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The Fundamentals Of Structured Finance Ratings

Structured finance has become an increasingly important tool in today's financial markets, with issuance levels growing at an extraordinary rate in the past few years both in the U.S. and Europe, as well as in most markets in Asia-Pacific. Its development has been accompanied by vocal debate from market participants and commentators alike on the manner in which credit rating agencies, including Standard & Poor's Ratings Services, evaluate the creditworthiness of such securities.

Our goal in this article is to demystify some of the complexity that surrounds the structured finance¹ discipline by addressing as directly as possible the primary concerns that have been raised. We think that doing so may also alleviate many of the concerns that have been expressed about the manner in which we arrive at our rating opinions and the process involved.

THE PROCESS OF ASSIGNING STRUCTURED FINANCE AND "TRADITIONAL" CORPORATE OR SOVEREIGN RATINGS

Understanding The Rating Process

The fact that the structured finance rating process involves a degree of interaction and that arrangers may change structures to meet rating agency criteria has led some commentators to muse whether the ratings analyst becomes an advisor. The answer is no. Moreover, any such inference is a fundamental misunderstanding of the role and actions of the rating agencies in structured finance.

When a non-structured finance debt issuer seeks a rating or approaches us to discuss an existing rating, it will engage in a dialogue with our rating analysts. It will seek to explain the way it sees its own strengths and its place in the economic and financial environment in which it operates. The analysts will then take this information away and an analytical committee will reach a conclusion and assign an initial rating, make a rating change, or issue a rating confirmation.

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Neither the terms "structured finance" nor "securitization" yet have clear definitions. For the purposes of this paper, both will be used interchangeably.

In structured finance, the players are different but the end goal is the same. Either an issuer or an investment bank as the arranger presents a proposed structure. The rating analysts give their preliminary views as to what the rating will be, based upon our published criteria.

The arranger in response may change aspects of the transaction to achieve a better rating, or accept the lower rating—or will not proceed with the rating on the transaction. On unusual or novel types of transactions, this process may involve additional dialogue.

In fact, the interaction between ratings analysts and structured finance arrangers is very similar to that between analysts and non-structured finance related issuers. In both cases, analysts routinely discuss their preliminary views on the rating with issuers. Issuers often challenge those views, enter into dialogue, and present additional information to change the outcome. The rating analyst would then present his or her reactions to this new information.

Some corporate issuers may change their business or capital structure (often their funding plans) in order to achieve a particular rating, in the same way that structured finance issuers may adjust the transaction structure to achieve a certain rating. It is also worth pointing out that this type of interaction between corporate issuers and rating agencies is precisely what the international regulatory community has been urging on the agencies. Following claims in the early years of this decade that agencies were not transparent and acted in a "high handed" way with corporations and financial institutions, the European regulatory community, for example, urged rating agencies to engage in a greater dialogue with rated institutions, explaining their criteria and listening to the objections of issuers.

It's important to reiterate that in no way does what occurs in the structured finance rating process ever amount to "advisory" work. We will never tell an arranger what it should or should not do. We merely react to the proposals made by arrangers and in each case only to the extent of telling them the likely impact of these proposals on the rating outcome. To call upon the agencies to cease to do so would be a major step away from the openness, transparency, and dialogue that has been urged on them by the international regulatory community.

When an arranger approaches us with a structured transaction it does so in full knowledge that anything that we learn in the process, including from the arranger's own work, will become public (except for confidential information). Anything we tell one arranger about our criteria will be told, in the same way, to any other arranger or investor. In fact, in the case of novel transactions, our views will be published as a transaction report on our free Web site for all to see. The public and consistent nature of our work is incompatible with almost any definition of "advisory" or "consultancy" work.

The Nature Of The Structured Finance Market

So, why does this dialogue between rating agencies and arrangers occur at all? The answer lies in two aspects of structured finance: the first is "tranching" and the second is the "structured" nature of structured finance. Both are intrinsic and necessary to the structured finance market. And in both instances, the degree of rating agency interaction is not only beneficial to the structured finance market but almost certainly a prerequisite to having any kind of structured finance market at all.

Tranching

The essence of structured finance is that it takes pools of undifferentiated risks—such as those contained in a portfolio of residential mortgages or credit card debts—and parcels them out into debt instruments with different risk profiles. The efficiency in this process is that it allows different investors with different interests and risk appetites to purchase exactly the risks they want. By matching available risk and investor appetite, the structured finance market provides better and cheaper pricing to the financial

markets as a whole by the simple device of allowing a greater symmetry between buyers (of risk) and sellers (of risk). In due course, one expects that the operations of the market will result in this cheaper pricing flowing to the ultimate consumers of debt, whether in the retail sector (mortgages, credit cards, car loans, etc.) or the wholesale sector (corporate lending, project finance, etc.). Since selling the original pool of undifferentiated risk may be difficult in some markets where there are no buyers for such risk, securitization also allows potential sellers of risk (usually banks) to find buyers for their assets. This allows banks to manage their risk more efficiently, thus increasing the stability of the financial markets as a whole.

