



Monetary Policy Report

July 2015

Monetary Policy Report

The Riksbank's Monetary Policy Report is published six times a year. The report describes the deliberations made by the Riksbank when deciding what would be an appropriate monetary policy to conduct.¹ The report contains a description of the future prospects for inflation and economic activity based on the monetary policy that the Riksbank currently considers to be well-balanced.

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)). During the spring, special material is submitted as a basis for the evaluation of monetary policy. During the autumn, the current Monetary Policy Report is submitted as an account of monetary policy.

The Executive Board made a decision on the Monetary Policy Report on 1 July 2015. The report is available on Sveriges Riksbank's website, www.riksbank.se. It is also possible to order a printed version of the report free of charge on the website, or to download the report as a PDF.

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

¹ See "Monetary policy in Sweden" on the next page for a description of the monetary policy strategy and what can be regarded as an appropriate monetary policy.

Monetary Policy in Sweden

MONETARY POLICY STRATEGY

- 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 for the purpose of attaining sustainable growth and a high level of employment. This is achieved through the Riksbank, in addition to stabilising inflation around the inflation target, endeavouring to stabilise production and employment around paths that are sustainable in the long term. 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 its own assessment of the future path for the repo rate. This repo-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, and any potential supplementary measures necessary, for monetary policy to be well-balanced. It thus 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 monetary policy 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 monetary policy 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 per year at which it decides on monetary policy. In connection with these meetings, a Monetary Policy Report 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 current decision and to see the arguments put forward by the different Executive Board members.

PRESENTATION OF THE MONETARY POLICY DECISION

The monetary policy 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 voted and provides the main motivation for any reservations entered. A press conference is held on the day following the monetary policy meeting.

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CHAPTER 1 – Monetary policy considerations

Inflation is continuing to rise and economic activity in Sweden is gradually improving. International growth is also rising, but uncertainty has increased and it is very difficult to assess the consequences of the events of the past few days in Greece. In this environment, the development of the krona exchange rate still represents a risk to the upturn in inflation. The krona has become stronger than was forecast by the Riksbank in April. To ensure that inflation continues to rise towards 2 per cent, the Executive Board of the Riksbank has decided to cut the repo rate by 0.1 percentage points and to extend its purchases of government bonds by SEK 45 billion from September. The repo rate is expected to be -0.35 per cent for just over one year, while the repo-rate path reflects the possibility of lowering the repo rate further. The assessment is that it will be appropriate to begin slowly increasing the repo rate in the second half of 2016 at the earliest and that it is expected to reach 0.8 per cent in the third quarter of 2018. The Riksbank still maintains a high level of preparedness to make monetary policy even more expansionary if this should prove necessary to ensure that inflation rises sufficiently fast. The expansionary monetary policy underlines the Riksbank's aim to safeguard the role of the inflation target as nominal anchor for price-setting and wage-formation.

Strengthening of economic activity and upturn in inflation with expansionary monetary policy

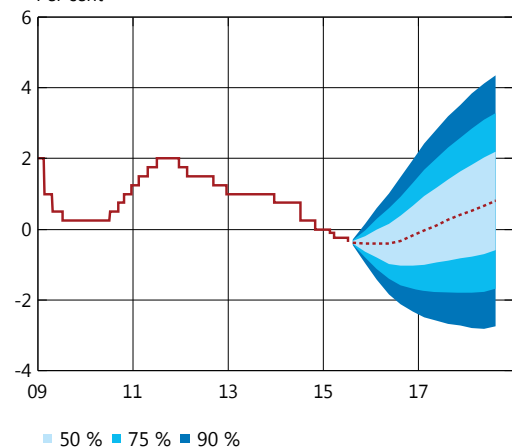
Economic activity abroad is continuing to improve. The conditions for higher growth are generally good, even though the recovery is proceeding slowly in many parts of the world. The oil price continues to be low and fiscal policies are less tight than previously. Monetary policy is expansionary in many countries. The European Central Bank, ECB, is continuing to buy financial assets in accordance with the plans presented in January. In the United States, the Federal Reserve has communicated that increases in the policy rate will be made slowly. Continued monetary policy stimulus will support credit granting and thus benefit consumption and investment. All in all, global inflation is expected to rise in the coming years.

Several factors thus suggest that international growth will rise in the period ahead, but, despite this, there is significant uncertainty. In the euro area, several of the larger economies are continuing to struggle with comprehensive structural problems and indebtedness is worryingly high in several countries. In Greece, the Government is encountering acute difficulties in meeting current payments and there is considerable uncertainty over how the country is to find a long-term solution to its problems. The negotiations between Greece and its lenders have broken down, which has meant that Greece's bailout programme has not been extended, and the June repayments to the IMF have not been made. The forecasts presented in this report are based on the course of events in Greece not preventing the recovery in the euro area, but the developments of recent days have increased the uncertainty in the forecasts. It is difficult to judge now what the consequences

Table 1:1.

Important factors for monetary policy
International economic activity strengthens roughly as expected, but the uncertainty has increased.
Growth in the Swedish economy roughly as anticipated, but exports somewhat weaker.
Underlying inflation and CPI inflation continue to rise.
The exchange rate is stronger than expected. Volatility on the foreign exchange market remains high.
Expansionary monetary policy also entails risks, but these must be managed by other policy areas.
Conclusion: Monetary policy needs to become more expansionary for inflation to rise sufficiently quickly and to reduce the risks to the forecast.

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



Note. The uncertainty bands for the repo rate are based on the Riksbank's historical forecasting errors. For the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate in 2007 the forecast errors are based on the risk-premium adjusted forward rates. 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 forecasts refer to quarterly averages.

Source: The Riksbank

of a Greek failure to meet its payments will be for the euro area as a whole and for Sweden. (see the article "Increased uncertainty over the situation in Greece").

The financial conditions in Sweden are still very expansionary. Interest rates are low and it is relatively easy to obtain credit, both for companies and for households. Yields on government bonds with long maturities have certainly risen since April, both in Sweden and internationally, but this has been from low levels. Compared with April, the trade-weighted exchange rate is stronger.

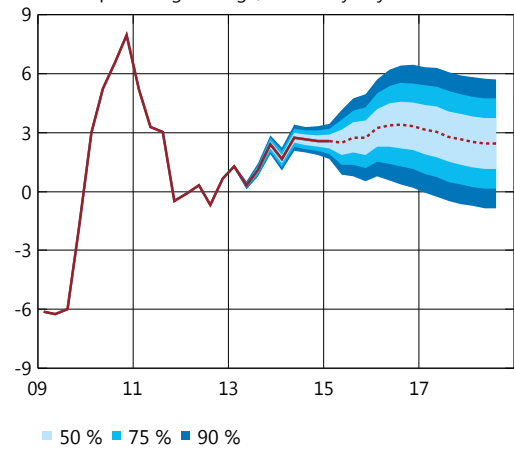
In the shadow of weak international demand, recent years' growth in the Swedish economy has largely been driven by strong domestic demand. Growth has been particularly strong in household consumption and in housing investments.

Following the high GDP growth at the end of 2014, it slowed down in the first quarter of this year, in line with the forecasts in April's Monetary Policy Report. Swedish exports are also benefiting from the increased growth in international demand. Supported by the expansionary monetary policy, GDP will grow faster than the historical average in the coming years (see Figures 1:1 and 1:2). Indicators also point to increasingly bright prospects for the labour market. Employment is continuing to rise and unemployment is gradually falling. The relative slowness of the decrease in unemployment is due to the relatively rapid increase in the labour force, a development largely driven by strong population growth.

Inflation has been too low for a longer period, but various measures of underlying inflation are rising, for example inflation measured as the CPIF excluding energy. One explanation for this is that the Swedish krona has depreciated over the last year, which has affected prices of imported goods and services. It will be some time before this depreciation has full impact on inflation, but the exchange rate's contribution to higher inflation will decrease in the period ahead. At the same time, the prices of domestically-produced goods and services are rising faster than they did last year. This trend is expected to continue over the years ahead, as the expansionary monetary policy contributes towards rising resource utilisation and to rising wages. It is also expected to become increasingly easy for companies to raise their prices. CPIF inflation is therefore expected to rise and be close to 2 per cent from the end of 2015 (see Figure 1:3). At present, CPI inflation is being restrained by the previous repo rate cuts, as households' mortgage rates are included in the CPI. But towards the end of the year, CPI inflation will also rise and will then be above 2 per cent for most of the forecast period (see Figure 1:4).

From the end of 2015, the inflation forecasts have been revised downwards (see Figures 1:5–1:7). Wages are expected to

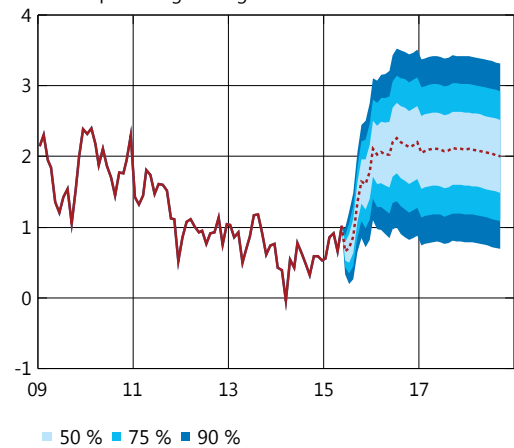
Figure 1:2. GDP with uncertainty bands
Annual percentage change, seasonally-adjusted data



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

Sources: Statistics Sweden and the Riksbank

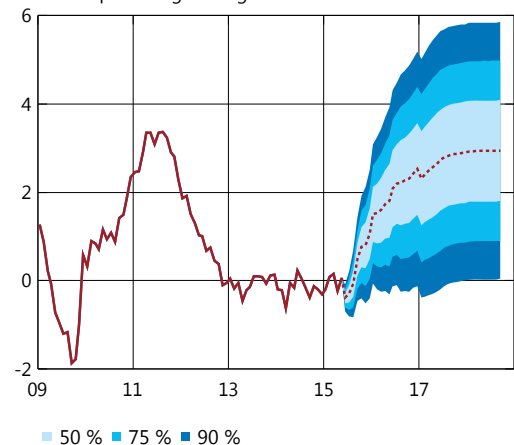
Figure 1:3. CPIF with uncertainty bands
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank

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



Note. The uncertainty bands are based on the Riksbank's historical forecasting errors.

Sources: Statistics Sweden and the Riksbank

rise slightly more slowly over the next few years and the krona is somewhat stronger, compared to the forecast in April.

Current monetary policy

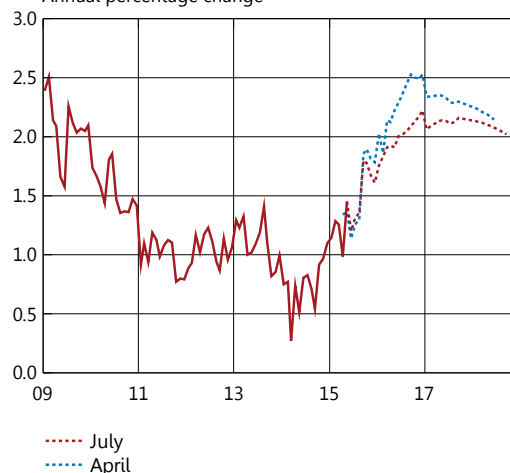
Over the last year, the Riksbank has taken strong measures to lower the general level of interest rates in the Swedish economy. The repo rate has been cut by over one percentage point and is now negative. In addition, the Executive Board has decided to carry out extensive purchases of Swedish government bonds. The Riksbank's assessment is that the impact of monetary policy is largely functioning as expected. The interest rates charged to households and companies on loans with short maturities have fallen more or less in line with the repo rate. An analysis of data from the financial markets shows that the Riksbank's asset purchases have also had the intended effect. The purchases have contributed to holding back interest rates on loans with longer maturities (see the article "The Riksbank's measures in 2015 have had an effect").

The aim of the monetary policy being conducted is to support inflation so that it rises towards the target of 2 per cent. In recent months, inflation has overall developed approximately in line with the Riksbank's forecast from April. In May, CPIF inflation was 1.0 per cent. Various measures of underlying inflation also point to an upward trend (see Figures 1:5 and 3:2). At the same time, economic activity continues to strengthen and the situation on the labour market gradually improves.

There is still considerable uncertainty, even though developments are heading in the right direction. Economic activity is strengthening in the euro area, but several countries are still being held back by high indebtedness and as-yet unresolved structural problems. The recovery could weaken again if confidence among households and companies were to fall for some reason. In this sensitive situation, the course of events in Greece constitutes a tangible risk. If the situation deteriorates, unease may spread to other countries in the monetary union.

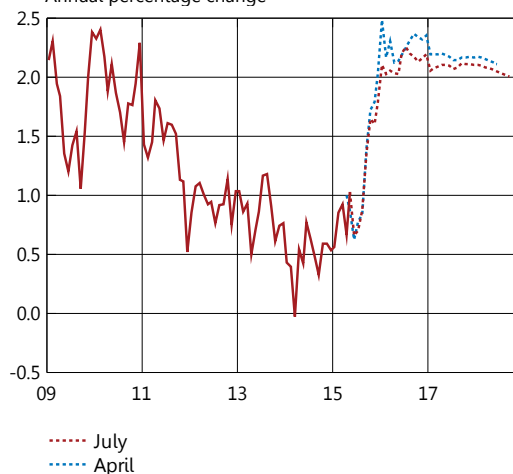
Since the monetary policy meeting in April, the foreign exchange and fixed-rate markets have been characterised by continued high volatility. For example, interest rates and exchange rates are being influenced by the ECB's ongoing asset purchases and by uncertainty over the timing and pace of the approaching interest rate increases in the United States. The Swedish krona has appreciated against several currencies and the trade-weighted exchange rate, KIX, is therefore stronger than in the forecast from April. Uncertainty and the relatively large fluctuations on the foreign exchange market are making it difficult to assess how the exchange rate will continue to develop. If the exchange rate were to become too strong in

Figure 1:5. CPIF excluding energy
Annual percentage change



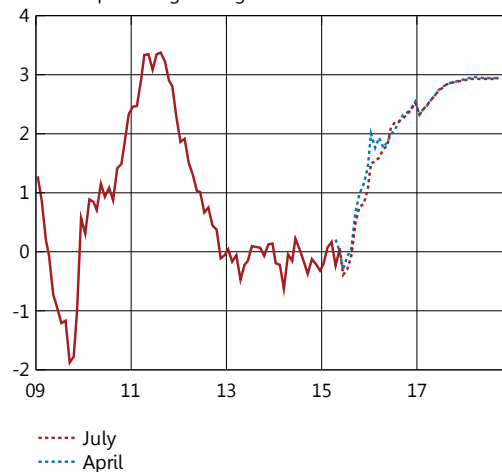
Note. The CPIF is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

Figure 1:6. CPIF
Annual percentage change



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

Figure 1:7. CPI
Annual percentage change



Sources: Statistics Sweden and the Riksbank

relation to the Riksbank's forecast, this would mean slower increase in prices of imported good and lower demand in the Swedish economy. Such a development would risk breaking the incipient rise in inflation (see the article "Rapid appreciation of the krona" in the Monetary Policy Report published in April).

