

Presentation „The Role of Asset Securitization in Credit and Investment – Lessons to Be Learned from the Financial Crisis”

Presentation by Helmut Schnabel, Chairman IAFEI, at the Asia Pacific IAFEI CFO Summit, in Taipei, Chinese Taiwan, on September 5, 2008

This is the full prepared text for the presentation. Due to the time constraints in the conference's timetable, only 70 percent of the full text has been presented.

Asset securitisation, over the past 20 years, has grown into a major element and key characteristic of modern efficient capital markets, to the degree of even being one of many cornerstones of such modern efficient financial markets.

Along with asset securitization, comes the phenomenon of disintermediation. Mediation, by contrast, is the classical role of the banks: bring together those, who want to invest money, with those, who are borrowing money, in order to make real investments. In this classical model, the bank steps in between the depositor and the borrower. Disintermediation does reverse this model, by creating an investable security, which directly finances assets without an intermediary bank standing in between.

Asset securitisation is a complex phenomenon, for which a great number of variations exist with individual and distinguishable names like ABS's, Asset Backed Securities, like CDO's, Collateralized Debt Obligations, or CLO's, Collateralized Loan Obligations, or RMBO's, Residential Mortgage Bond Obligations, to just name the most common ones.

As collateral for such asset-backed securities, can serve a wide variety of assets, especially bank loans, corporate bonds, but also emerging markets sovereign debt and project finance debt. In addition to such plain vanilla assets, also so-called structured finance securities are serving as collateral, which themselves are special asset-backed securities like residential mortgage-backed securities, commercial mortgage-backed securities, and real estate investment trust debt. Collateral can also be other CDOs, whereby we then have CDOs on CDOs, which are also called CDO-squared. For the purpose of bundling the collateral, and of issuing and selling the CDO's to investors, always a corporation of its own is set up.

The investible securities issued by a CDO-corporation, are broken down to senior tranches, rated AAA, mezzanine tranches, rated AA to BB, and equity or capital tranches (unrated). The cash flows of the collateral pool are paid to the holders of these tranches in a specific order, starting with the senior tranches, the least risky ones, and down through the various levels to the equity tranche, the most risky one. If some of the expected cash flows to the pool are not forthcoming, for instance, because some loans default, then, after a cash flow buffer is depleted, the equity tranche holders are the first, to observe payment short falls. (The capital note holders are the “first loss investors”.)

If incoming cash flow payments into pools are reduced further, the next set of tranche, the mezzanine tranche, does not receive full payment. Typically the tranches at the top of the capital structure are constructed, so that they qualify for AAA ratings, meaning there should be a very low probability of not receiving their promised payments.

The first CDO was issued in 1987, by bankers at the now defunct Drexel Burnham Corporation. There is not much transparency, today, about the size of this market, but here is an indication:

Global aggregate CDOs annual issuance totalled 150 Billion US \$ in 2000 and 1.2 Trillion US \$ in 2007. The cumulative outstanding amount is in the order of 5 to 6 Trillion US \$. (Source: IMF)

Of all CDOs issued globally during 2007, round about 50 percent of them were backed by other securitized products, so called structured products.

Including all other forms of asset securitization into the greater universe of asset backed securities at large, ABS, the total annual issuance of ABS, in the USA and Europe, in 2007 was 2.6 Trillion US \$, resulting in a total outstanding amount in the order of 12 Trillion US \$ (source:IMF).

In addition to that, there exist also, CDOs, not on plain vanilla assets, but on credit default swaps, which are usually not counted as asset backed securities. The total outstanding volume of such CDOs, based on credit default swaps, in mid – 2007, was at 18 Trillion US \$ (source: Bank for International Settlement).

There is wide spread agreement, that the essential benefits of asset securitization are as follows:

- 1.) Securitization is increasing the volume of loans which can be made, beyond the loaning capacity of the banks, by giving access to new investors.
- 2.) Securitizations create alternative investment opportunities for investors.
- 3.) Securitization allows for a broader spreading of risk

The driving forces for asset securitisation are this:

The investors wish to invest in a broadly diversified portfolio of loans or other debt entitlements, and they wish to get a somewhat higher return, than they would otherwise get on conventional investment instruments. The investors typically are institutional investors, to a large portion other banks again, but then also investment funds, pension funds, pension schemes of corporations, insurance companies, foundations, and finally also other CDO's and structured vehicles.

The producers of asset securitization, the creators of CDO's and CLO's, are usually investment banks and their motive is to make a good fee income from constructing such CLO's and CDO's.

