

Monetary policy and financial stability*

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In this speech, I will make a few general points about monetary policy and financial stability. I believe these points may be relevant for the future development of monetary policy, the financial system, and financial-stability policy in China. I will also make some specific points about the recent Swedish experience of tightening monetary policy, “leaning against the wind,” because of concerns about increasing housing prices and household debt. These may also be relevant for related issues in China.

I will discuss three questions. First, what can – and cannot – monetary policy achieve? Second, what is the relation between monetary policy and financial-stability policy? Third, should monetary policy, as promoted by Bank for International Settlements (2014), lean against the wind – for instance against increases in housing prices and household debt – in an attempt to promote financial stability?

A short answer to the first question is that one should not ask too much from monetary policy. Monetary policy can really only stabilize inflation around an inflation target and resource utilization around an estimated long-run sustainable rate of resource allocation. In particular, monetary policy cannot achieve and maintain price stability; a separate financial-stability policy (micro- and macroprudential policy) is needed for that.

A short answer to the second question is that monetary policy and financial-stability policy are very different, with different objectives and different suitable instruments to achieve the objectives. In particular, the instruments suitable for achieving the objectives of monetary policy are not suitable for achieving the objectives of financial-stability policy, and vice versa. My view is that in normal times, these two policies are therefore best conducted separately, also when the

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same authority is in charge in both. But each policy should be fully informed about and take into account the conduct and impact of the other policy.

A short answer to the third question is that, at least in Sweden, the cost (in terms of worse macroeconomic outcome the next few years) of leaning against the wind in order to limit the increase in housing prices and debt may be about 250 times larger than the benefit (in terms of an expected better future macroeconomic outcome). This supports the conclusion that monetary policy should normally be the very last line of defense of financial stability.

What can – and cannot – monetary policy do?

Monetary policy can stabilize inflation around a given inflation target and resource utilization around an estimated long-run sustainable rate. Since the inflation rate over the longer run is primarily determined by monetary policy, it is possible to select a fixed target for the inflation rate and for the monetary policy to achieve an average inflation rate over a longer period in line with the target.¹

In contrast, the long-run sustainable rate of resource utilization (measured by, for instance, potential output or the (negative of) the long-run sustainable rate of unemployment) is largely determined not by monetary policy but by non-monetary factors that affect the structure and working of the economy. These factors may change over time and may not be directly observable and measurable. This means that it is not appropriate to set a fixed monetary-policy target for the long-run rate of resource utilization. Instead the long-run rate of resource utilization must be estimated, and such estimates are necessarily uncertain and subject to revision.

Thus, monetary policy cannot improve the long-run sustainable rate of resource utilization; for that, structural policies must be used. Generally, monetary policy cannot solve structural problems.

Furthermore, monetary policy cannot achieve financial stability; this requires financial-stability policy (micro- and macroprudential policy). Price stability does not imply financial stability. Interest policy is not sufficient to maintain financial stability. In particular, as further discussed below, leaning against the wind cannot solve debt problems.

Stein (2013) has put forward the arguably strongest argument in favor of leaning against the wind for financial stability purposes: “...while monetary policy may not be quite the right tool for the

¹ This section builds on Svensson (2015).

job, it has one important advantage relative to supervision and regulation – namely that it gets in all of the cracks [of the financial system].” But to this I would like to add that a modest policy-rate increase would barely cover the bottom of those cracks. To fill the cracks, the policy-rate would have to be increased so much that it would kill the economy.

In my mind, if there are financial-stability problems, in order to ensure financial stability there is no choice to but to develop and apply a better financial-stability policy.

What is the relation between monetary policy and financial stability?

In order to answer this question, we need to distinguish between monetary policy and financial-stability policy.²

In general, when we discuss different economic policies, we distinguish policies according to their objectives, their suitable instruments, and the authorities that control the instruments and are responsible for achieving the objectives. For instance, fiscal policy and monetary policy have distinct and different objectives, instruments, and responsible authorities. Still there is considerable interaction between the policies, in that the objectives of fiscal policy are affected by monetary policy and vice versa. Therefore, good fiscal policy has to take the effects of monetary policy on the fiscal policy objectives into account, and vice versa. But the policies are clearly separate policies. Similarly, financial-stability policy and monetary policy are separate policies, with some interaction.

Regarding *monetary policy*, for flexible inflation targeting, the objective is price stability and real stability. More concretely, the objective is to stabilize inflation around an inflation target and resource utilization around a long-run sustainable rate. In normal times, the instruments are the policy rate and communication. The latter includes publishing forecasts of the target variables, such as inflation and unemployment, and possible forward guidance, such as publishing a policy-rate path, a forecast for the policy rate. In crisis times, the set of instruments include balance-sheet policies, such as asset purchases (quantitative easing), fixed-rate lending at longer maturities, and foreign-exchange interventions and exchange-rate floors. The authority controlling the instruments and responsible for achieving the objectives is the central bank.

