# A NEW ROLE FOR MONEY IN MONETARY POLICY? FINANCIAL IMBALANCES AND THE ECB'S TWO-PILLAR APPROACH

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*The influence of money on monetary policy has waned in recent years. Andrew Maguire explores the potential revival of its status. Through his analysis of the BIS hypothesis and the resulting connotations, he investigates the future challenges for monetary policy. He suggests that the two-pillar approach employed by the ECB may be the ideal model required to remedy the failings of the BIS hypothesis.*

## Introduction

Inflation is always and everywhere a monetary phenomenon - Friedman's (1963) famous one-liner has exerted varying degrees of influence throughout the years. It is now broadly accepted that it holds only over the long run in accordance with the neutrality of money principle[1], as such money has since declined in its standing within monetary policy. This was clearly illustrated last year by the Federal Reserve Board when it stopped publishing figures for M3 growth, seeing it as a pointless task.

However, there is an increasingly coherent and respectable body of work that seeks to question the wisdom of this rejection of money. This is not just based on an innate unease of relying on moneyless models. It stems from concerns grounded in the possibility that the economy may once again be facing changing and evolving conditions which have the potential to test the limits of the prevailing conventional theory. The most consistent and articulate description of this 'new environment' hypothesis is presented by work emanating from the Bank of International Settlements (BIS). (Borio, 2006)

The BIS has been arguing that due to the interaction of a number of forces acting on the global economy, conventional Consumer Price Index (CPI) measurements are increasingly incapable of indicating pressures

[1] Whereby changes in the money stock only affect nominal variables such as prices, wages and exchange rates, while leaving real variables, such as output and unemployment, unchanged.

stemming from imbalances and overheating or, at least, imbalances are instead first seen in the financial and asset markets while undetected by the CPI. This can have important consequences both for monetary policy and wider macroeconomic stability.

I will look at this hypothesis and consider its implications for monetary policy, in particular looking at the two most widely supported responses of monetary policy to the new challenges faced. These challenges are dealing with, or avoiding, the problems that stem from the build up and sudden reversal of imbalances such as equity, credit, and house price booms or 'bubbles'. Of the possible responses I see 'leaning against the wind' by central banks as potentially the most successful. I will then briefly turn to the European Central Bank's (ECB) two-pillar monetary policy and discuss how this might actually be a ready made solution to the problems identified by the BIS. This may be so in that the ECB approach leaves open the possibility of pre-emptive corrective action based on warning signals that can be found in the monetary analysis pillar of the ECB approach. Furthermore, it does so with relatively little risk. In this context the two-pillar approach, despite recent criticisms, may not be obsolete just yet.

## BIS Hypothesis

The hypothesis presented by the BIS is essentially:

> …that changes in the financial, monetary and real economy regimes worldwide may have been subtly altering the dynamics of the economy and hence the challenges that monetary and prudential authorities face. (Borio, 2006:3)

This view rests on the effects of three main forces: financial liberalisation, the establishment of credible anti-inflation monetary policies and 'real-side' globalisation. It is not doubted that these forces are beneficial, however when taken together they may be affecting the global economy by challenging existing relationships and mechanisms. In this context, runaway inflation may no longer be the key structural risk for central banks to worry about, "rather it may be the damage caused by the unwinding of financial imbalances that can build up over the longer expansion phases of the economy" (Borio, 2006:2)[2]. Such imbalances have not been uncommon;

[2] Of course what central banks really care about are specific objectives as defined in their mandate, although of relevance in this debate, I will leave aside discussion of how specific

stock and asset price booms, exchange rate crises, declining risk premiums, speculative capital flows, current account imbalances, excessive credit and liquidity growth and financial market instability are all well recognised conundrums of the modern 'new economy'[3]. In particular, such imbalances can build up undetected by conventional measures and in a climate where they are given too little attention by policymakers.

Financial liberalisation and innovation, particularly since the 1980's, has undoubtedly improved the allocation of resources and increased the efficiency of the market mechanism. Nonetheless, it has also greatly increased access to credit, transforming the economy from being income-led to driven by asset-backed wealth. Such an economy is inherently more susceptible to booms and busts, in fact such cycles can become somewhat self-reinforcing.

