

SPEECH



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■ Monetary policy after the financial crisis*

As the world economy recovers from the recent financial crisis and the Great Recession that followed, a debate is going on regarding the causes behind the crisis and how to reduce the risk of future crises. The role of monetary policy and its relation to financial stability are also under debate and some argue that there is a need to modify the framework of flexible inflation targeting and give a greater role to financial-stability considerations. Some blame too expansionary monetary policy by the Federal Reserve after 2001 for laying the foundation for the crisis.

My view is that the crisis was largely caused by factors that had very little to do with monetary policy. And my main conclusion for monetary policy is that flexible inflation targeting - applied in the right way and in particular using all the information about financial conditions that is relevant for the forecast of inflation and resource utilisation at any horizon - remains the best-practice monetary policy before, during, and after the financial crisis.

A related conclusion is that neither price stability nor interest-rate policy is sufficient to achieve financial stability. A separate financial-stability policy is needed. In particular, monetary policy and financial-stability policy need to be conceptually distinguished, since they have different objectives and different appropriate instruments, even when central banks have responsibility for both¹.

So today, I will first briefly summaries my view of the causes of the crisis, and then discuss what the possible lessons are for future monetary policy, and finally I shall emphasise the distinction between monetary policy and financial-stability policy.

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¹ For a more detailed discussion of these issues, see Svensson (2010, section 5.2).

■ The financial crisis had little to do with monetary policy

As I see it, the financial crisis was caused by factors that had very little to do with monetary policy. The factors were the macro conditions; distorted incentives in financial markets; regulatory and supervisory failures; information problems; and some very specific circumstances, such as the US housing policy to support home ownership for low-income households².

Regarding the *macro conditions*, global imbalances with large saving relative to investment in many emerging-market economies, and corresponding low saving relative to investments in industrialised countries – the so called global saving glut and investment shortage – lead to low real interest rates and high asset prices (Bernanke 2007). Low world real interest rates in combination with the Great Moderation, the long period of very stable growth and stable low inflation, led to a systematic underestimation of risk, very low risk premia in financial markets, and a large expansion of credit.

Distorted incentives for commercial and investment banks to increase leverage to excessive levels, together with lax regulation and supervision and the lack of an appropriate bank resolution regime, lead to a very fragile financial sector. Securitisation reduced the incentives to exercise due diligence in loan origination. It also led to regulatory arbitrage by setting up off-balance-sheet entities, which for various reasons nevertheless remained in effect on the balance sheet. Traders and fund managers also had distorted incentives to take excessive risks because of short-sighted and asymmetric remuneration contracts.

There were eventually enormous *information problems* in assessing the risks of extremely complex asset-backed securities, and the potential for correlated systemic risks was grossly underestimated. None of these causes had anything to do with monetary policy, except indirectly in that monetary policy may have contributed to the Great Moderation.

Regarding the role of the Federal Reserve's expansionary monetary policy in the period preceding the crisis, opinion is divided as to whether or not it contributed to the build-up of the crisis. In my view, during the period in question there was a genuine and well-motivated fear of the United States falling into a Japanese-style deflationary liquidity trap, and the optimal policy in such a situation is a very expansionary monetary policy³. Given the empirically limited effect of policy rates on house prices, a very tight US monetary policy would have been required to prevent the house price boom, with a deep recession and the risk of the US falling into deflation and a liquidity trap⁴. And a tighter monetary policy would have had no impact on the global imbalances, regulatory problems, distorted incentives and information problems mentioned above (although it could have ended the Great Moderation with a deep recession and deflation).

² See Bean (2009) for more discussion.

³ See Svensson (2003) for a discussion of policy options before and in a liquidity trap.

⁴ See Assenmacher-Wesche and Gerlach (2009), Bean (2009), Bean et al. (2010), Bernanke (2010), Dokko et al. (2009), IMF (2009).

■ Lessons for monetary policy

What conclusions can we draw so far from the financial crisis about the conduct of monetary policy and any need to modify the framework of flexible inflation targeting? One obvious conclusion is that price stability is not enough to achieve financial stability (Carney 2009, White 2006). Good flexible inflation targeting by itself does not achieve financial stability, if anyone ever thought it did. Specific policies and instruments are needed to ensure financial stability.

