

Criteria for Structured Finance Loss Severity Ratings

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Executive Summary

- Fitch Ratings is launching a Loss Severity (LS) Rating scale for structured finance transactions. The aim of the scale is to complement the existing Long-Term Credit (LTC) Ratings for structured finance securities, which exclusively address the probability of default (PD) of a security (so-called “first dollar of loss”).
- The LS Rating scale will consist of five rating categories on a different scale to traditional LTC Ratings. Each category will give an indication of the relative degree of risk that a security might suffer a high loss severity in the event that the security defaults.
- It will always be necessary to consider loss severity (as indicated by the LS Rating) in conjunction with PD (as indicated by the LTC Rating). A tranche with a given thickness that is highly rated on the LTC scale is likely to experience a much lower actual loss than a subordinate tranche of equal thickness, due to lower default expectations. The combination of the LTC Rating and the LS Rating therefore gives the investor a better view of the risk of loss than either measure in isolation.
- The LS Rating scale is a clear, concise and simple indicator and does not involve complex and detailed modelling for its determination. The LS Rating category to be assigned will be determined through a calculation that measures the size of the tranche (or “tranche thickness”) relative to the base case expected loss determined for the asset portfolio underlying the structured finance transaction.
- LS Ratings will ultimately be assigned to both existing and new structured finance transactions. The ratings will be launched gradually by different regions and asset classes over the course of 2009. The first set of ratings has been published for all Dutch RMBS transactions. For other regions and asset areas, LS Ratings are expected to be assigned gradually after launch to new transactions and existing transactions as they come up for rating review.
- The LS Rating scale will be particularly useful in highlighting thin tranches, particularly in cases where there might be “hypertranching” of a capital structure to rating modifier level or where there is a relatively thin “support senior” ‘AAA’ tranche below a much thicker “super senior” ‘AAA’ tranche.
- LS Ratings will only be assigned to structured finance securities that are not deemed to be distressed, where default is a real possibility. As a result, they will generally only be assigned to securities that have corresponding LTC Ratings in categories of ‘AAA’ through ‘B’. Securities that are lowered to distressed credit rating categories of ‘CCC’ through ‘C’ will typically not be assigned LS Ratings. In such circumstances, securities will continue to be assigned Recovery Ratings (RR). RRs involve a more detailed analysis of expected recovery.
- LS Ratings will be assigned to securities that have been assigned LTC Ratings on both the national and international scales.

Loss Severity Rating Scale

Rating Category	Definition
LS-1	The tranche has low risk of severe loss severity given default, as evidenced by a Tranche Loss Multiple (TLM) in the range of 10.1x or greater. The TLM is calculated as the size of the tranche divided by the base case loss expectation for the collateral pool.
LS-2	The tranche has medium to low risk of severe loss severity given default, as evidenced by a Tranche Loss Multiple (TLM) in the range of 4.1 to 10x. The TLM is calculated as the size of the tranche divided by the base case loss expectation for the collateral pool.
LS-3	The tranche has a medium risk of severe loss severity given default, as evidenced by a Tranche Loss Multiple (TLM) in the range of 1.1 to 4x. The TLM is calculated as the size of the tranche divided by the base case loss expectation for the collateral pool.
LS-4	The tranche has a medium to high risk of severe loss severity given default, as evidenced by a Tranche Loss Multiple (TLM) in the range of 0.51 to 1x. The TLM is calculated as the size of the tranche divided by the base case loss expectation for the collateral pool.
LS-5	The tranche has a high risk of severe loss severity given default, as evidenced by a Tranche Loss Multiple (TLM) of less than 0.5x. The TLM is calculated as the size of the tranche divided by the base case loss expectation for the collateral pool.

Source: Fitch

Introduction

Fitch's ratings traditionally address the probability that a security will default prior to its legal final maturity. They do not address the extent of loss that might occur if a security defaults (loss given default or loss severity).

To address this, Fitch is introducing a Loss Severity (LS) Rating scale at the security level to accompany traditional LTC Ratings. The agency believes additional disclosure in this area will offer significant value-added given the inherent difference in loss given default between traditional corporate debt and most structured finance debt. In structured finance, given different priorities of payment and the relative "thickness" of tranches, the extent of loss given default can vary significantly. It is an important consideration for investors that Fitch's structured finance LTC Ratings do not currently address.