The suppliers for the collateral for such asset securitisation are usually the banks which want to unload packages of loans and other similar instruments from their balance sheet, thereby diversifying away risk they had previously taken, and thereby decreasing the need to hold the scarce equity against the loans made, an equity offset which is required by supervisory banking regulations, but also by common financial sense.

In the special case of US subprime mortgage loans, an additional market player comes in, the mortgage broker, who solicits mortgage loan customers, without making a loan himself, and does then pass them on to the mortgage loan bank, against a fee.

While this concept of CDO's is clear, and logical, and understandable, the devil is in the detail, as a famous saying goes, and the devil in this case means, that this complex structure of asset securitisation lends itself to a number of traps, into which the generators or the investors or both can fall, if they are not careful enough.

Ladies and Gentlemen, since the summer of 2007, we know, and we were forced to gradually take notice of, that asset securitisation has lent itself to being the epicentre of one of the worst financial crises, by which the modern financial worldwide system has ever been affected.

Starting point were CDO's, which were collateralized with loans from the so called subprime segment of the U.S. homeowner mortgage market. All of a sudden, there was turmoil and losses in this segment of the asset securitisation market, and this turmoil is ever since spreading in reverberating waves into other segments of the financial markets not only in the USA, but also in Europe in particular, and somewhat in Asia.

These turbulences, have joined forces with recession fears in the USA, and together they have led to a dramatic fall in stock prices, at large, worldwide, in almost all national stock markets. And in particular the stock prices of banks and other financial firms have to a large extent collapsed, in all the cases, where such banks and other financial corporations were grossly affected by the losses that overtime became visible in such CDO's and CLO's.

Again, the starting point of the crisis is the subprime mortgage segment in the USA, where excesses took place during 2005, 2006, and during 2007, when making loans to private home owners, which are in fact totally unbelievable. Not only did credit banks, large scale, make mortgage loans to private home owners by up to 100 % of the present market value of the house, but also agreements were made not to amortise part of the loan over the first few years. In addition extremely low interest rates were contractually arranged for the first one to three years which later on had to be compensated with interest rates which will then have to be above then existing market rates. And, even worse, in many cases the creditworthiness of the borrower was not examined at all by the bank. In summary this was lax lending at its worst.

This lax lending practice by U.S. mortgage loan banks is beyond standard professional imagination, and so is the lax supervisory regulation, that went with it. The world press has extensively reported about it.

And this lax lending practice has been done, in the end, against the background of the expectation, that house prices would increase annually and forever, and that afterwards, by way of market value appreciation of the houses, the loaning ratio against the asset value of the house would be lowered to a reasonable lower ratio.

To make the situation even more extreme: Such loans were not initially made by mortgage banks, but they were brokered by so called mortgage brokers who are self employed brokerage professionals. For them, what counted, was to catch the fish and to broker it away to the loan making bank, and thereby earning a fee.

The mortgage banks, which made such loans, then sold huge portfolios of such loans to investments banks, which bundled them into packages and which then used such packaged portfolios for the newly created securities, the already mentioned collateralized debt obligations.

The closing stone for such structures, meaning such collateralized loan and debt obligations, where top investment grade, credit ratings, which were issued by the US rating agencies for a great part of such CDO- and CLO-tranches.

The strategy and the drama, then took its course, when all of a sudden the ratings of such CDO-tranches were downgraded by often 17 notches, and were falling from an AAA rating in one step down into a sub investmentgrade rating, meaning into a

speculative grade rating. Together with that, all of a sudden, the market value of such CDO- tranches fell first to 90 or 80 Cent on the Dollar, and further on to 60, 50, 20 and even zero. In the first quarter of 2008, alone, rating agencies made 4500 downgradings of tranches of CDO's.

Another phenomenon must be mentioned, that comes along with the phenomenon of asset securitization, and which has made headlines, and which has added to the financial crisis. What I mean with this, is the so-called structured investment vehicles, and, similar to that, so called conduits.

A structured investment vehicle (SIV) is a fund, which borrows money, by issuing medium to short-term securities at lower interest, and then invests this money by buying long term investments at higher interest, making a profit for investors from the difference. SIVs are a type of structured credit product. They are usually from 1 Billion to 30 Billion US \$ in size, and they invest in a large range of asset-backed securities, as well as directly in some corporate bonds.

There are 2 risks for such structured investment vehicles: 1, that invested assets are defaulting, 2, that the re-financing, much done by medium term notes and by commercial paper, cannot be rolled over at a given point of time and dries up.

Structured investment vehicles have a small portion of equity financing, so-called capital notes. Leverage on average, is 14 times, but also higher in individual cases.

Conduits, by contrast, are less leveraged than special investments vehicles. However debt financing is exclusively based on commercial paper, which is short-term financing.

