Economic Commentaries

Forecasts and monetary policy

Christina Nyman and Ulf Söderström
The authors are Deputy Heads of the Monetary Policy Department[1]

The objective of monetary policy in Sweden is to stabilise inflation around a target of 2 per cent. The Riksbank's forecasts are therefore normally based on a monetary policy that will bring inflation to target within a couple of years. An inflation forecast that does not aim for 2 per cent in a few years' time could then be interpreted to mean that the Riksbank is departing from its price stability mandate. In this Economic Commentary we discuss the implications of the inflation targeting framework for forecasting at the Riksbank and how the Riksbank's forecasts therefore may differ from those of other forecasters.

The Riksbank has a special position among Swedish public authorities, as its Executive Board has been given a mandate by the Riksdag, the Swedish parliament, to independently make decisions on monetary policy in order to achieve the price stability target. Through its monetary policy decisions, the Riksbank influences economic developments in Sweden, and thereby the economic conditions for households and companies in Sweden. The Riksbank's independence therefore comes with considerable demands regarding openness and insight. This is one important reason for why the Riksbank publishes, for instance, the forecasts and analyses on which the monetary policy decisions are based.

The Riksbank's forecasts are discussed regularly in the media and by various analysts, which is natural and good. Questions that frequently arise include "Why do the inflation forecasts always go to 2 per cent?", "Why aren't the forecasts more accurate?" and "Why does the Riksbank use models instead of basing its forecasts on reality?" In their evaluation of monetary policy in Sweden, Goodfriend and King (2016) criticise the Riksbank for basing its forecasts and decisions to such a high degree on pure model-based analysis. Similar criticism has been put forward by others, such as Hjelm (2014), Alexius (2016) and Lund University (2016).

The purpose of this Economic Commentary is not to evaluate the Riksbank's forecasts in relation to those of other analysts. This is already done regularly, for instance, by the Riksbank and the National Institute of Economic Research.[2] However, the Riksbank's forecasts differ in an important way from those of other forecasters; namely they are based on an assessment of which monetary policy is required to bring inflation back towards the target at an appropriate pace. An inflation forecast that does not aim for 2 per cent in a few years' time could then be interpreted to mean that the Riksbank is departing from the mandate given by the Riksdag.

The purpose of this Commentary is therefore to explain how the Riksbank's aim to attain the inflation target affects the way that staff at the Monetary Policy Department work together with the Executive Board when making forecasts, and in particular forecasts for inflation and the repo rate. We illustrate this with some practical examples. In this way, we wish to give some perspective on the Riksbank's forecasts in relation to those of others.

It has been difficult to make forecasts for inflation and interest rates in recent years

Although we do not intend to evaluate the Riksbank's forecasts in relation to those of others, it could be worthwhile to provide a brief description of the challenges faced by forecasters in recent years.

Many public authorities, organisations and companies make forecasts of economic developments. When the forecasts are evaluated, the differences between the different forecasters are on the whole relatively small and rarely statistically significant. However, the Riksbank's forecasts for inflation and the repo rate have at times been poorer than those of many other forecasters. This applies in particular to the longer-run forecasts for the repo rate, but in recent years it has also been the case for the inflation forecasts. Table 1 summarises the forecast evaluation published by the Riksbank in the report *Account of Monetary Policy* earlier this year.[3] It ranks the Riksbank's forecasts for a number of variables from 2007 onwards, according to how accurate they have been in relation to those of other forecasters. The Riksbank forecasts for GDP growth and unemployment have been among the best, and those for CPIF inflation have also performed well, at least up until 2012. But the Riksbank's forecasts for CPI inflation and the repo rate have not been as good. This is primarily because the Riksbank has periodically overestimated inflation and the repo rate more than other forecasters have done, and especially in the longer run.

The forecast evaluations regularly published by the Riksbank focus on the period since 2007, when the Riksbank's forecasts began to include a forecast for the repo rate. But this has also been a special period. The global financial crisis that began in 2008 and the euro crisis that escalated in 2011 have led to a long period of weak growth in many countries and considerable uncertainty over economic developments, and in recent years also to low inflation. This development has also entailed major changes in economic policy in many economies.

