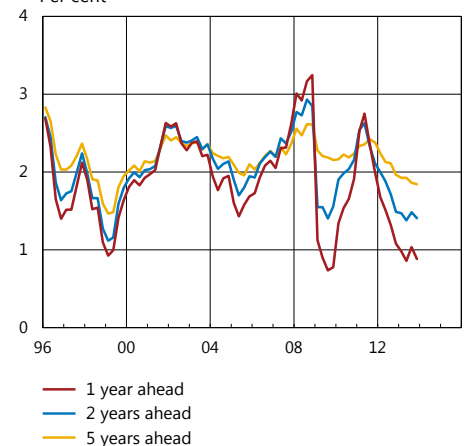
The short-term inflation expectations normally covary with actual inflation, while the long-term expectations are usually anchored close to the Riksbank's inflation target of 2 per cent. According to the Prospera survey, money market participants are expecting an inflation rate of 1.1 per cent in one year's time, 1.6 per cent in two years' time and 1.9 per cent in five years' time. Prospera's quarterly survey aimed at a wider range of groups of market participants showed in the fourth quarter of 2013 that inflation expectations among all those who responded were 0.9 per cent in one year's time, 1.4 per cent in two years' time and 1.8 per cent in five years' time (see figure 3:29).

Figure 3:28. Money market participants' expectations of inflation
Per cent



Source: TNS SIFO Prospera

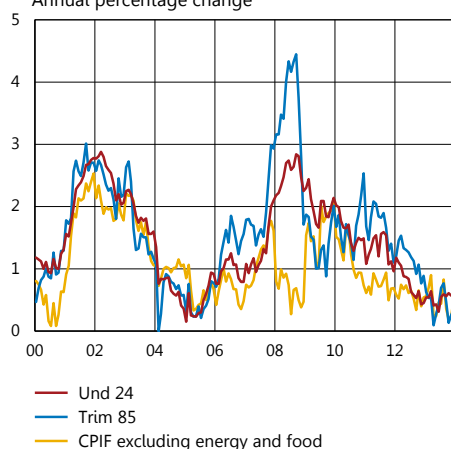
Figure 3:29. All respondents' expectations of inflation
Per cent



Source: TNS SIFO Prospera

Perspectives on the low rate of inflation

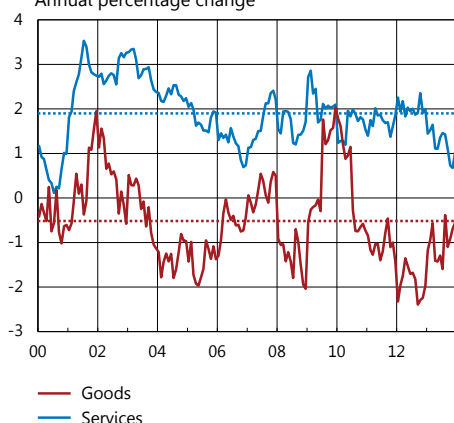
Figure A1. Underlying inflation
Annual percentage change



Note. Trim85 and Und24 are statistical measures calculated on the basis of the CPI divided into approximately 70 subgroups. Und24 is aggregated using weights adjusted for the historical standard deviation. In Trim85, the 7.5 per cent highest and the 7.5 lowest yearly price changes have been excluded.

Sources: Statistics Sweden and the Riksbank

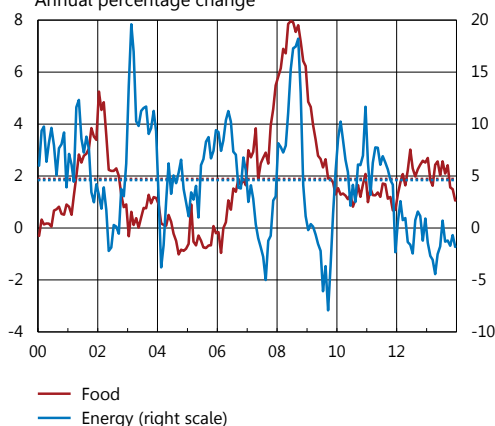
Figure A2. Goods and services
Annual percentage change



Note. Broken lines represent the averages for the period 2000-2013.

Sources: Statistics Sweden and the Riksbank

Figure A3. Food and energy
Annual percentage change



Note. The broken lines represent the averages for the period 2000-2013.

Sources: Statistics Sweden and the Riksbank

The rate of inflation was unexpectedly low last year. Prices in most of the sub-groups in the CPI increased more slowly than normal and inflation was well below the level that both the Riksbank and other forecasters expected. For example, services prices increased more slowly in 2013. As changes in services prices tend to be relatively persistent, the assessment is that this slowdown will contribute to holding back inflation throughout 2014. Against this background, the Riksbank adjusted its inflation forecast downwards in December. It seems that the development of inflation cannot be fully explained in terms of normal relations with unit labour costs and import prices. This may be because demand has been weaker than normal and because there has been so much uncertainty about developments abroad for such a long time. The demand situation is expected to normalise and uncertainty to decline during the forecast period. It should therefore become easier for companies to raise their prices.

Weak development of prices in several sub-groups

Inflation is low at present. All inflation measures are now at levels below their historical averages. Measures of underlying inflation have also shown a falling trend since 2012 or earlier, which indicates a broadly-based fall in inflation (see figure A1).

It is a common practice to divide the CPI into goods, services, energy, food and interest costs. Consumer prices for energy and food are highly affected by the development of commodity prices on the world market, which justifies wanting to study these sub-groups separately from time to time. The development of the interest costs component is special as it is affected by changes in the repo rate. Costs also develop differently in different sectors. The measure of costs that is most often used to explain the companies' pricing over time is unit labour costs. These are determined by the development of wages and productivity. Unit labour costs normally increase more rapidly in service sectors than in goods sectors as wage increases are roughly the same in the different sectors while productivity increases more slowly in the service sector.¹⁰ This is one of the main explanations of why services prices in the CPI tend to increase faster than goods prices (see figure A2).¹¹

Prices increased relatively slowly for most of the components last year (see figure A2 and figure A3). Price increases for all of the sub-groups were slower in 2013 than in 2012, with the exception of goods. Goods prices fell in both 2012 and 2013, but the fall slowed down last year. Table A1 shows that the rate of increase in energy

¹⁰ Since 1998, average wages have increased by 3.3 per cent in the service sector and by 3.4 per cent in manufacturing. An important factor behind the similar rate of increase in different sectors is the Swedish pay-formation model. Since the Industrial Agreement was adopted at the end of the 1990s, collective agreements in the manufacturing industry have come to act as a guideline for other contractual areas on the Swedish labour market.

¹¹ For a more detailed discussion of the companies' costs and pricing see the article "The development of costs and inflation" in *Monetary Policy Report*, July 2013.

prices, and in particular interest costs, has varied more than the rate of increase in other prices since 2000. Services prices are the least volatile sub-group. The fact that the rate of increase in services prices varies less than, for example, that for energy and goods prices is because, among other things, costs in the service sector are less affected by volatility in the exchange rate and imported input goods. Although services prices also have significant import content the proportion of imports is higher in goods than in services.

Table A1. Development of the CPI and its components
Annual percentage change

	Weight	Average (per year)			Standard deviation
	Per cent	2000-2012	2012	2013	
Services	43.7	2.0	2.0	1.2	0.7
Goods	24.9	-0.5	-1.9	-1.0	1.0
Food	17.2	1.9	2.2	2.1	2.0
Energy	8.9	5.1	0.2	-1.7	5.1
Interest costs	5.4	3.0	6.1	-9.9	18.6
CPI	100	1.5	0.9	0.0	1.3

Sources: Statistics Sweden and the Riksbank

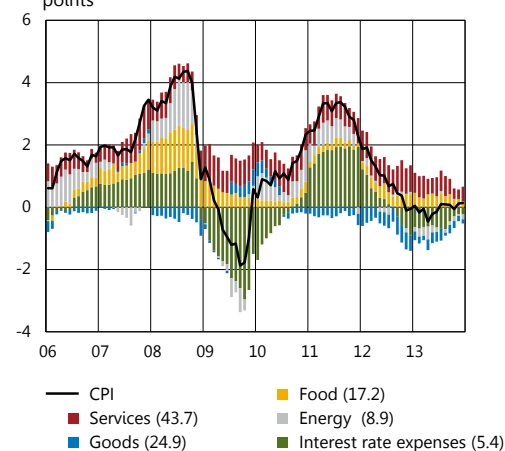
The contribution of the different components to the rate of increase in the CPI

Figure A4 shows the contributions of the five sub-groups to the rate of increase in the CPI. Positive columns indicate a positive contribution to the change in the CPI over the last 12 months, while columns below zero indicate a negative contribution. Contributions can be interpreted as the annual rate of increase in the various components multiplied by their respective weights in the CPI. The negative contribution from interest costs is clear in 2013 and stems from the fact that the repo rate was cut in 2012 and 2013, which has contributed to gradually lower mortgage rates in recent years. Goods and energy prices also made negative contributions to the change in the CPI last year, while the development of food and services prices made a positive contribution.

Services prices increased by an average of around 2 per cent a year during the years 2008 and 2012. However, over the last 12 months the rate of increase has gradually fallen and was at 1 per cent in December 2013. The group of services prices that has made the largest positive contribution to the rate of change in the CPI in recent years is housing-related services, which includes items such as rents, property taxes, water, sewerage, refuse collection and chimney cleaning. However, the contribution from this group decreased somewhat in 2013. As in previous years, prices fell in the group postal services, telecommunications, television licences and gambling. The development of prices for travel was volatile, especially in the latter part of 2013, but the average contribution over the year as a whole was slightly positive (see figure A5).

