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Data Point: 2022 Mortgage Market Activity and Trends

Consumer Financial Protection Bureau

This is another in an occasional series of publications from the Consumer Financial Protection Bureau's Office of Research. These publications are intended to further the CFPB's objective of providing an evidence-based perspective on consumer financial markets, consumer behavior, and regulations to inform the public discourse. *See* 12 U.S.C. §5493(d).[1]

[1] This report was prepared by Feng Liu, Young Jo, and Noah Cohen-Harding.

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1. Introduction

This Data Point article provides an overview of residential mortgage lending in 2022 based on the data collected under the Home Mortgage Disclosure Act (HMDA). HMDA is a data collection, reporting, and disclosure statute enacted in 1975. HMDA data are used to assist in determining whether financial institutions are serving the housing credit needs of their local communities; facilitate public entities' distribution of funds to local communities to attract private investment; and help identify possible discriminatory lending patterns and enforce antidiscrimination statutes.[1] Institutions covered by HMDA are required to collect and report specified information about each mortgage application acted upon and mortgage purchased. The data include the disposition of each application for mortgage credit; the type, purpose, and characteristics of each home mortgage application or purchased loan; the census-tract designations of the properties; loan pricing information; demographic and other information about loan applicants, such as their race, ethnicity, sex, age, and income; and information about loan sales.[2]

The 2022 HMDA data[3] are the fifth year of data that incorporate amendments made to HMDA by the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (DFA). On June 29, 2023, the Consumer Financial Protection Bureau (CFPB) published a static application-level 2022 HMDA data file that consolidates data from individual reporters. The data file is modified to protect applicant and borrower privacy.[4] The data file and the Data Point article reflect the data as of May 1, 2023. Though this static file will not change, the CFPB will also provide an updated file separately to reflect any later resubmissions or late submissions. The results using the updated file may differ from those reported in this Data Point article, although the CFPB expects them to be largely consistent.

Overall, 2022 is a year marked by a significant downturn of mortgage lending activities across all major segments, except for lending in open-end lines of credit. The remainder of this article

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[1] For a brief history of HMDA, see Federal Financial Institutions Examination Council, "History of HMDA," available at www.ffiec.gov/hmda/history2.htm (last modified Sept. 06, 2018).

[2] See *Filing instructions guide for HMDA data collected in 2022* (November 2020), available at https://s3.amazonaws.com/cfpb-hmda-public/prod/help/2022-hmda-fig.pdf for a full list of items reported under HMDA for 2022.

[3] The 2022 HMDA data, which are used for the analysis of this Data Point, cover mortgage applications acted upon and mortgages purchased during the calendar year of 2022 and reported in 2023. Similarly, the 2018, 2019, 2020 and 2021 HMDA data refer to applications acted upon and mortgages purchased during the calendar years of 2018, 2019, 2020 and 2021, respectively.

[4] For more information concerning these modifications and the CFPB's analyses under the balancing test it adopted to protect applicant and borrower privacy while also fulfilling HMDA's disclosure purposes, see Disclosure of Loan-Level HMDA Data 84 FR 649 (Jan. 31, 2019).

summarizes the 2022 HMDA data and recent trends in mortgage applications and originations. Some of the key findings are:[5]

- The total number of applications and originations dropped significantly in 2022, with applications decreasing by about 9.0 million or 38.6 percent and originations decreasing by 6.6 million or 44.1 percent.

- Lenders reported approximately 6.7 million closed-end site-built single-family originations in 2022, a 50.9 percent decrease from 13.7 million originations in 2021. The significant decline occurred in both home purchase and refinance activities but was more prominent in refinance. The refinance closed-end site-built single-family originations fell from 8.3 million in 2021 to 2.2 million in 2022, a reduction of 73.2 percent.

- Most of the refinance originations left in the market were a small number of cash-out refinance loans. Meanwhile, the total number of HELOC originations among reporters in both 2021 and 2022 increased by 33.3 percent over that time period. This is most likely due to some consumers using HELOCs instead of cash-out refinance loans in a high interest rate environment.

- Black and Hispanic white borrowers, borrowers of low- or moderate-income, and borrowers taking out loans secured with properties in low- or moderate-income (LMI) neighborhoods accounted for a larger share of refinance loans in 2022 than their shares in 2021, against the backdrop of fast rising interest rates and overall sharp decline of the refinance volume.

- The median total loan costs for home purchase loans in 2022 was $5,954, up by 21.8 percent from $4,889 in 2021. This represents the largest annual increase of total loan costs since this information was first collected in the HMDA data in 2018. The median total loan costs for refinance loans reached $4,979 in 2022, compared to $3,336 in 2021, representing a 49.3 percent increase. Notably, Hispanic white and Black borrowers experienced higher increases in median total loan costs in 2022 compared to 2021 than Asian and Non-Hispanic white borrowers.

- A higher percentage of borrowers reported paying discount points in 2022 than in any other year since this data point was collected in the HMDA data. Additionally, borrowers who paid discount points also ended up paying a much higher dollar amount in points.

[5] This Data Point article is based on the analysis of the static consolidated application-level 2018, 2019, 2020, 2021, and 2022 HMDA data files. Some data points used in this article were modified or withheld in the public HMDA data.

- Black and Hispanic white borrowers continued to have lower median credit scores and higher denial rates, in addition to paying higher median interest rates and total loan costs, compared to non-Hispanic white and Asian borrowers.

- The average monthly payment excluding taxes and insurance for borrowers taking out a conventional conforming 30-year fixed-rate mortgage rose from $1,400 in December 2021 to $2,045 in December 2022 – a 46.1 percent increase in a span of one year. This increase was driven almost entirely by the rise in mortgage interest rates. Consequently, the average debt-to-income ratio (DTI) rose significantly for all groups, especially for Hispanic white and Black borrowers.

- Compared to 2021, DTI became more likely to be reported as a denial reason for denied applications across racial/ethnic groups in 2022.

2. Mortgage applications and originations

In 2022, a total of 4,460 financial institutions—banks, savings associations, credit unions, and non-depository mortgage lenders—reported data on approximately 14.3 million applications and 8.4 million originations under HMDA. In contrast, in 2021, 4,338 financial institutions reported data on 23.3 million applications and 15.0 million originations under HMDA. Compared to 2021, the number of reporters increased by 122, or about 2.8 percent. On the other hand, the total number of applications and originations dropped significantly in 2022. The total number of reported applications decreased by about 9.0 million or 38.6 percent and the number of originations decreased by 6.6 million or 44.1 percent[6].

The bottom rows of Table 1 present the total number of records, including total applications, originations, purchased loans, and requests for approvals reported each year from 2018 to 2022. The top panels of Table 1 break down the total records by types of transactions: closed-end excluding reverse mortgages, open-end lines of credit excluding reverse mortgages (HELOCs[7]), or reverse mortgages. Within closed-end transactions, we further divide by property type: a site-built one-to-four family unit, manufactured home, or multifamily transactions. We also categorize by loan purpose: home purchase, home improvement, refinance, and other purpose. The closed-end site-built one-to-four family originations are then disaggregated by lien status (*e.g.,* first lien, junior lien) and occupancy types (*e.g.*, principal residence, second residence, investment property). Then, the first-lien, principal-residence originations are further disaggregated by whether they are conventional loans or not. Within the conventional loan category, we disaggregate by whether the loan is conforming or jumbo. Within the non-conventional loan category, we disaggregate by loans insured or guaranteed by the Federal Housing Administration (FHA), the Department of Veterans Affairs (VA), or the Department of Agriculture's Rural Housing Service or Farm Service Agency (RHS/FSA). For manufactured

[6] Throughout the rest of the report, calculations in the text are based on precise data values. Using rounded numbers from the tables may lead to different values due to rounding errors.

[7] Open-end lines of credit secured by dwellings (excluding reverse mortgages) are commonly known as home equity lines of credit, or HELOCs. In the rest of the article, where it is applicable, we have used the term HELOC in lieu of open-ended lines of credit excluding reverse mortgage. Beginning with the data collected in 2018, the reporting of HELOCs became mandatory rather than optional.

home originations, we disaggregate by whether manufactured home loans are secured by land (non-chattel loans) or not secured by land (chattel loans).[8]

Lenders reported approximately 6.7 million closed-end site-built single-family originations in 2022, a 50.9 percent decrease from 13.7 million originations in 2021. In contrast, this figure increased 2.4 percent from 2020 to 2021. In addition, lenders reported around 11.0 million closed-end site-built single-family applications, which includes 2.5 million applications that the lenders closed as incomplete or the applicant withdrew before the lender made a decision (not shown in table).

In 2022, about 189,000 loans secured by manufactured homes were originated, compared to 228,000 such loans in 2021. About 142,000 manufactured home loans were originated for home purchase, down slightly from 148,000 in 2021. Among them, about 79,000 were secured by both a manufactured home and land, while 56,000 were secured by a manufactured home but not land. In 2022, about 41,000 manufactured home loans were originated for refinance purpose, down by 45.7% from 75,000 in 2021.

The HMDA data also include information on loans purchased by reporting institutions during the reporting year, although the purchased loans may have been originated before 2022. Table 1 shows that financial institutions purchased 1.6 million loans from other institutions in 2022, a 41.9 percent decrease from 2021, largely in line with the decrease in reported origination volume.

[8] Manufactured-home lending differs from lending for site-built homes. Furthermore, even among the manufactured home loans, chattel-secured lending differs greatly from those that are not chattel secured. Chattel-secured lending typically carries higher interest rates and shorter terms to maturity. The rest of this article focuses almost entirely on site-built mortgage originations, which constitute most originations. For more information on manufactured housing, see "Manufactured Housing Finance: New insights from the Home Mortgage Disclosure Act," available at https://www.consumerfinance.gov/data-research/research-reports/manufactured-housing-finance-new-insights-hmda/.

