



Monetary Policy Report

October 2015

Correction 2015-11-04

Figure 4:10 in Chapter 4 contained an incorrect employment gap series. The error has been corrected in this version.

Monetary Policy Report

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

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

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

The Executive Board decided to adopt the Monetary Policy Report at its meeting on 27 October 2015. The Report is available on the Riksbank's website, www.riksbank.se. From this address a printed version of the report can be ordered free of charge or the report can be downloaded as a PDF file.

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

¹ A detailed description of the monetary policy strategy is given in the document *Monetary Policy in Sweden*. This document is available as a PDF file on the Riksbank's website www.riksbank.se.

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

DECISION-MAKING PROCESS

The Executive Board of the Riksbank usually holds six monetary policy meetings during a year, at which it makes decisions regarding the repo rate. In connection with 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 interest rate decision and to see the arguments made by the different Executive Board members.

PRESENTATION OF THE INTEREST RATE DECISION

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

Contents

- CHAPTER 1 – Monetary policy considerations **5**
 - Monetary policy is supporting the economic upturn and the rise in inflation **5**
 - Current monetary policy **7**
 - Uncertainty and risks **10**
- CHAPTER 2 – Financial conditions **14**
 - Monetary policy and government bond yields **14**
 - The foreign exchange market **16**
 - Global asset prices **16**
 - The financial situation for banks and companies **17**
- CHAPTER 3 – The current economic situation **20**
 - Inflation **20**
 - Global and Swedish economic activity **21**
- CHAPTER 4 – The economic outlook and inflation prospects **25**
 - International developments **25**
 - Sweden **29**
 - Article: Migration – opportunity and challenge **34**
- Tables **36**

CHAPTER 1 – Monetary policy considerations

The Riksbank's expansionary monetary policy is contributing to stable growth, falling unemployment and a clear upward trend in inflation in Sweden. But there is still considerable uncertainty regarding the strength of the global economy and central banks abroad are expected to pursue an expansionary monetary policy for a longer time. Compared with the forecast in September, inflation in Sweden is expected to be slightly lower in 2016 and 2017. CPIF inflation is nevertheless expected to be close to 2 per cent in 2016. Without further measures from the Riksbank, the rise in inflation could slow down, partly as a result of the Swedish krona appreciating earlier and more rapidly than forecast.

In order to underpin the positive development in the Swedish economy and to safeguard the robustness of the upturn in inflation, monetary policy needs to be more expansionary. The Executive Board has therefore decided to purchase more government bonds to a value of SEK 65 billion during the first half of 2016. The repo rate is left unchanged at –0.35 per cent but an initial rate increase will be deferred by approximately six months. There is still a high level of preparedness to make monetary policy even more expansionary if inflation prospects should deteriorate. 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.

Monetary policy is supporting the economic upturn and the rise in inflation

The global economy is continuing to recover. The growth rate in developed economies is expected to increase in the coming years. Despite the slowdown in the Chinese economy, growth in several emerging market economies is expected to accelerate in the period ahead. There is still considerable uncertainty and growth abroad is expected to be somewhat weaker in the period ahead compared with the forecast in September. This uncertainty combined with slightly worse inflation prospects mean that monetary policy abroad is expected to become somewhat more expansionary.

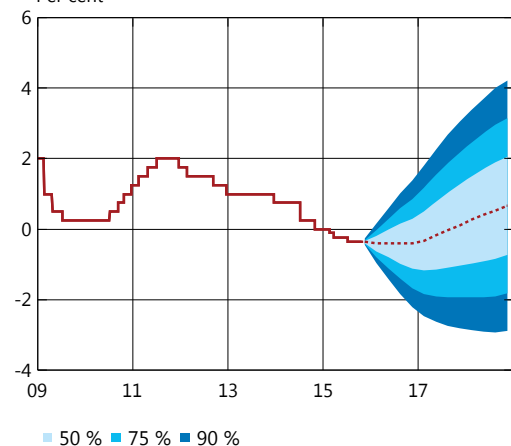
The conditions for higher growth abroad are generally good. The price of oil is low and fiscal policies are less tight than previously. At the same time, monetary policy is markedly expansionary. The European Central Bank, ECB, is currently implementing strong stimulatory measures, which, it has announced, will continue for a long time. In the United States, the Federal Reserve left the policy rate close to zero in September. International interest rates are expected to remain very low for several years to come. These continued monetary policy stimulation measures are supporting lending, which is boosting consumption and investment. All in all, global growth and inflation are expected to rise in the coming years.

However, international uncertainty continues to be high. Stock prices on the world's equity markets have fallen

Table 1.1.

| Important factors for the monetary policy |
|---|
| Recovery abroad is continuing even though uncertainty remains high. |
| Monetary policy abroad is very expansionary. |
| GDP growth in Sweden is near a historical average. |
| KIX, the trade-weighted exchange rate, is slightly stronger than expected. |
| Inflation is now rising. Compared with the previous assessment, inflation will be slightly lower in 2016 and 2017. |
| The low interest rate also poses risks, but these should be managed by other policy areas. |
| Conclusion: Monetary policy needs to be even more expansionary to ensure that inflation rises and stabilises around the target of 2 per cent. |

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 and the ability of risk-premium adjusted forward rates to forecast the future repo rate for the period 1999 up to the point when the Riksbank started to publish forecasts for the repo rate during 2007. The uncertainty bands do not take into account the fact that there may be a lower bound for the repo rate. Outcomes are daily rates and forecasts refer to quarterly averages.

Source: The Riksbank

since summer and there is still considerable volatility on the financial markets. This is connected to unease about the slowdown in China and uncertainty surrounding the global recovery. In addition, uncertainty persists regarding what the effects will be when the Federal Reserve raises its policy rate and regarding the continued recovery in the euro area.

The wars in the Middle East have led to a major humanitarian disaster. This has led to a large increase in the number of people that have fled their homes and are seeking protection in Europe. This is contributing to increased uncertainty about future developments. It is too early to judge what the macroeconomic effects of increased immigration will be. Developments will partly depend on what political solutions are realised both in Sweden and in Europe. The Riksbank is following events closely and will adjust its forecasts accordingly. In the short term, some positive effect on GDP can be expected from the increased refugee immigration, via both higher private and public consumption, although public expenditure will also increase. Like many other European countries, Sweden faces considerable challenges when such large numbers of newly arrived refugees are to enter the labour market (see the article "Migration – opportunity and challenge" in Chapter 4).

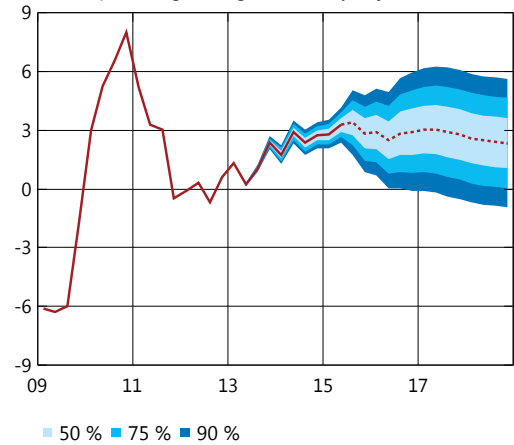
Continued healthy growth in the Swedish economy

The financial conditions in Sweden are still very expansionary. Interest rates are low and it is easy to obtain credit, both for companies and for households. Since the beginning of September, long-term government bond yields have continued to fall both in Sweden and internationally. Compared with the forecast in September, the competitiveness-weighted exchange rate is slightly stronger.

Despite weak international demand, growth in the Swedish economy has been relatively good in recent years. It has largely been driven by domestic demand, with strong consumption and high housing investment.

Demand is expected to broaden in the period ahead. Higher international growth will also lead to faster Swedish export growth, which will eventually also increase the need for new investment. Underpinned by the expansionary monetary policy, GDP is expected to grow by nearly 3 per cent on average during the forecast period, which corresponds to a growth rate that is slightly stronger than the historical average (see Figure 1:1 and 1:2). As the population is expected to increase sharply, GDP per capita will grow more slowly than GDP.

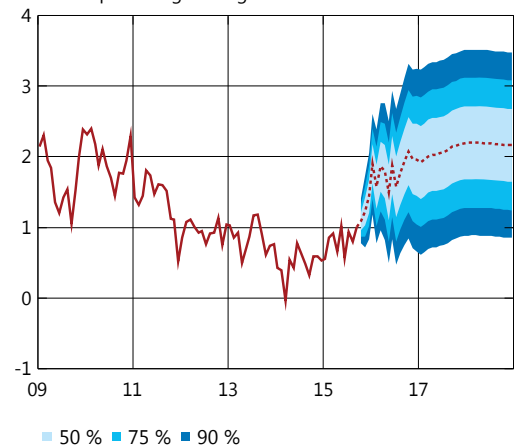
Figure 1:2. GDP with uncertainty bands
Annual percentage change, seasonally-adjusted data



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

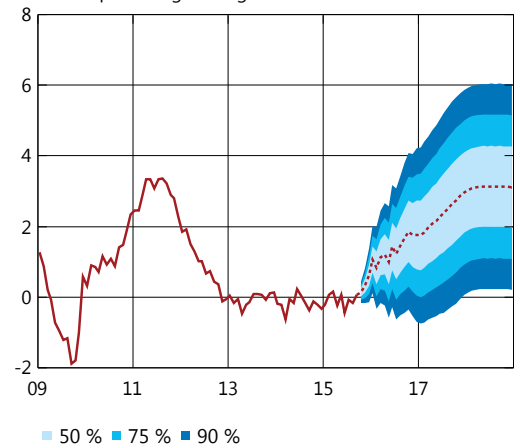
Figure 1:3. CPIF with uncertainty bands
Annual percentage change



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

This higher level of growth is also contributing to an improvement in the situation on the labour market. Employment is continuing to rise and unemployment is gradually falling.

Rising trend in inflation

Several different measures of underlying inflation have risen since the beginning of last year (see Figure 1:5). The weakening of the exchange rate is key to explaining this upturn, with prices rising mainly for imported goods and services. In the period ahead, the krona is expected to remain at current levels for a time before strengthening at a slow rate (see Figure 1:6). As the krona appreciates, the positive contribution of the exchange rate to inflation will diminish. Inflation is nevertheless expected to continue to rise, since the expansionary monetary policy contributes towards higher resource utilisation in the economy. The scope for companies to raise their prices is also expected to increase as the economy improves.

Falling energy prices have subdued inflation over the last year. Energy prices are however expected to rise in the period ahead and thereby make a slightly positive contribution to inflation in the long term. The development of energy prices will mean that CPIF inflation will rise very rapidly at the beginning of 2016 and stabilise close to 2 per cent during 2017 once the economy has strengthened further (see Figure 1:3).

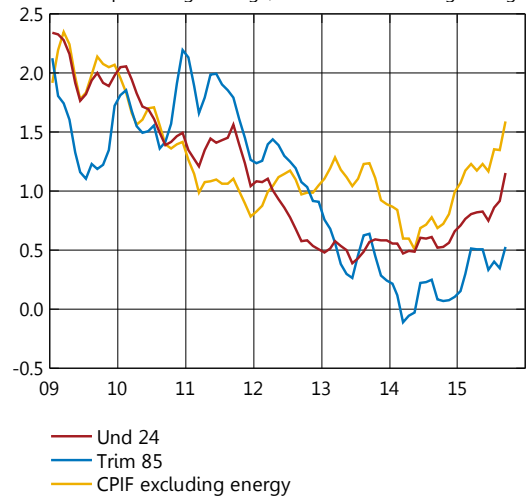
At present, CPI inflation is also being restrained by the previous repo rate cuts, as households' mortgage rates are included in the CPI. CPI inflation will also rise in 2016. The successive increases of the repo rate will then lead to CPI inflation being over 2 per cent for a few years (see Figure 1:4).

Compared with the forecast in September, inflation is expected to be slightly lower in 2016 and 2017 (see Figure 1:7–1:9). This depends partly on poorer inflation prospects abroad, linked to the uncertainty surrounding the global recovery, but also on a new assessment indicating that somewhat stronger demand will be required in order to stabilise inflation around 2 per cent once the positive contributions to inflation from the exchange rate diminish.

Current monetary policy

The Riksbank's expansionary monetary policy is contributing to growth in Sweden being healthy, unemployment is falling and is an important explanation for why there is a clear upward trend in inflation. But it is now expected to take a little longer before underlying inflation stabilises

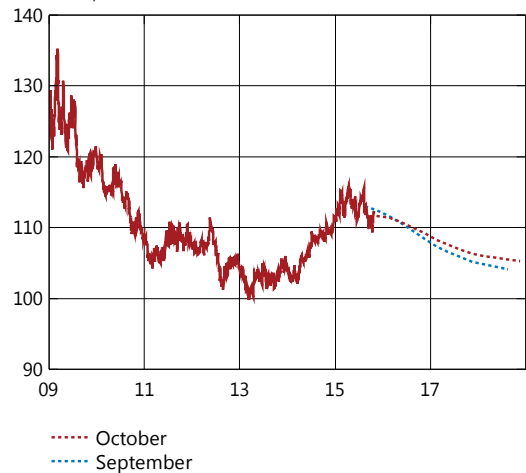
Figure 1:5. Measures of underlying inflation
Annual percentage change, three months moving average



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

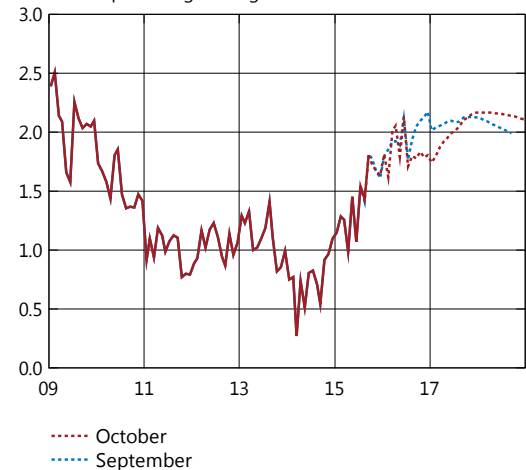
Figure 1:6. KIX-weighted nominal exchange rate
Index, 1992-11-18 = 100



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

Sources: National sources and the Riksbank

Figure 1:7. CPIF excluding energy
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank

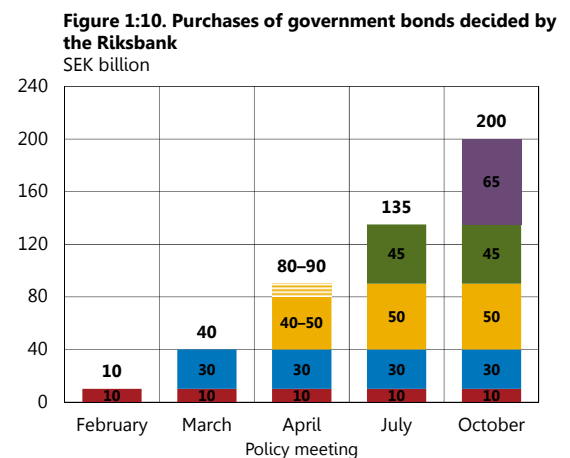
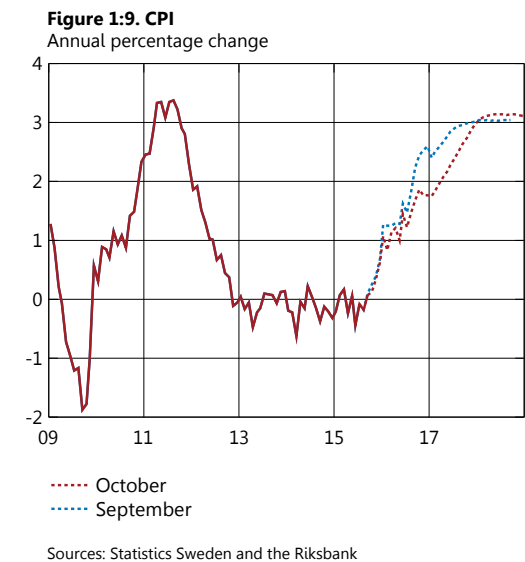
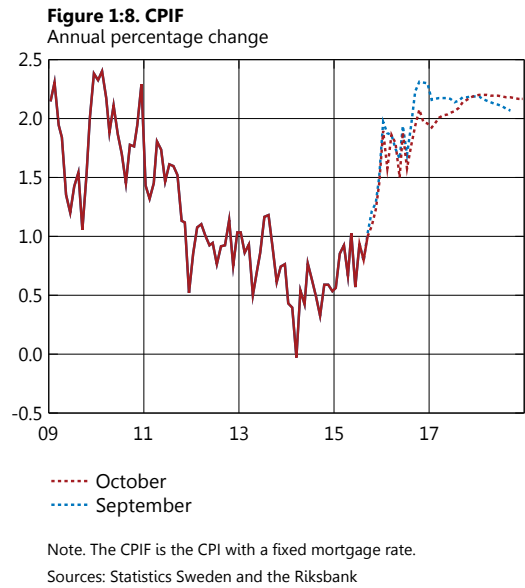
around 2 per cent and there is still considerable uncertainty regarding global developments. In order to underpin the positive development in the Swedish economy and to safeguard the robustness of the upturn in inflation, monetary policy needs to be more expansionary. The Executive Board has therefore decided to extend the government bond purchasing programme by an additional SEK 65 billion so that purchases will amount to SEK 200 billion in total by the end of June 2016 (see Figure 1:10). The government bond purchases will correspond to about 6 per cent of GDP and about 34 per cent of the current outstanding stock of Swedish nominal government bonds.² In addition, the repo rate path has been revised downwards (see Figure 1:11). The repo rate is being left unchanged at -0.35 per cent and is only expected to begin to be raised once inflation has stabilised around the target of 2 per cent during the first half of 2017, which is six months later than forecast in September.

In the forecast, real interest rates will remain very low even in the latter part of the forecast period (see Figure 1:12). This is at a stage when economic activity is relatively strong, resource utilisation is close to normal and inflation around the target of 2 per cent. As inflation has been below the target for a longer period and long-term inflation expectations have fallen below 2 per cent, it is not deemed to be a problem if inflation were temporarily to rise further above target than in the Riksbank's forecast. Such a development would therefore not have to lead to a less expansionary monetary policy.

More expansionary monetary policy

There are several reasons why a more expansionary monetary policy is appropriate. There is still substantial uncertainty linked to the global recovery. This uncertainty combined with slightly worse inflation prospects mean that monetary policy abroad is expected to become somewhat more expansionary (see Figure 1:13 and 1:14).

Sweden is a small, open economy and therefore dependent on what happens in the rest of the world. Globally speaking, inflation is low and many central banks around us are also pursuing a very expansionary monetary policy aimed at pushing up inflation towards their respective targets. Financial markets have interpreted the ECB's most recent communication as a signal that the current asset purchasing programme may be extended and continue past September 2016. In addition, the expectations of a first rate



² As the market value of bonds presently exceeds their nominal amount, the total purchases of a nominal amount of SEK 200 billion correspond to an actual purchase price of about SEK 240 billion, which corresponds to about 6 per cent of GDP.

increase by the Federal Reserve have been put on hold. International interest rates are therefore expected to remain very low in the period ahead and Swedish monetary policy needs to take this into consideration. If this does not happen, the krona exchange rate risks appreciating earlier and at a faster rate than forecast. This would then lead to the prices of imported goods and services increasing more slowly and demand for Swedish exports would fall. Such a development would make it more difficult for the Riksbank to push up inflation and stabilise it around the target (see the article "Rapid appreciation of the krona" in the April Monetary Policy Report 2015).

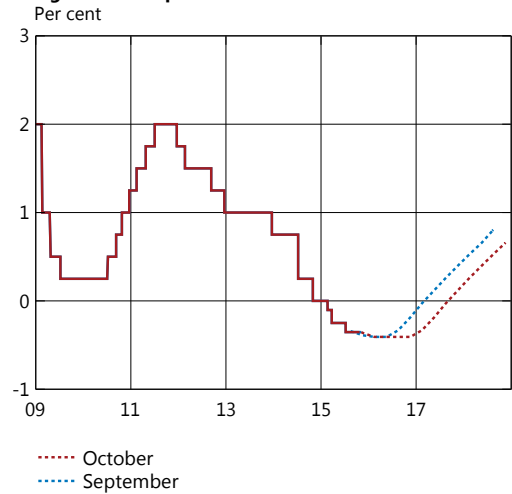
All in all, it is now expected to take slightly longer before CPIF inflation excluding energy stabilises around 2 per cent. This depends partly on poorer inflation prospects abroad, linked to the uncertainty surrounding the global recovery, but also on a new assessment indicating that stronger demand will be required to keep inflation around 2 per cent. During 2016, the contribution to inflation from the depreciation of the krona is expected to subside at the same time as the Swedish economy grows stronger and it will become easier for companies to raise their prices. Since the upturn in prices of more domestically produced goods and services is still relatively cautious, it is the Riksbank's assessment that slightly stronger demand will be needed before inflation stabilises around 2 per cent. Inflation has therefore been revised down slightly for 2016 and 2017.

All in all, the assessment is that monetary policy needs to be more expansionary in order to underpin the positive development in the Swedish economy and safeguard the upturn in inflation.

The Riksbank is prepared to do more

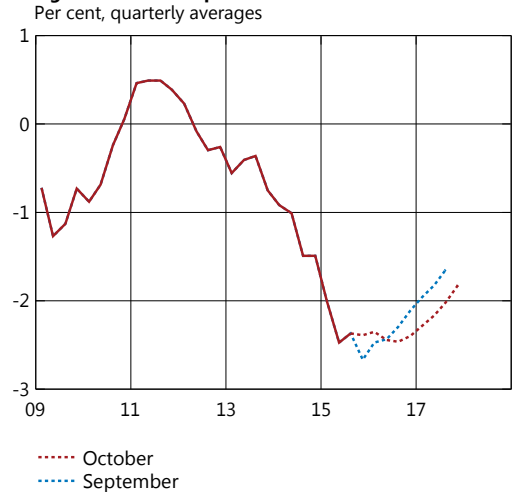
There is still a high level of preparedness to quickly make monetary policy even more expansionary if inflation prospects deteriorate, even between the ordinary monetary policy meetings. The repo rate can be cut further, which is reflected in the repo rate path, and the Riksbank can purchase more securities. The Riksbank also stands ready to intervene on the foreign exchange market if the upturn in inflation were to be threatened by, for example, a problematic development in the markets. In addition, there is scope to launch a lending programme to companies via the banks should this be necessary. The measures taken already 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.

Figure 1.11. Repo rate



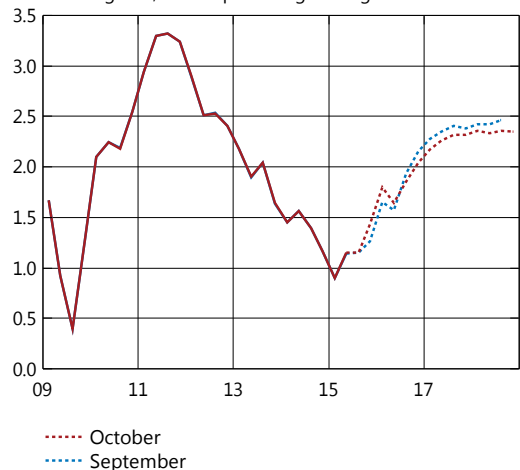
Note. Outcomes are daily data and the forecasts refer to quarterly averages.
Source: The Riksbank

Figure 1.12. 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

Figure 1.13. Inflation abroad
KIX-weighted, annual percentage change



Note. KIX is an aggregate of countries that are important for Sweden's international transactions.
Sources: National sources, OECD and the Riksbank

The low interest rate is providing much needed support to inflation

The monetary policy being pursued aims to limit the risks of continued low inflation and is helping to ensure that inflation expectations continue to be anchored to the target in the years ahead. Continued high confidence in the inflation target creates the conditions for good economic growth. Taken together, the monetary policy measures have helped to reduce the general level of interest rates in the Swedish economy.³ They have also increased the scope for households and companies to consume and invest. They have also led to the krona exchange rate being weaker than would otherwise have been the case, lending support to Swedish exports. The expansionary monetary policy has hence contributed to a stronger economy. Indicators of underlying inflation, such as the CPIF excluding energy, have also risen noticeably in recent years. CPIF inflation is also expected to rise rapidly in the next few months when the negative contributions from previous falls in energy prices start to disappear.

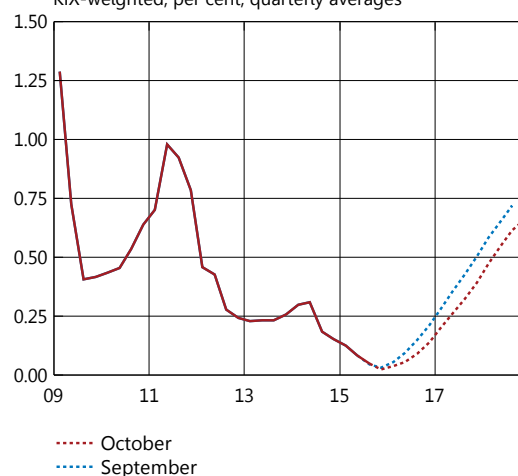
Uncertainty and risks

Forecasts of future economic developments are always uncertain. This is illustrated in a general way by the uncertainty bands around the forecasts in Figure 1:1–1:4. The Riksbank's forecasts are formulated so that the risks of a worsened outcome are, in principle, as large as the risks of a more favourable outcome. However, it is difficult to put a figure on uncertainty and risks. Consequently, there may be a need for monetary policy considerations to pay particular attention to certain risks deemed to have particularly severe consequences for economic development.

Uncertainty about the inflation forecast

Even though there has been an upward trend in inflation for some time and there are many indications that this will continue, there are several sources of uncertainty in the forecast. Costs and prices depend on several domestic and international factors. The recent period has been characterised by volatility on foreign exchange markets and a continued low oil price. There is still substantial uncertainty about the strength of the global recovery. Many emerging market economies are being negatively affected by lower demand from China, falling commodity prices and weaker currency which increases debts for loans issued in

Figure 1:14. Policy rate abroad
KIX-weighted, per cent, quarterly averages



Note. When weighing together policy rates abroad KIX-4 is used. This includes the euro area, Norway, the United Kingdom and the United States.

Sources: Bank of England, ECB, Federal Reserve, Norges Bank and the Riksbank

³ See, for example, the Economic Commentaries "How far can the repo rate be cut?" "How can government bonds purchases make monetary policy more expansionary?", "Effects of the Riksbank's government bond purchases on financial prices" for more discussion on the effects of the Riksbank's current monetary policy.

other currencies. If the international economic outlook deteriorates, growth in Sweden will also be affected. This may mean lower resource utilisation and that companies will, for longer than assumed in the forecast, continue to find it difficult to raise prices.

The unexpectedly large migration flows into Sweden may, in the short term, mean that demand and employment in the economy will be higher than in the forecast. In the longer term, labour supply may increase and hopefully lead to higher employment. Inflation can hence be affected both in the short and the longer term but quantifications are difficult to make at the present time.

In the prevailing environment, with low global inflation and very expansionary monetary policy both in Sweden and abroad, uncertainty about the development of the krona is especially high. For instance, it is uncertain how the expansionary monetary policy conducted by the Riksbank and the ECB will affect the relationship between the krona and the euro. In addition, recent turbulence on the foreign exchange markets and the uncertainty over when the Federal Reserve will start to raise rates. A more rapid appreciation of the krona exchange rate than forecast would dampen inflation and make it more difficult to stabilise it around the target.

Neither can it be ruled out that changes of a more long-term nature, such as increased competition, may lead to lower mark-ups over a transitional period and thus affect how quickly inflation rises.

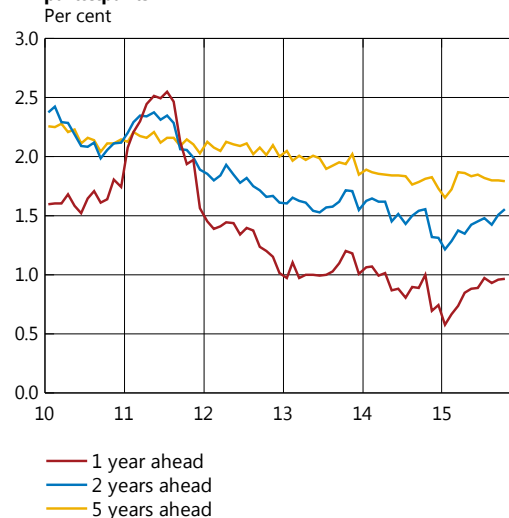
Were inflation to be lower than forecast, monetary policy may need to be made more expansionary, which is also reflected in the fact that the Riksbank has communicated its readiness to act. If, on the other hand, inflation were temporarily to exceed the Riksbank's forecast, this need not involve monetary policy being made less expansionary.

Risks linked to low interest rates

In recent years, inflation has been lower than the target of 2 per cent. At the same time, long-term inflation expectations have also fallen (see Figure 1:15). If prices were to continue to rise too slowly, inflation expectations may fall further and the Riksbank may then find it more difficult to stabilise inflation around the target.

It is important to safeguard the inflation target. A well-anchored inflation target makes it easier for households and companies to make well-founded economic decisions and lays the foundation for efficient price-setting and wage formation.

Figure 1:15. Inflation expectations among money market participants



Source: TNS Sifo Prospera

Important to safeguard the inflation target

The 1970s and 1980s were characterised by high average inflation and dramatic fluctuations in prices and wages. This made economic planning more difficult for all participants and created socioeconomic costs. The inflation target of 2 per cent was introduced with the aim of anchoring and stabilising the view of households and companies on future inflation trends. Although inflation has, at times, deviated from 2 per cent, the inflation target has functioned as a joint starting-point for the social partners in their negotiations since the end of the 1990s. It is clear that this has contributed to favourable economic growth in Sweden. Over the last 20 years, inflation has been low and stable while growth in GDP and real wages has been relatively high. Stable ground-rules and predictability reduce uncertainty and create stability in the economy (see also the article "Why is it important that inflation rises towards the target?", Monetary Policy Report, July 2015).

Low inflation also makes it more difficult to adjust real wages, which can lead to a rise in unemployment. Furthermore, too low an inflation rate and falling inflation expectations increase the risk of a situation developing in which households and companies postpone consumption and investment, with lower growth and higher unemployment as a result.

Prolonged low inflation leads to the average nominal rate of interest also being low for a long period. This increases the risks associated with low interest rates and highlights the need to push up inflation.