If one studies the forecast errors more closely, it appears to have become more difficult to forecast inflation and the repo rate following the crisis. As seen in Figure 1, the forecast errors for inflation have been larger since 2008. Forecasters have also systematically overestimated both inflation and the repo rate, particularly in the longer run. This indicates that the extended period with low resource utilisation has had greater effects on inflationary pressures than expected, and that various relationships may have changed since the crisis. This does not apply only to Sweden, it is also true for other countries.

The Riksbank has devoted much work in recent years to studying the causes of low inflation. As described by Andersson et al. (2015) there are several different explanations. The weak economic developments abroad and associated restrained demand in Sweden seem to have been of particularly great significance. In addition, the krona appreciated substantially in 2010, which dampened inflation over several years. Low commodity prices, particularly for electricity and oil, but during a brief period also food, have contributed to the low rate of inflation. This means that if one had predicted the development in resource utilisation, oil prices and so on, one could have made better inflation forecasts using models or methods based on historical correlations. At the same time, it is clear that these factors are not the whole explanation. Companies also appear to have pushed their profit margins down to a greater extent than could be expected from historical patterns. In surveys made by the Riksbank and the National Institute of Economic Research, companies state uncertainty over the future and increased competition as some reasons for the strained margins.[4]

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3. See Sveriges Riksbank (2016).
4. See Apel et al. (2014).

It is thus possible to some extent to understand the reasons for low inflation. But it is also clear that there are factors that are difficult to explain. This may be due to changes in historical relationships, for instance, changes in competition or structural changes on the labour market.

A further explanation why inflation has been lower than expected could be that the impact of monetary policy on the economy has weakened. Central banks around the world have cut their policy rates substantially and also used other monetary policy measures to stimulate the economy and bring up inflation. The fact that inflation has not risen faster despite nominal interest rates being cut substantially may be due to the long-term level of global real interest rates having fallen.[5] The long-term level of real interest rates is determined by structural factors, such as demographic developments and productivity growth, but in the short term real interest rates are also affected by economic activity and monetary policy. It is therefore difficult to distinguish persistent from more temporary fluctuations in real interest rates. But if long-term global real interest rates have fallen, actual interest rates need to be lower than before to stimulate the economy and get inflation to rise. The downward trend in real interest rates has therefore probably meant that monetary policy has not been as expansionary as one believed when making the policy decisions.

The Riksbank's forecasts are based on a well-balanced monetary policy

The objective for monetary policy is to hold inflation stable around the target of 2 per cent and at the same time to support the objectives of general economic policy with a view to achieving sustainable growth and high employment. There is no general answer to the question of how quickly the Riksbank aims to bring inflation back to 2 per cent if it deviates from the target, but in general the ambition has been to adjust monetary policy so that inflation is expected to be fairly close to the target in two years' time. Typically, therefore, the Riksbank's forecast for CPIF inflation will be very close to 2 per cent at this horizon.[6] If inflation then in practice deviates from the inflation target over a longer period, the Riksbank's forecasts for a few years ahead will show systematic errors.

To ensure that inflation reaches the target, the Riksbank when making its forecasts needs to have an idea of what monetary policy is required to bring inflation back to target at an appropriate pace. The Riksbank's forecast for the repo rate is thus not just a forecast, but an assessment of what monetary policy is required to attain the inflation target. It is not always easy to make such forecasts, as they require taking a stance on how monetary policy will affect the economy. And it may have been particularly difficult during the years since the financial crisis.

Other forecasters may be more free to make inflation forecasts that deviate from 2 per cent a few years ahead.[7] As an example, Figure 2 shows forecasts for CPIF inflation made by various analysts in late March/early April 2014, including the Riksbank's forecast from April 2014. The different forecasts are very similar during the first year, but in the longer run the Riksbank's forecast is clearly higher than several of the others. One conclusion is that other forecasters assessed that the underlying inflationary pressures were weaker or that the expansionary monetary policy had less impact than the Riksbank did. But several of the other analysts' forecasts then implied that monetary policy was not well-balanced, as inflation was

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5. See Armelius et al. (2014).

