

Small Balance Loan Prepayments

As of December 2022

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- This report presents a summary of Freddie Mac Multifamily Small Balance Loan (SBL or SB) voluntary prepayment activity over the past 12 months ending December 2022 (January 2022 through December 2022).
- We summarize prepayment speeds in aggregate and by product type, vintage, prepayment type, prepayment phase and FRESB deal.
- The 12-month average constant prepayment rate (CPR) is 16.4% as of December 2022 — down only slightly but mostly flat from the June 2022 CPR of 16.8%.
- Based on historical performance to date, we find that prepayment speeds increase with loan seasoning and declining prepayment premiums. As loans season and a growing population of loans move into periods with lower prepayment premiums, we expect prepayment activity to pick up. However, higher interest rates are slowing prepayment activity and may continue going forward.
- The focus of this report is on voluntary prepayments. There have been very few defaults in the SBL program — only \$42.0 million (11 basis points) in aggregate losses on a total securitized balance of \$39.5 billion in the program's history from October 2014 through December 2022.
- See our [SB-Deal® Investor Presentation](#) for background information on the program's history, mortgage products, the Freddie Mac Optigo® network and FRESB bond structure.

Freddie Mac Multifamily formally added the SBL line of business to its lending platform in October 2014. This program targets loans between \$1 million and \$7.5 million and offers prepayment flexibility to borrowers.

Through December 2022¹, Freddie Mac has funded and securitized nearly 14,800 SB loans totaling nearly \$40 billion of original unpaid principal balance (UPB), of which approximately \$13 billion have prepaid.

Prepayment Options Background

SB loan products include both hybrid ARMs and fixed-rate products across multiple loan terms, all with an array of prepayment options. SB loans generally offer more prepayment flexibility than our conventional loans, where the standard K-Deal[®] fixed-rate loan has a lockout period followed by defeasance or yield maintenance.

Exhibit 1 shows the mix of SBL products and available prepayment types, along with the percentage of total origination volume across product types and prepayment options since the inception of the SBL program in 2014. The 5-year hybrid and 10-year fixed-rate products make up 65% of our business. The most popular prepayment option is yield maintenance, particularly for 10-year fixed-rate loans. These loans make up 47% of total business. The second most popular prepayment option starts with a 5% prepayment premium and then steps down, or declines, over the term of the loan — Option 1.

Exhibit 1: Loan Products & Available Prepayment Options

Option	Hybrids			Fixed-Rate			Total % Business
	5H	7H	10H	5F	7F	10F	
1	54321, 1%	5544321, 1%	5544332211, 1%	54321	5544321	5544332211	41%
2	321(3), 1%	3(2)2(2)1(3), 1%	3(3)2(3)1(4), 1%	321(3)	3(2)2(2)1(3)	3(3)2(3)1(4)	7%
3	(YM or 1%) + 1%, 1%	(YM or 1%) + 1%, 1%	(YM or 1%) + 1%, 1%	YM or 1%	YM or 1%	YM or 1%	47%
4	310(3), 0%	N/A	N/A	310(3)	N/A	N/A	5%
Total % Business	33%	8%	14%	6%	8%	32%	100%

Source: Freddie Mac. We frequently use shorthand above to define the products; for example, we refer to the 5-year Hybrid as "5H" and the 10-year Fixed Balloon as "10F." Option 3 refers to Yield Maintenance (YM) but includes legacy YM or 1%, +1%, 1% loans. See the [SBL Product page](#) for more details. May not sum to 100% due to rounding.