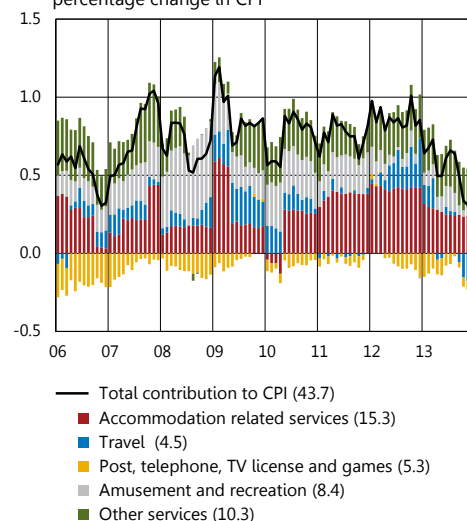
The positive contribution to the CPI fell in all of the services price groups in 2013 compared to 2012. Figure A6 shows the annual rate of increase in the aggregated services prices group, as well as

Figure A4. Contribution to the annual percentage change in CPI of various components
Annual percentage change respective percentage points



Note: Figures in brackets refer to the weight in CPI in per cent.
Source: Statistics Sweden and the Riksbank

Figure A5. Services prices
Contribution in percentage points to the annual percentage change in CPI



Note: Figures in brackets refer to the weight in CPI in per cent.
Sources: Statistics Sweden and the Riksbank

Figure A6. Services prices
Annual percentage change

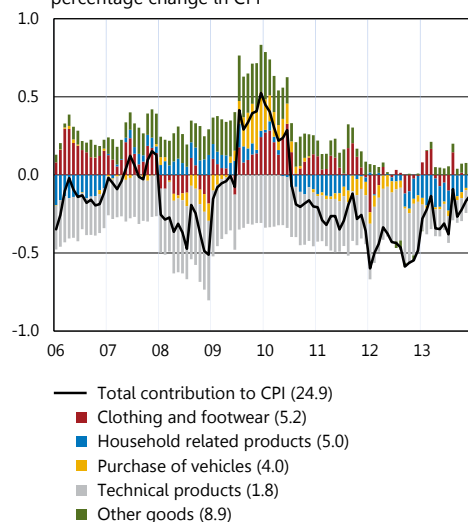


Note: Broken lines represent the averages for the period 2000-2013.

Sources: Statistics Sweden and the Riksbank

Figure A7. Goods prices

Contribution in percentage points to the annual percentage change in CPI

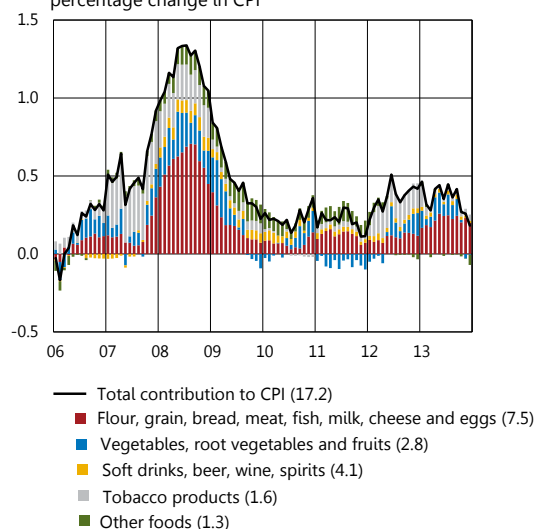


Note: Figures in brackets refer to the weight in CPI in per cent.

Sources: Statistics Sweden and the Riksbank

Figure A8. Food prices

Contribution in percentage points to the annual percentage change in CPI



Note: Figures in brackets refer to the weight in CPI in per cent.

Sources: Statistics Sweden and the Riksbank

the increase when rents and other housing-related services are excluded. All of the measures in figure A6 show that the rate of price increases declined in 2013 and the measures are now well below their historical averages. The same applies if one excludes other prices such as those for postal services, telecommunications and travel.

Goods prices continued to fall last year but the rate of change became increasingly less negative. In December, it was close to an historical average measured from 2000. As in previous years, the development of prices for hi-tech products has helped to keep down the rate of price increases for goods (see figure A7). Household-related goods such as household textiles and furniture and fittings, as well as household appliances, also contributed to a lower rate of price increases in 2013. The development of clothing and shoe prices was volatile during the year, but on average made a positive contribution (see figure A7). Most of the groups in the goods aggregate developed in a similar way, which indicates that the fall in prices slowed down in 2013.

Overall, food prices made a positive contribution to the general rate of price increases (see Figure A8).¹² The development of food adjusted for various small price groups was similar to that for the food aggregate. Despite the fact that international prices for food commodities fell throughout 2013, no clear dampening of producer and consumer prices was seen until towards the end of the year.

The downturn in the rate of price increases for various goods and services in the CPI is thus broadly based. Most sub-groups increased relatively slowly last year in relation to historical averages and in relation to the years 2011 and 2012. The development of services prices in 2013 stands out, as the rate of increase in this component has been relatively stable in recent years. The rate of increase in service prices has not been so low since 2007. One may ask whether the lower rate of increase in services prices can lead to a more prolonged period with low inflation. Does a slowdown in the rate of increase in services prices tend to be more lasting than for other price groups?

How persistent is the rate of price increases in the various components?

Figure A9 illustrates how lasting, or persistent, the rate of increase is in the various components. This measure is calculated on the basis of estimated parameters in a time-series model. The different price groups are expressed in terms of the annual percentage change and are modelled separately. The figure shows how quickly the rate of price increases in the different components tends to return to its original level after a change. If a variable exhibits a high degree of persistence, a return to the original rate of increase tends to take a long time. If the degree of persistence is instead low the adjustment

¹² The food price group that made the largest positive contribution in 2013 was meat, followed by milk, cheese and eggs. Coffee, tea and cocoa contributed to a lower rate of price increases for food.

is quicker. As can be seen from the results, the interest-costs component shows the highest degree of persistence according to this measure. It takes as much as 30 months for the effect of a shock to diminish by 50 per cent. This result stems from the fact that a change in mortgage rates affects this component for a very long period of time as approximately half of the mortgage stock consists of fixed-rate mortgages. The rate of increase in food prices also exhibits a high degree of persistence. The energy component shows the lowest degree of persistence. Half of the effect of a disruption has disappeared already after five months. The rate of increase in goods prices also has a low degree of persistence, while estimates indicate that services prices have a somewhat higher degree of persistence.¹³ According to the results, half of the effect of a disruption has disappeared after six months for goods prices and after 9 months for services prices.

The results indicate that the slowdown in the rate of increase in services price recently may contribute to holding back inflation in the period immediately ahead, as changes in services prices tend to be somewhat more persistent than changes in goods prices. However the difference is small and estimates of this type are uncertain.¹⁴

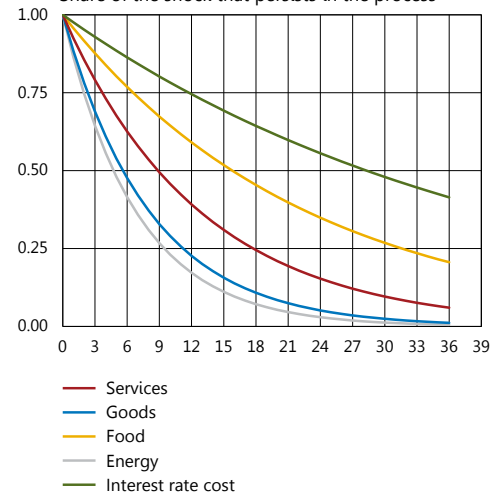
Is it possible to explain the development of inflation over the last 12 months in terms of usual historical relations?

Unit labour costs have increased by over two per cent per year since 2011. At the same time, import prices have fallen during the last 12 months, although the rate of change has become increasingly less negative (see figure A10).

One way to examine whether the development of inflation can be explained with the help of these variables is to estimate a historical relation in which unit labour costs and import prices are included as explanatory variables. The estimate can then be used to project inflation on the basis of the development of the explanatory variables. Figure A11 shows the outcomes and projections of CPIF excluding energy for the latest 12 and 6 quarters respectively.¹⁵ The rate of increase in this measure of inflation has been lower than average recently. This indicates that companies have passed on their cost increases to the consumers to a lesser extent than normal.

Figure A9. Degree of persistence

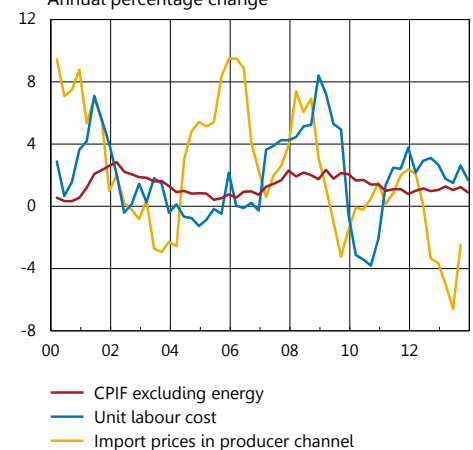
Share of the shock that persists in the process



Note. Horizontal scale indicates number of month.

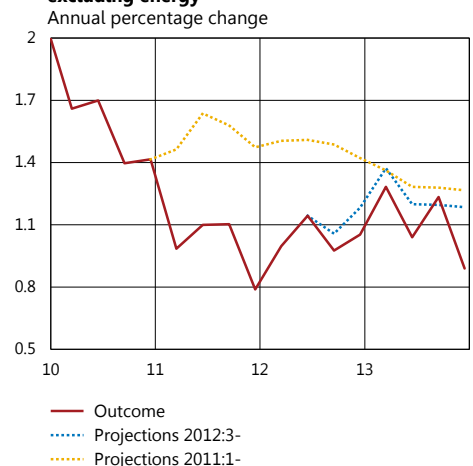
Source: The Riksbank

Figure A10. CPIF excluding energy, unit labour costs and import prices in the producer stage
Annual percentage change



Source: Statistics Sweden

Figure A11. Outcome and forecast for CPIF excluding energy
Annual percentage change



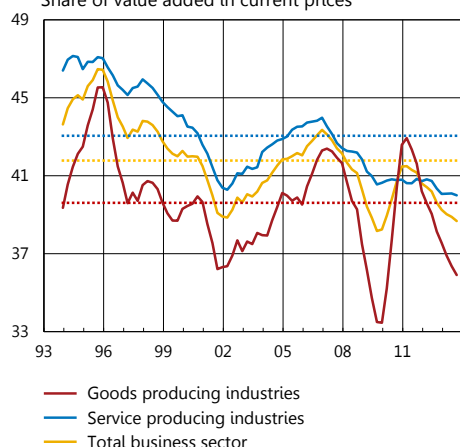
Sources: Statistics Sweden and the Riksbank

¹³ If the time series models are instead based on data for the period January 1995 to December 2008, the difference in persistence between goods and services prices is very small.

¹⁴ The model is a so-called autoregressive model of the first order, AR(1). The estimation period is January 2000 to December 2013.

¹⁵ The CPI is directly affected by the development of energy prices and interest rates, which is why the CPIF excluding energy, a measure of underlying inflation, is used in the analysis. Regressions for the quarterly change in the CPIF excluding energy have been estimated from 1995 to the end of the fourth quarter 2010 and the second quarter of 2012 respectively. The estimated relations are then used to produce extrapolations from and including the first quarter of 2011 and the third quarter of 2012 respectively. Explanatory variables are unit labour costs and import prices in the producer stage expressed as four-quarter moving averages of the quarterly percentage change.

