

Monetary Policy in a Changing Environment

1. Introduction

In a historical dimension, central banks are comparatively young institutions. While payment instruments can actually be traced back to prehistoric eras, central banks have emerged only very gradually over the last 300 years (CAPIE 1994). Early central banks stood for the economic emancipation, ambition and power of the states that established them. Due to their potency as state banks they gradually assumed functions such as the bankers' bank, lender of last resort, regulator of financial activity and privileged issuer of money. By contrast, monetary policy as it is practised today is a comparatively recent central bank discipline. It became permanently relevant only after World War II, when the gold-linked money standard was abandoned in favour of a US dollar standard. In fact, individual central banks gained control over "their" money supply only when the US dollar pegs were given up in the early seventies.

For a long time, the policy objectives oscillated between financing the state and maintaining the (internal and external) value and reputation of the currency. These fundamentally conflicting objectives provoked many currency crises, caused tre-

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mendous economic harm and, as a result, heightened people's desire for monetary stability. Today, the public's aversion to, and politicians' awareness of, inflation may have reached a peak in the developed world. This was certainly an important precondition for the global disinflation process of the nineties.

This brief historical review makes it clear that central bankers have again and again been challenged by changes in the content of their mandate as well as by innovations and structural shifts within their operational environment.

This paper discusses several areas of change from the point of view of a practising economist. Section 2 reviews the change in concept, e.g. the switch from targeting monetary aggregates to controlling short-term interest rates. In section 3 the interrelated issues of independence, the mandate and transparency are discussed. Some reflections on the relevance of the "new economy" for monetary policy are offered in section 4, while section 5 reviews several arguments related to asset prices.

2. Change in Concepts

In many countries around the globe monetary policy concepts have abandoned the use of money stock growth rates as intermediate targets. This change cannot hide the fact that steering the

money supply was in many regards a useful concept. It explicitly made the relationship, at times almost forgotten, between excessive money supply growth and inflation the basis for central banking, thus making it possible to achieve major stability successes. Two additional aspects proved favourable in this respect. Targeting the money supply facilitated communication and transparency. Monetary aggregates show rapidly and in the form of an objective figure whether the monetary authorities are actually implementing what they announced. Due to exceedingly long and variable time-lags between policy action and ultimate targets, this applies to a much lesser extent to inflation targeting. Finally, money supply targeting also provided a measure of protection for central banks. Reference to excessive monetary growth made central banks relatively immune to short-term political and fiscal pressure, even in places where institutional independence had not (yet) been established.

Controlling the money supply lost its attractiveness because its central analytical basis was subject to successive erosion (FRIEDMAN 1988). Money demand functions became increasingly unstable. While differing from country to country and with respect to the aggregate employed, the relationship between the intermediate and the ultimate target became more and more unreliable. That was also the case in Switzerland, although later and to a lesser extent than in other countries. In addition, monetary authorities faced, from time to time, serious challenges by other kinds of shocks such as exchange rate distortions. These types of effects generated deviations from the envisaged targets, at least temporarily.[1]

Central banks reacted differently to this experience. Some rapidly threw money supply targeting overboard. Others left their formal concepts in place, implementing them, however, with a rising degree of flexibility. The Swiss National Bank changed from a yearly to a medium-term monetary target in 1990. This pragmatically adapted version of targeting a monetary aggregate extended the room for manoeuvre in reacting to

shocks, notably in the money demand function and in the exchange rate. In actual fact, this was a step towards transforming the money stock from being an intermediate target to serving as a monetary indicator, albeit the most important one.

The implementation concept introduced by the SNB in early 2000 uses a 100 basis points range for the three-month LIBOR as an operational target. This most representative interest rate of the SFR money market is jointly determined by market forces and policy operations, e.g. repos implemented at the very short end of the yield curve (essentially overnight until 3 weeks). Two remarks on the role and economic nature of this interest rate target have to be made.

First, the interest target range is not a substitute for the money supply target of the concept formerly implemented. It is neither more nor less than an operational implementation aid with a much shorter time reach compared to the money supply target. It must be frequently adjusted in response to various changes and new information so as to enable the stability goal to be achieved. Against the background of our knowledge of the monetary policy transmission process and its lag structure, it is obvious that it is hardly the level of money market rates at a certain moment that is decisive, but rather the interest rate path optimised over time. The condition for success of the policy is not that the three-month LIBOR is exactly right today; rather, it must be possible to constantly optimise the path in a way that the deviations from the ideal line, which can only be defined ex post, will be as small as possible and easy to correct. Interest rate steering will therefore often follow a fairly gradualistic pattern. This has nothing to do with macro-economic activism. The macro-economic fine-tuning activists have lost their case because they have assumed a totally unrealistic state of knowledge and underestimated the uncertainties surrounding policy-making. With interest rate steering, the situation is very different. Precisely because there is so much uncertainty and false steps are likely to occur, there are good reasons for implementing a policy of small steps.