The subduing of inflation has followed a long drawn out battle to institutionalise price stabilising mechanisms in the form of independent central banks and the 'inflation targeting' approach. This has undoubtedly been a great success. However, financial imbalances can still build up in a low inflation environment as the experience of Japan has shown[4]. Moreover, there is the possibility that victory over inflation has led to a sort of 'victors curse' whereby inflation expectations are now so deeply anchored that prices and wages are 'sticky' to the extent of delaying inflationary pressures. Not only this, with no apparent need to tighten monetary policy central banks may unwittingly be accommodating a cumulative build up of imbalances via continually low interest rates. This has been termed the 'paradox of credibility' by Borio (2006).

'Real-side' or deeper integration of world product and labour markets have also played a role in lowering inflationary pressures. It is intuitive if globalisation is thought of as a series of positive supply-side shocks. Increasing competition in all markets has reduced the pricing power of firms while increasing competition in the labour markets has helped keep wage pressures and labour costs somewhat subdued[5]. Furthermore, the increasing pace of technological change and resulting productivity growth,

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objectives of central banks might condition or direct their thinking on the place of financial imbalances and monetary aggregates in monetary policy.

[3] The term 'new economy' has come to mean the relatively inflation proof, fast growing economy that some think has emerged as a direct consequence of globalisation, technological progress and other dynamic forces that began to take effect in the latter years of the 20th century.

[4] Japan suffered a bubble and subsequent collapse in both equity and real estate prices in the late 1980s during a period when CPI was relatively subdued.

[5] This competition stemming in large part from the increased incorporation into the global economy of previously closed off economics such as the former Soviet Bloc, China, India and other developing nations.

partly necessitated by the stronger competition brought on by globalisation, has also tended to mask inflationary pressures. So too has the impact of global supply chains in business. Indeed the positive supply-side shocks of increasing globalisation may reinforce central bank credibility via the lower inflationary pressures.

The net result has been an increase in what the BIS calls the 'elasticity' of the economic system - its ability to absorb and accumulate imbalances up to a point where this expansion snaps and gives way to crisis. This increase in 'elasticity' only means that when the snap does come the results could be more painful. The BIS presents five pieces of evidence that seem to support their hypothesis:

- ***The pattern of financial booms and busts since financial liberalisation*** is illustrated through the use of an aggregate asset price index which can be shown as correlated to credit developments as presented in Figure 1 of the appendix.

- ***The predictive content of financial imbalances*** is highlighted by use of ex-ante real time statistics to try and predict or indicate imbalances. The results are based on simple measurements of credit, asset price and foreign exchange rate divergences from trend values. The conclusion is that "a credit gap of around 4 percentage points and an asset price gap of 40 percent provide the best combined threshold values" (Borio and Lowe, 2002:15). These indicators are powerful enough to predict, over a three year horizon before the crisis, 55% of the crises while providing false signals only 6% of the time.

- ***The coexistence of financial imbalances and low inflation:*** Again Japan in the late 80s and early 90s is a key illustration. Even where crisis has not occurred, financial imbalances have still been observed alongside low inflation. For example China has even witnessed falling CPI while asset prices have soared, not to mention the recent stock market volatility there that has sent shockwaves throughout the world. Indeed soaring asset prices, particularly house prices, have not been uncommon across much of the industrialized world while inflation has remained subdued.

- ***The implications of globalisation for inflation:*** These point to evidence that increasingly domestic measures of inflation alone may not be enough. A scatter plot shows "that over a large set of

industrial countries there is an economically and statistically significant impact of global slack measures on inflation" (Borio, 2006:12). The conclusion is that with increased integration of product and labour markets global slack may be supplanting domestic slack as a key indicator of inflationary pressures.

- ***The signs of policy accommodation:*** Here econometric analysis is carried out to show how policy may have been accommodative. It is suggested that policy has responded asymmetrically to imbalances as they unwind and not as they build up, thus contributing to excessive cumulative expansion in times of growth. They also suggest that rates have continually been at lower ends of 'reasonable' Taylor rule ranges, possibly out of a fear of deflation (even if it is of the 'good' supply-side kind).

## Implications

The implications of the hypothesis, although not yet as well understood as the hypothesis itself, are nevertheless profound for both monetary policy and prudential (financial market) regulations. For the purpose of this paper, I will confine myself to looking at how monetary policy might better cope in this new environment and in particular assess two responses that have gained most support.

