

Speech

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What shall guide monetary policy?

Swedish Economics Association

Thank you for inviting me once again to the Swedish Economics Association to discuss various aspects of the Riksbank and monetary policy. I greatly appreciate the opportunity of addressing what can be called a historical and academic forum and conducting a dialogue about economic policy both with the two opponents and with other scholars and students.

The inflation target has been monetary policy's rudder ever since 1993 and I believe most people would agree that on the whole in this period it has functioned fairly well. After a couple of decades of high inflation, we have managed to re-establish price stability. Market players as well as people in general are now more confident in and have a better understanding of the regime and the general formation of monetary policy. It also looks as though the importance of fiscal discipline as a means of supporting the monetary policy regime is anchored in the political system and in Swedish society.

Sweden is not the only country where a regime with an explicit inflation target seems to be working well. I am sure that much the same view is held by my colleagues in the small group of countries — consisting of New Zealand, Canada and the United Kingdom — that formally introduced the regime at much the same time as Sweden in the early 1990s. Since then, more and more countries, including some of the emerging industrialised countries, have changed to a regime with an explicit inflation target. The other week it was announced that two of our Nordic neighbours, Norway and Iceland, are also to focus monetary policy on an inflation target.

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But we cannot settle down to a quiet life. Our thoughts about both the implementation of monetary policy and its analytical framework must be developed continuously. That is, indeed, an ongoing process at the Riksbank. Early in 1999, for instance, the Executive Board made some formal clarifications. It was noted that monetary policy should aim to fulfil the inflation target, expressed in terms of the consumer price index, one to two years ahead but that under certain specific circumstances there can be grounds for deviating from that aim. In some respects the clarification amounted to a codification of what had been practised for a number of years.¹

Today I shall be discussing how the Riksbank ought to react when the economy is exposed to structural changes of various types. *Firstly*, how should monetary policy handle price effects of deregulations. In that deregulations can lower the general price level, they may occasion a temporary dip in the rate of inflation. *Secondly*, how should monetary policy be formulated in connection with a rising rate of productivity growth? Such a development can be taken to indicate that the economy is being exposed to positive supply shocks. While the rate of productivity growth in Sweden has not yet moved up to the same extent as in the United States, it is conceivable that, as so often in the past, we will follow the pattern there. However, the probability of this happening is not something I intend to consider today.

1. The rule of action in monetary policy

First let me recall the Riksbank's rule of action by which monetary policy is usually guided. It states that if the forecast rate of inflation, measured with the consumer price index, 1–2 years ahead is above 2 per cent, then normally the repo rate should be raised and vice versa. The reason why we chose this target horizon is that an adjustment of the monetary stance takes time to exert its full impact on inflation and the macro economy in general. Although we are also able to influence inflation in the shorter run, doing so is normally inappropriate because it is liable to result in large fluctuations in production and employment.

Of course the rule is not applied mechanically. The basic intention is to stabilise inflation around the target and at the same time avoid unduly large fluctuations in production and employment. Consequently the Riksbank chooses to disregard economic shocks with effects on inflation that can be assumed to be only transitory. Moreover, there may be grounds for heeding the expected course of events beyond the regular target horizon. There may be a case for adjusting the repo rate immediately if there are already strong reasons for expecting a marked increase or decrease in inflation directly after the two-year horizon. Another point to remember is the Riksbank's function of promoting a safe and efficient payment system; problems in this context may call for interest rate adjustments even though the inflation target is not threatened. Such adjustments may be needed both to prevent potential risks from building up in the payment system and to moderate effects of problems that have already arisen.

¹ Minutes of the Executive Board meeting on 4 February 1999. The clarification is also presented in Heikensten, L. (1999), The Riksbank's inflation target — clarifications and evaluation, *Quarterly Review* 1, Sveriges Riksbank.