This disintermediation and stratification of risk is achieved almost invariably by a process known as "tranching." In tranching, a pool of assets such as residential mortgages is sold to a standalone company—usually called a special-purpose entity or SPE—that issues bonds. The bonds are tiered in that the holders of the top category of bonds (the senior "tranche," or slice) get paid first from the cash generated by the assets. The second category gets paid after the first has been paid, the third after the second has been paid, and so on. The bonds issued by the standalone company are therefore divided into tranches from the most senior to the most junior. These tranches are then sold to investors who have appetite for the level of risk (and return) embodied in a given tranche.

Why does tranching lead to more interaction between the arrangers and the rating agencies? In theory, an arranger could tranche a transaction in any way that it wants. The senior tranche could be 5% of the total amount or 95% of the total amount. In the same way, the pools of assets being securitized are all different. Some mortgages are issued with high loan-to-value ratios, others with low ratios. Some mortgage pools are all from one small region, others contain widely dispersed property.

For a securitization market to develop, investors must be able to compare the risks of the various tranches being offered in the market. As we have seen, securitization works by providing buyers of risk with the risk they seek. But how can they know this complex structured finance tranche carries a level of credit risk with which they are comfortable?

By providing an objective and independent assessment and a universal scoring system that allows like for like comparisons of credit risk, rating agencies assist in this process.

Since the arrangers are selling to investors in each tranche a specific type of risk and since investors compare these tranches using the universal scoring system of the rating agency, it follows that arrangers will seek to tailor their structure to generate the rating for each tranche that matches what the buyers are seeking. Not doing so could result in no buyers being found for the tranches that don't meet investor appetite. If the structure as it is first presented to the rating agencies doesn't satisfy the target investor, then it is rational for the arranger to make changes that will meet the buyer's need.

To do that, they must have a dialogue with the agencies. This dialogue will inevitably take as many iterations as are necessary for the structure to provide what investors are seeking or for the arranger to conclude that no viable structure can be created, at which point transactions are usually abandoned.

Structured finance is "structured"

Another reason for the dialogue between rating agencies and issuers is the greater degree of freedom structured finance arrangers have—compared with corporations, banks, and sovereigns—to design their own solutions. They can tranche the debt in whichever way they want or add features such as cash reserves, hedging agreements, and the like. The only aim is to design a product that can find investors and still generate a positive economic return. In other words, structured finance is "structured."

By contrast, corporates and sovereigns have many constraints: they have long-term strategies, existing investors, and shareholders or voting citizens. A government that discovers the fiscal strategy it was elected on is likely to reduce our credit rating is unlikely (or unable) to drop the strategy solely for that reason. That's because sovereigns and companies have more than one aim. In fact, maintaining their rating at a certain level is likely to rank in most cases as a fairly subordinate goal. A company that has made the strategic long-term decision to enter the Asian market because it believes that will provide its best long-term chance of increased shareholder returns would in most cases be foolish to abandon this strategy merely because it may have a negative impact on its rating.

The result of this is that, although dialogue with us over corporate or sovereign ratings takes place, the limited set of realistic options available to those rated entities and the fact that a rating is not the primary aim of their existence means that there is less dialogue about the rating. For the same reasons, the likelihood of the rated entity changing its actions to obtain a better rating are much smaller than in structured finance.

Is Interaction A Bad Thing?

Given that enhanced interaction between rating agencies and arrangers is a pre-requisite for a healthy structured finance market, it's puzzling that a number of market commentators have seized on this dialogue as a "bad thing" or a "dangerous development."

One suggestion has been that interaction raises the specter of the rating agency equivalent of "regulatory capture." The idea is that regular contact with arrangers and bankers could lead rating analysts to "see things the banker's way." Regulators who rightly pride themselves on a constant dialogue with regulated entities face the same issues when they are sometimes accused of "advising" banks or insurance companies or being too generous in their regulatory oversight.

Our answer to this concern has been to create formal and informal barriers to "rating agency capture," including our Code of Conduct, which governs all our interactions with the market. This code is specifically designed, amongst other things, to ensure the independence of our analysts. The informal barrier is our culture and traditions. We are intensely aware that our entire franchise rests on our reputation for independence and integrity. Therefore, giving in to "market capture" would reduce the very value of the rating, and is not in the interest of the rating agency.

We acknowledge that demonstrating a culture of honesty and independence is more difficult than pointing to a published code. Yet, we can point to a 90-year history of having maintained this culture. Moreover, in the long investigations carried out over the past five years by both the Commission of European Securities Regulators and the European Parliament on the rating agencies (including their structured finance business), no serious market participant—insofar as we know—raised any evidence of a departure from our traditions and culture of independence. At the same time, the daily complaints from investment bankers on transactions to the effect that we are too conservative and fail to "understand" their structures, would suggest that we continue to maintain a robust independent spirit.