Such structured investment vehicles and conduits are typically being held by banks and by other institutional investors. It is common practice, in the USA, but also in European countries, that the banks hold huge pools of assets off balance sheet by way of such structured investment vehicles, and that they do not consolidate them in their group balance sheets. On the asset side, such structured investment vehicles were often totally invested in CDO's and CLO's, with much U.S. subprime mortgage loan content.

The total estimated balance sheet volume of all structured investment vehicles plus conduits, outstanding, is estimated to be 1.8 Trillion US \$ (Source: IMF).

As long as we had fair weather markets, and as long as the return on the asset side was higher, than the cost of the short term debt financing, the organizers of such special investment vehicles made good additional profit. But when the value of such CLO's and CDO's collapsed, then huge losses in such structured investments vehicles have arisen which then had to be compensated by the bank which had sponsored and erected the structured investment vehicle.

In addition, commercial paper refinancing was partly drying up, and back up bank credit lines had to be drawn down which had also been committed by the sponsoring banks of the structured investment vehicle.

In Germany, as an example, the smaller sized banks, IKB, and Sachsen LB, had engaged themselves in such structured investment vehicles, which, after they started collapsing, caused that the two banks were collapsing and they had to be saved in one case by a government owned bank and in the other case by one of the largest savings banks.

In the case of the German small sized bank IKB, the total losses up to now amount to 16 Billion €, and the loss compensation provided mostly by a government owned bank and some private banks, amounts to 12.8 Billion €.

Many banks which have invested in the asset securitizations, which later on defaulted, did obviously not fully understand, in what they had invested, and also, they therefore did not apply an adequate risk management to these investment positions. Quite obviously, they were driven by an exaggerated search for yield, and there was also a certain herd behaviour effect. True is also that no bank, no other investor, were forced to invest in such things.

By the way, many observers say, that the extraordinarily high liquidity, which was around financial markets worldwide in recent years, is another major cause for the financial crisis. The argument is, that extraordinarily high worldwide liquidity has made investment opportunities relatively scarce, thereby pushing down yields, and thereby creating incentives for a new search of yield-pick up, which then drove investors into new investments, which they did not fully understand.

Also, we now know, that the liquidity risk of owning asset backed securities has not been recognized properly, and that in the case of many CDOs adequate illiquidity premiums have not been priced in.

What made the collective situation of defaulting CDO's on the one hand, and defaulting structured investment vehicles and conduits on the other hand, even worse, and in the end unbearable for the financial markets, was the lack of transparency about who was invested with how much in CDO's on the one hand, and in structured investment vehicles and conduits on the other hand. This lack of transparency has caused ongoing rumours, day in, day out, and the question, by how much individual major banks such as the big US banks but also the big European and Asian banks are being invested in such securitized assets. What we have seen is, that it has taken months after months, until gradually the truth came out. And the truth is now this:

Up to now, the worldwide losses, and depreciations which had to be made, by banks on CDO investments and on structured investment vehicles, by now, have accumulated to an amount of 512 Billion US Dollars. Most of such depreciation has been made by several major U.S. banks and by some major European banks. In Europe the largest single victim bank for such depreciation was UBS from Switzerland. In the USA, the largest single victim banks were Citigroup and Merrill Lynch. Such heavy losses of the banks have destroyed so much of their equity, that many of them had to take emergency equity refunding measures: Collectively, so far, the banks had to raise 353 Billion US Dollars.

In the USA, nevertheless, so far, 9 smaller sized banks have gone bankrupt because they have been too heavily invested, directly and / or indirectly, in U.S. subprime mortgage loans.

Among such 9 banks is the California-based IndyMac Corp, a mortgage lender. This bank has specialized in a type of mortgage, which did not require borrowers to document income.

The international monetary fund has recently published an estimate, according to which the total losses from this financial crisis to the amount of 1 Trillion US Dollars have to be expected. Should that become true, then half of it, almost 500 Billion US Dollar depreciation losses, still have to come.

The gradual emergence of news, over several months, of unprecedented losses at some of the most famous banks in the USA and in Europe, and other not so famous banks, finally, and already in September 2007, further exacerbated the crisis, when banks all of the sudden started, to not trust each other anymore, and to not make short term loans to each other anymore, which then forced the central banks on both sides of the Atlantic to provide emergency liquidity to the markets in huge scale amounts. And this not only in September 2007, but ever since, repeatedly, also in December 2007, January 2008, March 2008, and again in summer 2008.