Regarding *financial-stability policy*, the objective is financial stability. The definition of financial stability is not as clear and obvious as the definition of price stability. A definition that I prefer is

² This section builds on Svensson (2014b).

that the financial system can fulfill its three main functions (transforming saving into financing, providing risk management, and transmitting payments) with sufficient resilience to disturbances that threaten these functions. The crucial part of the definition is *sufficient resilience*. In the future there will unavoidably be disturbances and shocks to the financial system, very likely from unexpected directions and of unexpected kinds. The crucial thing is then that there is sufficient resilience to disturbances.

In normal times, the instruments of financial-stability policy are supervision, regulation, and communication, including capital and liquidity requirements, loan-to-value caps, banking-resolution requirements, financial-stability reports, and so on. In crisis times, further instruments include lending of last resort, variable-rate lending at longer maturities (credit easing), guarantees, bank resolution, capital injections, asset purchases, and so on.

The authority or authorities controlling the instruments vary across countries and may include the financial supervisory authority, the central bank, the ministry of finance, the national-debt office, a separate bank-resolution authority, and so on.

Clearly, from the above perspective, monetary policy and financial policy are different and distinct policies. This is also the case when the same institution, the central bank, is in charge of both policies.

Importantly, price stability does not imply financial stability. Monetary policy can achieve price stability, but it cannot achieve financial stability. There is no way monetary policy can achieve sufficient resilience of the financial system; there is, for instance, obviously no way monetary policy can ensure that there are sufficient capital and liquidity buffers in the financial system.

Furthermore, financial-stability policy cannot achieve price stability. Financial-stability policy can achieve financial stability, but it cannot stabilize inflation around the inflation target and unemployment around a long-run sustainable rate.

Thus, both policies are needed to achieve both monetary-policy objectives and financial-stability objectives.

Still, there is interaction between the two policies. Financial-stability policy affects financial markets, spreads between different interest rates and lending by banks. This way it indirectly affects inflation and resource utilization. Monetary policy affects resource utilization, credit losses and assets prices. This way it indirectly affects balance sheets and leverage. Thus, there is

interaction between the two policies, as there is interaction between fiscal policy and monetary policy. But the instruments suitable for achieving the objectives of monetary policy are not suitable for achieving the objectives of financial-stability policy, and vice versa.

My view is that, in normal times, it is therefore best to conduct monetary policy and financial-stability policy independently, with each policy taking the conduct of the other policy into account in order to best achieve its objectives. This is similar to how monetary policy and fiscal policy are conducted. In game-theory terms, it corresponds to a non-cooperative Nash equilibrium rather than a cooperative equilibrium. This is best for two reasons: First, monetary policy is much more effective than financial-stability in stabilizing inflation around the inflation target and resource utilization around a long-run sustainable rate, whereas financial-stability policy is much more effective than monetary policy in achieving financial stability. Second, it clarifies the accountability of the authority responsible for each policy. Bean (2014) provides a thorough discussion of why and how monetary policy and financial-stability policy can achieve a good outcome by each policy focusing on its objective.

In crisis times, full cooperation and coordinated policies by the relevant authorities are warranted. These authorities may include the financial supervisory authority(ies), the central bank, the ministry of finance, the banking-resolution authority, and so on.

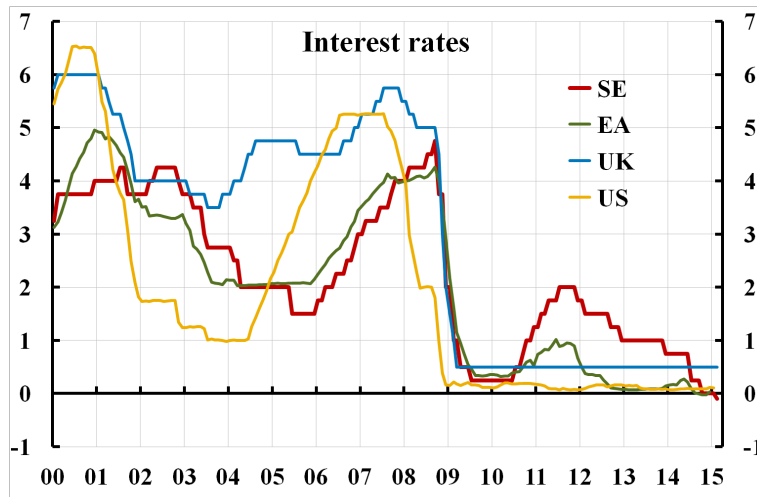
Should monetary policy lean against the wind to promote financial stability?

