# The perfect storm – already blown over?

### 1. Hurricane Dean

From time to time, mostly in late summer, a weather pattern builds up in the Caribbean that results in a cyclone with unbelievable wind speeds of up to 300 kilometers per hour at its periphery. Wherever the hurricane hits, it leaves behind it destruction and, all too often, death. Still, the cyclone's slow progress means that where and when it will arrive can be forecast very accurately. Which is why it was possible this year, for example, not merely to move the tourists on the Mexican peninsula of Yucatan to safety, but even to put away the deckchairs.

But surprises still happen. In 2005, Katrina was far more destructive than expected, and reached areas that were not really prepared. This year, there were fears that hurricane Dean – apparently with even greater meteorological energy than Katrina – would cause even more damage than its unwelcome predecessor. But Dean collapsed, so to speak, and, downgraded by the meteorologists to a mere tropical storm, made its way fairly unimpressively across Mexico. Relief in the (un)affected regions; relief on the part of insurers.

Analogies are always problematic, for neither do systems correspond as a whole, nor can we observe parallelism in the influencing variables. Nevertheless, it is hardly possible at present to resist the temptation to compare the recent events on the financial markets with a cyclone and, in view of the so far relatively low level of damage on the stock exchanges, to hope that it is less of a Katrina, and more of a Dean-type event – an imploding, and thus largely self-resolving problem, with limited spatial and temporal impact.

This Investment Commentary aims to estimate and explain the extent and impact of the financial cyclone of recent weeks, to design scenarios for what may happen next, and to identify consequences for investment behavior. It will in particular be necessary to consider whether a crisis that has so far been limited to the relatively narrow area of (American) credit provision could have a pandemic impact on the real economy. For it is obvious enough that the most robust economy will be throttled if its finance collapses. We will have to see whether this Sword of Damocles is hanging from a thin thread or a thick cord.

### 2. ...a matter of time

We could make it easy for ourselves and refer to Investment Commentary No. 250 of 2 July 2007 for an answer to the question of why we now have a credit crisis. Under the title "Easy money", we pointed out that the risk premiums for "subprime" debt had been far too low for a long while. We sought the cause for the far too casual provision of funds in a form of an implicit state guarantee, which has been enjoyed by a large part of the banking system at least since the LTCM crisis of 1998. And we warned that this situation would result in a generally excessive risk appetite within the financial system – a bubble waiting to burst. Similar warnings, if somewhat less explicit about the "moral hazard" of a monetary policy over-friendly to the financial markets, had been coming from the central banks for a good while.

At the time, we wrote: Too low risk premiums are undoubtedly among the most dangerous side-effects of a system of implicit state guarantees. Supposedly risk-free quasi-arbitrage transactions, in the form of so-called carry trades between normally highly correlated financial instruments, are a particularly insidious form of such side-effects, for they suggest security where there can be none, and they attract investors who have no idea of the real risks of the deals. Intransparent hedge funds and particularly risky structured products have in recent years attracted far too much money; it is only *a matter of time* till there are some serious accidents.

While pretty much everything that we forecast has indeed happened, it would be a particularly unattractive bit of back-trading to brag of our prophetic vision. Modesty and self-criticism are more appropriate here. For a prophesy containing the comment "only a matter of time" is, to be honest, the most unfair and ultimately the least useful element in a forecaster's repertoire. For

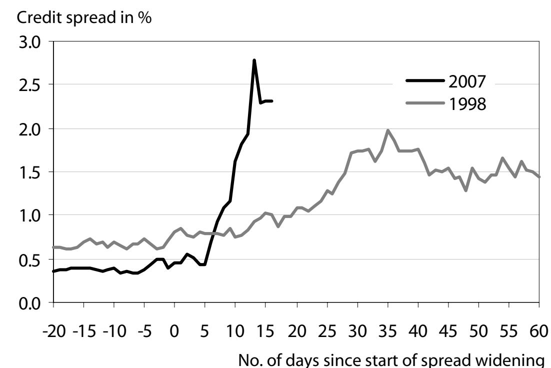
ultimately, everything is “a matter of time”. What goes up, must come down – eventually. It’s just a matter of time. Fine weather comes to an end. It’s just a matter of time. And in the long run, as Keynes pointedly remarked, we’re all dead. It’s just a matter of time. But what does that have to say about the time between? Nothing. “The time between”: that may be a lifetime or, with regard to investments, the phase in which more can be earned that can be lost in the periodical crashes. So we should not take too much notice of the notorious crash prophets, who are currently enjoying a boom. Of course they are sometimes right. It’s just a matter of time. But the relevance of their statements is no greater than that of a stopped watch: absolutely correct twice a day.