Another conclusion is that interest-rate policy is not enough to achieve financial stability. The policy rate is an ineffective instrument for influencing financial stability, and policy rates high enough to have a noticeable effect on credit growth and house prices will have a strong negative effect on inflation and resource utilisation, even in sectors that are not experiencing any speculative activity. The use of the policy rate to prevent an unsustainable boom in house prices and credit growth poses major problems for the timely identification of such an unsustainable development, as well as for the assessment of whether policy-rate adjustment would have any noticeable impact on the development, and of whether, in the longer run, the development of inflation and resource utilisation would be better (Bean et al. 2010, Kohn 2008, 2009).

Other instruments like supervision and regulation, including appropriate bank resolution regimes, should be the first choice for financial stability. Preventing a financial crisis requires not only improvements in the supervision of financial institutions, but also a greater emphasis on the supervision of the financial system as a whole. As regards the regulatory framework, generally, to the extent that financial instability depends on specific distortions, good regulation should aim to attack these distortions as close to the source as possible. Macro-prudential regulation that is contingent on the business cycle and financial indicators may need to be introduced to induce better financial stability. Possible macro-prudential regulation includes variable capital, margin, and equity/loan requirements.

However, one important lesson from the financial crisis is that financial conditions may have a very strong and deteriorating effect on the transmission mechanism, making standard interest-rate policy much less effective. This motivates more research on how to incorporate financial conditions and financial intermediation into the standard models of the transmission mechanism used by central banks. Much progress has already been made in understanding these effects (see Adrian and Shin 2010, Gertler and Kiyotaki 2010 and Woodford 2010a). However, even with much better analytical foundations concerning the role of financial conditions in the transmission mechanism, there will of course, as always, be considerable scope for the application of good judgment in monetary policy.

What about “leaning against the wind”, the idea that central banks should raise the interest rate more than what appears to be warranted by inflation and resource utilisation to counter rapid credit growth and rising asset prices? It has sometimes not been entirely clear to me whether advocates of the leaning against the wind policy mean that credit growth and asset prices should be considered targets and entered into the explicit or implicit loss functions alongside inflation and resource utilisation. Or whether they mean that credit growth and asset prices should still be considered just indicators, and that they emphasise them merely because credit growth and asset prices may have potential negative effects on inflation and resource utilisation at a longer horizon.

■ In the latter case, leaning against the wind is a way to improve the stability of inflation and resource utilisation in the longer run. Then it is completely consistent with my interpretation of flexible inflation targeting.

More precisely, flexible inflation targeting aims at stabilising inflation around the inflation target and resource utilisation around a normal level. Monetary policy then boils down to “forecast targeting”, choosing a policy-rate path such that the corresponding *forecasts* of inflation and resource utilisation best stabilise inflation around the target and the resource utilisation around a normal level. If the central bank uses all relevant information in constructing these forecasts, including the impact of changes in financial conditions on inflation and resource utilisation at any horizon, monetary policy will automatically respond in the best possible way to changing financial conditions (Woodford 2007, 2010a). Taking financial conditions into account becomes a special case of the general rule of “filtering all information through the forecast”. Only information that affects the forecast should be responded to, whereas information that does not affect the forecast can be disregarded.

However, suppose that, for some reason, the appropriate and effective instruments to ensure financial stability are not available, for instance, because of serious problems with the regulatory and supervisory framework that cannot be remedied in the short run. In such a second-best situation, if there is a threat to financial stability, one may argue that, to the extent that policy rates do have an impact on financial stability, that impact should be taken into consideration when choosing the policy-rate path to best stabilise inflation and resource utilisation. Such considerations could result in a lower or higher policy-rate path than otherwise, in order to trade off less effective stabilisation of inflation and resource utilisation for more financial stability⁵. However, so far all of the evidence indicates that in normal times that trade-off is very unfavourable, in the sense that the impact of policy rates on financial stability is quite small and the impact on inflation and resource utilisation is significantly larger, so an optimal trade-off would still have little impact on financial stability. A good financial-stability policy framework is necessary to ensure financial stability. Monetary policy cannot serve as a substitute.