Departures of this type from the rule of action should, however, be made restrictively. When the clarification was presented at the beginning of 1999, the Executive Board made a point of the fact that deviations from the normal rule are to be stated clearly and justified.

The Riksbank's rule of action and some of the aspects I have mentioned have direct counterparts in current laws and their prefatory documents. The Riksbank Act states that "The objective of the Riksbank's operations shall be to maintain price stability. In addition, the Riksbank shall promote a safe and efficient payment system." Moreover, the Government Bill (1997/98:40) lays down that in order to increase the possibility of democratic control, the statutory objective should be given its specific content by the Riksbank. Furthermore, in the prefatory documents it is said that as an authority under parliament, the Riksbank shall self-evidently support the general goals of economic policy, for example sustainable growth and full employment, in so far as they do not conflict with the objective of price stability. It was not considered necessary to legislate these obligations.

2. The inflation target and price effects of deregulations

Market deregulation can have considerable effects on price formation. The immediate effect of a deregulation is often that the price falls, sometimes almost at once, so that the rate of inflation is lowered for the time being. All else equal, the rate of inflation then returns to the initial level as the months on which the statistical comparison is based move forward. Normally, however, deregulations also affect the conditions for competition and price formation in the longer run. I should add here that rising competitive pressure can also affect productivity but the economic effect of productivity growth is something I shall be considering later.

A particular, limited deregulation need not call for measures of monetary policy. If a deregulation stems from political decisions that could not be predicted, or its effects on inflation are calculated to disappear in less than one to two years, it will not elicit a reaction from the Riksbank as long as the rule of action is adhered to.

The situation is different, however, if the economy goes through a series of deregulations or the price effects of a single deregulation continue for several years. This may lead to inflation being below the target more permanently, which in turn ought to lead, according to the rule of action, to a downward adjustment of the instrumental rate. The stimulus from monetary policy acts through the usual channels. So all else equal, one can expect a fall in market interest rates, rising share prices, a stronger expansion of credit and so on. General demand rises, employment moves up, unemployment falls and the inflation target is fulfilled.

When the price effects have waned, there is a risk, if nothing else intervenes, of inflation rising above the target. To counter this, monetary policy responds by gradually increasing the instrumental rate again. Market interest rates move up, share prices fall and the growth of credit slackens. In other words, the customary transmission mechanism now works in the opposite direction, leading to some fall in production and employment as well as in resource utilisation. Another component of the process is the higher inflation's limiting effect on household real

income, just as the lower inflation benefited household income. Inflation then falls back to the targeted rate.

For clarity's sake I should perhaps add that this reasoning presupposes that inflation expectations are not affected.

The exchange rate's reactions to monetary policy measures are not entirely given. Text books say that the exchange rate weakens in a scenario with monetary stimuli and appreciates when the instrumental rate is increased. That should normally be the case as long as nothing else happens. But the fact remains that there have been many instances all over the world of exchange rates appreciating even though instrumental rates have been cut and vice versa. In such situations market players have often attached greater weight to the prospects of faster or slower economic growth — provided the rate of inflation is expected to remain low. So it is not entirely clear how the exchange rate will ultimately be affected when the instrumental rate is raised or lowered.

Were it the case that regulatory changes always refer to a particular group of goods or services, one might consider excluding this group from the price index that monetary policy aims to stabilise. A disadvantage of this might be that monetary policy would be guided by an indicator of inflation that is not the most relevant one for consumers. On the other hand, it could confer the advantage of making monetary policy simpler and more predictable.

In practice, however, adjusting the consumer price index for shocks of this type is virtually impossible. The effects can come from a series of deregulations that affect different stages of price formation for a variety of goods and services. So even if it were feasible, I believe that working with a narrow price index would have more drawbacks than advantages. We must accept instead that all economic activities pose difficulties that stem from the impossibility of predicting the future exactly. When it comes to evaluating monetary policy, it is better to accept certain deviations from a relevant target than to have a target that can only be fulfilled because it has been defined so narrowly as to be hardly relevant.