So, if we now refer back to our – probably correct – earlier analysis, it’s just to again clearly indicate the real causes of the credit crisis. For all too frequently, it is being blamed on “market failure”, “irrational behavior”, the “rip-off mentality” of deranged investment bankers, and the like. But we need to distinguish between cause and effect. The cause of the periodic accumulation of risk potential in the financial system is the need for stability, which is attempted to be met by means of the central banks and the regulatory system. The repeated prevention by these bodies of the collapse of one or more of the players within the system invalidates the principle of causatory liability and is an open invitation to exploit the situation. That is the problem.

## 3. Not just a summer storm

To downgrade the credit crisis from a potentially destructive cyclone to a more or less harmless summer storm would be, in our view, inappropriate, trivializing and ultimately also dangerous, regardless of what has since happened to prices on the stock markets. A look at one or two key indicators suffices to gauge the high level of energy unleashed during August. Risk premiums, for example, still regarded as far “too low” in July, shot up by several percentage points. Compared to the data from the LTCM crisis in 1998, so far always regarded as the most severe capital market crisis since 1929, the picture looks far more dramatic. Within a very short space of time – almost instantaneously – there were no more buyers to be found for lower-rated debt. The buyers’ strike spread rapidly and soon encompassed debt of less problematic origins. There was widespread anxiety about the reliability of the credit ratings (and of the agencies that generate them), with the result that outstanding debt paper, regardless of content, became hot potatoes that no-one wanted to handle. The figure below shows the difference between US treasury bills (regarded as risk-free) and medium-quality short-term commercial paper. Such a sharp price rise without any visible external cause indicates crassly erroneous previous expectations – exactly what we warned of in July, with the consequences being only a matter of time.

**Overdue, but all the more sudden**




Note: Spread between A2/P2 commercial paper (corresponds to a medium rating) and US treasury bills (90 days)

Source: Datastream

It is difficult to get a right feeling for the quantitative importance of the market for commercial paper, indeed of the credit market as a whole, because conditions have changed significantly in recent years, and this process is still under way. What has been happening is securitization. It began at the end of the 1980s, and in effect means that the refinancing of business, and increasingly of private, debt is moving further away from the banks towards the capital markets. The reasons lie in the increasing use of the new possibility of securitizing receivables, property rights and contingent liabilities. In economic terms, this makes a great deal of sense, as it dramatically increases the efficiency of allocation mechanisms in the capital market.

The most obvious example of this is the now notorious CDOs. Previously, commercial loans or mortgages found their way onto banks’ balance sheets, where they remained until repayment or renewal, and the credit relationships were managed by the banks. Today, banks increasingly play merely an intermediary role, and debt is placed elsewhere. In the case of CDOs – collateralized debt obligations – large amounts of liabilities are gathered together and put into one pot, so to speak. Repayment probabilities are then allocated to tranches of the liabilities of widely differing quality within the pot. The tranches each have a specific rating, and can be purchased individually by investors. In the event of default, liability follows a step-wise process: first, the tranche with the lowest rating goes, then the next, and finally

the one with the highest rating. This mechanism offers the almost alchemical possibility of transmuting a large amount of poor quality debt into AAA-rated debt, at least for the final tranche. For a long while, this final tranche averaged between 70 and 80 percent of the CDO (hello, low risk premiums…).

CDOs are one of many varied forms taken by the securitization of banking business – a very sophisticated one, we may feel, which enables a highly differentiated assessment of aggregated credit risks. As long as – indeed! – the risk premiums are right. However, like any innovation, the disaggregation of banks' balance sheets, and indeed of traditional banking business, does of course have its problematic side, which is only fully revealed when a crisis occurs. Unsurprisingly, it makes a difference whether a liability is managed by a bank or simply lands in an anonymous pot of liabilities. The *Economist* recently compared this difference to the difference between child-raising by the parents or in public crèches. The incentives to ensure that things turn out well are different for the employees of crèches than for the actual parents. And a closer watch will be kept on debtors whose physical proximity will cause distress in the event of default than on the anonymous owner of some dubious shed on an American prairie. Things are different in sales too: when mortgages are thrust on people by ranks of high-pressure, commission-driven salespeople there is no element of reasonableness in the process, and we should not be surprised about inappropriate ratings.