In this uncertain environment, monetary policy needs to continue to provide support, thereby ensuring that inflation will continue to rise. The Executive Board of the Riksbank has therefore decided to cut the repo rate by 0.1 percentage points to -0.35 per cent. The Executive Board has also decided to extend the purchases of government bonds by SEK 45 billion until the end of the year. The purchases decided upon in April are expected to be concluded in September, at which point the new purchases will be initiated. At the end of the year, the Riksbank is expected to have carried out purchases of government bonds to a total value of SEK 135 billion. This corresponds to around 20 per cent of the outstanding stock of nominal government bonds and around 4 per cent of GDP. If the ECB continues to buy government bonds at the same pace, their purchases at the end of the year will correspond to around 7 per cent of the stock and 4 per cent of GDP.

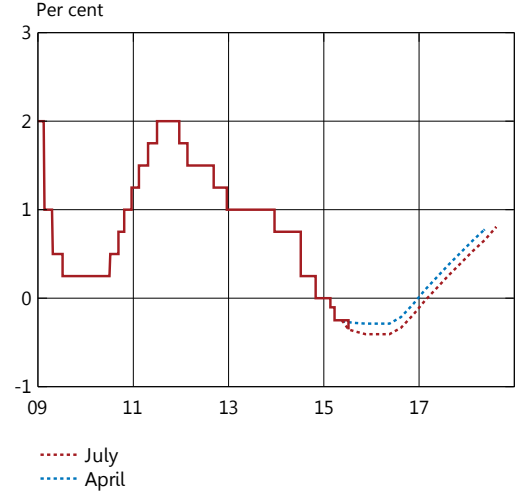
The repo rate is expected to be around -0.35 per cent for just over one year, while the repo-rate path reflects the possibility of lowering the repo rate further. The assessment is that it will be appropriate to begin slowly raising the repo rate at the end of next year. CPIF inflation will then exceed 2 per cent and the Swedish economy will be growing at a rate significantly above the historical average. The repo rate is then expected to rise gradually and attain 0.8 per cent during the third quarter of 2018 (see Figures 1:8 and 1:9). This is a very low interest rate at a time when economic activity is relatively good, resource utilisation is close to a normal level and inflation is above the target of 2 per cent.

A low interest rate environment makes it more attractive for households to consume and thus reinforces demand. For companies, the low interest rates make it more profitable to invest, at the same time as the stronger demand makes it easier to pass cost increases along to consumer prices. In addition, the expansionary monetary policy is contributing towards the krona exchange rate being weaker than it would otherwise have been. This boosts demand for exports and makes the prices of imported products rise more rapidly.

The risk of low inflation must be curtailed

The monetary policy being implemented continues to be characterised by limited tolerance for low inflation. It is important that inflation continues to rise and that CPIF inflation approaches 2 per cent (see Figure 1:6). Such a development contributes to long-run inflation expectations remaining

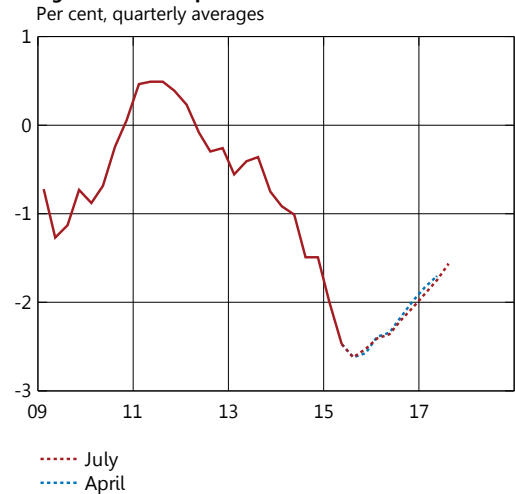
Figure 1:8. Repo rate



Note. Outcomes are daily data and the forecasts refer to quarterly averages.

Source: The Riksbank

Figure 1:9. Real repo rate



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

Sources: Statistics Sweden and the Riksbank

anchored around the target of 2 per cent. A continuing high level of confidence in the inflation target creates stability and predictability (see the article "Why is it important that inflation rises towards the target?"). The fact that monetary policy has been entirely focused on getting inflation to rise for some time now also means that the Riksbank attaches less weight to the risk of an unexpectedly rapid upturn in inflation. This should be seen in light of inflation having been below target for a longer period of time and long-term inflation expectations having fallen below 2 per cent. Consequently, a level of CPIF inflation temporarily higher than the Riksbank's forecast need not result in monetary policy being made less expansionary.

The Riksbank is prepared to do more

If inflation becomes lower than expected, the Riksbank stands ready to make monetary policy even more expansionary, also between ordinary monetary policy meetings. The repo rate can be cut further.

Purchases of government bonds can also be extended. Once executed, the purchases so far decided by the Executive Board will correspond to about 20 per cent of the total outstanding stock of nominal Swedish government bonds. The Riksbank considers that these purchases can be extended further without this creating major problems for the functioning of the market.

The Riksbank is also prepared to intervene on the foreign exchange market if the upturn in inflation is threatened as the result of, for instance, a very problematic development in the markets. Purchases of other types of security are also a possibility, as is launching a programme for lending to companies via the banks. The measures taken and the readiness to do more underline the Riksbank's aim to safeguard the role of the inflation target as a nominal anchor for price setting and wage formation.

Uncertainty and risks

Forecasts of future economic developments are always uncertain. In principle, the Riksbank's forecasts endeavour to take into account all relevant uncertainty so that the risks are balanced around the forecast. However, it is difficult to give full consideration to the prevailing uncertainty and risks. There can thus be a need to further weigh in risks and uncertainty over and above the forecast into monetary policy, for instance, by putting greater emphasis on any conceivable events that are considered to have particularly large negative consequences. In this way, monetary policy to some extent involved weighing up different risks against one another.

Uncertain how rapidly inflation will rise

Even if there are strong indications that inflation will be higher in the period ahead, it remains difficult to determine how fast inflation will rise. The development of costs and prices depends on a number of different circumstances, both at home and abroad, and there are therefore several sources of uncertainty in the forecast. If the international economic outlook deteriorates, growth in Sweden will also be affected. Several countries in the euro area are still facing significant structural challenges and the recovery there may be weaker than expected. Above all, the situation in Greece is problematic (see the article "Increased uncertainty over the situation in Greece"). In addition, the situation in Ukraine and Russia is still a source of uncertainty. In a scenario in which the rest of the world experiences slower than expected growth, demand for Swedish exports may be restrained, and confidence among Swedish companies and households may then deteriorate. Inflation in Sweden may then be slowed down via lower resource utilisation and lower wages.

Uncertainty over domestic cost pressures

Even if growth in Sweden and abroad continues to rise in line with the forecast, inflation may still be lower than expected. The Riksbank considers that the recent quarters' rise in CPIF inflation is partly due to the weakening of the exchange rate that has taken place since the start of 2014. This positive effect on prices from the exchange rate is expected to weaken in the period ahead. The forecast indicates that increasingly high demand and higher resource utilisation will instead contribute towards the continued rise in inflation. As economic activity strengthens, companies' costs will increase more rapidly and it is also expected to become easier for companies to pass cost increases along to consumer prices. But it is uncertain how quickly this will happen. The effect on prices of higher demand may arise at an earlier or later stage. If the effects arise later than expected, the rise in inflation will be delayed.

Risks with the krona exchange rate and low inflation expectations

The exchange rate remains an important source of uncertainty in the inflation forecast. Since April, the trade-weighted krona exchange rate has appreciated and fluctuations on the foreign exchange market have continued to be relatively large. The euro exchange rate will probably continue to be affected by the ECB's large-scale asset purchases and by the Greek government's increasingly acute payment problems. Shifting expectations of the approaching increases of the policy rate in the US are also continuing to influence the currency market. A more rapid appreciation of the krona exchange rate than

forecast would dampen inflation, posing a serious risk for the inflation forecast.

Long-term inflation expectations have fallen in recent years. This decline has undoubtedly come to a halt recently, but expectations of inflation 5 years ahead are now nevertheless slightly below the target of 2 per cent. If prices continue to rise too slowly for some reason, inflation expectations may fall further. In such a scenario, there would be a risk that expectations of low future price increases would have an increasing effect on actual inflation. The Riksbank's task of stabilising inflation may then be made more difficult.

To sum up, there are several sources of uncertainty regarding how rapidly prices will rise in the period ahead. A level of CPIF inflation temporarily above 2 per cent need not result in monetary policy being made less expansionary. If inflation becomes lower than expected, on the other hand, monetary policy may have to react. The monetary policy conducted, and the preparedness to take further measures, aim to limit the risks of continued low inflation. Monetary policy thus contributes to inflation expectations remaining anchored around the target of 2 per cent.

Low interest rates and rapidly rising housing prices

For some time now, interest rates in Sweden have been unusually low. This is due to interest rates on the international capital markets being low, but also to the Riksbank's measures to push down interest rates. To some extent, monetary policy in Sweden is an adjustment to the circumstances prevailing abroad. The aim of the low repo rate and the purchase of government bonds is to make inflation rise towards the target of 2 per cent. The measures reduce the risk that inflation will remain too low and that long-run inflation expectations will fall.

At the same time, the expansionary monetary policy is contributing towards increasing the risks associated with a low interest rate environment. One example of this is the increased risk-taking that may arise on the financial markets. When the yield on relatively safe assets falls, some investors turn to higher-risk assets with higher expected yields. Increased risk-taking promotes real investments and economic growth, but can also lead to increased vulnerability in the financial system if prices of financial assets rise substantially. If the economic prospects change, asset prices may fall suddenly, which, in turn, can result in stress on the financial markets.

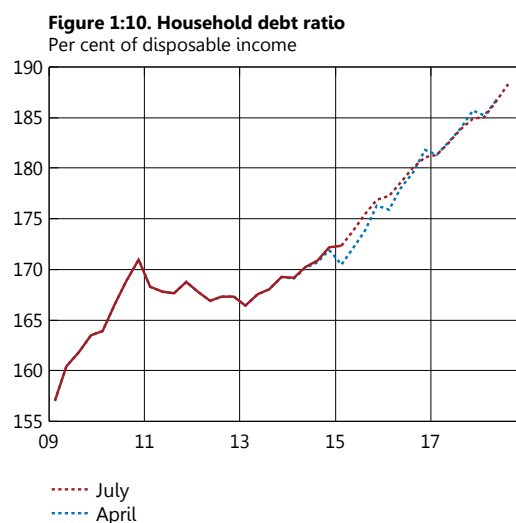
The fact that the repo rate has been lowered to below zero and that certain market rates have thus become negative may, itself, form a risk on certain financial markets. However, the

Riksbank deems that the negative interest rate has not, as yet, led to any impaired functionality in the financial system.²

The low level of interest rates is also contributing to the continuation of the trends of rising housing prices and households' increasing indebtedness (see Figure 1:10). If the economic outlook deteriorates, highly-indebted households may choose to increase their saving rapidly, thus reducing their consumption. In such a scenario, an economic slowdown could be heavily exacerbated, particularly if housing prices also start to fall.

The build-up in household debt therefore needs to be suppressed. The responsibility for implementing measures to attain this lies with parliament, the Government and other public authorities. An important first step is that Finansinspektionen's mandate and tools for macroprudential policy are quickly explained in law and that an amortisation requirement corresponding to at least that proposed by Finansinspektionen is introduced as soon as possible. However, the Riksbank's assessment is that further measures are also needed to reduce households' willingness to take on debt. Feasible measures include a reduction in the tax deduction allowed on interest payments, the introduction of a debt-to-value limit and stricter requirements for the banks' credit assessments of individual households.³

In addition, measures that increase the supply of housing and lead to a more effective housing market are necessary. As such reforms need to be introduced gradually over a long period of time, there will be a time lag before they have a significant impact on household indebtedness. As current debt levels already entail significant risks for the Swedish economy, it is essential that the reform work is hastened.



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

Sources: Statistics Sweden and the Riksbank

² The Riksbank's "Financial Stability Report 2015:1" discussed various problems on the financial markets linked to negative interest rates.

³ See "Financial Stability Report 2015:1".

Article: Why is it important that inflation rises towards the target?

In recent years, inflation has been some way below the target of 2 per cent and long-term inflation expectations have fallen. The Riksbank has taken forceful monetary policy measures aimed at bringing inflation closer to the target and curbing the downward trend in expectations. Monetary policy has been made more expansionary, even though both the real economy and credits have grown at a reasonable rate. In this unusual macroeconomic situation, there may be reason to question why it is so important for inflation to rise towards the target of 2 per cent.

Just a few decades ago, it was genuinely difficult to know whether inflation would be 2, 5 or even 10 per cent. This made it difficult for companies to plan their operations and for households to plan their personal finances. Perhaps the clearest example of these problems concerned the development of wages. During the 1970s and 1980s, average inflation was high and the rate of price increase could vary considerably from year to year. To compensate for these rapid price increases, employees and their representatives often demanded large wage increases. But the wide fluctuations in inflation were difficult to predict and consequently large and unexpected fluctuations in real wages also arose. Companies thus found it difficult to predict how their own costs would develop and it became difficult to predict the profitability of various investment projects. It similarly became difficult for households to plan ahead.⁴

When the inflation target was presented in 1993, its aim was to anchor and stabilise household and corporate expectations of inflation a few years ahead. During the first years of inflation targeting, monetary policy was entirely focused on bringing inflation down to 2 per cent and thereby making the target credible. The policies pursued were quite soon successful: inflation fell from relatively high levels to 2 per cent and inflation expectations correspondingly adapted to the target. This low and stable inflation was probably one of several circumstances that contributed towards both GDP and real wages growing relatively rapidly from the mid-1990s onwards.

Today, economic policy faces different challenges compared with the situation just over 20 years ago. For monetary policy, the main challenge comes from inflation having been below target for a number of years. Of course, CPIX inflation temporarily below the 2 per cent target does not entail any major problems for the economy. Neither the Riksbank nor any other central bank has the possibility of exactly stabilising inflation. But if prices rise at a rate significantly slower than 2 per cent for a longer period of time, there is an obvious risk that the target's credibility will be questioned.

A loss of credibility means that most participants no longer expect inflation a few years ahead to be close to the target. For individual companies and households, it is then more difficult to form expectations of the future development of prices and wages. There is also a large risk that various participants' assessments of future inflation will show increasing variance. Under such circumstances, with increasing uncertainty and disagreement over future inflation, the Riksbank's task of stabilising inflation may rapidly become more difficult. Many people associate large fluctuations in inflation with a situation in which average inflation is also high, as was the case in the 1970s and 1980s. But if inflation expectations stop being anchored at the inflation target, volatility also risks increasing, even if average inflation is low.

Increased uncertainty and disagreement over future inflation create socio-economic costs. It will be more difficult for individual companies to judge how their own costs and revenues will develop, thereby increasing the riskiness of investments and new recruitments. For households, among other things, it will become more difficult to judge the yield from different forms of saving. If uncertainty over future inflation increases, it will also become more difficult to agree on the terms for different types of contract. One important example is the wage agreements negotiated by the labour market parties, for which inflation expectations have central significance.⁵

To sum up, there are therefore compelling reasons for the Riksbank to defend the credibility of the inflation target. A credible target creates stability and predictability. It is thus imperative that inflation now continues to rise and that it approaches the target of 2 per cent as soon as possible.

