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Bucketing of CMO Collateral

What Is "Bucketing"?

The collateral backing a CMO deal typically consists of many pools. Normally, most of these pools share similar age and WAC characteristics. In this case, the assumption that the collateral consists of identical loans with the average age and WAC of the *actual* underlying pools is a good approximation when applying a prepayment model in computing cash flows. In other words, rather than running the prepayment model for each pool separately, the pools are aggregated into a *single* average collateral *bucket* and the model is run just once (per interest-rate scenario).

If the collateral backing a deal consists of a very diverse set of pools, applying the model to a single average collateral bucket may still be a good approximation. For example, breaking up the collateral by WAC into three pieces (a high-WAC, middle-WAC, and low-WAC piece) for modeling usually gives results close to those obtained when applying the model to a single average collateral bucket. This is because the effect of the slower speeds for the low-WAC piece usually cancels out the effect of faster speeds for the high-WAC piece.

Collateral is categorized by age characteristics.

However, age dispersion does not always display such canceling-out behavior. In this case, assuming prepayment model projections are close to actual speeds, it is more accurate to model the collateral by breaking it up into multiple-age buckets (for example, the collateral might be "bucketed" into new, moderately seasoned, and seasoned categories).

An Example

For example, in the case of FHL.PC.191, bucketing does make a significant difference in modeling cash flows. The bucketing scheme that will be implemented

breaks the collateral for this deal into three major pieces with ages of 20, 28, and 49 months compared with an average age of 29 months for the entire deal. The middle bucket (age 28) is close to the average for the entire deal. However, the 20-month age bucket is much slower than the average (about 2.2% CPR slower) and the 49-month age bucket is somewhat faster than the average (about 0.8% CPR faster). In addition, the 20-month bucket is more than twice as large as the 49-month bucket, so prepay projections with bucketing are significantly lower if bucketing is applied (17.5% long-term CPR versus 18.2% long-term CPR with no bucketing).

Figure 26. FHL.PC.191 Collateral Long-Term CPRs

	Bucket	Age	Long-Term CPR (%)
With Bucketing	1	20Mos.	16.0
	2	28	18.3
	3	49	19.0
Average With Bucketing	Average	29	17.5
No Bucketing		29	18.2

Source: Salomon Smith Barney.

The impact of bucketing is an IO price increase of about 21 ticks. In contrast, FHL.PC.186, which has similar *average* collateral characteristics to FHL.PC.191, has little age dispersion and so is unaffected by the implementation of bucketing. (PC 186 is representative of the typical case, that is, bucketing does not affect most deals.)

Most deals will not be affected by bucketing.

Most Deals Will Not Be Affected

Only a relatively small fraction of deals will be affected by this change. For example, of the hundreds of IO/PO deals, only a handful will be significantly affected (and most of these have small remaining balances). Previously, bucketing was applied to certain deals on an ad hoc basis. Now, a uniform criterion will be applied to all agency deals to determine buckets.

How Are the Buckets Chosen?

The spectrum of origination dates is broken up into fixed pieces (buckets) such that, within each bucket, the prepayment model gives results that do not vary too much. If the collateral backing a deal has a great deal of age dispersion, it is broken up into these pre-defined buckets. More precisely, if more than 1% of the balance falls inside an origination date bucket, then a separate collateral piece is created.

When Will This Change Go Into Effect?

This change will go into effect with the upcoming June factor tapes. The Freddie Mac tape comes in Friday night, May 28, and so any affected Freddie deals will begin to reflect bucketing over the weekend. Any affected Fannie Mae deals will be updated with bucketing over the next weekend (after the Fannie tape comes in Friday night, June 4). And Ginnie Mae deals will be updated similarly (the Ginnie Mae tape comes in Monday, June 7). Nonagency deals will not be affected.