TABLE 1: APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS)

	Home Purchase					Refinance					Total[1]				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Closed-end excluding reverse mortgage															
SITE BUILT 1-4 FAMILY															
Applications	5,652	5,837	6,453	6,977	5,852	3,708	5,803	13,216	13,097	4,330	10,060	12,373	20,262	20,700	11,021
Originations	4,136	4,307	4,693	5,127	4,129	1,880	3,381	8,423	8,280	2,220	6,349	8,023	13,380	13,696	6,729
First lien, principal residence	3,594	3,736	4,101	4,378	3,533	1,605	3,052	7,849	7,605	1,902	5,330	6,928	12,088	12,137	5,565
Conventional[2]	2,410	2,489	2,755	3,097	2,542	1,245	2,292	6,416	6,309	1,528	3,774	4,907	9,303	9,553	4,192
Conventional conforming	2,222	2,311	2,591	2,846	2,344	1,180	2,144	6,227	6,066	1,468	3,514	4,575	8,942	9,048	3,925
Conventional jumbo	188	178	164	251	198	65	148	189	242	59	259	332	360	505	267
Nonconventional	1,184	1,247	1,346	1,281	991	359	760	1,433	1,297	375	1,556	2,021	2,785	2,584	1,373
FHA	712	752	796	754	576	188	343	485	514	192	909	1,106	1,286	1,272	773
VA	370	397	426	422	362	170	415	938	774	182	544	814	1,366	1,199	545
FSA/RHS	102	98	124	104	54	1	2	10	8	1	103	101	133	113	55
First lien, second residence	173	178	227	256	148	31	56	159	144	35	212	241	394	413	195
First lien, investment property	286	293	268	399	373	172	203	370	495	211	484	522	657	919	610
Junior lien, all occupancy types	83	100	98	94	74	72	69	45	36	72	323	332	240	228	360
MANUFACTURED HOMES															
Applications	415	445	505	542	557	75	77	107	140	91	504	536	622	694	663
Originations	125	128	137	148	142	34	38	56	75	41	165	173	197	228	189
Manufactured home loans secured by land	64	67	71	82	79	26	30	45	64	34	94	101	118	148	117
Manufactured home loans not secured by land	49	52	57	59	56	2	2	4	5	2	51	54	61	64	59
Land secured status unknown	12	10	9	8	7	6	7	7	7	5	20	18	18	16	14
MULTIFAMILY[3]															
Applications	28	29	24	32	32	31	33	37	37	32	61	65	64	72	68
Originations	22	23	19	27	27	25	27	31	32	28	50	53	52	61	58
B. Open-end excluding reverse mortgage															
Applications	110	98	92	103	127	554	508	416	376	455	2,258	2,100	1,655	1,762	2,476
Originations	60	52	52	58	66	326	299	243	232	289	1,124	1,042	869	962	1,358

	Home Purchase					Refinance					Total[1]				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
C. Reverse mortgage															
Applications	3	3	3	4	2	49	48	58	75	82	57	55	64	85	93
Originations	2	2	2	4	2	28	29	39	50	52	33	35	43	59	59
Total applications	6,208	6,412	7,077	7,659	6,570	4,418	6,469	13,834	13,725	4,992	12,940	15,129	22,667	23,313	14,322
Total originations	4,345	4,513	4,904	5,364	4,366	2,293	3,774	8,791	8,670	2,630	7,721	9,325	14,541	15,007	8,394
Purchased loans	1,386	1,396	1,189	1,374	1,143	358	674	1,189	1,172	315	2,003	2,266	2,756	2,680	1,558
Requests for preapproval[4]	467	445	366	406	475	<1	<1	<1	<1	<1	467	445	366	406	475
Requests for preapproval that were approved but not acted on	75	74	71	96	129	<1	<1	<1	<1	<1	75	74	71	96	129
Requests for preapproval that were denied	102	77	58	53	72	<1	<1	<1	<1	<1	102	77	58	53	72

TABLE 1: APPLICATIONS, ORIGINATIONS, PRE-APPROVALS, AND LOAN PURCHASES (IN THOUSANDS) *(continued)*

	Home Improvement					Other Purpose					Total[1]				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Closed-end excluding reverse mortgage															
SITE BUILT 1-4 FAMILY															
Applications	343	340	289	303	374	344	378	303	319	462	10,060	12,373	20,262	20,700	11,021
Originations	180	170	142	152	192	149	160	121	136	187	6,349	8,023	13,380	13,696	6,729
First lien, principal residence	70	66	72	77	57	61	70	66	77	72	5,330	6,928	12,088	12,137	5,565
Conventional[2]	60	59	68	73	54	57	65	64	75	68	3,774	4,907	9,303	9,553	4,192
Conventional conforming	59	57	67	71	53	52	60	58	65	59	3,514	4,575	8,942	9,048	3,925
Conventional jumbo	2	1	1	2	2	5	5	6	10	8	259	332	360	505	267
Nonconventional	9	7	4	4	3	4	5	3	3	4	1,556	2,021	2,785	2,584	1,373
FHA	6	5	2	2	2	3	4	2	2	4	909	1,106	1,286	1,272	773
VA	3	2	2	2	1	<1	1	<1	1	<1	544	814	1,366	1,199	545
FSA/RHS	<1	<1	<1	<1	<1	<1	<1	<1	0	<1	103	101	133	113	55
First lien, second residence	2	2	2	2	3	5	5	6	10	9	212	241	394	413	195
First lien, investment property	13	14	11	13	12	11	10	8	11	13	484	522	657	919	610
Junior lien, all occupancy types	95	88	57	60	121	73	75	41	39	93	323	332	240	228	360
MANUFACTURED HOMES															
Applications	6	6	5	5	7	7	8	6	6	8	504	536	622	694	663
Originations	3	3	2	2	3	3	3	2	3	3	165	173	197	228	189
Manufactured home loans secured by land	2	2	1	2	2	2	2	1	1	2	94	101	118	148	117
Manufactured home loans not secured by land	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	51	54	61	64	59
Land secured status unknown	1	1	1	1	1	1	1	1	1	1	20	18	18	16	14
MULTIFAMILY[3]															
Applications	2	2	1	2	2	1	1	1	1	1	61	65	64	72	68
Originations	2	2	1	1	2	<1	<1	1	<1	<1	50	53	52	61	58
B. Open-end excluding reverse mortgage															
Applications	828	793	619	751	1,089	763	698	527	532	804	2,258	2,100	1,655	1,762	2,476
Originations	384	366	310	390	584	352	324	264	282	419	1,124	1,042	869	962	1,358

	Home Improvement					Other Purpose					Total[1]				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
C. Reverse mortgage															
Applications	1	1	1	2	2	4	3	2	4	6	57	55	64	85	93
Originations	1	1	1	2	1	3	2	2	3	4	33	35	43	59	59
Total applications	1,181	1,143	915	1,063	1,475	1,120	1,088	839	861	1281	12,940	15,129	22,667	23,313	14,322
Total originations	570	541	456	547	783	508	490	389	424	613	7,721	9,325	14,541	15,007	8,394
Purchased loans	15	8	7	7	10	10	11	12	13	21	2,003	2,266	2,756	2,680	1,558
Requests for preapproval[4]	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	467	445	366	406	475
Requests for preapproval that were approved but not acted on	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	75	74	71	96	129
Requests for preapproval that were denied	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	102	77	58	53	72

NOTE: Components may not sum to totals because of rounding. Applications include those withdrawn and those closed for incompleteness. FHA is Federal Housing Administration; VA is U.S. Department of Veterans Affairs; FSA is Farm Service Agency; RHS is Rural Housing Service.

(1) The “Total” columns represent the sum of Home Purchase, Refinance, Home Improvement, and Other Purpose columns. The sum of individual columns may not sum to Total columns because a small number of records reported loan purpose as “NA”. For instance, in 2021 HMDA data, a little over 1,500 originations had loan purpose reported as “NA”, likely due to reporting errors. In addition, for purchased loans where the origination occurred before January 1, 2018, reporters are allowed to report the loan purpose data point as “NA”. About 234,000, 177,000 and 358,000, 113,000 purchased loans had loan purpose reported as “NA” in 2018, 2019, 2020, and 2021 HMDA data respectively.

(2) The sum of conventional conforming and conventional jumbo rows may not sum to the conventional row because a small number of records had an unknown conforming loan status. The conventional conforming loan is a closed-end forward mortgage (i.e., excluding reverse mortgage) transaction whose loan type is reported as conventional and whose loan amount is below the conforming loan limit, making it eligible to be purchased by Fannie Mae or Freddie Mac (collectively known as Government Sponsored Enterprises, or GSEs). The conventional non-conforming or jumbo loan is a closed-end forward mortgage transaction with its loan type reported as conventional and a loan amount above the conforming loan limit, making it ineligible to be purchased by the GSEs.

(3) A multifamily property consists of site-built five or more units.

(4) Consists of all requests for preapproval. Preapprovals are not related to a specific property and thus are distinct from applications.

SOURCE: Here and in subsequent tables and figures, except as noted, Federal Financial Institutions Examination Council, data reported under the Home Mortgage Disclosure Act (www.ffiec.gov/hmda).

The significant decline in application and origination volumes in 2022 occurred in both home purchase and refinance lending but was more prominent in refinance. Compared to a year ago, the refinance loans in closed-end site-built single-family originations fell from 8.3 million in 2021 to 2.2 million in 2022, which is approximately a 73.2 percent decrease. Refinance applications for site-built single-family properties also decreased from 13.1 million in 2021 to 4.3 million in 2022.

