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Fed rate cuts and the default cycle

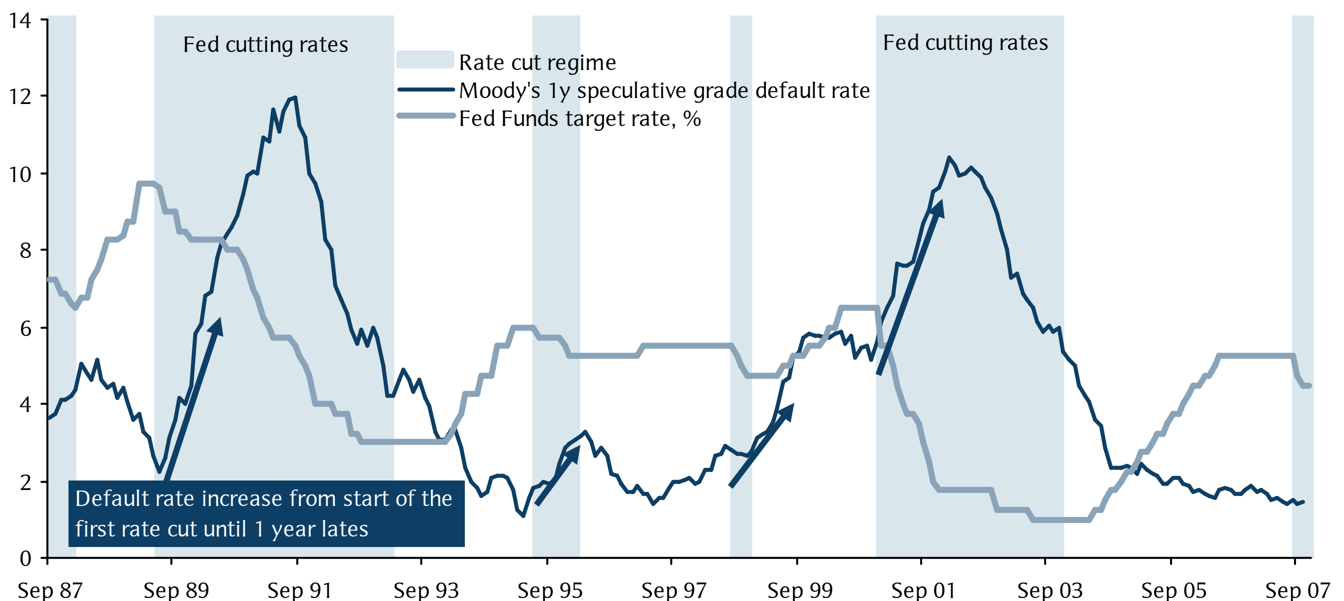
Assessing the empirical evidence: 1988-2007

What effect can the Fed's reduction of the fed funds target rate be expected to have on the credit cycle? The inter-meeting rate cut of 75 bp today makes this an extremely relevant question. The initial reaction in credit markets was positive, but with a quick reversion. Markets may come to agree with most central bankers that monetary policy is a fairly blunt instrument with a substantial lagging effect. It is often assumed that there is a lag of around 12-18 months before interest rate decisions actually affect the "real" macro-economy.

Figure 1 tells an interesting story of how the Fed has, or has not, managed to avoid downturns in the credit cycle/upturns in default rates. In 1991 and again in 2001/02, the Federal Reserve was cutting rates fairly aggressively for a sustained period, and we see default rates peak in the middle of those cuts. Hence, history from the two latest credit cycles suggests that the Fed has not been able avoid rapid increases in default rates in the initial stage of the downturn despite being quite active. This is hardly surprising: if one expects a lagging effect of monetary policy, and the central bank does not have perfect foresight, then the rate cuts should be seen as measures to reduce the severity of a coming trough rather than avoiding a downturn completely.

Today's situation shows up as an important juncture in this graph. We are seeing fairly rapid cuts after prolonged stability in rates. This type of rate cut regime (highlighted in Figure 1) has historical precedents in 1989, 1996, 1998 and 2000. On each of these occasions, default rates appear to have risen from recent historical lows in the year following the inception of the rate cut regime, as shown by the arrows in the figure. In 1989 and 2000, we see a full-blown downturn in the credit cycle, whereas 1995 and 1998 saw far more moderate increases in default rates that eventually retraced to some extent.

