

# Research

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Chief Economist Carsten Valgreen, +45 4512 8522, [cval@danskebank.dk](mailto:cval@danskebank.dk)

Chief Analyst Allan von Mehren, +45 4512 8055, [alvo@danskebank.dk](mailto:alvo@danskebank.dk)

## Awash with Cash 9: After the 'credit run'

- The present financial market crisis is not just about US sub-prime mortgages. It is about deleveraging after a period of extremely easy financial conditions, about faith in credit rating agencies and it is about trust in the system of complex fixed income products built up over a number of years.
- We benchmark the crisis against similar financial distress in 1987, 1998 and 2001. This crisis resembles 1998 the most, with the difference being that the present crisis seems more systemic and in that sense more fundamental. We think it could be called a 'credit run' – a 'bank run' in a modern version.
- In financial markets the crisis could mark a watershed. As in 1987 and 1998 the crisis marks a rising trend in equity volatility. We think risk aversion will increase permanently, even as the dust settles. In a sense it marks the end of the "awash with cash" period. From now on perceptions of risk will change and markets will scrutinise lending and positions much more. This means credit spreads are not likely to come back to the same tight levels and swap spreads will likely stay wide for some time. And it also implies permanently higher risks of an emerging market crisis.

### Foul weather

#### *Suddenly financial markets just turned bad*

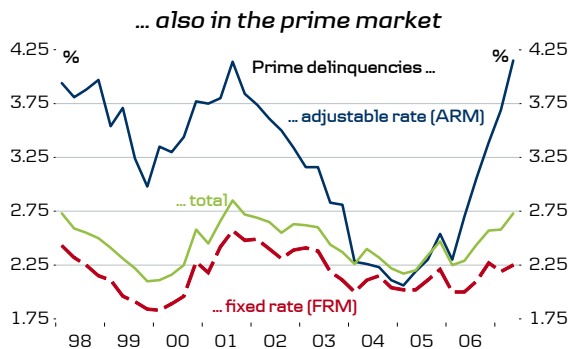
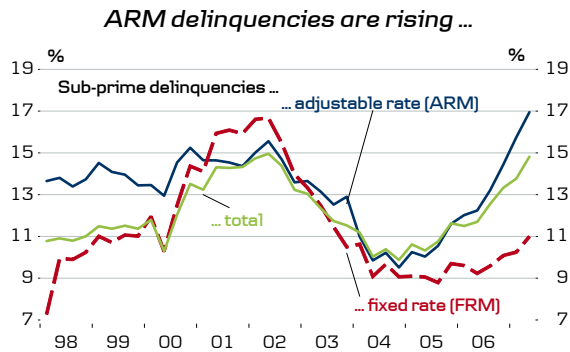
Suddenly a summer day can turn into a rain shower. This has been the story of this season in the global financial markets. It is still raining. Although the intensity of the storm appears to be reducing, it is hard to know if all the bad weather is behind us. What we do know is that the weather is likely to have changed more permanently, even as the storm subsides and sentiment improves. This paper tries to sum up the financial distress we have seen over the past month. We benchmark it against previous financial crises, based on Mark Twain's old proverb: 'History never repeats itself – but it rhymes'. Finally we try to ponder what this implies for financial markets in the longer run.

### Where did the storm come from?

#### *No – this is not just sub-prime*

In the popular version, this crisis is and will probably continue to be called the "sub-prime crisis", ignited by the losses stemming from US sub-prime mortgage loans. But the sub-prime problems are most of all the light that fused the bomb. They are in our opinion not large enough to explain the extent of the crisis. The charts below show delinquencies and foreclosures among households in the sub-prime and prime segments and with adjustable and fixed-rate loans, respectively (ARM and FRM). As we have stressed repeatedly, the rise in foreclosures and delinquencies is occurring among households with ARM loans in general. There is actually no major rise in delinquencies and foreclosures among sub-prime households with fixed-rate mort-

gages. Evidently this is an “ARM crisis” more than a sub-prime crisis.



This is not just a battle of words. The fact that it is an ARM crisis shows that it is a reaction to the tightening of monetary policy – and not a general household balance sheet problem.

If the rise in foreclosures is extrapolated, the net extra loss over the next year will be in the USD 50-150 bn range (a range Fed Chairman Ben Bernanke has also cited). This is not a lot compared to the market losses incurred by the recent sell-offs and risk aversion. To be sure the risks could be concentrated. And leverage can increase the hurt. But even so it would be strange if the entire global financial system should be in jeopardy because of losses corresponding to about 1% of the market cap of the US equity market.

Moreover we wonder why the crisis is happening now and not six months ago. In the first quarter of 2007, US data were noticeably more lousy than now, and the first wave of sub-prime jitters was hitting the market.