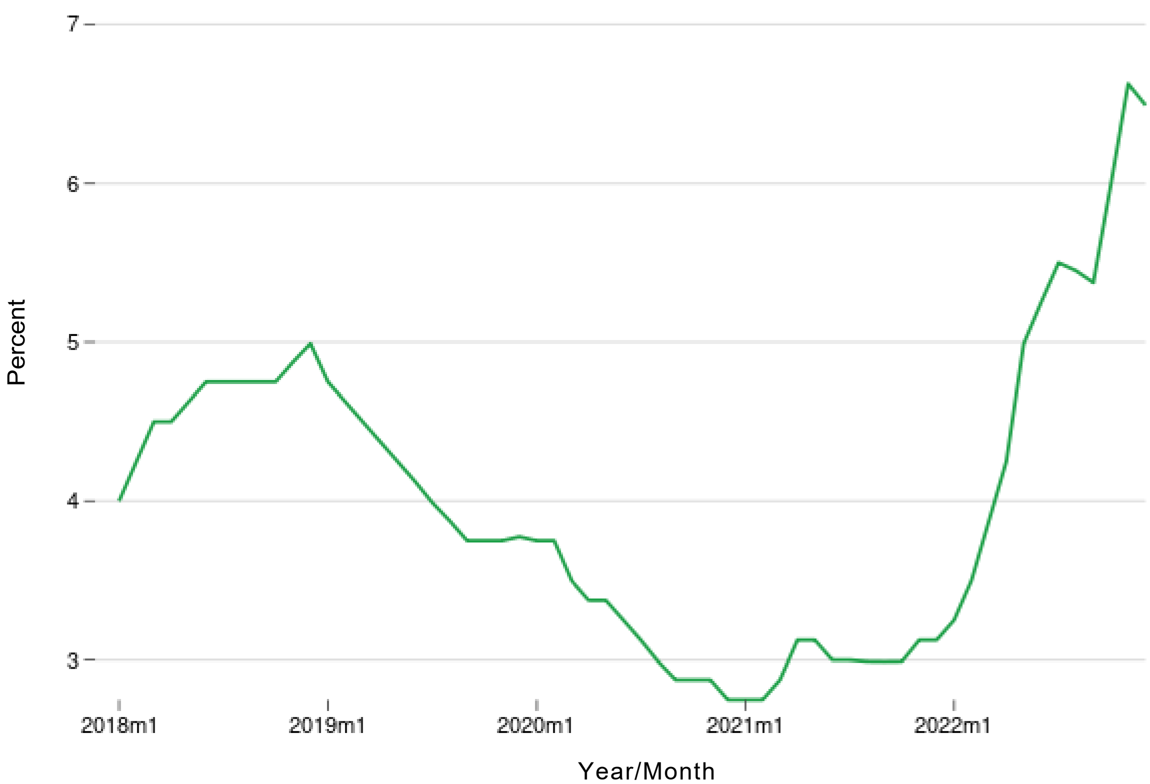
Refinance originations decreased for all types of closed-end mortgages[9] secured by first-lien principal residence. The number of refinance loans for conventional conforming and jumbo loans decreased by 75.8 percent in 2022. The number of refinance loans for VA decreased by about 76.8 percent, while that for FHA decreased by about 62.7 percent.

The closed-end site-built single-family mortgage originations for home purchase decreased to a similar level in 2022 as in 2018. In 2022, there were 4.1 million home purchase originations, compared with 5.1 million in 2021. This represents a 19.5 percent decrease from 2021, while in 2021, the growth rate was 9.2 percent. When limited to the first-lien principal residence, the home purchase loan originations decreased by 19.3 percent, from 4.4 million in 2021 to 3.5 million in 2022. Among them, conventional conforming, jumbo loans, and all nonconventional loan categories saw a decrease in volume. FSA/RHS loans saw the biggest decrease of 48.3 percent, while the smallest decrease was for VA loans at 14.4 percent.

The change in market interest rates was likely the main driver behind the declines in refinance applications and loans. Figure 1 plots the monthly median interest rates for 30-year fixed-rate closed-end (excluding reverse mortgage) conventional conforming loans originated to prime borrowers secured by first-lien principal residence.[10] The median interest rate is computed from originated loans in the 2018-2022 HMDA data and the month is based on the month of the action taken date. As the figure shows, the mortgage interest rate rose sharply in 2022, after a significant decline in 2019 and 2020 and a slight increase in 2021. Figure 1 generally aligns with the Freddie Mac Primary Mortgage Market Survey, which covers first-lien prime conventional conforming home purchase mortgages with a loan-to-value of 80 percent.[11]

[9] Mortgages secured by closed-end site-built single-family first-lien principal residence.
[10] The prime borrowers are defined as those with a credit score of at least 720 and CLTV of around 80 percent (79 percent <= CLTV < 80 percent).
[11] See https://www.freddiemac.com/pmms.

Figure 1: Monthly Median Interest Rate of 30-Year Fixed Rate Conventional Conforming Loans



NOTE: Monthly median interest rate of 30-year fixed-rate, conventional conforming, home purchase, closed-end loans secured by site-built single-family homes to prime borrowers between January 2018 and December 2022. Limited to borrowers with credit score>=720 and 79%<=LTV <=80%, 1st lien, principal residence.

Section 6 below presents the monthly mortgage activities that show more details on the dynamics of the mortgage market. It will also separate cash-out refinance from non-cash-out (also known as rate-term) refinance loans.

In contrast to the closed-end mortgages, the total number of HELOC originations and applications actually increased in 2022 compared to 2021. The total number of HELOC originations rose from 962,000 in 2021 to approximately 1.4 million in 2022, a 41.2 percent increase. Part of the increase could have been due to the change in the reporting threshold of the open-end lines of credit that took place in 2022, as the result of the 2020 HMDA Rule. More specifically, effective January 1, 2022, the 2020 HMDA Rule set the permanent open-end reporting threshold to 200 originations of open-end lines of credit in each of the past two years, lowering it from the temporary reporting threshold of 500 originations that was in place between 2018 and 2022. This likely led to more small open-end line of credit reporters, who did not report in the past, reporting open-end activities in 2022. In fact, the number of HELOC reporters increased from 936 in 2021 to 1,150 in 2022, and about 23.1 percent of HELOC reporters originated between 100 and 499 HELOCs in 2022, compared to only 15.4 percent in 2021[12]. Table 5B in Section 5 below gives a more detailed breakdown of the number of HELOC reporters by origination volume.

The change in reporting threshold alone, however, cannot explain all of the increase in HELOC origination volume. In total, there are 781 financial institutions that reported open-end lines of credit records in both 2021 and 2022. Together they originated about 950 thousand open-end lines of credit in 2021 and 1.27 million in 2022. The growth rate of HELOC origination volume among this same set of reporters was 33.3 percent from 2021 to 2022, strongly signaling the expansion of HELOC originations in the year. Most likely, it is due to some consumers resorting to HELOCs instead of cash-out refinance loans to extract home equity in a high interest rate environment.

[12] Note that the HMDA reporting thresholds are based on the origination volumes of the preceding years, while the numbers referred in this sentence are the originations in the current year. It is possible that some financial institutions exceeded the reporting threshold based on past years' activities but in the current reporting year may have actually originated fewer loans or line of credits than the reporting threshold values. It is also possible that some financial institutions may have voluntarily reported even though they fell below the reporting threshold based on the past activities.

3. Mortgage outcomes by demographic groups and loan types

The HMDA data are a key resource for policymakers and the public to understand the distribution of mortgage credit across demographic groups. Tables 2 through 4 provide information on loan shares, product usage, certain mortgage/borrower characteristics, pricing information, and denial rates by applicant income, neighborhood income, and applicant race and ethnicity. Tables 2 through 4 focus on closed-end first-lien home purchase and refinance loans secured by site-built one-to-four-family, principal residence properties, which accounted for approximately 64.8 percent of all HMDA originations excluding purchased loans in 2022.

3.1 Distribution of home loans

Table 2 presents different groups' shares of closed-end (excluding reverse mortgage) site-built one-to-four-family, first lien, principal residence home purchase and refinance loans and how these shares have changed since 2018. Continuing the trend, Black borrowers' share of home purchase loans increased from 6.8 percent in 2018 to 8.1 percent in 2022, whereas the share for Hispanic white borrowers was at 9.1 percent in 2022, holding at a steady level since 2019. For non-Hispanic white borrowers, their share of home purchase loans was 54.4 percent in 2022, down from 62.0 percent in 2018. On the other hand, Asian borrowers' share of home purchase loans increased from 7.1 percent in 2021 to 7.6 percent in 2022.

Non-Hispanic white borrowers accounted for about 57.3 percent of all refinance loans in 2022, down slightly from 58.3 percent in 2021. Asian borrowers made up the smallest share of refinance loans in 2022 at 3.6 percent, down significantly from their share of 6.0 percent in 2021. The shares of Black and Hispanic white borrowers refinance loans increased to their highest levels since 2018 after a low in 2020. The Black borrowers' share of refinance loans increased from 5.4 percent in 2021 to 8.1 percent in 2022, and the Hispanic white borrowers' share of refinance loans increased from 6.1 percent in 2021 to 7.1 percent in 2022. We note that such observations are set against the backdrop in which origination volumes of refinance loans have significantly decreased from peak volumes after the refinance boom of 2019 and 2020.

The share of home purchase loans for low- or moderate-income (LMI) borrowers slightly decreased from 28.7 percent in 2021 to 27.8 in 2022, while high-income borrowers' share slightly increased from 43.2 percent to 43.8 percent[13]. On the other hand, refinance loans to LMI borrowers account for about 35.1 percent of refinance loans in 2022, up from 23.9 percent in 2021, whereas high-income borrowers' share decreased from 42.0 percent to 34.7 percent.

The share of home purchase loans for low- or moderate-income (LMI) neighborhoods increased slightly from 17.1 percent in 2021 to 18.5 percent in 2022, while high-income neighborhoods' share decreased slightly from 38.4 percent to 36.7 percent[14]. On the other hand, the share of refinance loans to LMI neighborhoods rose from 13.6 percent in 2021 to 17.7 percent in 2022, whereas high-income neighborhoods' share decreased from 43.5 percent to 35.6 percent.

