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Money, credit and asset prices: (Re)-learning to read their message

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It is a great pleasure and honour for me to have been invited to participate in this Colloquium for Otmar Issing's Festschrift. Over the years, Otmar has made an indelible contribution to monetary policymaking, first at the Bundesbank, and later at the ECB. He has helped to ensure that, in the face of unprecedented challenges, this new institution has quickly gained much of the credibility and prestige that the Deutsche Bundesbank had earned through its impressive track record in securing low inflation but over a much longer period.

In making this contribution, Otmar has displayed a number of salient qualities. First, an unflagging belief in the virtues of monetary stability as an essential building block of a well-functioning society, with its benefits extending well beyond the economic sphere (eg, Issing (2004a)). Second, a balanced blend between theory and pragmatism, combining a healthy scepticism for the latest fashion of the day with an open mind, ready to assimilate new conceptual insights (eg, Issing (2001). And last but not least, a "thick skin", which has allowed him to support the institution in the steadfast pursuit of its goals against sometimes heavy political and academic criticism.

In what follows, I would like to reflect on one aspect of Otmar's thinking that has deeply influenced the ECB's strategic framework and in which all of these personal qualities have been very much in evidence, viz. the role of quantitative – monetary and credit – aggregates in monetary policy. I would

like to trace the trajectory of this role in the light of the evolving economic and policy environment and the waxing and waning of conceptual insights. In this evolution, I will highlight in particular the role of asset prices, in many respects a novel aspect compared with the traditional monetarist perspective that was typical of the era of the Great Inflation.

So as not to keep you guessing, let me say straight away that I broadly share Otmar's view that it is desirable to assign a salient role to quantitative monetary and credit aggregates in policy. And, as he has recently acknowledged, I believe that unusual developments in asset prices can help economists better to understand their information content. Personally, I feel that the prevailing orthodoxy, which tends to downplay the role of quantitative aggregates and asset prices, will not be sustainable in the longer run. Hard as it may be, I think it is important to find ways of firmly accommodating these economic variables in monetary policy frameworks. Indeed, I sense that a number of central banks, alongside the ECB, have been moving in this direction. This is all the more important at the current juncture, as the world is emerging from an unprecedented period of low interest rates, very rapid monetary and credit expansion, and booms in certain key asset prices, all against the backdrop of subdued inflation.

In what follows, I shall first trace the evolving role of quantitative aggregates in Otmar's thinking and in the policy frameworks of the institutions he has worked for, stressing the new role more recently played by asset prices. I shall then provide a few personal observations on this issue, before concluding with some more forward-looking thoughts.

I – The polar star: quantities matter beyond interest rates

A number of deeply-held convictions concerning how to achieve monetary stability have been the enduring cornerstone of Otmar Issing's thinking. These convictions have been strongly influenced by his experience at the Bundesbank and have later been at the core of the ECB's philosophy since its establishment.

First, Otmar has always stressed the importance of a sound institutional framework, characterised by a clear objective, a strong degree of operational autonomy ("independence") and, as a quid-pro-quo, a corresponding degree of accountability. His belief has predated theoretical formalisations of these issues in the academic literature, whose merits Otmar has always been ready to acknowledge.[1] He has seen the framework as providing the right balance between strategic discipline and tactical discretion, thereby avoiding the pitfalls of rigid operational rules. Otmar has seen this as the basis for having faith in central banks, as opposed to central bankers.[2]

Second, Otmar has always stressed the importance of pursuing price stability *over the medium term*. This has reflected a concern with the consequences of excessively ambitious fine tuning and with the risk of following too closely the vagaries of the markets. Above all, it has stemmed from his deep belief in the guiding maxim, emphasised by Milton Friedman: "avoid major mistakes" – a belief in turn rooted in the acute recognition of the limits of our knowledge.[3]

Finally, against the backdrop of this general philosophy, Otmar has always assigned a key role to quantitative aggregates in policymaking -- a kind of "polar star" helping the traveller find his way in the journey through lands old and new. Regardless of their specific characteristics, the main function of these aggregates has been that of buttressing, operationally, the need to avoid the risk of excessive short-termism in monetary policymaking -- a mechanism, if you will, to avoid succumbing to the alluring song of the sirens.

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1 In paying tribute to the contributions of theory in the fields of dynamic inconsistency, credibility and precommitment, Otmar says "…I regard this development as the most important contribution made by monetary theory for a long time to a sustained stability-oriented monetary policy". Issing, (2001), p. 19.