6. The inflation target is formulated in terms of the CPI (the consumer price index), but during periods with large interest rate adjustments, measures of inflation that do not include the direct effects of interest rate adjustments, such as the CPIF (CPI with a fixed mortgage rate), provide a better picture of inflationary pressures. The CPIF has therefore often been used as a steering-oar in monetary policy.

7. In the short term, around six to twelve months ahead, most analysts use similar methods to forecast inflation, and the differences in forecasting performance are small (Löf, 2015). At this horizon, monetary policy also has little opportunity to affect actual inflation. For forecasts further ahead, the methods may differ more.

not expected to reach the target within a couple of years. And although the other analysts published forecasts for the repo rate as well, it was not clear what monetary policy they considered necessary for inflation to reach 2 per cent.[8]

In principle, the Riksbank can also make forecasts for inflation that do not reach 2 per cent, but this would require special circumstances. One such circumstance would be if the Riksbank were to assess that it was not *appropriate* to try to get inflation to 2 per cent within a couple of years, as this would have undesired effects on other parts of the economy, such as employment or financial stability. Another circumstance would be if one assessed that it was not *possible* to reach 2 per cent inflation, for instance, because of restrictions on the monetary policy instruments or disruptions in the monetary policy transmission mechanism. But such situations would mean exceptions from the normal monetary policy strategy.

Forecasts are made using both models and judgement

When the Riksbank and other analysts make forecasts, both economic models and various forms of judgement are used. At the Riksbank, forecasts are produced in several stages.[9] In the first stage, forecasts are made for the international economy three years ahead and nowcasts for the current situation in the Swedish economy, including financial conditions. The international forecasts are based partly on various models, but also on forecasts by international organisations (for instance, the OECD and the IMF), and on various judgements. For the nowcasts, which refer to the current quarter and one or two quarters ahead, a large number of indicators and statistical models are used, and supplemented with various judgements.[10]

The international forecasts and the nowcasts are then used in the Riksbank's macroeconomic models. These models have the advantage that they give forecasts for the entire economy that are interlinked and provide an overall picture. The Riksbank mainly uses three such models to support the forecasts for six months to three years ahead for the most important variables. One of these is a general equilibrium model, Ramses, which uses a large number of variables based on fundamental theoretical relationships. In addition, there is a time series model, a Bayesian vector-autoregressive (BVAR) model, which uses a small number of variables based on observed relationships with a weaker theoretical foundation. And finally, there is a model known as Moses, which is to some extent based on economic theory, but to a large degree also on observed relationships. All three models are estimated using Swedish macroeconomic data, such as inflation, GDP, the repo rate and the exchange rate, starting in the mid-1990s.[11]

In the next step the Riksbank uses smaller models and various judgements to produce the final forecasts. Some of these judgements can be based on knowledge of different variables that are not included in the macroeconomic models, but that can affect the economy during certain periods. This could be large fluctuations in the price of oil or changes in various interest rates and other financial variables. Such changes can at times have a fairly substantial effect on the economy, but they are less important in describing average correlations over a longer period of time, that is, the correlations captured by the macroeconomic models. Judgements can also be based on forward-looking information about different variables that is not captured in the models, for instance, information from surveys on companies' investment plans. Further judgements can be based on economic

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8. The fact that other forecasters do not believe that inflation will reach the target level a couple of years ahead may of course in itself be a problem for monetary policy, as it indicates some lack of confidence in the Riksbank's ability or willingness to bring inflation back to target.

9. Hallsten and Tägtström (2009) describe the process when the Riksbank produces forecasts and other material for the decisions at the Executive Board's monetary policy meetings.

10. Andersson and den Reijer (2015) describe some different models for nowcasting.

11. See Adolfson et al. (2013) for a description of Ramses, Adolfson et al. (2007) for the BVAR model and Bårdsen et al. (2012) for a description of Moses.

policy-makers having announced decisions, such as tax amendments or labour market policy measures, which have not yet been implemented but may nevertheless affect the decisions made by households and companies.