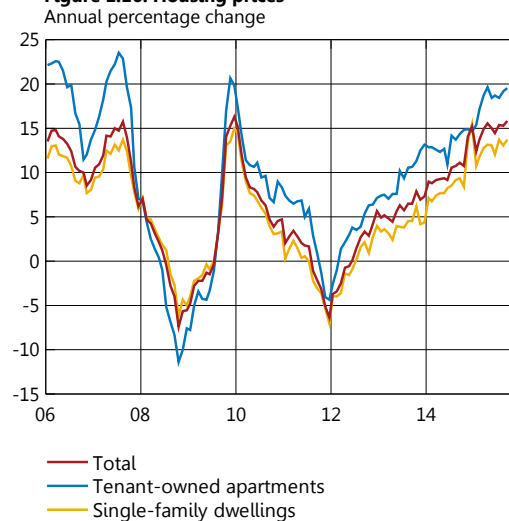
The risks of low interest rates

The aim of the low repo rate and the government bond purchases is to make inflation rise towards and remain around the target of 2 per cent. The measures reduce the risk of inflation remaining too low and long-term inflation expectations falling to levels which will make it more difficult to attain the target. At the same time, more expansionary monetary policy, both in Sweden and in other countries, has contributed towards increased risk-taking on the financial markets in recent years.⁴ Even if this increased risk-taking is an intended effect of the monetary policy being conducted with the aim of promoting real investment, household consumption and economic growth, it may also bring about greater vulnerability in the financial system if it leads to assets being overvalued and various types of risk not being fully priced.

The fact that the repo rate has been lowered to below zero and that certain market rates have become negative may, itself, pose a risk to certain financial markets. However, it is the Riksbank's assessment that the negative interest rate has not yet led to any impaired functionality in the financial system.⁵

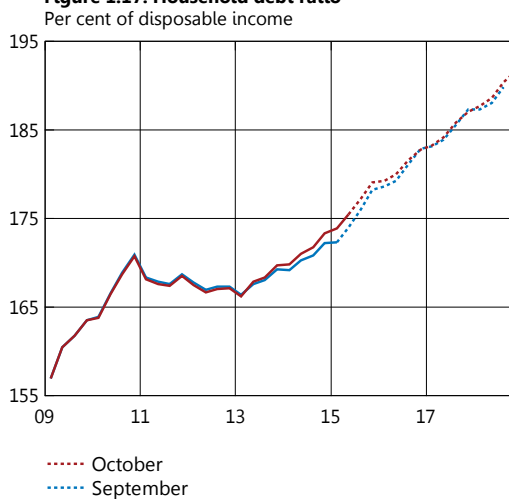
The low level of interest rates is also contributing to the continuing trend of rising housing prices and increasing household indebtedness (see Figure 1:16 and 1:17). If the economic outlook were to deteriorate, highly-indebted households might choose to increase their savings rapidly, thus reducing their consumption. In such a scenario, an economic slowdown could be heavily exacerbated, particularly if housing prices also start to fall.

Figure 1:16. Housing prices



Source: Valueguard

Figure 1:17. Household debt ratio



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

Sources: Statistics Sweden and the Riksbank

⁴ For more discussion, see for example 85th Annual Report, Bank for International Settlements.

⁵ See Financial Stability Report 2015:1, Sveriges Riksbank, for a discussion on how insurance companies are affected by a low interest rate and the various problems on the financial markets that are associated with negative interest rates.

Risks associated with household indebtedness must be managed

It is the Riksbank's assessment that monetary policy must remain very expansionary to ensure that inflation rises and stabilises around the target of 2 per cent. The monetary policy pursued aims to limit the risks of continued low inflation and stresses the aim of the Riksbank to safeguard the role of the inflation target as nominal anchor for price-setting and wage formation.

At the same time, the Riksbank has highlighted the potential risks of low interest rates on many occasions. Risks associated with household indebtedness must be managed by other policy areas, however. To reduce these risks it is the Riksbank's assessment that fundamental reforms are needed on the housing market in order to create a better balance between supply and demand. This would slow down the increase in house prices and thereby reduce indebtedness. It is also important to review the tax system in order to reduce the incentive for households to take on debt, for example a change to the tax relief on interest expenditure. The responsibility for such reforms lies with the Riksdag and the Government.

It is also of the utmost importance that the Government and the Riksdag bring clarification to Finansinspektionen's mandate for macroprudential policy. Finansinspektionen should be able to decide independently on macroprudential issues, since this is a prerequisite for pursuing an effective macroprudential policy. Regarding the need for macroprudential policy measures, the Riksbank feels that a legislative amendment making it possible to introduce an amortisation requirement is a step in the right direction. It is the Riksbank's assessment, however, that additional measures are needed to complement the amortisation requirement. A case in point is the introduction of a debt-to-income limit.

If no measures are taken, this, in combination with the low level of interest rates, will further increase the risks, which may potentially lead to raising socioeconomic imbalances and in the long term be very costly for the national economy.

CHAPTER 2 – Financial conditions

The financial conditions in Sweden are expansionary and are deemed to benefit growth. Swedish market rates are low and the banks are able to find funding cheaply, which is helping to keep interest rates for households and companies low. However, uncertainty surrounding developments in China and the global economy is still high, which has contributed to weaker demand for high-risk assets. However, stock exchanges have recovered following major falls in August as a result of expectations of continued expansionary monetary policy from the world's central banks. In competitiveness-weighted terms, the krona has strengthened and is somewhat stronger than the Riksbank's forecast in September.

Monetary policy and government bond yields

Unease over lower growth subduing expectations of rate rises

Much of the uncertainty that characterised the financial markets at the end of the summer remains. Demand for higher risk assets has indeed risen since the beginning of September but volatility remains at a relatively high level. This development is mainly due to uncertainty regarding the global economy and effects of the slowdown in China. This uncertainty has contributed to subduing interest rate rise expectations (see Figure 2:1).

At its interest rate meeting in September, the Federal Reserve chose to leave the policy rate unchanged. Uncertainty surrounding developments in China and the financial markets was deemed to risk subduing inflation in the United States. Despite some disappointment in recent months, the labour market has nevertheless improved and according to the Federal Reserve's forecast, the policy rate will be raised this year. Surveys show that many analysts anticipate an initial increase in December but according to forward pricing, the interest rate will most likely not be raised until 2016.

Table 2:1.

| Developments on financial markets since the September Monetary Policy Report | |
|--|---|
| Government bond yields | Lower government bond yields abroad but small movements in Sweden. The yield differential in relation to Germany has increased. |
| The foreign exchange market | In competitiveness-weighted terms, the krona is slightly stronger than the Riksbank's forecast. |
| The stock market | Some recovery after major falls in August. |
| Interest rates for households and companies | Financial market statistics show lower interest rates for households and companies in August. |

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, which 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.



At its meeting in October, the European Central Bank, ECB, indicated that it was ready to make monetary policy more expansionary. The financial markets have interpreted this communication as a clear signal that additional stimuli will be presented at the ECB's interest rate meeting in December and that it may be a question of both an extension of the current asset-purchasing programme and a lower deposit rate. Forward pricing indicates that the policy rate will be left unchanged for a longer period of time than previously expected (see Figure 2:1).

The Riksbank's decision in September, to keep the repo rate unchanged, was mostly expected but market rates rose slightly nonetheless following the decision. In the short term, market expectations according to forward pricing are basically in line with the interest rate path and continue to indicate some likelihood of a lower repo rate (see Figure 2:1). In the longer term, the Riksbank's new repo rate path will be lower than interest rate expectations according to forward pricing. According to the Riksbank's forecast, an initial rise will take place in the first half of 2017, while forward pricing indicates an interest rate rise towards the end of 2016.

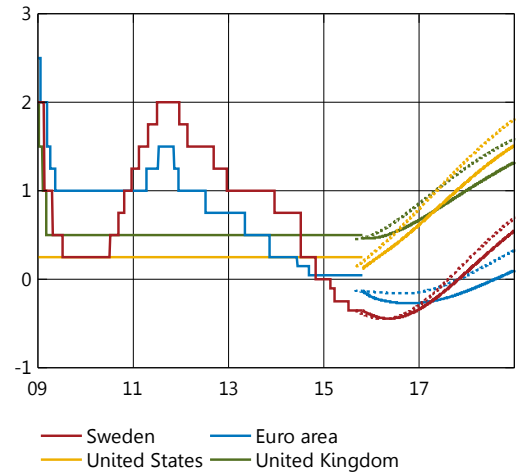
Lower government bond yields

The repo rate and monetary policy expectations have a major effect on the development of market rates in Sweden.⁶ But since Sweden is a small open economy, rates with longer maturities are also affected by global developments especially in the euro area and the United States.

Government bond yields abroad have fallen since the beginning of September (see Figure 2:2). Yields have fallen furthest in the euro area, where long-term yields, in both Germany and southern Europe, have declined by about 30–40 basis points. The decline is linked both to the general unease on the financial markets and to the ECB's communication suggesting that monetary policy can be made more expansionary. In the United States, yields on most maturities fell in conjunction with the Federal Reserve's decision not to raise the policy rate in September, and have continued to fall further.

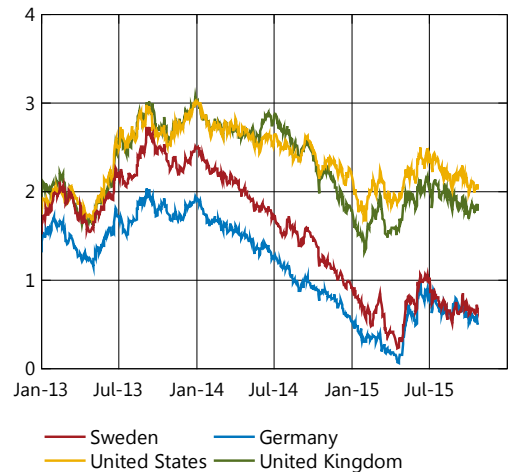
Movements have been less dramatic in Sweden. Short-term government bond yields, that are closely linked to the repo rate, have risen slightly while longer-term yields have remained basically unchanged. The fact that Swedish yields have not fallen in line with those abroad is linked, among

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



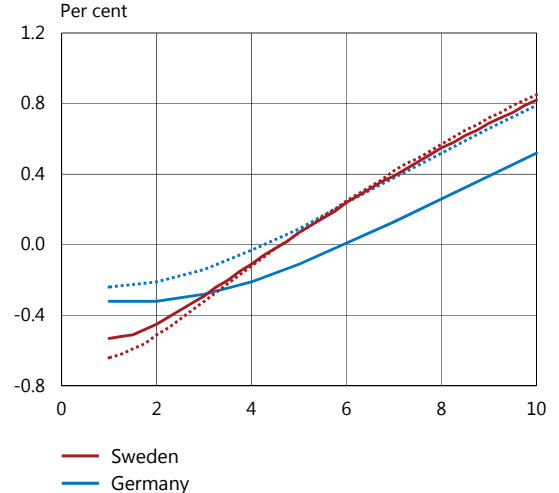
Note. Forward rates describe the expected overnight rate, which does not always correspond to the official policy rate. Unbroken lines are estimated 23 October 2015, broken lines 2 September 2015.
Sources: Macrobond and the Riksbank

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



Source: Macrobond

Figure 2:3. 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 23 October 2015, broken lines 2 September 2015.

Sources: Macrobond, Thomson Reuters and the Riksbank

⁶ See, for example, the Economic Commentaries "How far can the repo rate be cut?" "How can government bonds purchases make monetary policy more expansionary?", "Effects of the Riksbank's government bond purchases on financial prices" for more discussion on the effects of the Riksbank's current monetary policy.

other things, to the expectations of central government's increased borrowing requirement. This means that the yield differential in relation to Germany has increased both in the shorter-term and the longer-term segment (see Figure 2:3). The differential is still less than it was at the beginning of the year before both the ECB and the Riksbank decided to make monetary policy more expansionary (see Figure 2:4).

The foreign exchange market

Slightly stronger krona compared with the forecast in September

The substantial movements over the summer on the foreign exchange market have continued during the autumn. The movements are a result of a shift in expectations regarding the Federal Reserve and the ECB in particular, which has affected many currencies. In connection with the Federal Reserve's decision not to change the policy rate in September, the dollar weakened against the currencies of most developed countries but has since recovered. In conjunction with the ECB's interest rate meeting in October, the euro depreciated sharply which means that, all in all, the dollar has strengthened against the dollar since the beginning of September. At the same time the currencies of emerging market economies have stabilised. Many emerging market economies are being subdued by weaker growth prospects as a result of lower demand from China, falling commodity prices and weaker currency which increases debts for loans issued in other currencies.

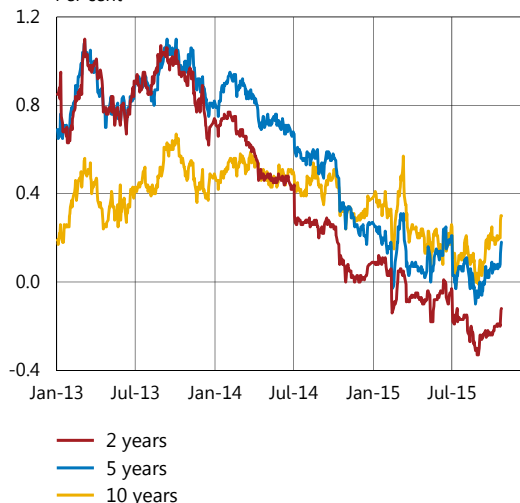
Since the beginning of September, the krona has appreciated in competitiveness-weighted terms and grown slightly stronger than predicted in the Riksbank's earlier forecast (see Figure 1:6). After the ECB's interest rate meeting, the krona has also depreciated against several currencies but appreciated slightly against the euro (see Figure 2:5 and 2:6). In competitiveness-weighted terms, the biggest contribution to a somewhat stronger krona comes from a strengthening against the euro while most other currencies have contributed to a weaker krona (see Figure 2:5).