**Conventional View - Do Nothing**

The 'conventional view' holds that no extra action in monetary policy should be taken in response to financial imbalances and that monetary policy should only respond to imbalances or asset prices in so far as they affect future CPI through the regular transmission mechanism of the wealth effect[6]. Furthermore imbalances should be left to correct themselves, as the central bank is not the arbiter of the correct level of asset prices. It cannot assume to have more information or better-processed information than the market, which is what interference would imply.

[6] Whereby changes in asset valuations will affect peoples real, or perceived, 'wealth'. As a consequence a positive wealth effect will induce increased consumption and hence may place upward pressure on CPI.

The moderate version of this view[7] accepts imbalances do arise but rejects that there is anything monetary policy can or should do about them. Perhaps the most visible proponent of this view is the US Federal Reserve, current governor Ben Bernanke feels regulatory powers should be used if imbalances arise and monetary policy only used to provide liquidity in the event of crisis (Bernanke, 2002). After all, asset price booms and busts are usually due to deeper structural problems and as such it is foolish to use monetary policy to try and resolve these problems. Moreover, responding to asset price rises that are out of line with fundamentals (the difficult calculation of which further supports the conventional view) in a climate of low inflation implies a monetary policy that is too tight in the sense that inflation targets may be undershot and disinflation, possibly even deflation may result. There is also huge informational requirements and uncertainty surrounding how monetary policy will be responded to. Posen (2006) points to the ineffectiveness that small interest rate increases would have on investors banking on returns of over 10% and higher as a bubble would imply. Not only this but central banks are no longer the only source of liquidity in town and as such their ability to even constrain bubbles is questionable.

This approach, as practiced by the Fed, has come to mean asymmetric responses to imbalances as the problems that arise when a bubble does eventually burst are seen as too great to avoid. Yet when such imbalances are building up, policy does not respond. Following the stock market crash of 2000, Federal Reserve chairman Alan Greenspan quickly intervened with excessive liquidity in order to 'mop-up' the problems brought about by the collapse[8]. Although successful in terms of avoiding complete financial sector collapse and deep economic recession, asymmetric responses can lead to excessive risk taking in the financial markets as participants feel they are 'hedged' on the downside by implicit guarantees of the central bank. Such distortions are part of the problem that leads to the creation of boom/bust cycles in the first place.

Often when proponents of this view talk of informational requirements, they talk in terms of exactly identifying 'bubbles' - undoubtedly a difficult task. However this sort of language is confusing and unhelpful. One need only look for signs of growing imbalances that may

[7] There is an extreme version which corresponds to the Efficient Market Hypothesis (EMH) whereby through processes of arbitrage, imbalances cannot form, irrational behaviour does not pay and is aggregated out, thus there is by definition nothing for the central bank to respond to. Due to space limitations I will not discuss this somewhat unrealistic view, suffice to say it has been largely discredited.

[8] This ensured credit channels did not freeze up, confidence did not plummet and the wider financial sector was able to continue functioning relatively smoothly.

pose significant threats to future macroeconomic stability. As the work at the BIS has shown, such signs might not be as difficult to identify as some would have you think. Also the argument that sledgehammer-like interest rate rises would be needed to have any significant effect is not necessarily true. If made at an early stage, small changes could be useful in signalling to the market the likely future evolution of rates if the imbalances persist. Indeed in an environment of improved central bank credibility, it is the effect of current central bank decisions on expectations of future actions that are most powerful.

## Lean against the Wind

The most popular view that is emerging in response to the moderate conventional view is that at times, it may be optimal for monetary authorities to take out a little 'insurance' against the dangers of a disruptive unwinding of imbalances. The premium on this insurance policy is a little less inflation today than would otherwise be desired. In this regard the central bank acts to 'lean against the wind' of inflating imbalances by raising interest rates a bit more than under the conventional strategy. This has the effect of signalling to the markets that the bank recognises the increasing imbalances and is willing to act against them.