One type of judgement that also affects the macroeconomic models concerns how the economy is expected to develop in the long run, for instance, assumptions on the long-term growth potential of the economy and long-term levels for unemployment, the exchange rate and interest rates. Moreover, judgements can be based on some correlations in the economy having changed over time and therefore deviating from the historical pattern that the empirical models have captured. This may be particularly important following the financial crisis. The model relationships are estimated using data that begin prior to the financial crisis, so any changes since then are not fully captured in the model estimates.

A particularly important type of judgement in the Riksbank's forecasting is to determine what monetary policy is required for inflation to approach the inflation target at an appropriate pace. Such judgements are normally made by studying alternative assumptions for the repo rate (or other monetary policy instruments) and analysing what effects they have on the forecasts for inflation and other variables. In this way, one can select the alternative that leads to balanced economic developments and inflation approaching the target at a suitable pace. Here, too, it is important to try to capture structural changes in the economy, as they can imply that the effects of monetary policy on, for instance, inflation are weaker or stronger than before.

The Executive Board of the Riksbank is responsible for the final forecasts published in the Monetary Policy Report. The forecasts are therefore produced in an interaction between the Monetary Policy Department and the Executive Board. The department presents the forecasts it has made based on models and judgements as described above and discusses key assumptions and various monetary policy alternatives with the Executive Board. After this, the forecasts are adjusted to take into account the Executive Board's judgements.

What monetary policy is needed for inflation to reach the target?

To illustrate how the assumption regarding the repo rate affects the inflation forecast, we can look at some of the model forecasts and judgements made prior to the monetary policy decision in February 2014. Figure 3 shows a starting point for the inflation forecast: the forecast that had been published in the Monetary Policy Update in December 2013 and the forecasts from the three macroeconomic models. Figures 4 and 5 show the corresponding forecasts for the krona exchange rate and the repo rate. In addition to the data that were available at the time the forecasts were made, the model forecasts are based on the Riksbank's forecast for the international economy and judgements regarding the current economic situation. As shown, two of the models (Ramses and in particular BVAR) make forecasts for inflation that are much lower than the forecast that had been published in December, while one of the models (Moses) makes an inflation forecast in line with the previously published forecasts up to two years and then falls back. This could indicate that the inflation forecast should be adjusted to be more in line with the model forecasts, at least in the longer run.

But at the same time the models make forecasts for the exchange rate and the repo rate. As shown in Figure 4, Ramses and the BVAR model have a much stronger exchange rate than the previously published forecast.[12] With regard to the repo rate, which is shown in Figure 5, Ramses forecasts that the repo rate will rise relatively quickly, at the same time as BVAR predicts that the repo rate will be low over a long period of time, while the interest rate forecast in Moses is somewhere in between. The model forecasts thus differ substantially

12. A lower value for the competition-weighted exchange rate in accordance with the krona index (KIX) entails a stronger krona.

from one another, and have different implications for which monetary policy is required to get inflation to approach 2 per cent. It is therefore not clear how they shall be combined with one another to reach a final forecast.

As mentioned above, the model forecasts for the repo rate also differ from the repo-rate path published in December 2013. It is therefore of interest to study a model forecast conditional on the repo-rate path. This type of analysis is made regularly with the model Ramses. In this case, the repo-rate forecast in Ramses is adjusted downwards substantially. This means that the forecast for the krona becomes weaker and the inflation forecast much higher than the unconditional model forecast, see Figure 6. On this particular occasion the conditional forecast entailed CPIF inflation rising and reaching 2 per cent in about the same way as in the earlier forecast published in December 2013. The low inflation in the unconditional Ramses forecast was thus based on the Riksbank conducting a much tighter monetary policy, that is, holding a higher repo rate, than the Riksbank had communicated in December.

Another way of using the models is to study how the forecasts shall be revised based on the new information received since the previous forecast was made.[13] In the case described from February 2014, such "revision tendencies" from all three models were very small. That is, according to the models, the new information indicated that one should not revise the forecast to any great extent.

