December 14th, 2016

Agency MBS Trading

Brian R. Landy, CFA / blandy@apsec.com / 646.776.7795

Agency Servicer Prepayment Rankings

Summary

The impact of servicers on agency prepayments can be very important, but it is often difficult to understand which servicers' pools are faster and slower. We produce a simple ranking to help highlight the relative prepayment behavior of servicers. This article explains the methodology and discusses the benefits and limitations of our approach.

Servicer Prepayments

A frequent concern in agency prepayments is the impact of the servicer of a pool on prepayments. If that servicer is also an originator, they have an incentive to solicit the borrower to refinance to prevent the borrower from prepaying with another lender and thereby losing the mortgage servicing rights (MSR) associated with that loan. Some servicers have proven very "efficient" at this solicitation.

In this article we describe the methodology we use to differentiate servicer prepayments and provide a simple example to illustrate the process. Then we will discuss some of the benefits and limitations of the approach.

Methodology

The core difficulty for comparing speeds from one servicer to the next is that each servicer's loan characteristics are potentially different. For example, it is pretty obvious you wouldn't compare one servicer's 7/1s with another servicer's 30-year mortgages. Similarly, one has to account for different coupon and vintage distributions. Furthermore, in order to truly get to the pure impact of the servicer, you would want to account for all other factors that drive prepayments—loan size, ltv, fico, TPO % (third-party originator %), and so on.

One way to do this is to run a prepayment model for each servicer's pools, and see if speeds were faster or slower than the model predicts for every servicer. However, this assumes that the model covers all important attributes and, more importantly, that the model is perfectly accurate—overall, and across all the included factors. But no model is perfect.

Another approach, and the one we took, doesn't require a model. Instead, we compare each servicer's pools to the universe of comparable pools. By definition, this benchmark is "accurate", since it is constructed from actual prepayments. On the other hand it isn't possible to incorporate nearly as many prepayment factors as a model. On balance, though, we feel this the proper trade-off.

For fixed rate pools, we chose to compare cohorts comprised of the product type (30-year, 15-year), coupon, vintage, and a few specified pool categories (principally loan balance and MHA pools). For hybrid pools we only look at product type (5/1, 7/1, etc.), coupon, and vintage. Also, although we will discuss this as if each pool is single-servicer, our rankings incorporate pools with multiple servicers.

Therefore each pool is mapped to the speed of the cohort of pools with the same product type, coupon, vintage (and specified pool type). To get the servicer's overall prepayment speed, we aggregate the individual pool speeds, weighted by the outstanding balance of each pool. To get the overall reference speed, we aggregate the speed that was mapped to each pool, weighted by *the same weights as the actual pool speeds*. This means that each servicer is given a customized reference speed to compare to, based on the specific portfolio of pools they service.

Example

An example should make this clearer. To keep things simple we'll use a universe of three servicers with a handful of cohorts, with the speeds shown in the exhibit below:

The numbers in the "Universe" column, which represent the overall speed of each cohort, are the speeds we will use to benchmark each servicer. At first glance, it appears that Servicer 2 might be the best (slowest) servicer, with its overall speed of 8.2 CPR much slower than the overall speed of 9.3 CPR. But we'll see that this is not the case.

Exhibit 1. Example Universe

Cohort	Servicer 1	Servicer 2	Servicer 3	Universe
2011 3.5	7.2	8.4	7.4	7.5
4.0	10.9	10.8	11.5	11.3
4.5	12.6	13.6	15.6	14.2
5.0	11.5	19.3	16.4	14.2
2013 3.0	4.0	3.6	4.4	4.2
3.5	7.4	6.5	7.1	7.1
4.0	15.5	15.6	16.4	16.1
Total	9.1	8.2	9.6	9.3

Source: Amherst Pierpont Securities

First, let's step through the calculations for Servicer 1:

In each row we print the servicer's outstanding balance and actual CPR for that cohort as well as the "reference CPR", which is a direct lookup of the universe CPR in the first table for that cohort. The last column shows the % difference between the two speeds (negative numbers ⇒ the servicer is slower; note that calculations are done on SMM, not CPR). In the bottom row we show the aggregate speeds, and in the bottom-right corner show the aggregate % difference; this number, −7.2% in this case, is what we will use to rank the servicers.

