STANDARD & POOR'S RATINGS SERVICES
McGRAW HILL FINANCIAL

RatingsDirect®

Scenario and Sensitivity Analysis:

2015 EMEA RMBS Scenario And Sensitivity Analysis

Global Fixed Income Research:
Andrew H South, Managing Director, London (44) 20-7176-3712;
andrew.south@standardandpoors.com

Table Of Contents

Scenario and Sensitivity Analysis:

2015 EMEA RMBS Scenario And Sensitivity Analysis

Standard & Poor's Ratings Services' rating on a structured finance security represents our opinion of the security's creditworthiness. The single most important factor in our assessment of creditworthiness is the security's default risk over the remainder of its life, that is, the risk that it might fail to pay timely interest or ultimate principal. However, what may be less well understood is how and why this rating opinion may change over time.

This article illustrates how European residential mortgage-backed securities (RMBS) ratings may change over time, including analyses of the sensitivity of ratings to underlying analytical assumptions and discussion of how various market developments that move parameters built into the rating analysis may influence credit ratings.

Overview

- Our European RMBS ratings can change over time, due to changing transaction characteristics or changes in our assessment of the risks a transaction faces, for example, due to the changes in the macroeconomic environment.
- Data spanning 2000-2014 show that European GDP, unemployment rate, house price growth, net mortgage lending, and interest rates have been correlated with RMBS credit quality.
- Empirical evidence based on the 2008-2014 period reveals that a 1% contraction in EU-28 real GDP corresponded with an average 0.6-notch decline in European RMBS credit quality.
- Similarly, a one percentage point rise in the EU-28 unemployment rate corresponded with a 0.9-notch decline in average European RMBS credit quality, while a 10% decline in property prices was associated with a 2.5-notch decline.
- Our European RMBS ratings analysis depends on assumptions regarding the following key rating factors (among others): Foreclosure frequency, loss severity, foreclosure and recovery timing, prepayment rate, and interest rate.
- For a hypothetical RMBS transaction, a 50% increase in our base case foreclosure frequency or loss severity assumption could lead to a one-notch downgrade for investment-grade tranches, and a three or more notch downgrade for some speculative-grade tranches.

Ratings Must Be Able To Change Over Time

As time passes, the characteristics of an RMBS transaction's collateral pool and capital structure may change. There may also be developments in the economic and market environment to which the transaction is exposed, or changes in the characteristics of key transaction parties. Default risk on the rated securities is a function of all these factors, meaning that default risk changes over time. It follows that ratings may change over time too.

As part of our surveillance process, analysts continually monitor the securities we have rated throughout their lives and periodically reassess their ratings. Our surveillance approach generally reapplies the principles of the initial rating

analysis, but on an ongoing basis. The initial rating analysis is in one sense dynamic, since it is forward-looking and investigates how likely a tranche is to default at some point in the future. In another sense, however, the analysis is static, since it is informed by a "snapshot" of the transaction's collateral pool and liability structure at closing. In surveillance, it is this snapshot—the starting point for the analysis—that we regularly update to reflect developments in the collateral pool, liability structure, economic environment, and other relevant factors. As such, the appropriate rating level may also change.

There is, however, a limit to how far and how quickly higher ratings—associated with more creditworthy securities—should change over time. We therefore incorporate credit stability as an important factor in our rating opinions. When assigning and monitoring RMBS ratings, for example, we consider whether we believe a security has a high likelihood of experiencing unusually large adverse changes in credit quality under conditions of moderate stress. In such cases, we would assign the security a lower rating than we would otherwise have done (see "Methodology: Credit Stability Criteria," published on May 3, 2010).

How Might RMBS Ratings Change Over Time?

Conceptually there are two situations that could lead to rating changes.

First, the characteristics of the transaction itself may evolve over time. For example, realized losses in the underlying mortgage loan pool may cause a depletion of structural enhancements in the transaction, starting with excess spread, the reserve fund, and ultimately subordinate note principal. This could lead to downward pressure on the RMBS ratings. On the other hand, underlying mortgage loan prepayments in a sequential-pay transaction could lead to structural amortization, which increases the level of relative credit enhancement and may lead to upward pressure on the RMBS ratings, all else being equal. Other changes to the transaction may include changes to the composition of the underlying mortgage loan pool, changes in the key transaction parties providing services to the transaction, and so on.