POTENTIAL CONFLICT FROM FEE STRUCTURE OF RATING AGENCIES OVERCOME BY REPUTATION RISK

And, what about fees? Do they not erode independence and sap at objectivity? It is well known that we, like other leading rating agencies, are paid by the issuers we rate. In the case of structured finance, fees are paid by either the originator of the securitized assets or the arranger of the transaction, depending on the nature of the transaction.

Clearly, since there is a choice of rating agencies, the potential exists for a conflict of interest. In theory, one way to increase revenue would be for us to weaken our criteria to ensure that we are selected as the agency to rate a transaction or to ensure that a transaction that would not have been economically viable can take place. This would, of course, violate our internal rules as well as endanger our franchise, which is why we do not engage in such behavior. Moreover, our structured finance ratings are extremely transparent: we publish all ratings, write transaction reports, and see almost all transactions described one way or another in the press, legal alerts, or industry symposia. Therefore, any untoward behavior would attract instant attention and endanger both investor confidence in us and our entire franchise.

In the context of structured finance, criticisms of our fee structure are often mentioned in the same breath as the increase of the proportion of the rating agencies' income that is derived from that sector. However, that rising proportion merely reflects the growth in this market. Nor is there any aspect of structured finance, as distinguished from any other type of debt, that makes the potential conflict any more acute. If anything, the transparency of our ratings would make any departure from our Code of Conduct most obvious in structured finance.

Some commentators have argued that even the potential for a conflict is unwelcome and should be removed. This would be detrimental to the market. The only two conceivable sources of compensation for ratings work are the issuers (or, in the case of structured finance, the originators and arrangers) or investors. Indeed, some agencies do receive their fees from investors. Although this removes the potential conflict of interest, it also endangers market transparency as only those investors with enough cash to pay would know the ratings. It would run counter to the trend toward transparency of the past few decades, which has been so welcomed by the regulatory community and the markets.

Under the issuer-pays model, we publish our ratings and analysis free to investors and others around the world in real time. This promotes the broad and free dissemination of important information to the marketplace quickly. We can do this because the substantial costs involved in gathering relevant information, reviewing it, analyzing it, forming opinions about it, and preparing and publishing ratings are covered by the fees charged to issuers—as indeed are the costs associated with our ongoing surveillance of ratings.

THE QUALITY OF RATINGS EVIDENT IN TRANSITION STUDIES

Critics sometimes question the quality of structured finance ratings, and focus particularly on three issues: spread differentials, the ever-changing nature of structured finance, and the complexity of collateralized debt obligation (CDO) structures.

Spread Differentials

This is a subject that has exercised many commentators, who point out that spreads on rated debt instruments vary—sometimes considerably—even where the instruments carry the same rating. For example, a 'AAA' rated U.K. residential mortgage-backed security (RMBS) might price at three-month LIBOR plus 10 basis points, whereas some 'AAA' rated tranches in synthetic CDO transactions have priced at 200 basis points over LIBOR. Critics cite this as evidence that structured finance ratings are somehow "wrong," or at least that market participants "do not believe in them."

In fact, rating agencies are often faced with the following, rather perplexing argument: Ratings determine market pricing and liquidity, making the rating agencies very powerful. This is a bad thing, critics claim, because their ratings are often wrong and do not reflect the genuine risks. How do we know that their ratings are wrong? It's simple: just look at the differences in market pricing of similarly-

rated securities. Clearly issuers and investors do not pay attention to these ratings, and instead determine prices that reflect the genuine risks.

There is of course a paradox here. If rating agencies were indeed all powerful and their ratings were the sole determinants of price, then the price of similarly-rated securities would be the same. If, on the other hand, investors completely distrusted ratings, and instead relied solely on their own views to determine fair pricing, then it is difficult to see how the agencies would have any power at all.

Those who raise spread differentials as indicators of rating agency failure cannot have it both ways. If spread differentials indicate that investors rely solely on their own assessments of default risk due to the inadequacy of ratings, this might be an indictment of the agencies, but it could then also not be a cause for concern that these thoroughly ignored agencies are falling down on the job to the detriment of investors.

In reality of course, the spreads on two securities can differ for a myriad of reasons. The market's perception of default risk—which is what our ratings are intended address—is only one of these. Spread differentials alone therefore cannot indicate that the ratings are "wrong," and there is a much better place to look for evidence of the appropriateness of ratings. Our success in assessing the default risk on structured finance debt is illustrated in our published default and transition studies. Our studies clearly show a strong correlation between ratings and observed ultimate default rates (see table 11 in "**Transition Study: For Global Structured Securities, 2006's Solid Credit Performance Was Overshadowed By Weak Housing Market Fundamentals**," referenced in "**Related Articles**" below).