Regarding the question of whether monetary policy should lean against the wind (that is, be tighter than justified by stabilizing inflation around the inflation target and resource utilization around a long-run sustainable rate) in order to promote financial stability, the Swedish experience is very relevant.

The Riksbank provides a very clear example of leaning against the wind, having tightened policy aggressively beginning in the summer of 2010, in order to limit the growth of household debt. Figure 1 shows the increase in the Riksbank policy rate from 0.25 percent in the summer of 2010 to 2 percent in the summer of 2011. This tightening of policy was done in spite of an inflation forecast below the Riksbank's inflation target and an unemployment forecast far above the Riksbank's estimate of a long-run sustainable rate of unemployment.³

³ This section builds on Svensson (2014a), to which I refer for details.

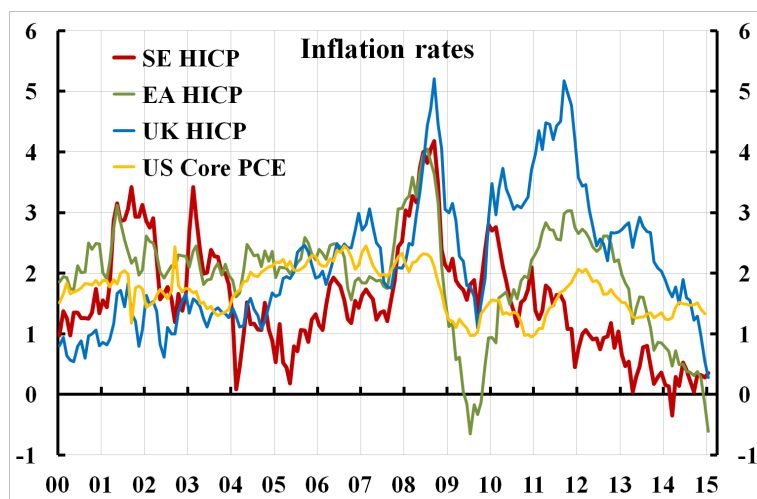
Figure 1. Policy rates in Sweden, the U.K., and the U.S.; the Eonia rate in the euro area



Source: Datastream.

Following the tightening, inflation fell quickly. Figure 2 shows inflation for Sweden, the euro area, the U.K., and the U.S. (measured by HICP for the first three economies to be more comparable across countries, and by core PCE for the U.S.).

**Figure 2. Annual HICP inflation in Sweden, the euro area, and the U.K.;
core PCE inflation in the U.S.**

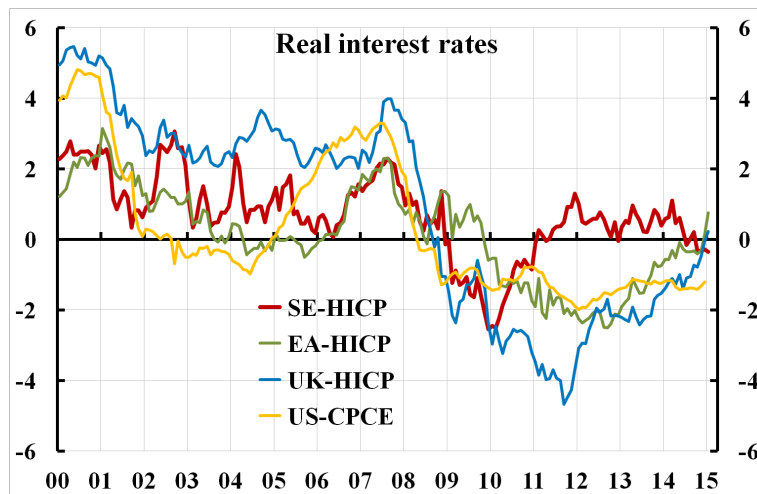


Source: Datastream.

An increasing policy rate and falling inflation meant that the real policy rate, measured as the policy rate minus inflation, increased more than the policy rate, as shown in figure 3. The real

policy rate in Sweden increased from about minus 2.5 percent in the beginning of 2010 to about 1 percent at the end of 2011, 3.5 percentage points, a very dramatic tightening of policy. The policy led to a zero or even negative CPI inflation (figure 4, the grey line) and an unemployment rate that has stayed around 8 percent, much above a long-run sustainable rate.

Figure 3. The real interest rate in Sweden, the euro area, the U.K., and the U.S.



Source: Datastream.

The Riksbank has afterwards provided a framework for its policy (Sveriges Riksbank (2013)). It acknowledges that there is a cost to the policy, in that a higher policy rate leads to a higher unemployment rate the next few years. But it argues that a higher policy rate leads to lower real household debt and a lower debt-to-income ratio, and that this in turn implies a lower probability of a future crisis and less deep crisis if it would occur. The benefit is then an expected lower unemployment rate in the future.