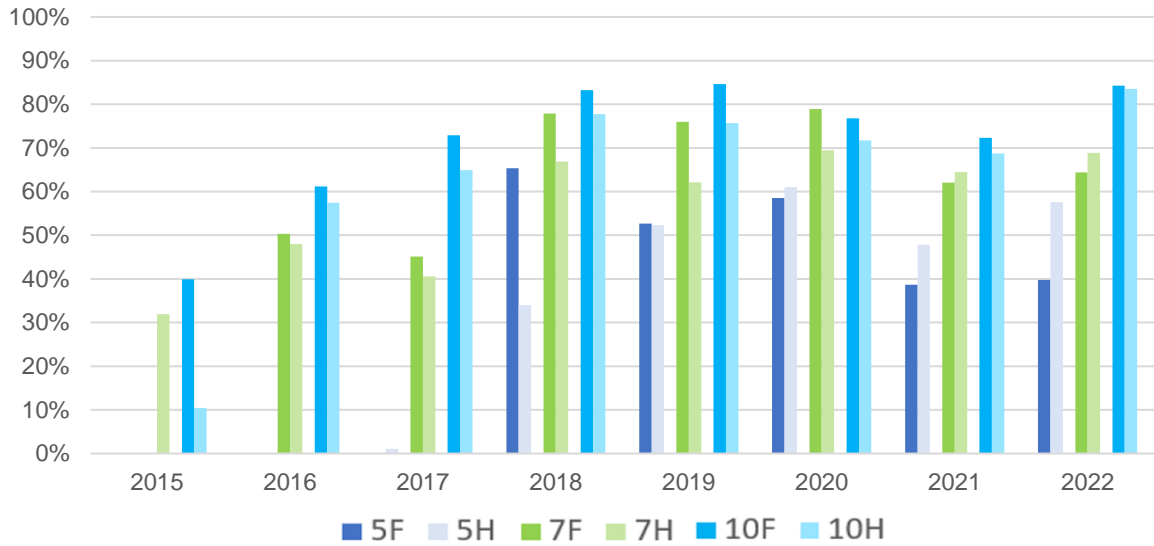
¹ All data points in this report are as of December 2022 unless otherwise stated. This analysis excludes third-party seasoned loans not typical of the program.

The Freddie Mac SBL program offers borrowers prepayment options along with a number of different products.

The share of borrowers choosing yield maintenance remains high, especially in our 7- and 10-year products, as shown below in Exhibit 2. We see a dip in the share electing for yield maintenance in 2020 and 2021, but a rebound in 2022 especially among the long-term vintages.

Exhibit 2: Percentage of Active Loans with Yield Maintenance by Vintage and Product Type

Yield maintenance remains high, especially in our 7- and 10-year products.

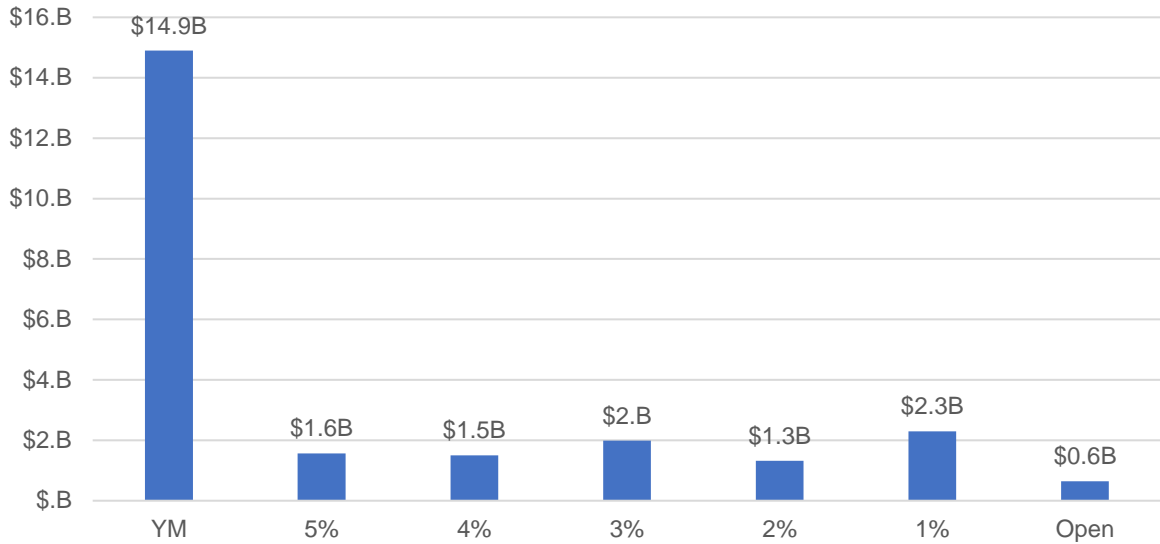


Source: Freddie Mac

Several factors drive prepayment behavior, including an incentive to prepay when interest rates fall or when property values rise. However, the existence of a prepayment premium can mitigate both of those factors. Currently, most of our outstanding loans are still subject to prepayment premiums, primarily in the form of either yield maintenance or a fixed percentage prepayment premium, as shown in Exhibit 3.