The relation between monetary policy and financial-stability policy

In general, it is helpful to conceptually distinguish financial-stability policy from monetary policy. Different economic policies and policy areas, such as fiscal policy, monetary policy, labour market policy, etc., can be distinguished according to their objectives, the policy instruments that are suitable for achieving the objectives, and the authority or authorities controlling the instruments and responsible for achieving the objectives. From this point of view, it is clear

⁵ Such considerations could include evidence of the “risk-taking channel” as in Borio and Zhu (2008). Adrian and Shin (forthcoming) and Adrian and Shin (2010) argue, in a model with such a risk-taking channel, that short interest-rate movements may have considerable effects on the leverage of securities broker-dealers in the market-based financial sector outside the commercial-banking sector. If we assume that the risk of a financial crisis increases as this leverage increases, and that policy rates affect leverage, then policy rates would affect the risk of a financial crisis (Woodford 2010b). However, new regulation is likely to limit excess leverage and limit the magnitude of these effects. The size of the market-based financial sector may end up being smaller after the crisis. In Europe, Canada and the Nordic countries, commercial banks dominate the financial sector.

■ that monetary policy and financial-stability policy are very different, and understanding this distinction is important.

Monetary policy, in the form of flexible inflation targeting, has the objective of stabilising inflation around the inflation target as well as resource utilisation around a normal level. Under normal circumstances, the suitable instruments are the policy rate and communication. In times of crisis, as we have seen during the current crisis, other more unconventional methods can be used, such as fixed-rate lending at longer maturities and asset purchases (quantity easing) to affect longer interest rates and expectations of future short rates, and foreign-exchange intervention to prevent currency appreciation or even to induce currency depreciation. The authority responsible for monetary policy is typically the central bank.

Financial-stability policy has the objective of maintaining and promoting financial stability. Financial stability can be defined as a situation where the financial system can fulfil its main functions of submitting payments, channelling saving into investment, and providing risk sharing without disturbances that have significant costs. The available instruments are, under normal circumstances, supervision, regulation, and financial-stability reports with analyses and leading indicators that may provide early warnings of stability threats. In times of crisis, authorities may use such instruments as lending of last resort, variable-rate lending at longer maturities (credit policy, credit easing), special resolution regimes for financial firms in trouble, government lending guarantees, government capital injections, and so forth. The responsible authority or authorities vary across countries. In some countries it is the central bank, in other countries there is a separate financial supervisory authority, and sometimes the authority is shared between different institutions.

Financial-stability policy and monetary policy are conceptually distinct, with distinct objectives and distinct suitable instruments. My point here is that this has to be taken into account when considering the lessons of the financial crisis for monetary policy. The interest rate is a blunt and unsuitable instrument for achieving financial stability and it thus makes little sense to assign the objective of financial stability to *monetary policy*. However, it may make sense to assign the objective of financial stability to the central bank, if the central bank is given control of the appropriate supervisory and regulatory instruments.

The fact that financial-stability policy and monetary policy are different does not mean that there is no interaction between them. Similarly, monetary policy and fiscal policy are distinct policies but both have an impact on inflation and resource utilisation. The interaction between monetary policy and financial-stability policy has to be considered. Monetary policy affects asset prices and balance sheets and can thereby affect financial stability. Financial-stability policy directly affects financial conditions, which affect the transmission mechanism of monetary policy. This motivates more research on how to incorporate financial conditions into the standard models of the transmission mechanism used by central banks. The outcome might very well be that financial conditions are considered to play a larger role in the transmission mechanism and as indicators of future inflation and resource utilisation. If so, central banks would end up responding more to financial indicators, in the sense of adjusting the policy rate and policy-rate path more to a given change in a financial indicator. But this would not mean that financial conditions and indicators would become independent targets for monetary policy.

■ Conclusions

My main conclusion from the crisis with regard to monetary policy so far is that flexible inflation targeting - applied in the right way and using all the information about financial conditions that is relevant for the forecast of inflation and resource utilisation at any horizon - remains the best-practice monetary policy before, during, and after the financial crisis. But a better theoretical, empirical and operational understanding of the role of financial conditions and financial inter-mediation in the transmission mechanism is urgently required and needs much work, work that is already underway in academia and in central banks. Further-more, monetary policy cannot guarantee financial stability. A separate financial-stability policy, with the objective of financial stability and with suitable instruments other than the policy rate, is required.

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