Taken together, Black and Hispanic white borrowers, borrowers of low- or moderate-income, and borrowers taking out loans secured with properties in LMI neighborhoods accounted for a larger share of refinance loans in 2022, against the backdrop of fast rising interest rates and overall sharp decline of the refinance volume. Section 4 below breaks down the refinance results by cash-out and non-cash-out categories and sheds more light on these issues.

[13] In accordance with the definitions used by the federal bank supervisory agencies to enforce the Community Reinvestment Act, LMI borrowers are defined as those with incomes less than 80 percent of the estimated current area median family income (AMFI). Middle-income borrowers have incomes of at least 80 percent and less than 120 percent of AMFI, and high-income borrowers have incomes of at least 120 percent of AMFI. AMFI is estimated based on the incomes of residents of the metropolitan area or nonmetropolitan portion of the state in which the loan-securing property is located. For AMFI estimates, see Federal Financial Institutions Examination Council (2020), "FFIEC Median Family Income Report," available at https://www.ffiec.gov/Medianincome.htm. A very small percentage of records had income reported as zero or negative. They are included in the LMI group.

[14] Definitions for LMI, middle-income, and high-income neighborhoods are identical to those for LMI, middle-income, and high-income borrowers, but are based on the ratio of census-tract median family income to AMFI measured from the census data.

TABLE 2: DISTRIBUTION OF HOME PURCHASE AND REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS (PERCENT EXCEPT AS NOTED)

	Home Purchase					Refinance				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Borrower race and ethnicity[(1)]										
Asian	5.9	5.7	5.5	7.1	7.6	3.7	5.5	6.7	6.0	3.6
Black or African American	6.8	7.0	7.3	7.9	8.1	6.2	5.3	4.2	5.4	8.1
Hispanic White	8.9	9.2	9.1	9.2	9.1	6.8	6.2	5.3	6.1	7.1
Non-Hispanic White	62.0	60.3	59.1	55.6	54.4	63.1	60.9	61.0	58.3	57.3
Other Minority[(2)]	0.8	0.8	0.9	1.0	1.0	0.9	0.8	0.7	0.8	0.9
Joint	3.6	3.7	3.9	4.1	4.4	2.9	3.3	3.5	3.4	3.0
Missing	12.0	13.3	14.1	15.1	15.4	16.3	18.0	18.5	19.9	20
All	100	100	100	100	100	100	100	100	100	100
B. Borrower income[(3)]										
Low or moderate	28.0	28.6	30.4	28.7	27.8	29.0	23.1	18.9	23.9	35.1
Middle	26.7	27.2	27.4	27.0	27.3	25.2	22.1	21.8	23.2	26.6
High	43.9	43.1	41.2	43.2	43.8	41.3	43.5	45.1	42.0	34.7
Income not used or not applicable	1.3	1.2	1.1	1.0	1.0	4.4	11.2	14.2	10.9	3.7
All	100	100	100	100	100	100	100	100	100	100
C. Neighborhood income[(4)]										
Low or moderate	16.5	16.5	16.1	17.1	18.5	16.3	14.0	11.7	13.6	17.7
Middle	44.2	44.3	44.3	44.3	44.2	45.6	43.0	41.1	42.8	46.2
High	38.8	38.9	39.3	38.4	36.7	37.7	42.7	47.0	43.5	35.6
All	100	100	100	100	100	100	100	100	100	100
Total (in thousands)	3,594	3,736	4,101	4,378	3,533	1,605	3,052	7,849	7,605	1,902

NOTE: Closed-end (excluding reverse mortgage), first-lien home purchase or refinance mortgages secured by site-built, one- to four-family homes used for a principal residence.

(1) Applications are placed in one category for race and ethnicity. The application is designated as “joint” if one applicant was reported as white and the other was reported as one or more minority races or if the application is designated as white with one Hispanic applicant and one non-Hispanic applicant. If there are two applicants and each reports a different minority race, the application is designated as two or more minority races. If an applicant reports two races and one is white, that applicant is categorized under the minority race. Otherwise, the applicant is categorized under the first race reported. "Missing" refers to applications in which the race of the applicant(s) has not been reported or is not applicable or the application is categorized as white, but ethnicity has not been reported.

(2) Consists of applications by American Indians or Alaska Natives, Native Hawaiians or other Pacific Islanders, and borrowers reporting two or more minority races.

(3) The categories for the borrower-income group are as follows: Low- or moderate-income (or LMI) borrowers have income that is less than 80 percent of estimated current area median family income (AMFI), middle-income

borrowers have income that is at least 80 percent and less than 120 percent of AMFI, and high-income borrowers have income that is at least 120 percent of AMFI.

(4) The categories for the neighborhood-income group are based on the ratio of census-tract median family income to area median family income published by FFIEC (available at https://www.ffiec.gov/Medianincome.htm), and the three categories have the same cutoffs as the borrower-income groups (see note 3).

3.2 Mortgage characteristics of home loans

The median characteristics of mortgage loans and borrowers may differ substantially by race and ethnicity, borrower and neighborhood income, and loan types. Table 3A shows the median loan amount, credit scores of borrowers, interest rates, and total loan costs of home purchase loans for different racial/ethnic groups, borrower income, neighborhood income, and enhanced loan types over time.[15] The sample is limited to closed-end (excluding reverse mortgage) first-lien mortgages for site-built one-to-four-family, principal residences with loan purpose being home purchase. Table 3B presents similar information for refinance loans.

The median loan amounts for home purchase loans have risen consistently across all categories.[16] Among different racial/ethnic groups, in 2022, Asian borrowers continued to take out home purchase loans with the largest median loan amount, with a median of about $449,000, an increase from a median loan amount of $414,000 in 2021. In contrast, for the first time since 2018, the median loan amount of home purchase loans for non-Hispanic white borrowers ranked below the median loan amounts of Hispanic white and Black borrowers, at approximately $295,000. The median loan amount of home purchase loans for Hispanic white borrowers was $300,000 in 2022, while the median loan amount of home purchase loans for Black borrowers was $297,000.

In 2022, the median loan amount of home purchase loans for high-income borrowers was $429,000, more than twice that of LMI borrowers. Similarly, the median loan amount of home purchase loans secured by properties in high-income areas was $392,000, compared to $250,000 in LMI neighborhoods.

Loan amounts vary by loan type. The home purchase jumbo loans have a median loan amount of $1,017,000 in 2022. In comparison, the median loan amounts of home purchase loans were $172,000 for RHS/FSA loans and $268,000 for FHA loans.

[15] We report the medians instead of averages in Tables 3A and 3B because medians are more stable and less subject to outliers than averages. In general, the patterns of averages looked similar to the patterns in medians. Combining the transaction types (closed-end, open-end, reverse mortgage), loan types reported under HMDA (conventional, FHA, VA, RHS/FSA), conforming loan status based on the loan amount reported and the conforming loan limits published by the Federal Housing Finance Agency (FHFA), all single family loan application registers data can be grouped into seven categories: 1) Conventional Conforming; 2) Conventional Non-conforming or Jumbo; 3) FHA; 4) VA; 5) RHS/FSA; 6) HELOC; and 7) Reverse Mortgage. These categories are referred to as the “Enhanced Loan Types”.

[16] All dollar amounts are reported in nominal terms.

Similar to the home purchase loans, in 2022, the median loan amount of refinance loans for Asian borrowers was also higher than other racial/ethnic groups, at approximately $370,000, compared to $216,000 for Black borrowers, $238,000 for Hispanic white borrowers, and $220,000 for non-Hispanic white borrowers. Compared to 2021, the median loan amounts for refinance loans decreased across all major racial/ethnic groups except for Asian borrowers. These patterns are consistent with the composition effects as noted in Section 2 above that low- or moderate-income borrowers as well as well loans secured by properties in LMI neighborhoods accounted for higher shares of refinance loans in 2022 with overall refinance loan volume declining.

Credit scores are widely used in mortgage underwriting and pricing. Where applicable, credit scores have been collected and reported in HMDA since 2018.[17] Table 3A shows that the median credit scores for closed-end home purchase mortgage loans secured by first-lien principal-residence site-built single-family properties have been increasing from 2018 through 2022, except for a slight decrease for Asian borrowers between 2021 and 2022. But the variations of median credit scores among different groups remain. Black and Hispanic white borrowers continued to have lower median credit scores than other racial/ethnic groups. The median credit score of Black borrowers who took out home purchase loans was 695 in 2022, and the median credit score of Hispanic white home purchase loan borrowers was 718. In comparison, the median credit scores of non-Hispanic white and Asian home purchase loan borrowers in 2022 were 751 and 762, respectively.

High-income home purchase borrowers have higher median credit scores than middle and LMI borrowers, and borrowers taking out home purchase loans secured by properties in high-income neighborhoods have higher median credits scores than borrowers in middle and LMI neighborhoods as well. In terms of loan types, the median credit score for home purchase jumbo loan borrowers was 775 in 2022 and the median credit score of conventional conforming home purchase loan borrowers was 758, while the median credit score of FHA home purchase loan borrowers was 664.

In 2022 the median credit scores of refinance loan borrowers are lower than those of home purchase loan borrowers, both overall and across most groups. This is a substantive deviation from past years, in which refinance loan borrowers had higher median credit scores than home purchase loan borrowers. Again, this likely is the result of compositional effects in this unique year and is consistent with other observations noted above that Black and Hispanic white borrowers, lower-income borrowers as well as well loans secured by properties in LMI

[17] To protect applicant and borrower privacy, credit score is excluded from the application-level HMDA data made available to the public.

neighborhoods accounted for higher share of refinance loans in 2022 with an overall refinance loan volume drop taking place.

The median credit score of Black borrowers who refinanced in 2022 was 692, and the median credit score of Hispanic white refinance borrowers was 712. In comparison, the median credit scores of non-Hispanic white and Asian borrowers who refinanced in 2022 were 734 and 755, respectively. These all represented significant decreases from 2021, making 2022 the first year since 2018 where median credit scores among refinance loan borrowers decreased. The median credit score for refinance jumbo loan borrowers was 768 in 2022, the median credit score of conventional conforming refinance loan borrowers was 738, and the median credit score of FHA refinance loan borrowers was 645, all lower than the 2021 values.