2 "So, should we – should you – have faith in central banks? The answer is yes and no. *No*, it would not be wise always and everywhere to trust *central bankers* with our money, but, *yes*, there are good reasons for trusting *central banks*, if they are designed as solid and independent institutions with a clearly defined mandate. Institutions limit the faith we need to place on the omniscience and benevolence of individual decision-makers and provide a more lasting and reliable basis for trust and credibility" (emphasis in the original). Issing (2002), p.34.

3 See, for instance, Issing (2002), where he quotes Friedman (1968).

In contrast to Ulysses, however, Otmar has, wisely, never quite gone as far as tying himself to the mast. True, the belief in a key role for quantitative aggregates has never waned. But it has never given rise to a dogmatic policy implementation and has evolved over time in the light of changing circumstances.

At the time of the Bundesbank, although inspired by the monetarist thinking of the period, the approach was essentially pragmatic, hence the term "pragmatic monetarism" to denote the Bundesbank's policy. Within a well-designed and transparent framework, the announcement of monetary targets was fundamentally aimed at providing a stable anchor for the expectations of the private sector, not least at disciplining wage formation, while minimising the risk of relying excessively on interest rates as a gauge for the stance of monetary policy. In other words, it was a way of combining discipline with discretion. Hence the considerable element of flexibility, in the form of tolerance ranges and feedback adjustment mechanisms (Issing (1997)).

At the ECB, the evolution of the role of monetary and credit aggregates has been even more marked. Not least, it has reflected the incorporation of a new element, rather peripheral in the preceding monetarist tradition, viz. the role of asset prices.[4]

In contrast to the experience at the Bundesbank, from the beginning the "monetary" pillar co-existed with the "economic" pillar. The former was primarily seen as guarding against *medium-term* inflation risks; the latter was regarded as a better gauge of *short-term* inflation risks (eg, Issing et al (2001)). The monetary pillar seemed all the more justifiable given limited data and the equally limited experience with the transmission mechanism in the new area -- although limited experience also clouded the properties of monetary aggregates.

[4] To be sure, Friedman did consider the connection between excessive monetary expansion and asset prices, most explicitly in Friedman (1988), but this always remained, at best, a peripheral element in this thinking.

In more recent years, the monetary analysis component of policy was gradually broadened. In particular, a new and complementary role was assigned to it, viz. that of also safeguarding against the risk of inadvertently accommodating misalignments in asset prices. Over the *medium term*, and coupled with excessive indebtedness, the misalignments could disrupt the macroeconomy and derail the inflation objective, possibly even in the form of undesired excessive disinflation (eg, Issing (2004b) and (2004c), ECB (2004))[5]. Correspondingly, credit aggregates seem to have gained significance alongside the more traditional focus on monetary aggregates.

All along, Otmar's "thick skin" has stood him in good stead. In his Bundesbank days, he defended the role of monetary aggregates against those who saw them as at best unnecessary and, at worst, self-defeating. Hence, for instance, his spirited defence against the implications of "Goodhart's law" (Issing (1997)). In his ECB days, Otmar displayed equal skills and determination in defending the two-pillar approach against those who criticised the uneasy coexistence of the two components, with the monetary pillar seen as redundant, if not confusing and misleading[6].

II – Own reflections

I broadly share Otmar's belief in the importance of retaining a salient role for quantitative aggregates in monetary policymaking. I see risks in evaluating the appropriateness of policy by simply considering the link between policy interest rates and inflation over horizons of, say, one-to-two years ahead. Moreover, I think that in the current environment their importance is best appreciated when their information content is considered alongside that of signs of unsustainable booms in asset prices. Let me elaborate.

[5] To see the evolution of Otmar's thinking it is useful to compare Issing (1998) and, eg Issing (2004b).

[6] For instance, Begg et al (2002) argue that "The first pillar of the monetary strategy is now flawed beyond repair – both as a matter of theory and empirically". (p. xiv). Similarly, in Galí et al (2004) one can read that "With the ECB now able to walk by itself, it no longer needs the Bundesbank monetary crutch. We have carefully examined in this chapter whether there can be some special role for monitoring the growth rate of a monetary aggregate….and we did not find any", p. 33.

I would highlight three reasons why failing to pay close attention to the message contained in quantitative aggregates is inappropriate. First, this disregards important long-standing lessons from both theory and experience. Second, there is a growing body of evidence suggesting that, properly filtered, quantitative aggregates do contain useful information for policy. Finally, current mainstream theoretical frameworks, if taken literally, are based on excessively simplistic assumptions about monetary and macroeconomic relationships. Consider each argument in turn.