Global asset prices

Stabilisation in the demand for high-risk assets

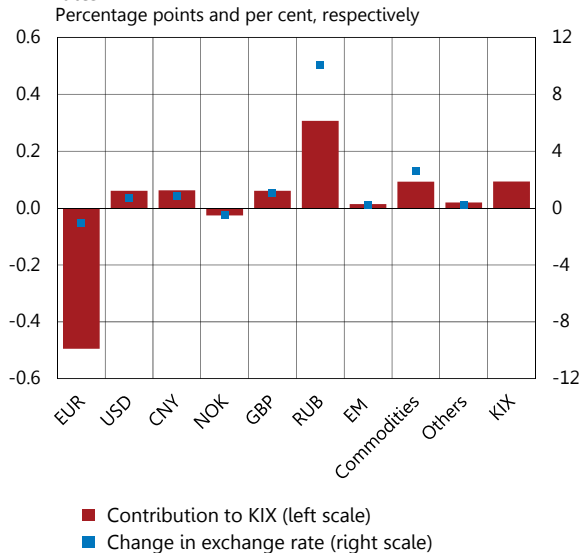
After major falls on global stock markets in August, a stabilisation has recently taken place (see Figure 2:7). In the United States and most emerging market economies, the stock exchanges have risen slightly while markets in Europe

Figure 2:4. Yield differential in relation to Germany
Per cent



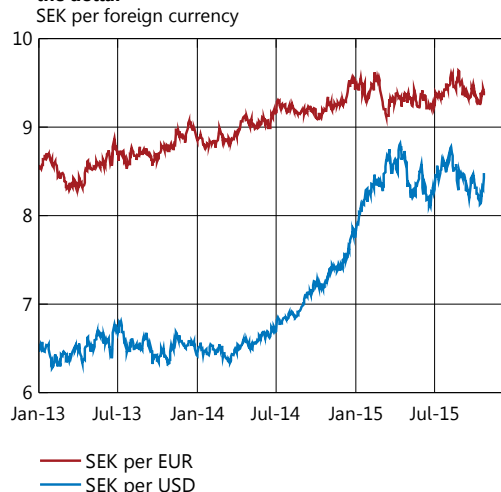
Note. The yield curve is zero coupon yields interpolated from bond prices in accordance with the Nelson-Siegel method.
Sources: Macrobond, Thomson Reuters and the Riksbank

Figure 2:5. Contributions and changes to KIX exchange rates
Percentage points and per cent, respectively



Note. The figure shows change in KIX and contributions from different currencies between 2 September 2015 and 23 October 2015. EM refers to Brazil, Hungary, India, Mexico, Poland and Turkey. Commodities refer to Australia, Canada and New Zealand. Others refer to Czech Republic, Denmark, Iceland, Japan, South Korea and Switzerland.
Sources: Thomson Reuters and the Riksbank

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



Source: Macrobond

and Sweden have been largely unchanged since the beginning of September. One explanation for the continued relatively weak growth is the uncertainty regarding the global economy and the effects of the slowdown in China. The large price falls on the commodity market have also ceased but prices remain close to levels last noted during the financial crisis. Most obvious is the fall in the oil price, which is deemed to be the result of both increased oil production and lower demand especially from China.

The credit market is also characterised by a lower demand for higher-risk assets, where yields on corporate bonds with lower credit ratings in particular have risen as a result of concern over a global slowdown.

Asset prices high from a historical perspective

Despite increased uncertainty in recent months, expansionary monetary policy and low interest rates have contributed to the reduction in expected yields on safe assets over a long period, and an increase in demand for higher-risk assets. Greater risk-taking is an intended effect of the monetary policy being pursued aimed at promoting real investment, household consumption and economic growth. But it can also create greater vulnerability in the financial system if it leads to assets being overvalued or different types of risk not being priced in full.

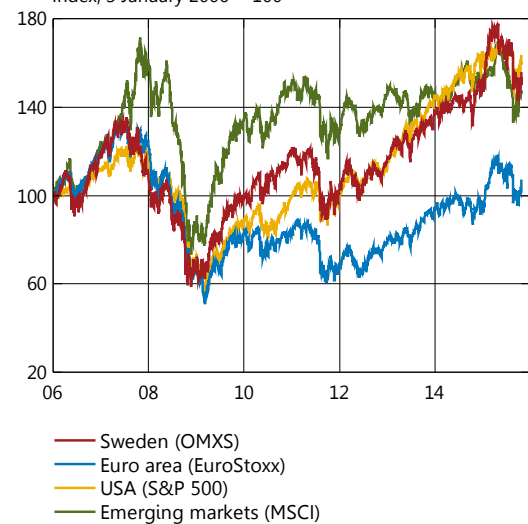
In Sweden and several other countries, equity prices have increased in recent years and are currently on approximately the same levels as before the financial crisis in 2008 (see Figure 2:7). High asset valuations are increasing the risk of rapid and considerable price movements on the asset markets if investors want to reduce their risk-taking and redistribute their asset portfolios. The recent movements on the financial markets may to some extent depend on greater sensitivity as a result of highly valued assets.

The financial situation for banks and companies

Banks are finding cheap funding despite a slight rise in costs

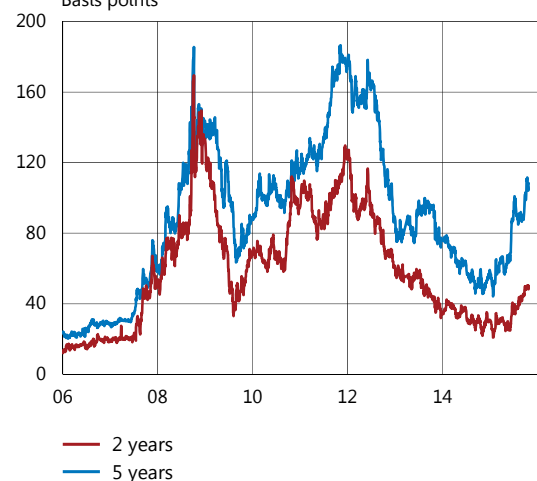
The conditions for bank lending remain favourable. The banks' borrowing costs are low and the assessment is that Swedish banks are finding it easy to obtain funding. Mortgage bond yields have not fallen to the same extent as government bond yields, however, leading to an increase in the yield differential between these during the year (see Figure 2:8). Part of the yield differential upturn can probably

Figure 2:7. Stock market movements
Index, 3 January 2006 = 100



Sources: Macrobond and Thomson Reuters

Figure 2:8. The yield differential between mortgage bond and government bond yields
Basis points



Note. Mortgage bond and government bond yields are zero coupon yields interpolated from bond prices using the Nelson-Siegel method.

Sources: Macrobond and the Riksbank

be explained by the increased uncertainty which has contributed to higher credit risk premiums, in line with international developments. The Riksbank's purchases of government bonds are also deemed to have contributed to the increased yield differential.

The banks have also elected not to let deposit rates for households and most of their corporate customers become negative, which has reduced the banks' deposit margins during the year. However, this has been compensated by higher lending volumes and higher revenues from securities trading commissions. The banks have also raised their lending margins on mortgages in recent years. This is because they have not decreased their lending rates at the same pace as their borrowing costs have fallen.

The increased lending from the banks is also reflected in the money supply, the growth rate of which has risen sharply over the past twelve months (see Figure 2:9). In August, the annual growth rate in the broader measure, M3, was 7.7 per cent.

Slowdown in the growth rate of corporate bank loans

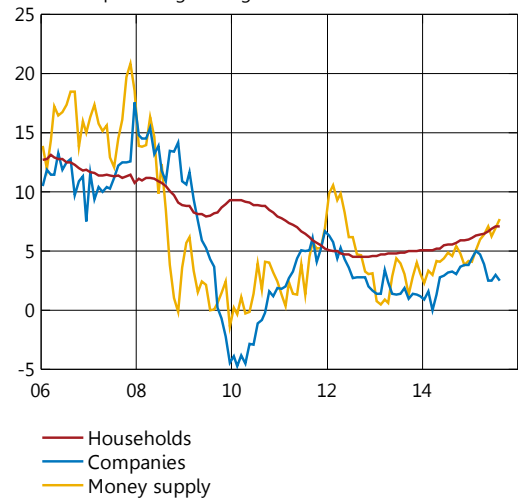
Companies also seem to be finding it easy to obtain funding. According to the Economic Tendency Survey, the funding conditions for small companies in particular have improved during the year. All in all, lending rates to companies have fallen in line with the repo rate over the last twelve months. This is despite a certain upturn in recent months compared with the lending rates offered to companies during the spring. In August, the average interest rate on new loan agreements was 1.5 per cent (see Figure 2:10).

Similar to developments on the international credit market, yields on Swedish corporate bonds have increased. Many companies are however continuing to borrow more cheaply on the bond market than via bank loans, which is deemed to have contributed to an increase in market funding despite an upturn in interest rates. In August, the annual growth rate for bank loans was 2.5 per cent (see Figure 2:9) while bond borrowing rose by 7.2 per cent. All in all, companies' borrowing on the bond market and from banks has been relatively stable in recent years with an annual growth rate of around 5 per cent.

Households borrowing more at lower rates

Households continue to borrow at very low interest rates. During the year, the average mortgage rate has been adjusted down in line with the repo rate and was noted in August at 1.6 per cent for new agreements (see Figure 2:10). At the same time, banks' borrowing to households

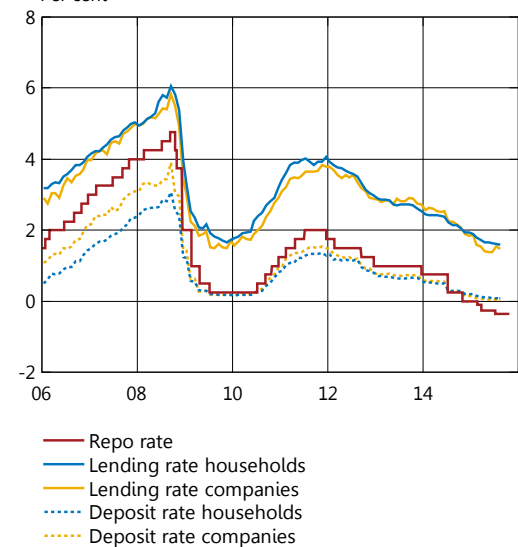
Figure 2:9. Bank lending to households and companies
Annual percentage change



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 2:10. Repo rate together with the deposit and lending rate to households and companies, new contracts
Per cent



Note. MFIs' average deposit and lending rates for households and companies.

Sources: Statistics Sweden and the Riksbank

continues to rise. In August, the annual growth rate was unchanged at 7.1 per cent (see Figure 2:9). Mortgages, which make up about 80 per cent of the household loan stock, continued to increase at a faster rate. This development can largely be explained by rapidly rising housing prices. In September, housing prices, expressed as an annual percentage change, increased by 20 and 14 per cent respectively for tenant-owned apartments and houses. According to SEB's housing price indicator, a majority of households believe that housing prices will continue to rise, but the percentage in October fell in comparison with the previous month.

CHAPTER 3 – The current economic situation

The assessment of the current economic situation and of recent developments forms the basis for forecasts in the slightly longer term. Inflation is continuing to rise from a low level, although at an uneven rate. Recovery in the global economy is continuing even though the slowdown in the Chinese economy is burdening many countries. Following a period of high Swedish growth, indicators suggest that GDP is growing at a slower rate during the second half of 2015. Even though unemployment has continued to fall, the decline is expected to slow down by the end of the year and resource utilisation in the Swedish economy is expected to remain slightly lower than normal.

Inflation

Broad rise in inflation

Since the autumn of 2014, different measures of underlying inflation, such as the CPIF excluding energy, have taken an upward turn.⁷ The annual rate of increase in the CPIF excluding energy increased in line with the Riksbank's previous assessment, from 1.4 in August to 1.8 per cent in September (see Figure 3:1). This is the highest figure since June 2010. The upturn can be explained by faster rates of price increase for food, goods and services (see Figure 3:2).

Households also still have comparably low energy costs and interest expenditure, which has dampened CPI and CPIF inflation over the last few years. The annual rate of increase in the CPI and CPIF is therefore somewhat lower than the rate of increase in the CPIF excluding energy (see Figure 3:1). In September, the weak development of energy prices and interest expenses meant that CPI inflation was nearly 1.7 percentage points lower than CPIF inflation excluding energy.

The rise in underlying inflation has been relatively broad, with increasingly rapid rates of price increase for food, goods and services. The weakening of the krona seen in recent years is key to explaining this upturn, with prices rising mainly for imported goods and services. Recently, however, there have been signs that domestic demand is also contributing to the upturn. For example, prices for certain services, including hotels and restaurant visits along with vehicle maintenance and repairs have been rising. Prices for a lot of domestically-produced food are now rising faster than last year.

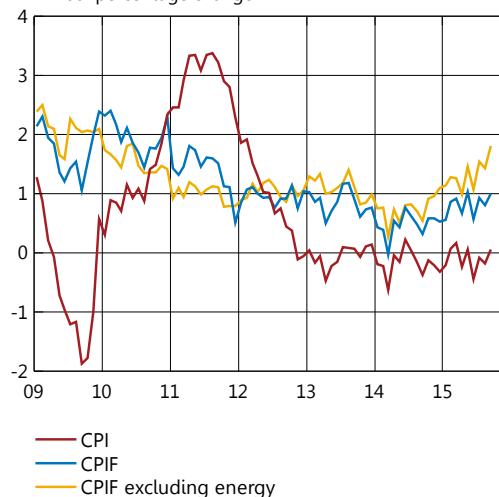
Various indicators point towards prices continuing to rise at roughly the same rate towards the end of 2015. Prices of consumer goods in the production sector are increasing compared to the same period last year, even if the rate of increase has reduced slightly compared to the beginning of

Table 3:1.

| Expected development in September MPR | Actual development |
|--|--|
| CPIF inflation 1.0 per cent in September, higher than in August. | In line with forecast, CPIF inflation 1.0 per cent in September. |
| GDP growth 4 per cent in the second quarter. | Slightly higher than expected, GDP growth revised to 4.6 per cent in the second quarter. |
| 7.5 per cent unemployment in the third quarter, lower than the second quarter. | Lower unemployment than expected, 7.2 per cent in the third quarter. |
| GDP growth in the euro area 1.2 per cent in the second quarter. | Marginally stronger than expected, GDP growth revised to 1.4 per cent in the second quarter. |
| GDP growth in the US 2.3 per cent in the second quarter. | Stronger than expected, GDP growth revised to 3.7 per cent in the second quarter. |

Note. Monetary Policy Report (MPR). The CPIF is the CPI with a fixed mortgage rate. CPIF inflation measured as annual percentage change. GDP growth refers to the quarterly change in per cent, calculated as an annual rate.

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

⁷ The CPIF excluding energy is published by Statistics Sweden from September 2015 onwards.

the year. In the Economic Tendency Survey, many companies have stated that they have raised their prices in recent times and a higher than normal proportion of companies within the retail sector are expecting to raise prices in the coming months. This is also reflected in the Riksbank's business survey, in which the majority of retail companies believe that prices will continue to rise, mainly as a result of rising purchasing costs.

Model forecasts can be used to summarise the information in different indicators. Figure 3:3 shows such a forecast for the CPIF excluding energy.⁸ Taking the recent increases in producer prices and the exchange rate, the model predicts that inflation will be roughly unchanged in the coming months. The Riksbank's forecast is in line with the model forecast for the coming six months.

Household energy costs are expected to continue dampening CPI and CPIF inflation for some time to come. Falling interest expenditure is contributing to subdue CPI inflation further. However, the negative effects of inflation on energy prices and interest expenditure are expected to decline in the coming months, thereby contributing to a faster upturn in CPIF and CPI inflation.

Inflation expectations slightly below 2 per cent

Household and corporate expectations of future inflation are central to inflation growth in the slightly longer term. As with inflation, short-term inflation expectations have been low during the past few years, but have risen this year. Long-term inflation expectations have also been subdued and are slightly lower than the inflation target. According to Prospera's monthly survey for October, inflation expectations were largely unchanged, and looking five years ahead inflation is expected to be 1.8 per cent (see Figure 1:15). According to the Economic Tendency Survey for September, the one-year inflation expectations of households rose slightly to 1.9 per cent.