⁴ An overall description of how price-setting and wage-formation worked in the 1970s and 1980s is given in Gottfries, Nils (2010), "Fungerar den svenska lönebildningen? (Does Swedish wage formation work?), appendix to The Long-Term Survey of the Swedish Economy 2011.

⁵ If the inflation target loses credibility, this may also give rise to other socio-economic costs. One example expressed in academic literature is the central bank's poorer capacity to stabilise resource utilisation. See Debelle, G. (1999), "Inflation Targeting and Output Stabilisation", *RBA Research Discussion Paper*.

CHAPTER 2 – Financial conditions

The financial conditions in Sweden are still very expansionary. This is despite Swedish market rates having increased since the Monetary Policy Report in April as a result of a global rise in government bond yields. At the same time, new data since the report shows that lending rates to households and companies fell slightly up until the end of May. Listed rates for fixed mortgages with longer maturities have, however, risen slightly in June. The competitiveness-weighted exchange rate is stronger than it was in April. The funding situation of the banks is still healthy and lending to households and companies is continuing to grow.

Monetary policy and government bond yields

Monetary policy and monetary policy expectations

Since the Monetary Policy Report in April, movements on the financial markets have been characterised by a global upswing in longer-term government bond yields. This upswing has not only led to higher Swedish government bond yields but also contributed periodically to major fluctuations on the foreign exchange market.

The market's expectations regarding the repo rate are, according to forward pricing, marginally higher in the short term compared to the days prior to the Monetary Policy Report in April (see Figure 2:1). In the longer term, forward rates have risen more, which has to do with the upswing in government bond yields. According to surveys from Prospera, expectations regarding the repo rate in the longer term have remained basically unchanged since April. All in all, expectations are marginally above the published interest rate path.

In the euro area, the ECB has continued its asset purchases. The movements in forward rates in the short term have been relatively minor, while forward rates towards the end of the forecast period have risen in line with the upswing in longer-term government bond yields (see Figure 2:1).

The Federal Reserve left the American policy rate unchanged at its meeting in June but continues to communicate that an initial increase will in all probability

Table 2:1.

Developments on financial markets since the April Monetary Policy Report	
Government bond yields	Government bond yields with long maturities have risen. The movements are in line with German yields.
The foreign exchange market	Periodically substantial fluctuations in the krona. In competitiveness-weighted terms, the krona is stronger than forecast.
The stock market	Downturns on most stock markets. The Stockholm Stock Exchange has fallen in line with the rest of the world.
Interest rates for households and companies	Interest rates on new loans, according to financial market statistics, have fallen compared with data available in April.
Credit growth	Credit growth (annual rate) still rising for households but declining for companies.

The transmission mechanism - from the repo rate to interest rates for households and companies

The repo rate has a direct effect on short-term interbank rates and government bond yields via the overnight rate. Expectations regarding the future repo rate and government bond purchases affect the development of long-term government bond yields. These are also affected by foreign yields. Government bond yields act as an anchor for other types of bond yields, which in their turn affect the banks' funding costs. This ultimately affects the interest rates offered to households and companies.



happen in the autumn. According to forward contracts, the market expects the first rise to take place in early 2016 (see Figure 2:1). Meanwhile, surveys show that a majority of the economists asked expect an initial increase at the meeting in September.

Higher government bond yields in Sweden and the rest of the world

The repo rate and monetary policy expectations have a major effect on the development of market rates in Sweden. But since Sweden is a small open economy, yields with longer maturities are also affected by global developments especially in the euro area and the US.

Since the Monetary Policy Report in April, Swedish government bond yields have risen significantly, sometimes with substantial movements on individual days (see Figure 2:2 and 2:3). But despite this significant upswing, the 10-year government bond yield is currently no higher than it was at the end of last year. One contributory factor here is the monetary policy conducted (see the articles "The Riksbank's measures in 2015 have had an effect").

The development of longer-term Swedish government bond yields has followed the upswing in global government bond yields, driven primarily by German yields. The Swedish 10-year government bond yield has risen approximately as much as the German yield. The difference between Swedish and German yields has therefore remained practically unchanged (see Figure 2:3 and 2:4).

Using models, the movements in government bond yields can be divided up into expectations regarding future short-term rates and term premiums, i.e. the compensation demanded by investors for bearing the risk of future short-term rates not developing as expected. Such an analysis shows that it is mostly fluctuations in term premiums that have driven interest-rate movements in recent months and not a changed outlook on expected future short-term rates.

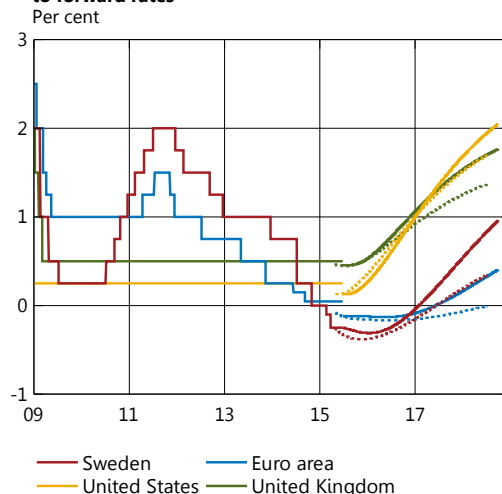
Government bond yields in the United States and the United Kingdom have also risen but the increases have been less than in Sweden and Germany (see Figure 2:3). The difference between German and US government yields has therefore narrowed slightly but remains wide.

The foreign exchange market

Periodically substantial fluctuations in the krona

Since the publication of the report in April, the krona has continued to fluctuate considerably. One explanation for this is the relatively major movements on global currency markets,

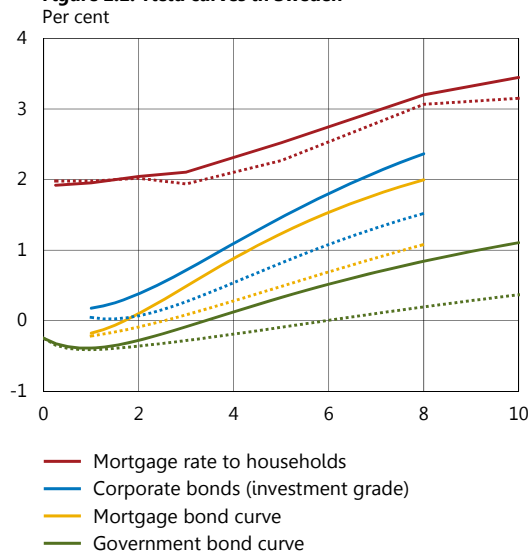
Figure 2:1. Policy rates and rate expectations according to forward rates



Note. Forward rates describe the expected overnight rate, which does not always correspond to the official policy rate. Unbroken lines are estimated 29 June 2015, broken lines 28 April 2015.

Sources: Macrobond and the Riksbank

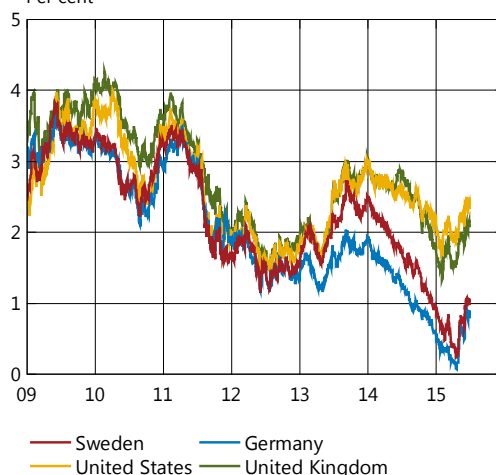
Figure 2:2. Yield curves in Sweden



Note. Horizontal axis shows maturities in years. The government-, mortgage- and corporate-bond curves are zero coupon yields interpolated from bond prices using the Nelson-Siegel method. For mortgage and corporate bonds, only yields with a maturity up to 8 years are shown, which reflects the maturities for the bonds used for the interpolation. Mortgage rates for households are an average of mortgage rates listed by Swedish banks and mortgage institutions. Unbroken lines are estimated 29 June 2015, broken lines 28 April 2015.

Sources: Macrobond, Thomson Reuters and the Riksbank

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



Source: Macrobond

where expectations of US monetary policy and uncertainty surrounding the situation in Greece have been important factors. Another contributory cause is uncertainty on the market about the nature of the additional monetary policy measures expected from the Riksbank.

When the repo rate was left unchanged at the meeting in April, the krona strengthened which probably has to do with the market expecting a somewhat more expansionary monetary policy than the one presented. Since then, the krona has strengthened even more in competitiveness-weighted terms, KIX (see Figure 2:5). This strengthening has been broad and the krona has grown stronger against all the currencies included in KIX. A contributory factor to the stronger exchange rate during the second quarter, compared to the forecast in April, is the weakening US dollar (see Figure 2:6). This has also affected the Swedish exchange rate against other currencies linked to the dollar, such as the Chinese Yuan Renminbi. The Norwegian krona has also weakened relatively significantly against its Swedish counterpart. The krona has however traded in relatively stable intervals against the euro (see Figure 2:6).

Global asset markets

Price of high-risk assets slightly lower

The global upswing in government bond yields has been followed by slightly larger increases in more high-risk bond yields such as corporate bond yields. The rate differentials between these have therefore increased since April.

Stock prices have at the same time fallen in both Europe and the United States. Fluctuations have been quite dramatic at times, especially in connection with news of developments in Greece and major movements on the government bond market.

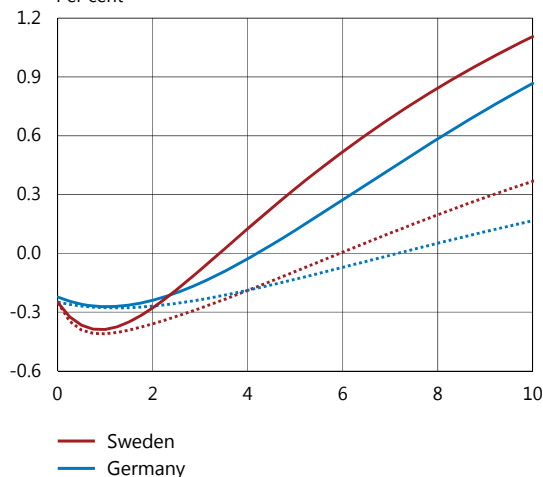
There is still a risk of setbacks on the stock markets and corporate bond markets where low interest rates have contributed to rapid price increases in the search for higher yield. This may lead to a situation that does not reflect fundamental factors, such as the future profits and growth potential of companies (see also Financial Stability Report 2015:1).

The financial situation for banks and companies

Good funding conditions for Swedish banks

The conditions for the banks' lending to households and companies remain good. The banks' borrowing costs are very low despite the recent increase in bond yields. Their deposit margins have decreased slightly however during the year due to

Figure 2:4. Yield curves in Sweden and Germany
Per cent



Note: Horizontal axis shows maturities in years. The Yield curve is zero coupon yields interpolated from bond prices in accordance with the Nelson-Siegel method. Unbroken lines are estimated 29 June 2015, broken lines 28 April 2015.

Sources: Deutsche Bundesbank, Thomson Reuters and the Riksbank

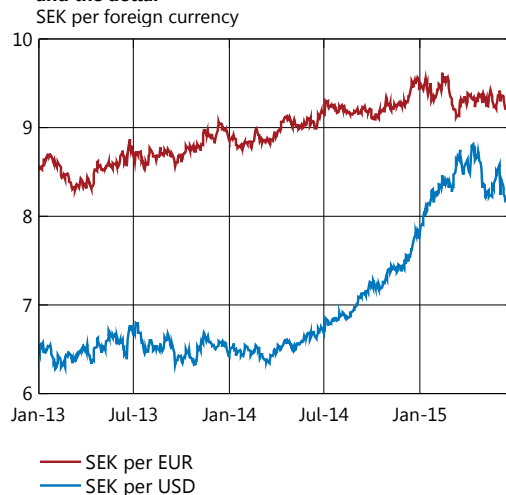
Figure 2:5. KIX-weighted nominal exchange rate
Index, 18 November 1992 = 100



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

Source: The Riksbank

Figure 2:6. Development of the krona against the euro and the dollar
SEK per foreign currency



Source: Macrobond

deposit rates not being reduced at the same pace as the repo rate. At the same time, the three-month interbank rate, Stibor, which is important for the banks' funding of lending with short interest-rate fixation periods, has fallen to very low levels (see Figure 2:10).

The banks have continued to increase their lending in Swedish krona, which has also contributed to a rise in the money supply (see Figure 2:7).

Good funding situation for companies

Generally speaking, companies have plenty of opportunity to obtain funding. The upswing in government bond yields has indeed led to an increase in corporate bond yields but these still remain at very low levels (see Figure 2:2). At the same time, financial market statistics from May show that the lending rate for new loans from banks and other financial institutions has fallen compared to data available in April. Since the turn of the year, it has fallen by 0.5 percentage points to 1.4 per cent (see Figure 2:8). Statistical outcomes and surveys show that conditions for companies to obtain bank loans in general continue to improve.

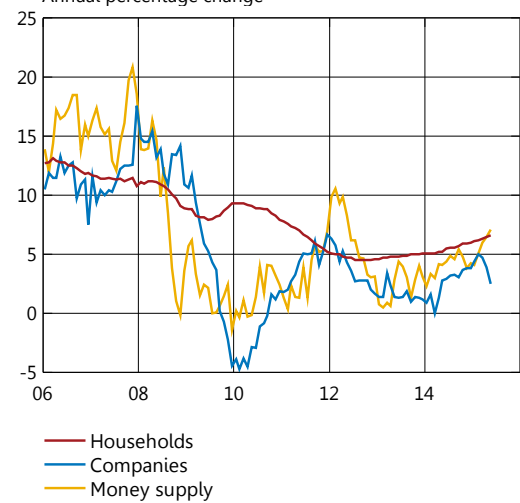
The growth rate in bank lending to companies, which makes up most of the companies' indebtedness, remains good even though its annual rate has fallen slightly in recent months (see Figure 2:7).

Low mortgage rates and rising housing prices

Financial market statistics show that the average mortgage rate fell further up until the end of May and is now at all-time low levels. Since the turn of the year, it has fallen by 0.3 percentage points to 1.7 per cent (see Figure 2:8). During the same period, the Riksbank has lowered the repo rate by 0.25 percentage points which indicates that the repo rate has had an impact on the mortgage rates on offer to households. The development of listed mortgage rates indicates, however, that rates with longer fixed terms have risen slightly in June.

The growth rate in bank lending to households remains on a high level (see Figure 2:7). The increase is driven by mortgages, which can be linked to rapidly rising housing prices. According to statistics from Valueguard, prices of tenant-owned housing increased by 18.3 per cent and house prices by 13.1 per cent in May, expressed as an annual percentage change (see Figure 2:9). According to SEB's housing price indicator, households expect prices to keep on rising.