So why can spreads for similarly-rated securities differ?

One important point is that ratings represent ranges, not points, on the spectrum of default risk. Therefore, within a rating category there are differences in default risk. Although this is fairly self-evident, the effects are often forgotten, and are especially pertinent in the 'AAA' rating category. Here, although there is a default risk "ceiling," beyond which securities would have to be rated 'AA+' or lower, there is no default risk "floor." One structured finance security may be 'AAA' rated but just hover at the margin of 'AA+', whereas another may be so strong as to be virtually free of default risk. Both are in the same band of risk but they do not have the same risk. Within those bands of default risk it is natural for investors to make distinctions in terms of pricing. An easily understood example of this effect considers the sovereign debt of the U.S., France, and The Netherlands. In each case the debt is rated 'AAA', and these ratings are not controversial. Yet nobody would claim that the default risk associated with each of the three countries is exactly the same.

More important, however, is that ultimate default risk is only one aspect that influences bond pricing. When considering what they are willing to pay for a security, investors have a much wider list of considerations. These include, in no special order:

- The likely loss on the instrument, assuming it defaults;
- Uncertainty in the instrument's loss given default, e.g., the potential for large losses;
- The maturity of the instrument;
- The likely amortization profile of the instrument. (This is very important for many structured finance securities, which "pass through" principal payments from the collateral pool to amortize the debt);
- Uncertainty in the amortization profile;
- The currency in which the security is denominated;
- The likely liquidity of the security, i.e., how frequently such a security trades, and hence how easy it might be to sell on in the secondary market;

- How often the originator comes to market. (For an issuance from an originator that rarely comes to market, investors must be willing to put in the effort of analyzing a complex transaction for a small allocation that is unlikely to be repeated. For this, the bond may have to yield a higher spread. On the other hand, the same infrequent originator may provide a valuable element of diversity for investors' portfolios, and hence command a premium); and/or
- The potential volatility of the market price and/or rating. (For investors who mark-to-market or who have a holding period shorter than the security's maturity, a volatile security contains more risk than a more stable one, even if the risk of ultimate default is the same).

A more general point is that the capital markets are just that: they are markets. They are a place where prices are set by the balance between willing buyers and willing sellers in accordance with the rules of supply and demand. When demand increases, prices rise (spreads tighten). When supply increases prices fall (spreads widen). It is simply not the case that supply and demand are driven solely by perceptions of ultimate likelihood of default. Both supply and demand may additionally be influenced by the factors discussed above, but also by technical factors and (sometimes irrational) market sentiment.

Therefore, if investors are dissuaded for rational or irrational reasons from investing in Asia, but have a positive sentiment on Europe, the price of Asian structured finance securities will fall and that of European securities will rise. This is true, even for securities that have the same default risk.

Similarly, if investors feel positive about the euro, they may invest in euro-denominated securities in preference to U.S. dollar-denominated securities, and the price of a German asset-backed security (ABS) would rise whilst that of U.S. ABS would fall. This is true, even for securities that have the same default risk.

If governments run fiscal surpluses and, as a result, do not borrow in the capital markets, 'AAA' investors with cash to place may turn to the only other deep 'AAA' market, namely structured finance securities. The price of these securities will rise. When governments return to the markets, investors may return to them and sell their structured finance holdings. The price of structured finance securities will fall. This is true, even for securities that have the same default risk.

Sometimes, a glut of structured finance securities supply occurs as many originators come to market at the same time and investors hit their maximum internal limits on a particular type of paper. At that point, again, prices of structured finance securities will fall.

Any cursory look at the securitization trade press will turn up weekly stories about spreads widening on the expectation of a wave of issuance, about how one originator saw its spreads widen because it came to market just after another, about how spreads are tightening because new accounts are coming into a given structured finance sector having left another market because of political concerns. None of these effects is remotely related to default risk or the market's view of the quality of structured finance ratings.

In short, market pricing does not reflect rational analyses of default risk alone.

Securitization Is New And Ever-Changing

Some concerns have been expressed that securitization is a recent creation, and that the CDO market is even more recent. We have sometimes seen expressed the view that our background is in corporate and government ratings, and so it is unclear whether our analysts have the skills to analyze structured finance transactions.

First, let us remember that the securitization market developed in the U.S. in the early 1970s. It is a market that is now more than a generation old. We rated our first mortgage-backed security in 1976. In Europe, the structured finance market goes back to 1987. We have been analyzing this market from its very beginning and possess an institutional knowledge and understanding of the market that is unrivalled.

The result is that we have a quantifiable track record based on about 30 years' historical structured finance ratings performance. This track record is set out in our published default and transition studies (see "***Transition Study: For Global Structured Securities, 2006's Solid Credit Performance Was Overshadowed By Weak Housing Market Fundamentals,***" referenced in "***Related Articles***" below). These clearly demonstrate that we have been extremely successful at analyzing this market, understanding its complexities, and grading its default risks.