However, a second mechanism that could lead to rating changes over time relates to changes in our assessment of the risks that the transaction faces, even if the pool composition and other aspects of the transaction were to remain static. For example, increasing loan seasoning may cause us to lower our assessment of the pool's credit risk, while rising loan-to-value (LTV) ratios caused by declining house prices, or rising delinquencies, for example, may increase our risk assessment.

Our changing assessment of the macroeconomic environment, based on GDP and unemployment forecasts, for example, may lead us to change our view of the likelihood that the collateral pool will suffer a given level of losses, which could have an effect on the ratings. Additionally, changes in the creditworthiness of the relevant sovereign government may change our view of the likelihood of high-severity "tail events" occurring (such as a currency re-denomination or a deposit freeze), which may also have implications for the RMBS ratings.

In practice, it is difficult to isolate these various effects, since many parameters that are relevant for the RMBS ratings will typically change at the same time. However, in the remainder of this article, we develop some analyses that provide an insight into how RMBS ratings may move under various conditions.

Scenario Analysis: How European RMBS Ratings Might Move Under Different Economic Conditions

Our RMBS ratings may be influenced by certain aspects of macroeconomic, mortgage, and housing market conditions. For example, when we analyze the credit quality of European RMBS collateral pools, the foreclosure frequency and loss severity stresses we apply to the transaction may be based to some extent on our outlook for such environmental factors. Therefore, market developments may change our stresses and, in turn, our ratings on the RMBS transaction.

Table 1 shows our current base-case forecast and downside scenario projections for some of the variables that we believe could affect European RMBS performance. The base-case forecast reflects our central expectation, while the downside case reflects a scenario in which the major downside risks materialize.

Table 1

Scenarios For European RMBS Collateral

	Actual	Base-case*		Downside*	
	2014	**2015**	**2016**	**2015**	**2016**
Real GDP (y/y growth, %)					
U.K.	2.8	2.6	2.8	2.6	2.5
Netherlands	0.9	2.0	2.1	1.9	1.7
Spain	1.4	3.0	2.6	2.9	1.9
Italy	(0.4)	0.5	1.0	0.5	0.5
Portugal	0.9	1.7	1.8	N.A.	N.A.
Unemployment rate (annual average, %)					
U.K.	6.1	5.4	5.2	5.4	5.3
Netherlands	7.4	6.9	6.6	6.9	6.7
Spain	24.5	22.2	20.6	22.3	20.8
Italy	12.7	12.6	12.4	12.6	12.6
Portugal	14.1	13.0	12.7	N.A.	N.A.
House prices (y/y growth, %)					
U.K.	10.0	7.0	5.0	N.A.	N.A.
Netherlands	2.2	3.0	2.5	N.A.	N.A.
Spain	0.0	2.5	2.5	N.A.	N.A.
Italy	(2.9)	0.0	2.5	N.A.	N.A.
Portugal	1.9	4.0	3.0	N.A.	N.A.
Net mortgage lending (year-on-year growth in balances, %)					
U.K.	1.7	2.4	3.0	N.A.	N.A.
Netherlands	(0.2)	1.1	3.2	N.A.	N.A.
Spain	(3.8)	(1.5)	2.0	N.A.	N.A.
Italy	(0.6)	0.2	2.9	N.A.	N.A.
Portugal	(3.5)	(1.9)	0.5	N.A.	N.A.
Central bank policy rates (annual average, %)					
Eurozone	0.16	0.05	0.05	N.A.	N.A.

Table 1

Scenarios For European RMBS Collateral (cont.)					
U.K.	0.50	0.50	0.83	N.A.	N.A.

*Base-case and downside forecasts as of July 2015. Sources: National statistics offices, OECD, Eurostat, Bank of England, European Central Bank, Standard & Poor's. N.A.--Not available.

A country's GDP growth is important for RMBS credit quality because it represents an overall measure of economic health. Fluctuations in GDP growth reflect the fortunes and creditworthiness of various economic agents, in our view, including borrowers backing RMBS transactions.

Unemployment is also a key determinant of RMBS credit quality because it directly affects household creditworthiness and consumer confidence. It is therefore a good proxy for collateral pool credit performance in transactions backed by loans to consumers, such as RMBS.

Property prices have a strong influence on RMBS credit quality because property price increases and declines, respectively, lower and raise leverage—and, to some extent, credit risk—in outstanding loans secured by property, such as those backing RMBS. Higher/lower property prices also mean lower/higher loss severities on defaulted loans respectively, with a consequent impact on credit risk.