First, money and credit have left a profound imprint in both the theory of monetary economics and policymaking. In the history of economic thought, even if their relative salience has varied greatly over time, they have been at the core of monetary economics. They have occupied this place alongside the more nebulous but even more fundamental notion of "liquidity" -- the defining characteristic of a monetary economy. Thus, they have been seen as key causal variables in the transmission mechanism of monetary impulses. And they have typically been regarded as complementary information variables, recognising the difficulties of assessing the appropriate level of real interest rates. Importantly, they can help better to evaluate the cumulative (stock) implications of keeping interest rates away from their unobservable equilibrium levels for protracted periods.

In practical policymaking, with hindsight at least, some of the most serious mistakes have arguably been made when these key lessons were not heeded. I would include here the lead up to the Great Depression, the lead up and initial response to the Great Inflation, and, more recently, the lead up to the Japanese and east Asian crises. In all of these cases, the rapid expansion of quantitative aggregates in relation to income, often in clear association with asset prices, failed to elicit a sufficiently prompt and graduated response. In the case of the Great Depression, the mistake was greatly compounded by the overly cautious response to the monetary contraction that followed the unwinding of the imbalances.

Second, while the shift to an environment of low and stable inflation in conjunction with financial liberalisation and innovation have tended to cloud the information content of quantitative aggregates, more recent empirical evidence, including some carried out at the BIS, has begun to rediscover it.

Two different strands are relevant here. Beyond their differences, they share an attempt to look beyond the horizon of one-to-two years employed in many monetary frameworks. One strand, closer to the original monetarist tradition, has focused on the low-frequency link between money and prices (eg, Neumann and Greiber (2004), Assenmacher-Wesche and Gerlach (2006)). A second strand, closer to the Kindleberger-Minsky tradition, has focused on the non-linear relationship between credit and asset prices, on the one hand, and output, prices and financial stress, on the other (eg, Borio and Lowe (2002) and (2004); Detken and Smets (2004)). This strand has stressed the *coexistence* of protracted, cumulative expansion in credit and asset prices beyond historical norms as a potentially valuable signal of the build up of financial imbalances. It has emphasised that their subsequent unwinding can raise material costs for the macro economy and price stability, not least in the form of unwelcome disinflation.[7]

Despite their differences, these two strands are actually complementary. The former stresses *average* relationships between economic variables that normally evolve *within* historical ranges; the latter stresses *non-linear* relationships that become evident only once the variables evolve *outside* normal ranges.

Finally, the prevailing mainstream theoretical paradigms, enshrined in current textbooks and research, find it difficult to accommodate a significant role for quantitative aggregates over and above that played by interest rates. In particular, the simplifying assumptions on which these paradigms rely militate

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[7] In addition, for the usefulness of monitoring monetary aggregates in exceptional deflationary circumstances, see eg, Bordo and Filardo (2005) and Christiano et al (2003).

against an independent informational function. They typically have limited -- or no -- room for an active role for liquidity in the transmission mechanism. They see the economy as being quickly self-equilibrating, which can hardly allow for the cumulative build up of financial imbalances and the corresponding distortions in real expenditures and capital accumulation. And they typically assume a degree of knowledge of the structure of the economy which permits the proper identification of the equilibrium level of interest rates. This does away with the potential cross-checking role of quantitative aggregates.

Conclusion

As Otmar Issing has always stressed, successful monetary policy requires a delicate balance between theory and pragmatism, nurtured by careful observation. Given the inevitable limits of our knowledge, the biggest mistakes made in the past have often arisen from hubris. They have arisen, that is, from the belief that we had finally come to understand the secret workings of the economy and had learnt to master it. This is the belief that helped to blind us to the signs of the build up of risks contained in quantitative aggregates, not least in conjunction with frothy asset prices. All too often their behaviour was discounted as benign despite protracted deviations from historical patterns. To borrow Alan Greenspan's felicitous phrase, such one-sidedness is hardly consistent with monetary policy seen as an extension of risk management.

Despite the "Great Moderation" of the last decade in many industrial countries, certain puzzles counsel caution. One such puzzle has been the extraordinarily long period of unusually low, if not negative, inflation-adjusted interest rates. This has gone hand in hand with an equally unprecedented expansion of monetary and credit aggregates in relation to GDP and with asset price booms *without* igniting strong inflationary pressures.