The danger of slipping is smaller, and mistakes are easier to correct. But this does not exclude fairly substantial interest rate adjustments. For one thing, it may well happen that policy makers, in the light of new facts and figures on ongoing developments, come to the conclusion that the interest rate pattern currently followed needs to be corrected quite considerably. This would mean correcting a pattern that, from today's state of information, was not optimal in the recent past. For another, it may be desirable in certain situations to take the markets by surprise and cause expectations to be revised.

Second, it is in the nature of the concept that the information content of an announced interest rate target is much smaller with respect to the time dimension than used to be the case for money supply targets. Under the aspects of transparency and central bank accountability, this is a drawback. Therefore the SNB has taken effective steps by precisely defining price stability and deciding to publish its inflation forecast, thus improving transparency and stimulating public discussion. This has made it clear how actions are oriented and how they are to be accounted for. Which leads to issues that have undergone particularly large changes in the past few years: independence, defining the mandate and transparency.

3. Independence – Mandate – Transparency

3.1 Independence

Right into the eighties, independent central banks were the exception rather than the rule. This has changed on a broad front in the past ten years. The massive surge of inflation in the seventies and eighties and the reluctance of some authorities to combat it made economists and the public aware that politicians may not have the appropriate incentives to bring or to keep inflation down.

The reason is that politicians and central bankers tend to have somewhat different objectives and largely different time horizons. Technocrats at

central banks mandated to ensure monetary stability can better afford to take a long-term view, while politicians feel much more constrained by the pressure to produce short-term results. This matters since an inflation-combating policy is usually associated with real costs in the short run, while the benefits appear only over time. There is a strong probability (but, of course, no guarantee) that independent central banks will do a better job than governments with regard to price stability.[2] This view – and perhaps the relative success of most independent monetary authorities with the disinflation process in the seventies – has paved the way for granting more independence to monetary authorities.

Essential preconditions for the independence of a central bank include a solidly based consensus concerning its mandate and a commitment to transparency and accountability. Against this background, it is not surprising that the 1990ies have been characterised by a trend towards using more explicit monetary policy targets (STERNE 1999).

3.2 Mandate

Most economists would agree that the core task is ensuring price stability. This consensus rests on the conviction that in the long term, when all transmission effects are completed, monetary policy only determines the price level, not, however, output or employment. Thus, the primary obligation of a central bank to maintain price stability does not imply that priority is given to price stability in preference to full employment. Rather, it is in the economic nature of monetary policy instruments that they determine the trend of the price level and not the trend of real growth. Yet in the short to medium term, i.e. within the monetary policy transmission process, monetary policy does have real effects.

The problem can easily be illustrated by assuming a shock, e.g. a massive rise in oil prices. The immediate consequence will be an increase in the

price level and a fall in production. In this constellation there obviously emerges a trade-off between price stability and growth. If the bank's sole concern is a quick restoration of price stability, it will raise interest rates, thereby reinforcing the loss of output. If, on the contrary, output is the only concern, it will cut interest rates, thereby running the risk of amplifying the shock-induced pick-up in measured inflation. Reacting to shocks may lead to a trade-off between the variability of output and the variability of the price level (KING 1999, p. 12). This trade-off in itself is an extremely complex phenomenon. It is determined by the structure of the economic process and the dynamics of expectations. There is, realistically speaking, no chance to deduce a general policy rule from this trade-off and to formally embody such a rule in the central bank mandate. Any decision to respond slowly and gradually or in a single bold effort or not at all, can only be taken on a case-by-case basis. Monetary history has successful examples for both patterns of reaction, but also unfortunate episodes in which central banks actually increased the variability of the price level and of output through activist manoeuvres.

Against this background the central bank's mandate – ensuring price stability – could be complemented by the requirement that in fulfilling the mandate due attention should be paid to the development of economic activity.

3.3 Transparency

The call for enhanced transparency is, no doubt, more than merely a short-lived fashion. There are two valid reasons for the formerly rather reserved central banks to communicate openly and timely.

For one thing, transparency – in particular, *ex post* transparency – is an indispensable precondition for accountability and thus a necessary correlative to independence. Beyond this, transparency is an effective means of gaining the confidence of the public and the markets. Central banks

depend much more on confidence in fulfilling their mandate than other institutions.