Exhibit 2. Servicer 1 Detail

Cohort	WAC	WALA	Balance	CPR	Ref. CPR	% Diff
2011 3.5	4.10	40	4	7.2	7.5	−4.3
4.0	4.57	41	14	10.9	11.3	−3.6
4.5	4.99	44	20	12.6	14.2	−12.0
5.0	5.38	44	7	11.5	14.2	−20.2
2013 3.0	3.63	22	30	4.0	4.2	−5.0
3.5	4.10	20	15	7.4	7.1	4.0
4.0	4.63	17	11	15.5	16.1	−3.6
Total	4.35	30	100	9.1	9.8	−7.2

Source: Amherst Pierpont Securities

The next tables show that Servicer 2, although the slowest servicer in terms of absolute speed at 8.2 CPR, actually scores at −4.1%, which is faster than Servicer 1's −7.2%. Servicer 3 ends up ranking fastest at +4.5%.

Exhibit 3. Servicer 2 and 3 Detail

Servicer 2

Cohort	WAC	WALA	Balance	CPR	Ref. CPR	% Diff
2011 3.5	4.03	41	8	8.4	7.5	12.5
4.0	4.44	44	15	10.8	11.3	−4.4
4.5	4.86	45	10	13.6	14.2	−4.8
5.0	5.29	45	2	19.3	14.2	39.4
2013 3.0	3.54	22	34	3.6	4.2	−13.9
3.5	3.99	20	21	6.5	7.1	−9.2
4.0	4.61	16	10	15.6	16.1	−2.8
Total	4.08	28	100	8.3	8.6	−4.1

Servicer 3

Cohort	WAC	WALA	Balance	CPR	Ref. CPR	% Diff
2011 3.5	4.03	40	6	7.4	7.5	−1.8
4.0	4.45	43	16	11.5	11.3	2.3
4.5	4.89	44	12	15.6	14.2	10.5
5.0	5.35	44	3	16.4	14.2	16.8
2013 3.0	3.59	22	31	4.4	4.2	5.4
3.5	4.02	19	19	7.1	7.1	0.5
4.0	4.59	16	12	16.4	16.1	2.1
Total	4.18	29	100	9.6	9.2	4.5

Source: Amherst Pierpont Securities

This final table summarizes everything in a form similar to the actual report:

We print wac and wala to give a sense of the aggregate characteristics driving a servicer's speeds. For example, Servicer 2 is the slowest, and has the lowest wac. However, Servicer 3 is the fastest but does not have the highest wac, which is another example of why they rank the worst.

Exhibit 4. Servicer Scoring Example

Last Servicer	Balance	WAC	WALA	CPR	Ref. CPR	% Diff
Servicer 1	29	4.35	30	9.1	9.8	−7.2
Servicer 2	12	4.08	28	8.3	8.6	−4.1
Servicer 3	59	4.18	29	9.6	9.2	4.5
Universe	100	4.22	29	9.3	9.3	0.0

Source: Amherst Pierpont Securities

Limitations

Obviously a lot of assumptions are made in distilling complex prepayment behavior into a simple ranking system, and when analyzing a bond it is important to understand that this is but one factor that should be considered. It is definitely possible that there are "good" bonds serviced by an entity that scores "poorly" in this system.

- The methodology assumes that servicer relationships are the same no matter the coupon, vintage, or spec pool category. This might not be true. Perhaps one servicer is extremely aggressive at targeting 4–12 wala loans, but other than for those loans prepays near the middle of the pack. The ranking would obscure this behavior.

- We don't consider every loan attribute. For example, TPO %. This means that a servicer that has more loans originated via TPO channels will likely rank worse (all else equal) than a servicer that does more retail business. So this isn't an indictment of any servicer, but more of a "heads-up" that you need to tread more carefully when looking at one of that servicer's pools. Perhaps you'll find they have some pools with a low TPO %, but are priced worse since the servicer has a bad reputation; such pools might prove to be a good value.

- Some servicers might be faster in a refi environment and slower in a turnover environment. The ranking assumes this isn't the case, although we provide ranks based on 3, 6, and 12-month speeds to help mitigate this problem.