When the Riksbank constructs its final forecasts for inflation and the repo rate, there are thus a number of alternative model forecasts to weigh together, and these forecasts then need to be combined with other information that is not included in the models. Ultimately, the Riksbank chose in February 2014 to revise the old forecast for CPIF inflation very little, see the dark blue line in Figure 6. The final forecast was thus well in line with the model forecast from Ramses, conditional on the repo-rate forecast from December 2013, and was also in line with the revision tendencies that came from the different models. However, the final inflation forecast was higher than the original forecast from Ramses and in particular from the BVAR model.

This example illustrates that the model forecasts cannot be used mechanically to make forecasts, but need to be supplemented with judgements. The models provide good support when making the judgements, for instance, to understand the driving factors behind economic developments, and to gain an overall picture so that the forecasts for different parts of the economy are connected. But in addition, one must take into account other factors and also that relationships can change over time.

An evaluation of the Riksbank's published forecasts and a comparison with pure model forecasts shows that the model forecasts for the repo rate and CPIF inflation have often been better than the published forecasts. In particular, the forecasts made using the BVAR model have been very good, but the inflation forecasts from Ramses have also been better than the published forecasts.[14] (However, the published forecasts for GDP growth and the exchange rate are more or less equally good as the model forecasts.) This implies that the Riksbank could possibly have made better forecasts if it had relied more on the models. But as we discussed earlier, the model forecasts are based on different monetary policy assumptions than the published forecasts. Such deviations between reality and models make it difficult to know exactly what practical conclusions one can draw from the forecast evaluation.

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13. When one studies the revisions from the model forecasts, it is less important that the original model forecasts differ from the published forecasts.
14. See Iversen et al. (2016). Lindé and Reslow (2017) also show that the Riksbank's published forecasts differ from pure model forecasts.

It is important that the Riksbank's forecasts and monetary policy are evaluated and discussed

The Riksbank's forecasts play an important role for the monetary policy decisions and thereby for the Swedish economy. It is therefore particularly important that the Riksbank's forecasts and forecasting methods, as well as the monetary policy decisions, are evaluated regularly. In this Economic Commentary we have discussed how we make forecasts at the Riksbank and in particular we want to stress that the Riksbank's forecasts are based on both models and a long line of judgements. We have also illustrated how to produce a forecast that is consistent with the Riksbank's objectives and therefore involves inflation returning to target in a couple of years' time, which is the Riksbank's ambition. There is thus nothing strange about the Riksbank's forecasts normally going towards 2 per cent.

Following the financial crisis, the Riksbank and other forecasters have systematically overestimated inflationary pressures in the economy, and the forecasts for both inflation and the repo rate have been too high. This indicates that various relationships may have changed. The Riksbank has had greater forecasting errors for inflation and the repo rate, particularly in the longer run, which indicates that the Riksbank has overestimated inflationary pressures more than others. However, one contributory factor here may be that the impact of monetary policy on inflation has changed, for instance, because the long-term level of global real interest rates has fallen so that the repo rate needs to be lower than before to give the same effect on inflation. If this is the case, it may be important that the Riksbank's forecasting methods differ from those of other analysts, in that they are based on a judgement of what is well-balanced monetary policy that will bring inflation towards the target of 2 per cent at a suitable pace. Other forecasters rarely make such judgements. However, it would be good if other forecasters were to analyse and discuss in greater detail the conditions for monetary policy, and especially what monetary policy is required to attain the targets delegated to the Riksbank.

References

Adolfson, Malin, Michael K. Andersson, Jesper Lindé, Mattias Villani and Anders Vredin (2007), "Modern forecasting models in action: Improving macroeconomic analyses at central banks", *International Journal of Central Banking* 3 (4), pp. 111-144.

Adolfson, Malin, Stefan Laséen, Lawrence J. Christiano, Matthias Trabandt and Karl Walentin (2013), "Ramses II – Model description", Occasional Paper No. 12, Sveriges Riksbank.