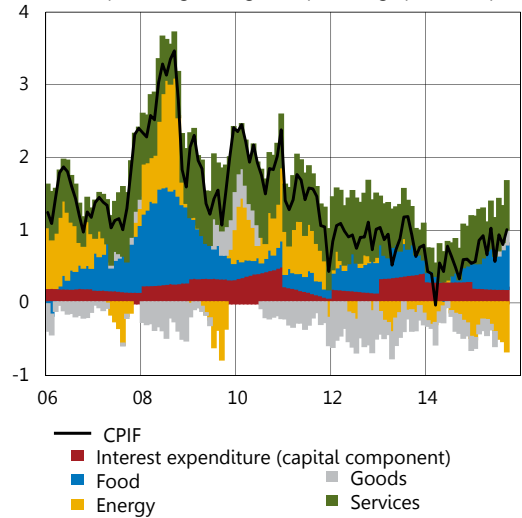
Global and Swedish economic activity

Rising growth in more developed countries

GDP growth in the global economy is continuing at a moderate rate, with major regional differences. The ongoing slowdown in the Chinese economy, which accounted for around a third of global growth last year, has had tangible effects on many countries. Exports from many of China's neighbours, such as Japan, South Korea and Singapore, have been negatively affected by reduced Chinese demand.

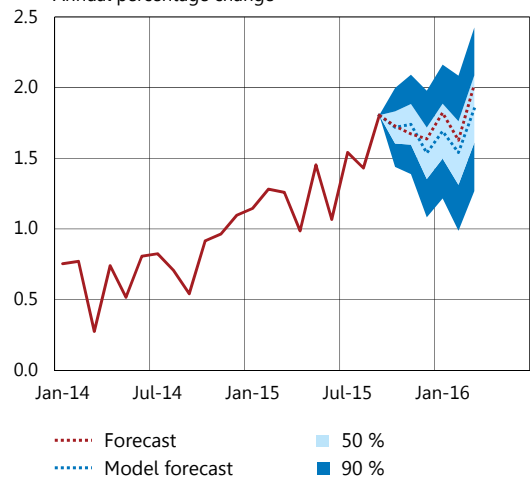
⁸ The model uses time series with monthly data for producer prices, the exchange rate and commodity prices to generate forecasts for the CPIF excluding energy.

Figure 3:2. CPIF and contributions to CPI-inflation
Annual percentage change and percentage points, respectively



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

Figure 3:3. Model forecast CPIF excluding energy with uncertainty bands
Annual percentage change



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

Figure 3:4. World trade volume
Index, 2011 = 100



Source: CPB Netherlands Bureau for Economic Policy Analysis

China's reduced demand for commodities has led to lower commodity prices, which has benefited countries with major commodity exports but had a negative effect on growth in commodity-producing countries. Recent statistics in China are hard to interpret due to various temporary factors and questions surrounding the reliability of the statistics. The Riksbank's assessment is that growth in the Chinese economy will decline slightly further during the second half of 2015.

The consumer-led recovery in many of the more developed economies has continued and been slightly stronger than expected. Growth has been supported by improvements to the labour market and favourable developments in real incomes, among other things. Despite signs of weakness on the American labour market in September, unemployment continues to be low and amounted to 5.1 per cent in September. The euro area's exports have so far held up relatively well as falling demand from China has been partially compensated by higher demand from the United States, for example. Some market segments and countries are being hit harder, however. Germany is exposed to China via considerable exports of cars and industrial goods. In August, industrial production in Germany fell sharply, while exports were also unusually weak. The slowdown in Chinese demand has not however left a major mark on German companies' confidence in Germany's economic growth.

In Norway, which represents one of Sweden's biggest export markets, economic activity has clearly dampened this year as a result of reduced investment in the oil industry. Even though private consumption has continued to grow, unemployment is rising and indicators point to consistently low GDP growth over the coming quarters.

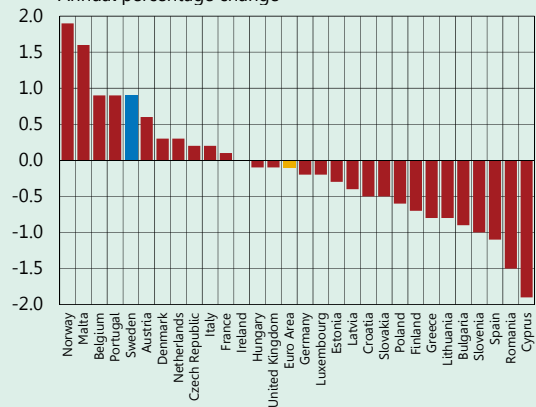
Inflation remains low among many of Sweden's most important trading partners, but is expected to rise slightly soon as the direct effects of last year's fall in oil prices on inflation wear off. Low levels of resource utilisation have contributed to underlying inflation remaining low in many countries, when the more volatile energy and food prices are discounted.

The slowdown in China and reduced levels of investment in many countries have contributed to global trade decreasing between January and May this year. A certain level of recovery can be noted during June and July, however (see Figure 3:4). Global trade is assessed to rise gradually over the next year as the recovery in the global economy continues. Monthly statistics for Swedish foreign trade and export orders according to the Economic Tendency Survey and purchasing managers' index together

Swedish inflation high from a European perspective

The prolonged recession in Europe means that many European economies are still characterised by large quantities of spare capacity and low inflation. Measured by the EU-harmonised index for consumer prices (HICP), European inflation has grown more strongly during 2015, but prices fell again slightly in September. In contrast to 2011–2014, Sweden has in 2015 seen a faster increase in the HICP than most other European countries (see Figure 3:5).

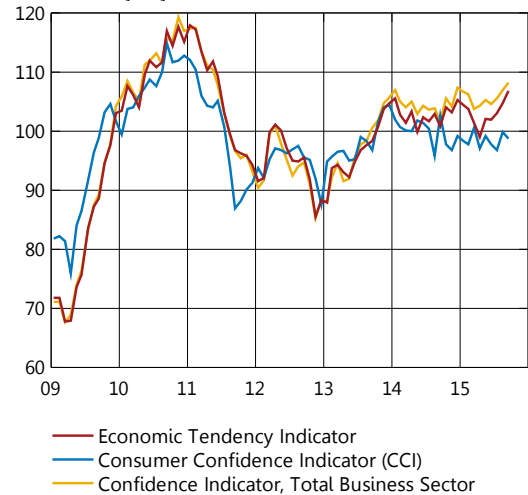
Figure 3:5. HICP in the EU countries and Norway
Annual percentage change



Note. The figure shows the percentage change in HICP between September 2014 and September 2015.
Source: Eurostat

Figure 3:6. Confidence indicators

Index, average = 100, standard deviation = 10, seasonally-adjusted data



Source: National Institute of Economic Research

indicate that Swedish exports will grow during the second half of this year at a normal rate, historically speaking.

Reduced Swedish growth during the third quarter

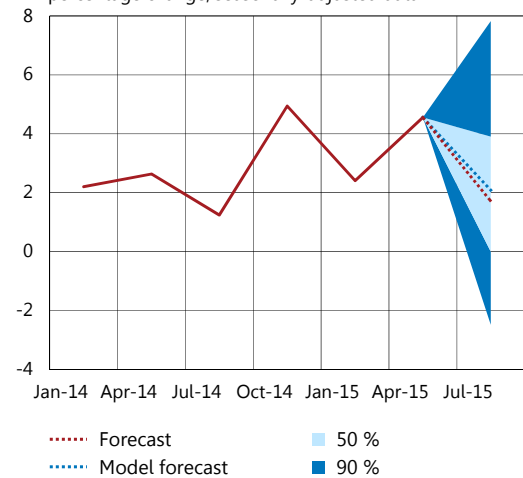
Swedish GDP grew by around 4.5 per cent during the second quarter when compared with the previous quarter and calculated as an annual rate. This growth was principally due to an increase in domestic demand. Foreign trade also contributed to growth of course, but this was to a significant extent due to a decline in imports.

Confidence indicators and monthly statistics for demand and production paint a mixed picture of growth during the third quarter and of the outlook for the fourth quarter. The National Institute of Economic Research's Economic Sentiment Indicator increased in September for the third month in a row and is in line with indicators for the different parts of the business sector, at a level which exceeds the historical average (see Figure 3:6). At the same time, the indicator for household confidence weakened and is now slightly below a historical average. The purchasing managers' index for the manufacturing industry was practically unchanged, while the index for the service sector increased again in September. However, both of these indicators are still near a historical average. According to the Riksbank's business survey from September, uncertainty surrounding economic developments is greater than in the corresponding survey conducted in May, and the outlook for the economic situation in 6 months is somewhat more pessimistic. Monthly statistics for the retail sector and household consumption also indicated more subdued growth during the third quarter. Business sector output recovered to an extent in August after having grown weakly in July.

Companies' build-up of stocks has been low in relation to demand during the first half of the year. A more normal build-up of stocks is expected during the second half of the year, which will make a positive contribution to GDP growth. At the same time, imports are growing faster after weak growth during the second quarter, which is supported by monthly statistics for foreign trade in goods in July and August.

The Riksbank uses different statistical models to summarise the information in a large number of GDP growth indicators from the most recent quarters.⁹ The Riksbank's forecast for the coming quarters is based, in addition to model-based forecasts, on assessment-related

Figure 3:7. Model forecast GDP with uncertainty bands
Quarterly changes in per cent, calculated as an annual percentage change, seasonally-adjusted data



Note. The model forecast is an average of forecasts from different statistical models. The uncertainty bands are based on the models' historical forecasting errors.

Sources: Statistics Sweden and the Riksbank

Sharp increase in asylum immigration – how will the economy be affected?

The wars in the Middle East have led to a major humanitarian disaster. This has led to a large increase in the number of people fleeing their homes and seeking protection in Europe. The Swedish Migration Board has therefore doubled its forecast in the last few days regarding the number of people expected to seek asylum in Sweden this year, and has also adjusted its forecast for next year upwards. The situation is exceptional and entails a major challenge for the presently under-dimensioned Swedish reception system.

It is too early to judge what the macroeconomic effects of the increased immigration will be. Developments will partly depend on what political solutions are realised in Sweden and in Europe. This significant increase in immigration could affect growth positively in the short term, as more people will contribute to increasing demand for food, housing, education and care, among other things. The net effect on demand is hard to assess, however. The increased public expenditure could mean a heightened need for future tax increases in local authorities. This could negatively affect consumption and confidence in economic developments.

In the longer term, an increased number of persons in the working-age population is positive for a country's growth potential. A precondition for this, however, is that the labour market functions efficiently and new arrivals can establish themselves quickly (see the article "Migration – opportunity and challenge" in chapter 4).

⁹ The models use monthly data from surveys, the Economic Tendency Survey and purchasing managers' index as well as monthly data for production and demand in order to generate forecasts for GDP growth compared with the most recent quarter.

factors that the models cannot be expected to take into consideration. Once developments in indicators are taken into account, the models indicate all in all that growth was slightly subdued in the third quarter compared with the second quarter (see Figure 3:7). The forecast for GDP growth in the third quarter is in line with the model forecast.

All in all, GDP growth is subdued following the strong growth in the second quarter, and GDP is expected to grow by around 3 per cent on average during the third and fourth quarters, when compared with previous quarters and calculated at an annual rate.

Continued demand for labour

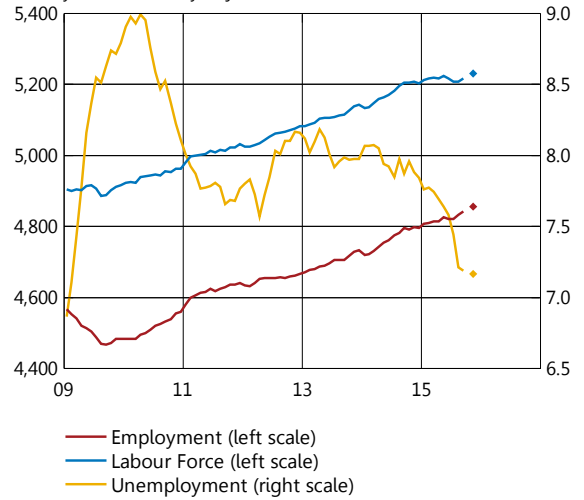
The number of employed rose rapidly during the third quarter, but the labour force remained largely unchanged. All in all this means a considerable decline in unemployment, which in seasonally-adjusted terms reduced by 7.2 per cent in the third quarter (see Figure 3:8).

Indicators for growth on the labour market, such as the number of redundancy notices and the number of new job vacancies from Arbetsförmedlingen, the Swedish Public Employment Service, indicate that employment will continue to grow in the coming period, but at a slightly slower rate than during the third quarter (see Figure 3:9). Other indicators, such as companies' recruitment plans according to the Economic Tendency Survey, also support this assessment. The labour force is assessed to grow at roughly the same rate as employment during the fourth quarter. Unemployment will therefore remain at largely the same level following the decline seen during the third quarter (see Figure 3:8).

Resource utilisation increasing slightly during the second half of the year

The Riksbank's RU indicator, which is a summarising measure of a range of indicators for resource utilisation, has continued to rise during 2015. However, it still remains lower than a historical average (see Figure 3:10). The upturn in the RU-indicator seen in recent years can be explained in part by the fact that companies are stating that labour shortages have slightly increased. Statistics Sweden's measure of the industrial sector's capacity utilisation has continued to rise throughout 2015 and is somewhat higher than the historical average. Overall, resource utilisation in the Swedish economy is expected to increase slightly in the second half of 2015. The continuing increase in resource utilisation will contribute to the rise in inflation in the period ahead.

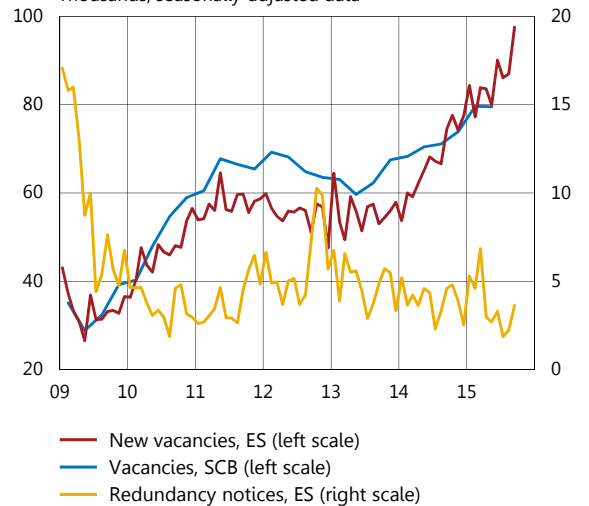
Figure 3:8. Employment, labour force and unemployment
Thousands of people and percentage of labour force, 15-74 years, seasonally-adjusted data



Note. Three-month moving average. The dots represent forecasts for the fourth quarter 2015.

Sources: Statistics Sweden and the Riksbank

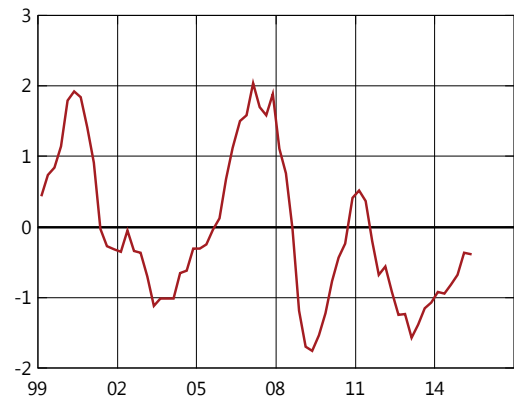
Figure 3:9. Labour market indicators
Thousands, seasonally-adjusted data



Note. Vacancies are quarterly data, new vacancies and redundancy notices are monthly data.