Exhibit 3: Outstanding Loan Balance by Prepayment Phase

Loans with yield maintenance options saw the lowest CPR compared with loans with stepdown prepay options.



Source: Freddie Mac

Prepayment Speeds by Loan Characteristics

For the 12 months ending in December 2022, the number of loans that prepaid decreased 2% in comparison with the June 2022 report. Over the 12 months ending December 2022, 1,739 loans prepaid. The total number of loans that have prepaid since the program’s inception is just under 4,900. Exhibit 4 is a summary of the payoffs across different prepayment options (shown in Exhibit 1), prepayment phase, vintage and product type during the 12-month period ending in December 2022.² The population of loans with the most flexible prepayment terms (1% or open) decreased 7%, from approximately \$2.5 billion in June 2022 to approximately \$2.3 billion in December 2022, and overall constitutes approximately 9% of outstanding UPB.

Exhibit 4: Payoff Summary by Loan Count in the Past 12 Months

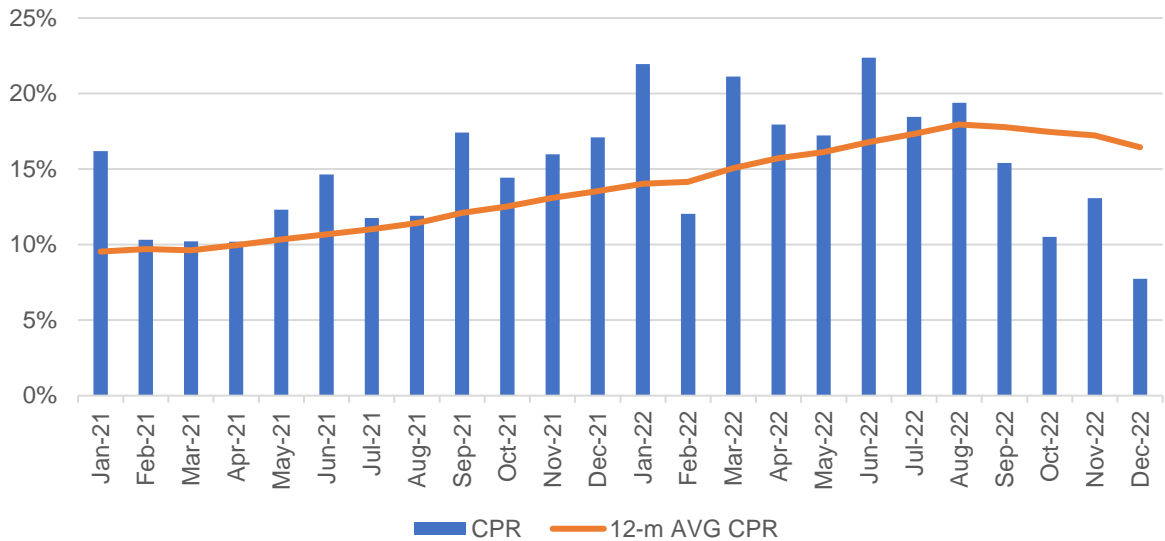
Prepayment Option	1	2	3	4				Total
	895	106	629	109				1,739
Prepayment Phase	YM	5%	4%	3%	2%	1%	Open	
	500	51	167	179	217	523	102	1,739
Vintage	2014	2015	2016	2017	2018	2019	2020	
	1	83	160	556	404	300	165	1,739
Product	5H	7H	10H	5F	7F	10F		
	793	97	173	72	107	497	1,739	

Source: Freddie Mac

² For additional details on prepaids since inception of the SBL line of business, please see the [May 2019](#), the [November 2019](#), [November 2020](#), [October 2021](#), [May 2022](#) and [November 2022](#) SBL Prepay Reports. For additional details around FRESB loan payoffs, please reference our [SB-Deal Performance Presentation](#).