Rationale

Fitch's LTC Ratings are designed such that a security can withstand a given set of adverse assumptions associated with that rating category without defaulting. While both the loss severity and PD of the underlying collateral are a consideration in the formulation of LTC Ratings for structured finance securities, the rating of the security itself only addresses the PD (and therefore the likelihood of a so-called "first dollar of loss" being realised). The rating does not go further and address, where a default has already happened, the extent to which a loss might be realised on the defaulted security.

Given the nature of tranching within structured finance transactions, with generally "thick" highly-rated senior tranches supported by "thinner" mezzanine and junior tranches, this is an important investor consideration, which Fitch's existing LTC Rating scale does not address. When actual defaults or losses are higher than stressed at initial rating, thinner junior tranches are particularly susceptible to experiencing a much higher loss severity given a relatively mild increase in defaults or loss severity of the underlying collateral than would a much thicker senior tranche. However, it is important to note that a tranche with a given thickness that is highly rated on the LTC Rating scale is likely to experience a much lower actual loss than a subordinate tranche of equal thickness. This is because the PD - and therefore of a collateral loss sufficient to wipe out the highly rated class - is lower. It is therefore always necessary to consider loss severity - as indicated by the LS Rating - in conjunction with PD - as indicated by the LTC Rating.

- A tranche with a given thickness that is highly rated on the LTC Rating scale is likely to experience a much lower actual loss than a subordinate tranche of equal thickness, due to a lower default expectation.
- It is always necessary to consider Loss Severity (LS) Ratings in conjunction with probability of default (PD) (LTC Ratings).

Determining the Loss Severity Rating

LS Ratings will use a five-point scale, which will give investors a simple ordinal indicator of the relative risk of loss severity given default. The rating definitions for the LS Rating categories are outlined in a table on page 2. Determination of the rating category involves the determination of a Tranche Loss Multiple (TLM). The TLM is derived as follows:

1. The size of the tranche as a percentage of the collateral pool is calculated.
2. The base case loss expectation for the pool, expressed as a cumulative loss percentage over the life of the transaction, as appropriate for each particular asset class is determined. This may often broadly correspond to a 'B' level LTC Rating category but will not always be the case and could change over time.
3. The tranche percentage (1) is then divided by the base case loss (2) to derive a value called the Tranche Loss Multiple (TLM).

Examples

The practical application of LS Ratings is best illustrated by the means of examples:

Example 1: 'BBB' Tranche, Normal Tranching

Example 1: 'BBB' - Normal Tranching

Example	Capital Structure (%)	Tranche Loss Multiple Calculation (%)	Tranche Loss Multiple (x)	LS Rating
AAA	70	70 / 5	14	LS-1
A	22	22 / 5	4.4	LS-2
BBB	8	8 / 5	1.6	LS-3
Total	100			
Base Case Loss	5			

Source: Fitch

Consider an RMBS pool with a base case loss of 5% of the original collateral balance. Further assume that the securitisation contains a 'BBB' rated tranche that is sized to 8%. The next most senior rated tranche is rated 'A'. In this instance, the TLM will equal 8%/5% or 1.6x. Such a multiple corresponds - according to the LS Rating definitions on the front page - to an LS Rating of 'LS-3'.

Example 2: 'BBB' Tranche, "Hypertranching"

Example 2: 'BBB' - Hypertranching

Example	Capital Structure (%)	Tranche Loss Multiple Calculation (%)	Tranche Loss Multiple (x)	LS Rating
AAA	70	70 / 5	14	LS-1
A	22	22 / 5	4.4	LS-2
BBB+	7	7 / 5	1.4	LS-3
BBB	1	1 / 5	0.2	LS-5
Total	100			
Base Case Loss	5			

Source: Fitch

Consider a case with the same base case loss (5%) and tranche rating ('BBB') but assume a smaller tranche size. This could easily be the case if one assumes that the 'BBB' tranche is supporting a 'BBB+' tranche as the next highest rated class, versus assuming a 'A' tranche in the prior example. The 'BBB' tranche would be thinner in this example, as the difference between the 'BBB' loss expectation and the 'BBB+' loss expectation is smaller than the difference between 'BBB' and 'A'. In this

example, assuming that the tranche size is 1%, the TLM = 1%/5% or 0.2x. In this case, the LS Rating is therefore lower and corresponds to ‘LS-5’.