Sources: Employment Service (ES) and Statistics Sweden (SCB)

Figure 3:10. 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

The recovery in the global economy is continuing. However, uncertainty surrounding the strength of the global recovery remains due to signs of weakness in many emerging market economies. Global inflation is rising slowly as underlying cost pressures increase. Rising demand abroad is contributing to a stronger and broader economic upswing in Sweden. GDP is expected to increase slightly more than the historical trend, and resource utilisation is gradually rising. Employment is continuing to grow, but unemployment will only fall slowly over the coming years as a result of a rising labour supply. The rise in inflation, which has so far been largely attributable to a weakening of the krona, will be driven to an increasingly large extent in the future by stronger economic activity in Sweden and rising prices internationally. Inflation is expected to rise somewhat more slowly compared with the Riksbank's previous assessment in September, however.

International developments

Gradual recovery in the global economy

The recovery in the global economy is continuing, but the rate is relatively slow and there are considerable regional differences. Underlying growth is hampered by an ageing population, weak productivity growth and a continued need for debt consolidation in many countries. Structural weaknesses both in the euro area and in numerous emerging market economies are also contributing to holding back growth (see Figure 4:1). Low commodity prices represent an obvious stimulation for a number of developed countries, but also contribute to subduing economic activity in many emerging market economies.

Growth is continuing to strengthen in Europe and the United States

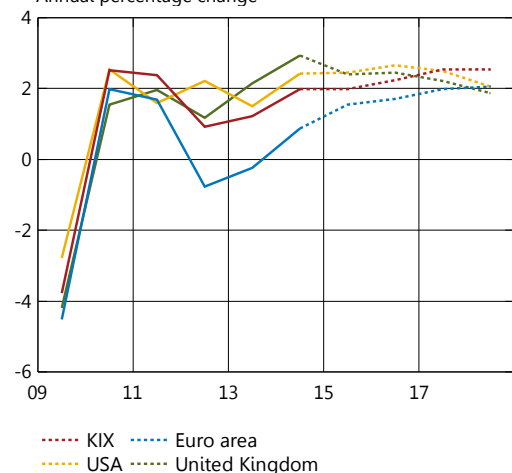
The recovery has continued in developed countries, and in the period ahead, GDP growth is expected to strengthen with the support of expansionary monetary policy, low oil prices and slightly less strict fiscal policy. The US economy is expected to continue to grow at a relatively good rate with robust consumption as the main driver. The recovery in the euro area is also gradually strengthening as improvements to the labour market continue and lending works increasingly well. The relatively stable recovery which has taken place so far this year, despite flaring concerns in Greece, indicates that the upturn in the euro area is more resilient than before. Once the recovery has gained a solid foothold, growth can gradually increase throughout the entire forecast period without any obvious restrictions from the supply side.

The economic upswing in the United States has been under way for a relatively long time, but the rate of recovery has been slower than during previous upswings. Revised

Table 4.1.

| The forecast in brief |
|---|
| Global growth and resource utilisation are increasing and inflation is on the rise. |
| Continued uncertainty over growth in emerging market economies. |
| Domestic demand in Sweden is continuing to grow at a good rate, supported by strong consumption from both households and in the public sector. |
| GDP growth is broadening as demand from abroad strengthens, and exports and business sector investment pick up pace. |
| The improvement on the labour market is continuing and employment is rising. The labour force is also growing, but at a somewhat slower pace than before, and unemployment is falling slowly. |
| Rising inflation abroad and stronger economic activity in Sweden contribute to a continued upturn in inflation. However, this upturn is deemed to be somewhat slower than in the previous forecast. |

Figure 4.1. Growth in various countries and regions
Annual percentage change



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

GDP statistics indicate that the underlying growth rate in the United States is somewhat lower than had previously been assumed. GDP growth is expected to peak next year and then fall slowly back when resource utilisation becomes more strained and monetary policy gradually returns to normal.

Concern has risen recently that the US Congress will not manage to reach an agreement on raising the debt ceiling as a result of disagreement within the Republican Party, among other issues. The Riksbank's forecast is based on such an agreement taking place before the deadline expires, thereby eliminating the threat of budget chaos.

Effects of the refugee crises hard to assess

More people than ever before have fled their homes and are seeking protection in Europe as a result of the humanitarian catastrophe. This is contributing to increased uncertainty about future developments, but it is too early to assess what the macroeconomic effects of this increased immigration will be. For Germany, which has so far taken in a large proportion of the refugees, an increase in the number of working age people is a welcome boost to a labour market with a growing labour shortage and fewer people of working age. However, both Germany and other European countries face considerable challenges when such a large number of newly-arrived refugees are to establish themselves on the labour market. It will likely be several years before it is clear how well these countries have succeeded in this. In the short term, a relatively positive effect on GDP can be expected following the increased refugee immigration via both higher private and public consumption. The increase in public expenditures in the short term could ultimately lead to a greater need for tax increases and/or cuts in expenditures in other areas. At the same time, a discussion within the European Union is looking at whether the current exceptional situation could lead to a less strict interpretation of the EU's budget rules and whether fiscal policy in Europe should therefore become somewhat more expansionary.

Uncertainty about emerging market economies

While GDP growth in developed countries has strengthened roughly in line with the assessments in the previous monetary policy report, uncertainty remains about the outlook for emerging market economies. The weakening in these countries is founded on both country-specific problems and factors common to many countries. Uncertainty about the effects of the anticipated normalisation of monetary policy in the United States,

combined with a more negative view of underlying growth prospects, has led to capital outflows in many emerging market economies. In many of these countries, the level of private indebtedness has increased sharply in recent years. Countries with extensive borrowing in dollars are particularly exposed. The burden of debt in these countries has risen sharply as the dollar has appreciated. Commodity-producing countries have also been negatively affected by the recent fall in commodity prices.

One example of a country-specific factor is the tightening fiscal policy and the political instability in Brazil. Another is Russia's increasingly poor investment climate and high inflation - partially worsened by sanctions and counter-sanctions between Russia on one side and the United States and EU on the other. These tensions also represent an additional uncertainty factor, not least in terms of the conflict in Ukraine which is at risk of deteriorating.

There are also countries such as India which show a stable development and where robust growth is expected to continue thanks to strong consumption and major public investment. India also benefits from the low oil prices.

Gradual slowdown the most likely scenario for China

The greatest uncertainty factor in the global economy is linked to growth prospects for China. Different indicators are giving mixed signals about both the underlying strength of the economy and how the readjustment of the economy is advancing towards a more consumption-driven growth. Tackling the imbalances in the housing market and the high levels of corporate debt is crucial in order to achieve more sustainable growth in China.

The Riksbank's assessment is that the Chinese authorities have the tools and ability to counteract any negative shocks with a more expansionary policy, and that growth will therefore only gradually slow down. In addition, it is assumed that reforms will be implemented to support the ongoing readjustment of domestic demand from investment to consumption. Even if growth slows gradually in this manner, where demand is driven to a greater extent by services and consumer goods rather than commodities and investment goods, this will inherently entail a certain slowdown of growth contributions to global trade.

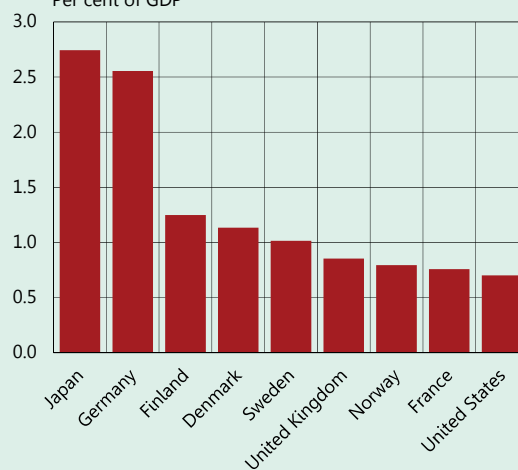
All in all, global growth is expected to rise from 3.1 per cent in 2015 to 3.6 and 3.8 per cent respectively over the next two years. This is a marginally weaker growth compared with the previous assessment carried out for the MPR in September. KIX-weighted GDP, which more accurately reflects growth in those countries most important for the Swedish economy, is expected to grow by

Numerous risks to growth in China

A central issue regarding the Chinese economy is how well the authorities will succeed in readjusting the economy away from dependency on investments in favour of consumption. Another important question is how the imbalances on the housing market will be managed. Levels of housing construction in China are seen as high from both a historical perspective and when making international comparisons. As a result, the number of unsold homes has notably increased. In recent years, credit growth in the corporate sector has also grown rapidly. Indebtedness is therefore now high in comparison to other countries with similar income levels. Credit growth has been particularly rapid in state-owned companies and in the property sector, or in other words the exact parts of the Chinese economy which have problems linked to overcapacity. Experiences in other countries with similar credit growth patterns show that such periods are often followed by a longer period of weaker economic growth and/or financial crises.

One risk is that the necessary adjustment of housing construction and debt occur in an uncontrolled manner and trigger a hard landing of the Chinese economy. This would have notable effects on the global economy, principally via effects on global trade. Weaker growth in China would mainly hit neighbouring countries in Asia, but there would also be notable effects on commodity-producing countries. Countries with major exports of goods to China, such as Germany, would also likely be hit relatively hard (see Figure 4:2). Another likely effect is that inflation abroad would fall as a result of lower commodity prices when China's demand fell in that area. Lower prices for imported goods and services from China could also be expected, particularly if the Chinese currency weakened.

Figure 4:2. Export of goods to China, 2014
Per cent of GDP



Sources: National sources

2 per cent this year. KIX-weighted growth will then rise to just under 2.5 per cent in subsequent years. This increase is mainly due to gradually stronger growth in the euro area.

Weak growth in Norway and Finland

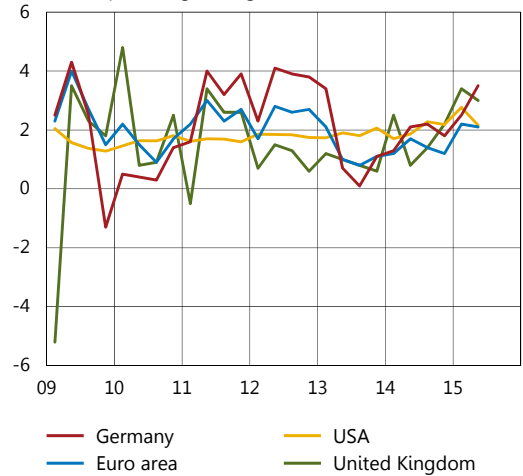
The Nordic region is contributing relatively little to KIX-weighted GDP growth as a result of weak growth in Norway and Finland. The negative growth impulses to the Norwegian economy caused by low oil prices, principally due to falling investment in the oil sector, can be partially counterbalanced by more expansionary fiscal and monetary policy, according to the assessment. Growth is however expected to remain below the trend level throughout the forecast period. The Finnish economy, which is struggling with structural problems within the telecommunications sector and paper industry along with unfavourable demographics, has contracted for three years in a row. Finland is expected to come out of this protracted recession, but in the short term, domestic demand is being held back by measures aiming to restore competitiveness and improve public finances.

Higher wage increases contribute to gradually rising inflation abroad

Inflationary pressures abroad are still low. Inflation is around zero in many developed countries. Even if we exclude volatile components such as energy and food, inflation is still low. At the same time, resource utilisation on the labour market has clearly risen in several countries, including the United States, United Kingdom and Germany, and is now around normal levels. Signs are appearing in these countries that wage increases are on the rise from low levels, even if different statistical sources are sending out conflicting signals. The upturn has been most obvious in the United Kingdom and Germany, while the recovery in the United States has been slower and more gradual (see Figure 4:3). Wage increases in Germany are expected to exceed 3 per cent this year as a result of the implementation of a statutory minimum wage, among other reasons. In the rest of the euro area however, there are few signs of an upturn in the rate of wage increases, and high unemployment means that such an upturn is also likely to take time. Wages are also growing weakly in neighbouring Nordic countries.

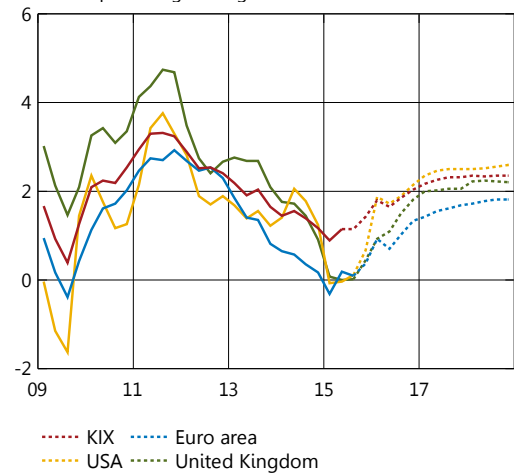
As unemployment abroad continues to fall, the rate of wage increases is expected to rise gradually in the period ahead. When underlying cost pressures rise, prices also increase at a faster rate. Stronger economic activity and higher demand provide more scope for companies to raise their prices. The KIX-weighted inflation rate is expected to

Figure 4:3. Wages abroad
Annual percentage change



Sources: Bureau of Labor Statistics and Eurostat

Figure 4:4. 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

rise from 1.2 per cent this year to 2.3 per cent during the forecast period (see Figure 4:4). This is a somewhat slower upturn in inflation compared with the forecast in September, due principally to a new inflation assessment in the United States.

Sweden

Recovery abroad contributes to a broader economic upturn in Sweden

Strong growth in household incomes and wealth along with increased housing construction have been important driving forces behind the Swedish economy's growth in recent years. At the same time, the prolonged recession among many of Sweden's trading partners has marked international demand and had a dampening effect on Swedish exports and investment.

The international recovery is expected to strengthen in the years ahead, along with demand for Swedish exports as demand increases for Sweden's export markets (see Figure 4:5). Growth in imports will also rise when the components of demand with high import content, such as exports and investment, increase at a faster rate.

Despite some indicators pointing to slightly more subdued growth in the near future, several other factors indicate consistent and stable growth in consumption over the coming years. The labour market will continue to improve and contribute to good growth in income. Rising asset prices over the past few years have also strengthened household wealth. High levels of savings from the outset also point to solid consumption growth in the future (see Figure 4:6).

Low interest rates and good borrowing options also mean that financial conditions are favourable for both households and companies. Companies' investment needs are also expected to rise as a result of stronger export growth. At the same time, investment in housing is high to start with, and as the rate of increase is expected to be subdued in the future, it will therefore contribute less and less to GDP growth.

The proposals in the autumn Budget Bill, along with measures already adopted, mean that the Government will fully implement financed reforms worth SEK 52 billion in 2016. A number of these reforms, along with demographic developments, will contribute to a relatively strong increase in public consumption in the coming years. Funding this via higher taxes will subdue growth in household income. Most of the Government's reforms in the Budget Bill have been

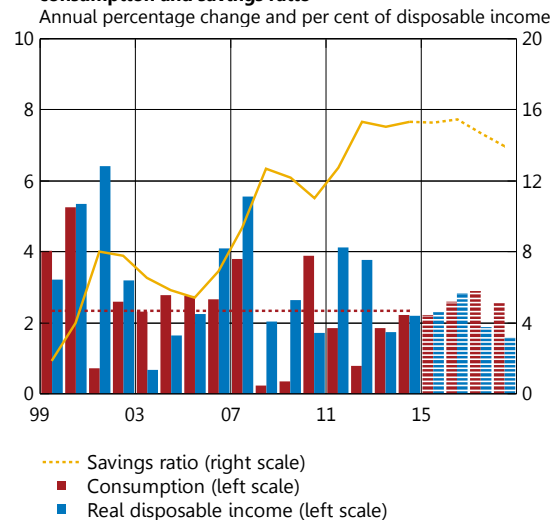
Figure 4:5. Exports and the Swedish export market
Annual percentage change, calendar-adjusted data



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 4:6. 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 average of consumption between 1994 and 2014.