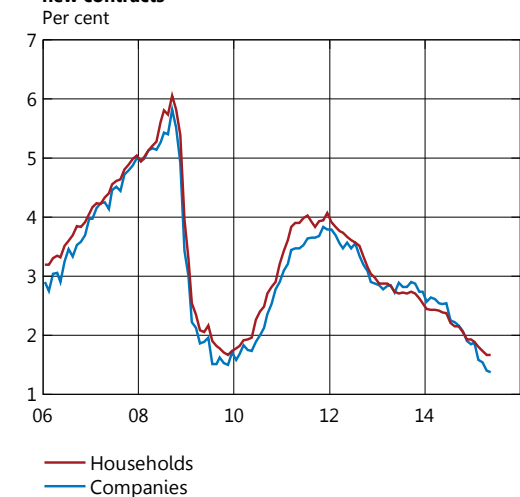
Figure 2:7. Bank lending to households and companies
Annual percentage change



Note. MFIs' lending to households and non-financial companies according to financial market statistics adjusted for reclassifications and traded loans since 2006. Money supply is M3 outstanding amount.

Source: Statistics Sweden

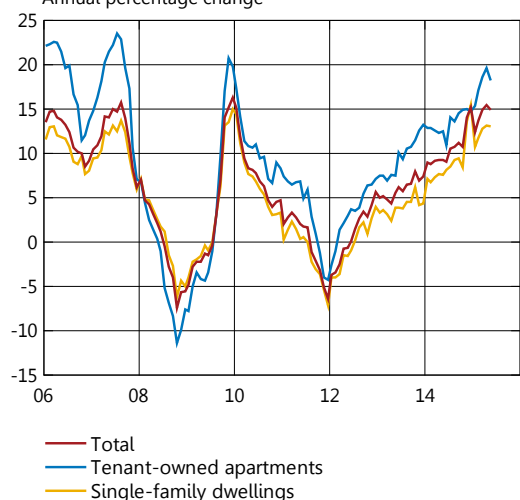
Figure 2:8. Interest rates to households and businesses, new contracts
Per cent



Note. Interest rates on loans from MFIs' to households with housing as collateral and to non-financial companies.

Source: Statistics Sweden

Figure 2:9. Housing prices
Annual percentage change



Source: Valueguard

Article: The Riksbank's measures in 2015 have had an effect

During 2015, the Riksbank has cut the repo rate below zero and begun purchases of government bonds to make monetary policy more expansionary. To obtain an idea of how great an impact these measures have had so far, one can evaluate their effects on the financial markets. It is then revealed that the financial conditions for Swedish households and companies have benefited from the Riksbank's measures in 2015. Cutting the repo rate below zero and lowering the repo-rate path have in general affected other interest rates in the same way as a normal repo-rate cut. The government bond purchases have contributed to holding back interest rates on loans with longer maturities. Despite a very expansionary monetary policy in the euro area in 2015, the interest rate differentials towards the euro area are less than at the start of the year and the krona is at the same level in trade-weighted terms.

The Riksbank's measures are beneficial for households and companies' financial conditions

At the monetary policy meeting held on **11 February**, the Executive Board cut the repo rate by 0.10 percentage points to -0.10 per cent and announced purchases of government bonds for SEK 10 billion. At the same time, the Executive Board emphasised that further measures could be taken and, if necessary, also between the ordinary monetary policy meetings. The immediate effect was that government bond yields fell by around 0.10 to 0.15 percentage points (see Figure 2:11). The interest rate differential towards Germany fell by around the same extent. The exchange rate weakened at the same time by a good one per cent. Other market rates also fell and the stock market rose by around one per cent directly after the announcement.

On **18 March**, between the ordinary monetary policy meetings, the Riksbank decided to cut the repo rate by 0.15 percentage points and to purchase further government bonds for a nominal sum of SEK 30 billion. The Riksbank also announced that it would now buy bonds with longer maturities, up to 25 years. Yields on government bonds fell by around 0.15 percentage points this time, too, and the interest rate differential towards Germany declined (see Figure 2:11). The exchange rate weakened at the same time by around 1.5 per cent.

At the monetary policy meeting on **28 April**, the Executive Board chose to hold the repo rate unchanged, but to extend the government bond purchases by SEK 40–50 billion. Swedish bond yields rose after the announcement of the decision. However, the upturn in yields at longer maturities can be linked to a simultaneous upturn in bond yields abroad. The krona appreciated by around one per cent following the announcement.

Negative repo rate has had an impact

The negative repo rate has had an impact on other interest rates, including lending rates to households and companies. Rates on treasury bills, interbank transactions, short-term government bonds and mortgage bonds have largely followed

the repo-rate cuts the Riksbank made over the year and interest rates have become negative (see Figure 2:10). This has also led to a fall in the short-term lending rates offered to households and companies.

The banks' deposit rates offered to households and companies have not fallen as much as the lending rates. So far, the banks have in most cases avoided allowing these interest rates to become negative.⁶

Purchases of government bonds contribute to holding down long-term interest rates

The purpose of the Riksbank's purchase of government bonds is to contribute to further cutting interest rates in general, which is described in the article "The Riksbank's complementary monetary policy measures" in the Monetary Policy Report published in February. If one examines how yields on government bonds change in connection with the Riksbank's various announcements, one can clearly see direct effects of the government bond purchases.⁷ But one must bear in mind that these yields can also be affected by a repo-rate decision that is announced at the same time, which makes it difficult to evaluate how much the announcement of bond purchases contributes. Moreover, it is primarily unexpected new purchases that should have an effect in connection with the announcement. Purchases that market agents have been counting on should already have had an effect on market rates.⁸

The Riksbank's assessment is that the change in government bond yields in connection with the announcement on 12 February was largely due to the Riksbank signalling intentions that led to market expectations of the future repo rate shifting downwards. The repo rate was 0.05 percentage points lower than expected and communication was focused on the Riksbank being able to do more at any time. The actual purchases totalling SEK 10 billion of government bonds with maturities up to five years appear to have reinforced the

⁶ See also Chapter 2 of the Monetary Policy Report April 2015 and the Financial Stability Report 2015:1, page 9.

⁷ This article focuses on the interest rate effects from the government bond purchases. The Financial Stability Report 2015:1 contains a discussion of the consequences of the government bond purchases with regard to financial stability and the functioning of the markets.

⁸ As it is difficult to find out what market expectations are with regard to the Riksbank's future purchases, it is also difficult to calculate the effects.

signalling that monetary policy now became more expansionary.

At the extraordinary monetary policy meeting in March, the repo rate became around 0.15 percentage points lower than market rates had indicated prior to the announcement. This led to expectations of the future repo rate falling and to yields on bonds with maturities shorter than around five years shifting downwards. Yields on bonds with longer maturities fell more than in February, which is assessed to be due to the extended purchases being unexpectedly large and now also including maturities of up to 25 years. This effect was thus more due to the actual purchases, which pushed down the term premium, than to the expected future repo rate being lower in the long run.⁹

In April, the repo rate decided on was around 0.10 percentage points *higher* than expected, as the Riksbank held the repo rate unchanged, while the market had expected a further cut. This contributed to the more short-term government bond yields rising in connection with the announcement. The upturn in more long-term yields was mainly due to a simultaneous upturn in yields abroad. The Riksbank assesses that the extended government bond purchases were expected and that they had an effect even before they were announced.

All in all, the effects of the announcements on government bond yields show that the Riksbank's government bond purchases contribute to lower long-term yields.¹⁰ If one compares the results with studies of the effects that the Federal Reserve and the Bank of England have achieved with their government bond purchases, the effects appear roughly the same in relation to the size of the purchases.¹¹ The Riksbank's measures have meant that interest rate differentials towards the euro area have declined somewhat during 2015, at the same time as the krona remains at the same levels as at the start of the year, in competitiveness-weighted terms (see Figure 2:5). This is despite the ECB conducting a very expansionary monetary policy with large purchases of assets.

⁹ A long-term interest rate can be divided into two components: One depends on the expected short-term interest rate and the other is a term premium. Traditional monetary policy that governs the short-term rate has the most effect on the expectations component. Purchases of government bonds can influence both components.

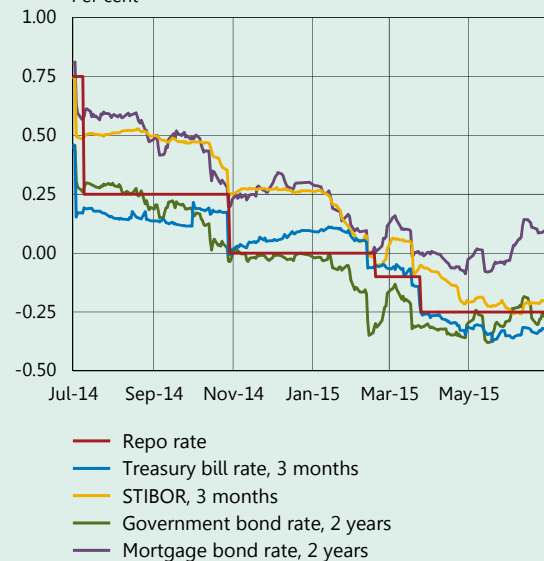
¹⁰ Although long-term interest rates have risen since the purchases began, the Riksbank's assessment, on the basis of the effects of the announcements, is that interest rates and interest differentials in relation to other countries would have been higher without the Riksbank's purchases. The upturn in long-term bond yields is largely driven by the global upturn in these bond yields.

¹¹ Some examples of these studies include Li, C and Wei, M (2014) "Term Structure Modeling with Supply Factors and the Federal Reserve's large Scale Asset Purchase Programs" Federal Reserve Board Working Paper (FEDS) 2014-07, Ihrig, J, Klee, E, Li, C, Schulte and Wei, M (2012) "Expectations about the Federal Reserve's Balance Sheet and the Term Structure of Interest Rates" Federal Reserve Board Working Paper (FEDS) 2012-57, Christensen, J and Rudebusch, G (2012) "The response of interest rates to US and UK quantitative easing" Economic Journal 122, November as well as Gagnon, J, Raskin, M, Remache, J and Sack, B (2011) "The Financial markets Effects of the Federal Reserve's Large-Scale Asset Purchases" International Journal of Central Banking Vol. 7 No. 1 See also page 25 in the Monetary Policy Report, April 2015.

Higher interest rates a positive sign in the long run

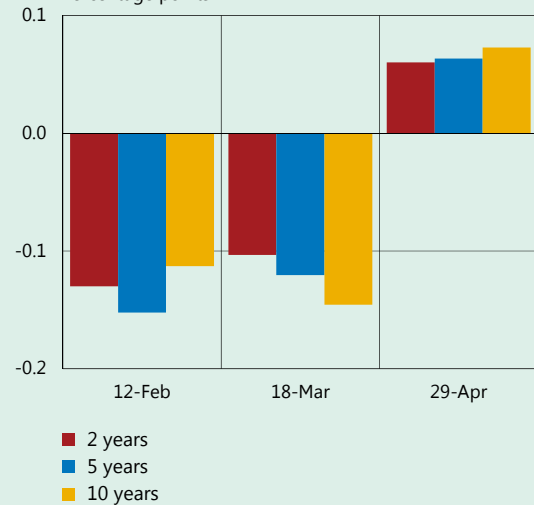
The Riksbank's measures in 2015 are aimed at pushing down both short-term and long-term interest rates in the near term, and at avoiding a rapid appreciation of the krona. The purpose is to thereby ensure that inflation expectations and inflation return to the Riksbank's inflation target of two per cent. Rising inflation and stronger growth will lead to higher long-term interest rates going forward, both through a higher expected real repo rate and higher inflation expectations.

Figure 2:10. Negative rates on several markets
Per cent



Sources: Macrobond and the Riksbank

Figure 2:11. Government bond yield movements when the Riksbank's measures were announced
Percentage points



Sources: Thomson Reuters and the Riksbank

CHAPTER 3 – The current economic situation

The assessment of the current economic situation and of recent developments forms a basis for the analysis of developments in the slightly longer term. Inflation is still low, but different measures of underlying inflation are on their way up. Indicators point to inflation rising this autumn, even if the krona is stronger than in April. As expected, GDP growth slowed down during the first quarter, following the strong growth at the end of 2014. Corporate sector confidence is currently strong and during the second quarter GDP is expected to increase at a faster pace. Unemployment is falling, albeit slowly. In the United States, growth is expected to pick up again during the second quarter, while the recovery in the euro area continues at a slow pace. KIX-weighted GDP growth remains largely unchanged in the short term, compared with the assessment in April.

Inflation

Inflation is low, but on the way up

Inflation is still low. However, various measures of underlying inflation, including the CPIF excluding energy, show that inflation has increased since the autumn. Prices of goods and food are increasing roughly in line with historical averages, while the rate of price increase on services is rising from a low level. Falling energy prices have held back the inflation rate measured over the past year and are expected to continue to hold it back for some time to come. The annual rate of increase in the CPIF is therefore somewhat lower than the rate of increase in the CPIF excluding energy. CPI inflation is still close to zero, as the earlier repo-rate cuts contribute to holding back household mortgage rates (see Figure 3:1).

The outcome in April was surprisingly low, which was partly due to various temporary factors, mainly lower prices on foreign travel. In May, inflation rose again and, compared with the forecast in April, inflation was somewhat higher than expected according to all measures of inflation. For April and May together, food prices in particular have surprised by increasing faster than expected.

Underlying inflation rising

Various measures of underlying inflation have shown an upturn in the past six months (see Figure 3:2). One explanation for this is that the krona has weakened. However, prices of domestically-produced goods and services, which are not affected so much by the exchange rate, are increasing faster now than last year.

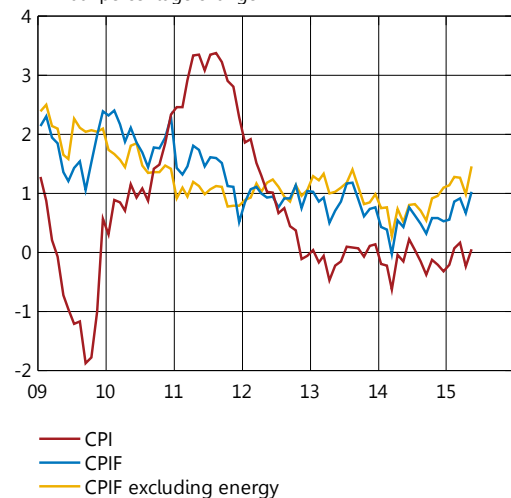
Several indicators points to inflation continuing to rise in the coming period. For instance, the Riksbank's Business Survey shows that many companies are planning to raise their prices in 2015. Moreover, the National Institute of Economic Research's Economic Tendency Survey confirms that more companies than before are now intending to raise their prices. Moreover, prices

Table 3:1. Outcome compared with previous forecast

Expected development in MPR February	Actual development
Inflation still low. CPIF inflation 0.9 per cent in May.	Roughly as expected. CPIF inflation 1.0 per cent in May.
GDP growth 1.6 per cent in first quarter.	Roughly as expected, 1.5 per cent in first quarter.
Unemployment is declining slowly.	Roughly as expected.
GDP growth in the euro area 1.7 per cent in first quarter.	Roughly as expected, 1.5 per cent in first quarter.
GDP growth in the United States 1.5 per cent in first quarter.	Much greater slowdown than expected, -0.2 per cent in first quarter.