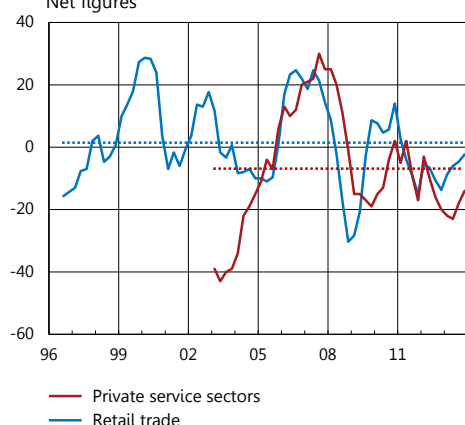
Figure A12. Profit shares in the business sector
Share of value added in current prices



Note. Four quarter moving average. The broken lines represent the averages for the period 1994-2013.

Source: Statistics Sweden

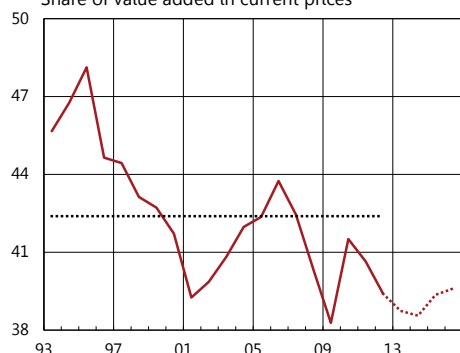
Figure A13. Profitability assessment
Net figures



Note. Net figures are defined as the difference between the proportion of firms that have reported an increase in the profitability and the proportion that have reported a reduction. The broken lines represent the averages for the periods 1996 Q3 - 2013 Q4 and 2003 Q1 - 2013 Q4 respectively.

Source: National Institute of Economic Research

Figure A14. Profit share in the business sector
Share of value added in current prices



Note. The broken lines represent the average for the period 1993-2012 and the Riksbank's forecast.

Sources: Statistics Sweden and the Riksbank

Another way of investigating whether the companies have passed on their costs is to examine the development of the so-called profit share.¹⁶ The profit share in the business sector represents that part of value added that is not made up of labour costs. If prices rise more slowly than costs, companies' profits normally decline. In the National Accounts this corresponds to a fall in the profit share.¹⁷

At present, the profit share in the business sector is lower than its historical average. The same applies if one studies different sectors separately (see figure A12). The profit share is particularly low in the goods-producing sectors, where weak economic activity abroad and the earlier strengthening of the krona have led to a fall in export income. Responses in the Business Tendency Survey of the National Institute of Economic Research also show that the companies are less satisfied with the profit situation now than normally (see figure A13). One interpretation of this is that the companies are cautious about increasing prices when economic activity is weak in Sweden and abroad. This confirms the picture that companies have not passed on cost increases to consumer prices.

Inflation will rise during the forecast period

The downturn in the rate of price increases in the CPI is broadly based. Most sub-groups increased slowly last year, but the development of services prices in 2013 stands out as the rate of increase in this component has been relatively stable in recent years. In December, the Riksbank revised its inflation forecast downwards. Changes in services prices tend to be somewhat more lasting than changes in, for example, goods prices. The assessment is therefore that the slowdown will contribute to holding back inflation in 2014.

It does not appear that the low rate of inflation can be fully explained in terms of normal relations with unit labour costs and import prices. One important explanation for the low inflation is thought to be that companies have found it difficult to raise their prices at the same rate as their costs have increased due to the weak demand situation. This picture is supported by the Riksbank's Business Surveys, in which the companies report that price increases have been restrained by weak demand and severe price pressures.

The Riksbank's forecast is that the profit share in the business sector will increase in the years ahead (see figure A14). This will coincide with a cyclical upturn in productivity growth and with a stronger demand that permits higher price mark-ups. The assessment is therefore that inflation will gradually rise.

¹⁶ The profit share refers to the gross surplus's share of added value in the business sector according to the National Accounts and is calculated as 1 minus the labour costs' share of total added value in current prices. For a more detailed discussion of the profit share and the development of inflation see Chapter 2 of this report.

¹⁷ As the consumption of input goods is not included in the value added, costs in this case are only labour costs.

■ The effects of monetary policy on household debt

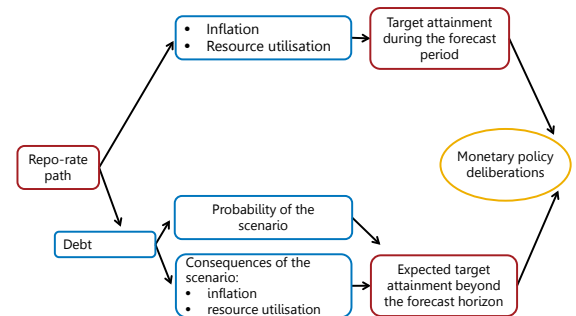
A current issue in the monetary policy discussion is the attitude monetary policy should take to the build-up of financial imbalances. The financial crisis has demonstrated in several countries that such imbalances are often corrected in an abrupt and drastic way and that the real economic costs can be very substantial. In Sweden, the discussion has mainly focused on household indebtedness, which has increased substantially over the last 15 years. The Riksbank has previously discussed why there may be reasons for monetary policy to take imbalances into account and has presented a simple conceptual framework for how this can be done in practice. A first step in such an analysis is to estimate how changes in the repo rate affect household debt. A second step is to assess how much this in turn affects the risks of unfavourable outcomes in the future. This article focuses on the first of these steps and presents a quantification of the relation between the repo rate and household debt.

Monetary policy may need to take long-term risks into account

Since the 1990s, the Riksbank has conducted what is usually referred to as flexible inflation targeting. This means that the Riksbank aims to stabilise inflation around the target of 2 per cent and to stabilise production and employment around long-run sustainable paths of development.¹⁸ The question of whether monetary policy should also take into account the build-up of financial imbalances has now been discussed for some time. The financial crisis of 2008-2009 intensified this discussion in both Sweden and abroad.

An article in the Monetary Policy Report of July 2013 described how a high level of indebtedness can make the economy more vulnerable so that the effects of a shock are more severe.¹⁹ In the case of serious shocks and a rapid build-up of debt, financial stability may also be threatened, as was clearly demonstrated in several countries during the financial crisis. The article described a simple conceptual framework for how monetary policy may need to take account of the risks associated with imbalances that, among other things, can arise as a result of high indebtedness, see figure A15. An important question in this context is what impact monetary policy has on indebtedness.²⁰ In this article we therefore discuss how we can measure the effects of the repo rate on household debt and how great these effects may be.

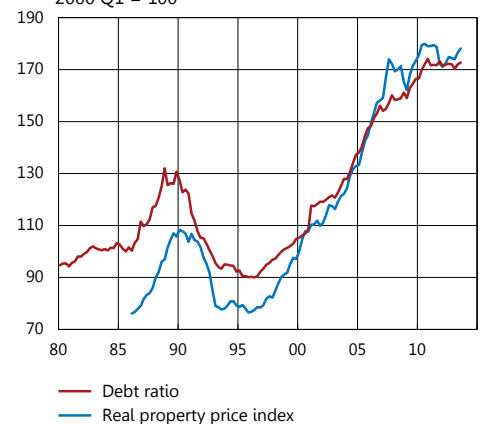
Figure A15. Schematic outline of a monetary policy decision-making process that takes household indebtedness into account



Source: The Riksbank

Figure A16. Household debt and real property price index

Per cent of disposable income and index respectively, 2000 Q1 = 100



Note. Property price index deflated with CPIF and then calculated as index 2000 Q1 = 100.

Sources: Statistics Sweden and the Riksbank

¹⁸ See *Monetary Policy in Sweden*, 2010 Sveriges Riksbank.

¹⁹ See "Financial imbalances in the monetary policy assessment". Article in *Monetary Policy Report*, February 2013. Sveriges Riksbank.

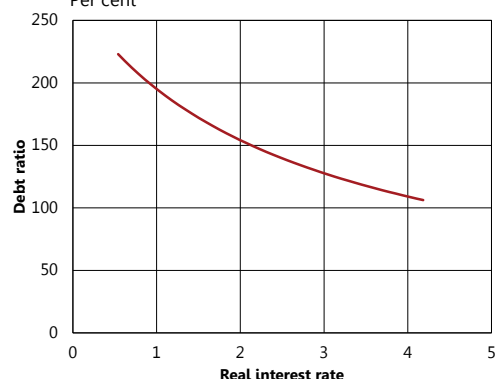
²⁰ Another important question that was addressed in the article in the Monetary Policy Report of July 2013 was how much the risks increase as the level of indebtedness increases. However, this question is not taken up in this article.

Figure A17. Real mortgage rate after tax and real government bond yield, 5-year left to maturity
Per cent



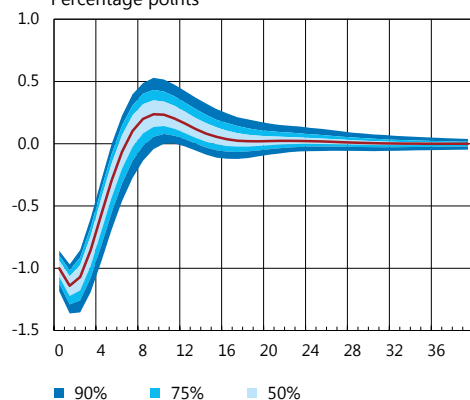
Note. Interest rates defined as ex-post real interest rates, measured in terms of the actual annual change in the CPIF.
Source: The Riksbank

Figure A18. Relation between long-term debt ratio and long-term real interest rate in a general equilibrium model
Per cent



Source: The Riksbank

Figure A19. Repo rate changes
Percentage points



Note. The figure shows the effects of an unexpected lowering of the repo rate by one percentage point during a quarter. The blue fields show 90, 75 and 50 percent uncertainty intervals for these effects. The horizontal axis refers to the number of quarters after the shock occurs.

Source: The Riksbank

The link between the real interest rate, house prices and debts

Household indebtedness is closely related to the development of housing prices as housing purchases are often financed by loans. In figure A16 it can be seen, for example, that a trend increase in both house prices and household indebtedness began in the mid-1990s but that this came to an end in connection with the outbreak of the financial crisis. There are a number of different factors that explain why both house prices and indebtedness have increased. Tax changes, a relatively low level of construction and demographic factors have contributed to this.²¹ Another important explanation is that the real interest rate has fallen since the mid-1990s. Figure A17 shows that both the long-term real government bond yield and the long-term real mortgage rate after tax have fallen since the mid-1990s. As this has largely been a lasting change in the real interest rate it should have had a significant impact on both house prices and debts. The reason is that house prices and debts are not only determined by the current real interest rate but also by expectations of the future real interest rate. Whether the change in the real interest rate is perceived as temporary or lasting is therefore an important factor.²²

One way of illustrating the effect on the debt ratio that could arise if there were to be a lasting change in the real interest rate is to calculate this in a model. Figure A18 shows how such a relation between the long-term real interest rate and the long-term debt ratio may look.²³ According to this type of calculation, a change in the long-term real interest rate can have a significant impact on the debt ratio, especially if the real interest rate is already low. In the model, the long-term debt ratio increases from just over 150 per cent to almost 200 per cent if the long-term real interest rate falls from two per cent to one per cent.