The 12-month average CPR is 16.4% as of December 2022, down only slightly from 16.8% in the June 2022 report. Interest rates were relatively low to start 2022 but increased quickly, while property values grew for much of year before flattening and then declining toward the end of year. The rising interest rates and flattening property price growth led to slowdown in borrower prepayment activity during the second half of 2022. In Exhibit 5, we see a significant slowdown in CPRs starting in October through December 2022 given higher interest rates and lower property prices.

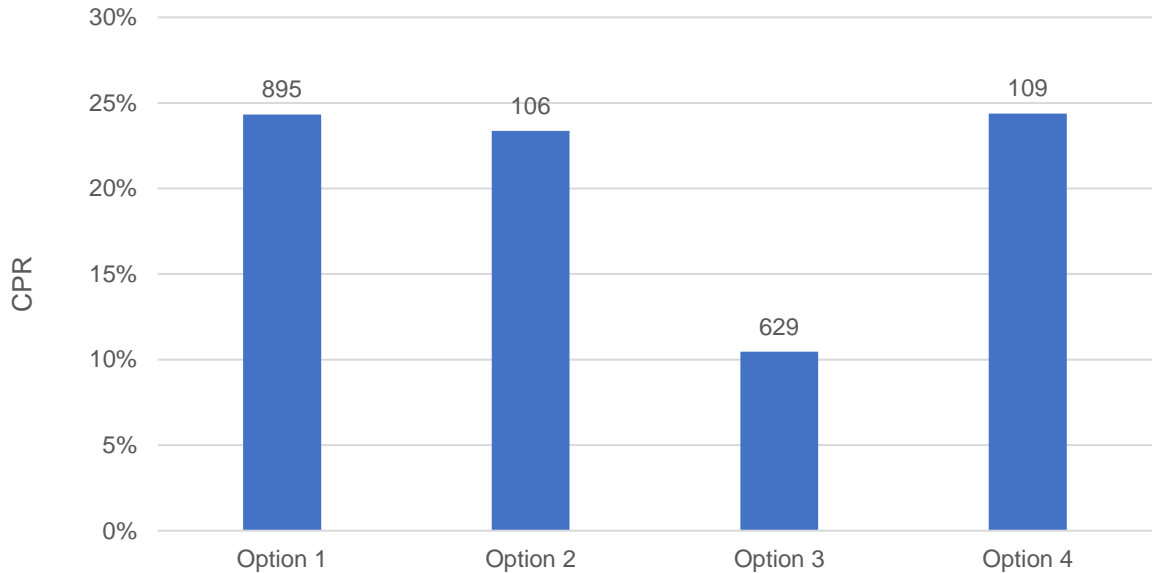
Exhibit 5: Annualized and 12-Month Average CPR



In the following exhibits, we present prepayment speed across various characteristics over the 12 months ending December 2022. We have continued to observe a large number of prepayments utilizing Option 1, at 895 loans of the 1,739 loans that have prepaid. As shown in Exhibit 6, Options 1, 2 and 4 have experienced higher prepayment rates of 23% to 24%, while Option 3 is substantially lower at 10%. This is a similar pattern to what we saw in the last report, with elevated prepayment rates for Options 1, 2 and 4 and a lower rate for Option 3. This difference is due to the greater prepayment flexibility Options 1, 2 and 4 provide compared with yield maintenance in Option 3.

Exhibit 6: CPR by Prepayment Option in the Past 12 Months

Loan prepayments decreased slightly in 2022, with prepayment Option 1 leading the way, along with loans that originated in 2017-2019.