The point here is not to say that the crisis is overdone, or over for that matter. Rather we want to direct your attention to the endogenous character of the financial crisis. It is about the trust in rating agencies methodology, about the movement of risk into strange and new legal entities (like the conduits of banks) and most of all about deleveraging

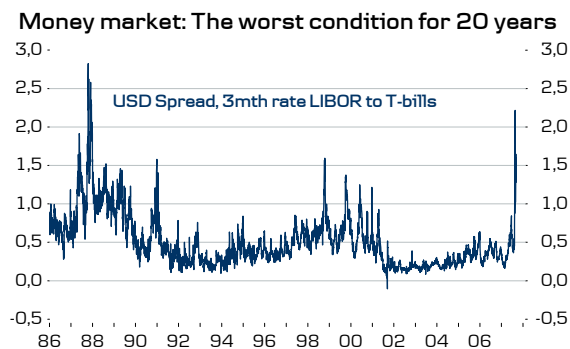
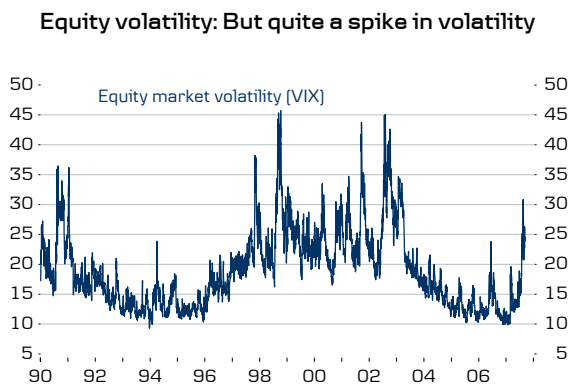
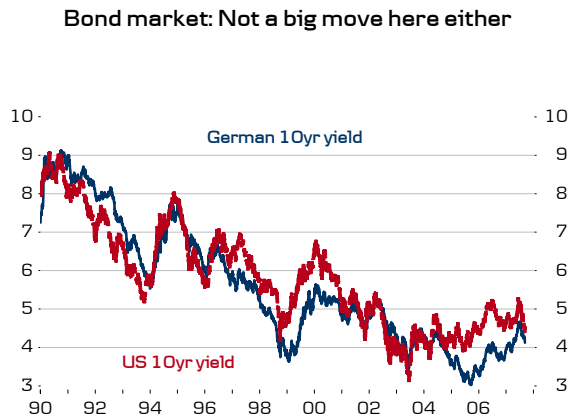
after an unusually long period of low and falling volatility and risk aversion. In addition, the search for yield had created a credit tightening spiral through the structural bid for risk, which meant that credit spreads before the crisis were extremely tight also when taking into account the solid state of issuers fundamentals. It is these factors, which seem to have made the financial markets ripe for disaster.

The problems have also been exacerbated by the poor liquidity in the structured credit products that investors piled into over a period of two to three years. But it did not matter because they were meant to be buy and hold products where you would earn a yield pick-up over a long horizon. Unfortunately many investment vehicles have been relying on short-term funding that has now disappeared because the products cannot be valued properly and the mistrust has become widespread. The combination of funding that disappears and assets that cannot easily be liquidated meant that problems in a relatively small part of the market have created huge strains in the entire financial system. And the question of how much forced liquidation we could see in these illiquid markets is creating big uncertainty.

So overall, the sub-prime related credit losses are more of a trigger than a final cause. Unfortunately this also makes predictions even harder. Even if we knew all about future losses in sub-prime or other US mortgage debt, we would only have sketchy ideas as to what is in store for the financial markets – especially in the short run.

#### **Flipping the charts**

One helpful way to describe the crisis is to chart the outbreak of uncertainty in different dimensions. We do this in the charts below. As can be readily seen, the setback in yields and equities is not unusual. But the rise in equity volatility is notable – this is starting to look like an upward trend (and actually did so even before the crisis). Finally, the distress of the money market has been stunning and really highlights that currently the crisis is not just a credit crisis within a small area of the credit market but has also developed into the biggest liquidity crisis in 20 years. **This crisis is clearly most of all a crisis of mistrust and uncertainty among financial institutions. It is a modern version of a bank run.**



In the bad old days, a bank run was characterised by withdrawal of funds from banks which were perceived as distressed. This withdrawal would then become a self-fulfilling prophecy, unless the lender of last resort came in providing unlimited funds against good collateral. The trust in central banks' ability and willingness to ensure liquidity has made

bank runs into a rare event – at least in normal times. Or so we used to think.

