Housing and Monetary Policy: A View from an Inflation-Targeting Central Bank

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I am honoured to have been asked to participate in this final panel debate in such distinguished company. What I intend to bring to this panel is an account of how Sveriges Riksbank, an inflation-targeting central bank, takes into consideration developments in asset prices, house prices in particular, and our experience thus far of doing so. Hopefully this account will be of interest, since it illustrates some of the challenges—analytical and pedagogical—that policymakers face when deciding on the appropriate way of bringing asset price developments into monetary policy decision making.

In going through events in the past few years I will also touch on the criticism that the Riksbank has received from various directions—members of the public in Sweden, financial market participants and from some members of academia. As a matter of fact, some of the criticism levelled at the Executive Board has come from within the Bank, i.e., from members of the staff. As I will elaborate below, this reflects that there are no simple answers to the question of what the proper role is for house prices in an inflation-targeting framework.

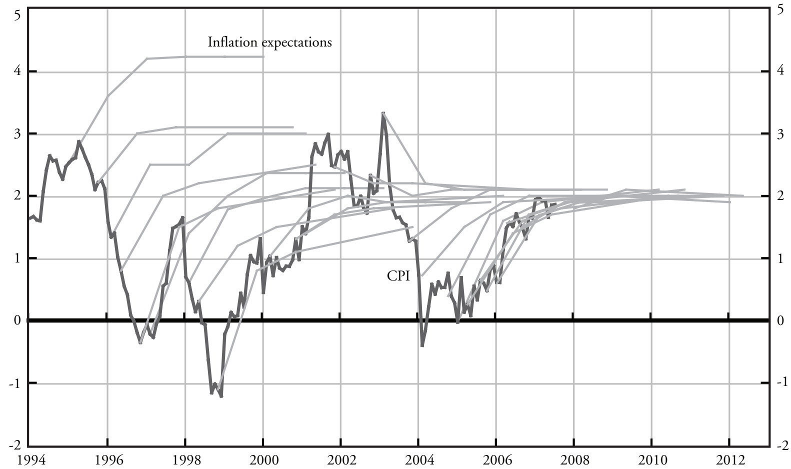
Let me say at the outset what I and other members of the Executive Board have said on many occasions—Sveriges Riksbank does not have a target either for the level of house prices or for house price inflation, or for any other asset price for that matter. However, when we observe long periods of high growth rates in asset prices and debt, growth rates that appear to be unsustainable in the long run, our view is that it is not reasonable to completely ignore that there may be risks associated with this, even though it is difficult to give consideration to these risks in any simple manner in our regular forecasting process. What this view has meant in practice is fairly marginal changes in the timing of our interest rate changes, and substantial public oral and written focus on the issue. Having said that, and for the benefit of those not familiar with the monetary policy framework in Sweden, let me provide a short background.

Sveriges Riksbank is an inflation-targeting central bank, having adopted an explicit target for inflation in 1993, effective from 1995. Our goal is to keep inflation at 2 percent in terms of changes in the Consumer Price Index (CPI). The regime has now been in place for well over ten years, and there is broad agreement that the regime has been a successful one; CPI-inflation has been low and stable over the period, averaging around 1.3 percent, while the real economy has experienced annual growth of around 3 percent. Measures of underlying inflation that exclude the effects on CPI of our own interest-rate changes have been closer to the target of 2 percent, as have inflation expectations (see Chart 1).

Since my remarks are to be on the role that house prices have played in Swedish monetary policy in recent years, the following should be noted too. Since 1996 nominal house prices in Sweden have more than doubled (the increase is around 140 percent, see Chart 2) and the average price for a co-op condominium has risen even more. The corresponding figures concerning the increase in housing prices are for the UK +220 percent, the US +110 percent, Australia +140 percent. In recent years, household borrowing has also increased, both in absolute terms and relative to household income.