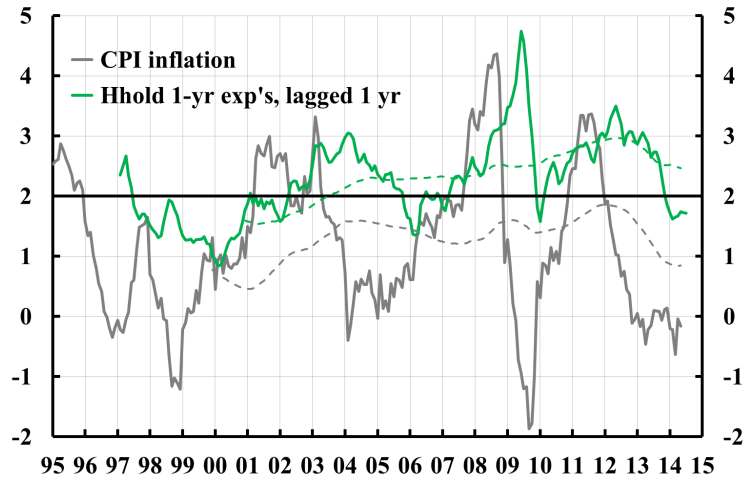
The Riksbank has not published any numerical estimates of the tradeoff between costs and benefits of the policy. However, it has published estimates of the impact of the policy rate on unemployment, real household debt, and the household debt-to-income-ratio (Sveriges Riksbank (2014)). The effect on real debt and the debt-to-income ratio is very small and not significantly different from zero. Combining these Riksbank estimates with estimates in the literature of the impact of real debt growth on the probability of a financial crisis (Schularick and Taylor (2012)) and the impact of a lower-debt-to-income ratio on the increase in the unemployment rate in a crisis (Flodén (2014)); and a Riksbank assumption of an on average 5 percentage points increase the unemployment rate in a crisis (Sveriges Riksbank (2014)); it is possible to calculate the cost

and benefit of tighter policy. It turns out that the benefit is miniscule compared to the cost. The benefit (in terms of lower expected future unemployment rate) is about 0.4 percent of the cost (in terms of higher unemployment during the next few years). Put differently, the cost is about 250 times the benefit.

Furthermore, the Riksbank experience points to an inherent flaw in a policy of leaning against the wind to limit indebtedness, a policy that, as mentioned, is supported by Bank for International Settlements (2014). As mentioned, leaning against the wind means a policy that is tighter than justified by stabilizing inflation around the inflation target and resource utilization around a long-run sustainable rate. It thus means running inflation on average below the inflation target. But inflation targets have in many economies become credible, in the sense of inflation expectations being anchored to the targets. This means that inflation below the inflation target also means inflation below inflation expectations. This will tend to increase households' and other agents' real debt burden. It will also increase unemployment and reduce employment and incomes, which will in turn reduce the debt-service capacity of indebted agents. The conclusion is that leaning against the wind is generally likely to be counterproductive as a way of managing debt problems.

In particular, in Sweden, actual inflation in the past few years has been running much below the inflation target and households' expectations. Figure 4 shows annual CPI inflation (grey line) and households' expectations of annual inflation one year ahead (green line). One can see that households have generally expected inflation to be somewhat higher than the inflation target of 2 percent. In the figure, households' expectations are lagged one year, so the gap between the grey and the green lines shows the inflation surprise relative to expectations held one year earlier. Inflation has fallen much below expectations during the last few years. One can show that the real value of loan taken out in November 2011 is about 6.5 percent higher in the spring of 2015 than if inflation had equaled 2 percent.

Figure 4. Annual CPI inflation and households' expectations of inflation one year ahead, lagged one year.



Source: Datastream.

Conclusions

Thus, my conclusion is that one should not ask too much from monetary policy. Monetary policy can really at best just stabilize inflation around a given inflation target and resource utilization around an estimated long-run sustainable rate and this way keep average inflation on target and average resource utilization equal to the economy's long-run sustainable rate. In particular, monetary policy cannot achieve financial stability; a separate financial-stability policy is needed for that.

Monetary policy and financial policy are very different, with different objectives and different suitable instruments to achieve the objectives. In normal times, they are best conducted separately, also when the same authority is in charge in both. But each policy should be fully informed about and take into account the conduct and impact of the other policy.

In Sweden, the cost of the Riksbank leaning against the wind may be as much as 250 times the benefit. Furthermore, leaning against the wind is an inherently flawed policy to manage debt problems, since running inflation below credible inflation targets increases households' real debt burden and reduces agents' debt-service capacity. This supports that monetary policy should only be the very last line of defense of financial stability.

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