- Behavior changes over time. A slow servicer could become more aggressive, and a fast servicer might feel capital markets pressure to cool activities and slow down. Past performance is not a guarantee of future performance, and this view is purely driven by past prepayments.

Summary

To help investors think about servicer prepayments, we developed a simple methodology to rank servicers based on their relative prepayment speeds. We discussed our methodology, the rationale for our approach, and some its limitations.

It is important to stress that this is one of many factors that should be considered when looking at a bond. There could be compensating factors to a specific bond that more than make up for the impact of a faster servicer. Overall, though, we feel this provides a useful tool to assist in understanding the prepayment characteristics of a bond.

Contact Us

New York City
Corporate Office
245 Park Avenue
15th Floor
New York, NY 10167

(646) 776-7700
(646) 776-7701 fax

Austin
5001 Plaza on the Lake
Suite 200
Austin, TX 78746

(512) 342-3000

Chicago
500 West Madison
Suite 3140
Chicago, IL 60661

(312) 224-9977
(877) 499-9977 toll free
(312) 224-9980 fax

Ft. Lauderdale
200 East Broward
Suite 1260
Ft. Lauderdale, FL 33301

(561) 620-5855

Houston
1900 West Loop South
Suite 600
Houston, TX 77027

(713) 888-9100
(800) 856-1111 toll free
(713) 888-9180 fax

Princeton
186 Princeton Hightstown Rd.
Building 3B, Suite 13
Princeton Junction, NJ 08550

(609) 786-2497
(609) 419-0830 fax

Red Bank
65 Monmouth St.
Suite 307
Red Bank, NJ 07701

(732) 212-1661

Westport
55 Saugatuck Avenue
Westport, CT 06880

(203) 221-8112
(203) 221-8114 fax

Disclaimer

This material is intended for discussion purposes only and is not meant to be, nor shall it be construed, as an offer or commitment by Amherst Pierpont or any of its affiliates to enter into any transaction. Should Amherst Pierpont subsequently seek to enter into any transaction, any such transaction would be subject to the conditions stated in the documentation therefore at that time.

In connection with recipient's decision to enter into any transaction, or to purchase or sell securities or other financial instruments, the recipient is advised to undertake an independent review of this material, and the potential legal, tax, regulatory and accounting implications of any transaction described herein to determine whether such a structure would be suitable for such recipient's particular situations. Amherst Pierpont is not providing any investment, legal, accounting, tax, financial or other advice to the recipient, nor is it acting as an advisor or fiduciary in respect of the recipient. This presentation is not intended to form the basis of an investment decision and contains insufficient information to make an investment decision. Amherst Pierpont accepts no responsibility or liability as to any reliance placed, or investment decision made, on the basis of such information by the recipient. Any illustrations contained herein are provided as examples only.

In making this material available, Amherst Pierpont (i) is not making any predictions or projections, (ii) intends that any recipient to which Amherst Pierpont has provided this material is an "institutional investor" (as defined under applicable law and regulation, including FINRA Rule 4512) and (iii) intends that this material will not be disseminated, in whole or part, to any third party by the recipient without Amherst Pierpont's prior written consent.

This material (i) has been prepared for information purposes only and does not constitute a solicitation or an offer to buy or sell any securities, related investments or other financial instruments, (ii) is neither research, a "research report" as commonly understood under the securities laws and regulations promulgated thereunder nor the product of a research department, (iii) has not been prepared in accordance with legal requirements designed to promote the independence of investment research, and is not subject to any prohibition on dealing ahead of the dissemination of investment research.

Amherst Pierpont (i) makes no representation or warranties as to the appropriateness or reliance for use in any transaction or as to the permissibility or legality of any financial instrument in any jurisdiction, (ii) believes the information in this material to be reliable, but has not independently verified such information, parts of which may have been obtained from third party sources, and makes no guaranty or representation, express or implied, with regard to the accuracy or completeness of such information, and (iii) does not undertake, and disclaims any duty to undertake, to update or to revise the information contained in this material. Unless otherwise stated, the views, opinions, forecasts, valuations, or estimates contained in this material are those solely as of the date of publication of this material, and are subject to change without notice.