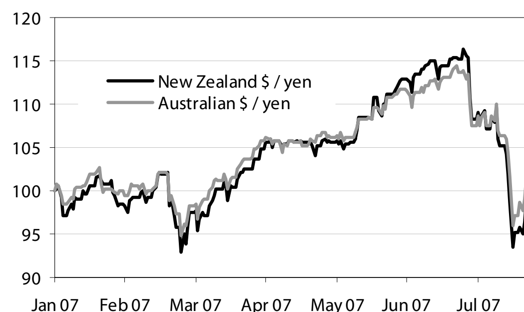
Whatever: we can't turn back the clock on securitization. For the credit market, as part of the overall capital market, has acquired tremendous importance for the American economy. Commercial paper, CDOs, ultimately all capital market-based financing rests on the assumption that, admittedly at differing prices, money can always be had, somewhere, somehow. The crisis in mid-August has challenged precisely this assumption. Not only the worst tranches of CDOs suffered, but the whole pots, because nobody any longer really believed in the ratings of the individual tranches. The market for commercial paper threatened to collapse, because it was no longer clear who, in such a tight market, was still capable of refinancing. A genuine capital market crisis, with the potential to spread into the real economy, which, to a great degree in America and increasingly in Europe, can no longer rely on classic banking for support.

### 4. The liquidation of carry trades

Speculations in which debt is taken on at low interest rates in order to invest in goods at higher interest rates are known as carry trades. They are mostly speculations on the structure of the interest rate curve ("turning short into long"), or on currencies with different interest rates, or on a combination of both of these. Carry trades are also possible with stocks, by selling short a position which one believes will lose (relatively) in value and investing where one believes the opposite will apply. Carry trades rely on the assumption of relative stability of the underlying mechanism, often based on statistical observations, and they frequently function for remarkably long periods. That is to say, money can be earned apparently risk-free over a relatively long period. But when change comes, it is often as one major shift, for carry traders are usually not lone wolves; the same observations of apparent stability are made by others. And the more that is invested on the same, or a similar, pattern, the better the carry trade works for a while: selling causes a "short" currency to fall further, while purchase pressure forces the other currency up; interest rate curves bend further in the desired direction under the force of demand, which naturally results in renewed and even bolder speculation, until – for whatever reason – the underlying correlation pattern collapses. Then, with the liabilities incurred – a short position is nothing other than a promise of delivery, and thus a credit of variable extent – timing can become extraordinarily tight. Creditors require additional security, for the basis of the credit is melting away. If the security cannot be provided, there is nothing for it but to stock up at whatever price. And there are a lot of others doing it more or less simultaneously, which causes a major shift.

In the last weeks, we saw an impressive example of the liquidation of carry trades in currencies. While the yen, a notoriously short currency, shot up, the New Zealand dollar disappeared into the depths of the Marianas Trench. The Australian dollar had a similar experience. The figure below shows clearly how radical the shifts were. One thing is clear: those who have to liquidate in a hurry will suffer severe losses. We assume that the hedge funds will be the biggest losers, and that we have so far seen only the relatively small tip of what will be a much bigger iceberg. With the long intervals in the valuation of many hedge funds it is difficult to say where losses have been incurred, and how high they will ultimately be.

**Correlations can shift sharply**




Source: Bloomberg

The movements on the interest markets are also interesting, and they too show the effect of carry trades. Great financial expertise was used to package the meager risk premiums until recently offered by sub-prime debt into broadly diversified aggregations of debt and then, as with CDOs, give them higher ratings than the original debt would have warranted. Nothing wrong with this as such – this is how every bank balance sheet works. This aggregated debt was then refinanced via very short-term commercial paper, which in fact represented a transformation of term and debtor risk: it could also be described as equity-free banking. Packaged into so-called "conduits" and legally domiciled in some fairly unregulated part of the world, these vehicles were then offered to, for example, European banks. The targets of the sales efforts obviously included some German banks regarded as particularly inept and, on account of their closeness to the state, unduly reckless, including in particular certain Landesbanks. As the *Frankfurter Allgemeine* reported, they were advised by smart investment bankers from Deutsche Bank, who selected the appropriate legal vehicles, brokered the products, managed the portfolios and collected their commissions. When the refinancing of the conduits with short-term bonds suddenly stopped functioning this meant a sudden call on the reserves of the guarantee banks. No-one is currently interested in discussing any shared responsibility on the part of the investment bankers. The safety net has rather had to be provided by the group of public savings banks and the KfW group of banks. The moral hazard of an implicit state guarantee again becomes manifest.