Note. Monetary Policy Report (MPR). The CPIF is the CPI with a fixed mortgage rate. The CPIF shows an annual percentage change. GDP refers to quarterly change in per cent calculated in annualised terms.

Figure 3:1. CPI, CPIF and CPIF excluding energy
Annual percentage change



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

Source: Statistics Sweden

on many consumer goods in the producer and import channels are rising.

Still no full impact from krona depreciation

Although the krona is stronger now than it was in April, there has been a gradual weakening since the beginning of 2014. Changes in the krona affect inflation both immediately and with a time lag. A large share of the goods bought by Swedish households are imported from other countries. The fact that the krona has become weaker means it has become more expensive for companies to import consumer goods. Import prices on many consumer goods, such as clothes, have risen substantially in the producer channel this year (see Figure 3:3).

The prices of various energy products and foreign travel are affected quickly by exchange rate changes as companies normally transfer their cost increases to consumers relatively quickly. However, with regard to other goods and services companies usually change their prices less often instead, for instance, in connection with newer models being introduced onto the market. This is the case, for instance, when new collections of clothes and shoes are introduced into the shops in spring and autumn. The recent increase in import prices for clothes and shoes and some foods is therefore expected to have only partly impacted the consumer channel so far.

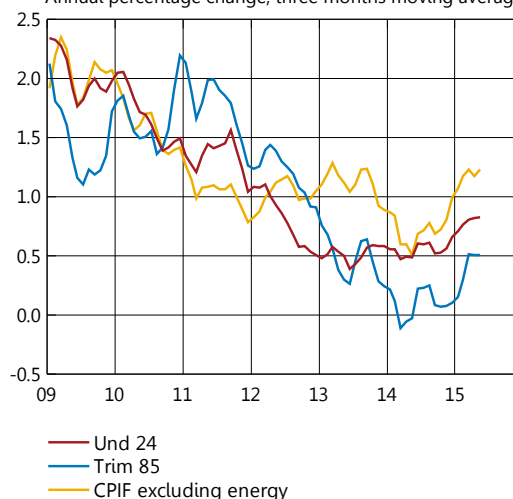
Inflation will rise during latter half of the year

Inflation is expected to fall slightly this summer, and then increase rapidly in the autumn. Prices normally increase in the autumn; for instance, prices are usually raised when the autumn collections are launched. In 2015, the rate of price increase in the CPIF excluding energy is expected to be roughly equivalent to the average since 2000 (see Figure 3:4). The reason why the rate of inflation measured in September this year is expected to be markedly higher is because one compares with the price situation in September 2014, which was unusually low.

Model forecasts allow information to be summarised in various indicators. Figure 3:5 shows a forecast made using one of the Riksbank's models for the CPIF excluding energy.¹² The recent developments in, for instance, producer prices and the exchange rate are interpreted by the model to mean that inflation will rise in the autumn. The Riksbank's forecast is close to the model forecast for the coming six months.

¹² The model uses time series with monthly data for producer prices, the exchange rate and commodity prices to generate forecasts for the CPIF excluding energy that take into account both the historical seasonal patterns for inflation and the recent indicator information. The model's point estimates for the CPIF excluding energy are reported with a 50-per cent and a 90-per cent uncertainty band. The model is used for forecasts up to six months.

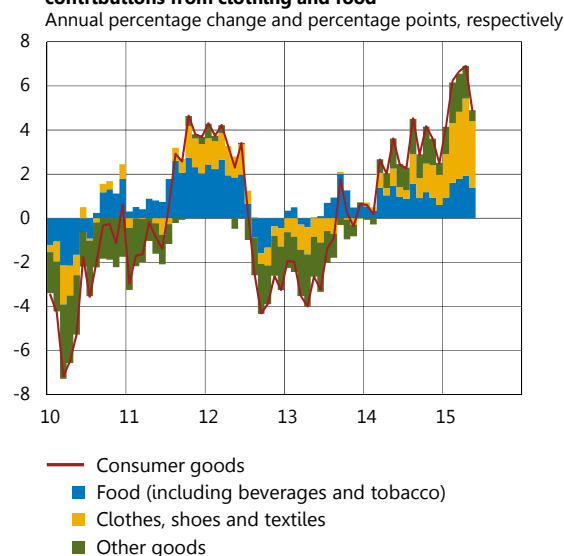
Figure 3:2. Measures of underlying inflation
Annual percentage change, three months moving average



Note. Und 24 and Trim 85 are statistical measures calculated on the basis of the CPI divided into approximately 70 subgroups. Und 24 is weighted and adjusted for the historical standard deviation. In Trim 85 the 7.5 per cent highest and the 7.5 lowest yearly price changes have been excluded.

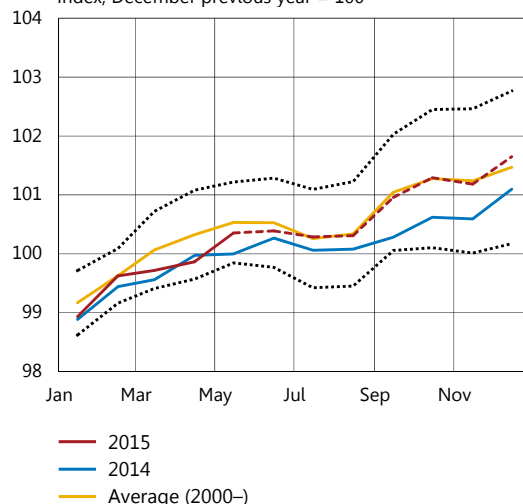
Sources: Statistics Sweden and the Riksbank

Figure 3:3. Import price index for consumer goods with contributions from clothing and food
Annual percentage change and percentage points, respectively



Sources: Statistics Sweden and the Riksbank

Figure 3:4. Monthly development in CPIF excluding energy
Index, December previous year = 100



Note. Black dotted lines refer to 95 per cent confidence interval around the average.

Sources: Statistics Sweden and the Riksbank

Global and Swedish economic activity

Swedish GDP growth slowed down in first quarter

Swedish GDP increased by 1.5 per cent in the first quarter, compared with the immediately preceding quarter, calculated as an annual rate (see Figure 4:7). This was in line with the April forecast and, as expected, investment, imports of services and exports of services fell after reaching temporarily high levels during the fourth quarter. Household consumption, on the other hand, was surprisingly weak following the large increase in the fourth quarter. Housing investment continued to increase rapidly.

The recovery abroad is continuing

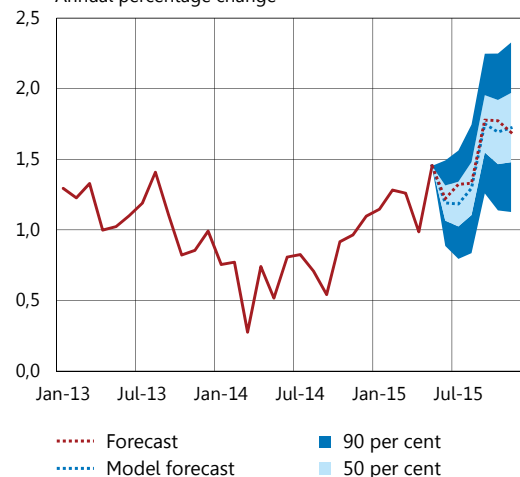
Demand for Swedish exports depends on developments abroad. The start of the year has been uneven, with a severe slowdown in growth in the United States, the United Kingdom, China and several countries that export commodities. The euro area economy, however, which has received a boost from the ECB's asset purchase programme and the low oil price, showed the fastest growth rate in several years. In Germany, growth was nevertheless slowed down when global demand weakened. India and Japan's economies showed a good growth rate, although method changes and large contributions from stocks make the figures difficult to interpret.

Growth in the United States is expected to take off again during the second quarter as several temporary factors that have affected developments are no longer relevant. The recovery in the euro area has broadened and is expected to continue at roughly the same rate in the second quarter. Although industrial production slowed down in April, the retail trade is remaining strong, at the same time as exports have picked up.

International inflation has again begun to rise, albeit from a low level. This is largely explained by the effects of the earlier fall in the oil price being to wane. Underlying inflation is therefore still low in many countries and there are no clear signs that it has bottomed out.

Global trade has developed weakly in recent years, even given the slower development in global GDP. Part of the weak growth in global trade is due to cyclical factors, but structural factors such as changes in production patterns have probably also contributed. The slowdown in global trade during the first three months of the year can be largely explained by developments in several emerging markets. The weak global trade is reflected in weak exports of goods in Sweden (see Figure 3:6). Export orders have also slowed down, but are not so far below their historical average. During the second quarter,

Figure 3:5. Model forecast CPIF excluding energy
Annual percentage change



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

Temporarily weak growth in first quarter in the United States

Growth slowed down in the United States during the first quarter and GDP fell by 0.2 per cent in annualised terms, which was weaker than most analysts had expected. There are several reasons for the weak outcome. US households have not consumed to the extent one might have expected, given the rising disposable incomes ensuing from lower energy and petrol prices. Moreover, investments have declined, which is because the low oil price makes it less profitable to invest in the oil industry. In addition, the appreciation of the dollar, together with a port strike on the US west coast, has contributed to a decline in exports during the first quarter, compared with the previous quarter. An unusually cold winter also held back consumption at the same time as some infrastructure projects needed to be postponed. The assessment is that most of these factors are no longer holding back growth and that GDP is therefore expected to rise markedly during the second quarter. The strong labour market combined with a positive development in disposable income indicates that consumption is set to pick up. This is also supported by a strong development in the retail trade so far during the second quarter.

demand from abroad is expected to increase again, and thus also Swedish exports.

Increasingly higher Swedish GDP growth

Confidence in the corporate sector is high, which is reflected for instance in the business sector's confidence indicator and the purchasing manager's index for the manufacturing industry and the services sector. At the same time, monthly statistics on demand have been relatively subdued at the start of the second quarter. The retail trade declined somewhat in May after a strong start to the year (see Figure 3:6). However, the conditions are right for a strong growth in consumption. For instance, household incomes are increasing rapidly and saving is high. Household consumption is expected to increase during the quarter as a whole.

The Riksbank's overall assessment is that GDP increases by 2.8 per cent during the second quarter of 2015, compared with the immediately preceding quarter and calculated as an annual rate. This is slightly lower than the assessment in April.

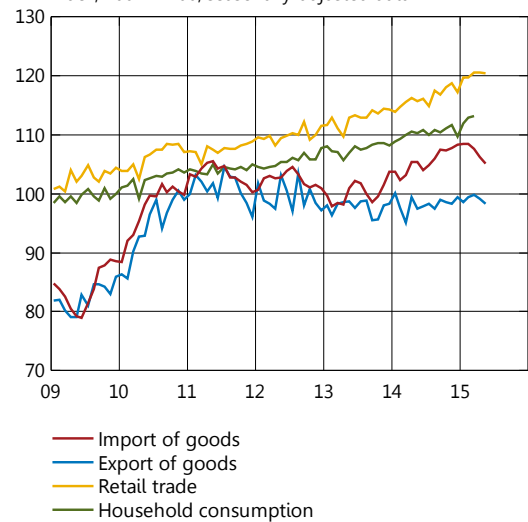
Slowly falling unemployment

The labour force surveys (AKU) show that the number of employed grew relatively strongly in May, after a temporary slowdown. However, there are only minor changes in unemployment. In May, unemployment was 7.8 per cent according to seasonally-adjusted data. Statistics on, for instance, job vacancies and notices of redundancy, as well as the employment plans according to the National Institute of Economic Research's Economic Tendency Survey indicate that employment will grow and unemployment will decline in the near term. The number of redundancies is low in an historical perspective (see Figure 3:7). Employment is expected to grow by just over half a percentage point in total during the second and third quarters and unemployment to decline slightly to 7.7 per cent (see Figure 4:13).

Resource utilisation low but rising

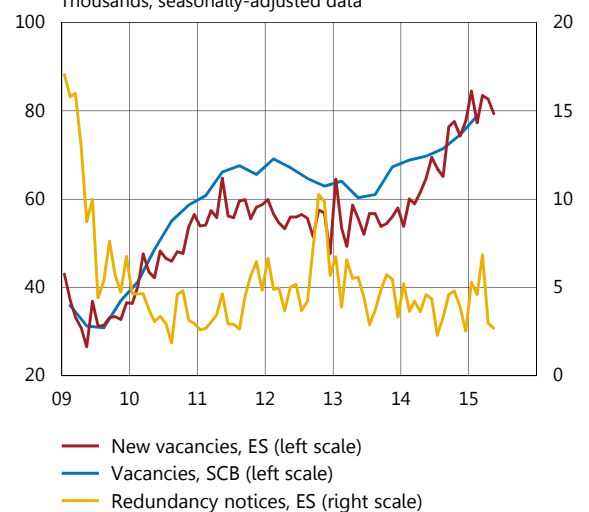
One explanation for the low inflation in Sweden and abroad is that resource utilisation is currently low. The Riksbank's assessment of resource utilisation in Sweden is normally supported by the Riksbank's RU indicator, which summarises the information in a number of indicators (see Figure 3:8). Although resource utilisation is lower than normal, the RU indicator has been rising since the middle of 2013. This is partly due to more companies perceiving a larger shortage of labour.

Figure 3:6. Demand indicators
Index, 2007 = 100, seasonally-adjusted data



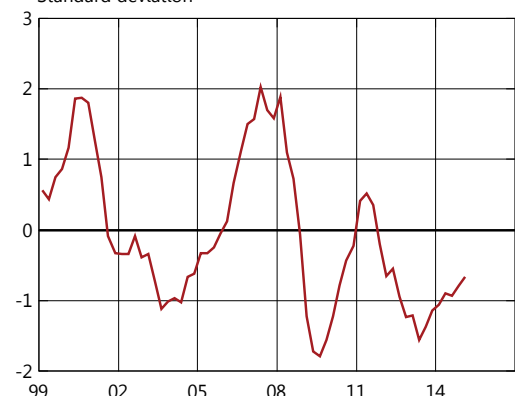
Note. The Riksbank's revision of data on exports and imports of goods.
Sources: Statistics Sweden and the Riksbank

Figure 3:7. Labour market indicators
Thousands, seasonally-adjusted data



Note. Vacancies (SCB) are quarterly data, others are monthly data.
Sources: Employment Service (ES) and Statistics Sweden (SCB)

Figure 3:8. RU indicator
Standard deviation



Note. The RU indicator is a measure of resource utilisation. It is normalised so that the mean value is 0 and the standard deviation is 1.
Source: The Riksbank

CHAPTER 4 – The economic outlook and inflation prospects

After a temporary decline at the beginning of the year, the global economy is continuing to improve and global inflation is rising, in line with the previous assessment. The recovery in the rest of the world is expected to contribute to a stronger and broader economic upswing in Sweden. GDP is expected to grow more rapidly than normal over the coming years. Labour supply is expected to be higher than the previous assessment due to an upwardly revised population forecast. Employment is also rising more quickly but the high level of supply means that unemployment is only falling slowly. The even more expansionary monetary policy, with a more negative repo rate over a long period of time and increased purchases of government bonds, is contributing to a rise in both demand and inflation. CPI inflation is expected to be close to 2 per cent from the end of 2015.