Let's not forget that ratings are not guarantees. The rating agencies possess no crystal ball and no time machine. Our ratings are not promises about what future events will or will not occur. Ratings are merely opinions about the relative likelihood of different future events.

However since investors and regulators need to form a view about the future we would respectfully suggest that it is not unreasonable to seek the views of an organization that is independent and that has an excellent and proven track record of rating corporate, government, and structured finance debt.

Our record in rating structured finance debt demonstrates a sustained capacity to understand novel structural and credit-related risks. Worries were no doubt expressed when we set out to rate the first ever U.S. securitization: these were new products and our background was in corporate and government debt. Our 30-year record shows that we have done an excellent job. Worries were no doubt expressed when we set out to rate the first European securitization: these were new products and our background was in U.S. securitizations. Our 20-year European record shows that we have done an excellent job (see European default rates in table 3 in "***Transition Study: 2006 Sees Upgrades Dominate For Third Successive Year In European Structured Finance,***" referenced below). More recently, worries have been expressed about our ability to rate new structures in the CDO market: these are comparatively new products and our background is in traditional asset-backed debt. We understand the concerns of some market participants but remain confident of our ability to continue understanding structured finance product innovations.

CDO Complexity

Critics express concern over the perceived complexity of the CDO market and whether rating agencies have the appropriate staff to understand the new structures and models.

It is worth noting, though, that although certain kinds of CDOs are undoubtedly extremely complex, complexity in the capital markets very rarely emerges all of a sudden. Investors are led to complexity through layers and layers of incremental structural changes, which occur transaction after transaction, year after year. Investment banks can only sell the latest incremental twist after investors have become comfortable with the earlier iteration. Therefore, although some CDO structures may look unfathomably complex to those who have not dealt with these markets on a daily basis, they are variations of structures and technologies that have long histories. These are structures and technologies that we have carefully analyzed in previously rated transactions or sectors. Even in the most complex CDO, therefore, we only have to analyze a small incremental change to an already understood structure.

When we have rated new CDO structures some commentators have occasionally expressed the view that we were entering a totally new field of previously unrated, unexamined structures or credits. Others have expressed the view that a new CDO structure requires us to create an entirely new methodology. Both these views are erroneous, for the reasons given above.

A case in point is the rating of constant proportion debt obligation (CPDO) transactions, where part of our tranche default risk assessment is based on a market value analysis of certain credit derivative indices. Clearly, CPDOs were a new instrument. What was not a new development for us was analyzing market value risk as the basis for a structured finance rating. In fact, market value analysis is a key component of many different structured finance ratings and has been for many years. All RMBS ratings require an analysis of residential property values and their movement over time. Most auto loan ABS transactions require the same for cars, aircraft ABS transactions for aircraft. Over the years we have also rated equity basket CDOs that required analysis of equity market values. A number of transactions have required us to model foreign exchange risks and determine the market value of various currencies. As we have pointed out, even the most complex CDOs are usually variations of well-understood themes; variations on structures that we often have a long experience of rating. CPDOs and the analysis of market value risks is just a case in point.

RATINGS ADDRESS DEFAULT RISK

Meaning Of The Ratings

Another topic of criticism is our use of a single rating scale (see our ratings definitions for Standard & Poor's rating scale, detailed under "***Related Articles***" below) for different types of debt. Some argue that, although structured finance, corporate, and government ratings use the same symbology, a structured finance rating is somehow different from a corporate rating. Sometimes, critics even apply the argument to different asset classes within the structured finance universe: an RMBS rating is claimed to be different from that of a synthetic CDO. The claim is that investors are being misled, as they do not understand the crucial differences between the ratings.

First, it is important to understand the intended meaning of a credit rating. Our ratings are an opinion on the default risk associated with either an issuer or an issue, as of today, based on all the information we have in our possession. Our rating speaks to the likelihood of default, but not the amount that may be recovered in a post-default scenario.

The definitions of each rating category also make clear that we do not attach any quantified estimate of default probability to any rating category. In other words, even though our default and transition studies may indicate that the annual average default rate of 'BBB' structured finance securities between 1987 and 2007 was 0.18%, this does not mean that a 'BBB' rating is a mathematical prediction of a 0.18% default probability. It also follows that we have never claimed that, should a particular set of 'BBB' rated debt suffer a 0.37% default rate, for example, those ratings were somehow wrong or inaccurate. To attach precise expected default rates to any rating category is to imbue the rating process with a degree of scientific accuracy that it could not possibly bear, and which has never been claimed for it.

Let us remember that a rating is only an opinion about the relative likelihood of future events (i.e., default or non-default). Such an opinion may, in the case of Standard & Poor's, be based on an enormous amount of analysis and data, but in the end it remains no more than an opinion. Forward-looking predictions have never been an exact science and rating agencies have never made claims to the contrary.