Household debt and changes in the repo rate

In the long term, the real interest rate is determined by average productivity growth in the economy and not by monetary policy. However, in the shorter term a change in the repo rate will affect the real interest rate as the general price level adjusts slowly. How much this in turn will affect the development of indebtedness depends partly on how lasting the households believe the change in the repo rate will be and partly on how long a time horizon the households

²¹ See *The Riksbank's commission of inquiry into risks on the Swedish housing market*, 2011. Sveriges Riksbank. See also Hansen Sten, Explanations of the development of household indebtedness since the mid-1990s. *Memo 1 of the analysis group of the Council for Cooperation on Macroeconomic Policy*. Finansinspektionen. See also Alsterlind Jan, Ulf Holmberg, Kristian Jönsson, Björn Lagerwall and Jakob Winstrand, Risks to the macroeconomy and financial stability from the development of household debt and housing prices. *Memo 6 of the analysis group of the Council for Cooperation on Macroeconomic Policy*. Sveriges Riksbank.

²² See Svensson Lars E. O. (2013), "The Effect on Housing Prices of Changes in Mortgage Rates and Taxes", Working Paper, Swedish Institute for Financial Research. See also Alsterlind Jan, Ulf Holmberg, Kristian Jönsson, Björn Lagerwall and Jakob Winstrand, Risks to the macroeconomy and financial stability from the development of household debt and housing prices. *Memo 6 of the analysis group of the Council for Cooperation on Macroeconomic Policy*. Sveriges Riksbank.

²³ The calculations are made in the equilibrium model presented in Walentin Karl (2013), "Housing collateral and the monetary transmission mechanism", under publication in the *Scandinavian Journal of Economics*. The equilibrium relation in this model applies between the real interest rate and debts as a percentage of GDP. By assuming a constant relation between household disposable income and GDP the argument has been translated to a relation between the real interest rate and the debt ratio, here expressed as a percentage of disposable income.

have for the ownership of their housing and their indebtedness. If the households perceive the change in the interest rate to be temporary and they have a long time horizon for the ownership of their housing, then the effects of a change in the interest rate on indebtedness should be rather small.²⁴ If, on the other hand, the households perceive (rightly or wrongly) the change in the interest rate to be lasting, or they have a short time horizon for their ownership, the effects may be greater.²⁵ An extreme case is that the households perceive the change as permanent, which may result in very substantial effects as shown in figure A18. In order to see what the situation is in practice we must analyze actual data on the households' debts.

A method for measuring the effects of the repo rate on debts

A common way of investigating the effects a change in the policy rate has on variables such as GDP growth and inflation is to use a time-series model. The conclusion of this type of analysis is usually that both GDP and inflation increase for a while following a temporary lowering of the policy rate.²⁶ With the help of this method we can in the same way also analyse the effects of the policy rate on other variables, for example household debts.

The Riksbank uses different methods to measure the effects of the repo rate on growth, inflation and debts. One of these methods is the time-series model presented in a study by Laséen and Strid (2013).²⁷ The model is a vector autoregressive (VAR) model that includes foreign variables (which are important to a small open economy like the Swedish economy), (real) GDP, CPIF inflation, real housing prices, real debts and the repo rate.²⁸ The analysis shows that the effects of a change in the repo rate on GDP are similar to those identified in the Riksbank's macro model RAMSES.²⁹

So, how large will the effect of a change in the repo rate be on household debt in the the VAR model? Figure A19 shows a lowering of the repo rate by one percentage point and then a gradual return. Figures A20 to A22 show the effects of an unexpected, temporary change in the repo rate.³⁰ The effects this has on real debts are shown in figure A20. Here it can be seen that the repo rate cut leads to an increase in real debts by, at most, approximately one per cent. The effect on debts is long-term but not permanent.³¹

²⁴ See Svensson Lars E. O. (2013), "Leaning Against the Wind Leads to a Higher (Not Lower) Household Debt-to-GDP Ratio", *Working paper*, Swedish Institute for Financial Research.

²⁵ The argument here applies mainly to the demand for loans. It may also be the case that the supply of loans can be affected if banks and other financial intermediaries perceive interest-rate changes to be more lasting than they actually are.

²⁶ Christiano Lawrence J, Martin Eichenbaum and Charles L. Evans (1998), "Monetary Policy Shocks: What Have We Learned and to What End?", *Handbook of Macroeconomics* Volume 1A. North-Holland Elsevier.

²⁷ See Laséen, Stefan and Ingvar Strid (2013), "Debt Dynamics and Monetary Policy: A Note", *Working Paper* no. 283. Sveriges Riksbank.

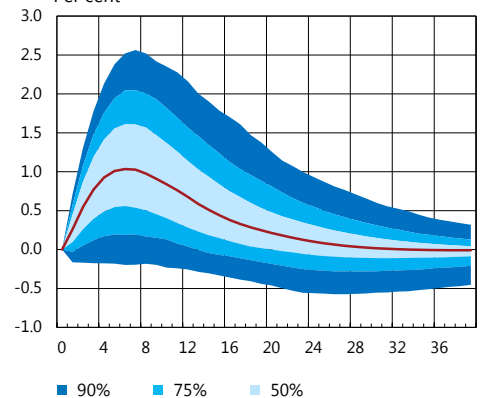
²⁸ The VAR model uses a method to identify the effects of monetary policy that is common in the academic literature and is described in Laséen and Strid (2013). In brief, this method is based on a so-called Choleski decomposition of the model's covariance matrix. Apart from inflation, the variables are also in levels, which means that monetary policy, according to these identifying assumptions, does not have any long-term effect on real GDP, real debts or real house prices. On the other hand, monetary policy will affect the price level itself even if the rate of inflation returns to its original level.

²⁹ See Adolfson, Malin, Stefan Laséen, Lawrence Christiano, Mathias Trabandt and Karl Walentin (2013), "Ramses II – Model Description", *Occasional Paper* no. 12. Sveriges Riksbank.

³⁰ The results here are based on the analysis presented in Laséen and Strid (2013).

³¹ In dynamic models, the experiment itself tends to have an impact on the size of the effects. This is often an underestimated reason for the differences between the results of different studies.

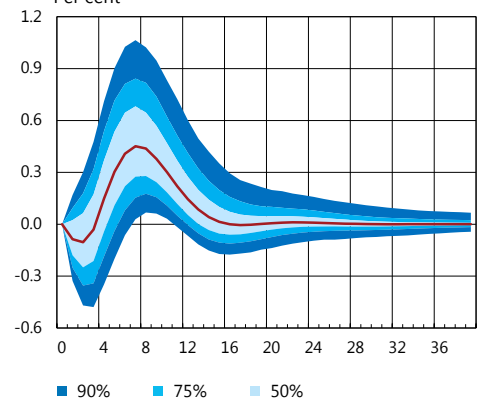
Figure A20. Changes in the households' real debts
Per cent



Note. The figure shows the effects on real debts of an unexpected lowering of the repo rate by one percentage point during a quarter. The blue fields show 90, 75 and 50 per cent uncertainty intervals for these effects. The horizontal axis shows the number of quarters after the shock occurs.

Source: The Riksbank

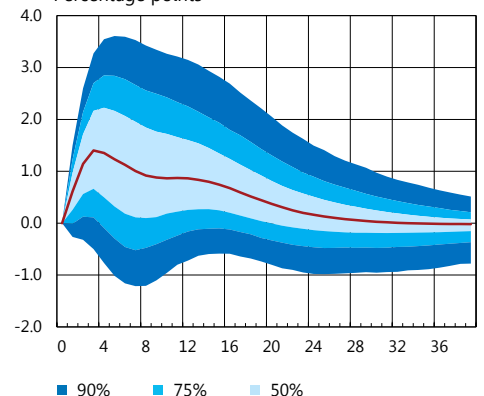
Figure A21. Changes in GDP
Per cent



Note. The figure shows the effects on real GDP of an unexpected lowering of the repo rate by one percentage point during a quarter. The blue fields in the figure show 90, 75 and 50 per cent uncertainty intervals for these effects. The horizontal axis refers to the number of quarters after the shock occurs.

Source: The Riksbank

Figure A22. Change in debts in relation to households' disposable incomes
Percentage points



Note. The figure shows the effects on the debt ratio of an unexpected lowering of the repo rate by one percentage point during a quarter. The blue fields in the figure show 90, 75 and 50 per cent uncertainty intervals for these effects. The debt ratio is converted to debts in relation to disposable incomes by assuming that the effect of the repo rate on disposable incomes is the same as for GDP. The response is then converted from per cent to percentage points by multiplying by a debt ratio that in the initial position is assumed to be 173 per cent. The horizontal axis refers to the number of quarters after the shock occurs.

Source: The Riksbank

Figure A21 shows that GDP increases by approximately 0.5 per cent at most when the repo rate is lowered in the way shown in figure A19. The debt ratio, expressed as debts in relation to the households' disposable incomes, increases by almost 1.5 percentage points at most when the repo rate is lowered by one percentage point, see figure A22.

How certain are the results of the model?

Analysis methods that use historical data in order, for example, to measure the effects of monetary policy tend to be uncertain, and there are a number of different sources of this uncertainty.

One reason for this is that the time period studied may be decisive for the size of the effects arrived at. As a robustness check the model has also been estimated over different time periods. However, this does not change the results in any significant sense. Nor do different definitions of debts or other changes to the model appear to have any tangible effects on the results.³²

There are also other sources of uncertainty. The blue fields in figures A19 to A22 show the uncertainty about the effects of the repo rate that arises because the model's parameters must be estimated. The unbroken lines show the most probable effects but the blue fields in the figures illustrate that effects may be greater or smaller. Figure A22 shows that there is a significant amount of uncertainty in the results for the effects on the debt ratio. It cannot even be ruled out that the ratio could fall when the repo rate is lowered, but it is most probable that it will increase.³³

In discussions of monetary policy it has been argued that lowering the repo rate would *reduce* the debt ratio.³⁴ This argument is based on the claim that the repo rate's impact on inflation and GDP is relatively high while its impact on debts is low. However, this argument does not seem to correspond very well with the patterns in the actual data.³⁵ Although the results from the model do not rule out arguments of this type, the analysis of actual debt data rather indicates that people borrow so much more when the interest rate is lowered that this effect outweighs the positive effects on GDP, and the debt ratio *increases*.³⁶

The model may underestimate the effects of the repo rate on debts

The effects that the repo rate has on debts according to these estimates are based on the change in the repo rate being temporary. According to the arguments above, a lasting change in the interest

³² See Laséen and Strid (2013) for a discussion.