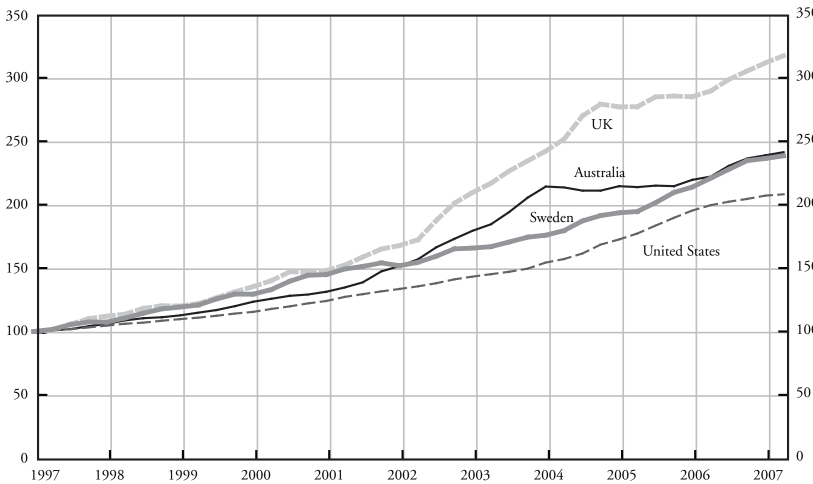
Rapidly growing house prices and household indebtedness were increasingly highlighted by members of the Executive Board from around 2004 and onwards. From 2006, statements regarding the development of house prices and household indebtedness have often been included in press releases following monetary policy decisions, and discussions in the minutes from the Executive Board meetings.

Chart 1
Inflation Expectations in Sweden:
Money Market Agent Expectations, Annual Percentage Change



Sources: Prospera Research AB and Statistics Sweden

Chart 2
Real Estate Prices
Index 1996 4th Quarter = 100



Sources: Australian Bureau of Statistics, Nationwide, Office of Federal Housing Enterprise Oversight, and Statistics Sweden

The Role of House Prices in an Inflation-Targeting Regime

With these institutional and other details in place, let me turn to a more general discussion of the role of house prices in an inflation-targeting regime.

As we are all well aware, the debate regarding the role of house prices in the formulation of monetary policy has yet to settle in a working consensus. There are many ways in which the different views in this ongoing debate can be summarized. Without claiming to have captured all views, and perhaps exaggerating a bit, let me mention three: “textbook flexible inflation targeting,” “leaning against the wind,” and “extending the forecast horizon.” Let me elaborate on each category in turn, and then return to our view.

Textbook Flexible Inflation Targeting

The textbook account of a flexible inflation-targeting regime explains that when interest rates are set to bringing inflation back to the target, consideration is also given to the effects on the real economy; an appropriate balance between inflation and real variability is sought, which implies that an immediate reversal to the target is not an end in itself. Textbook accounts of flexible-inflation targeting typically give the following answer to the question of how asset prices should be factored into the monetary policy decision: Monetary policy should respond to changes in asset prices to the extent that they affect the inflation and growth forecasts. Thus, there is no *independent* role, for example, rapidly rising house prices. Their effect on the monetary policy decision should come only through their effect on the inflation and growth forecasts. This recommendation, and the assumptions on which it is based, is something I will comment more on below.

Leaning Against the Wind

Another view often put forward is that a central bank can bring about better outcomes for inflation and output by reacting to rapidly rising asset prices, over and above their implications for inflation and growth. In short, there are two arguments for this: (I) engaging in such behaviour—let's call it "leaning against the wind"—in situations when an asset price is changing due to non-fundamentals can dampen the effects of the unmotivated price change on the real economy and thereby prevent an inefficient allocation of resources; (II) if the market knows that the central bank engages in "leaning against the wind" activities, the probability will fall of non-fundamental price changes arising in the first place.

The key issue here is, of course, identifying price changes that are driven by non-fundamentals. This problem cannot be overly emphasized. But difficult or not, it is an issue that central banks cannot ignore. If prices of houses or other assets are partly driven by factors that are hard to explain and that are believed to give rise to inefficient allocations and risks of large fluctuations in real economic activity and inflation, such events will, in one way or another, find their way into our thinking about monetary policy.

Extending the Forecasting Horizon

In practice, most inflation-targeting central banks have chosen to adopt forecast horizons of two to three years, at least in external communication and official documents. In this environment, the idea that a central bank can need to extend the horizon over which it constructs inflation, and output forecasts is one that has been heard from many central banks. Doing so may enable the central bank to take into consideration the longer-run consequences on inflation and production of potentially large movements in asset prices and levels of indebtedness that have been built up over long periods of time.