This cocktail of ongoing losses at banks and institutional investors from investments in CDOs, of distrust among banks and of drying up of the inter bank short term money market has led, over the past 12 months, to numerous serious consequences in other parts of the financial markets at large. The most noteworthy developments are the following:

- Credit spreads across money markets and long-term securities markets have gone up considerably across the board, without exception. This spread widening has to be welcomed, given that spreads, before, had been too low.
- Parallel to that, a flight to quality took place, meaning that long-term and short-term treasury rates started falling during the first 9 months of the financial crisis. In the USA, the 10 year treasury rate fell from 5.5 percent in mid-summer 2007 down to 3.3 percent in March 2008. In Europe the respective rate fell from 4.6 percent to 3.6 percent.
- Starting in January 2008, stock markets worldwide were grossly affected and took a dive by round about 20 percent from 2007 peak levels until March and July 2008. Part of this stock price fall was also explained with fears about an upcoming recession in the USA.
- Another example: In the USA, the asset-backed commercial paper market had a total size of round about 1.2 Trillion US \$ in July 2007. Much of this asset-backed commercial paper was financing off-balance sheet funds of banks, such as structured investment vehicles, on a short term basis. Such vehicles, themselves, typically held also assets such as CDOs and CLOs. When the financial crisis broke out in mid-summer 2007, many of these asset-backed commercial paper funding sources shied away from such structured investment vehicles and forced them, to unwind holdings, which both exacerbated the collapse of the US CDO market, and considerably shrank this financing source to now roundabout 700 Billion US \$.
- Another example: In early 2008, the 330 Billion US \$ market of auction-rate securities, in the USA, became totally illiquid. Auction-rate securities are issued by municipalities, closed-end funds, and student loan organizations. They are long-term bonds, with interest rates being re-set every week or month through bidding, run by dealers. When the Wall Street banks faced declining demand for these securities, they stopped in February 2008, the once-routine support of auctions, and they permitted also such auctions to fail and leaving investors unable to sell the debt.

These auction-rate securities are attractive to the issuers, because they provide the cheaper money market rates on their debt than the usually higher long-term rates for long-term bonds. But when the market became illiquid, the interest rates where re-set according to the securities covenants, to much higher, but capped rates. In the case of municipal notes as high as

12 percent, whereas the closed-end fund notes were re-set and kept, below money market rates, at around 3 ¼ percent.

Investigations by the New York State attorney General Andrew Cuomo a few months later disclosed that the largest investment banks which make a market in these securities – Citigroup, UBS AG, Merrill Lynch, Morgan Stanley, JP Morgan Chase, Wachovia – had still sold such securities as quasi money market securities to the market at large, when they already knew that they would soon stop the auction and that this market would become illiquid. The settlement now reached with the New York State attorney general is for round about buying back almost 60 Billion US \$ of such securities by the 6 banks from the present investors, thereby adding to the banks assets that may cause further depreciation. Also, fines have been imposed on the banks. (Meanwhile, settlements have also been reached with small players in this market, like Goldman Sachs, Deutsche Bank. Other smaller players will follow.)

Through such buy backs, and also through re-financings, the market for auction rates securities has in the meantime shrunk from 330 Billion U.S. Dollars to about 200 Billion U.S. Dollars.

- A last example: In Europe, sales of asset-backed bonds which finance all kinds of assets, did fall, from an almost 400 Billion Euro volume in 2007, by almost 80 percent during 2008, because investors demand record high yields, to make up, for some of the subprime losses, record high yields, which the generators of asset-backed bonds cannot offer. Up to now, during 2008, less than 30 Billion Euros of asset-backed bonds were sold to investors. Although banks created about 250 Billion Euros of asset-backed bonds this year in Europe. 80-90 percent of this years European securitizations have been designed solely for the purpose of accessing central bank liquidity, which has become a de facto substitute for capital market funding for many banks.

These have just been a few examples of the ramifications and of the contagions which were produced in other segments of the financial markets. There are more examples of ramifications and of contagions which, for the lack of time, I cannot mention here.

Since the end of 2007, there is the fear, that this financial crisis will finally impact the real economies in the industrial countries as well, and pull them into a recession or even a depression. Fortunately, the real economies have withstood such impacts. But very recently, during June and July 2008, the mood of all economic players in the industrialized countries has strongly deteriorated, and the financial crisis has worsened again for a third time in July 2008, after March 2008 (when Bear Stearns, the 5th largest U.S. investment bank, had to be saved), and after September 2007. At this point, let me put all the numbers, which I have spoken out so far, into a greater perspective.

The total of subprime mortgage loans in the USA reached the volume, in 2007, of round about 1.200 Billion US \$ or 1.2 Trillion US \$.