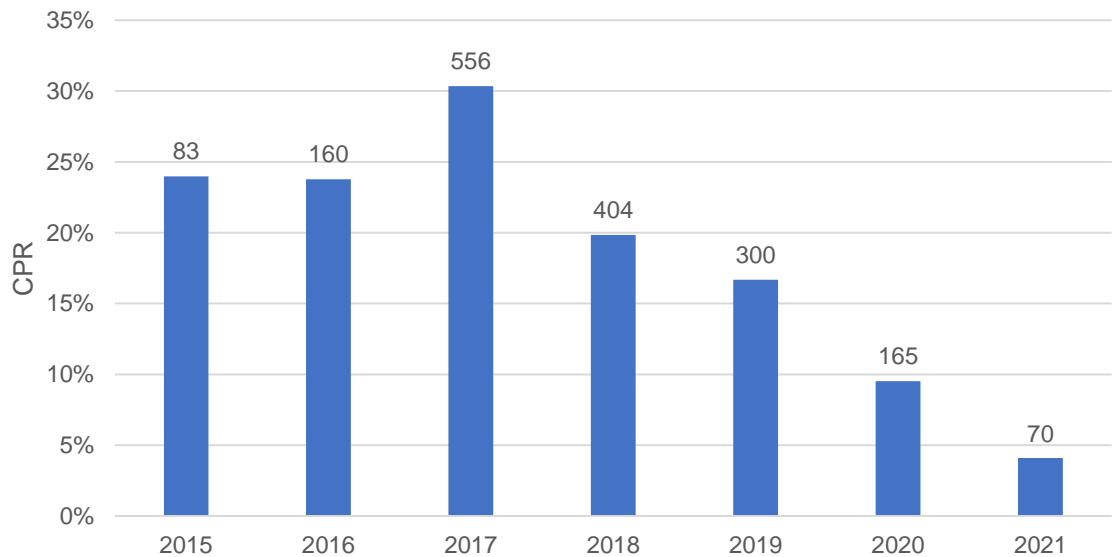


Source: Freddie Mac

The largest number of loans that have prepaid come from the 2017 through 2019 vintages, as loans in those years have had time to season. The older vintages had lower origination volumes and have already had many loans pay off. Therefore, we do not experience high payoff activity by loan count but see elevated CPR rates in those years. Exhibit 7 shows that loans that originated in 2017 have the highest prepayment speed with a 12-month average CPR of 30%. Generally, the less seasoned a loan, the slower the CPR, with originations from 2021 down to 4%.

Exhibit 7: CPR by Origination Vintage and Payoff Loan Counts in the Past 12 Months

As loans season, the CPR increases.