The volume of net mortgage lending may be a general indicator of credit conditions in any given country's housing market. Typically, higher rates of net lending are associated with looser credit conditions and—at least in the short term—better credit performance.

Finally, interest rates may be an important driver of RMBS credit performance, as a higher interest rate environment may result in a greater risk of payment difficulties among the underlying mortgage borrowers. That said, there is often a complex relationship between headline central bank policy rates and the interest rates that borrowers actually pay on outstanding mortgage loans. Also, low central bank policy rates may represent a monetary policy response to wider economic weakness, and may therefore have a counter-intuitive correlation with mortgage credit performance.

In order to explore the degree of correlation between movements in these factors and European RMBS ratings, we analyzed the period between January 2000 and December 2014, calculating the 12-month trailing average change in RMBS credit quality. For the purpose of this study, we define the average change in credit quality as the average number of rating notches by which ratings change over a 12-month period, taking the average across all ratings, including those that remained stable and therefore underwent a change in credit quality of zero notches. Rating upgrades generally make this measure more positive, while downgrades make it more negative (see chart 1). We then assessed the correlations between monthly time series for the 12-month change in RMBS credit quality and the different economic and market factors listed above (see table 2).

Chart 1

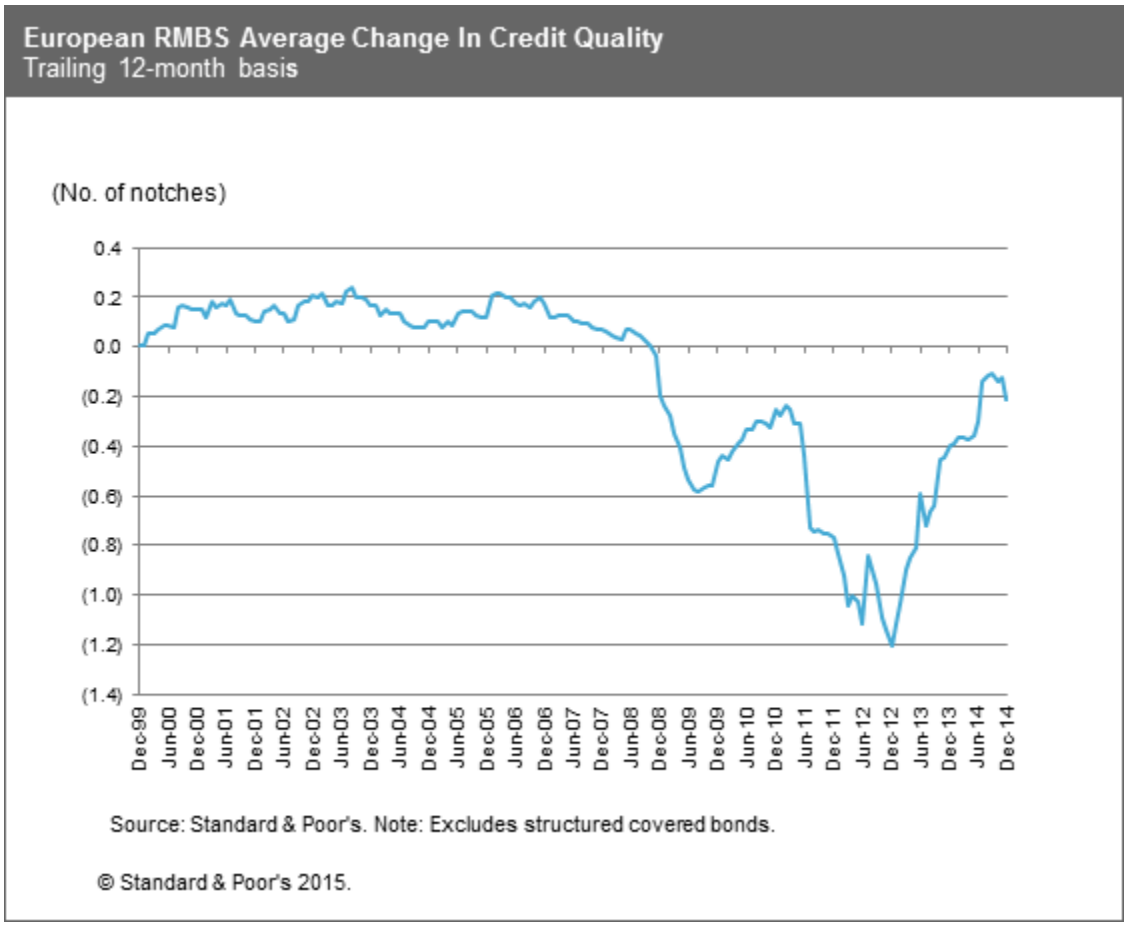


Table 2

Correlation Coefficients Between Economic Variables And European RMBS Ratings, 2000-2014