For another, the significance attached to transparency derives from the central role played by expectations in macro-economic processes. If the efficiency of forming expectations can be improved with greater transparency, this will reduce risk premia and enhance the productivity of an economy.

Transparency, however, should be optimised rather than maximised. Individual demands can occasionally be quite unrealistic.

This even applies to *ex post* transparency, which is basically less problematic. It is hard to see much merit in the popular practice of publishing the minutes of board meetings. Board members, like anyone else, respond to incentives. It is to be feared that publication will lead to a certain amount of window talk and probably also to critical discussions being held outside the recorded meetings. Experience seems to teach that decision-making bodies need a sheltered area away from the public where things may be imperfectly stated and seemingly irrefutable truths may be called into question. If such a sheltered domain is abolished, this may have a negative effect on the quality of negotiations and possibly of decisions as well.

Optimisation of *ex ante* transparency is, by its very nature, more critical. A clear and open commitment to a monetary policy goal is of central importance. Thus the central bank must state explicitly what it means by price stability, and it must also communicate how it assesses the long-term development of the target figure. Both elements serve to enhance the predictability of its policy and to reduce uncertainties. Conversely, it must be accepted in monetary policy that the precise way to the goal is fraught with considerable uncertainties and that therefore too much *ex ante* transparency can easily become counterproductive. In the context of the Swiss concept this applies in particular to the interest rate path to be followed. If a target range for the money market rate is published at a particular point in time, this intention

remains valid “for the time being”. It is quite understandable that market participants wish to know more: how long the interest rate target is to remain valid, and what interest rate steps are likely to follow. In fact, they would like to get information on the planned interest rate path for several quarters. Such far-reaching ex ante transparency is, however, due to fail because of the uncertainty from which policy makers suffer just like any other market players. As the cornerstone of policy implementation the interest rate path needs to be optimised conforming to updated information and new insights. Ex ante transparency must take account of the knowledge and the uncertainty of decision makers. Thus, as a rule, it is hardly meaningful to give information with regard to future interest rate changes. In so doing, the central bank would lose essential room for manoeuvre, immobilise its internal decision-making process and give rise to counter-productive changes in market expectations. For this reason, a dose of scepticism is also justified with respect to the somewhat softer practice of preparing the markets with a so-called bias statement for a probable interest rate move. Once a decision has been taken, it should be implemented without delay, i.e. without pre-announcement. If, however, the central bank hesitates, still wishing to get more figures and a clearer picture, it should refrain from making a prior announcement and avoid self-imposing a constraint. For if, in response to a pre-warning received, the markets anticipate the interest rate move, the central bank may hesitate, out of concern for its credibility, not to implement the signalled move. This may well result in an endogenous interest rate policy: the central bank becomes, through its own communication practice, the prisoner of market expectations – an absurd notion.

Ex ante transparency on policy targets, the way how decisions are taken and on the overall assessment of developments is certainly a good thing. But when it comes to specific implementation steps, too much of a good thing may cause harm. No central bank should hesitate to take inter-

est rate decisions, if necessary, which come as a surprise to the majority of market participants.

4. The “New Economy”

“New economy” is a popular catchword which refers to a multiplicity of presumed changes. Coined in the United States, it is used as a label for several hypotheses which strive to explain the performance of the US economy in the second half of the nineties. Poorly explained by most conventional macro-economic models, this economy was characterised by continued high growth rates, unexpectedly robust productivity, and long-running low unemployment, combined with little inflationary pressure. The attempts to explain the “new economy” refer to two prominent areas of change. On the one hand, the deregulation and the opening of markets for products and factors and, on the other hand, the phenomenal progress in information and communications technology. On a macro-economic level, the explanations lead to three possible conclusions (DAVIES 2000):

First, to the conclusion that the economy has lost some of its cyclical dynamic, a change which is explained by the increased transparency and more efficient steering of managerial processes as well as the fact that inventories have been cut or completely eliminated in many areas. This effect leads to smaller deviations of effective from potential output.

Second, that there has been a permanent reduction in the natural rate of unemployment, which leads to an upward shift of the potential output curve resulting in significantly higher growth rates during the transition phase.

Third, that there is a gain in long-term productivity growth, i.e. a steepening of the potential output curve leading to permanently higher GDP growth rates.

Academic economists usually react with scepticism to these basically supply-side hypotheses. In fact they rest, plausible as they may be, on a weak

empirical basis. Nevertheless, monetary policy makers cannot simply ignore them because they relate to issues which are important for the formulation of today's policies. It would be just as inappropriate, however, to accept such theories uncritically and to include them in the decision-making process simply because they sound plausible. In any case, the assertions put forward under the label "new economy" create additional uncertainties.