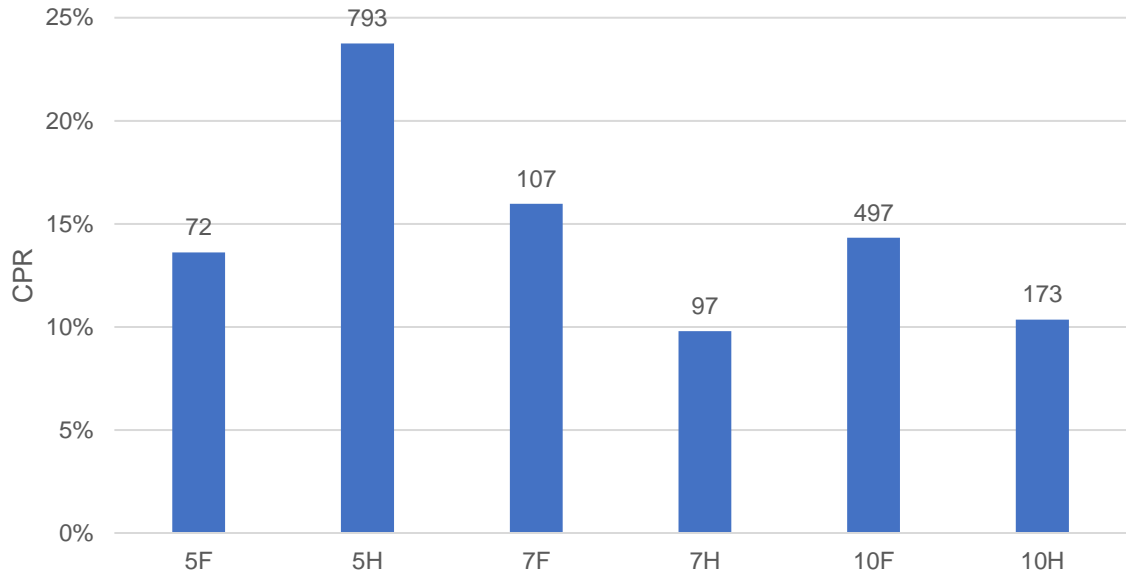


Source: Freddie Mac

Exhibit 8 below shows that CPRs are fastest for the 5-year hybrid loans with speeds of 24%. By loan count, the greatest number of prepaid loans are among the 5-year hybrid and 10-year fixed-rate products, with 793 and 497 prepaays, respectively, as they are the most common loan types chosen by borrowers.

Exhibit 8: CPR by Product Type and Payoff Loan Counts in the Past 12 Months

Loans with longer terms typically have more punitive prepayment structures and lower CPRs.



Source: Freddie Mac

A total of 1,930 5-year hybrid loans that were originated prior to November 2017 converted to floating rate by the December 2022 data cut-off of this report, as shown in Exhibit 9. Once converted, the standard prepayment premium is 1% (unless refinanced with Freddie Mac, in which case the prepayment is contractually not due). Of those 1,930 loans, 975 either paid off or were refinanced prior to converting to floating rate, while the remaining 955 converted to floating rate, for an overall conversion rate of 49%. Of those loans that converted to floating rate, 41% or 390 loans paid off after they extended into their floating-rate period.

Exhibit 9: Analysis of 5-Year Hybrid Loan Conversion Rates

Origination Month	Originated 5H Loans	Loans Paid Off/Refinanced	Loans Converted	First Interest Adjustment Date	Conversion Rate	Floating Loans as of December 2022
Oct 2014	1	1	0	--	--	--
Nov 2014	1	1	0	--	--	--
Dec 2014	6	1	5	Jan 2020	63%	4
Jan 2015	5	5	0	Feb 2020	38%	--
Feb 2015	9	6	3	Mar 2020	36%	0
Mar 2015	14	10	4	Apr 2020	33%	3
Apr 2015	9	5	4	May 2020	36%	1

May 2015	9	6	3	Jun 2020	35%	1
Jun 2015	28	14	14	Jul 2020	40%	5
Jul 2015	31	14	17	Aug 2020	44%	6
Aug 2015	50	18	32	Sep 2020	50%	16
Sep 2015	68	32	36	Oct 2020	51%	21
Oct 2015	50	26	24	Nov 2020	51%	8
Nov 2015	42	18	24	Dec 2020	51%	9
Dec 2015	71	34	37	Jan 2021	52%	17
Jan 2016	53	26	27	Feb 2021	51%	11
Feb 2016	56	27	29	Mar 2021	51%	12
Mar 2016	70	42	28	Apr 2021	50%	7
Apr 2016	56	31	25	May 2021	50%	12
May 2016	53	18	35	Jun 2021	51%	24
Jun 2016	67	40	27	Jul 2021	50%	16
Jul 2016	26	12	14	Aug 2021	50%	5
Aug 2016	28	15	13	Sep 2021	50%	10
Sep 2016	30	18	12	Oct 2021	50%	7
Oct 2016	46	23	23	Nov 2021	50%	13
Nov 2016	42	22	20	Dec 2021	50%	9
Dec 2016	99	34	65	Jan 2022	51%	37
Jan 2017	80	43	37	Feb 2022	51%	14
Feb 2017	60	28	32	Mar 2022	51%	20
Mar 2017	86	42	44	Apr 2022	51%	31
Apr 2017	45	20	25	May 2022	51%	19
May 2017	88	34	54	Jun 2022	52%	38
Jun 2017	96	63	33	Jul 2022	51%	24
Jul 2017	69	38	31	Aug 2022	50%	15
Aug 2017	148	99	49	Sep 2022	49%	26
Sep 2017	103	43	60	Oct 2022	49%	55
Oct 2017	57	28	29	Nov 2022	49%	29
Nov 2017	78	38	40	Dec 2022	49%	40
Total	1930	975	955		49%	565