This particular aspect is also highly important and valid in other situations to do with the evaluation of monetary policy. There needs to be a widespread awareness both of what monetary policy is actually capable of achieving and of the choices that continually have to be made. Otherwise it will be difficult to achieve a *comprehensive* evaluation. All this is, of course, a matter of learning. But sometimes there is too great temptation to score a cheap point in the public discussion by accusing the central bank of acting too late or 'missing' the target.

The point I want to make on this topic is that an inflation targeting monetary policy normally functions satisfactorily even in situations that are characterised by price effects from deregulations. Monetary policy may not be capable of fully countering every change in the general price level, including more or less transitory effects on the rate of inflation. But that has more to do with the difficulties in producing exact forecasts of deregulations and their price effects than with the effects of deregulations differing in some more principled sense that warrants treating them differently from other shifts in relative prices.

3. The inflation target and rising productivity growth

3.1 Effect on demand and direct downward effect on inflation

Another type of structural change occurs when productivity growth rises.² Higher trend productivity implies a permanently faster growth of total output. At the same time, as the productivity growth subdues unit labour costs, in a process of this kind inflation tends to be pushed down, at least initially. The return on capital rises and stimulates an expansion of the capital stock. In addition, the equilibrium real interest rate tends to move up in order to maintain the balance between saving and investment. The background to this is that demand for capital is assumed to rise when investment is perceived as more profitable in the light of higher productivity.

In recent years some observers have concluded that rising productivity growth contributes to a decreased risk of inflation, a smoothing of cyclical fluctuations and a virtually endless continuation of the upswing. That is not so, as we shall shortly see. A path of this kind is, of course, highly desirable, leading as it does to higher real incomes and prosperity. But it faces monetary policy with troublesome problems and it is in the actual process of adjustment that the difficulties arise.

A structural change with rising productivity growth may be due to, for instance, a shift in technology. An interesting example is provided by the United States, where the relative price fall in connection with developments in computers and telecommunications in recent decades can serve as an illustration. During the process of adjusting to the new, higher growth path there are at least two, contrary effects that are relevant for monetary policy. *One effect* is an increase in demand. The impact of this on inflation will depend on how the increment to demand relates to the higher potential supply of goods and services. The *other effect* is a direct damper on inflation. It is often only the latter effect that is highlighted in the public debate. I should like to consider the two effects in turn.

Demand rises in the form of higher investment and increased private consumption. The upswing for investment stems from expectations of a higher return on capital. Share prices rise, which facilitates capital procurement. The capital stock is adjusted towards a new level that is expected to match the new and higher rate of potential growth. Private consumption is stimulated via the wealth effects of higher share prices and expectations of higher future household income. Experience suggests that the increase in demand, initially at least, often exceeds the upward shift in potential growth. As a result, unutilised capacity is brought into production, unemployment falls and resource utilisation rises. So all in all, the demand effect tends to drive inflation up.

The direct damper on inflation is a consequence of higher productivity growth leading to lower unit labour costs and thereby lower costs for production. Profits therefore rise initially but competitive pressure on prices leads in time to lower inflation. This effect presupposes that it takes time for wages to adjust to the higher productivity growth, which is not uncommon.

² For an interesting review of aspects of the adjustment process, see Meyer, L.H. (2000), "The Economic Outlook and the Challenges Facing Monetary Policy," Remarks at Washington University, St. Louis, Missouri. The Federal Reserve Board, October 19.

These two effects on the rate of inflation accordingly work in opposite directions. An upward effect on inflation from the rising demand is countered by the dampening effect. For an inflation targeting monetary policy, the problem in principle should amount to striking a balance between these two effects. As I shall soon be discussing, however, things are not quite as simple as that. But first I want to point out that in the longer run — when both the demand effect and the dampening effect have dropped out — the interest rate will unquestionably rise because a higher level of potential growth pulls the equilibrium real interest rate up to maintain the balance between saving and investment.

