The recent financial turmoil has highlighted once again that the role of financial imbalances is a major challenge for central banks focusing on price stability. Most of the analyses of the causes of the financial turbulence that I have read stress the role of new financial developments, which make this event special. But the recent crisis is just one of a series of episodes over the past 30 years when the paths of asset prices – most notably equities and housing – were a highly distorting factor that ex post turned out to have disruptive macroeconomic effects.

The aim of this workshop is to further our understanding of the role of monetary policy in addressing financial imbalances. The speakers in the panel that will follow my remarks will discuss whether monetary policy should be actively used to prevent the build up of financial imbalances, and what the optimal monetary policy response should be when financial imbalances do occur.

This debate hinges on the question of whether we can ex ante identify imbalances that are building up. In my remarks, I will address this issue based on my experience as policy maker.

In my view, there are several, interrelated ingredients of an accumulating imbalance:

1. The first is low real long-term interest rates relative to a natural rate of interest, particularly in a context of a robust economy characterised by high productivity growth, strong economic growth and low inflation. It is well known that the natural rate of interest is difficult to estimate – just think about the challenge of assessing changes in productivity growth. But I think that a comparison with a historical average of past actual rates can give an idea of whether interest rates are out of line.

2. Low interest rates underpin the second ingredient, which the recent financial turmoil has brought to everyone’s attention – strong credit growth. The current intellectual debate highlights how standard macroeconomic theories in the Lucasian tradition – based on optimizing agents with rational expectations, complete markets and fully flexible prices – have a hard time assigning credit a relevant role. Economists are therefore increasingly turning for insights to the theories of Minsky or Kindleberger, which were published in the 1970s, or, even further back, to the business cycle theories dominant in England in the 1920s, and Hayek’s work from the 1930s.

3. The third element relates to the high levels of debt that can result from a prolonged period of strong credit growth, and which make the economy vulnerable to negative shocks. In my view, the importance of the stock of debt is a manifestation of a more general phenomenon, whereby in a context of disequilibrium – such as the accumulation of financial imbalances – stocks dominate flows as determinants of macroeconomic dynamics. When critical stock-flow ratios become very large, financial market players may at first become suspicious and then very rapidly flee into holdings of liquid assets, thus triggering a financial turbulence.

4. The fourth ingredient is sharply rising asset prices – typically in equity or real estate markets. While an asset price bubble is notoriously difficult to identify, here again deviations from some form of historical trend can give some guidance.
In an international dimension, sizeable current account deficits and high levels of international debt can point to imbalances that can have disruptive effects. While we all know how this can play out in emerging market economies, such episodes also occurred in industrial economies – just think for example about the Nordic banking crises in the late 1980s–early 1990s. In the current context of global imbalances, it has been argued that the large current account deficit and rising international debt in the United States reflects the large decline in savings by US households during the housing credit bubble.

But how can we quantitatively verify the existence and magnitude of financial imbalances along these five dimensions? This is a challenge for policy makers, academics and market participants alike. There is an empirical literature that suggests that financial imbalances might be detected but its findings are far from undisputed.

In my view, there is definitely a need for more in-depth research that helps us understand the dynamics of the accumulation of imbalances, even if this research comes up with interval estimates rather than point estimates. These margins (or bands) might be large but exceeding them would definitely be a sign that something is going wrong.

But even if imbalances might not be accurately assessed by empirical research, based on my personal experience as a policy maker there is clearly a sense in which they can be detected. “If it looks like a duck and quacks like a duck, chances are it is a duck”.

To illustrate this, let me go through a list of episodes that highlight how a “duck” can be recognized by low interest rates, strong credit growth, high debt levels and sharply rising asset prices. Having to be selective, I will pick out four historical episodes, before turning to the financial turmoil that started in August last year:

(1) The housing bubble in the Netherlands in the 1970s
(2) the Japanese asset bubble in the 1980s
(3) the dot.com bubble in the United States in the 1990s
(4) the boom in the Dutch housing market in the 1990s.

(1) The housing bubble in the Netherlands in the 1970s

Banks and households in the Netherlands tend to forget that in the 1970s we had a real estate bubble that burst violently. In 1975-76, the Dutch mortgage and housing markets went through a period of abnormal growth. Low – at some point even negative – real interest rates in a context of high inflation supported a sharp rise in demand for housing, while banks and insurance companies pushed households to take out as high as possible loans. Financial innovation, which created new forms of mortgages, also spurred credit growth, as did the extension of governmental guarantees from mortgages for new houses to all types of house purchases. Household debt and house prices rose sharply.

DNB was clearly worried about these developments. The explosive mortgage growth, which peaked at an annual rate of 29% in 1976, and the support it had received from governmental policies, were highlighted in 1976 in our Annual Report. An attempt to introduce credit restrictions was initially thwarted by the government. When they were finally imposed in 1977, they contributed to slowing mortgage lending, but it was too late to prevent a collapse of the Dutch housing market. In 1976, house prices started to tumble, as interest rates rose sharply.