³³ The mortgage margin itself can also affect debts. This is shown in Walentin Karl (2013), "Business Cycle Implications of Mortgage Spreads", *Working Paper* nr 275. Sveriges Riksbank.

³⁴ See Svensson Lars E. O. (2013), "Leaning Against the Wind Leads to a Higher (Not Lower) Household Debt-to-GDP Ratio", *Working paper*, Swedish Institute for Financial Research.

³⁵ See Laséen and Strid (2013) for a discussion of this. The results of the VAR model are in line with Iacoviello Matteo and Raoul Minetti (2008), "The Credit Channel of Monetary Policy: Evidence from the Housing Market", *Journal of Macroeconomics*, Vol. 53 No. 8, pp 69-96. The authors investigate, among other things, how debts react to a change in monetary policy in Finland, Germany, Norway and the United Kingdom.

³⁶ The results indicate that the households actively choose debt levels, loan-to-value ratios, refinancing and amortisation and that these choices can be governed by cyclical factors. See Hui, Michael Michaux, and Nikolai Roussanov (2013), "Houses as ATMs? Mortgage Refinancing and Macroeconomic Uncertainty", *NBER Working Paper* No. 19421 for a discussion of the factors that determine the financing decisions of US households.

rate would have a much greater impact on indebtedness. One risk of keeping the repo rate low for a long time is that this may affect the households' expectations of future interest rates so that they overestimate how long interest rates will remain low. In such a case, the effects of the repo rate may be more similar to those presented in figure A18. Due to its design, the model only captures the normal short-term effects and thus risks underestimating the effects of repo-rate changes on debts (and also on other variables).

Another important aspect is that the results here reflect an average relation. It may be the case, for example, that the effects of the repo rate on debts are different in a downturn than it would be in an upturn, or that the level of the rate may have an impact. Analyses based on an average effect may then easily be misleading.

Cooperation between several policy areas is required to reduce the risks associated with indebtedness

An article in the Monetary Policy Report published in July 2013 discussed how monetary policy may need to take into account risks associated with financial imbalances, for example high indebtedness.³⁷ If monetary policy has a sufficient impact on debts it can help to reduce the long-term risks to the economy. It is therefore important to ascertain how great an impact a change in the repo rate has on debts.

This article presents an estimate of how the repo rate affects debts. The results indicate that lowering the repo rate leads to an increase in real household debt and in real GDP and that the change in debt normally exceeds the change in GDP so that the debt ratio increases when the repo rate is lowered. According to the estimate, significant changes in the repo rate could affect the debt ratio by a number of percentage points for a limited period of time.

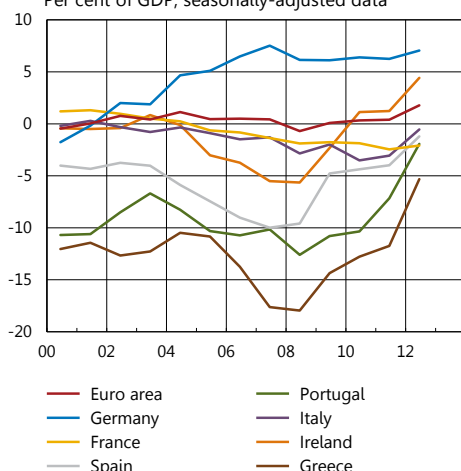
Household debt is currently at a high level and is expected to increase further. However, cooperation between several policy areas is required to manage the risk associated with household indebtedness. The emergence of macroprudential policy as a new policy area presents new opportunities for counteracting risks.³⁸ However, knowledge about the effectiveness of the macroprudential policy instruments is as yet relatively limited. Knowledge concerning which measures are most effective and how different policy areas can cooperate best will, however, increase as and when various macroprudential policy measures are taken.

³⁷ See "Financial imbalances in the monetary policy assessment". Article in *Monetary Policy Report*, February 2013. Sveriges Riksbank.

³⁸ See "Macroprudential policy and monetary policy". Article in *Monetary Policy Report*, October 2013. Sveriges Riksbank.

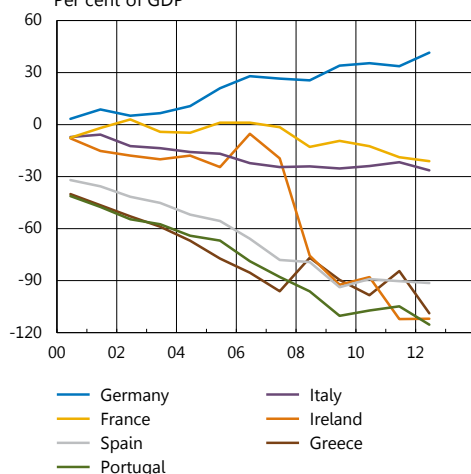
■ Adjustments in the euro area: an update

Figure A23. Current account
Per cent of GDP, seasonally-adjusted data



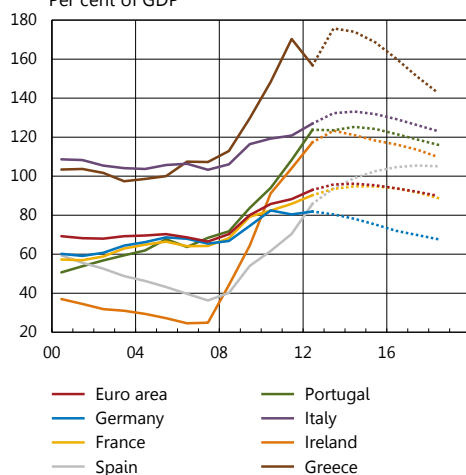
Source: European Commission

Figure A24. Net external position
Per cent of GDP



Source: Eurostat

Figure A25. Public debts
Per cent of GDP



Note. The broken lines represent IMF forecasts.

Sources: Eurostat and IMF.

GDP is growing again in the euro area, but there is still a long way to go before we reach a long-run sustainable situation. This article examines how much progress has been made on adjusting the imbalances in the area, with a focus on competitiveness, public finances and the banks. The review shows that those countries that are or have been subject to support programmes have taken steps in the right direction but that major adjustments are still needed. It is therefore reasonable to expect that growth will be relatively weak in the euro area in the years immediately ahead.

Substantial imbalances in several euro area countries

During the years preceding the global financial crisis, several of the euro area countries had substantial and growing current account deficits (see figure A23). In other words, the value of the total consumption and investment of these countries exceeded the value of their production to an increasing degree.³⁹ These countries were able to finance the deficits as there was good access to foreign capital. This resulted primarily in a build-up of private debt, but in some countries, for example Greece and Portugal, public debts also grew. Monetary policy, which was designed for the euro area as a whole, could not counteract the cost pressures that arose in countries with large capital inflows and an unsustainable development of property prices also arose in several countries.

Capital became less accessible in these countries in the wake of the global financial crisis. Interest rates increased, property markets crashed in several countries and public deficits grew rapidly. A number of euro area countries then found themselves in a situation with a very weak external position⁴⁰ (see figure A24) with a high level of public and private debt (see figure A25 and figure A26), weak balance sheets in the banking sector and poorer competitiveness as a result of the too rapid cost increases. Many countries have attempted to rectify this situation in recent years.

This article analyses how much progress the most vulnerable euro area countries have made in adjusting their competitiveness, public finances and the banks' balance sheets.⁴¹ The focus is on those countries that are or have been subject to support programmes, that is Greece, Ireland, Portugal and Spain; and Italy which has some problems similar to those of the other countries, not least a high

³⁹ The current account is a measure of a country's net saving in relation to the rest of the world. It can be expressed as the difference between gross national income and total consumption and investment (plus net current transfers such as EU contributions, and food and disaster aid). It is often expressed as the net total of exports and imports of goods and services and net factor incomes to and from abroad (plus net current transfers). For a more detailed description see "Thrifty households have created a large surplus in Sweden's current account". Article in *The Swedish Economy*, March 2011. National Institute of Economic Research.

⁴⁰ The net external position is the difference between a country's total foreign assets and its total foreign liabilities. Apart from various types of loan instrument, these include foreign exchange reserves, shares and financial derivatives. The net external position is mainly affected by the current account balance and changes in the value of existing assets and liabilities.

⁴¹ See also the articles on problems in the euro area in the Monetary Policy Reports of July 2010, July and October 2011 and February, July and October 2012.

public debt ratio. These countries are referred to as the highly-indebted countries below. Occasional comments are also made on the situation in France, as this country represents a significant part of the euro area's economy and, like the highly-indebted countries, has experienced a weakening of its net external position.

Competitiveness has improved

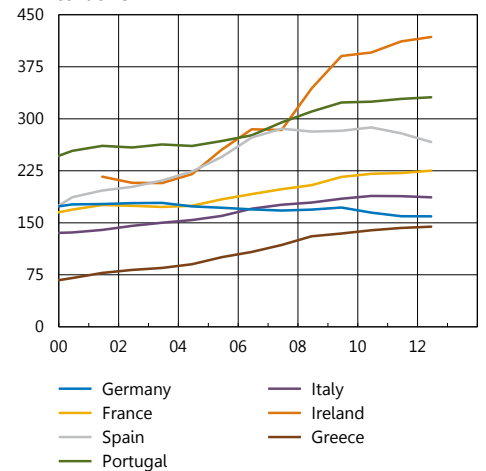
In order for the highly-indebted countries to be able to achieve a recovery based on an increase in the demand for domestically-produced goods and services, and at the same time strengthen their net external position, a lasting reduction of the costs of producing internationally-traded goods and services in these countries compared to the costs in other countries is required; that is an improvement in their competitiveness.⁴²

There are problems with all of the methods of measuring competitiveness. It is therefore necessary to put together an overall picture based on several indicators.⁴³ One indicator of how a country's competitiveness changes is the development of unit labour costs in the country in relation to other countries. Unit labour costs are affected by the development of wages, other wage-related costs such as employers' contributions and by productivity development. Since the beginning of 2009, unit labour costs have fallen in the support-programme countries compared to the euro area as a whole (see figure A27). One important explanation of this is the development of labour costs per hour. These have fallen in Greece and Ireland, while in Portugal and Spain they have raised less than in the euro area as a whole (see figure A28). Improvements in productivity have also contributed to the fall in unit labour costs. This applies not least to Spain where the companies have made substantial personnel cuts. Italy, where productivity development has been relatively weak, and France, where there have been relatively high increases in unit labour costs, have in terms of this measure both lost competitiveness since 2009.

The development of the GDP deflator⁴⁴ relative to the situation in other countries can also act as a measure of the competitiveness of domestically-produced goods and services. Figure A29 shows how since the global financial crisis the highly-indebted countries have begun a price-adjustment process in relation to the rest of the euro area, where the most substantial adjustment has been in Ireland. In terms of this measure, the support-programme countries have made considerable progress in recent years, but neither Italy nor France are exhibiting any strengthening of their competitiveness relative to the euro area as a whole.