From a theoretical perspective, central banks should always look at inflation and growth over the indefinite future, and thus this seems a reasonable proposal. At the same time, one must remember that in practice it is difficult to construct forecasts for longer horizons that actually contain more information than is contained in the forecast for the coming two to three years. Also, the horizon may, in fact, have to be very long to illustrate the issues at hand.

The Riksbank View

The monetary policy strategy followed by the Riksbank is that of flexible-inflation targeting. When setting interest rates we consider not only the outlook for inflation but also the development of the real economy. In most situations, monetary policy is focused on bringing inflation back to target within a two-year horizon, which is deemed as providing enough time to allow consideration to be given to developments in the real economy. In certain circumstances if inflation has deviated substantially from the target, it is reasonable to let inflation return to target at a slower pace, provided this does not undermine the credibility of the inflation target. Doing so will dampen the effects on the real economy of the policy measures that are adopted in order to return inflation to the stipulated target.

Described in this way, the Riksbank's strategy is close to the textbook treatment of flexible-inflation targeting. However—and here I come to an area where the Riksbank has recently been criticized—we do also allow for taking into consideration developments in asset prices, including house prices. As explained in the policy document "Monetary Policy in Sweden":[1]

> "The paths of asset prices and indebtedness can at times be either difficult to rationalize or unsustainable in the long term. This means that there are risks of sharp corrections in the future which, in turn, affect the real economy and inflation. …In practice, taking risks of this kind into consideration can mean that interest rate changes are made somewhat earlier or later, in relation to what would have been the most suitable according to the forecasts for inflation and the real economy." (p. 15-16)

Why is such a statement included in the Riksbank's monetary policy strategy? Why is it, for instance, not sufficient to simply follow the prescriptions of the textbook account of flexible-inflation targeting? This type of criticism was raised in a recent external evaluation authored by Francesco Giavazzi and Frederic Mishkin.[2]

A close adherence to the textbook account of flexible-inflation targeting requires a belief that the analytical tools and models currently available have accurately captured the important linkages in the economy. It requires a belief that we, as central bank economists, have a solid understanding of all important aspects of the monetary transmission mechanism. In my opinion—which is neither very original nor controversial—we are not quite there yet.

One such area in which our understanding can be improved concerns the credit markets. A fundamental problem is that we presently lack the analytical tools that accurately capture the role played by credit and house prices in the economy. The research of Chairman Bernanke and others regarding the importance of collateral constraints and the financial accelerator effects on firms investment have paved the way for an increased understanding of these complex issues.[3] Their research has been extended by others to the household sector—the idea being that as house prices increase, credit-constrained households are able to engage in so-called mortgage equity withdrawals and raise their consumption. In time, insights from these models will help us to better analyze house prices and household debt in integrated, general equilibrium setups. In fact, this is an area into which the Riksbank is putting some modelling efforts, trying to understand how credit markets can be integrated with our general equilibrium approach to fluctuations in growth and inflation.[4]

In the future we will hopefully be better able to analyze how developments in asset prices influence the future course of inflation and output, and how the monetary transmission mechanism is affected by changing asset prices. Until we are confident that our various formal models adequately capture the risks that we in the Executive Board are concerned about, we will have to continue relying heavily on judgement when taking such effects into account in the conduct of monetary policy.

Let me reflect a bit on what, in my mind, has brought about this stance. On the one hand, we normally talk about inflation targeting in a two-year time perspective, on the other hand there are risks associated with credit and asset prices that may lead to substantial deviations from the forecasted inflation and output paths. The judgement issue then becomes one of meeting, or not meeting, the target at the two-year horizon versus the risk of costly deviations both within and beyond the normal forecast horizon. Such deviations are likely to be low-probability events but with high costs in inflation and real terms, should they occur. We know that these developments are very hard to predict using the standard models we normally rely on, but I do believe it is our responsibility ex ante to reflect on how to avoid future negative outcomes. The nature of such outcomes will vary depending on what part of the asset market that generates the risks, the market microstructure available for sorting out a problem in an efficient manner, and the extent to which monetary policy is able to counteract the risks. Here we certainly can deepen our understanding of how different imbalances unwind and what the costs are. We often talk about asset markets in very general terms without going into any great detail.