## 5. Crisis averted – but who carries the hit?

Friday, 17 August 2007 threatened to become one of the seriously dark days in the history of the financial markets. After a long fall in the prices of American and European stocks, the Japanese Nikkei Index dropped 875 points, or 5.4 percent, in one day's trading. America announced the threatened insolvency of one of its most important mortgage providers, Countrywide, and in Europe the stock markets again tumbled, led by the stocks of financial institutions, whose balance sheets were suspected of containing large quantities of worthless and unshiftable positions, margin calls for off-balance-sheet positions, and similar horrors.

The Fed achieved some relaxation of tension on the financial markets with a surprise move that astonished the most case-hardened observers. Actually, it was a whole bunch of surprises. Surprise number one was that the Fed took any action at all, after its head, Ben Bernanke had, only a little earlier, remarked in a placatory fashion that he did not believe that the mortgage crisis would spill over into the real economy. The need for action then became evident when, in view of the looming collapse of Countrywide – provider of mortgages for over 15 percent of the American market – it became a question of whether Mr and Mrs America would still be able to own their own homes. For if mortgages can no longer be renewed, and no new ones can be granted, then the economy comes to a standstill: a complete standstill, indeed.

Surprise number two was the choice of the instrument selected to avert the crisis. Since Greenspan's era, we have become accustomed to gentle adjustments of the prime rate and sibylline comments. But Bernanke's Fed dropped the market rate at which the Fed would discount securities. Discounting securities with a central bank is highly unusual, as to do so is an admission that one is no longer creditworthy elsewhere. This is not done in normal circumstances. But on that Friday morning, the Fed encouraged (or rather, obliged) several banks, such as Citigroup, to avail themselves of its discount window. By dropping the discount rate from 6¼ to 5¾ percent, the Fed accommodated the system. A bold move, in a crisis to reanimate an instrument believed dead.

Surprise number three: it worked. In a move that was – in contradistinction to a drop in prime rate – neutral in money-supply terms, the credit market was helped to regain greater liquidity, and since then, at least till the time of writing, conditions have more or less normalized again. That is to say, for most instruments there are again purchasers, and thus market rates. Price levels have changed significantly, though, and the span between supply and demand remains high, due to the uncertainty. The clean-up of the system is under way. For instance, the Bank of America has announced that it will take a share in the hard-hit Countrywide, and thus participate in its restructuring.

So far, so (relatively) good, and the stock markets have recovered correspondingly well, at least at the time of going to press. But we cannot feel entirely comfortable, for there is no question that the financial storm has left serious destruction in its wake. In simple calculatory terms: a rule of thumb indicates that an increase in the interest rate of, say, 1 percent results in a destruction of capital of x percent, based on defaults over a theoretical duration in years. On the basis of total American debt, we have made a rough estimate of the losses caused by the rise in interest rates – for this is, of course, exactly what an increase in risk premiums represents. For consumer credits (total USD 2.5 billion, 1-year duration): losses of USD 25 billion. For commercial credits (USD 9.2 billion, 8-year duration): USD 738 billion. For mortgages (total USD 9.8 billion, various durations and risk premiums): USD 428 billion. This is a lot of money, and someone is going to have to write off the difference between the previous and the current status. The question of who carries the hit is still open.

And here and there, the tip of the iceberg is poking up. The Bank of China has recently reported that it is the proud possessor of USD 9.7 billion of securities underlaid by sub-prime US mortgages. A little earlier, the Industrial & Commercial Bank of China reported similar positions with a value of USD 1.2 billion. And the peculiar engagements of some German banks have already been mentioned. Somehow, the impression arises that the Americans might have managed to export their long-known mortgage problem to Europe and Asia, as, given their current account balance, they have built up an immense dollar surplus, or investment need. The extent of this aspect of globalization has been fairly new and unexpected.

## 6. Will the Fed drop interest rates?

This little calculation of the impact of an increase in interest rates due to a sudden rise in risk premiums also explains why, in the wake of a crisis like LTCM in 1998, the terror strikes in 2001, or the mortgage crisis in 2007, the cry can be heard that it is time to drop interest rates. Every quarter-percent drop in prime rate would have tremendous positive impact on assets, as long as the central bank's reduction filters through to all relevant interest rates. Such are the goodies that a central bank can hand out, and it is easy to see why a hard-hit financial system drools after such manna from heaven.