GDP	
EU-28 GDP growth, q/q	0.34
EU-28 GDP growth, q/q with one-year lag	0.45
Unemployment	
EU-28 unemployment rate	(0.66)
EU-28 unemployment rate change, y/y	(0.52)
House prices	
Price growth, y/y	0.82
Price growth, y/y with a one-year lag	0.78
Net mortgage lending	
Growth in balances, y/y	0.60
Growth in balances, y/y with a one-year lag	0.58
Interest rates	
Central bank policy rate*	0.78
3-month EURIBOR	0.72

Table 2

Correlation Coefficients Between Economic Variables And European RMBS Ratings, 2000-2014 (cont.)

10-year € swap rate	0.74

*Countries weighted by size of securitization market. EU-28--EU member states. Q/q--Quarter-on-quarter. Y/y--Year-on-year. Sources: Standard & Poor's, Eurostat, OECD.

We can further quantify the links between these five key macroeconomic and market factors and RMBS rating transitions during historically-observed benign and stress periods.

We considered the period between 2004 and 2008 to be an upturn, with benign credit conditions, during which European RMBS ratings generally trended higher. By contrast, we view the period between 2008 and 2014 as a downturn or stress scenario (see table 3).

Table 3

Historical Benign And Stress Scenarios For European RMBS Ratings

Upgrade trend (March 2004-March 2008)	
EU-28 real quarterly GDP	Rose by 11.3% between March 2004 and March 2008
EU-28 unemployment rate	Declined by 2.6 pps between March 2004 and March 2008
House prices*	Rose by 32% between March 2004 and March 2008
EU-28 mortgage balances outstanding	Rose by 37% between March 2004 and March 2008
Central bank policy rate*	Rose by 1.7 pps between March 2004 and March 2008
Credit quality of European RMBS	Rose by 0.6 notches between March 2004 and March 2008
Downgrade trend (March 2008-December 2014)	
EU-28 real quarterly GDP	Declined by 5.7% between March 2008 and June 2009
EU-28 unemployment rate	Rose by 4.2 pps between March 2008 and June 2013
House prices*	Declined by 13.5% between March 2008 and June 2013
EU-28 mortgage balances outstanding	Declined by 4% between March 2008 and December 2008
Central bank policy rate*	Declined by 4.3 pps between March 2008 and December 2014
Credit quality of European RMBS	Declined by 2.6 notches between March 2008 and December 2014

*Countries weighted by size of securitization market. EU-28--EU member states. Pps--Percentage points. Sources: Standard & Poor's, Eurostat, OECD.

Based on historical data, we approximated what the change in European RMBS credit quality might be should any of the economic variables change by a set amount (see table 4). For example, a 1% real decline in quarterly GDP in 2008-2014 was linked with an average 0.5-notch decline in credit quality for European RMBS tranches. Similarly, a one percentage point rise in the EU-28 unemployment rate coincided with a 0.6-notch average decline in credit quality, and a 5% drop in European property prices was linked to a one-notch decline.

Conversely, we can infer what degree of change in any of our key economic variables might coincide with a full rating category change in credit quality. For example, we calculate that the lowering of European RMBS average credit quality by a full rating category would correspond with a decrease of about 6.5% in EU-28 real quarterly GDP.