Figure A26. Private debts

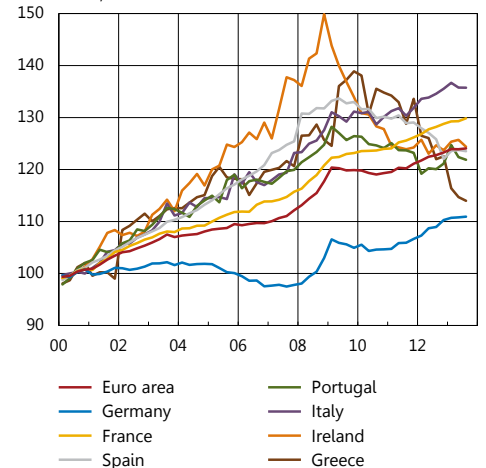
Households' and non-financial companies' debts as per cent of GDP



Source: OECD

Figure A27. Unit labour costs

Index, 2000 = 100

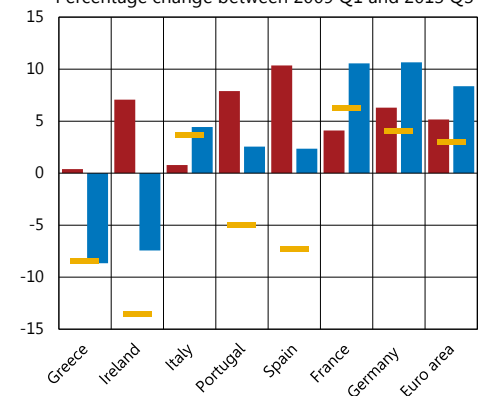


Note. Data for Greece has been seasonally-adjusted by the Riksbank.

Sources: OECD and the Riksbank

Figure A28. Contributions to unit labour costs

Percentage change between 2009 Q1 and 2013 Q3



■ Productivity
■ Labour cost per hour
■ Unit labour cost

Note. Data for Greece has been seasonally-adjusted by the Riksbank.

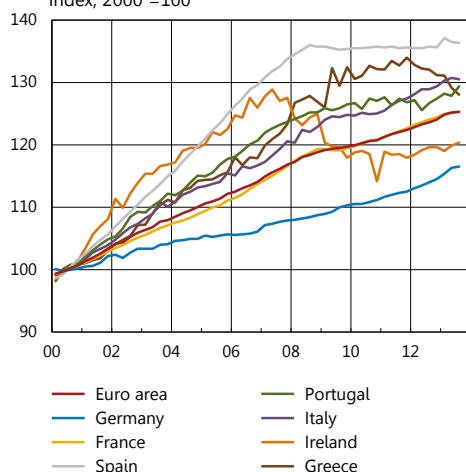
Sources: OECD and the Riksbank.

⁴² For a discussion of possible definitions of the term competitiveness see the National Institute of Economic Research (2012), En jämförelse av nationell konkurrenskraft i Sverige och Finland, fördjupnings-PM nr 19 ("A comparison of national competitiveness in Sweden and Finland", Memo 19).

⁴³ For a discussion and evaluation of different measures of competitiveness see Ca' Zorzi, Michele and Schnatz, Bernd (2007), Explaining and forecasting euro area exports: which competitiveness indicator performs best? Working Paper no. 833, European Central Bank.

⁴⁴ The GDP deflator is a price index that covers all the goods and services produced in a country. The percentage change in the GDP deflator is the difference between the percentage change in GDP in current prices and the percentage change in GDP in constant prices.

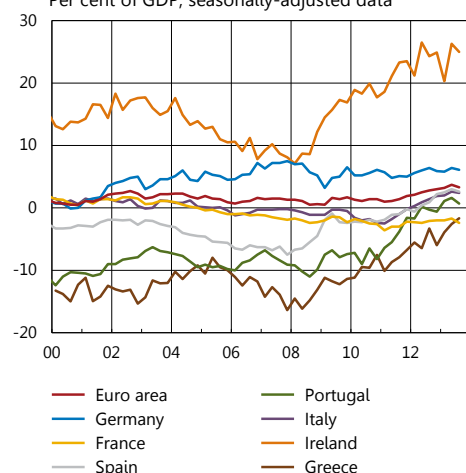
Figure A29. GDP deflator
Index, 2000 = 100



Note. Data for Greece has been seasonally-adjusted by the Riksbank.

Sources: OECD and the Riksbank

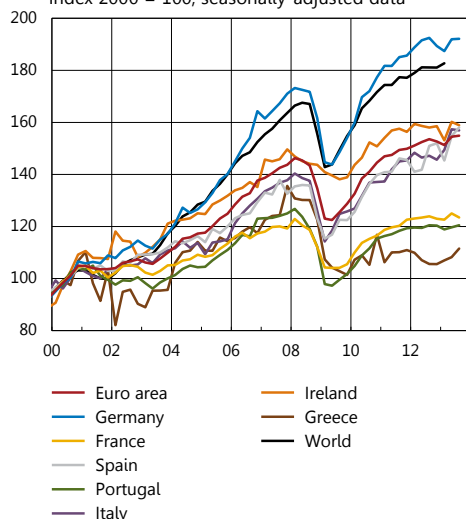
Figure A30. Balance of trade
Per cent of GDP, seasonally-adjusted data



Note. Data for Greece has been seasonally-adjusted by the Riksbank.

Sources: Eurostat and the Riksbank.

Figure A31. Export volumes
Index 2000 = 100, seasonally-adjusted data



Note. Data for Greece has been seasonally-adjusted by the Riksbank.

Sources: Eurostat and the Riksbank.

Changes in competitiveness can also have an impact on the balance of trade. The better a country's competitiveness, the more attractive its exports are to the rest of the world, at the same time as imported goods and services become relatively less attractive. There has been a clear improvement in the balance of trade figures of the highly-indebted countries since the start of 2011 and these figures are now positive in most cases (see figure A30). Part of the improvement in the balance of trade figures relates to a low level of demand for imports, which is explained by the weak development of incomes in the highly-indebted countries rather than by relative price changes. Nevertheless, figure A31 indicates that increased export volumes have also contributed to this improvement.

All-in-all, it appears that competitiveness has improved in the euro area countries that have the weakest net external position, that is in the countries that are or have been subject to support programmes. At the same time it appears that France has lost competitiveness in relation to the euro area as a whole. Italy is showing some signs of recovery in the balance of trade and exports, but no signs of having strengthened its position in terms of labour costs and prices.

It is assumed that competitiveness will continue to improve as a result of the reforms implemented in several of the highly-indebted countries.⁴⁵ However, additional reforms that can lead to lasting improvements in productivity are desirable. Given that it tends to be difficult to achieve nominal wage reductions, the ongoing adjustment will also become easier when demand strengthens and inflation rises in the euro area as a whole. However, some of the productivity improvements achieved may be the result of so many workers being made redundant during the crisis. There is a risk that productivity development will be much weaker going forward as unemployment falls back to more normal levels.

Private and public saving have increased

The process of reducing the level of private indebtedness has begun in the highly-indebted countries. Private debt as a percentage of GDP did not grow as quickly in 2012 as in the preceding years and has begun to decrease in Spain (see figure A26).

However, the issue at the focus of the unease on the financial markets in recent years has been the need to reduce budget deficits and stabilise public indebtedness (see figure A25). Many countries have implemented extensive fiscal policy tightening, which is reflected in improvements in the cyclically-adjusted public primary balance (see figure A32).⁴⁶ The most extreme case is Greece, which went from a cyclically-adjusted primary balance of -14 per cent of potential GDP in 2009 to a positive cyclically-adjusted primary balance in 2012.

⁴⁵ For example reforms that aim to establish greater sensitivity to demand in wage formation and liberalisation measures and increased competition in the service sector.

⁴⁶ As both the income and expenditure of the public sector and the size of the denominator (that is the level of GDP) vary with the economic cycle, it is desirable to try to achieve a cyclical adjustment in order to get an idea of the underlying direction of fiscal policy.

However, public indebtedness in relation to GDP has continued to increase, partly as a result of weak GDP growth. Against the background of a somewhat improved development of GDP and given the IMF's forecasts for the results of planned budget measures, public debt ratios will stabilise in the countries concerned in 2013 or 2014, with the exception of Spain where the debt ratio is not expected to stabilise until 2017 (see figure A25).⁴⁷

It is expected that budgets will be significantly strengthened over the next few years (see Figure A32) and in most cases this will follow a period in which extensive tightening measures have already been implemented. In order to get an idea of how unique budget consolidation programmes of this extent are we can study the fiscal policy history of a group of countries in a database compiled by the IMF.⁴⁸ Taking the deficits in 2009 as a starting point, most of the countries in the database have at some time strengthened their budgets to the extent expected in Italy and France, but there are few equivalents to the achievements in Portugal and Spain. The extent of the expected budget strengthening in Greece and Ireland is particularly substantial in an historical perspective. A lasting reduction of the debt ratio also requires avoiding new deficits after the years of tightening. This highlights the challenges facing the highly-indebted countries in the euro area.

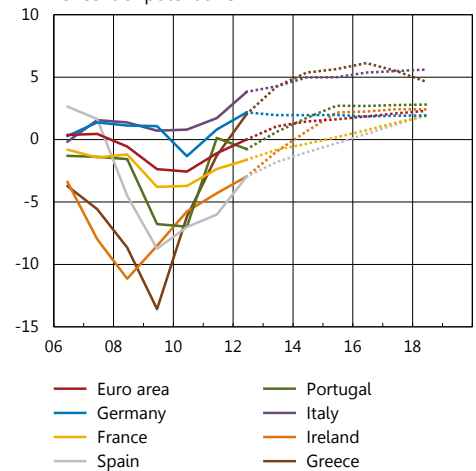
Banks recovering but lending rates are still high

The global financial crisis led to a weakening of the debt-servicing ability of many borrowers, particularly in the highly-indebted countries. Housing prices also fell in some countries. This drastically weakened the balance sheets of many banks, which made it more difficult for them to get market funding (see figure A34) and made them more cautious about granting credit (see figure A35). The strong financial links between banks and states, through the banks' holding of government securities and the role of states as implicit guarantors of domestic banking systems, meant that the problems of the banks of the highly-indebted countries worsened when the debt crisis in Europe flared up in 2011.

The necessary strengthening of the banks' capital adequacy can be carried out using private and public capital injections and accumulated profits, or by reducing lending. In all of the highly-indebted countries, and also in France, public capital injections have occurred. At the same time, the large liquid investments of many banks in the government bonds of their own countries have generated substantial profits as the yields of these bonds have fallen.