Source: Freddie Mac

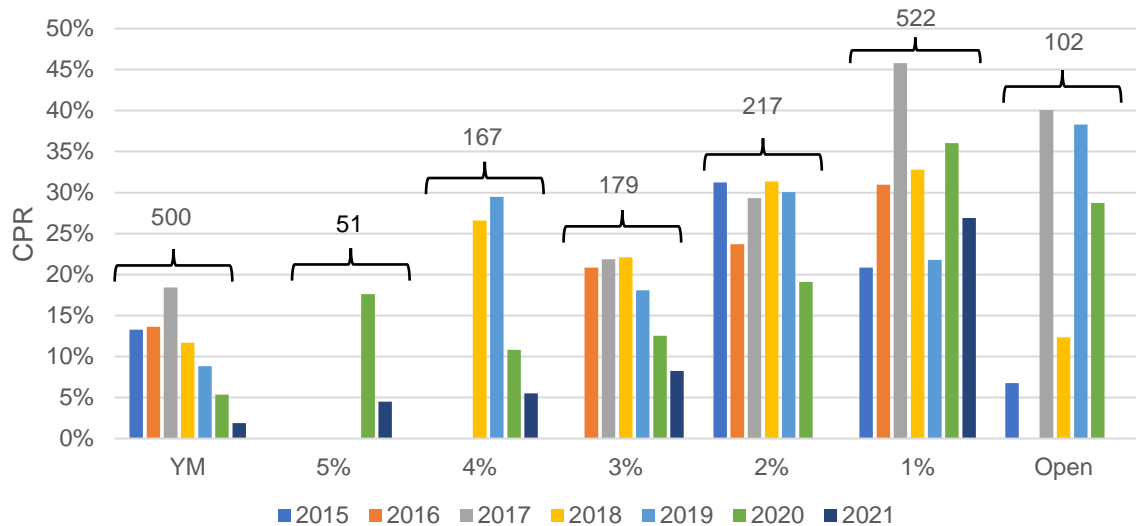
As of May 2022, 7-year hybrid loans that were originated starting in November of 2014 started converting to floating rate. A total of 10 loans converted to floating rate as of December 2022, shown in Exhibit 10. Once converted, the standard prepayment premium is 1% (unless refinanced with Freddie Mac, in which case the prepayment is contractually not due). There were 46 total loans that would have been up for conversion, but 36 loans either paid off or were refinanced prior to their conversion date. This puts the overall conversion rate at 22%. Of those 10 loans that converted to floating rate, one loan paid off after their conversion.

Exhibit 10: Analysis of 7-Year Hybrid Loan Conversion Rates

Origination Month	Originated 7H Loans	Loans Paid Off/Refinanced	Loans Converted	First Interest Adjustment Date	Conversion Rate	Floating Loans as of December 2022
Nov 2014	1	1	0	Dec 2021	0%	--
Dec 2014	0	0	0	Jan 2022	0%	--
Jan 2015	0	0	0	Feb 2022	0%	--
Feb 2015	1	1	0	Mar 2022	0%	--
Mar 2015	0	0	0	Apr 2022	0%	--
Apr 2015	4	3	1	May 2022	17%	1
May 2015	2	2	0	Jun 2022	13%	--
Jun 2015	6	5	1	Jul 2022	14%	1
Jul 2015	13	10	3	Aug 2022	19%	2
Aug 2015	6	3	3	Sep 2022	24%	3
Sep 2015	4	4	0	Oct 2022	22%	--
Oct 2015	6	5	1	Nov 2022	21%	1
Nov 2015	3	2	1	Dec 2022	22%	1
Total	46	36	10		22%	9

Historically, as loans season and enter lower prepayment premium periods, we expect loans to prepay more quickly and for CPRs to increase. This is illustrated below in Exhibit 11, where the prepayment speed increases as the seasoning increases and prepayment premium decreases.