Table 4

European RMBS Scenario Analysis

Sensitivity analysis (notching effect; based on the 2008-2014 period)		
Economic variable	**Change**	**Average decline in credit quality (no. of notches)**
EU-28 real quarterly GDP	Each 1% decline	0.5
EU-28 unemployment rate	Each 1 pps increase	0.6
House prices*	Each 5% decline	1.0
EU-28 mortgage balances outstanding	Each 1% decline	0.7
Central bank policy rate*	Each 1 pps decline	0.6
Sensitivity analysis (rating category decline; based on the 2008-2014 period)		
Economic variable	**Change**	**Movement linked to a full rating category decline**
EU-28 real quarterly GDP	Decline (%)	6.5
EU-28 unemployment rate	Increase (pps)	4.8
House prices*	Decline (%)	15.3
EU-28 mortgage balances outstanding	Decline (%)	4.4
Central bank policy rate*	Decline (pps)	4.9
Worst-case scenario (based on the U.S. Great Depression)		
Economic variable	**Change**	**Average decline in credit quality (no. of notches)**
EU-28 real quarterly GDP	Cumulative 27% decline	7.9
EU-28 unemployment rate	Rises to 25%	6.7
House prices*	Assumed 50% decline	6.9
EU-28 mortgage balances outstanding	Assumed 25% decline	9.3
Best-case scenario (based on the 2004-2008 period)		
Economic variable	**Change**	**Average increase in credit quality (no. of notches)**
EU-28 real quarterly GDP	Cumulative 11% increase	0.6
EU-28 unemployment rate	Drops to 6.7%	0.7
House prices*	Assumed 32% increase	0.6
EU-28 mortgage balances outstanding	Assumed 37% increase	0.6
Central bank policy rate*	Rises to about 4.5%	1.5

*Countries weighted by size of securitization market. EU-28--EU member states. Pps--Percentage points. Source: Standard & Poor's.

Finally, we considered two scenarios—a "best case" scenario that replicates the market conditions in 2003-2007, and a "worst case" scenario similar to the U.S. Great Depression.

In the best case scenario we assumed a linear relationship between changes in macroeconomic factors and RMBS credit quality. However, in the worst case scenario—because the changes in macroeconomic factors are much more severe—we assumed a gradual decline progression based on decreasing geometric sequences, rather than simple linear relationships.

Our worst case scenario would likely result in substantial downward rating migration for European RMBS. For example, a 50% drop in property prices, or a 26.5% decline in EU-28 GDP would result in roughly a seven- or eight-notch average downgrade for European RMBS tranches, according to our analysis (see table 4). By contrast, a

repeat of the benign "best case" period from 2004-2008 could spur an average 0.8 notch rise.

Our analysis here discusses only one variable at a time. However, it implicitly assumes that all the selected macroeconomic variables move somewhat in parallel, as they did in recent history. If this relationship between the variables changes in the future, the likely rating effect could be different. We also note that during the benign period of 2004-2008, 'AAA' ratings accounted for a greater proportion of outstanding securities than they do today. Since we cannot raise 'AAA' ratings, our best-case scenario may understate the positive effect on structured finance ratings of a future benign period.

We note that many other factors affect rating trends, and some of our key rating assumptions are likely to be transaction-specific. For example, the creditworthiness of financial institutions that act as counterparties in securitizations is an important factor in our structured finance ratings analysis. Country risk also matters: declines in our sovereign debt ratings can affect structured finance ratings by limiting the maximum rating that we will assign to a structured finance security, given the increased risk of so-called "tail events", such as deposit freezes or currency redenomination, for example.

Over the past few months, we have published proposed changes to our methodologies for assessing Irish and Portuguese RMBS transactions for instance. The roll-out of these potential changes in rating methodologies and assumptions may lead to rating sensitivities and migrations differing from our scenario analysis.

Finally, while there may have been a correlation between certain economic factors and rating movements in the past, there may not be a causal relationship. The link may therefore not hold up in different future circumstances.

Sensitivity Analysis: How European RMBS Ratings Might Move Under Different Analytical Assumptions

In general, our ratings analysis may involve a series of assumptions regarding both qualitative and quantitative factors that we deem relevant to the creditworthiness of the rated issuer or security. For European RMBS ratings in particular, our analysis depends on assumptions regarding the following key rating factors (among others):

- Foreclosure frequency;
- Loss severity;
- Foreclosure and recovery timing;
- Prepayment rate; and
- Interest rate.

The assumptions we make for these factors are detailed in our RMBS criteria (see "Related Criteria"). If, for any reason, we change our assumptions for these rating factors, there could be an impact on the RMBS ratings.