But the offloading of banks' balance sheets in recent years seems to have changed the dynamics. In the old days a bank could pledge mortgage loans or securitised loans as collateral. But what happens when the loans have been through the mastery of quants and repackaged into complex risk products? And what happens when the loans are held at arm's length in a legally separate conduit, and are therefore no longer eligible as collateral against cash at the central bank? And what happens if the liquidity of the asset backed commercial paper (ABCP) market – which funds these conduits – dries out? The answer is not a 'bank run' but rather a 'credit run' where the drying up of risk-willingness in the ABCP market is channelled to the inter-bank money market through the back-up credit facilities that the banks have sold or given to their conduits. In this sense the money market crisis reflects a deeper credit run, where end buyers in credit markets have gone on strike, revolting against the entire valuation and rating system of the credit market. At the heart of this lies mistrust of the business model of credit agencies and of the real value of underlying collateral especially in complex credit risk. It also shows that volatility of structures is very much dependent on the underlying assets.

After a four-year bull run in credit markets, where too few questions have been asked, this should not be a bad thing really. A reassessment of the global credit pricing system – even such a disorderly and distressed one as the present – might be needed. Although we did not expect this now (you never seem to), there is some kind of logic to having a financial crisis of sorts as an end to the cash-rich risk-seeking environment we have had in recent years. While we did not foresee the form, timing and extent of the crisis, it was nevertheless an accident waiting to happen.

## What category storm

### *History doesn't repeat itself – but it rhymes*

There have been many comparisons flying through the media in recent weeks, eg, the 1998 LTCM crisis, the 1987 equity crash, and the 1990 Savings&Loans crisis. Even the global 2007 bank crisis has been taken out of the history books. Many of these have interesting dimensions, although investors have to remember that some dimensions of

this (and every) crisis are quite new, as the preceding discussion shows.

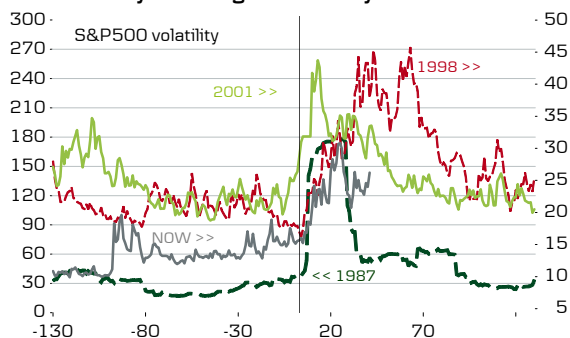
We have chosen the 1987 stock market crash, the 1998 LTCM crisis and the 9/11 terrorist attack of 2001 as interesting case studies for this episode. The reason is that all these episodes were characterised by sudden outbreaks of volatility and distress in the financial system, and by fears that the distress would spread to the real economy, pushing the US economy into recession.

Comparing equity market volatility, now with 1987, 1998 and 2001, volatility is lower than in the wake of the 1987 stock market crash. This of course reflects the fact that the 1987 crash had its epicentre in the stock market. The 1998 and 2001 episodes were by contrast more broad market distress phenomena – as is the present turmoil. However, note that 1987 and 2001 were both characterised by fast spikes in volatility, with volatility falling and the market settling in afterwards. This was not the case in 1998. The reason is probably that 1987 and 2001 were both created by sudden but identifiable unexpected events: The equity crash in mid-October 1987 and the terror attacks in September 2001.

The 1998 crisis, on the other hand, saw a prolonged period of market turmoil with multiple spikes in equity volatility before the LTCM debacle came out in the open for all to see.

Clearly, the present credit storm looks more like 1998 than the other two episodes in this respect. It is hard to put a finger on the exact event that triggered the present turmoil – as indeed it was at the beginning of the 1998 crisis. This suggests that caution is clearly warranted as to the duration of this crisis.

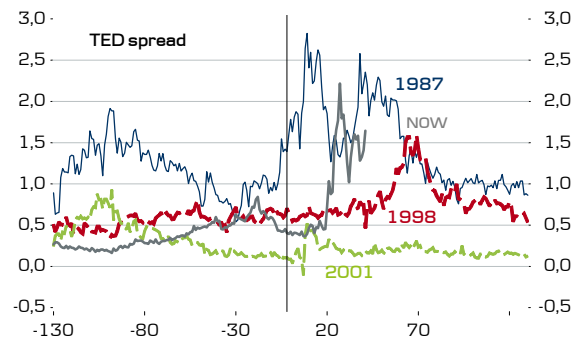
#### Case study: Prolonged volatility rise as in 1998



Turning to the money market distress, this crisis is clearly worse than 1998. The uncertainty on counterparties seems to be more widespread and running

deeper than in 1998. In this sense the upheaval in the credit market seems more fundamental now than in 1998. This could be seen as a sign that this is less about one institution and more about widespread mistrust in the way in particular the credit market has developed hitherto.