Alexius, Annika (2016), "Förståndig men blodfattig utvärdering av penningpolitiken 2010-2015" ("Sensible but anaemic evaluation of monetary policy 2010-2015") *Ekonomisk Debatt* 44 (2), pp. 67-72.

Andersson, Björn, Vesna Corbo and Mårten Löf (2015), "Why has inflation been so low?", *Economic Review* 2015:3, Sveriges Riksbank, pp. 5-47.

Andersson, Michael K. and Ard H.J. den Reijer (2015), "Nowcasting", *Economic Review* 2015:1, Sveriges Riksbank, pp. 75-89.

Apel, Mikael, Eric Frohm, Jyry Hokkanen, Christina Nyman and Stefan Palmqvist (2014), "Results from a survey on company pricing," *Economic Commentary* No. 4, Sveriges Riksbank.

Armelius, Hanna, Paolo Bonomolo, Magnus Lindskog, Julia Rådahl, Ingvar Strid and Karl Walentin, (2014), "Lower neutral interest in Sweden?", *Economic Commentary* No. 8, Sveriges Riksbank.

Bårdsen, Gunnar, Ard den Reijer, Patrik Jonasson and Ragnar Nymoen (2012), "MOSES: Model for studying the economy of Sweden", *Economic Modelling* 29 (6), pp. 2566-2582.

Goodfriend, Marvin och Mervyn King (2016), "Review of the Riksbank's Monetary Policy 2010-2015", Reports from the Riksdag 2015/16:RFR6.

Hallsten, Kerstin and Sara Tägtström (2009), "The decision-making process – how the Executive Board of the Riksbank decides on the repo rate", *Economic Review* 2009:1, Sveriges Riksbank, pp. 69-86.

Hjelm, Göran (2014), "Är backspegeln fortfarande bästa kompassen? Reflexioner kring svensk finans- och penningpolitik" ("Is the rear-view mirror still the best compass? Reflections on fiscal and monetary policy in Sweden"), *Ekonomisk debatt* 42 (2), pp. 5-18.

Iversen, Jens, Stefan Laséen, Henrik Lundvall and Ulf Söderström (2016), "Real-time forecasting for monetary policy analysis: The case of Sveriges Riksbank", Working paper No. 318, Sveriges Riksbank.

National Institute of Economic Research (2016), *Utvärdering av makroekonomiska prognoser* (*Evaluation of macroeconomic forecasts*), Specialstudier No. 48.

Lindé, Jesper and André Reslow (2017), "A myth that the Riksbank's forecasts are governed by models", *forthcoming in Economic Review*, Sveriges Riksbank.

Löf, Mårten (2015), "Recent inflation outcomes and forecasts", *Economic Commentary* No. 4, Sveriges Riksbank.

Lund University (2016), "Yttrande över remissen 'Utvärdering av Riksbankens penningpolitik 2010-2015'" ("Comments on the consultation response 'Review of the Riksbank's Monetary Policy 2010-2015'"), Dnr V 2016/112, Lund University.

Sveriges Riksbank, (2010), *Monetary policy in Sweden.*

Sveriges Riksbank (2016), *Account of monetary policy 2015*.

Figures and charts

Table 1. Annual ranking of the Riksbank's forecasts for the Swedish economy 2007-2015

	GDP	Unemploy-ment	CPI	CPIF	Repo rate
2007	3	5	4	–	4
2008	5	2	5	5	4
2009	3	7	10	7	6
2010	2	6	4	1	3
2011	3	3	4	2	5
2012	2	8	7	4	6
2013	5	2	8	6	6
2014	7	1	7	7	5
2015	2	3	7	8	5
2007-2015	**1**	**3**	**9**	**4**	**6**
Of no. institutions:	10	10	10	9	6