If market developments suggest that a period of stress is becoming more or less likely, then we may decide to increase or decrease the foreclosure frequency assumption that we associate with a given rating level, and this could lead to a negative or positive impact on the RMBS ratings respectively. For example, we may assume that a foreclosure frequency of 8% is commensurate with a severe level of stress (i.e., a 'AA' rating scenario), and that a foreclosure

frequency of 6% is commensurate with a lower—but still substantial—level of stress (i.e., a 'A' rating scenario). In this case, we may rate a security 'AA' if it has sufficient credit enhancement to withstand a foreclosure frequency of 8% without defaulting. However, if there were a significant deterioration in the performance outlook or credit risk characteristics of the mortgage loan pool, we may raise our foreclosure frequency assumption for a 'AA' rating scenario to 9% and for a 'A' rating scenario to 8%, for example. In this case, without accounting for any other factor, we may lower the rating of the security to 'A' from 'AA'.

A similar logic applies to assumptions regarding the loss severity on the underlying mortgage loans. Below, we analyze the effect on the ratings of a hypothetical European RMBS transaction if our base-case expected loss—the product of foreclosure frequency and loss severity—were to move from a current level of, say, 0.4% up to a mildly stressed level (generally equivalent to a 'BB' rating scenario), which may be associated with a 0.6% loss, for example. We also analyze the effect of a further change commensurate with a moderate stress ('BBB'), which may be associated with a 1.4% loss. These are the levels of loss we currently associate with the different rating scenarios for a U.K. RMBS transaction backed by a pool of archetypical mortgage loans. Our equivalent assumptions for RMBS backed by collateral from other countries are detailed in our country-specific RMBS criteria publications (see "Related Criteria").

Table 5 provides the potential ratings impact for a hypothetical, newly-issued RMBS transaction under various changes in our base-case loss assumptions. The hypothetical transaction in table 5 uses subordination from lower-priority classes and assumes that the transaction does not rely on other features such as overcollateralization or excess spread. The results could vary when a transaction incorporates these types of additional credit enhancement.

Table 5

Sensitivity Analysis For A Hypothetical RMBS Transaction

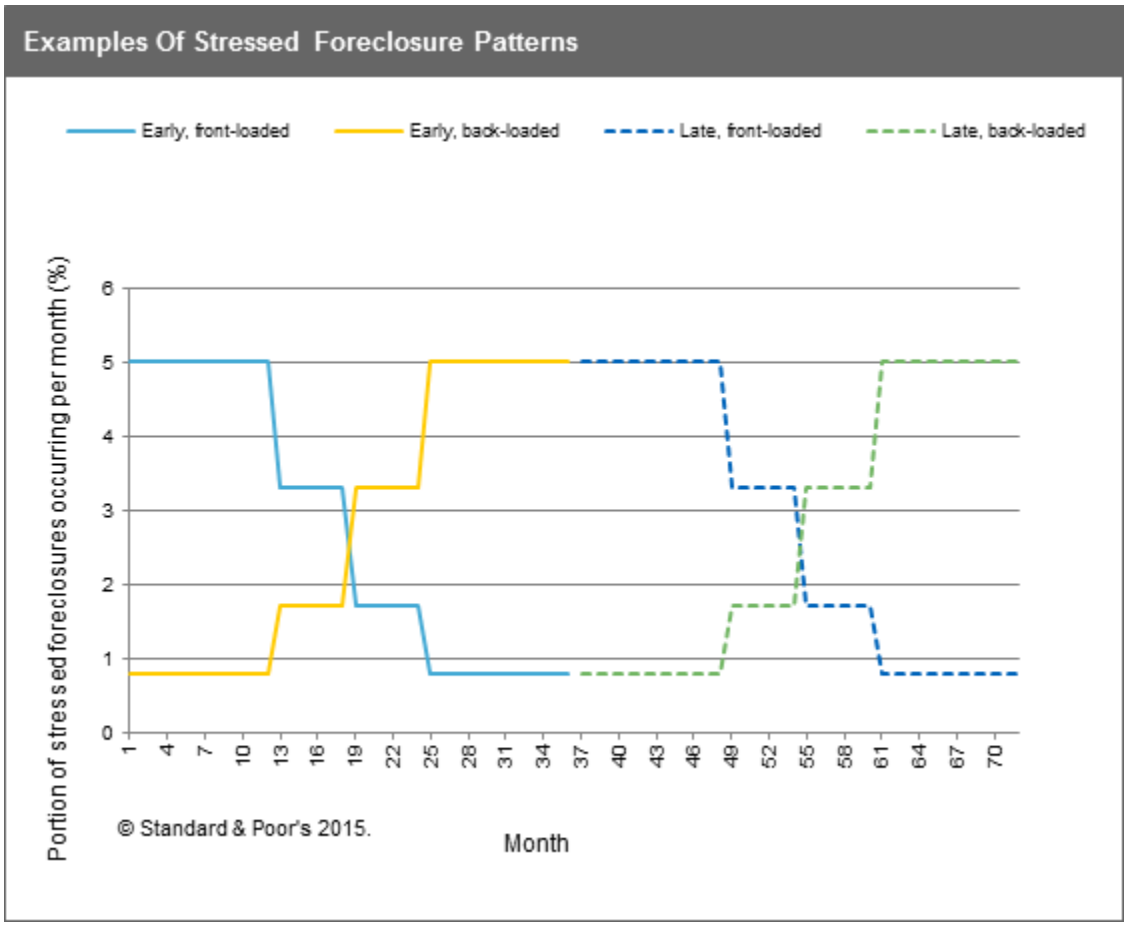
	Base case loss assumption* (%)		
Tranche	0.4	0.6	1.4
A	AAA	AAA	AAA
B	AA	AA-	AA-
C	A	A-	BBB
D	BBB	BBB-	B
E	BB	B	B- or lower
F	B	B- or lower	B- or lower