Figure 1: Rate cuts and the default cycle



Source: Federal Reserve, Moody's, Barclays Capital

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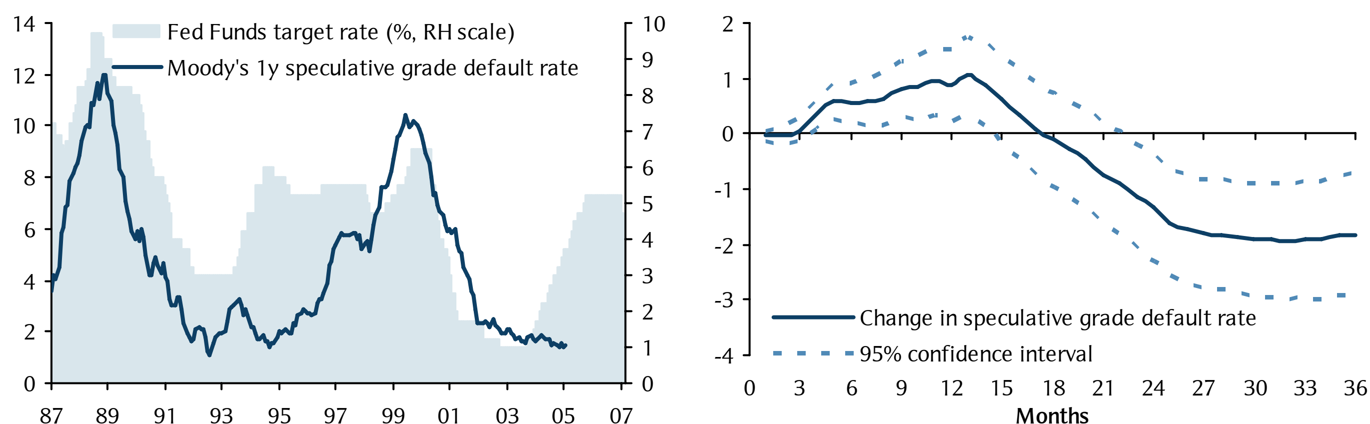
Lead/lag relationship between rate cuts and changes in default rates

We provide some more detail on the lead/lag dynamics between rate cuts and default rates in Figure 2. In the left-hand panel, we overlay the fed funds target rate with default rates two years forward, and see a close relationship between the two. Hence, from this fairly simple exercise, we can identify a strong leading relationship where Fed cuts appear to have the largest effect at a two-year horizon. Cutting rates appears to decrease defaults roughly 18-24 months forward, pretty much as one would expect on the basis of the central bankers' rule of thumb of monetary policy. 1995 proves to be slightly different: we can see that the lead/lag relationship in that period was substantially shorter as the pickup in default rates (on a forward basis) appears to the left of the rate cut period of 1995-1996.

In the right hand panel, we plot the impulse-response function of defaults to cuts in the fed funds target rate. The function, based on a vector auto-regression, allows us to analyse the time-varying effect of rate cuts in a statistically sound way. We can see that empirically, a rate cut has started to push default rates down only at around an 18-month horizon (where the dark line crosses below the horizontal axis). Before that, we have actually seen increases in default rates. From a statistical viewpoint, this appears to be a strongly significant dynamic, as can be inferred from the relatively tight confidence interval.

Figure 2: Fed funds target rate versus 24mth forward speculative grade default rates (left panel) and behaviour of default rates following a 100bp rate cut (right panel).



Source: Federal Reserve, Moody's, Barclays Capital

Lead/lag relationship between rate cuts and easing of lending standards

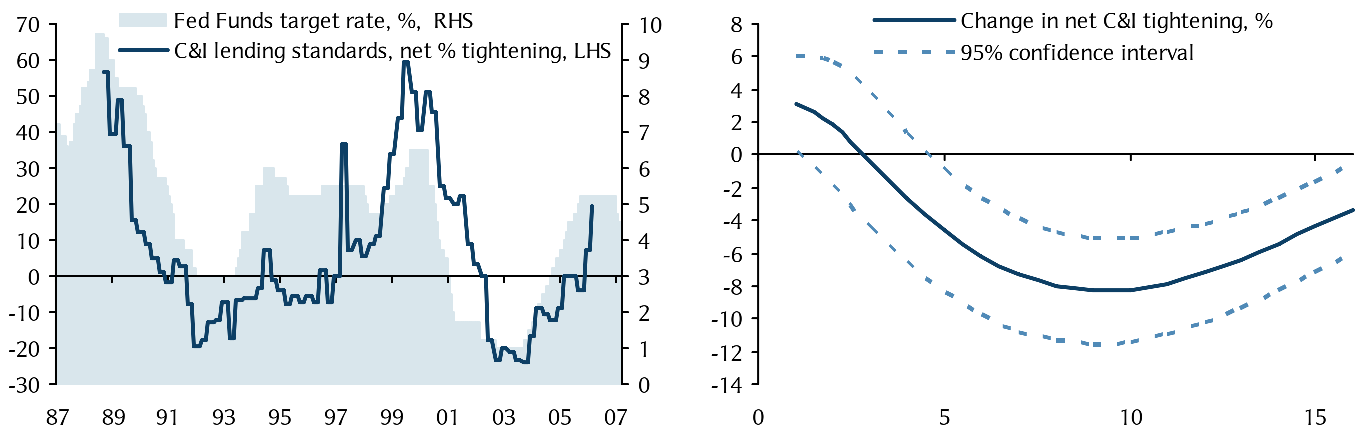
As rates are lowered, there is a direct link to the cost of funding. In this credit crisis, however, it seems that it is the banks' relative unwillingness to lend that is the problem rather than the cost of credit. In the FOMC statement which followed the recent inter-meeting rate cut, Chairman Bernanke explicitly referred to lending standards:

"While strains in short-term funding markets have eased somewhat, broader financial market conditions have continued to deteriorate and credit has tightened further for some businesses and households."