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1 Groeneveld (1997).
and the economy went into a recession. By 1983, house prices had fallen by around 25% and mortgage lending stopped growing.

(2) **The Japanese asset bubble in the 1980s**

The Japanese asset bubble of the 1980s is a trauma that has had an important influence on policy makers around the globe. In the second half of the 1980s, asset prices – most notably equity and housing prices – rose sharply and bank lending grew at a fast pace. These trends occurred against the background of an overheating economy, while inflation remained subdued, mainly because of the rapid appreciation of the yen. The aggressive lending behaviour of over-optimistic banks in many ways resembled that of Dutch banks in the mid-1970s. Interest rates remained relatively low until the Bank of Japan tightened monetary policy in 1987 and more substantially in 1989. Equity and housing prices collapsed in 1989, dragging balance sheets of banks, firms and households into a prolonged crisis, and eventually leading to a credit crunch.

(3) **The dot.com bubble in the United States in the 1990s**

US stock prices, an in particular those of the IT sector, rallied in the late 1990s in a context of strong productivity growth, low and stable inflation, and low interest rates. At the time, many observers saw this as a manifestation of a so-called “new economy”. But others pointed to low or even negative savings rates coupled with a growing current account deficit as unsustainable imbalances. In the introduction to our Annual Report in 1998, we wrote that it was clear that at some point a correction had to happen but that it was hard to predict its trigger and its timing. In the event, the boom ended in coincidence with a tightening of monetary policy and was followed by a recession, with price changes in the United States approaching deflation in the early 2000s.

(4) **The boom in the Dutch housing market in the 1990s.**

In some respects, the housing market boom of the 1990s resembled the bubble of the mid-1970s. Between 1994 and 2000, mortgage lending grew very rapidly in a context of rapid economic growth, reaching annual rates of 15%. As a result, mortgage debt as a percentage of GNP became one the highest in Europe. As house prices boomed, home equity withdrawals – used for home improvements but also to finance consumption or investment on the stock market – grew rapidly. Similar to the boom of the 1970s, credit growth was supported by low and falling interest rates, banks’ efforts to encourage mortgage borrowing – by relaxing their acceptance criteria in an effort to increase their market share – and financial innovation, in the form of new types of mortgages. Demographic factors or fiscal legislation also played a role.

This said, a main difference between the 1990s housing boom and the bubble in the mid-1970s is that supply side developments, and in particular the unusually rigid supply of new houses, played a much more prominent role in the 1990s (DNB, 2008a).

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3 See Ito and Mishkin (2004). The influence of the appreciation of the yen on the Bank of Japan’s accommodative monetary policy in the second half of the 1990s is discussed in Ito (1992).

4 See DNB (1998).

5 See DNB (1999, 2002). Data for 2003, when the growth of house prices and home equity withdrawals had moderated, indicated that 70% of home equity withdrawal where used for home improvement (DNB, 2003).
At DNB we monitored these developments very closely and discussed whether the strong growth in mortgage lending could be followed by a sudden collapse in the housing market. A study was commissioned by DNB to carefully examine bank credit in the Netherlands. In the foreword, I stressed how previous experiences in the United Kingdom and Scandinavian countries led to a decoupling from fundamentals and to serious consequences once credit growth collapsed. I concluded that, “an excessive credit growth can hold risks for both macro and financial stability.” In contrast to the 1970s housing bubble, the boom in the 1990s did not lead to a financial crisis. In the early 2000s, the growth of house prices and credit dampened against the background of falling disposable income and rising unemployment, as a result of slowing global growth and rising interest rates.

(5) The current turmoil

Let me turn to the recent financial crisis and pose the question of whether there was evidence of excesses in financial markets in the years before the crisis erupted in August 2007.

In the years before the crisis, low and stable consumer price inflation was accompanied by asset price inflation that reflected underlying imbalances. In particular, market participants’ overly optimistic risk assessments contributed to keeping long-term interest rates at low levels which – we know now – were unwarranted. The environment of low (real, long-term) interest rates and high credit growth in 2003-04 appears ex post to have been conducive to the problems that emerged last year.

As I recently stated elsewhere, “many of the risks that crystallised in the past year were on our radar screen long before the crisis started.” Over the past years, excessive risk tolerance, hazardous risk transfer mechanisms and possible shortcomings of the originate-to-distribute model were time and again analysed in Financial Stability Reports – including our own Overview of Financial Stability.

Why we have not been fully able to translate these risk assessments into an efficacious preventive action is something that we need to reflect on very carefully. Can monetary policy lean against the wind and be used as an instrument to prevent the accumulation of imbalances? And how should it react to the problems brought about by a sudden unwinding of imbalances? I hope that the market participants, scholars and policymakers that are joining us today for this workshop, will help us gain insights into these important issues.

References


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6 See e.g. Groeneveld (1997) and Capel and Houben (1998).
7 De Haas et al, 2000.
8 Wellink (2008).
9 The Overview of Financial Stability published in June 2005, for example, highlighted the underestimation of credit risks, and discussed reasons and consequences of this phenomenon (DNB, 2005). See also DNB (2006, 2007a, 2007b).