The total of private mortgage loans in the USA, now, has a volume of 12 Trillion US \$.

The total of the financial debt of the private households in the USA, in 2007, meaning mortgage loans, plus credit card debt, plus automobile financing loans, plus other consumer credits, amounts to approximately 14.5 Trillion US \$.

The US GDP amounts to 14 Trillion US \$.

The net worth of the private households in the USA, in 2007, that is their total assets minus mortgage loans and other loans, amounts to 58 Trillion US \$. This is the highest amount, which has ever been achieved in the USA.

To make a different kind of comparison: The market capitalization of the worldwide equity and bond markets, plus the worldwide assets of banks, at the end of 2007, amounted to a total volume of over 200 Trillion US \$. (Source: IMF, German Central Bank)

When making a comparison with these numbers, one realizes, that with a closer look at the total losses of presently 512 Billion US \$ from the US subprime mortgage loans, that this number, by comparison, looks smaller and smaller, depending on which comparison you make.

With this comparison, I do not want to make the painful losses, which are painful for an individual bank, and for an individual institutional investor, look small or even negligible. However, what the afore mentioned comparisons show, is, that the great fear and panic, which we have repeatedly seen in the financial markets over the last twelve months, have always been overblown at each given point of time. ¹

The lessons to be learned from the defaults in asset securitization and from the ongoing world financial crisis are predominantly painful, and plentiful.

First of all, it is not enough, to completely rely on a triple A rating, given by a rating agency to a CDO or CLO. The experience of the last more than one year is just ample proof to the contrary. What is necessary is to rely on one's own due diligence and judgement.

The governments and regulatory agencies in both, the USA, and in Europe, are presently working on projects of how to improve the quality of ratings as well as the regulatory oversight of the ratings agency industry. Several proposals are already on the desk, but no final measures have been taken so far.

The improvement of the quality of the ratings, is a subject of its own. ²

¹ To further underline this, let me make another comparison:

The already mentioned net worth of the private households in the USA of 58 Trillion US \$ translates into a gross worth of 72 Trillion US \$, when adding the round about 14 Trillion US \$ total debt of US private households.

The presently accumulated subprime mortgage loan losses of 512 Billion US \$ represent only 3,5 percent of total private household debt, and less than 1 percent of the gross worth of total US private households.

The asset to liability ratio of US private households still is 5.1 times, which is solid. Therefore, neither the US consumer will collapse, nor the US economy will collapse, from the subprime mortgage loan crisis.

² The main aspects, which are being presently discussed and researched worldwide, are the following:

- Independence of ratings
- Conflicts of interests in the field of structured financings and structured products like CDOs and CLOs.

In this context it must be mentioned that over 40 % of the income of the rating agencies comes from the rating of structured products, and from the counselling by the rating agencies given to the issuers of securitizations, about how to structure, in order to get a certain rating.

(Footnote 2 is continued on page 9.)

Other researched main aspects are:

- Potential conflicts of interest as a consequence of the remuneration of the agencies by the securities issuers
- Governance structures within the agencies
- Quality of the staff of the rating agencies
- Quality of the methods of the rating agencies
- Degree of information available at the rating agency
- Reaction of the rating agencies when the effective default rates materially deviate from the projected default rates.

In addition and most importantly, the following two subjects:

- Transparency of the rating process
- A clearer understanding of the message, which a rating is giving, and of the limitations, which ratings will always have.

This last point is particularly important. A rating is the expression of the probability of a default of the security, as evaluated by the rating agency. Not more and not less. Other relevant risks, especially market risks and liquidity risks, are not considered by the rating. And also the use of the same rating symbols, which are applied to traditional plain vanilla financial products, also for the ratings of the much more complicated structured products, in a way does disguise the risks of the complexity of such structured products, and it should be replaced by a different type of symbolics.

At the end, and most importantly, however, all market participants must always be aware of the fact, that external ratings are always only an external help and support. The ultimate responsibility for issuance of and the investment in securities, and in structured securities, always remains with the issuers and with the investors. This responsibility can never ever be sourced out.

In spite of the foregoing, many bankers are saying, that the market for structured securities can only function, in the end, if the risk evaluation through the rating agencies of the collateral portfolios and, resulting from this, of the rating categories for different tranches of securities issued by a CDO, is adequate, and if the market participants have a high degree of trust in the ongoing reliability of such ratings. Again, correct ratings, so the bankers, are a necessary prerequisite, that the market for structured products and structured securities can function and survive in the long run.

But in spite of this, until measures for the improvement of ratings will not have been credibly taken, and until they will not have been practiced in a satisfactory manner, investors are well advised now, not to rely on ratings when it comes to CDO's and CLO's and similar instruments, but they are well advised to do their own due diligence and to rely, in essence, on their own judgement.