Example 3: ‘AAA’ Tranche, “Super”/“Support” Senior Tranches

Example 3: ‘AAA’ - “Super”/ “Support Seniors”

Example	Capital Structure (%)	Tranche Loss Multiple Calculation (%)	Tranche Loss Multiple (x)	LS Rating
AAA (Super)	60	60 / 5	12	LS-1
AAA (Support)	10	10 / 5	2	LS-3
A	22	22 / 5	4.4	LS-2
BBB	8	8 / 5	1.6	LS-3
Total	100			
Base Case Loss	5			

Source: Fitch

The LS Rating also provides additional information at the top of the capital structure. Many structured finance transactions in recent years have featured credit tranching among tranches that are rated ‘AAA’. While Fitch does not differentiate among these classes with respect to LTC Rating, the LS Rating does provide a mechanism for commenting on the relative LS given these low PD events occurring.

Building upon the example of the pool with 5% expected loss, the ‘AAA’ rating is assumed to be consistent with a 30% loss expectation, implying a ‘AAA’ size of 70%. However, the issuer in this instance chooses to create a 60% “super-senior” ‘AAA’, with a subordinate 10% “support-senior” ‘AAA’ tranche. These two tranches would have significantly different TLMs, with the super-senior at 60%/5% or 12x, whereas the support-senior TLM would be 10%/5% or 2x. The super-senior would be assigned an LS Rating of ‘LS-1’, whereas the support-senior would be assigned an LS Rating of ‘LS-3’ (a lower rating than the tranche immediately below it), indicating that for a class with very low default risk, the potential loss severity is relatively high, given the structure.

Examples Summary

Example	(1) ‘BBB’ example below ‘A’ tranche	(2) ‘BBB’ example below ‘BBB+’ tranche	(3) ‘AAA’ super senior example	(3) ‘AAA’ support senior example
Base case loss (%)	5	5	5	5
‘BBB’ tranche size (%)	8	1	n.a.	n.a.
‘AAA’ tranche size (%)	n.a.	n.a.	60	10
Tranche Loss Multiple (x)	1.6	0.2	12	2
Loss Severity Rating	LS-3	LS-5	LS-1	LS-3

Source: Fitch

Surveillance and Rating Actions

The LS Rating scale will be applied to both new and existing rated transactions. As time goes on, it is possible that LS Ratings could be subject to rating actions. Note, however, that a simple change in the LTC Rating of an issue will not necessarily have an impact on its LS Rating as the latter is assigned on the assumption that the tranche has defaulted. The main potential exceptions to this are when base case loss expectations change or when LS Ratings are replaced by Recovery Ratings (see below). Circumstances that could give rise to an LS Rating being raised or lowered are as follows:

- **Deleverage:** Over time, as principal repayments are received, these are typically passed through to noteholders with the senior-most noteholders usually receiving these funds first and amortising the size of the senior tranches. This will change the relative tranche proportions in a transaction. As the transaction delevers, the senior tranches will decline as a proportion of the

transaction, while the mezzanine and junior tranches will increase as a proportion of the transaction. As senior notes decline in size as they are amortised, this will lead to the tranches becoming thinner over time. As a result, they could see their LS Ratings lowered as, assuming default, there is less capacity to absorb losses. Conversely, as mezzanine and junior tranches increase as a proportion of the transaction, their LS Ratings could be increased. However, in practice, any ratings changes due to deleveraging would also need to take into account how such amortisation interacts with changes to base case losses. Actual rating changes, therefore, may be limited.

- **Changes to Base Case Loss:** As time goes on, the base case loss for a transaction may change. If performance proves to be worse than expected, then the base case losses for the remaining transaction life may be revised upward as part of the surveillance process. The result could mean that when tranche sizes are compared to the revised base case loss in the TLM calculation, they become relatively thinner. This could result in LS Ratings being lowered.

Similarly, assuming losses are within base case expectations, as a transaction seasons and losses are realised over time, the base case loss for the remainder of the asset portfolio may decline over time. As a result - depending upon how this change interacts with amortisation of the rated tranches - the LS Ratings could be raised.

Interaction with Recovery Ratings

Fitch already has an existing loss severity or Recovery Rating (RR) scale. RRs are designed to express an opinion on the extent of estimated recoveries on a forward-looking basis while taking into account the time value of money. The addition of an RR is restricted to securities that are deemed to be distressed, i.e. in default or very likely to default at contractual maturity. Such distressed securities are rated on a scale of 'CCC' to 'C' based on the degree of likely impairment vis-à-vis original contractual terms and are assigned an RR that further highlights the bonds as distressed.