Sources: Statistics Sweden and the Riksbank

known for a while, and so the macroeconomic effects have already been taken into account in the Riksbank's previous forecasts.

The sharp increase in immigration an uncertainty factor for the forecast

It is too early to assess the macroeconomic effects of the most recent sharp rise in asylum seekers. Developments will partly depend on what political solutions are realised both in Sweden and in Europe. The Riksbank is following events closely and will adjust its forecasts successively. In the short term, a relatively positive effect on growth can be expected via both higher private and public consumption. At the same time, public expenditure will increase, which could ultimately mean an increased need for tax rises in local authorities. In the longer term, immigration can be expected to raise growth potential in the economy and reduce the dependency burden, as it would make a positive contribution to the working age population. The macroeconomic effects of increased immigration will in the end mainly depend on how quickly and to what extent the new arrivals become established in the labour market (see article "Migration - opportunity and challenge").

All in all, Swedish GDP is expected to grow by nearly 3 per cent on average in 2016–2018, which represents slightly stronger growth than the historical average. Compared with the previous assessment in September, GDP growth in 2015 is somewhat higher due to the outcome having been revised upwards. In the future, however, somewhat weaker GDP growth is expected than in the September forecast. This can be explained in part by the fact that market growth for Swedish exports is expected to be slightly lower, and in part by a downward revision of consumption (see Figure 4:7).

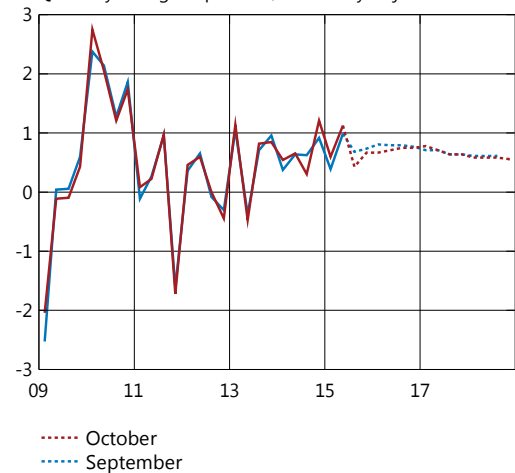
As the population is expected to increase sharply, GDP per capita will grow more slowly than GDP. GDP growth per capita will be on average 1.3 per cent per year in 2016–2018 (see Figure 4:8).

Rising housing prices and increased debt

The factors assessed to be favourable for household consumption, such as rising incomes, low interest rates and a stronger labour market, will also contribute to demand for housing remaining high over the coming years. Housing supply is insufficient in many areas. Housing prices are therefore expected to continue rising, but the price increases will be slightly more subdued as economic policy becomes less expansionary and household incomes increase more slowly. The housing market developments are also

Figure 4:7. GDP

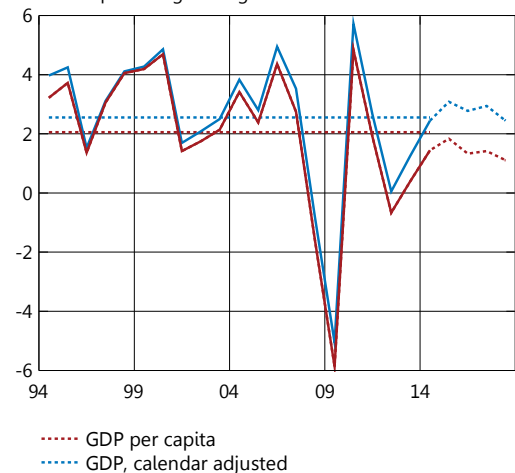
Quarterly change in per cent, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

Figure 4:8. GDP and GDP per capita

Annual percentage change



Note. Broken lines refer to averages between 1994 and 2014.

Sources: Statistics Sweden and the Riksbank

expected to lead to an increase in household debt, and to that debt's proportion of households' disposable income, known as the debt-to-income ratio, rising to around 190 per cent at the end of 2018 (see Figure 1:17).

The situation on the labour market is continuing to improve

The situation on the labour market is continuing to improve as economic activity grows stronger. The number of people in employment as a proportion of the working age population (age 15–74), the employment rate, has increased gradually since 2010. At the same time, the labour force participation rate has also risen, which has partially counteracted a fall in unemployment. Indicators such as the number of job vacancies and redundancy notices indicate continued strong growth in the labour market. Employment is expected to grow in the future in line with the growth in the population. As the proportion of the population belonging to groups with a low labour force participation rate is increasing, growth in labour force participation will also fall (see Figure 4:9 and the article "Migration – opportunity and challenge").

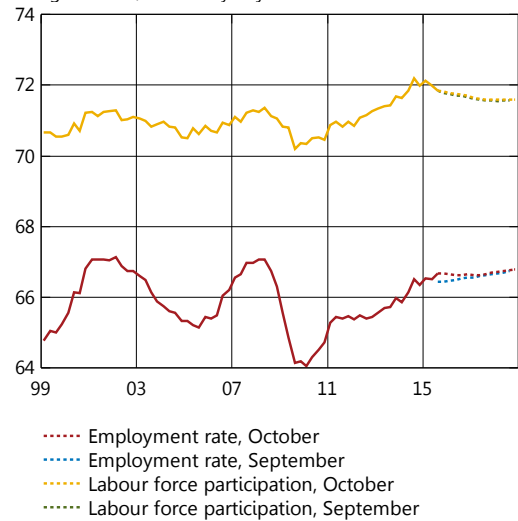
It is the Riksbank's assessment that there is currently spare capacity on the labour market (see Figure 4:10). Employment may therefore continue to grow without any serious bottleneck problems. All in all, unemployment is expected to fall slowly to a level just under 7 per cent by the end of the forecast period (see Figure 4:11).

Unit labour costs will rise throughout the forecast period

Over the course of next year, nearly 500 collective agreements will expire, and the agreements, which affect around 3 million employees, will be renegotiated. The Riksbank assesses that higher resource utilisation and rising inflation will contribute to higher nominal wage increases in the coming years. The rate of wage increases, that is the total of centrally agreed wage increases and wage increases above centrally agreed levels, is expected to rise from 2.6 per cent this year to almost 3.5 per cent in 2018.

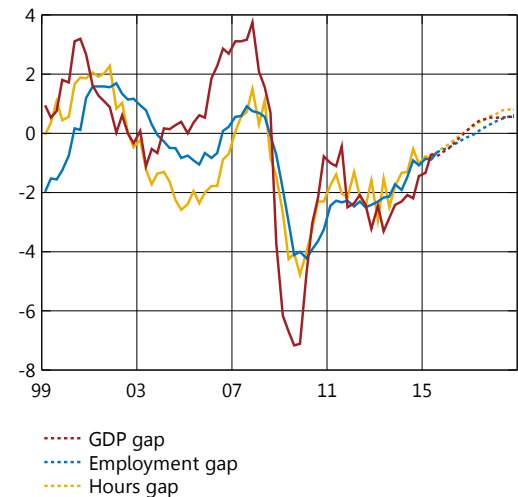
Labour costs include not only wages but also statutory employers' social security contributions stipulated in collective agreements and by law. The abolished reduction of social security contributions, to be implemented in two stages starting on 1 August 2015, will lead to a slightly faster rise in labour costs than wages this year and next year, and thereafter increase in line with wages.

Figure 4:9. Employment rate and labour force participation
Employment and labour force as percentage of the population, aged 15–74, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

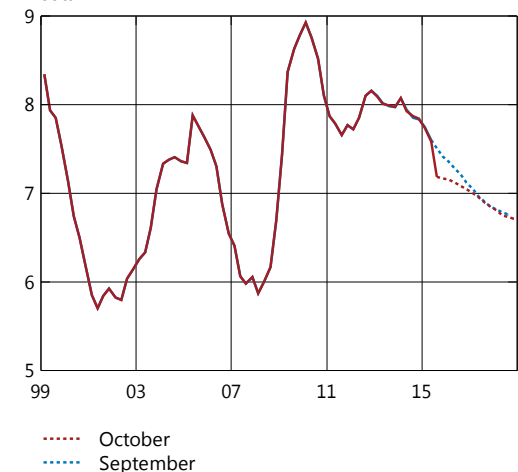
Figure 4:10. GDP gap, employment gap and hours gap
Per cent



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

Figure 4:11. Unemployment
Per cent of the labour force, 15–74 years, seasonally-adjusted data



Sources: Statistics Sweden and the Riksbank

The development in labour costs and productivity means that unit labour costs are expected to rise by nearly 2 per cent during the period 2016–2018 (see Figure 4:12).

Gradually stronger krona in the future

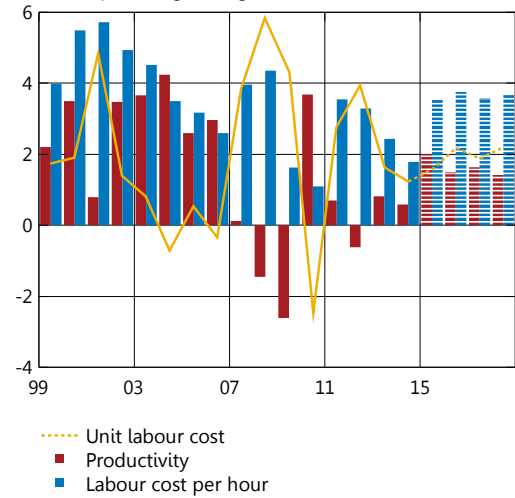
The weakening of the krona since the spring of 2013 has contributed to higher prices of imported goods and services and has been a major driving force behind the upturn in inflation seen over the last year and a half. Compared with the forecast in the September Monetary Policy Report however, the krona will be somewhat stronger in the near future. In the future, the krona is expected to remain at current levels for a time before once again strengthening at a slow rate (see Figure 1:6). Due to the more expansive monetary policy, the krona is expected to be slightly weaker by the end of the forecast period 4 compared with the September assessment.

Higher costs and rising resource utilisation leading to higher inflation in the future

Underlying inflation in Sweden is rising, which is particularly clear when looking at measures which exclude energy prices. A major reason for this is the weakening of the krona over the past few years, which has contributed to driving up import prices. Imported consumer goods prices have increased at a faster rate than last year. Initially, the weaker exchange rate mainly affected certain food prices, however over the last few months prices of clothes and shoes have also been clearly affected. The gradual strengthening of the krona predicted for the forecast period means that the positive contributions to inflation from the exchange rate will subsequently abate.

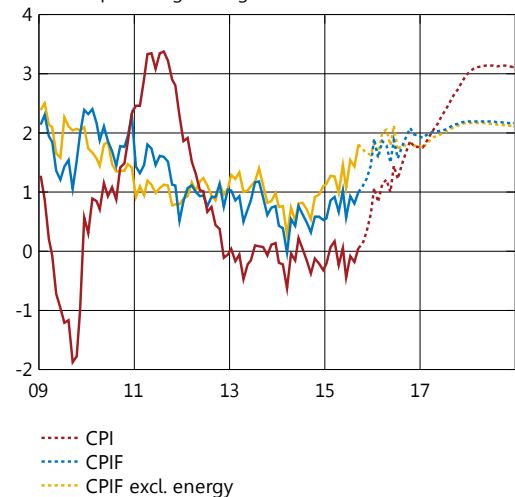
In the longer term, a stronger global economy will contribute to both higher international prices and a higher demand for Swedish goods and services. Together with gradually stronger domestic demand, this will make it easier for companies to raise their prices in line with increased resource utilisation and rising cost pressures. Tax increases will also contribute to higher inflation from 2016 onwards. The reduction in tax deductions for RUT (Repairs, Conversion, Extension) and ROT (Cleaning, Maintenance and Laundry) work will affect the inflation rate in 2016, while indexing of energy taxes will raise inflation throughout the entire forecast period. Increased social security contributions for young people are expected to gradually push inflation up in the coming years. Inflation, measured by the CPIF excluding energy, is expected to rise gradually before a stabilisation around 2 per cent is reached in 2017 (see Figure 4:13). The inflation forecast has been revised

Figure 4:12. Cost pressures in the economy as a whole
Annual percentage change



Sources: Statistics Sweden and the Riksbank

Figure 4:13. CPI, CPIF and CPIF excluding energy
Annual percentage change



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

Sources: Statistics Sweden and the Riksbank

The difference between the CPI and the CPIF

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 CPIF measure. This measure has a constant interest-rate index but changes in property prices have the same effect on the CPIF 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 CPIF. In the long run, when the interest rate has stabilised, the rate of increase in the CPI and the CPIF will be the same.

down slightly in comparison to the forecast in September. This is partly due to lower inflation prospects abroad, linked to the uncertainty surrounding the global recovery, but also to the fact that the assessment now points to a need for somewhat stronger demand in order to stabilise inflation around 2 per cent, once the positive contributions to inflation from the exchange rate wane.

Over the last few years, CPIF inflation has for the most part been lower than the rate of increase in the CPIF excluding energy. Both falling electricity and fuel prices have contributed to this development. In the future, however, prices of both electricity and fuel are expected to rise. The CPIF will therefore rise at roughly the same rate as the CPIF excluding energy during the latter part of the forecast period.

As with the fall in energy prices, interest expenses are expected to begin rising after the decline in recent years. CPI inflation will therefore subsequently exceed the rate of increase in the CPIF. CPIF inflation is somewhat lower than in the previous forecast, and follows the downward revision of the CPIF excluding energy. As the interest rate forecast is lower than in September, the downward revision of CPI inflation will also be greater than for the CPIF.

Article: Migration – opportunity and challenge

The demographic trend is a central factor for growth and public finances in the longer term. In Sweden, the working-age population has grown continually due to net immigration, which has counteracted the demographic trend towards an ageing population. The humanitarian catastrophe caused by wars in the Middle East has led to a large increase in the number of people fleeing to Europe and Sweden. The rapidly-rising increase of asylum immigration will place great demands on the labour market in the period ahead. To best realise the potential brought by this increased immigration, it is highly important that those arriving in Sweden are effectively established on the labour market. In recent years, the labour force participation rate has risen among those born abroad but there are still too few of them finding employment.

The growth rate of the working-age population is being maintained by those born abroad

The long-term development of growth and public finances in a country largely depends on how its population changes. Like many western countries, Sweden has an ageing population. The demographic dependency ratio has increased since the mid-2000s and, by 2030, it is expected to rise by a further 9 percentage points to almost 84 per cent.¹⁰

Sweden is a country in which the working-age population is growing due to net immigration. This is contributing towards restraining the rise in the dependency ratio. This is because a large proportion of those born abroad are of working age. About 75 per cent are in the age group 20–64 years, while the corresponding figure for the Swedish-born population is significantly lower at 54 per cent.