Secondly, know, what you are investing in. And when you want to invest into a CDO and a CLO, make your homework, study the structure of the security. And if this due diligence is too onerous for you, if you don't have the manpower to have it get done, then just stay out of the instrument and invest in more conventional and clearly understandable instruments.

Thirdly, always be aware: "Where there is smoke, there is fire".

Fourthly, at the beginning of the financial crisis almost all banks said, that they are not impacted or barely impacted. It then came out, over a series of months, that some of them were hugely affected and that emergency refinancing for the entire bank had to be done. Worse than that the stock prices of some of the most famous banks of the world have fallen by 50 to 75 %. The investors, who sold the shares of the banks at the beginning of the crisis, and who did not believe in what the banks were telling them, are today better off, than those investors, who stayed with their investments in the stocks of the banks.

Fifth lesson: CLO's and CDO's, while having a triple A rating, were delivering up to 100 basis points higher returns than government bonds which also had a triple A rating. While this looks like a miracle at the beginning, it so turned out, that the higher return was going along with higher risks which then became a reality and even led to heavy losses. The lesson here is: The higher the return, the higher the risk, and vice versa.

The Sixth lesson to be learned is: Never have greed taking over control over your investment decisions. This, obviously, has been the most devilish driving force that got, otherwise prudent bankers and institutional investors, to invest in subprime mortgage loan based structured products.

Greed, like fear, are the two worst advisors to investors. What is necessary for investors, is to be level-headed, all the time, and to follow a middle of the road way, all the time.

Seventh lesson: An old rule has been proven, again, to be right: The access to new equity, from external sources, even in bad times, and even in times of emergency, is the most important cornerstone of a corporation's financing, and, thereby, independence. Some of the largest, and most famous, banks, like Citigroup, Merrill Lynch, UBS AG, have been forced by this financial crisis, and after their stock price had already depreciated considerably, to seek new equity from external sources in order to re-build their depleted equity, depleted by high depreciations on CDOs and CLOs and structured products. In each case, the order of size had a magnitude of 10 Billion US \$ or more.

While the search for such new external equity, in an emergency situation, was successful, the price, which had to be paid, was often high. A new shareholder, who provided 7.5 Billion \$ new equity, could arrange for preferred cash dividends, 11 % p. a., over 4 years, thereby diluting the value of the shares of the old shareholders. This was so in the case of Citigroup.

Other new shareholders who infused such huge amounts, could make an arrangement with the bank in the case of Merrill Lynch, that any further fall of the share price of the newly infused equity, would be compensated by the company, thereby putting the new shareholder at a smaller risk than the old existing shareholders. Again, a measure, which diluted the value of the shares of the old existing shareholders.

And in addition to that, the new sources of equity turned out to be, to a large degree, government owned entities, like state owned funds from the Middle East and Far East, thereby changing the shareholder structure of such banks considerably. In the long run it

will make a difference, as to whether shareholders are governmental bodies or agencies or subdivisions, or whether they are private investors.

Eighth lesson: Disintermediation and securitization via CDO'S have grown, as said, over the past 20 years to a volume, as of recently, of annualized issuance of roundabout 1.2 Trillion US \$, and it has drastically but not totally collapsed in early 2008 to an annualized volume of 50 Billion US \$ only. For all the described and known reasons, securitization in the future will not be anymore, what it used to be. Some market participants predict a much smaller future for securitization, than it used to be.

The opponents of securitization, say, that the instrument has lent itself to be filled with toxic waste as collateral, like US subprime mortgage loans.

Some bankers have been courageous enough, to state in public, that certain collateralized debt obligations are quote *almost criminal instruments* unquote and that such instruments should be stopped.

In spite of this public debate, the fact is, that disintermediation and securitization do continue, throughout the year of 2008, but at a much reduced level. In the meantime, recently, securitization is already and gradually on the rise again.

The major trends that can be predicted for securitization in the future are two. Firstly, there will be dramatically better transparency in the future in securitization. What will be in CDOs and CLOs as collateral will be much better explained in the future, than ever before. And secondly, securitization, in the future, will reverse to much simpler instruments than the complex structures which we have seen.