However, a central bank is not free in its interest rate policy. Goodies for the financial system need serious consideration, and can be offered only sparingly. For, firstly, such drops in interest rates cannot simply be repeated: ammunition once fired is gone for good. Secondly, central banks must take care not to awaken expectations of inflation through their hand-outs. With an annual rate of inflation in America of 2.4 percent and a core rate (inflation excluding foodstuffs and energy) of 2.2 percent, conditions are not seriously threatening in this regard, but nor is the room for maneuver over interest rates excessively large. And the real annual growth rate, still at 1.8 percent, would not itself immediately indicate the need for a drop in interest rates. Thirdly, a central bank must also pay attention the external value of a currency. It is said of the Fed that it pays insufficient attention to this factor, though America's high degree of dependency on imported oil might give rise to other suppositions.

Fourthly – though actually in first place, given our assessment of the reasons behind the whole credit market crisis – with every change in interest rates not explicable in terms of economic developments, central banks send a signal. If investors, from the Sächsische Landesbank to Goldman Sachs' and Bear Sterns' hedge fund investors, can rely on being offered a sweetener in the form of a drop in the prime rate every time they suffer serious losses, then they will soon be ready to give the wheel of debt another spin. The moral hazard of "Greenspan puts" as this type of central bank insurance is revealingly known, has become at least as significant a constraint on the freedom of action of central banks as the danger of inflation in the monetary system.

Seen from this perspective, the Fed should be in no hurry to drop interest rates. Bernanke knows this, and remarked on these lines before the crisis. But the financial markets have other expectations. If before the crisis only 5 percent of players expected a drop in interest rates when, or before, the Fed meets on 18 September, now, after the crisis, almost 70 percent expect one. And they not only expect one, but are acting accordingly. The implicit probability of a drop in interest rates can be calculated from forward rates. The next crisis is thus already pre-programmed, unless Bernanke follows his predecessor and finds sufficient reasons to underpin his actions.

## 7. Recession?

The most cogent reason to justify a drop in interest rates by the Fed would of course be a change in expectations regarding future economic growth. Previous statements by the Fed have all indicated the expectation of a slight cool-down, but not a recession. This was a situation the financial markets, and the stock markets in particular,

could live with well enough, inasmuch as economic growth in other regions of the world has been running at an excellent rate.

Given the credit market crisis, however, there is now every reason to picture a far more negative trend. In a completely dried-out market, it is indeed hard to imagine a simple return to normal operations in a month or two. When large financial institutions like Lehman Brothers announce that they are entirely abandoning the sub-prime mortgage business and letting go of over 1,000 staff, this indicates a clear redimensioning of the sector. There seems to be a clear assumption that in future there will be a good deal less mortgage volume dumped onto the market. Less mortgage volume means less construction work. And private construction work after all usually makes up 5 percent of gross domestic value-added.

Things get tighter when we look at the effect of this whole situation on assets. We have already pointed to the calculatory component. One indicator for the actual conditions on the American real estate market is provided by the Philadelphia Housing Index, a stock index of companies in the construction, renovation and furnishing sector. It has been falling since 2006, and fairly dramatically since July 2007. And house prices have presumably suffered accordingly. As it is known that providers of new mortgages like Countrywide have been aggressively pushing house-owners to ever larger mortgages, and as it is extremely improbable, given the low rate of savings, that these house-owners have much additional means apart from their property, we must assume that from now on we shall see a series of individual bankruptcies.

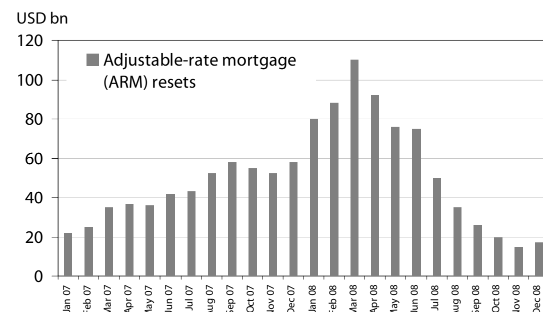
**“Home sweet home” goes sour**

Source: Bloomberg

This is all well known; not for nothing do we have a sub-prime crisis. What is not known, however, is what structures and mechanisms the USA can use to get out of this self-inflicted mess. Mortgages are not static assets, but living organisms: old mortgages must be renewed, excessive mortgages reduced, distressed ones terminated or written off, and new mortgages should be granted too. But after the current crisis, who on earth who be interested in getting into this business?