As hinted at above, it may be that the current environment of increased central bank credibility is conveniently more suited to this approach. Increased credibility may cause more market participants to question the market trend and possibly even take contrary positions, thereby reducing herd behaviour and slowing, if not stopping, the growth of the bubble. Not only that, with interest rate smoothing now seen as the way central banks do business, such small but committed moves to lean against the wind will be interpreted as signalling further future moves. A slight interest rate rise today might not in itself have much effect on investors expecting large returns at the end of a given period. However the prospect of continuing interest rate rises will surely erode the investors' confidence that the desired returns can actually be realised over that period. This effect could be felt either by increasing the opportunity cost, in terms of a riskless return, of a position in the bubble and/or by increasing the probability that *others* will decide to get out of the bubble and bring on a collapse before the said period is up.

It is important to note that this is by far the least risky strategy in that the corrections can be made with the least threat to real economic activity and even if they are proven to fail, little is lost either in terms of current output or the central banks credibility to maintain price stability. Although the conventional 'mopping up' strategy safeguards current growth at the expense of risking a future bust, the excessive easing during the bust

period may simply replace one bubble with another. It has been suggested that Alan Greenspan's excessive liquidity after the stock market crash might have contributed to inflating the housing market (The Economist, 2004). This is an illustration of the moral hazard problems that can arise from the asymmetric response following the conventional approach. With 'leaning against the wind' this asymmetry is reduced and the central bank can respond to both rising and falling asset prices in a way that would surely temper participants' behaviour.

## ECB's Two-Pillar Monetary Strategy

The ECB's monetary strategy rests on a two-pillar approach. The economic analysis pillar looks at a broad range of economic indicators and their implications for near term inflationary pressure. This analysis is then cross-checked with the monetary analysis pillar which is seen as providing important signals of medium to long-term inflationary pressures.

The initial decision to assign a role to the monetary analysis, especially at a time when inflation targeting was on the rise and proving effective, can be seen either as an attempt by the ECB to hedge its bets by having both inflation targeting and elements of monetarism in its policy, or as a way of transferring credibility from the Bundesbank by ensuring that a link with the past was maintained. As such, the ECB's two-pillar monetary policy strategy is unique in the world of central banking, stemming as it does from the unique situation in which the ECB was formed[9].

Lately the 'prominent role' assigned to monetary analysis has come under increasing criticism. This is not surprising since monetarism has been considered dead for some time now and the informational benefits of monetary analysis considered dubious since the changes the world economy has faced. The result has been unease in the markets surrounding the supposed ambiguous nature of the ECB's analytical framework. This has been compounded by the fact that the monetary pillar has seemingly played a trivial role in the actual decisions made[10], even though M3 growth has consistently surpassed its 'reference value' of 4.5% set by the ECB (see Figure 2 in appendix).

[9] Although recently the Bank of Japan announced a 'second perspective' component to its monetary strategy broadly similar to the ECB's monetary pillar - perhaps this can be taken as further support for the argument made in this paper.

[10] Indeed it has been shown using analysis of statements from the ECB that "over time the relative amount of words devoted to the monetary analysis has decreased" and that "developments in the monetary sector…only played a minor role most of the time" (Berger et al., 2006:1)

My view, and one that is evolving within the ECB itself (Trichet, 2005), is that the two-pillar strategy is consistent with the ability to lean against the wind when imbalances are shown to exist via monetary analysis. In this context, broad analysis of credit and liquidity dynamics, portfolio shifts and other monetary aggregates can provide a sufficient and timely warning to the central bank that imbalances may be increasing and allow a coherent and relatively well defined motivation to lean against the wind if needs be. Hence, if one accepts the BIS hypothesis and considers leaning against the wind an appropriate option, then the ECB's approach may be the best readily available framework.