So why should anyone pay any attention to a Standard & Poor's rating? The reason is that history has shown our opinions to be very good predictors of default risk, and that, so far, no other service has been provided outside the rating agencies that is both independent and has such a strong track record.

We seek to maintain continuity in the meaning of our ratings over time. Therefore, the analysis that leads to any given rating level is designed to maintain default experience within broad historical patterns. We therefore, for example, assign a 'BBB' rating to a new security if we feel the overall default risk is broadly similar to that of previous 'BBB' rated securities.

Do ratings have the same meaning across sectors and asset classes? The simple answer is "yes." Across corporates, sovereigns, and structured finance, we seek to ensure to the greatest extent possible that the default risk commensurate with any rating category is broadly similar. "Similar," however, does not mean "the same." As we have seen, there is no precise quantification of default probability attached to any rating category. Let us compare the rating on a Hungarian bank, an ABS supported by credit card obligations originated in the western U.S., and a commercial real estate-backed security supported by a collection of Japanese shopping malls. Let us assume that we have rated all three of these 'A'. When one considers the extreme diversity of factors that could lead to a default on these three different credits, it would clearly be implausible to suggest that the 'A' rating encapsulates exactly the same default probability, accurate to, say, two decimal places.

Nonetheless, it is a tribute to our work that the historical variations between observed default rates for such diverse asset classes is as low as it is. If an asset manager buys 10,000 'A' rated bank bonds and 10,000 'A' rated commercial mortgage-backed securities (CMBS), are we really claiming that, after 10 years, the number of defaults on both portfolios will be exactly the same? Of course not. However, we believe there is a good chance that their average long-term default experience through the economic cycle will be broadly similar. Similarly, based on historical data, we can be confident that an asset manager buying primarily high investment-grade paper will have a meaningfully better default experience than an asset manager buying primarily low investment-grade paper, who in turn will experience fewer defaults than an investor buying primarily speculative grade paper.

This analysis brings up another important point about ratings: their portfolio or statistical nature. When a structured finance security that was originally rated investment-grade defaults, we often see criticism to the effect that the initial rating must have been "wrong." However, historical data clearly shows that debt originally rated investment-grade does default from time to time. The ratings only tell us that in aggregate and over the long term very few investment-grade bonds default.

This may be cold comfort for investors holding the defaulted bonds originally rated investment-grade, but the default alone does not mean the initial rating was inappropriate. If the default of any investment-grade bond were an indication that the initial rating was wrong, then the only way for any rating agency to do a good job would be if no investment-grade debt ever defaulted. If this were the case, there would only be a need for one investment-grade rating category: it would not be 'AAA' but rather 'WND' for "will never default." In fact, if the default of any highly-rated debt indicated rating agency failure, it follows as a matter of logic that the only way for any rating agency to succeed would be to have a scale with only two ratings: "will default" and "will never default", and to be right about this assessment in every case.

The absurdity of this idea reminds us that the measure of any rating agency's success is whether, in aggregate and over the long term, its ratings are correlated with actual default experience. The success

and usefulness of any rating agency must therefore be judged on a portfolio basis and over a long timeframe. To judge it on a security-by-security basis leads to the failed logic that we identified above.

This principle is also an important reminder of the value in having a variety of rating agencies that may look at the same issuers and structured finance transactions through different lenses. Fundamentally, we believe that the markets are best served by all rating agencies exercising their independent judgment on the matters on which they issue opinions. There is no single way of looking at risk, and the markets benefit from full and open discussion. Thus, if one rating agency were required to defer to another, or use their opinion or ratings—as some would suggest—it would materially decrease and impair the quality of discourse in the markets.

Causes Of Rating Volatility

There is concern in some quarters over the potential volatility of certain structured finance ratings. CDOs have drawn particular concern in this regard. To the extent that rating downgrades can drive down the price of securities, they can result in losses for investors who mark to market.

First, it is useful to dispel some misconceptions. Historical data for a variety of asset classes clearly shows that structured finance ratings, including those on CDOs, have actually exhibited lower downgrade rates than their corporate cousins. At the same time, there is no doubt that certain kinds of structured finance debt are more prone to ratings volatility than others. The reasons for these effects lie primarily in three concepts:

- Degrees of freedom,
- Granularity, and
- Leverage.

Degrees of freedom

Events that can alter the default risk of corporate debt come in two forms. First are external events affecting the issuer. These include macroeconomic events, such as recessions or shifts in foreign exchange rates and interest rates, as well as industry-specific events, such as new competitors entering the market, advent of new technologies, etc. Second, there are internal events relating to the way the issuer manages itself and its business. Obviously, the two types of event are usually interrelated, as companies respond to external changes with internal ones.

In structured finance, since investors are buying a particular tranche of default risk, they have traditionally been reluctant to give arrangers, originators, or issuers leeway to make changes to the transactions' asset pools or capital structures over their lifetime that could endanger the credit quality of the bonds. Therefore, most structured finance transactions typically have had almost no latitude for internal events.