#### Case study: Money market stress not seen since 1987



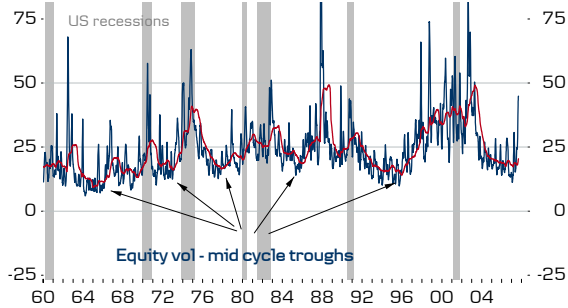
#### After the rain

##### *Sunshine might be gone for some assets*

No matter what the macroeconomic fall out will be (cf. [Global Scenarios, September 2007](#) for our take on that) the crisis is likely to have long-term impact on financial markets. Trust is quickly lost and hard to restore.

Moreover, this crisis actually seems to be following a broader economic pattern. The chart below shows realised equity market volatility since 1960. While financial jitters and turmoil tend to come and go, there is also a lower frequency trend component in volatility in US equities. We note that this component actually seems to follow the broader economic cycle. Troughs in volatility seem to occur in the middle of the expansion. Taking this longer-term view on the market, volatility seemed to pass the trough around the turn of the year 2006/7, and was trending slightly up even before the present crisis. Moreover, both the 1987 and 1998 crisis seemed to come about in broadly the same late-cyclical setting. While neither led to economic weakness, they were both marking the beginning of the end, as the US economy entered recessions approximately three years later.

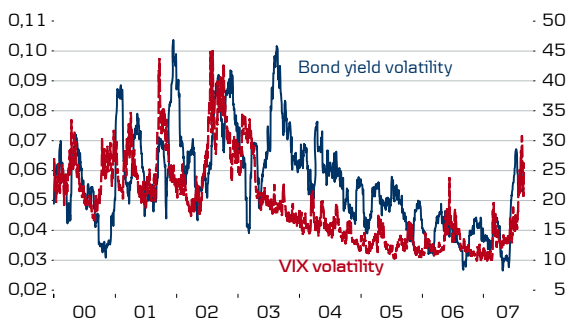
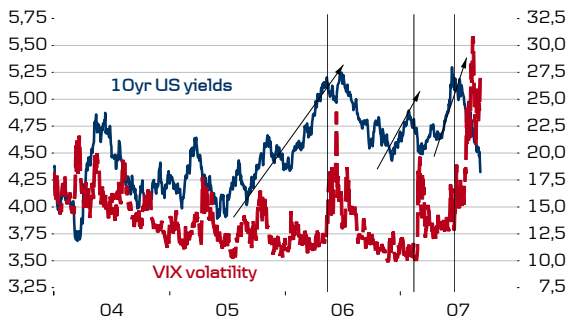
### Equity volatility trough = mid-cycle phenomena



This episode might very well follow this pattern, marking the beginning of the last – and more volatile – part of the US expansion. Clearly, equity volatility is on a rising trend, and will stay that way even after the market calms.

However, there are more reasons to suspect that a fundamental change is in the air. Firstly, note that the three major market distress periods over the past year all have been preceded by a rise in long bond yields. Clearly the distress is then good for bonds, but rising bond yields seem to have been poisoning risk-taking. This pattern has now been repeated three times – more than seems likely just by chance. Also, the volatility of bond yields now seems to have started rising too.

### Rising bond yields precursor to recent fits of risk aversion



It is as if a highly leveraged fixed income and credit market is vulnerable to rising yields and rising fixed income vulnerability.

The point here is that even when the storm calms down in a month or two, it will have lasting repercussions. These might not necessarily be dramatically negative, but for financial markets, historical evidence suggest that

- Equity market volatility is on the rise
- We are entering the later part of the economic cycle, implying that corporate earnings growth will slow – at least in the US
- We will see more frequent financial distress and financial crisis
- Investors will be much more critical going forward – especially concerning credit markets and complex risk
- Credit spreads in some markets are unlikely ever to recover to where they were, this goes for markets like the asset backed commercial paper (ABCP) market for instance
- We will see serious soul-searching from credit investors but still believe that demand will return to credit markets although at wider levels than before the crisis. This holds true especially when taking into account that credit spreads in general were very tight before the crisis (offering virtually no risk premium) due to the structured bid for risk.

Clearly this looks like an end to 'awash with cash' in a lot of respects.

Previous papers in the Awash With Cash series:

[Awash with cash 1: Chinese Revaluation \(Jan 2005\)](#)

[Awash with cash 2: Volatility and risky assets \(Jan 2005\)](#)

[Awash with cash 3: The incredible corporate balance sheet recovery \(Jan 2005\)](#)

[Awash with cash 4: A new regime for real interest rates? \(Jan 2005\)](#)

[Awash with cash 5: A solution to the bond yield conundrum \(April 2005\)](#)

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[Awash with cash 7: When will it ever end? \(Jan 2007\)](#)

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