The mortgage interest rate increased sharply during 2022. As a result, the median interest rate for home purchase loans secured by first-lien principal-residence site-built single-family properties was 4.990 in 2022, compared to 3.000 percent in 2021.

The variations in interest rates across different racial/ethnic groups and loan types remained in 2022. At 5 and 5.125 percent respectively, Black and Hispanic white borrowers continued to pay higher median interest rates than all other racial/ethnic groups for home purchase loans. The median interest rate for Asian borrowers was 4.625 percent and that for non-Hispanic white borrowers was 4.990 percent. For home purchase loans, FHA loans had higher median interest rates than any other enhanced loan types, at 5.125 percent. On the other hand, jumbo loans had the lowest median interest rate at 4.215 percent.

Total loan costs, a data point collected and reported under HMDA since 2018, represent the sum of origination fees that the lender charges, charges for the services that borrowers cannot shop for (e.g., appraisal fees or credit report fees), and charges for services borrowers can shop for such as settlement agent or title insurance fees.[18] Discount points if paid, another data point collected and reported under HMDA since 2018, is also included as a part of the total loan costs.

The median total loan costs for home purchase loans in 2022 was $5,954, up by 21.8 percent from $4,889 in 2021. This represents the largest annual jump of total loan costs since this data point was first collected in 2018. In contrast, the median total loan costs for home purchase loans only increased by an annual rate of about 3.3 percent, 5.8 percent, and 3.2 percent in

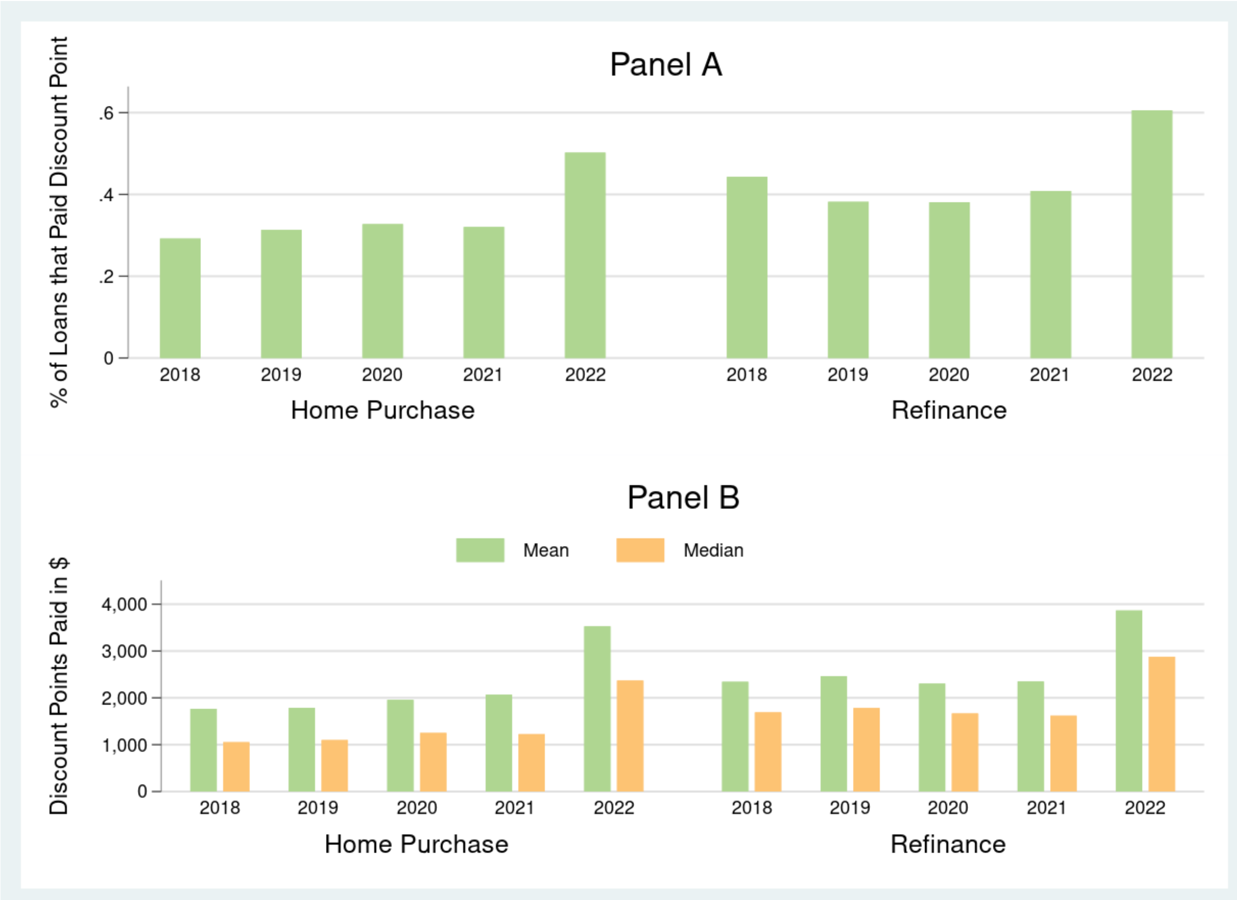
[18] The total loan costs collected under HMDA only applies to originated loans that are subject to specified requirements in Regulation Z. It is limited to "buyer-paid" portions of the total loan costs on the TILA-RESPA Integrated Disclosure Rule (TRID) Closing Disclosure of applicable loans. In other words, under the HMDA reporting requirements, it includes the charges by the lenders as well as the charges by the third-party service providers in connection with obtaining the loan to the extent those are paid by a consumer rather than by a seller or other third party.

2019, 2020, and 2021 respectively. The median total loan costs for refinance loans reached $4,979 in 2022, compared to $3,336 in 2021, representing a 49.3 percent increase. Even though the sharp increase in interest rates during 2022 is well known, we believe that this is the first time that a sharp rise in total loan costs that borrowers had to pay upfront is documented.

Panel A of Figure 2 shows that a higher percentage of borrowers reported paying discount points in 2022 than any other years since this data point was reported in HMDA. Specifically, among first lien closed-end home purchase loans secured by single-family principal residence and not for commercial/business purpose, in 2022 about 50.2 percent of loans paid some discount points. In contrast, only about 29.2 precent, 31.4 percent, 32.7 percent and 32.1 percent of home purchase loans were reported to have paid some positive discount points in 2018, 2019, 2020 and 2021, respectively. Similarly, among first lien closed-end refinance loans secured by single-family principal residence and not for commercial/business purpose, about 60.8 percent of loans paid some discount points in 2022, whereas about 44.3 percent of refinance loans paid discount points in 2018, 38.2 percent in 2019, 38.1 percent in 2021, and 40.9 percent in 2021. Such substantial increases in the shares of borrowers paying discount points could be due to the higher interest rate environment incentivizing borrowers to buy down the interest rate that would have been otherwise regarded as too high.

Borrowers who paid discount points to buy down interest rates also paid much more in dollar amounts compared to previous years. More specifically, as shown in Panel B of Figure 2, the median discount points paid for home purchases loans were about $2,370 in 2022, while that in 2021 was $1,225, $1,252 in 2020, $1,098 in 2019 and $1,054 in 2018. Similarly, a large increase was also observed in refinance loans. The median discount points paid for refinance loans were about $2,878 in 2022, compared to $1,619 in 2021, $1,667 in 2020, $1,782 in 2019 and $1,690 in 2018.

Figure 2: Discount Points



NOTE: Limited closed-end loans secured by site-built single-family homes, 1st lien principal residence, not for business or commercial purpose.

In 2022, the median Hispanic white borrower for home purchase loans paid $7,889 in total loan costs, the highest median among all racial/ethnic groups, as in previous years. The next highest median total loan costs of home purchase loans was $7,558 for Black borrowers, also similar to the patterns observed in previous years. In comparison, the median total loan costs of home purchase loans were $5,348 for non-Hispanic white borrowers and $6,131 for Asian borrowers. Notably, Hispanic white and Black borrowers also experienced higher increases in median total loan costs in 2022 relative to 2021 compared to Asian and Non-Hispanic white borrowers, with an annual increase of 25.6 percent for Hispanic white borrowers and 22.2 percent for Black borrowers, compared to 20.3 percent for Asian borrowers and 19.9 percent for non-Hispanic white borrowers.

The median total loan costs of home purchase loans were higher for high-income borrowers ($6,450) and middle-income borrowers ($6,195) than LMI borrowers ($5,128)[19]. On the other hand, the median total loan costs of home purchase loans were $5,957 for loans secured by properties in LMI neighborhoods, $5,812 for loans in middle-income neighborhoods and $6,114 for loans in high-income neighborhoods.

Among various enhanced loan types for home purchase loans, FHA loans had the highest median total loan costs, at $10,056, likely reflecting the required upfront mortgage insurance premium which could be a significant part of the total loan costs of FHA loans[20]. The median total loan costs were $7,917 for VA home purchase loans. To the extent that Black and Hispanic white borrowers are more likely to take out FHA loans than Asian and non-Hispanic white borrowers, the high total loan costs of FHA loans could be contributing to higher median total loan costs for Black and Hispanic white borrowers as observed above.

The median total loan costs for refinance loans in 2022 was $4,979. The median Black borrower who refinanced in 2022 paid $6,016 in total loan costs, the highest median among all racial/ethnic groups for refinance loans. Black borrowers also experienced the largest annual percentage increase in median total loan costs among all major racial/ethnic groups, with the growth rate of 56.0%. The next highest median total loan costs was $5,527 for Hispanic white refinance loan borrowers. The median total loan costs of refinance loans were $4,539 for non-Hispanic white borrowers and $4,389 for Asian borrowers.