## Conclusions

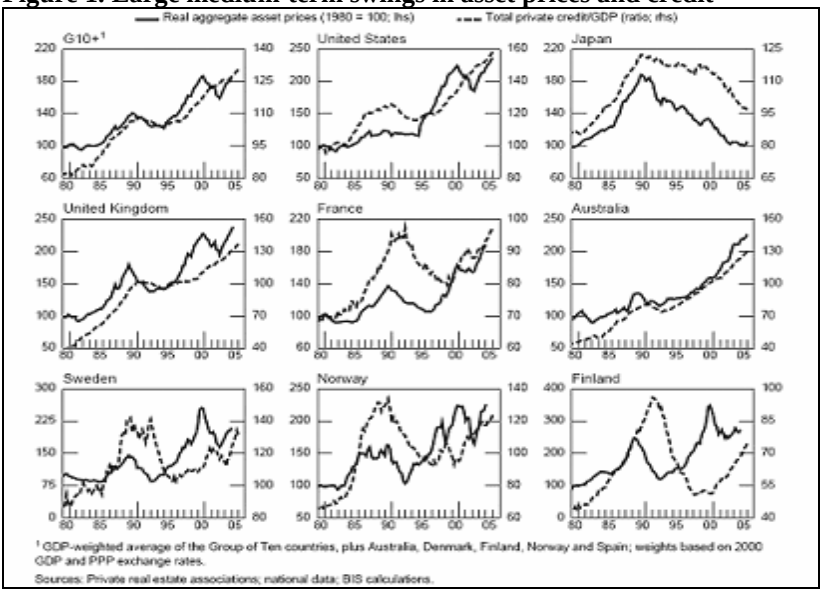
One wider question that can be said to underpin much of this debate concerns the objectives of monetary policy - is price stability all that matters? Benjamin M. Friedman considers what is at issue as "a form of disguised reaction against the increasingly narrow interpretation of what monetary policy is all about…. including in particular the increasingly widespread adoption of inflation targeting" (Friedman, 2005:296). In addition, an unwavering fear (perhaps warranted) of central bankers of being misinterpreted has so far had debilitating effects on the debate. Have we become too attached to the narrow notion of inflation targeting as the ultimate end of monetary policy? Perhaps, as is often the case, it may take a crisis for its dominant position to be properly questioned. However, this paper does not go that far and does not even seek to question inflation targeting, rather the intention behind this paper is whether and how this policy may be supplemented and improved upon, given the possibility that some of the fundamental relationships monetary policy has come to be based on may again be changing. This possibility should not be such a surprise as history has shown how theories and policies based on stable relationships evolve, degenerate and are replaced by progressive approaches that can better explain new observations.

Although the BIS hypothesis appears very powerful, its implications remain unclear and little understood. Nowhere is this more so than in terms of monetary policy, the conventional response is rejected based on the view that there is no such thing as doing nothing. In this regard it is suggested that the ECB's two-pillar approach could be the most suited and pragmatic way currently available to incorporate this possibility without too much disturbance. As such this might be a new justification for the continuing importance of money and monetary aggregates in monetary policy. Further research and experience is no doubt needed before any of the

views expressed above can be generally accepted or not, however at the very least they should serve to raise worthy and helpful questions surrounding the wisdom of any final dismissal of money and monetary aggregates from monetary policy just yet.

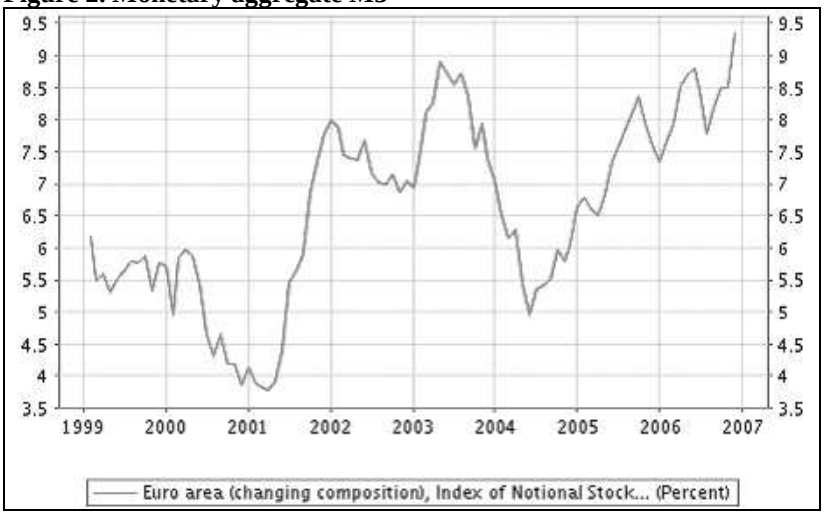
## Appendix

**Figure 1. Large medium-term swings in asset prices and credit**




Source: Borio, C.E.V. 2006

**Figure 2. Monetary aggregate M3**




Source: ECB Statistical Data Warehouse http://sdw.ecb.int/home.do?chart=t1.2

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