International outlook

The world economy is improving after a temporary slump

Global production and world trade have been unusually weak since the beginning of the year but this is considered to be mostly due to temporary factors. At the same time, the euro area, which is so important from a Swedish perspective, has grown more rapidly than for many years thanks to a relatively strong development of consumption and investment.

Global growth is indeed being hampered both by the current demographic development, which is causing the labour force is growing more slowly, and by a residual need to reduce indebtedness in some countries. However, improved credit supply means that the hitherto stifled demand for investment can begin to be satisfied. Underpinned by continually low oil prices, less stringent fiscal policies and further monetary policy stimulation, the global economy is expected to grow slightly more rapidly in the years ahead.

Since the summer of 2014, oil price futures have fallen sharply (see Figure 4:1). This impact negatively on investment in the oil sector but positively on households' real incomes. While investment in new oil production has already adapted to a large extent to the lower oil price, the increased scope for consumption is expected to benefit global growth for a while longer.

After a few years of relatively large-scale fiscal policy restraints in the major developed economies, relatively minor austerity measures are set to be implemented in 2015 and 2016 (see Figure 4:2). Fiscal policy will not therefore have the same restrictive effect on GDP growth in the years ahead.

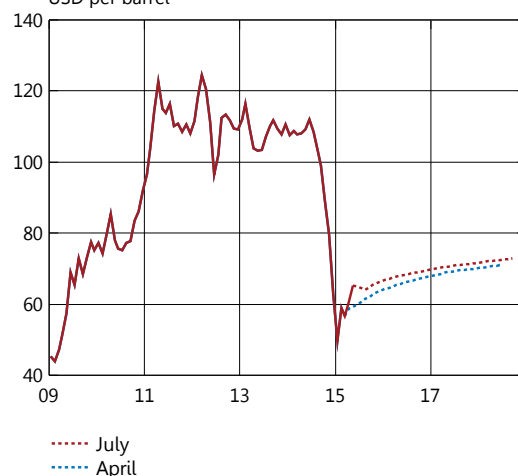
Expansionary monetary policy supporting the recovery

At the same time, the continued expansionary monetary policy is supporting credit granting and inflation expectations, which benefits consumption and investment. This is particularly true of the euro area, where inflation expectations have now started to rise and lending has begun to show a more positive trend (see

Table 4.1.

The forecast in brief
Following a temporary weakening, international growth and inflation are expected to rise.
Monetary policy stimulation will support the recovery.
Domestic demand in Sweden is continuing to grow strongly, driven by a strong household sector and housing investment.
When demand from abroad rises, Swedish exports will benefit and the Swedish economic upturn will broaden.
Increasingly bright prospects on the labour market, employment rising. Slow decline in unemployment due to strong growth in the labour force, largely driven by a strong increase in the population.
Higher inflation abroad and the strengthening of economic activity in Sweden mean that the upturn in inflation will continue. CPI inflation will be close to 2 per cent from the end of 2015.

Figure 4.1. Oil price and futures price
USD per barrel



Note. Brent oil, futures are calculated as a 15-day average. Outcomes represent monthly averages of spot prices.

Sources: Macrobond and the Riksbank

Figure 4:3). The question of when and how quickly the policy rate will be raised in the US has long been a source of uncertainty and contributed to major exchange rate fluctuations. More recent communication from the Federal Reserve indicates, however, that it will tread slightly more cautiously in 2016–2017 than it has previously communicated.

Rising growth in developed countries but weaker and more fragmented in the growth economies

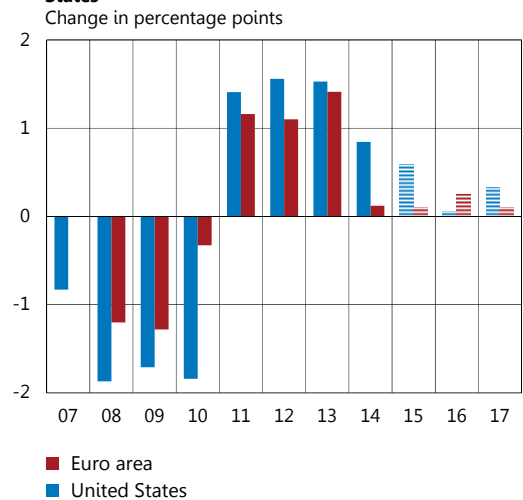
Uncertainty about the international economic outlook continues to be great, among other reasons due to the funding crisis in Greece and the situation in Russia and Ukraine. In Greece, the Government is encountering acute difficulties in meeting current payments and there is considerable uncertainty over how the country is to find a long-term solution to its problems. It is difficult to judge now what the consequences of a Greek failure to meet its payments will be for the euro area as a whole and for Sweden. The forecasts presented in this report are based on the course of events in Greece not preventing the recovery in the euro area, but the developments of recent days have significantly increased the uncertainty in the forecasts (see the article "Increased uncertainty over the situation in Greece").

It is chiefly the developed economies that are expected to grow more rapidly in the near future. In the US, the trend on the labour market is still positive and the housing market continues to recover. Consumption is also benefiting from the fact that household debt adjustment has now reached the stage at which savings can start to decrease in the years ahead. This means that American GDP is expected to grow more quickly than normal over the next few years (see Figure 4:4).

At the same time, the recovery in the euro area is gaining an ever-stronger foothold and is broadening. Confidence indicators show a continued strengthening of economic activity underpinned by low bank lending rates, rising asset prices, a low oil price and a weakening euro over the past twelve months. As uncertainty about the strength of the recovery abates, investment is also expected to grow more rapidly.

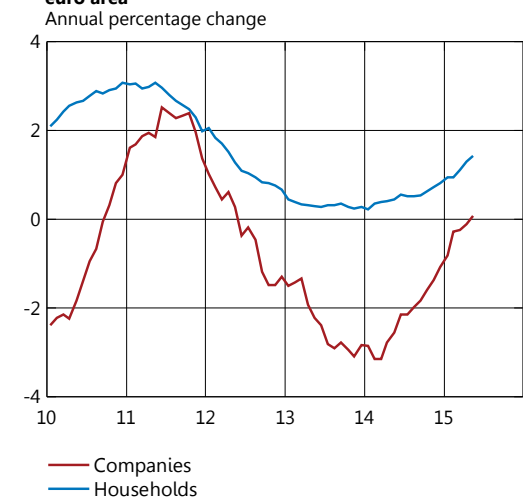
The economies of the major growth countries are taking different courses. Russia is burdened by a low oil price, political uncertainty and international sanctions. Brazil has been hit hard by low commodity prices and growth is being held back by weak competitiveness, low confidence among companies and a tighter fiscal policy. Growth in China is being subdued by a stronger exchange rate and an adjustment of the investment demand to overcapacity and a weaker housing market. Of the growth economies, it is India that has the brightest economic outlook, not least as a result of increased public investment and more favourable conditions for private investment.

Figure 4:2. Fiscal policy in the euro area and the United States



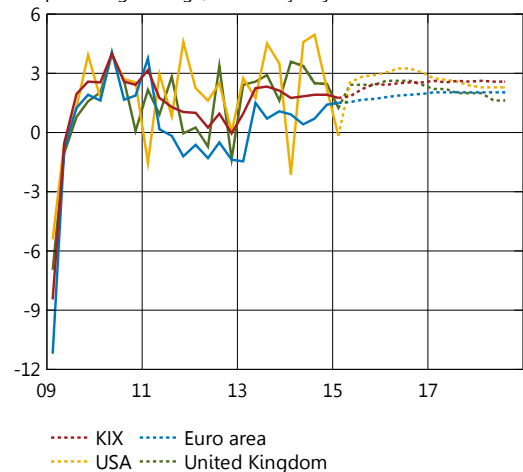
Note. Cyclically-adjusted budget balance as a percentage of potential GDP. A positive value refers to fiscal policy tightening.
Source: IMF Fiscal Monitor April 2015

Figure 4:3. Lending to households and companies in the euro area



Source: ECB

Figure 4:4. Growth in various countries and regions
Quarterly change in per cent, calculated as an annual percentage change, 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, national sources, Office for National Statistics and the Riksbank

Expressed in terms of KIX-weighted GDP, which includes the countries that are of greatest significance for the Swedish economy, the forecast is for 1.9 per cent growth this year. The growth rate will then pick up gradually to 2.6 per cent in 2017 (see Table 4). The Riksbank's view of the international economic climate basically remains the same as the forecast in April.

Rising global inflation in the years ahead

Internationally, inflation has fallen over the past twelve months and is under the inflation target in many countries. The major fall in the oil price between August 2014 and March 2015 reinforced this downward trend (see Figure 4:5). Since the main effects of the fall in oil prices on inflation have already taken place and the oil price has since recovered slightly, inflation has also started to rise. There are still no clear signs, however, that the underlying global inflation, measured as consumer prices excluding energy and food, has started to rise.

Recent exchange rate fluctuations are currently underpinning the rise in inflation in the euro area but at the same time are helping to delay the increase in inflation in the US and the UK. Unemployment is falling in many parts of the world and this trend is expected to continue in the years ahead. This is contributing to a higher rate of wage increases, while the growing demand for goods and services is making it easier for businesses to increase their prices. Coupled with a gradually increasing oil price, inflation is therefore expected to rise in the years ahead.

The KIX-weighted rate of inflation is expected to rise from 1.3 per cent this year to 2.4 per cent in 2017, which is in line with the assessment made in April.

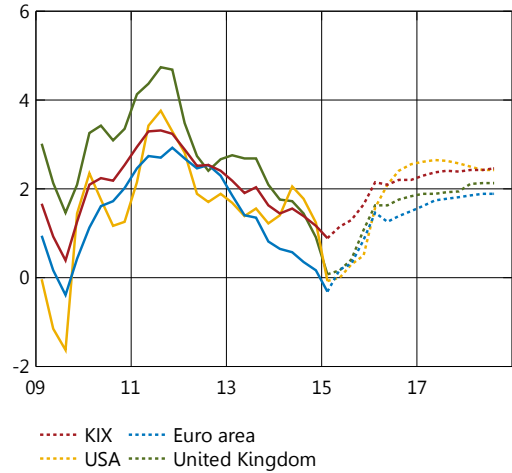
Exchange rate important for the development of inflation

The exchange rate is an important determinant for inflation and the depreciation in the krona since 2014 has contributed to the upturn. The krona has strengthened since April and the Riksbank now believes that the krona will be slightly stronger in competitiveness-weighted terms this year compared to the assessment in April. The expansionary monetary policy is however expected to continue to contribute to a weaker krona than was forecast at the beginning of the year.

The krona is expected to remain at roughly its current level for a while longer before it begins to slowly strengthen (see Figure 4:6).¹³ This is taking place at a time when the economy is improving and inflation is close to 2 per cent (See Figure 4:7 and 4:8). There is still, however, considerable uncertainty

¹³ The Riksbank's long-term forecast for the trade-weighted exchange rate is based on an assessment of the long-term level of the real exchange rate. At present, the real exchange rate is weaker than this level, which means that the exchange rate should strengthen in real terms in the years ahead. It is, however, uncertain how rapidly this is likely to happen and whether a strengthening of the real exchange rate means an appreciation in the nominal exchange rate or a higher relative rate of inflation.

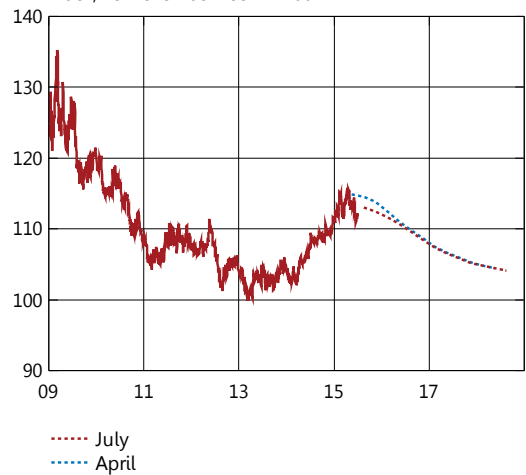
Figure 4:5. Inflation in various countries and regions
Annual percentage change



Note. KIX is an aggregate of the countries that are important to Sweden's international transactions. When calculating KIX-weighted inflation, the HICP is used for the euro area and the CPI for other countries. Inflation for the euro area is shown measured using the HICP and for the United States and the United Kingdom measured using the CPI.

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

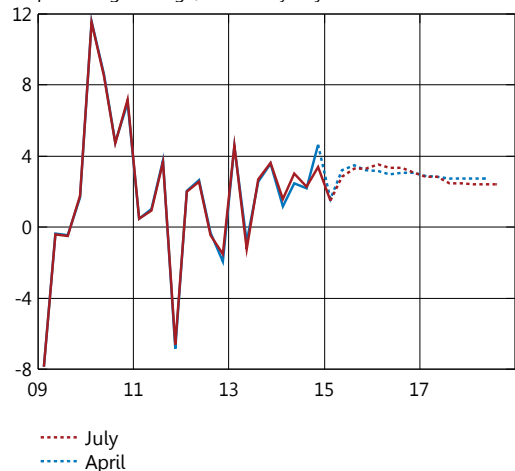
Figure 4:6. KIX-weighted nominal exchange rate
Index, 18 November 1992 = 100



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 4:7. GDP
Quarterly change in per cent, calculated as an annual percentage change, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

regarding the krona's future development. As described in chapter 1 and the article "Rapid appreciation of the krona" in the Monetary Policy Report published in April, an exchange rate much stronger than that forecast by the Riksbank would lead to the prices of imported products rising more slowly and demand in the Swedish economy being dampened.

Sweden

Recovery in the rest of the world contributing to a broad upturn in the Swedish economy

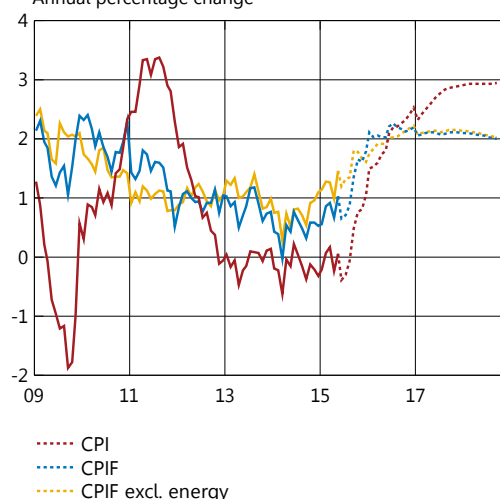
As a small, open economy, Sweden will always be affected by what happens in the rest of the world. The drawn-out international recession following the financial crisis has led to weak development for Swedish exports. Recent growth in the Swedish economy has instead been driven by a strong development in domestic demand and in particular a strong household sector and increased housing investments.