3.2 Two alternatives for monetary policy

Behind this seemingly straightforward and fairly simple discussion there are, as we shall soon see, major challenges for monetary policy and pitfalls for economic development in general. They basically have to do with the principles that monetary policy decision-makers have to choose between when productivity growth accelerates.

One possibility, given that the economy is in equilibrium, is to let output growth exceed the potential rate for a time. This leads to a temporary fall in unemployment but the direct dampening effect is so strong that inflation can be held in the vicinity of the target. This alternative presumably requires an instrumental rate that is kept at a comparatively low level.

The *other possibility*, given that the economy is benefiting from the rising productivity growth, is to let output growth match the new, higher potential rate. Unemployment is then unchanged and the direct dampening effect is left to work through so that inflation falls below the target without this having any consequences for monetary policy.

The two alternatives thus amount to choosing a temporarily lower level of either unemployment or inflation, or a combination of the two, during the actual process of adjustment. Taken literally, the Riksbank's rule of action tells us that a temporarily lower level of unemployment is not the "correct" choice. Monetary policy should instead be sufficiently stimulatory to keep inflation close to the target. In other words, the central bank should let the economy grow faster than the potential rate and pave the way for a temporary fall in unemployment.

In this context, however, an unduly rigid interpretation of monetary policy's rule of action can be risky. Let me explain why.

The process of adjusting to a new, higher rate of productivity growth leads initially to a good circle. Rising productivity tends to drive share prices up and that in turn makes new investment easier to finance. New investment and a growing capital stock imply a larger proportion of capital and accordingly give productivity growth a further upward shift. This in turn drives share prices upwards again and so on. A continuation of this process can lead to risks for economic development:

- One source of problems can lie in the financial markets' reaction to rising productivity. Expectations of the future unfortunately become unduly optimistic at times. Under such circumstances, expectations of rising profits lead to an increased supply of credit, rising prices for shares and real estate that result in a

further expansion of credit, and so on. When such a bubble ultimately bursts, the negative economic effects can be serious and lead to a crisis in the banking system.

- Excessive euphoria can also lead to an undue expansion of the capital stock. This perspective is derived from the Austrian school. Extensive investment is undertaken in sectors that will never yield the return that was expected initially. The speculative fever simply results in misplaced investment. The subsequent process of adjustment accordingly involves markedly subdued investment activity and an attendant economic trend that is weak for a fairly long period.

4. The empirical picture

The different types of problem I have just described have to a varying extent probably characterised Japan in the 1990s, several countries in Southeast Asia recently and, it seems, Sweden in the late 1980s and early 1990s. There are also plenty of examples earlier on of similar periods of economic setbacks in various countries. Experience shows that the subsequent process of adjustment can be very troublesome and sometimes protracted. Inflation is markedly subdued and there is even a risk of a period of deflation.

The structural changes that affected the Swedish economy in the second half of the 1990s seem to have been confined to a series of price effects in connection with the deregulation of electricity and telecom markets in particular. Inflation has therefore been lower than would otherwise have been expected from resource utilisation in general. In keeping with the rule of action, in recent years the Riksbank has implemented a stimulatory monetary policy and systematically aimed at the target one to two years ahead. Partly, but not solely, for this reason, the instrumental rate has accordingly been lower than in many other countries.

On the other hand, productivity growth has not accelerated as it has in the United States. The rate in the corporate sector has admittedly been somewhat higher than in the 1980s but it had already increased in the early 1990s when the economic crisis eliminated less competitive and low-productive firms. In the second half of the 1990s there was no further improvement in productivity growth.

In the United States, however, the upward shift in productivity growth has led to a development along the lines I discussed earlier, with growing expectations of future profits and incomes, steeply rising share prices, extensive new issues and credit growth. Massive investment in the corporate sector has been accompanied by rapidly rising purchases of durable goods. The private sector's financial balance has deteriorate rapidly and become increasingly negative. That in turn has enlarged the deficit on current account.