In this context one can argue that monetary policy is a blunt instrument and considerations of risks associated with credit and asset markets should be left to the supervisory structures in place. In principle, supervisory rules can be fine-tuned towards different asset markets in a more precise way than monetary policy. If prudential rules are, or become, binding we are also likely to see some macroeconomic consequences of these policies. In my view, it is far from obvious how much weight is to be put on monetary policy and how much on supervision. Monetary policy can play a role, albeit perhaps a limited one, not the least because this will help to manage inflation expectations over the long term. Furthermore, when imbalances build up monetary policy and supervision can support one another.

Criticism from Different Sides…

I mentioned in the beginning that we have been criticized from many angles. Thus, in the very same year that an outside review came to the conclusion that the Riksbank had given too much independent weight to house price developments, other Riksbank watchers criticized us for neglecting the ongoing buildup in house prices and debt levels. Some market commentators in Sweden have in the past year referred to the rapidly rising house prices as a reason for increasing the repo rate at a substantially faster rate than our published interest rate forecasts.[5] House prices have, as I mentioned in the introduction, increased by 140 percent since 1996; annual changes are now in the vicinity of 8 percent, down from around 13 percent a year ago. As in many other countries, these developments have been the subject of much attention in the media, and calls have been made for the Riksbank "to do something about it."

Here some pedagogical challenges arise. We must explain that we do not target house prices, but that we do not ignore risks associated with them. This is far from having a target for house prices. House prices vary in response to changing economic conditions, one of them being the stance of monetary policy. In Sweden, as in many other countries, house prices have increased in an environment characterized by strong macroeconomic conditions, rising disposable incomes and increasingly sophisticated financial markets. In this environment it is impossible to pinpoint an appropriate rate of change in house prices. But policymakers always have to take decisions under a high degree of uncertainty.

Concluding Remarks

In conclusion, let me say that we have tried to be open and honest about the uncertainties surrounding the effects of house price developments on the rest of the economy and the appropriate monetary policy response. We have, in fact, been open about our own uncertainties and the differences in opinion, albeit small, that have arisen at times. This may have given rise to "confusion about the confusion." But one could also say this comes with transparency—outside observers were very aware of the discussions that were being held and the uncertainties involved.

Inflation targeting so far has proved to be a successful way of conducting monetary policy, but there are unresolved issues, and one concerns the treatment of house and other asset prices; it has been hard to formally fit asset price developments into the frameworks researchers and central banks use when they study inflation targeting.

The models currently available to us and other policymakers, while indispensable as tools for organizing our thoughts concerning difficult matters, are incomplete representations of complex economies and cannot be the sole input into our analysis. Thus, while the academic community and researchers at central banks—including Sveriges Riksbank—continue their efforts to formulate models that combine firm founding in economic theory with good empirical properties, policymakers have to use judgement and take into account those relationships that history and experience suggest are of importance.

In my view it is well worth keeping an eye on house prices and other asset prices and passing judgement on the risks that their developments may give rise to. If the probability of very negative outcomes can be reduced ex ante, I believe this to be a good thing and a better solution compared to picking up the pieces ex post.

Endnotes

[1]"Monetary Policy in Sweden." Sveriges Riksbank, 2007. Available at *www.riksbank.com.*

[2]See Giavazzi, F., and F.S. Mishkin (2006), "An evaluation of Swedish monetary policy 1995-2005," Reports from the Riksdag 2006/07:RFR 1, Committee on Finance.

[3]See Bernanke, B., M. Gertler and S. Gilchrist, "The financial accelerator in a quantitative business cycle framework," in John Taylor and Michael Woodford, eds., *Handbook of macroeconomics.* Amsterdam: North-Holland, 2000.

[4]See, e.g., Adolfson, M., S. Laséen, J. Lindé, M. Villani (2007), "Evaluating an Estimated New Keynesian Small Open Economy Model," Sveriges Riksbank Working Paper Series No. 203, forthcoming in the *Journal of Economic Dynamics and Control.*

[5]As of February 2007, Sveriges Riksbank publishes a three-year forecast for the instrument rate in the Monetary Policy Report.