Ninth lesson: The fair value valuation of securitized assets has given rise to a number of headaches. The first headache came up, when certain market segments completely dried up and collapsed, and no market was made, and no market prices were being set. The mark to market valuation of fair value had then to be substituted by mark to model valuation. This uses complex valuation models, which are based on assumptions, estimates, values based on past experiences, of the individual bank. Here we are in uncharted land. Rightfully, the IFRS regulations do not install a uniform valuation model for financial instruments without an active market. ³

Another big headache which has arisen from the fair value accounting, is, that, as a consequence of lowering the book values, when markets are falling, the asset holding bank or other investor are often forced to make fire sales, thereby exacerbating the financial crisis and thereby creating a self feeding downward spiral. Many bankers, including the International Institute of Finance, have therefore made the request, that in such a crisis situation, the fair value method of accounting should be halted temporarily. Other bankers and observers are firmly opposing such a measure. The outcome of the debate is open. But it is to be expected, that the proposal will sooner or later be put into practice.

Tenth lesson: the financial market crisis has developed under the old supervisory framework of Basel 1. The great majority of banks in Europe does apply the Basel 2 regulations only since the beginning of 2008. This must be born in mind, when the regulatory framework is being re-discussed now. A number of regulations, which go

³ Rather, the emphasis must be on the improvement of the transparency of the valuation of financial instruments for third parties. To this, the standard IFRS 7 makes an important contribution, which has to be applied for the first time for financial statements of 2007. This IFRS standard is a good complement to the already existing reporting obligations for asset securitizations which are in place by supervisory agencies.

along with the application of Basel 2, will provide for a better protection from developments, which we have seen during this financial crisis. For this reason, and before again changing the regulatory framework, Basel 2 must be applied in the real world first, for some time.

This applies especially as regards proposals for an overall one off increase of the solvability coefficient. To do this, it would be premature, because not sufficient facts are available as yet about which equity quotas the banks will have under Basel 2.

Most importantly, the new Basel 2 regulations have also established a number of equity capital adequacy and disclosure duties, which make it significantly less attractive, to amass structured products off-balance sheet, outside the banks.⁴

Having said this, it is clear and obvious, that it is of utmost importance, that Basel 2 will be put into practice worldwide quickly and in an uniform way. This relates especially to the USA. The timetable there says, that the banks can apply the new regulations, starting April 2009, at the earliest, and must apply them, in April 2011, at the latest. However, full application, already in the year 2009 must be achieved in the interest of the stability of the financial markets.

Eleventh lesson: The core problem of securitization by way of CDOs and CLOs is said to be, that credit risk is moved from the bank to the securities investor and that the credit risk therefore tends to not be properly managed.⁵

In response to this, requests are voiced from market participants, that the banks which originate securitizations, should keep part of the credit risk on their own books for the lifetime of the credit, and that only the major other part of the credit risk is passed on via securitization to the end investor. The argument says, the banks should withhold the first loss piece on their own books.

Of course, there is already a public debate of how big this first loss piece should be, and whether this will be the end of securitization or not. Keep an eye on this public discussion. Much of the future of securitization will be decided by the outcome of this discussion.

It has been said, in this context, by the Institute of International Finance, to which belong 375 banks and financial institutions from around the world, in July 2008, that it is absolutely necessary, that banks do apply undiminished solid and prudent loan making standards, independently from whether the risks remain on the banks balance sheets or whether they are transferred to third parties via securitization. I thought, this goes without saying. But the fact is, that this reminder has become necessary.

⁴ Especially the new disclosure requirements according to column 3, will have the effect, that the banks have to disclose the objectives and the role of the banks in the area of securitization, that they have to hold equity against securitizations, and that they have to disclose such securitizations by risk categories. All this will provide a much higher market transparency than was available so far.

In addition, many banks do already apply stress test to the securitizations. The new Basel 2 regulations make such stress tests for all banks mandatory.

⁵ Whereas good fees are made in the US by the mortgage broker, then subsequently by the bank which constructs the CDO, and then subsequently by the rating agencies which provide the rating, no sufficient care is said to be taken, to manage the credit risk, once it is firmly attached to the securities investor. It has been said, in this context, that securitization of CDOs gives rise to questionable incentive structures. The rhetoric quote **originate to distribute** unquote shows, that the process of securitization has a built-in element of not taking enough notice of sometimes loose lending standards and practices, more so than if the loans would sit for ever on the balance sheet of the bank.

Twelfth lesson: There is a public debate about securitization, and the concomitant special investment vehicles and conduits, from a higher perspective. Such a higher perspective not only takes a look at securitization as such, but also at its interdependencies with structured investment vehicles, with hedge funds, with the private equity sector, with money market funds and with parts of the brokerage and investment banking industry. It is being said, that all these institutions and phenomena have grown collectively into a so called "shadow-banking-system", largely beyond the control and the reach of the central banks and other financial supervisory agencies. I am only mentioning this, because the public debate about how much more regulation and control over securitization is considered necessary is going on in this much greater mentioned context. The magnitude and interdependence of these subjects is obvious, and therefore not only single countries and banking associations are dealing with them but also the G8, the European Union, the Financial Stability Forum, created by a dozen countries, the IMF, and the OECD have started an ongoing discussion about these subjects.