While allegedly benign, this configuration of developments is far from comfortable. Have we, despite our past successes, unwittingly been allowing imbalances to build up that one day might come back to haunt us? Could it be that central bank anti-inflation credibility, together with the relaxation of supply

constraints associated with globalisation, have been preventing the imbalances from showing up, as in the past, in goods and services inflation? And could it be that these imbalances have been emerging first in the form of unsustainable increases in asset prices, most recently in those of residential real estate around the globe? [8]

Given past experience, this possibility deserves further exploration. And as Otmar would no doubt say, understanding it necessarily calls for a better reading of the message contained in monetary and credit aggregates, to my mind properly filtered through the behaviour of asset prices.

The major achievements of the central banking community in its fight against inflation through the anomalous Great Inflation era should not be underestimated. We have learnt a lot from that historical phase. But we should not forget that the toughest challenges to policymaking can arise precisely when final success appears in hand. Just as in the late 1960s, but in a different guise, it is the interaction between policies and the broader economic environment that can result in new and unexpected challenges. Might we not be living through such a phase just now?

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[8] On various aspects of these issues, see Borio and Lowe (2002), Borio and White (2003), BIS (2005) and White (2006).

References

Assenmacher-Wesche, A and S Gerlach (2006): “Interpreting euro area inflation at high and low frequencies”, *BIS Working Papers*, no 195, February.

Bank for International Settlements (2005): *75th Annual Report*, June.

Bordo, M and A Filardo (2005): “Deflation in a historical perspective”, *BIS Working Papers*, No 186, November.

Borio, C and P Lowe (2002): “Asset prices, financial and monetary stability: exploring the nexus”, *BIS Working Papers*, no 114, July.

——— (2004): “Securing sustainable price stability: Should credit come back from the wilderness?”, *BIS Working Papers*, no 157, July.

Borio, C and W White (2003): “Whither monetary and financial stability? The implication of evolving policy regimes”, in *Monetary policy and uncertainty: Adapting to a changing economy*, proceedings of Jackson Hole Symposium on 28-30 August, Federal Reserve Bank of Kansas City. Also available as BIS Working Papers, no 147, February 2004.

Christiano, L, R Motto and M Rostagno (2003): “The Great Depression and the Friedman-Schwartz hypothesis”, *Journal of Money, Credit and Banking*, 35(6), pp 119-97.

Detken, C and F Smets (2004): “Asset price booms and monetary policy”, *ECB Working Paper, no 364*, May.

ECB (2004): “Asset price bubbles and monetary policy”, *ECB Monthly Bulletin*, April.

Friedman, M (1968): “The role of monetary policy”, *American Economic Review*, 58, p 12.

——— (1988): “Money and the stock market”, *Journal of Political Economy*, 96(2), pp 221-45.

Begg, D, F Canova, P De Grauwe, A Fatás and P R Lane (2002): *Surviving the slowdown. Monitoring the European Central Bank 4*, Centre for Economic Policy Research.

Galí, J, S Gerlach, J Rotemberg, H Uhlig, H. and M Woodford (2004). *The Monetary Policy Strategy of the ECB Reconsidered: Monitoring the European Central Bank 5*. Centre for Economic Policy Research.

Issing, O (1997): “Monetary targeting in Germany: the stability of monetary policy and of the monetary system”, *Journal of Monetary Economics*, 39, pp. 67-79.

——— (1998); panel remarks, in *Asset prices and monetary policy: four views*, BIS/CEPR, pp 20-22.

——— (2001): “Monetary theory as a basis for monetary policy: reflections of a central banker”, *Monetary theory and policy experience*, Axel Leijonhufbud (ed), University of Trento, Palgrave, pp 13-35.

——— (2002): “Should we have faith in central banks?”, The Institute of International Affairs, London.

——— (2004a): “On the primacy of price stability”, European Central Bank, *Speeches & Interviews*, 10 June.

——— (2004b): “Financial integration, asset prices and monetary policy”, European Central Bank, *Speeches & Interviews*, 10 May.

——— (2004c): “The ECB and the euro – the first five years”, Mais lecture, European Central Bank, *Speeches and interviews*, 12 May.

Issing, O, V Gaspar, I Angeloni and O Tristani (2001): *Monetary policy in the euro area. Strategy and decision-making in the European Central Bank*, European Central Bank.

Neumann, M J M and C Greiber (2004): “Inflation and core money growth in the euro area”, *Discussion Paper*, no 36, Economic Research Centre of the Deutsche Bundesbank.

White, W (2006): “Is price stability enough?”, paper presented at the Swiss National Bank Festschrift seminar at Gerzensee, 20-21 January, forthcoming in *BIS Working Papers*.