The median total loan costs of refinance loans were lower for low- or moderate-income borrowers ($4,729) in comparison with middle-income borrowers ($5,311) and high-income borrowers ($5,258). Conversely, the median total loan costs of refinance loans were higher for loans secured by properties in LMI neighborhoods ($5,097) than those in middle-income ($4,989) or high-income neighborhoods ($4,897). The pattern of median total loan costs for refinance loans by enhanced loan types was consistent with the pattern for home purchase loans, with FHA refinance loans having the highest loan costs.

Several potential explanations exist for the significant year-over-year increase in the median total loan costs. First, since the discount points are included in the total loan costs, an increase

[19] Just as other statistics presented in this table, the discussion here does not control for differences in loan amount that may vary across income groups.

[20] In the time period examined in this report, FHA charged an upfront mortgage insurance premium of 175 Basis Points (bps) (1.75%) of base loan amounts with the exception of a few limited programs and products, such as Hawaiian Home Lands and Indian Lands Programs. (See FHA Single Family Housing Policy Handbook 4000.1 for more details.) Such upfront mortgage insurance premium is included in the Closing Disclosure as one of the services that borrowers cannot shop for. By definition, if the upfront mortgage insurance premium is "borrower-paid", it should be included as part of the Total Loan Costs that institutions report to HMDA.

in the share and amount of discount points paid could potentially explain the observed increase in the median total loan costs. Second is inflationary pressure finally catching up with the lenders and service providers who had to increase their upfront charges in the face of higher wages and other costs. A third possible partial explanation is a compositional effect. FHA loans typically have higher total loan costs due to the upfront insurance premium charges. With the FHA loans accounting for a larger share of refinance loan volume in 2022, it could have resulted in higher median total loan costs.

TABLE 3A: MEDIAN LOAN AMOUNTS, CREDIT SCORES, INTEREST RATES, AND TOTAL LOAN COSTS OF HOME PURCHASE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	Median Loan Amount (Thousands of Dollars)					Median Credit Score					Median Interest Rate (Percent)					Median Total Loan Cost (Dollars)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Borrower race and ethnicity [1]																				
Asian	333	340	362	414	449	755	757	761	764	762	4.500	3.886	3.000	2.875	4.625	4,638	4,702	4,892	5,095	6,131
Black or African American	204	217	236	264	297	682	683	690	691	695	4.875	4.250	3.250	3.125	5.000	5,235	5,457	5,980	6,186	7,558
Hispanic White	209	221	241	272	300	703	705	712	716	718	4.875	4.250	3.250	3.125	5.125	5,564	5,765	6,208	6,282	7,889
Non-Hispanic White	216	227	247	274	295	741	744	748	750	751	4.625	4.125	3.125	3.000	4.990	4,010	4,122	4,344	4,462	5,348
Other Minority[2]	224	234	254	278	299	711	712	717	718	720	4.750	4.125	3.125	3.000	5.000	4,842	5,085	5,468	5,485	6,712
Joint	278	291	315	353	381	726	727	735	738	739	4.625	4.125	3.125	3.000	4.875	4,918	5,015	5,238	5,331	6,648
Missing	253	262	280	313	338	739	740	743	744	744	4.625	4.000	3.125	2.990	4.875	4,548	4,738	4,975	5,151	6,434
B. Borrower income [3]																				
Low or moderate	150	161	180	195	202	718	721	727	727	730	4.750	4.250	3.125	3.000	4.990	3,879	4,051	4,376	4,425	5,128
Middle	212	225	248	276	300	724	725	732	733	735	4.750	4.125	3.125	3.000	5.000	4,407	4,598	4,901	4,980	6,195
High	309	321	350	394	429	749	751	755	756	756	4.625	4.000	3.125	2.990	4.875	4,619	4,716	4,916	5,148	6,450
Income not used or not applicable	238	261	276	319	358	748	755	754	756	758	4.500	3.990	3.000	2.990	4.750	3,418	3,565	3,569	4,047	4,948
C.Neighborhood income [4]																				
Low or moderate	178	189	208	235	250	713	715	722	724	724	4.750	4.250	3.250	3.125	5.125	4,336	4,526	4,859	4,952	5,957
Middle	201	213	232	260	290	726	727	733	735	738	4.750	4.125	3.125	3.000	5.000	4,212	4,370	4,637	4,767	5,812
High	283	294	314	355	392	751	752	755	757	758	4.625	4.000	3.125	2.990	4.843	4,463	4,565	4,790	4,995	6,114

	Median Loan Amount (Thousands of Dollars)					Median Credit Score					Median Interest Rate (Percent)					Median Total Loan Cost (Dollars)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
***D. Enhanced Loan Type*(5)**																				
Conventional conforming	228	239	261	290	311	754	757	760	759	758	4.750	4.125	3.125	3.000	4.990	3,607	3,717	3,920	4,096	4,957
Jumbo	745	785	891	948	1,017	774	775	779	776	775	4.350	3.875	3.125	2.875	4.215	5,718	5,781	6,232	6,992	7,855
FHA	191	206	221	241	268	664	663	669	664	664	4.875	4.250	3.250	3.125	5.125	6,963	7,336	8,052	8,427	10,056
VA	246	258	285	316	340	710	712	720	719	721	4.500	3.990	3.000	2.750	4.750	5,352	5,332	6,233	6,830	7,917
FSA/RHS	137	145	162	172	172	692	691	693	689	691	4.750	4.125	3.125	3.000	4.875	4,348	4,551	4,989	5,183	5,796
Overall	225	237	256	289	315	734	736	741	743	744	4.750	4.125	3.125	3.000	4.990	4,332	4,475	4,736	4,889	5,954

NOTE: Closed-end (excluding reverse mortgage) home purchase first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See table 2, note 1.

(2) See table 2, note 2.

(3) See table 2, note 3.

(4) See table 2, note 4

(5) The conventional conforming loan is a closed-end forward mortgage (*i.e.*, excluding reverse mortgage) transaction whose loan type is reported as conventional and whose loan amount is below the conforming loan limit, making it eligible to be purchased by Fannie Mae or Freddie Mac (collectively known as Government Sponsored Enterprises, or GSEs). The conventional non-conforming, or jumbo loan is a closed-end forward mortgage transaction with its loan type reported as conventional and a loan amount above the conforming loan limit, making it ineligible to be purchased by the GSEs. The FHA, VA, and RHS/FSA loans follow the definition of loan types under HMDA and are restricted to closed-end loans excluding reverse mortgages.

TABLE 3B: MEDIAN LOAN AMOUNTS, CREDIT SCORES, INTEREST RATES, AND TOTAL LOAN COSTS OF REFINANCE LOANS, BY BORROWER AND NEIGHBORHOOD CHARACTERISTICS AND ENHANCED LOAN TYPE

	Median Loan Amount (Thousands of Dollars)					Median Credit Score					Median Interest Rate (Percent)					Median Total Loan Cost (Dollars)				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
***A. Borrower race and ethnicity*[1]**																				
Asian	317	387	359	355	370	744	763	779	776	755	4.375	3.750	2.875	2.625	3.375	3,478	3,176	2,992	3,030	4,389
Black or African American	177	222	235	221	216	690	698	726	719	692	4.625	3.990	3.000	2.875	4.000	4,323	4,224	3,836	3,857	6,016
Hispanic White	196	244	250	243	238	707	719	744	737	712	4.750	3.990	3.000	2.875	3.875	3,974	4,125	3,932	3,879	5,527
Non-Hispanic White	187	239	246	232	220	730	749	769	763	734	4.625	3.875	3.000	2.875	3.750	3,444	3,378	3,204	3,214	4,539
Other Minority[2]	202	250	261	245	237	707	720	749	739	710	4.625	3.900	2.999	2.875	3.875	4,196	4,098	3,722	3,735	5,732
Joint	246	304	303	294	288	716	740	763	756	722	4.500	3.875	2.990	2.750	3.750	3,918	3,609	3,419	3,428	5,242
Missing	206	263	272	259	250	720	740	765	757	721	4.500	3.875	2.990	2.750	3.750	4,175	4,080	3,554	3,525	5,743
***B. Borrower income*[3]**																				
Low or moderate	136	170	180	174	168	718	730	763	756	722	4.625	4.000	3.125	2.875	3.875	3,551	3,671	3,306	3,286	4,729
Middle	186	224	235	229	236	720	742	766	757	720	4.625	3.990	3.000	2.875	3.875	3,726	3,621	3,278	3,313	5,311
High	271	328	319	319	336	732	754	771	765	737	4.500	3.875	2.999	2.750	3.750	3,743	3,525	3,316	3,387	5,258
Income not used or not applicable	183	257	252	235	225	702	704	731	724	723	4.250	3.625	2.875	2.500	3.125	3,275	3,305	3,357	3,286	3,696
***C. Neighborhood income*[4]**																				
Low or moderate	154	200	212	199	183	710	726	754	745	711	4.625	3.990	3.000	2.875	3.990	3,741	3,737	3,443	3,454	5,097
Middle	174	220	227	217	212	720	737	761	753	721	4.625	3.875	3.000	2.875	3.875	3,643	3,593	3,319	3,337	4,989
High	251	307	302	297	300	735	754	773	768	741	4.500	3.875	2.990	2.750	3.625	3,662	3,474	3,272	3,299	4,897

	Median Loan Amount (Thousands of Dollars)					Median Credit Score					Median Interest Rate (Percent)					Median Total Loan Cost (Dollars)				
	2018	**2019**	**2020**	**2021**	**2022**	**2018**	**2019**	**2020**	**2021**	**2022**	**2018**	**2019**	**2020**	**2021**	**2022**	**2018**	**2019**	**2020**	**2021**	**2022**
D. Enhanced Loan Type[5]																				
Conventional conforming	184	240	256	240	220	736	755	771	764	738	4.625	3.875	3.000	2.875	3.750	3,192	3,231	3,184	3,181	4,300
Jumbo	760	840	882	937	1,099	761	772	778	776	768	4.250	3.625	3.125	2.875	3.250	4,257	3,809	4,110	4,566	5,774
FHA	182	219	218	208	215	659	663	669	661	645	4.625	3.990	3.134	2.875	4.490	6,573	6,712	5,716	5,589	9,500
VA	228	269	271	261	285	692	706	736	730	692	4.375	3.625	2.750	2.375	3.750	5,937	3,528	3,114	3,168	8,265
FSA/RHS	128	174	167	159	136	696	701	714	706	684	3.880	3.625	3.000	2.750	3.060	4,055	4,399	4,440	4,544	5,032
Overall	196	250	259	245	232	724	744	766	759	727	4.625	3.875	3.000	2.875	3.750	3,664	3,556	3,310	3,336	4,979

NOTE: Closed-end (excluding reverse mortgage) refinance first-lien mortgages secured by site-built one-to-four-family, principal-residence properties.