In Sweden, the Stockholm Exchange has been driven by the stock-market boom in the United States, not least in the IT and telecom sectors, but credit growth has been more moderate. Neither has investment risen as rapidly as in the United States. The private sector financial balance has not undergone such a marked negative swing and for several years the current account has shown relatively large

surpluses. So in crucial respects the course of events in Sweden in the second half of the 1990s differs from that in the United States.

Against this background, in this period the Riksbank has not found any grounds for sizeable departures from the rule of action.

5. Conclusions

So what conclusions can be drawn about how monetary policy ought to react when the economy is exposed to different types of shock? I have discussed two types of shock: *price effects from deregulations* and *an upward shift in productivity growth*.

The review shows that the Riksbank's rule of action works well as long as the structural changes concern price effects in connection with deregulations. In a period of accelerating productivity growth, on the other hand, the choices for monetary policy can be more complicated. While higher productivity growth is positive as such because it implies higher real incomes and a long-term improvement in living standards, during the adjustment process it can entail a number of risks. What looks like a good circle initially can lead later on to unduly strong and self-generating euphoria.

It is, of course, difficult to tell under which circumstances the good circle will turn into a less favourable development. In practice it is presumably a matter of very difficult assessments. But the risk is probably greater if monetary policy aims too strongly and for too long at stimulating demand in order to keep inflation close to the target, instead of accepting a temporarily lower rate and doing its best to bring the development of demand into line with potential growth.

In a way it could be said that such a reaction pattern implies that the central bank pays more attention to asset prices than in the normal case. It is important to note, however, that this is done in a situation where unduly rising asset prices are one of several signs that imbalances are building up in the economy.³ There is cause to be observant when notable increases in asset prices are accompanied by strong credit growth, rapidly rising investment, a market deterioration of the private sector's financial balance and growing deficits on the current account. As mentioned earlier, such a situation does not necessarily mean that the rate of inflation rises immediately. If the central bank does not act to limit imbalances and excesses of this type, the result may accordingly be serious adjustment problems in both the financial system and the real economy, with a risk of subsequent deflationary tendencies.

This means that an unduly rigid interpretation of the Riksbank's rule of action in monetary policy is associated with risks. I do not find it difficult to envisage a

³ An influential paper that summarises the traditional view of how monetary policy ought to address asset prices is Bernanke, B. & Gertler, M. (1999), "Monetary Policy and Asset Price Volatility", in *New Challenges for Monetary Policy*, Proceedings of the Symposium Sponsored by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, pp. 77-128. An alternative opinion is presented in Cecchetti, S.G. et al. (2000), "Asset Prices and Central Bank Policy", Geneva Reports on the World Economy No. 2, CEPR, Switzerland. See also Kent, C. & Lowe, P. (1997), "Asset-Price Bubbles and Monetary Policy", Research Discussion Paper 9709, Economic Research Department, Reserve Bank of Australia.

situation where the rule of action and the inflation target must defer to a tighter monetary stance. My view of how monetary policy ought to react to asset prices is connected with my experiences as under-secretary at the Finance Ministry during the banking crisis in the early 1990s. If rising asset prices are a symptom of a wider build-up of imbalances in the economy, then monetary policy must aim to limit the risks of bubbles blowing up in the financial sector and the real economy. That is not meant to imply that determining when such a situation is on the way is particularly easy.

The “flexible inflation targeting policy” the Riksbank has defined also allows temporary departures from the simple rule of action. In my opinion there is support for this in the law and its prefatory documents. However, if a situation were to arise that might justify a departure from the current rule of action, it is important to be particularly explicit about what monetary policy is guided by. Besides enabling the general public and market investors to know how and why the Riksbank acts as it does in such a situation, this makes it possible to exercise democratic control even when the target of 2 per cent inflation has to take second place.