A natural question, then, is how rate cuts affect banks' willingness to lend. An indication of this can be seen in Figure 3, where we show how decreases in the fed funds rate are paired with a reduction in tightening of commercial and industrial (C&I) lending standards approximately one year after the rate change. This implies that recent rate cuts, if we look at historical evidence, should start having an effect on lending conditions in H2 08 to H1 09.

We have previously argued that a tightening in commercial and industrial (C&I) lending standards appears to be a good leading indicator of a pickup in default rates (*Lending standards and default rates: Some numbers*, 5 October 2007). The Q4 survey showed a net 19.2% tightening, which in our framework has translated into a projected speculative grade default rate of 5.4% towards the end of 2008.

Figure 3: Fed funds target rate versus C&I lending tightening 12mth forward (left panel) and behaviour of C&I tightening after a 100bp rate cut (right panel).

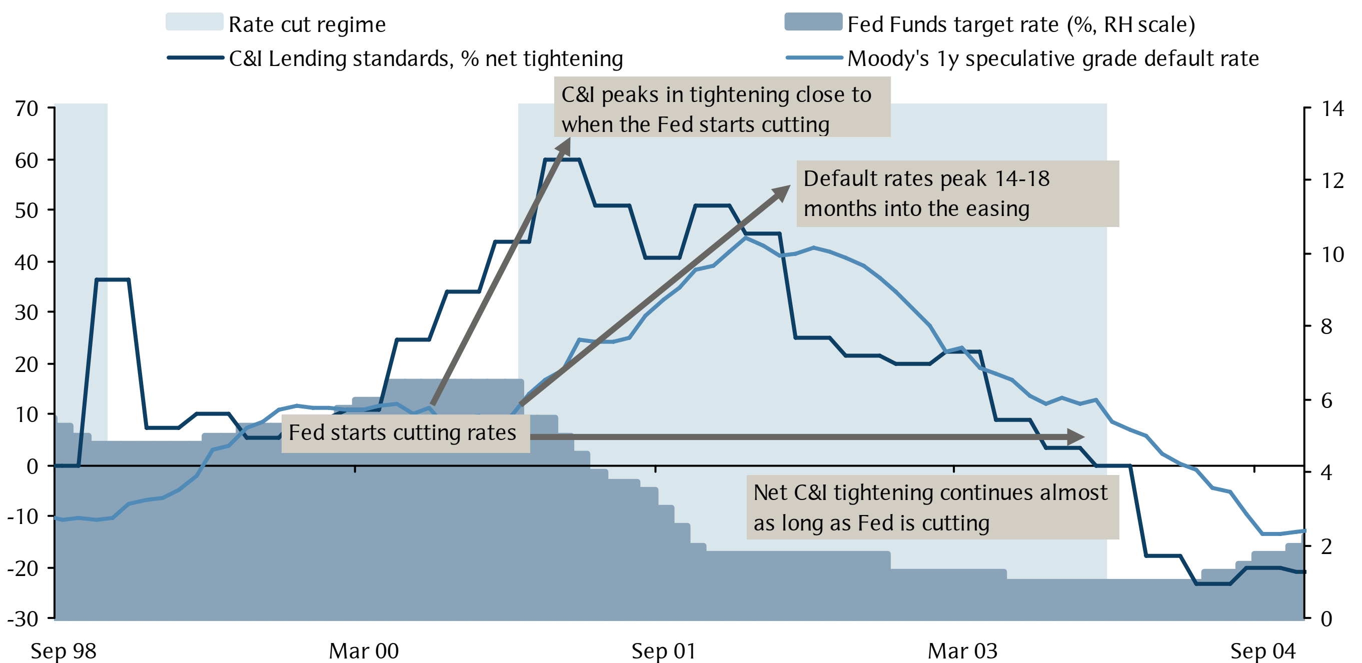


Source: Barclays Capital

The credit cycle turn of 2001/02 – a closer look

Lastly, we take a closer look at the last downturn in the credit cycle, as in Figure 4. In 2000, the fed funds target rate was held constant, whereas the C&I lending was continually tightening. The Federal Reserve starts cutting rates in the first half of 2001, which is the same time at which C&I tightening peaked. Lending standards kept on tightening at a rate of around 50% per quarter for the next 12 months, and really started their trend towards credit easing 12 months later. Secondly, default rates peaked in mid 2002, between 14-18 months after the monetary policy easing had started. Hence, rate cuts were positively correlated with increases in defaults in the short term in the period after the initial wave of rate cuts. Thirdly, we see that the Fed was continually cutting rates throughout the period where default rates were above 6%.

Figure 4: The 2001-02 credit cycle downturn



Source: Federal Reserve, Moody's, Barclays Capital

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