*Different levels may be due to changes in assumptions for foreclosure frequency and/or loss severity.

Although a rating could be contingent on other factors such as transaction participants, and a committee determines the rating, the hypothetical analysis displays some common themes. For example, higher-rated securities maintain higher ratings than lower-rated securities as the base-case loss assumption changes. This is consistent with our credit stability criteria, which note that higher ratings within the rating spectrum should be less volatile than lower ratings as other assumptions change.

Considering the other key rating factors, if foreclosure and recovery timings were earlier or later than assumed, this could have an impact on the credit rating, although the direction of the impact could differ from case to case. For example, in our analysis we may test whether a security can withstand a variety of assumed front-loaded and back-loaded foreclosure patterns without defaulting (see chart 2).

Chart 2



If we were to assume earlier foreclosures, this could have a negative impact on the credit rating for some securities if, for example, earlier foreclosures hinder the transaction's ability to build credit enhancement, such as a reserve fund. For other securities, earlier foreclosures could have a positive impact on the credit rating if, for example, there is more excess spread available to cure losses early in the transaction's life than there would be later in the transaction's life.

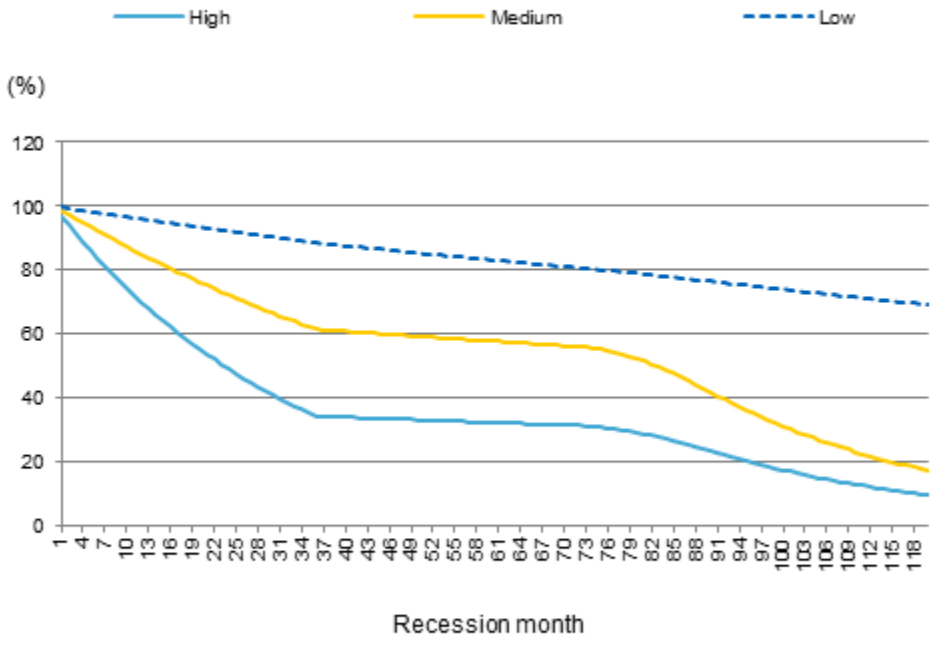
If interest rates evolved differently than assumed, this could have an impact on the credit rating, although the direction of the impact could differ from case to case. For example, in our analysis we may test whether a security can withstand a variety of interest rate paths without defaulting. Typically, we may model up to five different interest rate paths—up, down, up/down, down/up, and forward—with these paths varying by stress scenario. Specific structural features may involve using additional alternative interest rate patterns. If we were to assume higher interest rates, this could have a negative impact on the credit rating for some securities if, for example, the securities pay a floating rate while some of the underlying mortgage loans pay a fixed rate. For other securities, higher interest rates could have a positive impact on the credit rating if, for example, the securities pay a fixed rate while some of the underlying mortgage loans pay a floating rate.