Note. The figures in the table give the Riksbank's ranking, based on estimated accuracy according to the adjusted mean absolute error. The highest ranking is 1. The evaluation of the repo-rate forecasts includes market expectations according to market pricing of forward rates. The forward rates are calculated using derivative contracts (RIBA and FRA) adjusted for credit risk premiums.
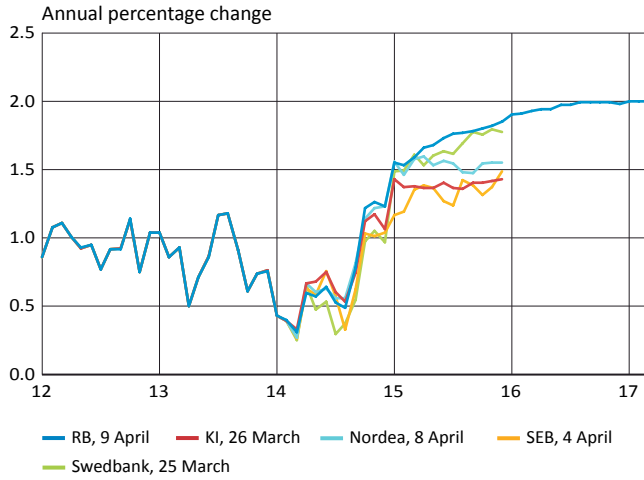Source: Sveriges Riksbank (2016).

Figure 1. Forecast error for CPI
Percentage points, average mean absolute error for all analysts' forecasts at 1-24 months horizon
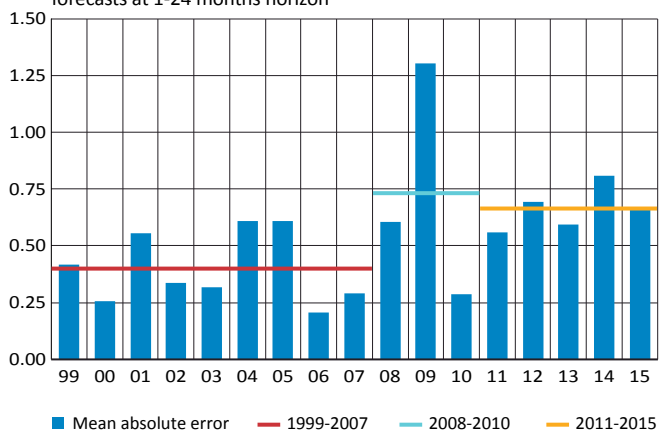
Note. The horizontal lines represents averages for each period. All analysts refers to the Swedish Ministry of Finance, HUI Research AB (the Swedish Retail Institute), the National Institute of Economic Research, LO (the Swedish Trade Union Confederation), Nordea, the Riksbank, SEB, Svenska Handelsbanken, the Confederation of Swedish Enterprise and Swedbank.
Sources: Respective forecasters and the Riksbank

Figure 2. Forecasts for CPIF inflation made by different analysts at the end of March and beginning of April 2014
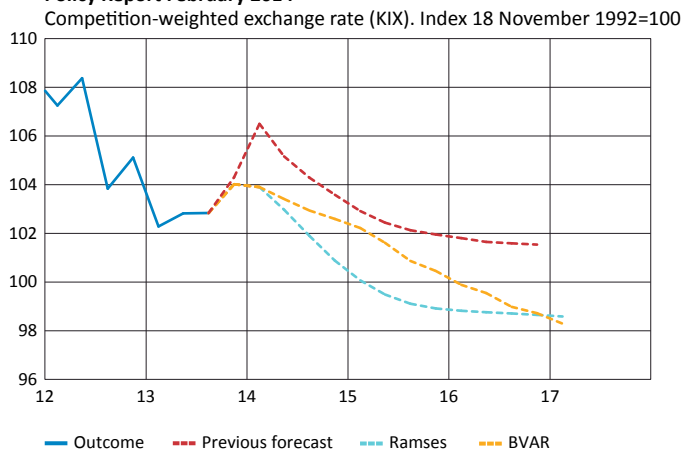Annual percentage change

— RB, 9 April   — KI, 26 March   — Nordea, 8 April   — SEB, 4 April
— Swedbank, 25 March

Sources: The Riksbank, the National Institute of Economic Research, Nordea, SEB and Swedbank