This generally leaves the default risk on structured finance securities at the mercy of external events. These, although difficult to predict, are more suited to the scenario modeling approach used in our structured finance rating methodology. For example, although it may be exceedingly difficult to predict the losses that will actually be incurred in an asset pool over the next five years, it is plausible to postulate what losses might be in a series of increasingly "stressed" scenarios. These stressed scenarios are then applied in modeling the cash flow characteristics of different bonds in the structured finance transaction. The more stressful a scenario any bond can withstand without defaulting, the higher the rating that can be assigned.

In contrast, modeling internal management decisions would be much more difficult. If a structured finance arranger retained the rights to substitute the whole asset pool backing the securitized debt from, say, prime mortgages in The Netherlands to Brazilian forestry rights or Russian car loans, how could one possibly model this level of discretion? This is why securities in such a transaction, if it involved true discretion, could never be rated above a very low investment-grade level.

Of course, investors in corporate bonds would also like to limit the risk that their credit will deteriorate. However, this desire must be set against the management's need to manage the company in the best interest of the shareholders. As a result, although bondholders fight this battle at the level of corporate covenants, regular corporations are almost never constrained in the way of structured finance transactions. It is sometimes said that structured finance transactions run along "railroad tracks," set at the outset of the transaction and only capable of being changed with the consent of the bondholders. Corporate debt transactions, on the other hand, are more like ships, where the managers are the crew and have the freedom to plot a wide variety of courses. ²

This difference between "railroad tracks" and the freedom of a corporation is part of the reason why certain structured finance asset classes have traditionally seen less rating volatility than corporate issuers. However, it is important to note that this distinction from corporate debt is a result of the manner in which structured finance transactions have traditionally been structured. This, in turn, reflects the transactions agreed in the capital marketplace between investors, arrangers, and originators. It is not a necessary feature of all structured finance transactions. Also, as the market becomes more sophisticated, broadening demand for more speculative-grade securities, the overall volatility profile of structured finance is likely to increase.

It is also important to note that some structured finance asset classes feature greater discretionary input from a third party. For example, in cash (and increasingly synthetic) CDOs a degree of discretion is granted to the CDO manager. This is done in the belief that the CDO manager will use this discretion to dampen any volatility by substituting volatile collateral with more stable collateral. We recognize, as does the market, that depending on how individual managers exercise this discretion, such CDOs may be more volatile or less volatile than CDOs with no management, although to date the evidence suggests that managers have successfully managed for greater rating stability.

Granularity

Another cause of potential differences in volatility is what we will refer to as granularity. Some asset classes in structured finance typically securitize large numbers of smaller debts (e.g., RMBS), whereas others securitize smaller numbers of larger debts (e.g., European CMBS). The former therefore have more granular pools than the latter.

The impact of granularity on long-term rating volatility is complex. However, when a rating action is taken, transactions with less granular pools generally show greater potential for larger movements in the rating.

For example, considering a typical European CMBS transaction backed by only five loans, it is quite possible that on a certain date, say, two of the loans (i.e., 40% of the pool) are repaid. As a result, both

²

Interestingly, there exists a hybrid world, often referred to as "corporate securitization" where transactions retain some features of a corporation while borrowing some features of securitization transactions. In these transactions constraints are greater than one would normally see in traditional corporate borrowing, but do not amount to a full securitization. This is a reminder that all credit transactions exist on a spectrum and not in discrete categories.

the asset pool and the liability structure of the transaction can change radically overnight, potentially having a significant effect—in this case often positive—on the CMBS ratings. Compare this with an RMBS transaction backed by 5,000 loans: here it would be far less likely to see 40% of the pool (2,000 loans) repaying over such a short space of time.

Leverage

A further often cited influence on volatility is leverage. The term is used in a number of ways throughout the structured finance world. Most commonly, it is used in the CDO asset class to describe the sensitivity of spreads, market value, or likely return on a security to equivalent changes in the underlying portfolio. A security's leverage in this sense depends partly on its position in the capital structure and its "thickness" relative to the underlying portfolio.

"Tranche thickness" generally does not affect our ratings, nor their volatility, since our ratings are concerned with whether or not a security defaults, not how much loss it incurs in the event of default. However, the rating volatility of a structured finance security can be affected by the leverage inherent in assets in the collateral pool.

For this reason, a CDO referencing corporate obligors, for example, may have different rating volatility characteristics than a CDO that references other CDO securities: a so-called CDO-squared. In the latter, the leverage of the underlying CDO securities gives the transaction different dynamics, and likely a higher rating volatility with greater possibility of multi-notch rating actions, both upward and downward.

It is important to note that this is not a flaw in the rating, nor is it the result of a different rating analysis or the application of different rating criteria. It is merely a ramification of transaction structures. It is also worth pointing out that it is a reality that is generally well understood by the investor community.