Exhibit 11: CPR by Loan Prepayment Phase, Year and Payoff Counts in the Past 12 Months



Source: Freddie Mac

Exhibit 12 shows CPRs and prepayment count by Freddie Mac SB-Deal (see Appendix for additional chart). Because the history is short and SB-Deals are more heterogenous compared with K-Deals, we

observe an uneven, albeit generally downward trending prepayment history over time, but the most seasoned deals are slowing. Some of the unevenness can be attributed to large pools of loans in deals paying off, inflating an individual deal's CPR. However, in general, the longer the deal has been outstanding, the higher the prepayment rate.

Exhibit 12: CPR, Initial UPB and Loan Count of Payoffs by FRESB Deal

Deal	Initial UPB, \$M	CPR	Paid off Loan count in the past 12 months	Deal	Initial UPB, \$M	CPR	Paid off Loan count in the past 12 months
SB001	121	10%	2	SB049	208	19%	49
SB002	42	19%	4	SB050	180	16%	23
SB004	71	30%	12	SB051	509	21%	39
SB005	66	26%	6	SB052	564	18%	29
SB006	73	22%	8	SB053	590	16%	36
SB007	40	43%	12	SB054	539	25%	33
SB009	155	20%	19	SB055	608	22%	47
SB010	60	18%	7	SB056	565	20%	35
SB011	55	22%	6	SB057	578	14%	26
SB012	67	10%	5	SB058	624	17%	36
SB013	160	31%	21	SB059	626	21%	44
SB014	115	25%	21	SB060	625	27%	52
SB015	117	20%	10	SB061	616	21%	40
SB016	154	29%	25	SB062	625	10%	20
SB017	165	21%	15	SB063	531	18%	30
SB018	58	19%	7	SB064	443	19%	26
SB020	118	13%	11	SB065	615	20%	41
SB021	37	8%	2	SB066	575	21%	40
SB022	94	20%	14	SB067	605	15%	27
SB023	123	26%	20	SB068	537	13%	26
SB024	107	22%	14	SB069	460	16%	23
SB025	106	15%	13	SB070	414	11%	15
SB026	84	20%	15	SB071	423	16%	22
SB027	93	26%	20	SB072	381	12%	18
SB028	151	22%	22	SB073	333	16%	16
SB029	100	27%	33	SB074	419	9%	15
SB030	132	33%	28	SB075	494	4%	6
SB031	98	23%	19	SB076	432	3%	6
SB032	144	22%	28	SB077	426	8%	14

Deal	Initial UPB, M \$	CPR	Paid off Loan count in the past 12 months	Deal	Initial UPB, M \$	CPR	Paid off Loan count in the past 12 months
SB033	108	32%	25	SB078	411	11%	17
SB034	125	29%	21	SB079	410	4%	5
SB035	114	27%	30	SB080	405	5%	10
SB036	131	24%	30	SB081	323	9%	16
SB037	137	13%	20	SB082	450	10%	16
SB038	105	21%	24	SB083	401	7%	11
SB039	95	29%	22	SB084	403	7%	12
SB040	119	16%	17	SB085	428	5%	7
SB041	110	27%	20	SB086	414	5%	9
SB042	119	17%	21	SB087	430	6%	6
SB043	111	17%	15	SB088	426	2%	5
SB044	109	16%	19	SB089	426	2%	3
SB045	155	32%	36	SB090	450	2%	3
SB046	169	12%	18	SB092	390	5%	3
SB047	209	18%	32	SB093	422	1%	1
SB048	236	21%	43	SB099	476	2%	1

Source: Freddie Mac

Summary

There are many factors that drive prepayment behavior, some of which are idiosyncratic. Typically, as loans season and property values increase, the prepayment rates increase. Additionally, 5- and 7-year hybrid loans started to convert in 2020 and 2022, respectively, which would lead to higher level of prepayments. This is because most prepayments were made on seasoned loans, while recently originated loans are still unable to prepay. However, the higher interest rates and lower property values slowed down prepayment rate activity, which was observed in the last few months of 2022.

Appendix: CPR by FRESB Deal in the Past 12 Months