The uncertainty about the value of bank assets that has led the ECB, before taking over the supervision of systemically-important banks in the euro area, to prepare a review of these banks in 2014, makes it difficult at present to assess how the status of the banks' balance sheets has changed in recent years. However, one sign of

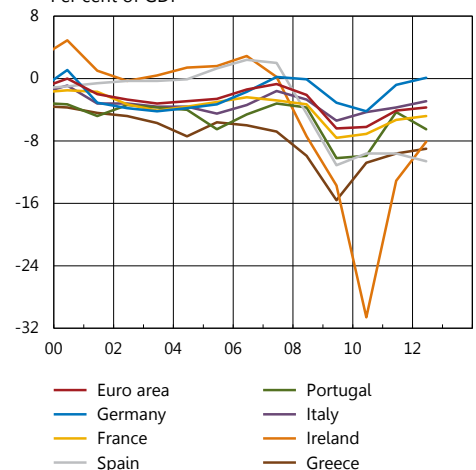
Figure A32. Cyclically-adjusted public primary balance
Per cent of potential GDP



Note. Budget balance adjusted for the economic cycle minus net interest income. This is based on the IMF's assessments of potential GDP and the cyclical effects on public income and expenditure. The broken lines represent IMF forecasts.

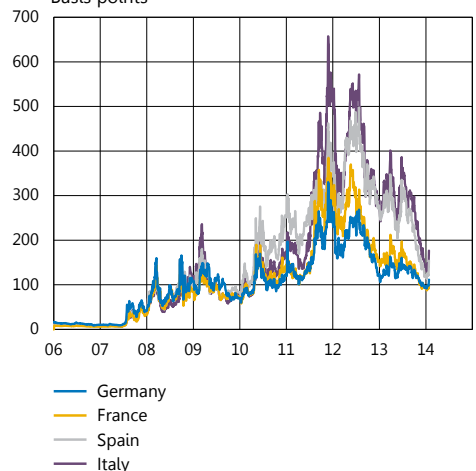
Source: IMF

Figure A33. General government net lending
Per cent of GDP



Source: Eurostat

Figure A34. 5-year CDS premiums for banks
Basis points



Note. The chart refers to a selection of major banks in each country.

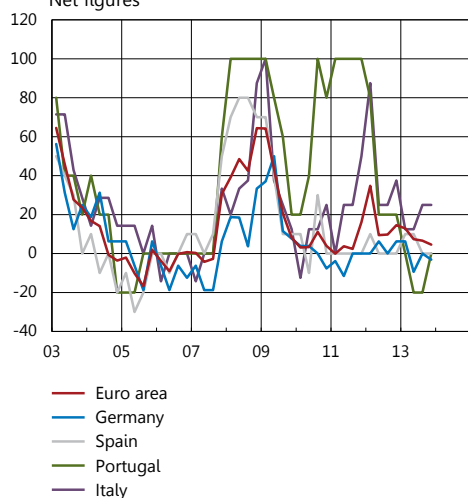
Sources: Bloomberg and the Riksbank

⁴⁷ See *Fiscal Monitor* October 2013. International Monetary Fund.

⁴⁸ For a more detailed description of this "Public Finances in Modern History Database" and how it can be used for this purpose see Box 1 in *Fiscal Monitor*, October 2013. International Monetary Fund.

Figure A35. Credit standards

Net figures

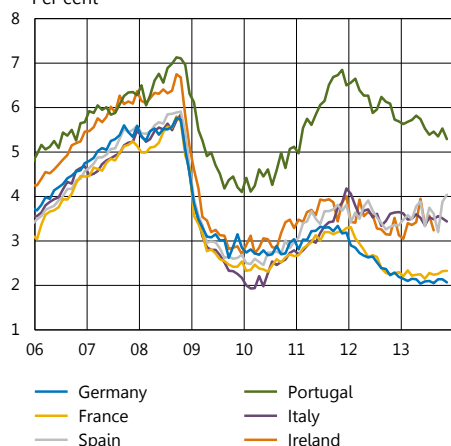


Note. Net figures are defined as the difference between the proportion of banks that have reported more strict and those that have reported less strict credit standards compared with the preceding period.

Source: ECB

Figure A36. Interest rates for unsecured loans to companies

Per cent



Note. Refers to new and renegotiated loans regardless of maturity.

Source: ECB

improvement is that the loans of the banks of the highly-indebted countries with the ECB are decreasing. Another is that their borrowing costs measured in terms of CDS premiums have fallen back to the levels that prevailed before the debt crisis (see figure A34), which may be a result of other market participants now perceiving these banks to be less risky counterparties than they were a couple of years ago.

A problem that remains since the acute phase of the debt crisis is that companies in the highly-indebted countries have to pay considerably higher interest rates for bank loans than they do in France and Germany (see figure A36), which is subduing investment. It is hoped that it will be possible to reduce this so-called financial fragmentation in the period ahead, partly as a result of the review of bank assets that will be carried out by the ECB in 2014. However, this review may also lead to new challenges depending on how great the need for capital injections proves to be, as the possibilities of the joint support funds to contribute are limited.

Conclusions

GDP is growing again in the euro area and the Riksbank expects to see a slow recovery while adjustment of the imbalances that were built up in the years before the financial crisis takes place. However, the countries that have been subject to support programmes have taken clear steps in the right direction.

Competitiveness has improved and ongoing lasting improvements can be achieved with the help of labour-market reforms and reforms that aim to improve competition on the markets for goods and services.

Public finances have been substantially strengthened, although the weak economic situation means that debt ratios will not begin to stabilise until this year in most of the countries.

The banks have made some progress towards restoring their balance sheets and their funding costs have fallen since the acute debt crisis. However, the recovery in the highly-indebted countries is being hampered by the fact that interest rates for companies are at significantly higher levels than, for example, in Germany and France.

The adjustment is progressing slowly, particularly in Italy and France, and will have a restraining effect on GDP growth in the euro area as a whole in the years immediately ahead.

■ Appendix

- Tables
- Articles 2011-2013
- Interest rate decisions 2009-2013
- Glossary

Tables

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

Table 1. Repo rate forecast

Per cent, quarterly averages

	Q4 2013	Q1 2014	Q2 2014	Q1 2015	Q1 2016	Q1 2017
Repo rate	1.0	0.8 (0.7)	0.7 (0.7)	0.9 (0.9)	2.1 (2.1)	2.7 (0.0)

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

	2012	2013	2014	2015	2016
CPI	0.9	0.0 (-0.1)	0.6 (0.6)	2.5 (2.5)	3.0 (3.0)
CPIF	1.0	0.9 (0.8)	0.9 (1.0)	1.8 (1.8)	2.0 (2.0)
CPIF excl. energy	1.0	1.1 (1.1)	1.1 (1.1)	1.9 (2.0)	2.1 (2.1)
HICP	0.9	0.4 (0.4)	0.9 (0.9)	1.8 (1.8)	2.0 (2.0)

Note. 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

	2012	2013	2014	2015	2016
Repo rate	1.5	1.0 (1.0)	0.7 (0.7)	1.4 (1.4)	2.4 (2.4)
10-year rate	1.6	2.1 (2.1)	2.6 (2.6)	3.4 (3.4)	4.0 (4.0)
Exchange rate, KIX, 18 November 1992 = 100	106.1	103.0 (103.1)	102.8 (104.9)	101.6 (102.4)	101.1 (101.6)
General government net lending*	-0.5	-1.4 (-1.4)	-1.7 (-1.5)	-0.6 (-0.5)	0.1 (0.3)

* Per cent of GDP

Sources: Statistics Sweden and the Riksbank

Table 4. International conditions

Annual percentage change, unless otherwise stated

GDP	PPP-weights	KIX-weights	2012	2013	2014	2015	2016
Euro area	0.14	0.47	-0.6	-0.4 (-0.4)	1.2 (1.1)	1.8 (1.9)	1.9 (2.1)
USA	0.19	0.08	2.8	1.9 (1.8)	3.3 (3.0)	3.3 (3.5)	2.9 (3.4)
Japan	0.06	0.03	1.4	1.6 (1.6)	1.9 (1.8)	1.1 (1.1)	1.2 (1.2)
China	0.15	0.07	7.8	7.6 (7.7)	7.3 (7.4)	7.0 (7.0)	7.0 (7.0)
KIX-weighted	0.79	1.00	1.0	1.1 (1.1)	2.3 (2.4)	2.7 (2.8)	2.8 (3.0)
World (PPP-weighted)	1.00	-	3.2	2.9 (3.0)	3.7 (3.8)	3.9 (4.0)	3.9 (4.1)

Note. Calendar-adjusted growth rates. The PPP-weights refer to the global purchasing-power adjusted GDP-weights for 2012, according to the IMF. The National Institute of Economic Research updates the weights for the KIX krona index at the start of every year with a time lag of three years. The figures in the table are based on the new KIX weights for 2011 that are used for 2014, and on an assumption that the weights will develop according to the trend of the past five years in the coming forecast year.

CPI	2012	2013	2014	2015	2016
Euro area (HICP)	2.5	1.4 (1.3)	1.0 (1.1)	1.5 (1.5)	1.7 (1.7)
USA	2.1	1.5 (1.5)	1.6 (1.6)	2.3 (2.3)	2.6 (2.4)
Japan	0.0	0.4 (0.3)	3.2 (3.2)	2.0 (2.0)	1.7 (1.7)
KIX-weighted	2.6	1.9 (1.9)	1.8 (1.9)	2.2 (2.2)	2.3 (2.3)

	2012	2013	2014	2015	2016
Policy rates in the rest of the world, per cent	0.4	0.2 (0.2)	0.3 (0.2)	0.4 (0.4)	1.0 (1.0)
Crude oil price, USD/barrel Brent	111.8	108.8 (108.8)	105.3 (108.8)	100.6 (103.3)	96.5 (97.8)
Swedish export market	1.6	1.5 (1.3)	5.4 (5.4)	6.4 (6.5)	6.8 (7.0)

Note. Policy rates in the rest of the world refer to a weighted average of USA, the euro area, Norway and the United Kingdom.