(1) See table 2, note 1.

(2) See table 2, note 2.

(3) See table 2, note 3.

(4) See table 2, note 4.

(5) See table 3A, note 5.

3.3 Denial rates

The overall denial rate for home purchase applications for all applicants was 9.1 percent in 2022, higher than that in 2021 (8.3 percent) though slightly lower than in 2020 (9.3 percent).[21] About 14.4 percent of FHA applications (excluding withdrawn or incomplete applications) for home purchase loans were denied in 2022, followed by applications for FSA/RHS loans which had a denial rate of 13.2 percent. The conventional conforming home purchase applications had a denial rate of 7.6 percent in 2022, the lowest among all enhanced loan types.

The denial rates for refinance applications were higher than those for home purchase loans. The overall denial rate on applications for refinance loans was 24.7 percent in 2022, a steep increase from 14.2 percent in 2021 and 13.2 percent in 2020, but still lower than the denial rate in 2018 (29.1 percent). Consistent with home purchase applications, applications for FHA refinance loans were more likely to be denied (40.6 percent) than all other enhanced loan types, though unlike home purchase applications, applications for conventional jumbo refinance loans were the least likely to be denied (17.8 percent).

As in past years, Black and Hispanic white borrowers had notably higher denial rates in 2022 than non-Hispanic white and Asian borrowers. Among home purchase applications, the denial rates were 16.8 percent for Black applicants and 12.0 percent for Hispanic white applicants in 2022, both of which were higher than 2021 denial rates. In contrast, the denial rates of home purchase applications were 9.6 percent for Asian applicants and 6.7 percent for non-Hispanic white applicants.

Within each enhanced loan type except FHA and FSA/RHS loans, Black and Hispanic white applicants for home purchase loans had higher denial rates than non-Hispanic white or Asian applicants. For example, the denial rate of home purchase loan applications for conventional conforming loans was 16.2 percent for Black applicants and 10.9 percent for Hispanic white applicants. In contrast, the denial rate of home purchase loan applications for conventional conforming loans was 5.6 percent for non-Hispanic white applicants. On the other hand, for FHA home purchase applications, the denial rate of Asian applicants was higher than that of Hispanic white applicants but lower than that of Black applicants.

[21] Denial rates are calculated as the number of denied loan applications divided by the total number of applications, excluding withdrawn applications and application files closed for incompleteness.

Consistent with denials for home purchase loans, Black and Hispanic white applicants were also more likely to be denied for refinance applications. In 2022, about 35.8 percent of Black applicants and 27.6 percent of Hispanic white applicants applying for refinance loans were denied, compared to denial rates of 22.9 percent for Asian applicants and 20.2 percent for non-Hispanic white applicants. The disparities in refinance denial rate were smaller among FHA and VA loan applications compared with conventional conforming and jumbo loan applications. For example, the denial rates for conventional conforming refinance applications were at 32.2 percent, 25.5 percent, 21.4 percent, and 16.9 percent for Black, Hispanic white, Asian, and non-Hispanic white applicants, respectively. In contrast, the denial rates for FHA refinance applications were 45.0 percent, 38.0 percent, 43.8 percent, and 36.7 percent for Black, Hispanic white, Asian, and non-Hispanic white applicants, respectively.

TABLE 4: HOME PURCHASE AND REFINANCE LOAN DENIAL RATES, BY ENHANCED LOAN TYPES AND APPLICANT'S RACE AND ETHNICITY (PERCENT)

	All					Conventional									
						Conforming					Jumbo				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Home Purchase															
All applicants	9.8	8.9	9.3	8.3	9.1	8.2	7.4	7.6	7.1	7.6	11.0	10.5	11.0	8.2	9.5
Asian	10.2	9.1	9.7	7.9	9.6	9.1	8.1	8.7	7.4	8.9	12.4	11.8	11.3	8.1	10.6
Black or African American	17.4	15.9	18.1	15.3	16.8	16.9	15.9	17.0	15.7	16.2	19.0	19.1	21.1	16.8	20.0
Hispanic White	13.1	11.6	12.5	10.6	12.0	11.9	10.6	11.0	9.7	10.9	17.2	16.9	18.1	12.7	15.0
Non-Hispanic White	7.9	7.0	6.9	6.3	6.7	6.5	5.8	5.8	5.4	5.6	9.9	9.5	10.1	7.4	8.0
Other Minority(2)	14.3	13.0	13.7	12.4	13.8	13.4	12.8	12.6	12.1	13.0	13.1	16.5	18.3	13.9	18.6
Joint	8.4	7.5	7.9	6.5	6.8	7.0	6.4	6.2	5.5	5.6	9.0	8.3	8.4	6.4	7.1
Missing	12.4	11.1	11.5	10.4	11.4	10.8	9.3	9.7	9.1	9.7	11.7	11.2	11.9	9.3	10.8
B. Refinance															
All applicants	29.1	19.2	13.2	14.2	24.7	24.7	16.5	12.0	13.0	21.2	27.6	18.8	18.5	13.6	17.8
Asian	28.0	16.0	12.1	12.3	22.9	25.1	14.5	11.5	11.9	21.4	27.8	16.2	17.3	11.5	17.3
Black or African American	44.3	32.9	23.2	23.6	35.8	39.8	33.5	25.4	23.9	32.2	41.3	35.1	30.2	22.7	31.2
Hispanic White	32.1	23.0	17.6	17.6	27.6	30.0	22.5	17.2	17.1	25.5	36.4	28.4	29.2	19.3	25.9
Non-Hispanic White	25.1	16.4	11.0	11.8	20.2	20.9	13.8	9.9	10.5	16.9	25.9	18.2	17.7	12.7	16.0
Other Minority	42.2	30.4	21.2	22.0	35.4	37.0	28.4	20.9	21.4	32.0	41.2	31.7	27.8	21.9	23.4
Joint	25.5	15.7	11.0	11.0	19.1	21.3	13.5	9.9	9.9	16.3	23.7	15.9	15.7	11.1	13.3
Missing	34.3	22.7	16.3	17.8	30.6	30.3	19.7	15.2	16.6	27.2	31.1	20.7	20.1	16.6	21.2

TABLE 4: HOME PURCHASE AND REFINANCE LOAN DENIAL RATES, BY ENHANCED LOAN TYPES AND APPLICANT'S RACE AND ETHNICITY (PERCENT) (*continued*)

	Non-conventional														
	FHA					VA					FSA/RHS				
	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022	2018	2019	2020	2021	2022
A. Home Purchase															
All applicants	13.9	12.4	14.1	12.4	14.4	9.8	8.7	8.6	7.9	8.9	14.1	12.6	10.3	10.0	13.2
Asian	15.8	14.7	16.3	14.2	16.7	9.4	8.5	8.6	8.4	9.5	17.9	14.4	13.0	13.7	16.8
Black or African American	18.6	16.8	20.7	16.1	18.5	14.8	13.3	13.9	12.0	13.6	21.1	19.8	16.7	14.8	19.7
Hispanic White	14.4	12.6	14.4	11.9	13.9	11.7	10.3	10.0	8.9	10.3	18.9	16.6	13.9	13.1	16.7
Non-Hispanic White	11.3	9.8	10.1	9.8	11.1	8.4	7.3	7.0	6.4	7.1	12.3	11.0	8.6	8.5	11.5
Other Minority[(2)]	16.6	13.8	16.6	14.4	15.7	12.8	11.5	11.3	9.8	12.2	16.3	16.1	12.6	10.6	16.6
Joint	11.6	9.8	12.6	9.9	10.8	8.1	7.3	7.7	6.5	7.0	15.8	14.2	12.3	10.8	14.6
Missing	17.7	16.4	17.4	15.6	17.9	11.3	9.9	9.5	9.1	10.1	21.4	17.5	14.7	14.1	17.0
B. Refinance															
All applicants	43.8	30.2	22.2	23.6	40.6	36.4	21.8	13.9	16.7	30.8	39.7	27.7	18.6	16.8	30.8
Asian	48.4	30.2	23.7	23.8	43.8	36.4	22.4	13.2	14.6	31.6	63.6	33.3	23.0	25.5	25.0
Black or African American	52.6	35.5	24.4	25.3	45.0	46.0	29.3	17.8	21.4	36.7	41.8	36.0	25.8	23.0	38.6
Hispanic White	39.0	25.5	21.6	21.9	38.0	34.8	20.4	13.6	15.7	30.2	36.8	25.0	18.7	16.9	29.2
Non-Hispanic White	40.3	27.9	20.2	21.9	36.7	33.8	19.8	12.6	15.0	28.2	37.5	25.9	16.9	15.9	28.7
Other Minority	52.5	36.0	25.7	25.5	45.6	48.8	31.2	18.9	22.0	39.8	35.5	28.2	22.4	22.3	34.8
Joint	36.8	21.9	17.4	17.2	32.5	32.0	18.7	12.0	13.3	24.7	38.8	27.2	17.4	17.8	21.9
Missing	48.5	35.2	25.8	26.9	45.5	36.9	22.7	15.6	18.6	32.4	56.4	38.0	27.0	17.8	40.0

NOTE: Closed-end (excluding reverse mortgage) home purchase or refinance first-lien mortgages secured by site-built single-family, principal-residence properties. For a description of how borrowers are categorized by race and ethnicity, see table 2, note 1.