In conclusion, different securities may well have different potential rating volatility profiles. At the same time, structured finance ratings—and CDO ratings in particular—have to date generally seen lower downgrade rates than corporate ratings.

Volatility And Ratings

We acknowledge the interest of many investors in ratings volatility. Some investors will have investment guidelines, meaning they could become forced sellers of a security should the rating fall below a certain level. Investors who mark to market will be concerned about market price volatility, which is in turn linked to some extent to ratings volatility.

At the same time, it is important to recall that our ratings are opinions regarding the ultimate default risk of a security. We have never purported to make any comment on the "path to default" (or otherwise) of any security, nor on the stability of the rating over time.

Some market commentators have expressed the view that this is a failing of ratings, since they do not capture this important component in an investor's decision whether or not to purchase a security. We reiterate a point that has been made many times: we have always been extremely clear regarding the limitations of our ratings as a sole basis for investment decisions. Ratings should be only one of many components that inform investment decisions: they are a component that speaks to ultimate default risk.

Yet if volatility in a rating is an important component of the investment decision, why do we not incorporate some assessment of volatility in our ratings? We are presently in dialogue with the market as to the wisdom of doing so. We would however point out that there are many drawbacks to such an approach.

Most obviously, to incorporate volatility considerations into our existing rating symbology would decrease transparency in the market: at present, an investor looking at a 'A' rated structured finance bond knows that this reflects our view of that bond's default risk. Should we incorporate a volatility element into our rating, the same investor looking at the same bond would no longer know whether this was a bond with, say, 'A' default risk and a relatively stable rating, or a bond with only 'AA' default risk but a higher rating volatility. If this is a "buy and hold" investor, who does not mark to market nor have any direct negative consequences from a short-term decline in the market value of his portfolio, then he has lost visibility of possibly the most important component of his investment decision.

A preferable option might be to maintain the present rating definitions and create a separate measure of likely volatility. We are looking into these possibilities.

Volatility And Spreads

In the meantime, it appears to us that, while potential rating volatility is clearly one of the risks not addressed by the rating, it is however incorporated in the way investors and issuers price securities. When looking at spreads among different types of structured finance securities, one can see a clear correlation between the lowest spreads and those types of securities that, for all the reasons set out above, are likely to display the lowest volatility. Conversely, at the same rating levels, those types of securities with the highest potential volatility often exhibit higher spreads.

These spread differentials—far from implying either investor distrust of ratings or investor ignorance regarding potential rating volatility—indicate that investors are well aware of volatility and price for it accordingly. Whether the price accurately reflects the related risk is a matter we currently leave to the markets. However, investor behavior does not suggest ignorance of these risks.

TRANSPARENCY OF RATINGS, METHODOLOGY, AND ANALYSIS

A criticism that has been made quite frequently is that our ratings, assumptions, criteria, and methodology in structured finance are not transparent. In some cases, commentators have gone as far as to speak of the "secrecy" surrounding our structured finance ratings. This has led to the concern that our ratings cannot be "audited."

This is a particularly puzzling criticism. All our structured finance assumptions, criteria, and methodologies are public—none of them is secret. When we say they are public, we mean either that they are published on our free Web site (and can also be obtained on request), or that we will freely disclose them to any market participant who enquires.

We recognize the need for constant scrutiny of the nature of our ratings and how they are used in the financial markets. Each year, we host numerous conferences, seminars, and teleconferences around the world on credit issues and publish numerous articles explaining our assumptions, thinking, methodologies, criteria guidelines, transition studies, and ratings actions.

We also maintain regular contact with financial market regulators throughout the world, in a spirit of openness and in the knowledge of our shared interest in, among many other things, a fair, transparent, and robust structured finance market.

One of the areas where the criticism has been most vociferous has been with respect to CDOs. Here the criticism is even more difficult to understand. The main driver of our CDO ratings is a credit model, named CDO Evaluator. Using this model, one can enter asset pools and model the credit enhancement generally applicable to various rating levels on the CDO securities. One can also assess what is likely to happen to the CDO ratings if various credit events occur in the underlying pool. This allows users of the model to find out exactly how volatile the CDO rating would likely be in the face of any portfolio scenario that they wish to imagine. The CDO Evaluator model is available for free to the market. It can be downloaded by anyone who wishes to do so. It comes with a long technical manual that explains its inner workings. Its last major release was subject to extensive testing in the CDO community, which had the opportunity to suggest changes. Its very transparency has made it the subject of much technical criticism by market participants as well as some praise.

We trust that in demystifying some of the complexity of structured finance that we have provided insight into why we view our detractors' criticisms as ultimately misleading. We look forward to continuing our dialogue with market participants on the topics discussed in this article, among others, and hope this article helps improve understanding of the independence and integrity of structured finance ratings.

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