Finally, if the prepayment rate were lower or higher than assumed, this could have an impact on the credit rating, although the direction of the impact could differ from case to case. For example, in our analysis we may test whether a

security can withstand a variety of high and low prepayment rates without defaulting. Typically, we may model up to three different prepayment rate paths, resulting in different rates of amortization of the collateral pool (see chart 3 for an example).

Chart 3

Pool Factor Evolution Under Example Stressed Annualized Prepayment Rate Assumptions



Note: Based on a late recession scenario, assuming no defaults.

If we were to assume a higher prepayment rate, this could have a negative impact on the credit rating for some securities if, for example, it reduces the excess spread available to cure later foreclosures. For other securities, a higher prepayment rate could have a positive impact on the credit rating if, for example, principal proceeds can be used to cover interest shortfalls.

Related Criteria And Research

Related Criteria

- Portugal RMBS Methodology And Assumptions, March 31, 2015
- Ireland RMBS Methodology And Assumptions, March 31, 2015
- Italy And Spain RMBS Methodology And Assumptions, Sept. 18, 2014
- U.K. RMBS Methodology And Assumptions, Dec. 9, 2011
- Understanding Standard & Poor's Rating Definitions, June 3, 2009

- Update To The Cash Flow Criteria For European RMBS Transactions, Jan. 6, 2009
- Update To The Criteria For Rating French Residential Mortgage-Backed Securities, Jan. 6, 2009
- Update To The Criteria For Rating German Residential Mortgage-Backed Securities, Jan. 6, 2009
- German Law Change Affects Mortgage Foreclosure Period Stresses, Nov. 28, 2008
- Assessing The NHG Guarantee In Dutch RMBS Transactions—A Prudent Approach, June 11, 2008
- Changes To The Treatment Of Potential Set-Off Risk In The Dutch RMBS Market, Sept. 8, 2006
- Dutch RMBS Market Overview And Criteria, Dec. 16, 2005
- Treatment Of Flexible Mortgage Loans In U.K. RMBS Transactions, April 6, 2005
- Cash Flow Criteria For European RMBS Transactions, Nov. 20, 2003
- Criteria For Rating French Residential Mortgage-Backed Securities, July 16, 2003
- Criteria For Rating U.K. Reverse Mortgage-Backed Securities, Aug. 8, 2002
- Criteria For Rating German Residential Mortgage-Backed Securities, Aug. 31, 2001

Related Research

- Outlook Assumptions For The U.K. Residential Mortgage Market, June 29, 2015
- The Eurozone Is Looking Up, For Now, March 31, 2015
- Low Interest Rates Are Only Slowly Reviving Europe's Housing Markets, Feb. 5, 2015
- Standard & Poor's Ratings Definitions, Nov. 20, 2014
- European Structured Finance Scenario And Sensitivity Analysis 2014: The Effects Of The Top Five Macroeconomic Factors, July 8, 2014
- Global Structured Finance Scenario And Sensitivity Analysis: Understanding The Effects Of Macroeconomic Factors On Credit Quality, July 2, 2014
- Credit Rating Model: CIR (Cox-Ingersoll-Ross) Interest Rate Model, Nov. 3, 2010
- U.K. RMBS Index Report, published quarterly
- Dutch RMBS Index Report, published quarterly
- Spanish RMBS Index Report, published quarterly
- Italian RMBS Index Report, published quarterly
- Portuguese RMBS Index Report, published quarterly

Additional Contacts:
Cian Chandler, London (44) 20-7176-3752; ChandlerC@standardandpoors.com
Anne Horlait, London (44) 20-7176-3920; anne.horlait@standardandpoors.com
Arnaud Checconi, London (44) 20-7176-3410; checconia@standardandpoors.com