And this is big money. The figure below shows the variable-rate mortgages processed every month. The ARM (adjustable-rate mortgage) is an American specialty, which attracts house-owners into mortgaging their property by offering funds at very low interest, or even none at all, for a given period, and pushing the financing of this good deed off to some future date. This future date is now coming, with the so-called “reset”. Rates are reset: given the greater risk, undoubtedly significantly higher. And also given the fall in house prices, there will no doubt be some fairly difficult discussions ahead. If we see things correctly, in the ARM sector alone there is a refinancing need of about one million dollars to be met. Good luck.

**Mortgage rate renegotiations**




Source: Agora Financial

Will it be possible to sort out the market for commercial paper, which includes many other American credit segments, in addition to ARMs? This is a logistical question, but also one of *confidence*. For if confidence in the performance of the American economy dwindles, it will be that much more difficult to get the credit market going again on a reasonable basis. And here comes the prize question: what is more likely to restore confidence: dropping or not dropping interest rates? This is the dilemma, and it may be that Bernanke will get it wrong, whatever he does.

## 8. An alternative scenario?

We are not really known as prophets of doom, and that would indeed be highly inappropriate, for as asset managers and advisers we are dealing with something that must generate a positive average return, regardless of crises. Even aiming for zero (better known as an “absolute return”) would be wrong, because it would result in an inadequate investment rate. Still, at present it is not easy to see a positive way out of the credit market crisis. Let’s give it a try though, if only on grounds of principle.

Here we go: the credit market crisis of recent weeks provides clear evidence of how efficient the financial system has actually become. For the system has managed, practically at a stroke, to resolve a misallocation of risks and investments, incurred through state intervention (central banks, regulators), and to drive risk premiums up to a real-market level, despite all previous Greenspan puts. What looked like a crisis was in fact the perhaps overdue reaction by the markets to an excess of liquidity, which needed to be destroyed.

The consequence of this reaction will be that a significantly lower credit volume will be oriented on the real performance of the economy or individuals. Americans will, whether they like it or not, start saving. This abandonment of consumption will both slow down the anyway overheated Asian economy, and also create funds that can be invested. And the current account deficit will be reduced.

In other words, the credit market crisis of 2007 will simply be an episode in the triumphant advance of such sophisticated instruments as CDOs, leveraged buy-outs (LBOs), conduits, etc., on the way towards a world in which at any time, any conceivable risk can be bought and sold at a proper price; a world in which liquid markets ensure proper price elasticity; a world that is far more stable than its predecessor, in which a cartel of banks and regulators attempted to "manage" the market.

And until that comes about, is only *a matter of time …*

### 9. The next couple of stumbling blocks

If one were inclined to believe all this, one would need to be aware that here too, the comment that this is "only a matter of time" is unhelpful, if not indeed misleading. For there are some clearly scheduled milestones, if not stumbling blocks, along the way. The next regular meeting of the Fed is on 18 September, and the one after that on 31 October. In the meantime, American businesses will be closing and balancing their books. When we hear that the big investment banks are currently sitting on some 330 billion dollars for planned LBOs, and cannot at the moment place the financing in the market, we can have some idea of what that may mean. Around the end of September, the last hedge funds will have valued their intransparent investments, and by then it will be clear which other banks are in possession of conduits that they have not reported, either on or off the balance sheet.

Our reserve towards the markets, first explained in July, and then reinforced in August with the internal reduction of recommended stock quotas, takes account of these concrete, and easily foreseeable, stumbling blocks. In our view, there is little sense in putting on a bold front in the face of such an uncertain risk situation. Even had we known of its demotion to a tropical storm, we would not have awaited the arrival of hurricane Dean sitting in deckchairs on the beach. Not even if (perhaps) this had offered us the chance of a unique spectacle and the opportunity of picking up some possibly valuable flotsam and jetsam.

Transparency and liquidity in all our investments, often smiled at but the foundation of our bank's business policy, are more fashionable now than they have been. Until further notice – that is, until there is more clarity over these issues – our investment policy will remain one of accepting manageable risk. In the unexpected event that the credit market crisis is overcome quickly and unproblematically, it seems to us sensible to suffer the loss of the odd opportunity by doing so. We will anyway be able to ride the next boom.

KH, 27.08.2007