Thirteenth lesson: There is admiration for the U.S. financial system and culture for many reasons. This admiration has greatly suffered, and continues to suffer. It is to be expected, and it can be expected, that the self healing forces of the U.S. system will work efficiently and will overcome damage.

There are also quite positive lessons from the present worldwide financial crisis, as follows:

- The crisis has not led to a collapse of listed bond markets and stock markets worldwide. On the contrary, throughout the crisis, bond markets and stock markets have functioned efficiently. Markets have remained liquid. Volatility did increase, but it remained in a digestible range. And the real economy did not collapse either.
- The crisis has not diminished the availability of bank loans to the real economy, neither in the USA, nor in Europe. It is true, that, as a consequence of the financial crisis, banks in general are requiring now higher margins for the loans they make to customers, and that they are tightening the loaning conditions. But, as said, volume of bank loans outstanding has not shrunk, only the volume of such bank loans outstanding is growing considerably slower with small single digit numbers, compared to recent years. Nevertheless, the world press, obsessed with pessimism, keeps writing, that there is a credit crunch. Thereby adding to spreading fear and pessimism.
- Central banks, in the USA, in Asia and in Europe – contrary to many negative comments – have acted efficiently, quickly and responsibly. Given the dangers of systemic crisis, which had always been around, central banks had no other choice than to act, the way they acted, providing huge emergency liquidity to the markets, thus avoiding a broad market credit crunch and helping to prevent the collapse of major banks. Yes, it is a nuisance, that banks have been bailed out, which had failed before not just because of bad luck, but because of evident mismanagement. But this had to be accepted, in order to avoid a much greater nuisance, had a collapse of several major banks led to a systemic financial crisis. Said Jean Claude Trichet, President European Central Bank: "What has been done until now, has been pretty well done, under very difficult circumstances."
- The good news also is, that this worldwide financial crisis took place at a moment, when the real economies around the globe where in good to excellent shape and continue to be. Only because of the sound and

continued strong growth of the emerging markets, and the good growth in the developed markets in Asia, Europe, and North America, that existed, could it so far be prevented, that the financial crisis affected the real economy.

Let me conclude, with a few philosophical lessons from the present financial crisis:

- The tragedy of the free market economy is, that total freedom includes the freedom of market participants to gradually undermine such freedom, on purpose or by incompetence. This is, why, for instance, we have anti-trust laws and why we have laws against unfair competition and against destruction of competition, and why we need checks and balances. A necessary effect of the present worldwide financial crisis is therefore, that we hear numerous voices for more supervision of the financial markets and their participants, especially the banks, but also insurance companies, hedge funds, and others. An additional supervision by governmental bodies and regulators, which will reduce, to a certain degree, market freedom, and – if overdone – will reduce innovation, creativity, and economic progress at large. The daily news is full of such debates about how much freedom versus how much regulation. An end to this is not in sight, but signs are ample that at the end, there will, and must be, more regulation, reporting, transparency and supervision. And more punishment for malpractice, not to forget that.
- Another sad philosophical aspect of this world financial crisis is the huge dimension of the losses that have occurred around the globe. The unexplainable is, that the causes for such huge losses could build up, over time, and for so long, in such a huge dimension, and that nobody seemed to realise it, and that nobody seemed to warn against it. The phenomenon, we are talking about, has traits of mania. Often quoted is the tulip mania, the flower mania, that happened in the 17th century in the Netherlands, which was first a long – lasting explosion of tulip prices and which ended with a sudden drastic financial collapse, and with big parts of the population falling all of a sudden into poverty.

The Corrigan-Report, presented in August 2008 by predominantly US investment banks, explains the phenomenon with

quote ***Collective human behaviour – unbridled optimism on the upside; and fear, bordering on panic – on the downside*** unquote,

A German playwright of the 20th century, Bertold Brecht, has characterized the philosophical phenomenon, which we also painfully know from the political arena, with the following, and quite simple saying:

Quote ***Stupidity makes itself invisible, by taking gigantic dimensions*** unquote.

The US subprime mortgage crisis took such a gigantic dimension, which went unnoticed for so long, and for too long.

But let me close with a positive note: Evidence and efforts are great, and visible worldwide, that this worldwide financial crisis will be resolved, and the world's financial stability will be greater from hereon, than what it used to be.

Thank you very much.