A very expansionary monetary policy and reduced fiscal policy restraints in many European countries are helping Swedish export markets to recover (see Figure 4:9). Swedish exports and growth benefit when growth in overseas industrial production increases. The significant import content of Swedish-manufactured export goods is also contributing to stronger growth in imports, a development that is also underpinned by a continued increase in domestic demand.

Growth in Swedish export markets is expected to be slightly lower in the coming years compared with the forecast in April. Recent world trade statistics indicate that structural factors, such as shorter production chains and the transition to a more service-oriented economy in China, seem to be having a more restraining effect on import demand in the rest of the world than the Riksbank previously believed. It is therefore expected that Swedish exports will also grow slightly more slowly in the years ahead than predicted in the forecast in April.

The continued, relatively rapid rise in domestic demand depends to a great extent on household consumption. A high savings ratio, increasing household wealth and low interest rates create scope for a growth in consumption that is slightly higher than the historical average (see Figure 4:10). The recovery in global industrial output also increases the need for investment in the business sector and thereby contributes to stronger investment growth. A persistently high demand for housing also means that the number of new builds is growing very rapidly. Housing investment, measured as a percentage of GDP, will hence increase to almost 5 per cent at the end of the forecast period. This is high in an historical perspective but not by international standards.

Figure 4:8. CPI, CPIX and CPIX excluding energy
Annual percentage change



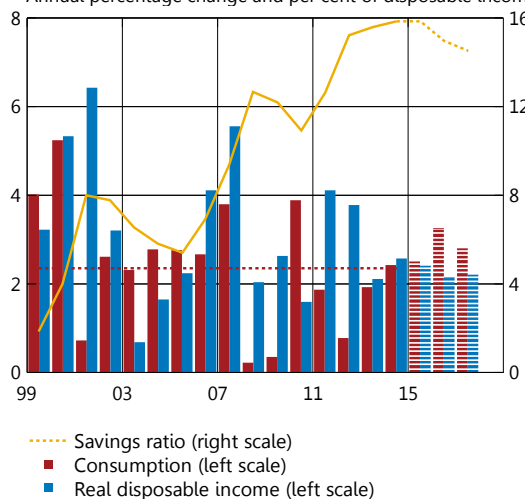
Note. The CPIX is the CPI with a fixed mortgage rate.
Sources: Statistics Sweden and the Riksbank

Figure 4:9. 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 4:10. Households' real disposable incomes, consumption and savings 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. Broken line is the mean of consumption between 1994 and 2014.
Sources: Statistics Sweden and the Riksbank

All in all, stronger domestic and foreign demand will lead to faster-than-average GDP growth in Sweden in the years ahead. The GDP forecast for the second and third quarters of 2015 has been adjusted downwards somewhat as the result of slightly weaker export orders. This, in combination with revisions of GDP development in 2014, will contribute to whole-year growth for 2015 being slightly lower than forecast in the Monetary Policy Report in April (see Figure 4:7). Growth for 2016 has on the other hand been adjusted upwards slightly as a result of higher growth in consumption and housing investment.

Household indebtedness continuing to rise

Swedish housing prices have continued to increase rapidly. The price increases have led to a continued rise in household wealth, but since most housing purchases are loan-financed, the development also means that household indebtedness is also rising. Rising incomes and low interest rates are continuing to contribute to a strong demand. At the same time, the supply of housing is becoming increasingly limited in certain regions even though it is now rising rapidly. Price are therefore expected to continue to rise in the coming years, albeit at a slower rate. The development means that the debt-to-income ratio, i.e. debt as a percentage of households' disposable income, will increase to about 188 per cent in 2018, which is close to the assessment in the Monetary Policy Report in April (see Figure 1:10).

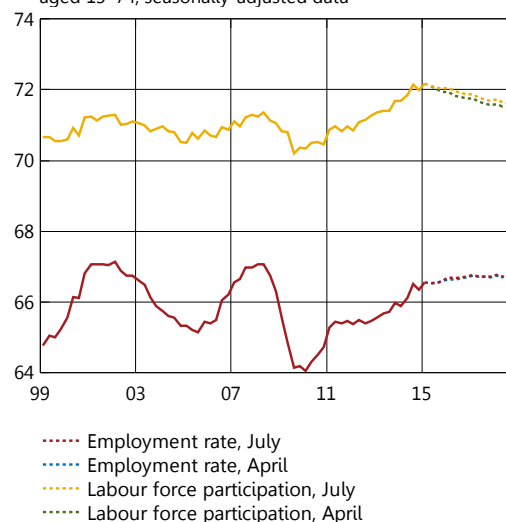
Higher labour supply with a growing population

The labour force participation rate has risen constantly since the financial crisis and now amounts to about 72 per cent of the working-age population aged 15–74 years (see Figure 4:11). It is difficult to assess the extent to which the rising participation rate depends on long-term behavioural changes or on the strong economy. Demographic changes and political decisions affect developments on the labour market. In its 2015 Spring Fiscal Policy Bill, the Swedish Government presented higher unemployment benefits aimed to provide an insurance with better protection against loss of income in the event of unemployment. According to the Riksbank this measure may reduce incentives to work and lead to somewhat higher unemployment in the long run. Other measures proposed within the scope of labour market policy may partly counteract this effect.

At the same time, demographic developments constantly affect the composition of the labour market. The Riksbank receives population forecasts as they are updated by Statistics Sweden and continuously analyses changed patterns in the labour market situation for different population groups. In May,

Figure 4:11. 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

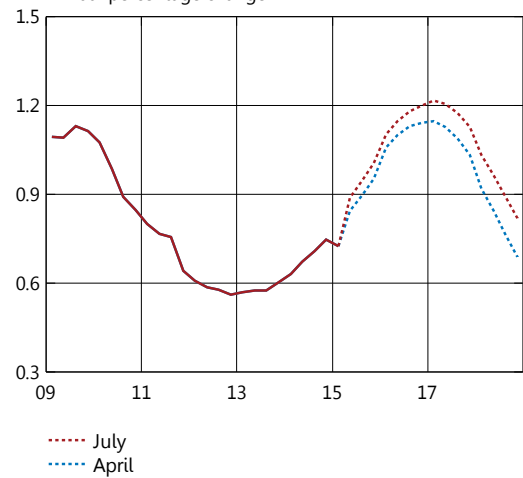
Statistics Sweden published a population forecast that once again indicated a trend of even stronger growth in the working-age population (see Figure 4:12). This is positive in a long-term perspective and has led to an upward revision of the Riksbank's assessment of the growth potential on the Swedish labour market. This means that both hours worked and employment are expected to grow faster than was forecast in April.

Increasingly high demand for labour but continued matching problems represent a challenge

Indicators point to an increasingly brighter future for companies and new jobs will be created in many industries and spread over the whole country. At the same time, the number of redundancies is on a low level and shortages are increasing in some sectors and regarding certain skills. As the economy strengthens, hours worked and the number of persons employed are expected to increase more rapidly. Compared to the assessment in April, the Riksbank has revised the forecast for employment and labour force upwards. The labour force participation rate has been revised upwards slightly more than the employment rate and unemployment will hence decrease more slowly than predicted in the previous assessment (see Figure 4:11 and 4:13).

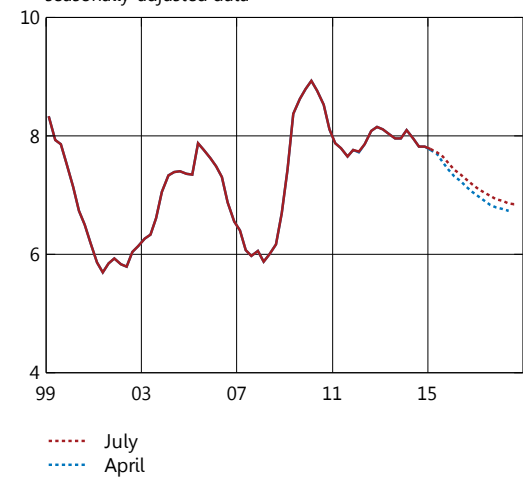
At the same time as the labour market situation is improving, there are still matching problems. An increasing number of unemployed persons lack the required skills and are therefore finding it difficult to establish themselves on the labour market, for example as a result of having left school too early. Arbetsförmedlingen (the Swedish Public Employment Service) judges that the percentage of unemployed people with a vulnerable position on the labour market will have increased to over 75 per cent of the registered unemployed by the second half of 2016.¹⁴ The job-finding rate, i.e. the probability of going from being unemployed to having an unsubsidised job, fell in connection with the financial crisis and has not improved since then.¹⁵ The changed composition of the unemployed contributes to the expectation that unemployment will decrease slightly more slowly during the forecast period compared to the previous forecast. Towards the end of 2018, unemployment is expected to have fallen from its current rate of 7.8 per cent to 6.9 per cent (see Figure 4:13).

Figure 4:12. Population growth, 15–74 years
Annual percentage change



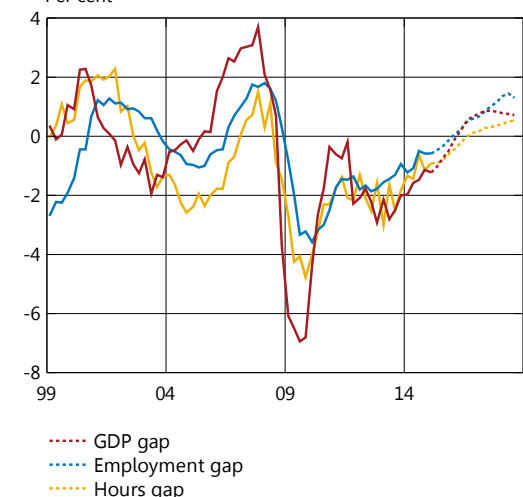
Sources: Statistics Sweden and the Riksbank

Figure 4:13. Unemployment
Per cent of the labour force, 15–74 years, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4:14. GDP gap, employment gap and 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

¹⁴ See for example The Swedish Public Employment Service's report "Arbetsmarknadsutsikterna våren 2015. Prognos för arbetsmarknaden 2015–2016". The Employment Service lists the following groups as vulnerable: people with only compulsory school education, people born outside Europe, 55–64 year-olds and persons with disabilities that reduce their capacity to work.

¹⁵ See for example, the article "The long-term development of the Swedish labour market", Monetary Policy Report, October 2013 and the article "A divided labour market – on matching on the Swedish labour market after the economic crisis", Sveriges Riksbank Economic Review 2014:2.

Growing resource utilisation and cost pressures from the labour market

High growth in GDP and employment lead to increasing resource utilisation in the economy. Next year, resource utilisation is expected to be roughly normal (see Figure 4:14).

Rising inflation is expected to lead to higher inflation expectations, which, in combination with higher productivity growth and resource utilisation, will lead to more rapid wage growth in the years ahead. According to the short-term wage statistics, nominal wage increases in the entire economy as a whole are expected to rise from 2.6 per cent this year to almost 3.4 per cent in 2017.

The outcomes in the short-term wage statistics have been lower than expected so far this year. Compared to in April, the Riksbank now believes that wages in accordance with these statistics will grow slightly more slowly over the whole forecast period. The real wage increases of recent years have been higher than productivity growth while profit shares have been squeezed. As demand rising, companies have more opportunities to increase their prices. In turn, this will lead to increased profit margins and larger profit shares. At the same time, growth in real wages will fall back to just under 1.5 per cent towards the end of the forecast period (see Figure 4:15).

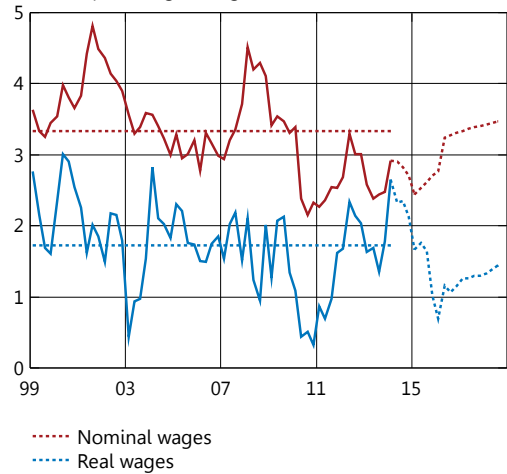
As with wages, total labour costs are expected to rise faster during the forecast period (see Figure 4:16). Development in 2016 in particular will also be affected by increased social security contributions for young people and a higher payroll tax for older people. All in all, the development of labour costs and productivity means that unit labour costs will grow by approximately 2 per cent per year in 2016 and 2017, which is approximately in line with the assessment in April.

If we take the development of the exchange rate into account, unit labour costs in Sweden have risen more slowly than in, for example, the US and Germany (see Figure 4:17). According to this indicator, the competitiveness of Swedish companies has thus been strengthened in recent years.

Upturn in inflation expectations

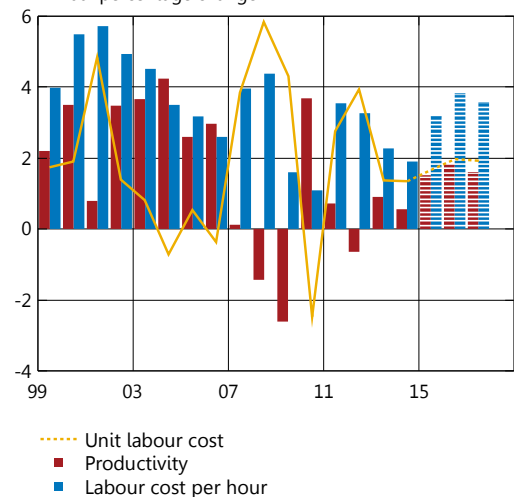
Expectations regarding the development of inflation are governed to a large extent by the actual inflation rate. This is particularly true regarding short-term expectations that have been very low for several years, although long-term expectations also fell last year. It is important that the long-run inflation expectations are compatible with the inflation target of 2 per cent (see the article "Why is it important that inflation rises towards the target?"). According to Prospera's quarterly survey, inflation expectations among all participants have risen over both the short and long terms during the second quarter

Figure 4:15. Nominal and real wages
Annual percentage change



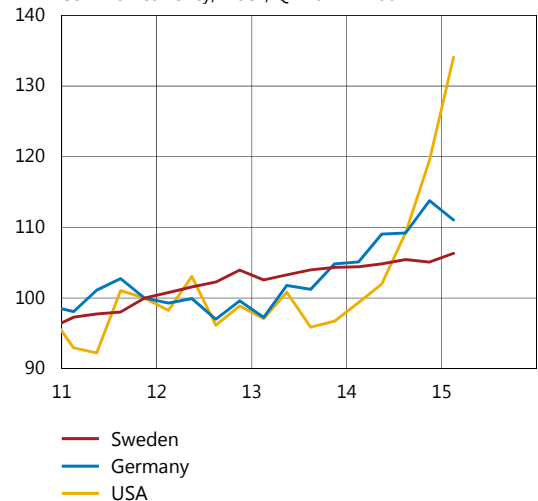
Note. Wages according to short-term wage statistics. Real wages are calculated by deflating nominal wages by the CPIF. Broken horizontal lines refer to average between 1999 and 2014.
Sources: Swedish National Mediation Office, Statistics Sweden and the Riksbank

Figure 4:16. Cost pressures in the economy as a whole
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 4:17. Unit labour cost
Common currency, index, Q4 2011 = 100



Sources: Bureau of Labor Statistics, OECD, Statistics Sweden and the Riksbank

of this year. Five-year expectations are now at 1.8 per cent (see Figure 4:18). According to the National Institute of Economic Research's Business Tendency Survey, the one-year inflation expectations of households remained at 1.6 per cent in June.