Asylum immigration is influencing population growth

Statistics Sweden's population forecasts have been continually revised upwards in recent years (see Figure 4:14). In the latest forecast, published in May 2015, just over 400,000 more persons were expected to be included in the working-age population by 2030 compared with the previous forecast. This revision was explained completely by increased immigration. In the forecast, the working-age population was expected to increase by just over 820,000 persons in the years 2015–2030 (see Figure 4:15).

Considering the current refugee situation, this population forecast is already out of date. This humanitarian catastrophe has led to a large increase in the number of people seeking protection in Europe. In the last few days, the Swedish Migration Agency has therefore heavily revised its forecast for the number of asylum seekers expected in Sweden upwards. Compared to the forecast considered in Statistics Sweden's population projection the forecast has now doubled for this year, from about 80,000 to about

160,000 persons, and a large increase next year, from 80,000 to 135,000¹¹. As this forms an important basis for Statistics Sweden, the forecast for the total increase of the population will thereby also be revised upwards when Statistics Sweden makes its next population forecast.¹²

The Riksbank's forecasts

It is too early to judge what the macroeconomic effects of the increased immigration will be. Developments will partly depend on what political solutions are realised in Sweden and in Europe. The Riksbank is following events closely and will adjust its forecasts accordingly. In the short term, the increased asylum immigration will entail higher growth in the form of higher private and public consumption, as demand will increase for, for example, food, housing, education and healthcare. Increased demand may also generate higher employment in the form, for example, of teachers, health workers and construction workers. The increased public consumption required to meet these needs will simultaneously increase public expenditure.

In the longer term, an increased number of persons in the working-age population is positive as the labour supply and thus employment can grow more. A higher population forecast will affect the Riksbank's labour market forecasts. Compared with the current assessment, the labour force can be expected to grow more rapidly. But there is great uncertainty over how quickly the newly-arrived immigrants will be able to enter the labour force and find employment.

The labour force participation rate has risen amongst those born abroad...

To best realise the potential brought by this increased immigration, it is highly important that new arrivals are quickly able to establish themselves on the labour market. Compared with many other countries, the labour force participation rate in Sweden is high, about 72 per cent. The labour force participation rate is generally lower among

¹⁰ The demographic dependency ratio is a measure that describes the number of children and elderly people in relation to the number of persons of working age, 20–64 years.

¹¹ See "Verksamhets- och utgiftsprognos Oktober 2015" (Operational and expenditure forecast October) (In Swedish), Swedish Migration Agency 2015.

¹² The overall impact of increased asylum immigration on the population forecast depends on several assumptions that Statistics Sweden is recalculating, such as repatriation and family member immigration.

those born abroad, but the gap to those born in Sweden has narrowed in recent years (see Figure 4:16). It is important that the participation rate for those born abroad continues to increase if the aggregate labour force, and thus employment, is to develop positively coming period.

... but the employment rate has not kept up

The Swedish labour market works well in many ways with a high aggregate employment rate. But there is still a great difference in the employment rates for those born in Sweden and those born abroad (see Figure 4:16). Although the employment rate among those born abroad as a whole has recovered to about the same level as before the financial crisis of 2008–2009, the employment rate for persons born outside Europe has remained relatively constant at just under 55 per cent in recent years.

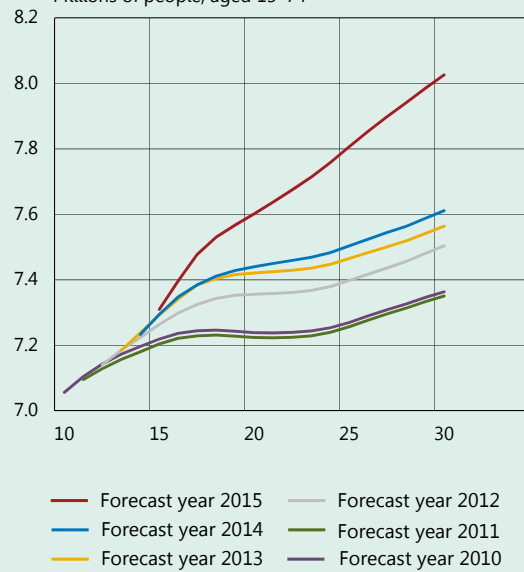
It takes a relatively long time to become established on the Swedish labour market

Compared with other countries Sweden has a high proportion of refugee and family member immigration, which is one reason that it takes a long time to establish on the labour market. Operational statistics from the Swedish Public Employment Service indicate that job opportunities are low for these groups, particularly for those born outside Europe. The ongoing and rapid increase of immigration entails a risk that it will take even longer to establish on the Swedish labour market in the period ahead. The situation is exceptional and entails a major challenge for the presently under-dimensioned Swedish reception system. Processing times risk becoming prolonged, thus delaying decisions on residence permits, possibilities of finding housing and possibilities of entering introduction programmes.¹³

There are no simple solutions for a rapid establishment of newly-arrived immigrants on the labour market. Apart from improving the actual asylum process, measures are needed to improve the functionality of the labour market and to lower labour market thresholds.¹⁴ Another important factor is an efficient housing market and the need for increased housing construction has increased. The highly expansionary monetary policy is contributing towards increasing demand in the economy and thereby also towards higher demand for labour, but the structural challenges on the labour market cannot be solved by monetary policy.

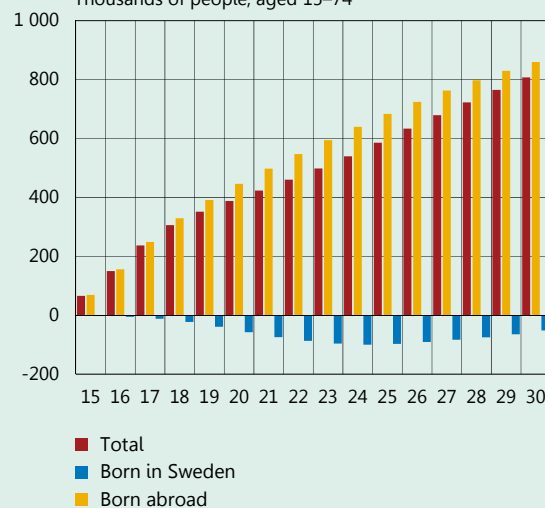
¹³ The Swedish Migration Agency calculates that the expected processing time for a person applying for asylum today will be between 15 and 24 months.
¹⁴ See "2015 Article IV Consultation with Sweden Concluding Statement of the IMF Mission" and the "National Institute of Economic Research's wage formation report 2015".

Figure 4:14. Working-age population
Millions of people, aged 15–74



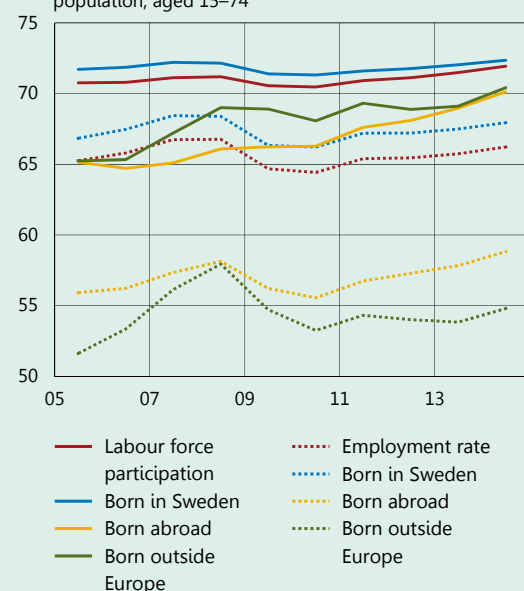
Source: Statistics Sweden population forecast 2010–2015

Figure 4:15. Accumulated population increase
Thousands of people, aged 15–74



Source: Statistics Sweden population forecast

Figure 4:16. Employment rate and labour force participation rate
Employment and labour force as percentage of the population, aged 15–74



Source: Statistics Sweden labour force survey

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

| | 2015 Q3 | 2015 Q4 | 2016 Q1 | 2016 Q4 | 2017 Q4 | 2018 Q4 |
|-----------|---------|-------------|-------------|-------------|-----------|---------|
| Repo rate | -0.3 | -0.4 (-0.4) | -0.4 (-0.4) | -0.4 (-0.2) | 0.1 (0.4) | 0.7 |

Source: The Riksbank

Table 2. Inflation

Annual percentage change, annual average

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------------------|------|-----------|-----------|-----------|------|
| CPI | -0.2 | 0.0 (0.0) | 1.4 (1.8) | 2.4 (2.8) | 3.1 |
| CPIF | 0.5 | 0.9 (0.9) | 1.8 (2.0) | 2.1 (2.2) | 2.2 |
| CPIF excl. energy | 0.7 | 1.4 (1.4) | 1.8 (2.0) | 2.0 (2.1) | 2.1 |
| HICP | 0.2 | 0.8 (0.8) | 1.7 (1.8) | 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 | 2018 |
|--|-------|---------------|---------------|---------------|-------|
| Repo rate | 0.5 | -0.3 (-0.3) | -0.4 (-0.3) | -0.1 (0.2) | 0.5 |
| 10-year rate | 1.8 | 0.8 (0.8) | 1.3 (1.5) | 2.3 (2.5) | 3.0 |
| Exchange rate, KIX, 18 November 1992 = 100 | 106.7 | 112.7 (113.0) | 110.4 (110.1) | 107.3 (106.3) | 105.6 |
| General government net lending* | -1.7 | -1.1 (-1.4) | -0.6 (-0.8) | -0.3 (-0.4) | -0.1 |

* 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 | 2018 |
|----------------------|-------------|-------------|------|-----------|-----------|-----------|------|
| Euro area | 0.14 | 0.46 | 0.9 | 1.5 (1.3) | 1.7 (1.7) | 2.0 (2.0) | 2.1 |
| USA | 0.16 | 0.09 | 2.4 | 2.5 (2.5) | 2.7 (3.0) | 2.5 (2.8) | 2.1 |
| Japan | 0.05 | 0.03 | -0.1 | 0.7 (0.6) | 0.7 (0.7) | 0.4 (0.4) | 0.5 |
| China | 0.15 | 0.08 | 7.5 | 6.8 (6.6) | 6.4 (6.3) | 6.1 (6.1) | 6.0 |
| KIX-weighted | 0.75 | 1.00 | 2.0 | 2.0 (1.9) | 2.2 (2.3) | 2.5 (2.6) | 2.5 |
| World (PPP-weighted) | 1.00 | — | 3.4 | 3.1 (3.2) | 3.6 (3.7) | 3.8 (3.8) | 3.8 |

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 | 2018 |
|------------------|------|------------|-----------|-----------|------|
| Euro area (HICP) | 0.4 | 0.1 (0.1) | 1.0 (1.0) | 1.6 (1.7) | 1.8 |
| USA | 1.6 | 0.2 (-0.2) | 1.9 (1.7) | 2.5 (2.8) | 2.5 |
| Japan | 2.7 | 0.9 (0.9) | 1.4 (1.4) | 2.1 (2.1) | 2.1 |
| KIX-weighted | 1.4 | 1.2 (1.1) | 1.8 (1.8) | 2.3 (2.4) | 2.3 |

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|------|-------------|-------------|-------------|------|
| Policy rates in the rest of the world, per cent | 0.2 | 0.1 (0.1) | 0.1 (0.1) | 0.3 (0.4) | 0.6 |
| Crude oil price, USD/barrel Brent | 99.6 | 54.7 (54.4) | 53.9 (53.4) | 58.5 (58.6) | 61.0 |
| Swedish export market | 3.0 | 1.8 (2.5) | 4.2 (4.8) | 5.0 (5.3) | 5.1 |

Note. Policy rates in the rest of the world refer to a weighted average of USA, the euro area, Norway and the United Kingdom. A review of the input series has led to revisions of the Swedish export market for 2014 and 2015.

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 | 2018 |
|---------------------------------------|------|------------|-------------|-------------|------|
| Private consumption | 2.2 | 2.2 (2.2) | 2.6 (3.0) | 2.9 (2.8) | 2.6 |
| Public consumption | 1.6 | 1.9 (2.3) | 2.7 (2.8) | 1.9 (1.9) | 1.8 |
| Gross fixed capital formation | 7.6 | 5.6 (4.3) | 5.6 (5.9) | 4.6 (4.5) | 4.4 |
| Inventory investment* | 0.1 | -0.1 (0.0) | 0.2 (0.0) | 0.0 (0.0) | 0.0 |
| Exports | 3.5 | 4.0 (3.8) | 4.8 (5.4) | 4.4 (4.9) | 4.7 |
| Imports | 6.3 | 2.9 (2.9) | 6.2 (6.2) | 5.4 (5.8) | 5.9 |
| GDP | 2.3 | 3.3 (3.1) | 3.0 (3.4) | 2.7 (2.6) | 2.3 |
| GDP, calendar-adjusted | 2.5 | 3.1 (2.8) | 2.8 (3.2) | 2.9 (2.9) | 2.5 |
| Final figure for domestic demand* | 3.1 | 2.8 (2.6) | 3.2 (3.5) | 2.9 (2.9) | 2.7 |
| Net exports* | -0.9 | 0.6 (0.5) | -0.4 (-0.1) | -0.3 (-0.2) | -0.4 |
| Current account (NA), per cent of GDP | 5.4 | 6.3 (6.7) | 5.7 (6.2) | 5.2 (5.6) | 4.6 |

*Contribution to GDP growth, percentage points

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

Sources: Statistics Sweden and the Riksbank

Table 6. Production and employment

Annual percentage change, unless otherwise stated

| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|------|-----------|-----------|-----------|------|
| Population, aged 15–74 | 0.7 | 0.7 (0.8) | 1.1 (1.1) | 1.2 (1.2) | 0.9 |
| Potential hours worked | 0.7 | 0.7 (0.7) | 0.7 (0.8) | 0.7 (0.8) | 0.7 |
| GDP, calendar-adjusted | 2.5 | 3.1 (2.8) | 2.8 (3.2) | 2.9 (2.9) | 2.5 |
| Number of hours worked, calendar-adjusted | 1.8 | 1.1 (1.0) | 1.3 (1.3) | 1.3 (1.3) | 1.0 |
| Employed, aged 15–74 | 1.4 | 1.3 (1.2) | 1.1 (1.2) | 1.2 (1.3) | 1.1 |
| Labour force, aged 15–74 | 1.3 | 0.8 (0.8) | 0.8 (0.8) | 1.0 (1.0) | 0.9 |
| Unemployment, aged 15–74 * | 7.9 | 7.4 (7.6) | 7.1 (7.2) | 6.9 (6.9) | 6.8 |

* 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 | 2018 |
|--------------------------|------|-----------|-----------|-----------|------|
| Hourly wage, NMO | 2.8 | 2.6 (2.6) | 3.1 (3.2) | 3.4 (3.4) | 3.5 |
| Hourly wage, NA | 1.8 | 3.2 (3.0) | 3.2 (3.3) | 3.6 (3.6) | 3.7 |
| Employers' contribution* | 0.0 | 0.3 (0.3) | 0.5 (0.5) | 0.0 (0.0) | 0.0 |
| Hourly labour cost, NA | 1.8 | 3.5 (3.2) | 3.8 (3.8) | 3.6 (3.6) | 3.7 |
| Productivity | 0.6 | 2.0 (1.8) | 1.5 (1.8) | 1.6 (1.5) | 1.4 |
| Unit labour cost | 1.2 | 1.5 (1.4) | 2.2 (2.0) | 1.9 (2.0) | 2.2 |

* 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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