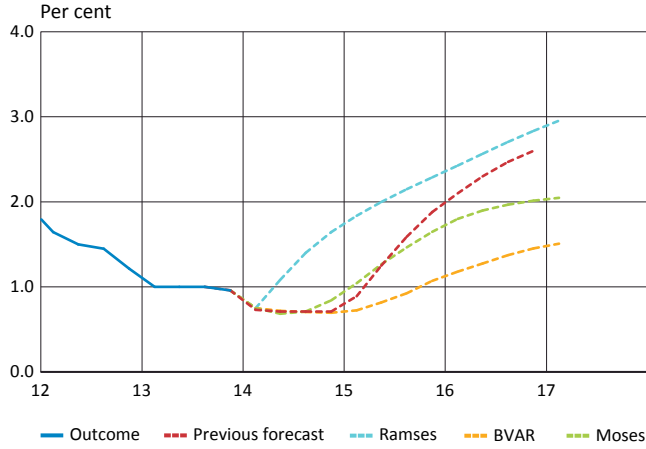**Figure 3. Model forecasts for CPIF inflation ahead of the Monetary Policy Report February 2014**
Annual percentage change

— Outcome   --- Previous forecast   --- Ramses   --- BVAR   --- Moses
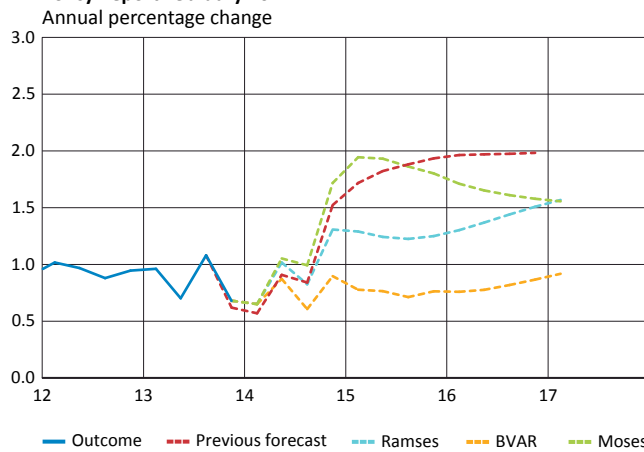
Sources: The Riksbank and Statistics Sweden

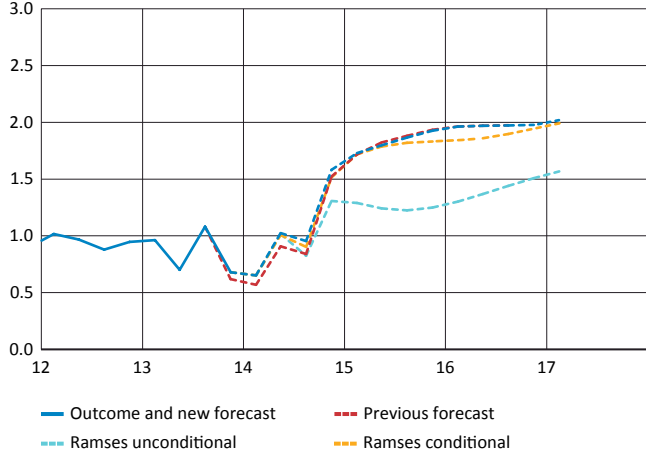**Figure 4. Model forecasts for the exchange rate ahead of the Monetary Policy Report February 2014**
Competition-weighted exchange rate (KIX). Index 18 November 1992=100

— Outcome   --- Previous forecast   --- Ramses   --- BVAR

Source: The Riksbank

Figure 5. Model forecasts for the repo rate ahead of the Monetary Policy Report February 2014

Per cent

— Outcome   --- Previous forecast   --- Ramses   --- BVAR   --- Moses

Source: The Riksbank

Figure 6. Forecasts for CPIF inflation ahead of the Monetary Policy Report February 2014

Annual percentage change

— Outcome and new forecast   --- Previous forecast
--- Ramses unconditional   --- Ramses conditional

Sources: The Riksbank and Statistics Sweden