As a relative measure, the LS Rating differs to the RR scale. RRs provide an ordinal opinion based on absolute recoveries or loss severity, rather than relative recoveries or loss severity as would be indicated by the LS Rating. Fitch recognises that the provision of two scales - one relative, one absolute - addressing recovery given default may be confusing to users. For this reason, LS Ratings will only be assigned to securities that are not deemed to be distressed. This will mean that only securities rated in the 'AAA' through 'B' categories will be assigned an LS Rating. Distressed securities with ratings in the range 'CCC' through 'C' will continue to be assigned an RR but will not be assigned an LS Rating. Despite this, clearly there will be some intuitive correlation between the two.

In the event that a security becomes distressed and the LTC Rating is lowered to the 'CCC' through 'C' range, then the previous LS Rating will be withdrawn and an RR will be assigned.

Key Questions

Is the addition of another rating scale not confusing?

There is the risk that another rating scale overlay additional to existing LTC Ratings risks giving users "too much information". However, Fitch believes that the time invested by users in analysing and understanding the new rating scales will ultimately be beneficial in providing more information to users on an aspect that traditional LTC Ratings do not address, namely loss severity.

Will LS Ratings be subject to Rating Watch or have an Outlook assigned?

No. Rating Watches and Outlooks will continue to be assigned only to the LTC Ratings assigned to tranches. This, in and of itself, will be an indication that there

- The Loss Severity (LS) Rating will differ from Fitch's existing Recovery Rating (RR).
- RRs are assigned only to distressed securities and are designed to express an opinion on the relative extent of estimated recoveries on a forward-looking basis.
- LS Ratings will only be assigned to securities that are not deemed to be distressed and will give an indication of the relative degree of risk that a security might suffer a high loss severity in the event that the security defaults.

is a heightened risk compared to before, of the loss severity - as indicated by the LS Rating - actually occurring.

Not all asset classes have a “base case loss”. How will LS Ratings work in these instances?

It is correct that some asset classes (for example, single tenant CMBS) do not have the base case loss that other more granular asset classes such as RMBS or consumer ABS usually have. LS Ratings will be launched at the outset in those asset classes that are able to determine a base case loss. Alternative approaches will be developed for asset classes where the concept of a base case loss does not apply and the basis for LS Rating derivation in these cases will be published at that time.

The LS Rating does not take into account structural features such as excess spread, reserve accounts or the nature of embedded hedging instruments. Is the way they are derived not too basic?

Fitch is proposing that the LS Rating is assigned using collateral loss expectations prior to considering excess interest, reserve accounts and other structural features as this simplifies their application and focuses the analysis on leverage and asset quality. It may prove less useful in assessing the risk of some securities because of this. However, in the agency’s view, a more complex approach involving detailed modelling would ultimately, for the most part, only serve to increase model risk and reduce transparency. Moreover, Fitch does not believe it would yield significantly different results.

Why not just consider tranche size alone rather than also relating to a base case loss?

Fitch believes the TLM measure is superior to simply considering tranche size alone. While assuming a tranche is defaulted implies that the current base case loss expectation has been exceeded, Fitch believes that relating the tranche size to the current base case loss expectation provides a better benchmark measure of the amount of variance that could result to expected collateral losses that could generate severe loss to a tranche. The higher the TLM, the greater the variance in collateral loss necessary to impair the tranche.

Why not incorporate the capital structure from below (or inversely from above) the tranche to assess the remoteness of the loss severity occurring?

Such a concept would begin to mix in elements of probability of default (PD) into the analysis, by giving an indication of how remote it would be for that degree of loss severity occurring. This would result in overlap with the LTC Rating itself and would generate results that would be highly correlated to the LTC Rating level. Consequently, Fitch believes the LS Rating would have limited additive value to the LTC Rating.

Why use the ‘B’ rating category assumptions as “base case loss”?

Many of Fitch’s asset class rating groups determine a base case loss as part of their analysis, which is intended as a base expectation for losses in a steady state situation. This base case is typically - but not always - anchored to the ‘B’ rating category. Where a particular rating group does not use the concept of the “base case” because of the nature of the asset class, then alternative approaches will be developed.

Will LS Ratings also be assigned to structured finance securities that have been assigned LTC Ratings on a national scale - rather than an international scale-basis?

Yes.

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