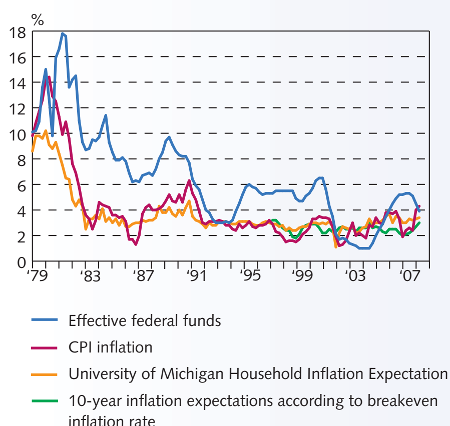
Box I-1

The importance of anchoring inflation expectations

In the 1970s, inflation rose steadily in most parts of the world. Doubts about the efficacy of monetary policy in combating the problem were widespread.[1] A dramatic change in attitude ensued in the 1980s and '90s, among economists, central bankers, and politicians. As a result, central banks the world over embarked upon a long and costly campaign to contain inflation. Interest rates were kept high for years. Unemployment rose, many countries were faced with economic contraction, and central banks were criticised harshly for high interest rates. However, with a tight monetary stance, they managed to guarantee low, stable inflation and to build confidence in monetary policy as an effective tool for maintaining price stability. In most parts of the world, central banks place strong emphasis on not losing this trust that came at such a high price. This Box focuses on the US Federal Reserve Bank and the Reserve Bank of New Zealand: their battle with inflation, their attempts to enhance credibility, and the lessons that the Central Bank of Iceland can incorporate into its monetary policy implementation.

Chart 1
Policy rate, inflation and inflation expectations in the US
Q1/1979 - Q1/2008



Effective federal funds
CPI inflation
University of Michigan Household Inflation Expectation
10-year inflation expectations according to breakeven inflation rate

Sources: BLS, Federal Reserve System, Central Bank of Iceland.

US federal funds rate averaged 10% between 1979 and 1990

In October 1979, the US Federal Reserve Bank, under the leadership of newly appointed Chairman Paul Volcker, declared war on inflation. At that point, inflation had hovered around 10% for some time and seemed set to climb higher. The Federal Reserve's discretionary monetary policy had reached a dead end and was stimulating fluctuations in inflation and economic growth without any genuine improvements in employment levels or output growth. A long, tough battle ensued. It took the Bank at least a decade to restore its credibility and bring inflation and inflation expectations down to around 2%, which appears to be its informal long-term inflation target.[2]

Chart 1 shows how long the federal funds rate remained high. It averaged 10% over the twelve-year period from 1979 to 1990, peaking at 19.1% in June 1981. The real federal funds rate topped out at approximately 9% and long-term rates at about 15% in the latter half of 1981. This monetary tightening was costly. The recession in 1981-82 was the deepest in US economic history since the Great Depression in the 1930s, with unemployment soaring to some 10% towards the end of 1982.

But tight monetary policy proved its usefulness, for inflation dwindled quickly over the following two years, and the Fed was able to stabilise it at acceptable levels. Since 1992, inflation in the United States has been low and stable, averaging 2.7%. Not least among the advantages of embarking upon the difficult path of fighting inflation at the cost of a short-term economic downturn was the establishment of monetary policy as an anchor for inflation expectations. This is the main reason why US inflation has remained low despite abundant output growth and low unemployment levels over a period of nearly two decades. The credibility of monetary policy is revealed in the fact that inflation expectations have remained low and stable, especially long-term expectations, despite a variety of ups and downs in the economy.[3] This has enabled the US Federal Reserve Bank to focus more closely on other factors than inflation – such as output growth and employment – in its implementation of monetary policy.[4]

1. See, for example, Goodfriend, Marvin (2007), "How the World Achieved Consensus on Monetary Policy", *Journal of Economic Perspectives*, Volume 21(4), Autumn.
2. See, for example, the speech given by Ben Bernanke on November 14, 2007, and the speeches given by Frederic Mishkin on March 23 and October 20, 2007.
3. See, for example, J. Roberts (2006), "Monetary Policy and Inflation Dynamics", International *Journal of Central Banking* (2), pp. 193-230, and M. Kiley, (2008), "Monetary Policy Actions and Long-Run Inflation Expectations", Federal Reserve Board *Finance and Economics Discussion Series* 2008-03.
4 See, for example, the speeches given by two members of the of the Federal Reserve's monetary policy committee, Frederic Mishkin (speech on January 11, 2008) and Ben Bernanke (speech on February 27, 2008).