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

Table 5. GDP by expenditure

Annual percentage change, unless otherwise stated

	2012	2013	2014	2015	2016
Private consumption	1.6	1.7 (1.8)	2.8 (2.7)	3.5 (3.5)	2.6 (2.6)
Public consumption	0.3	1.2 (1.2)	0.8 (0.8)	1.2 (1.2)	1.1 (1.1)
Gross fixed capital formation	3.3	-1.2 (-1.2)	3.7 (4.3)	7.2 (7.5)	5.4 (5.4)
Inventory investment*	-1.2	-0.1 (-0.1)	0.3 (0.3)	0.0 (0.0)	0.0 (0.0)
Exports	0.7	-1.7 (-1.7)	2.2 (2.3)	6.5 (6.6)	6.7 (6.7)
Imports	-0.6	-2.2 (-2.2)	3.1 (3.0)	6.9 (6.9)	7.2 (7.2)
GDP	0.9	0.9 (0.9)	2.4 (2.5)	3.6 (3.7)	2.8 (2.8)
GDP, calendar-adjusted	1.3	0.9 (0.9)	2.5 (2.6)	3.4 (3.5)	2.5 (2.6)
Final figure for domestic demand*	1.5	0.9 (0.9)	2.3 (2.3)	3.4 (3.5)	2.6 (2.6)
Net exports*	0.6	0.1 (0.1)	-0.2 (-0.2)	0.2 (0.3)	0.2 (0.2)
Current account (NA), per cent of GDP	6.5	6.2 (6.3)	5.7 (5.9)	5.5 (5.8)	5.4 (5.7)

*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

	2012	2013	2014	2015	2016
Population, aged 16-64	0.6	0.6 (0.6)	0.7 (0.7)	0.7 (0.7)	0.7 (0.7)
Potential hours worked	0.5	0.5 (0.5)	0.6 (0.6)	0.6 (0.6)	0.6 (0.6)
GDP, calendar-adjusted	1.3	0.9 (0.9)	2.5 (2.6)	3.4 (3.5)	2.5 (2.6)
Number of hours worked, calendar-adjusted	0.6	0.5 (0.5)	1.3 (1.4)	1.4 (1.4)	1.0 (1.0)
Employed, aged 15-74	0.6	1.1 (1.1)	1.2 (1.1)	1.1 (1.0)	0.9 (1.0)
Labour force, aged 15-74	0.8	1.1 (1.1)	0.9 (0.8)	0.4 (0.3)	0.3 (0.3)
Unemployment, aged 15-74 *	8.0	8.0 (8.0)	7.8 (7.8)	7.2 (7.1)	6.6 (6.5)

* 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 labour costs for the economy as a whole

Annual percentage change, calendar-adjusted data unless otherwise stated

	2012	2013	2014	2015	2016
Hourly wage, NMO	3.0	2.6 (2.5)	2.8 (2.7)	3.1 (3.2)	3.4 (3.4)
Hourly wage, NA	3.1	2.2 (2.6)	2.9 (2.9)	3.3 (3.4)	3.7 (3.7)
Employers' contribution*	0.3	-0.1 (-0.1)	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Hourly labour cost, NA	3.4	2.2 (2.5)	2.9 (2.9)	3.3 (3.4)	3.7 (3.7)
Productivity	0.6	0.4 (0.4)	1.2 (1.2)	1.9 (2.0)	1.6 (1.6)
Unit labour cost	2.7	1.8 (2.1)	1.8 (1.6)	1.4 (1.3)	2.1 (2.1)

* 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, social-security 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: cost developments and inflation, higher demand

Annual percentage change, unless otherwise stated, annual average

	2014	2015	2016
Profit share, per cent	41.0 (40.6)	42.1 (41.0)	42.4 (40.9)
GDP-growth	2.9 (2.5)	4.3 (3.4)	3.5 (2.5)
Real labour cost per hour	0.9 (1.4)	0.8 (1.3)	1.6 (1.7)
Hours gap, per cent	-0.4 (-0.7)	0.7 (0.1)	1.4 (0.5)
Labour productivity	1.3 (0.6)	2.6 (0.6)	2.1 (0.6)
Unit labour cost	1.4 (1.7)	0.8 (1.4)	2.0 (2.1)
CPIF	1.2 (0.9)	2.3 (1.8)	2.6 (2.0)
CPI	0.9 (0.6)	3.0 (2.5)	3.5 (3.0)
Repo rate, per cent	1.0 (0.7)	2.1 (1.4)	3.4 (2.4)

Table 9. Alternative scenario: cost developments and inflation, higher productivity

Annual percentage change, unless otherwise stated, annual average

	2014	2015	2016
Profit share, per cent	41.0 (40.6)	42.1 (41.0)	42.4 (40.9)
GDP-growth	2.9 (2.5)	4.3 (3.4)	3.6 (2.5)
Real labour cost per hour	1.5 (1.4)	1.6 (1.3)	2.3 (1.7)
Hours gap, per cent	-1.0 (-0.7)	-0.7 (0.1)	-0.6 (0.5)
Labour productivity	1.9 (0.6)	3.4 (0.6)	2.8 (0.6)
Unit labour cost	0.9 (1.7)	-0.4 (1.4)	0.6 (2.1)
CPIF	0.9 (0.9)	1.5 (1.8)	1.5 (2.0)
CPI	0.4 (0.6)	1.8 (2.5)	2.0 (3.0)
Repo rate, per cent	0.6 (0.7)	1.0 (1.4)	1.6 (2.4)

Table 10. Alternative scenario: higher repo rate

Annual percentage change, unless otherwise stated, annual average

	2014	2015	2016
Repo rate, per cent	0.9 (0.7)	1.5 (1.4)	2.3 (2.4)
GDP gap, per cent	-1.0 (-0.9)	0.0 (0.3)	0.1 (0.3)
Hours gap, per cent	-0.7 (-0.7)	-0.1 (0.1)	0.3 (0.5)
Unemployment, aged 15-74	7.8 (7.8)	7.3 (7.2)	6.7 (6.6)
CPIF	0.9 (0.9)	1.6 (1.8)	1.9 (2.0)
CPI	0.6 (0.6)	2.3 (2.5)	2.8 (3.0)

Table 11. Alternative scenario: lower repo rate

Annual percentage change, unless otherwise stated, annual average

	2014	2015	2016
Repo rate, per cent	0.5 (0.7)	1.3 (1.4)	2.4 (2.4)
GDP gap, per cent	-0.8 (-0.9)	0.5 (0.3)	0.5 (0.3)
Hours gap, per cent	-0.6 (-0.7)	0.3 (0.1)	0.6 (0.5)
Unemployment, aged 15-74	7.7 (7.8)	7.1 (7.2)	6.5 (6.6)
CPIF	1.0 (0.9)	1.9 (1.8)	2.1 (2.0)
CPI	0.5 (0.6)	2.6 (2.5)	3.1 (3.0)

Articles 2011-2013⁴⁹

2011

- 2011 February** The effects of the financial crisis on the labour market – a comparison of Sweden, the euro area and the United States
- 2011 February** Lower policy rates in Sweden and abroad
- 2011 February** How does the Riksbank make forecasts for long-term market rates?
- 2011 February** The effects of Basel III on macroeconomic development
- 2011 July** The sustainable development of public debt?
- 2011 July** Low unemployment – a challenge
- 2011 July** Recent developments in inflation expectations
- 2011 October** Similarities and differences between the current situation and 2008-2009
- 2011 October** The debt crisis in Europe
- 2011 October** New round of collective bargaining in an uncertain economic climate

2012

- 2012 February** The EMU and the debt crisis
- 2012 February** The emerging economies and Sweden's exports
- 2012 February** The relationship between the repo rate and interest rates for households and companies
- 2012 July** The debt crisis in Europe – developments during the spring
- 2012 July** Long-run developments in the Swedish labour market
- 2012 July** Why has inflation been lower in Sweden than in the euro area?
- 2012 October** KIX index better reflects Sweden's international dependence
- 2012 October** New measures to manage the crisis in the euro area
- 2012 October** The economic situation remains uncertain ahead of collective bargaining in 2013
- 2012 October** Has the functioning of the labour market changed?

2013

- 2013 February** Severe fiscal tightening avoided in the United States
- 2013 February** The household balance sheet and the macroeconomic assessment
- 2013 February** Perspectives on monetary policy expectations and forward rates
- 2013 July** Financial imbalances on the monetary policy assessment
- 2013 July** Cost developments and inflation
- 2013 July** A long-term perspective on the krona
- 2013 October** Expected tapering of the Federal Reserve's asset purchases
- 2013 October** Perspectives on labour market developments in Sweden
- 2013 October** Macroprudential policy and monetary policy

⁴⁹ A list of the articles published since 1993 can be found on the Riksbank's website www.riksbank.se.

Interest rate decisions 2009-2013⁵⁰

Date of meeting	Decision (percentage points)	Repo rate (per cent)	Monetary Policy Report
2009			
10 February	-1.00	1.00	February 2009
20 April	-0.50	0.50	Monetary Policy Update
1 July	-0.25	0.25	July 2009
2 September	0	0.25	Monetary Policy Update
21 October	0	0.25	October 2009
15 December	0	0.25	Monetary Policy Update
2010			
10 February	0	0.25	February 2010
19 April	0	0.25	Monetary Policy Update
30 June	+0.25	0.50	July 2010
1 September	+0.25	0.75	Monetary Policy Update
25 October	+0.25	1.00	October 2010
14 December	+0.25	1.25	Monetary Policy Update
2011			
14 February	+0.25	1.50	February 2011
19 April	+0.25	1.75	Monetary Policy Update
4 July	+0.25	2.00	July 2011
6 September	0	2.00	Monetary Policy Update
26 October	0	2.00	October 2011
19 December	-0.25	1.75	Monetary Policy Update
2012			
15 February	-0.25	1.50	February 2012
17 April	0	1.50	Monetary Policy Update
3 July	0	1.50	July 2012
5 September	-0.25	1.25	Monetary Policy Update
24 October	0	1.25	October 2012
17 December	-0.25	1.00	Monetary Policy Update
2013			
12 February	0	1.00	February 2013
16 April	0	1.00	Monetary Policy Update
2 July	0	1.00	July 2013
4 September	0	1.00	Monetary Policy Update
23 October	0	1.00	October 2013
16 December	-0.25	0.75	Monetary Policy Update

⁵⁰ 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 two 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, that is, 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 rate expenditures 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.

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

ECB: The European Central Bank.

ESM: European Stability Mechanism. A permanent international financial institution founded by the euro area countries to safeguard stability in the euro area. The ESM replaces the former financing mechanism.

ESRB: European Systemic Risk Board. The European Systemic Risk Board is responsible for the macroprudential supervision of the financial system within the EU.

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. This is calculated by weighing together imports in 32 countries and covers approximately 85 per cent of Swedish export market. The weights are determined by the respective country's share of Swedish exports of goods.

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

Federal Reserve: The central bank of the United States.

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.

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

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.

KIX: Krona Index. An index for the Swedish krona exchange rate.

KIX-weighted: An aggregate of, for instance, GDP, CPI or the exchange rate in the euro area and 20 countries 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, that is, 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.

Listed mortgage rates: The rates that are published by Nordea, SBAB, Swedbank Hypotek and Stadshypotek, for example in the daily press.

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 (that is 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.

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

TCW index: Total competitiveness weights index. An index for the Swedish krona's exchange rate.

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 the prices of 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.

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

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