Box 1

INTEREST RATE RISK AND THE FEDERAL RESERVE'S TIGHTENING CYCLE: COMPARISON WITH THE EVENTS OF 1994

Concerns about interest rate risk – the potential for increases in interest rate volatility and subsequent reductions in earnings or the economic value of portfolios – have intensified recently, on account of the significant accumulation of bonds by commercial banks. Current concerns have a historical precedent: in 1994 bond-yield volatility rose significantly as US long-term bond yields increased sharply and global investors liquidated their government bond holdings. Concerns quickly spread to global fixed income markets, resulting in significant capital losses worldwide. This box compares current developments with those in 1994 and explores the risks to financial stability.

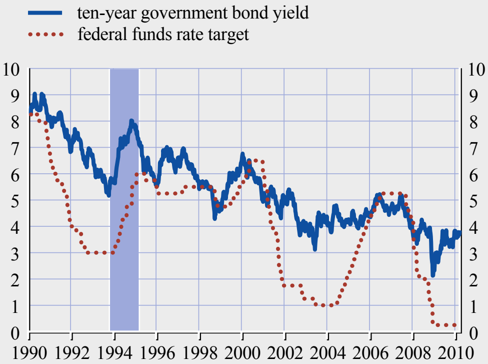
In February 1994 the federal funds target rate was low by historical standards. Given the slow recovery from the 1990/91 recession, low inflation and fiscal consolidation, long-term bond yields remained relatively low (see Chart A). A combination of events, however, pushed long-term debt yields significantly higher. With a monetary normalisation on the horizon, market participants were uncertain regarding future trends in long-term yields, which typically rise during a monetary tightening cycle. When the Federal Reserve began to raise the federal funds rate in February, the market was taken by surprise. However, inflation expectations began to rise and some analysts predicted that the federal funds rate could be raised to as much as 8%, which triggered an abrupt and significant increase in long-term interest rates throughout much of 1994, in excess of the increase in official rates (see Chart A). A number of further and larger increases in the federal funds target rate followed the February rate hike, but it was not until a 75 basis point increase was announced in November 1994 that long-term interest rates began to fall. Bond portfolio losses, however, were already extremely high and capital losses mounted worldwide.[1] The 1994 episode of bond market turbulence can be explained, in part, by the communication strategy of the central bank, which resulted in market expectations being unanchored. At the time of the next rate tightening cycle in 2004, a changed communication policy contributed to considerably lower increases in long-term rates (see Chart A).[2]

There are some similarities between the current situation and the setting of 1994: policy rates have been at historically low levels for almost one-and-a-half years, and the recovery in the US economy has been equally slow. There are also some important differences, however: macro-financial conditions in 2010 more closely resemble those in 2004, as inflationary risks are lower than in 1994. Furthermore, since 1994, the Federal Open Market Committee (FOMC) has communicated its intentions regarding the future path of interest rates more clearly. The anchoring of inflation expectations and the central bank's credibility are significantly higher now, mitigating the risk of a repetition of the 1994 episode.[3] Risk factors remain, however.

1 The Bank for International Settlements estimated that losses were in the region of USD 1.5 trillion, almost 10% of OECD countries' total GDP at that time (see BIS, *Annual Report*, June 1995).
2 Long-term rates remained low in the 2004 tightening cycle, in large part due to the "global savings glut", which resulted in current account balance surpluses, particularly in emerging countries. A lack of flexibility in foreign exchange regimes and alternative investment opportunities induced central banks in these countries to accumulate reserves in the form of Treasury bonds. Long-term bond yields, therefore, remained at excessively low levels, given the economy's continued strength.
3 In February 2010, expected US inflation over a ten-year horizon was 2.4%, roughly in line with prevailing inflation rates. In 1994, by contrast, long-term inflation expectations stood at 3.5%, almost a full percentage point above the inflation rates observed during the same year.

Chart A US policy interest rates and long-term bond yields

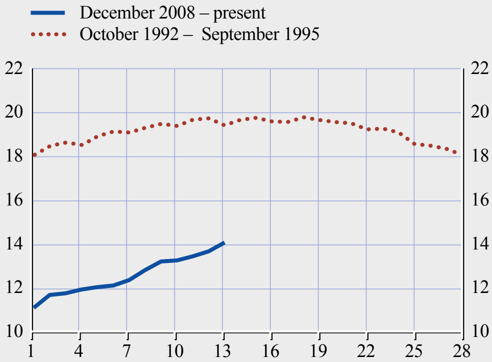
(Jan. 1990 – Apr. 2010; percentage)



Source: Bloomberg.

Chart B US banks government bond holdings at the end of the Federal Reserve's easing cycle

(percentage of total bank assets; months)



Sources: BIS, Haver Analytics and ECB calculations.
Note: "0" denotes the timing of the last cut in the federal funds target rate for the respective cycle.

On the macroeconomic side, the current fiscal situation is clearly less favourable than in 1994. At that time, the Congressional Budget Office (CBO) projected a stable debt-to-GDP ratio of around 50% over the medium term, whereas the CBO currently projects this ratio to increase from 53% to 90% over the next decade.

Financial institutions have accumulated significant amounts of long-term bonds since the onset of the current financial crisis, and – although this is not an abnormal phenomenon during economic downturns, given the strong issuance of government bonds, low short-term funding costs, high loan-loss provisions and a preference of banks for low risk assets – the pace of accumulation has been more marked than in 1994, as pressures to delever remain (although the share of government bonds in total assets is lower; see Chart B). Mitigating the risks associated with these exposures, however, is the increasing degree of sophistication used in managing interest rate risk over the last decade.[4] Moreover, an additional potentially adverse effect for financial stability is the possibility of a spill-over to non-financial firms' financing costs that could trigger crowding-out effects, raise loan delinquencies and endanger the economic recovery. Finally, higher nominal and real interest rates might also trigger a stock market sell-off and have negative wealth effects, potentially spilling over to other bond markets.[5]

In conclusion, although a repetition of the 1994 bond market turbulence appears unlikely, financial stability risks remain. The impact of higher interest rates on financial systems is likely to depend on the nature of the factors triggering the adjustment and on the prevailing economic environment. In the event of a stronger than anticipated economic recovery, the likely improvements in credit quality should be an important mitigating factor for financial institutions. However, a rise in bond yields – driven, for example, by higher inflation expectations or sovereign debt concerns which endanger price stability – may pose more significant challenges.

4 US financial supervisors have nonetheless identified exposures to rising policy rates, in particular for small and medium-sized banks with less sophisticated risk control mechanisms (see Federal Deposit Insurance Corp., "Supervisory insights," Vol. 6, 2009).
5 The circumstances surrounding the tightening cycle are also important. In 1994 the growth acceleration took place against a background of low corporate indebtedness and led to an improvement in credit quality, as both default rates and credit spreads fell. The impact on banks' profitability was thus cushioned, as lower credit-related losses outweighed those endured on securities holdings.