Good prospects for inflation to continue to rise

As in many other countries, inflation in Sweden is still low. For some time, however, various indicators of underlying inflation have increased (see Figure 3:2). Several different indicators point to CPIF inflation excluding energy continuing to rise (see Chapter 3).

A number of factors are interacting so that inflation is expected to remain on an upward course over the next few years. An ever-stronger global economy leads to both higher international prices and a higher demand for Swedish goods and services. Domestic demand will also be higher, not least as a result of the historically low interest rates in the Swedish economy. The stronger economy makes it easier for companies to increase their prices while cost pressures rise in the wake of greater resource utilisation. Announced fiscal policy reforms, such as reductions in tax credits for domestic services (RUT) and tax deductions for building repairs, maintenance and improvement (ROT) and increased social security contributions for young people, are also expected to lead to higher inflation, especially in 2016.

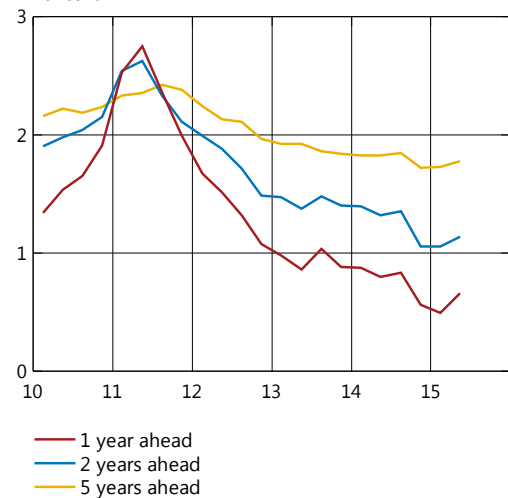
The gradual weakening of the Swedish krona in recent years means that it has become more expensive to import consumer goods. Higher import prices have had an impact on consumer prices, for example on food prices. The effects of the weakening of the exchange rate have not yet had a full impact on prices. The krona is expected to remain at roughly its current level for a while longer before it begins to slowly strengthen. As the economy grows stronger and domestic cost pressures increase, the krona is expected to strengthen gradually. This means that the exchange rate's contribution to higher inflation will gradually diminish.

From the end of 2015, the forecast for CPIF excluding energy has been revised downwards somewhat (see Figure 1:5). Wages are expected to rise slightly more slowly over the next few years and the krona is somewhat stronger, compared to the forecast in April.

CPIF inflation will be close to 2 per cent from the end of 2015

In the immediate future, falling electricity and fuel prices will dampen CPIF inflation compared to inflation measured as the CPIF excluding energy. As in the previous forecast, oil prices and hence fuel prices and electricity prices will rise during the forecast period. During the autumn, CPIF inflation will therefore

Figure 4:18. Inflation expectations among all participants
Per cent



Source: TNS Sifo Prospera

Major wage negotiations to start this autumn

The collective agreements for almost 3 million employees expire next year. For more than half of these, the agreements expire as early as the end of March 2016, in sectors such as manufacturing, construction and retail trade. Towards the end of 2015, negotiations between trade unions and employer organisations will begin within major parts of the industrial sector. Since the Industrial Agreement was first signed in 1997, wage formation in Sweden has been marked by a high degree of compliance between different contractual areas. The industrial sector has set the norm for the level of percentage wage increases in the collective agreements and other contractual areas has normally signed agreements with basically the same percentage wage increases.

In addition to agreed wages, the actual nominal wage development is also affected by the economy and the situation on the labour market. The difference between the agreed wage increases and the actual wage development correlates with different indicators of austerity on the labour market, such as shortage of labour.

Wages and other work-related costs are responsible for a major part of a company's production costs. The development of wages is thus a factor that affects inflation and is thereby important to monetary policy.

rise faster than inflation measured as the CPIX excluding energy and will approach 2 per cent by the end of 2015 (see Figure 4:8). Since the assessment in April, the repo rate has been cut and monetary policy has been made even more expansionary by increasing purchases of government bonds. This means lower interest costs for households, which in turn has led to the CPI inflation rate being revised downwards (see Figure 1:7).

The difference between the CPI and the CPIX

The CPI includes mortgage interest expenditure. This means that inflation, measured in terms of the CPI, is directly affected by changes in interest rates. If monetary policy becomes more expansionary by cutting the policy rate, the CPI also falls despite the purpose of the cut being to raise inflationary pressure in the economy. To correct the rate of inflation for the direct effects of changes in mortgage rates, Statistics Sweden publishes, at the request of the Riksbank, the CPIX measure. This measure has a constant interest-rate index, while changes in property prices have the same effect on the CPIX as on the CPI. Over the past 20 years, interest rates have shown a falling trend. This means that the CPI has on average been lower than the CPIX. In the long run, when the interest rate has stabilised, the rate of increase in the CPI and the CPIX will be the same.

Article: Increased uncertainty over the situation in Greece

The uncertainty over developments in Greece has in recent days increased substantially. The negotiations between Greece and its international lenders (the EC/ECB/IMF) have broken down and a referendum has been announced, whereby Greeks will decide whether to accept the bid made by the creditor institutions on 25 June. Capital controls have been imposed and Greek banks are staying closed at least until the referendum has been held. It is difficult to judge now what the consequences of a Greek failure to fulfill its commitments to its creditors will be for the euro area as a whole and for Sweden.

The negotiations between Greece and its lenders broke down after the Greek government announced a referendum on 5 July on whether to accept the creditors' bid. Greece's request for a temporary extension of the loan agreements until the referendum has been held was not granted, whereby the loan programme expired on 30 June. The June repayments to the IMF have not been made. *The forecasts presented in this report are based on the course of events in Greece not preventing the recovery in the euro area, but the developments of recent days have increased the uncertainty in the forecasts.*

ECB support an important factor for future developments

In February this year, the ECB ceased accepting Greek government bonds as collateral for ordinary ECB loans. Since then, the Greek banks have been dependent on emergency liquidity assistance (ELA). There are lower quality requirements for collateral when granting ELA. As bank withdrawals have gradually increased, the level of liquidity support has been gradually raised. When it became clear that the negotiations had broken down and that the loan programme would expire, the ECB decided to freeze the level of ELA. The ECB will thereby not cover for outflows taking place after 26 June. To prevent a total collapse of the Greek banking system, the Greek government decided to hold the country's banks closed until the referendum has been held, and to impose capital controls in the form of limitations on withdrawals and foreign transfers. The Greek banks are still dependent on liquidity assistance to be able to meet continued withdrawals.

There are many question marks regarding the referendum. Regardless of the outcome, there is a risk of major political turbulence and a Greek exit from the monetary union cannot be ruled out. However, the legal situation here is unclear, as membership of the monetary union is irrevocable according to the EU treaty.

The consequences of a Greek bankruptcy are negative, even if the euro area is now better equipped

The aborted negotiations between Greece and its creditors have led to increased uncertainty on the financial markets. The interest rate differential between the peripheral euro area countries and the core countries has increased. The euro has weakened somewhat against other major currencies and stock

markets around the world have fallen. However, the market movements have so far been relatively muted, given the critical situation for Greece. It is difficult to assess the longer-run developments. The recovery in the euro area has increasingly gained firmer ground and is broadening. But if the Greek government defaults on its debt and Greece leaves the monetary union, it is likely that confidence in economic developments would worsen and that the effects would be more serious. At the same time, economic-policy measures have meant that the euro area is now better equipped to mitigate contagion effects from a Greek default, than it was a few years ago.

Potential impact on Sweden

The direct effects of a Greek default and its possible consequences, including exit from the monetary union, would probably be minor. Trade with Greece is limited, and Swedish banks' exposures to Greek households and companies are small. Nor has the Swedish government taken part in the loan programmes to Greece, other than through our share in the IMF. However, the indirect effects of a poorer development in the euro area are all the more serious. Poorer economic developments in the euro area would have a negative impact on the Swedish economy through lower demand for exports. In this type of situation there is a risk that confidence in the Swedish household and corporate sectors would fall, which would in turn lead to lower resource utilisation and lower inflationary pressures.

In addition, the krona exchange rate is very uncertain. During earlier major crises the krona has tended to weaken as a result of being connected with greater uncertainty and risk in its capacity as a small currency. If this happens, the negative effects on exports and inflation are lowered. But it is also conceivable that Sweden and the Swedish krona are considered a safe haven in the event of a severe depreciation of the euro. This would lead to the opposite effect, where more expensive export goods and cheaper import goods further burden Swedish growth and inflation.¹⁶

¹⁶ For a more detailed discussion of the significance of the exchange rate, see for instance Chapter 2, *Monetary Policy Report July 2013*, Sveriges Riksbank.

Tables

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

Table 1. Repo rate forecast

Per cent, quarterly averages

	Q2 2015	Q3 2015	Q4 2015	Q3 2016	Q3 2017	Q3 2018
Repo rate	-0.3	-0.4 (-0.3)	-0.4 (-0.3)	-0.3 (-0.2)	0.3 (0.4)	0.8

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

	2014	2015	2016	2017
CPI	-0.2	0.2 (0.3)	2.0 (2.1)	2.7 (2.7)
CPIF	0.5	1.1 (1.1)	2.1 (2.3)	2.1 (2.2)
CPIF excl. energy	0.7	1.4 (1.5)	2.0 (2.3)	2.1 (2.3)
HICP	0.2	0.9 (0.9)	2.0 (2.1)	2.1 (2.2)

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

	2014	2015	2016	2017
Repo rate	0.5	-0.3 (-0.2)	-0.3 (-0.2)	0.2 (0.3)
10-year rate	1.8	0.9 (0.5)	1.8 (1.4)	2.7 (2.4)
Exchange rate, KIX, 18 November 1992 = 100	106.7	113.0 (114.1)	110.1 (110.5)	106.3 (106.4)
General government net lending*	-1.9	-1.4 (-1.3)	-0.7 (-0.7)	-0.4 (-0.5)

*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	2014	2015	2016	2017
Euro area	0.14	0.46	0.9	1.4 (1.4)	1.8 (1.8)	2.0 (2.1)
USA	0.16	0.09	2.4	2.3 (2.9)	3.0 (3.1)	2.8 (2.7)
Japan	0.05	0.03	-0.1	0.8 (0.4)	0.8 (0.8)	0.4 (0.4)
China	0.15	0.08	7.5	6.5 (6.5)	6.6 (6.5)	6.3 (6.3)
KIX-weighted	0.75	1.00	2.0	1.9 (2.0)	2.4 (2.4)	2.6 (2.6)
World (PPP-weighted)	1.00	—	3.4	3.2 (3.3)	3.8 (3.8)	3.9 (3.9)

Note. Calendar-adjusted growth rates. The PPP-weights refer to the global purchasing-power adjusted GDP-weights, 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 2012 that are used for 2015, and on an assumption that the weights will develop according to the trend of the past five years in the coming forecast years.

CPI	2014	2015	2016	2017
Euro area (HICP)	0.4	0.3 (0.1)	1.4 (1.4)	1.7 (1.8)
USA	1.6	0.2 (0.1)	2.2 (2.1)	2.6 (2.6)
Japan	2.7	1.0 (0.9)	1.5 (1.5)	2.1 (2.1)
KIX-weighted	1.4	1.3 (1.2)	2.2 (2.2)	2.4 (2.4)

	2014	2015	2016	2017
Policy rates in the rest of the world, per cent	0.2	0.1 (0.1)	0.1 (0.1)	0.4 (0.4)
Crude oil price, USD/barrel Brent	99.6	62.3 (59.8)	68.4 (66.2)	70.8 (69.3)
Swedish export market	2.7	2.6 (3.9)	5.0 (5.6)	5.4 (5.9)

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

	2014	2015	2016	2017
Private consumption	2.4	2.5 (2.9)	3.3 (2.9)	2.8 (2.7)
Public consumption	1.9	2.0 (2.2)	2.7 (2.7)	1.9 (1.9)
Gross fixed capital formation	7.4	6.1 (4.0)	6.3 (5.6)	4.4 (4.4)
Inventory investment*	0.2	0.0 (0.0)	0.0 (0.0)	0.0 (0.0)
Exports	3.3	4.2 (5.3)	5.7 (6.1)	4.9 (5.3)
Imports	6.6	5.1 (4.9)	6.5 (6.7)	5.7 (6.1)
GDP	2.3	2.9 (3.2)	3.6 (3.4)	2.6 (2.7)
GDP, calendar-adjusted	2.4	2.6 (2.9)	3.3 (3.2)	2.9 (2.9)
Final figure for domestic demand*	3.3	3.1 (2.8)	3.7 (3.4)	2.9 (2.8)
Net exports*	-1.1	-0.2 (0.3)	-0.2 (0.0)	-0.2 (-0.1)
Current account (NA), per cent of GDP	6.2	6.2 (5.8)	5.7 (5.5)	5.2 (5.1)

*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

	2014	2015	2016	2017
Population, aged 15–74	0.7	0.9 (0.9)	1.2 (1.1)	1.2 (1.1)
Potential hours worked	0.7	0.8 (0.6)	0.8 (0.7)	0.9 (0.6)
GDP, calendar-adjusted	2.4	2.6 (2.9)	3.3 (3.2)	2.9 (2.9)
Number of hours worked, calendar-adjusted	1.8	1.1 (1.2)	1.5 (1.4)	1.3 (1.1)
Employed, aged 15–74	1.4	1.4 (1.4)	1.4 (1.3)	1.2 (1.2)
Labour force, aged 15–74	1.3	1.1 (1.0)	1.0 (0.8)	0.9 (0.8)
Unemployment, aged 15–74 *	7.9	7.7 (7.6)	7.3 (7.2)	7.0 (6.9)

*Per cent of the labour force

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

Sources: Statistics Sweden and the Riksbank

Table 7. Wages and labour costs for the economy as a whole

Annual percentage change, calendar-adjusted data unless otherwise stated

	2014	2015	2016	2017
Hourly wage, NMO	2.8	2.6 (2.9)	3.2 (3.4)	3.4 (3.5)
Hourly wage, NA	1.8	2.8 (3.0)	3.3 (3.5)	3.6 (3.7)
Employers' contribution*	0.1	0.3 (0.3)	0.5 (0.5)	0.0 (0.0)
Hourly labour cost, NA	1.9	3.2 (3.3)	3.8 (4.0)	3.6 (3.7)
Productivity	0.6	1.5 (1.7)	1.8 (1.8)	1.6 (1.8)
Unit labour cost	1.4	1.6 (1.6)	2.0 (2.2)	1.9 (1.9)

*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

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