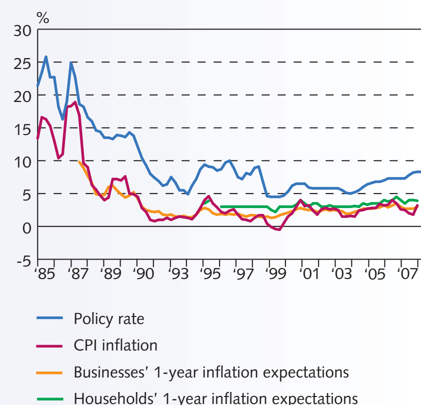
Firmly anchored inflation expectations in New Zealand

The pioneering efforts of the Reserve Bank of New Zealand (RBNZ) are no less interesting to observe. It can be said that New Zealanders were the first to construct the institutional framework that is considered today to anchor inflation expectations with minimal sacrifice. The RBNZ managed this by adopting a numerical inflation target in 1990, the first central bank in the world to do so. The New Zealanders' experience is especially edifying because their economy is similar to Iceland's in many ways. Since the RBNZ adopted the inflation target in 1990, inflation has averaged 2.3%. In order to achieve this, the Bank has been forced to maintain a rather high official cash rate (policy interest rate) averaging approximately 5%. On average, the real policy rate in New Zealand has therefore been higher than that in Iceland since 2001. The Reserve Bank's target is to hold inflation in the range of 1-3% for the medium term, but flexibility in monetary policy implementation has increased as the bank's credibility has grown. Research carried out by RBNZ analysts indicates that enhanced credibility of monetary policy has been accompanied by a reduction in the undesirable effects of exchange rate volatility on the economy, including the effects on inflation.[5]

Chart 2

Policy rate, inflation and inflation expectations in New Zealand

Q1/1985 - Q1/2008



Sources: Reserve Bank of New Zealand, Central Bank of Iceland.

Insufficiently anchored inflation expectations leave limited scope for emphases other than inflation

The experience of the past three decades shows how costly it is to restore confidence in monetary policy if it loses credibility. Inflation expectations are one of the most important determinants of inflation. They ran free in the 1970s, when central banks placed insufficient emphasis on controlling inflation and convinced themselves that they could choose between inflation and unemployment – perhaps even for the long term. The cost of correcting the situation was a deep contraction. This experience underlines the importance of expectations and how critical it is to consider them in monetary policy-making.

The conclusion drawn by modern monetary economists – and borne out by experience – is that the most effective vehicle for anchoring inflation expectations is an independent central bank that formally pledges to maintain price stability and enforces its monetary policy in a systematic, transparent, and credible manner.[6] The credibility of monetary policy is therefore vital in controlling inflation successfully and reducing fluctuations in output growth and employment levels. If inflation expectations are not firmly anchored, there is limited scope to focus on anything else but inflation.

Inflation expectations in Iceland are high and volatile

Since adopting its inflation target in March 2001, the Central Bank of Iceland has not yet managed to maintain low, stable inflation except for a scant two-year period. There are numerous explanations for this, which are beyond the scope of this article.[7] The Bank has not yet built up the level of credibility that exists, for example, in the US and New Zealand. The fact that inflation expectations in Iceland are both high and sensitive to news bears witness to this. Long-term inflation expectations appear unstable and too far from the inflation target. The only way the Central Bank can garner the necessary credibility is to demonstrate in practice that it can guarantee lasting price stability. Though experience shows that the cost of breaking free of persistent inflation can be high for the short term, it is abundantly clear that the benefits of credible monetary policy are great, and that they increase over time.

5. See A. Drew, Ö. Karagedikli, R. Sethi and C. Smith, (2008), "Changes in the transmission mechanism of monetary policy in New Zealand", Reserve Bank of New Zealand *Discussion Paper Series* No. DP2008/03.
6. See, for example, the paper by Thórarinn G. Pétursson in *Monetary Bulletin* 2007/3.
7. See, for example, the paper by Arnór Sighvatsson (in Icelandic) in *Fjármálatíðindi* 2007.