

### THE LINK BETWEEN ASSET PRICES AND MONETARY DEVELOPMENTS

At least since the Great Depression of the 1930s, economists and policy-makers have been aware of the potentially damaging effects of large fluctuations in asset prices, such as equity and property prices, on overall economic performance. The experience of Japan in the 1990s has confirmed that, in some circumstances, boom and bust cycles in asset prices can be very damaging, as they may lead to financial and, ultimately, macroeconomic instability.

From the point of view of monetary policy, boom and bust cycles in asset prices pose a significant challenge. In particular, it is important for central banks to be able to identify the underlying sources of asset price changes in order to calibrate the appropriate policy response.<sup>1</sup> More specifically, it is important to distinguish between asset price changes driven by changes in current and expected future “fundamentals” (e.g. enhanced profits and productivity growth, which would justify an increase in equity prices) and changes driven by deviations from those fundamentals (e.g. overly optimistic expectations of future equity price developments).<sup>2</sup> The latter case is often referred to as an “asset price bubble”. The eventual bursting of such bubbles can be destabilising for the financial system and the real economy. At the same time, on a practical level, it is also recognised that distinguishing between fundamental and non-fundamental sources of asset price movements in real time is an extremely difficult task, as estimates of the equilibrium value of asset prices are usually surrounded by a high degree of uncertainty.

In this respect, however, several studies have shown that the analysis of monetary and credit developments may be very useful. As was pointed out long ago by pioneering studies on the topic,<sup>3</sup> boom and bust cycles in asset markets have historically been strongly associated with large movements in monetary and credit aggregates. There are several reasons why monetary and asset price developments tend to be positively correlated. One reason is that both sets of variables may react in the same way to monetary policy or cyclical shocks to the economy. For example, strong money and credit growth may be indicative of an excessively lax monetary policy and this may fuel price developments in the asset markets. Moreover, self-reinforcing

1 See, for instance, F. Smets (1997), *Financial assets and monetary policy: Theory and evidence*, BIS Working Paper No 47 and B. Dupor (2002), “Comment on monetary policy and asset prices”, *Journal of Monetary Economics*, 49(1), pp. 99-106.

2 For a more detailed discussion of this issue, see the article entitled “The stock market and monetary policy” in the February 2002 issue of the ECB’s Monthly Bulletin, pp. 38-51. See also the proceedings of the ECB Workshop on “Asset prices and monetary policy”, 11-12 December 2003 (<http://www.ecb.int>).

3 See, for instance, I. Fisher (1932), *Booms and depressions*, New York, Adelphi, and C. Kindleberger (1978), *Manias, panics and crashes: A history of financial crises*, New York, J. Wiley & Sons, Inc.

mechanisms can be at work. For example, the value of collateral increases during asset price booms, permitting a further extension of credit for investment by the banking system, which may reinforce the increase in asset prices. The opposite mechanism can be observed during asset price downturns.

Recently, a number of studies have confirmed that it is useful to look at monetary and credit developments as early indicators of the building-up of financial imbalances and/or to assess the possible consequences of sharp asset price movements. In particular, a recent BIS study analyses the performance of various indicators in predicting episodes of financial crises in 34 countries since the 1970s.<sup>4</sup> The analysis suggests that measures of credit gaps (deviations of the ratio of credit to GDP from historical trends above a certain threshold) are the best leading indicators of future financial distress. The study also shows that the performance of these indicators can be further improved if combined with measures of other financial imbalances, such as asset price and investment gaps. A recent study by ECB staff reviews evidence on episodes of asset price booms since the 1970s for 18 OECD countries.<sup>5</sup> It distinguishes high from low-cost booms, depending on the post-boom growth performance of the economy. According to this analysis, one of the few robust and significant differences between high and low-cost booms seems to be the presence of higher than average pre-boom real money growth and higher than average real credit growth in the first years of the boom for high-cost episodes.

Various authors have analysed past episodes of asset price booms and busts which, with hindsight, are regarded as having involved substantial monetary policy mistakes. The evidence suggests that monetary aggregates would have provided useful information on the appropriate monetary policy stance, over and above standard benchmarks such as those provided by simple Taylor rules.<sup>6</sup> Moreover, it has been found that, following the bursting of a bubble, monitoring monetary aggregates is sometimes of key importance for avoiding major deflationary risks.<sup>7</sup>

The evidence that money and credit indicators may provide useful information for the development of asset price misalignments and financial instability is one of the reasons for assigning a prominent role to monetary analysis in the ECB's monetary policy strategy. At the same time, as emphasised by the economic literature on the subject, the relationship between asset prices, money and credit is complex and possibly changing over time. For example, particularly at times of high financial turbulence and uncertainty, substitution effects from money to asset prices can be substantial, as the experience in the euro area in the period between 2001 and 2003 indicates. Therefore, no mechanical link between monetary and asset price developments can be assumed. Rather the central bank has to carefully analyse all factors involved, in particular the overall balance sheet conditions of the financial sector, households and firms, and interpret the nature of movements in money and credit.

4 See C. Borio and P. Lowe (2002), *Asset prices, financial and monetary stability: Exploring the nexus*, BIS Working Paper No 114, and the subsequent paper by C. Borio and P. Lowe (2004), *Securing sustainable price stability: Should credit come back from the wilderness?*, BIS Working Paper No 157.

5 See C. Detken and F. Smets (2004), *Asset price booms and monetary policy*, ECB Working Paper No 364.

6 See B. McCallum (1999), "Recent developments in the analysis of monetary policy rules", in *Review*, Federal Reserve Bank of St. Louis, Volume 81, No 6; A. H. Meltzer (2001), "Money and monetary policy: An essay in honor of Darryl Francis", in *Review*, Federal Reserve Bank of St. Louis, Volume 83, No 5; and O. Issing (2002), "Monetary policy in a changing environment", contribution to the symposium on "Rethinking stabilization policy" hosted by the Federal Reserve Bank of Kansas City (Jackson Hole, August 2002).

7 See, for instance, M. Bordo and A. Filardo (2004), "Deflation in a historical perspective", paper presented at the conference "Understanding low inflation and deflation" in Brunnen, Switzerland, 18-19 June 2004, and L. Christiano, R. Motto and M. Rostagno (2003), "The Great Depression and the Friedman-Schwartz hypothesis", *Journal of Money, Credit and Banking*, 35(6), pp. 1119-1197.