In this particular state of knowledge policy makers react with a growing interest in an ongoing analysis and interpretation of a broad range of indicators. In this way, one tries to catch early evidence for or against these hypothetical changes. The perceived risks of a bold pre-emptive strike are bigger. The famous notion of "acting ahead of the curve" presupposes solid confidence in one's own forecasts. Notably the fact that the Federal Reserve has lost this confidence in the late nineties and that it has refrained from taking big, bold steps, has apparently turned out to be the right strategy. In an environment of increased uncertainty, a tendency to take small, careful steps makes sense. It is hardly possible to find the perfect course that way, but there is a good chance that deviations remain limited and can be flexibly corrected within a reasonable time frame.[3] Economists would certainly be well-advised to critically analyse the hypotheses and phenomena propagated as "new economy" with an open mind.

5. Asset Prices

A topic which is related to the "new economy" is the phenomenon of extreme asset price fluctuations, mainly in some equity markets. Even previously, the bitter lessons learned on the heels of the recession in Japan had stimulated a discussion of whether and how asset prices are important for monetary policy. The question of whether they are relevant can be answered quickly. There is a broad consensus on several aspects:

Equity and real estate prices affect household wealth and therefore influence consumer demand. This aspect must certainly be taken into account. Another factor impacting monetary policy is the relationship between equity prices, the cost of capital, and the demand for capital goods. Moreover, price shocks on assets used as credit-collateral can change financing conditions and even lead to credit crunches (or bubbles) as seen in the case of Japan. These effects feed into spending decisions which clearly impact on monetary policy.

In addition, there is a general consensus that, in the event of an asset price crash which threatens to disrupt the financial system, central banks must react by temporarily supplying additional liquidity in order to support the adjustment process.

Besides this accepted premise, however, the discussion – especially in the financial press – focuses on further calls for action. Most central banks, however, are rightly sceptical or opposed to such demands.

First, some claim that central banks should not remain passive when confronted with a bubble in the making, but rather take a proactive stance so that there will not be any bubble to burst. However, it is impossible to determine with any degree of accuracy whether such a bubble, in the sense of an irrationally exuberant price increase, is indeed building up. The call for a proactive stance to avoid asset price bubbles presupposes "superior knowledge" and "deeper insight" on the part of central banks which is fully unrealistic when it comes to the valuation of corporations.

Moreover, central banks, with the instruments at their disposal, do not have the possibility to deflate a presumed bubble in an isolated way. Interest hikes would certainly be a possibility. In so doing, however, one would have to accept consequences in the real sector which could be completely counterproductive. Finally, if central banks were obliged to avoid stock market excesses, this would have disastrous moral hazard implications. To be realistic, a simple recommendation is all that is needed: those who buy equities bear the

price risk themselves, including the consequences of a crash.

There is a further argument that price stability, traditionally focussed on prices of current production or consumption, should be defined more broadly and measured in such a way as to include some important asset prices. There are, however, serious economic concerns, which are mainly due to the ambivalent nature of equity price fluctuations (IMF 1999). Equity prices may rise in anticipation of a pick-up in total demand, which – if anything – would indicate some restrictive monetary policy correction. But equity prices may also go up as a result of real effects, e.g. due to achieved or expected productivity improvements. Such supply-side driven equity price increases signal a higher productivity potential and would – if anything – be a reason for an expansive but certainly not a restrictive monetary policy correction. This example illustrates that the suggested inclusion of some asset prices in the price index or a monetary conditions index faces serious practical and conceptual problems. It is far from ready for implementation.

6. Conclusion

The fact that monetary policy makers must come to grips with changes is by no means new. The history of central banking abounds with episodes that demonstrate this impressively. The present changes discussed above are an incomplete selection that, for example, does not include payment transactions even though this is an area undergoing a significant transformation with potentially far-reaching implications for central banks both as monetary policy makers and as protectors of financial stability. The more parameters are subject to changes, the more do successful monetary policies depend on the ability to arrive at the best possible decisions in uncertain circumstances. This includes a sincere willingness to learn, the humble recognition that mistakes are to some extent inevitable, and the skill to conduct an optimal policy

on this basis. The dynamics of change pervade many things, though not all. In particular not the core task of modern central banks: i.e. to secure a stable monetary environment for the economies they serve.

Footnotes

- [1] A comprehensive review of the Swiss experience with monetary targets is offered in RICH (1997).
- [2] A comprehensive review of the discussion of independence can be found in BLINDER (1998), pp. 53–76.
- [3] BLINDER (1998, pp. 17) looks at this approach as being a combination of the flexibility principle of dynamic programming with the BRAINARD conservatism principle (BRAINARD 1967).

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