(1) Nonconventional loans are those insured by the FHA or backed by guarantees from the VA, the FSA, or the RHS.

(2) See table 2, note 1.

4. Monthly mortgage trends and activities

The discussion and tables in previous chapters provide historical comparisons on an annual basis. In this chapter, we show the monthly trends of mortgage activities from 2018 to 2022. In doing so, we rely on the action taken date that was collected and reported under HMDA. We note that the action taken date is a data field not available in the publicly released version of the modified HMDA data.

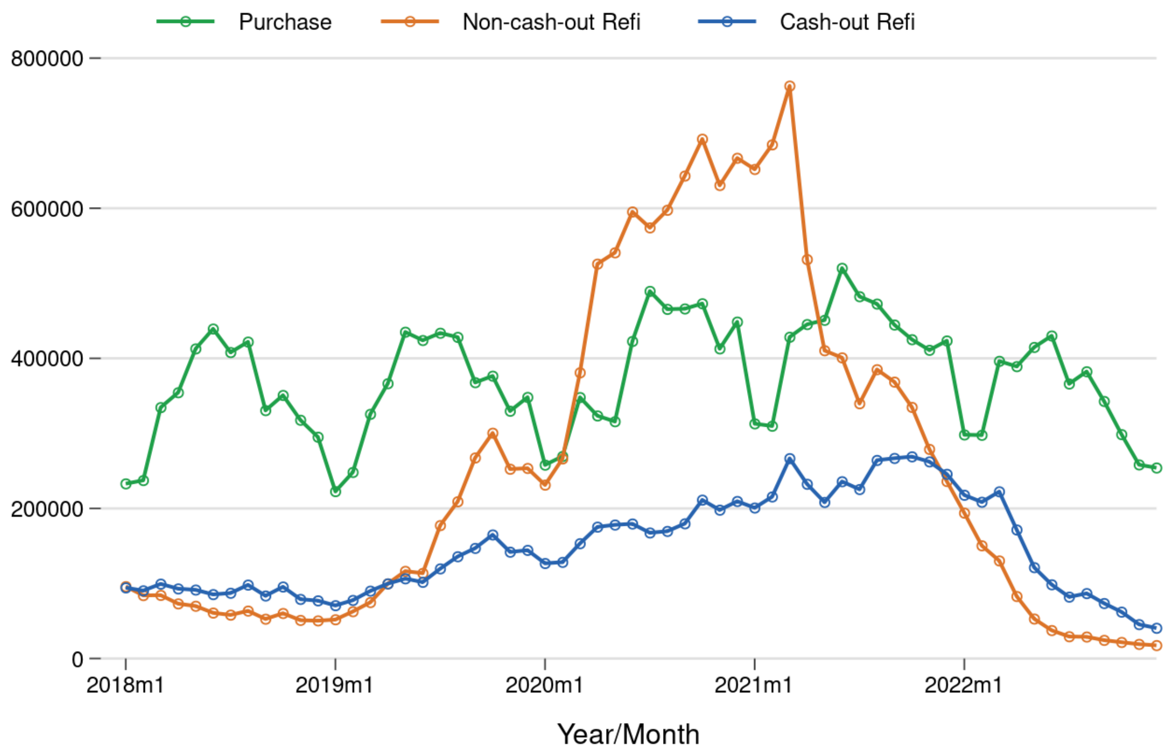
Figure 3 plots the number of originations for closed-end mortgage loans secured by site-built single-family homes in each month between January 2018 and December 2022, separated by three loan purposes: home purchase, cash-out refinance, and non-cash-out refinance. It illustrates how precipitously the mortgage market had shrunk in 2022. By the end of 2022, home purchase loan originations were down significantly compared to a year earlier, non-cash-out refinances nearly vanished, and the small refinance origination volume left in the market was mostly composed of cash-out refinance loans. This coincided with the increase in market interest rates, as noted in Figure 1.

The home purchase origination volume clearly displays a strong seasonal pattern, as home sales typically fluctuate as the number of home sellers and buyers entering the market changes with the seasons. Figure 3A plots the year-over-year change in closed-end loan origination volumes by loan purpose between January 2018 and December 2022. The home purchase loan origination volume rose year-over-year starting in the second half of 2019 until April 2020 when the nationwide shutdown due to the pandemic occurred. Starting in July 2020, the home purchase volume recovered and increased significantly. The year-over-year increase in home purchase loan volume continued into the first half of 2021, reaching an annual growth rate of 42.8 percent in May 2021 and the monthly volume peaked at 520,000 originations in June 2021. Then it mostly plateaued or dipped into negative territories in the second half of 2021 in terms of year-over-year change. In 2022, the decline of home purchase origination accelerated. The origination volume of home purchase loans declined by 3.9% in February 2022 compared to a year ago. The annual decline jumped to 17.3 percent year-over-year in June 2022 and continued to accelerate throughout the rest of the year, down 40.0 percent in December 2022 compared to December 2021. The monthly origination volume in December 2022 stood at 254,000. It was the fourth lowest month since January 2018.

The decline of refinance originations in 2022 was even more drastic than home purchase loans. After a historical refinance boom in previous years that peaked in mid-2021, the refinance volume, especially in non-cash-out refinance that dominated mortgage market activities in 2020 and 2021, declined precipitously through 2022. At its peak in March 2021, over 763,000 non-cash-out loans were originated in a month. Since then, the non-cash-out refinance volume decreased rapidly. By December 2021, the monthly non-cash-out refinance volume fell to 236,000. This trend continued throughout 2022. By the end of 2022, the monthly non-cash-out refinance volume stood at a meager 18,000 per month, only 2.3 percent of its peak value, and down 92.6 percent from just a year ago.

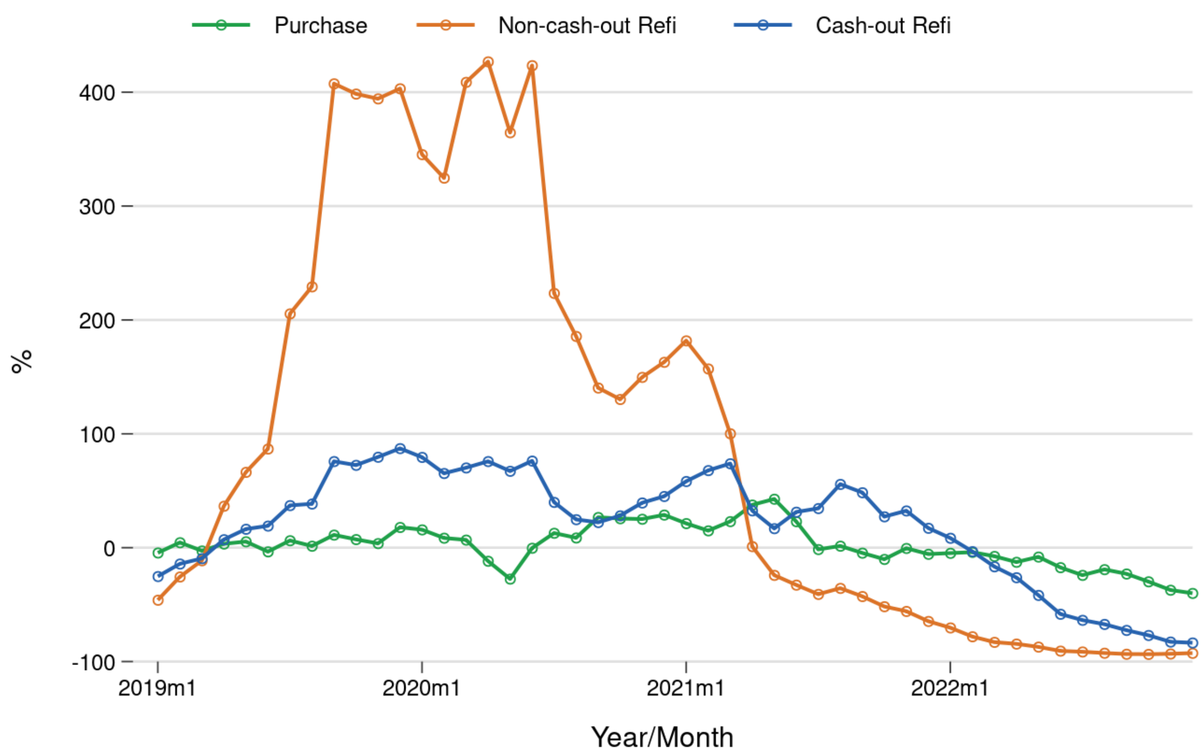
During the refinance boom, the cash-out refinance volume rapidly rose too, but at a rate dwarfed by the non-cash-out refinance. The movement of cash-out refinance lagged non-cash-out refinance. It peaked at 269,000 loans in October 2021. For most of 2021, the cash-out refinance volume stayed above 200,000 originations per month, even though the non-cash-out refinance originations had already dipped drastically since March. The high interest environment eventually caught up with cash-out refinance activities as well in 2022. The monthly cash-out refinance volume was about 246,000 originations in December 2021. The beginning of 2022 saw monthly cash-out refinance volume drop to 218,000 originations in January. Since April 2022, the monthly cash-out refinance volume has dropped continuously. By the end of 2022, the monthly volume fell to 41,000 in December 2022. On the other hand, compared to non-cash-out refinances for which borrowers mainly sought to lower their interest rates, the cash-out refinance volume did not vanish. Since December 2021, the ratio of cash-out refinance over non-cash-out refinance origination exceeded a factor of 2 and was close to a factor of 3 in multiple months.

Figure 3: Number of Closed-end Mortgage Originations by Loan Purpose



NOTE: Monthly originations of closed-end loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 3A: Year-over-Year Percentage Change of Number of Closed-end Mortgage Originations by Loan Purpose



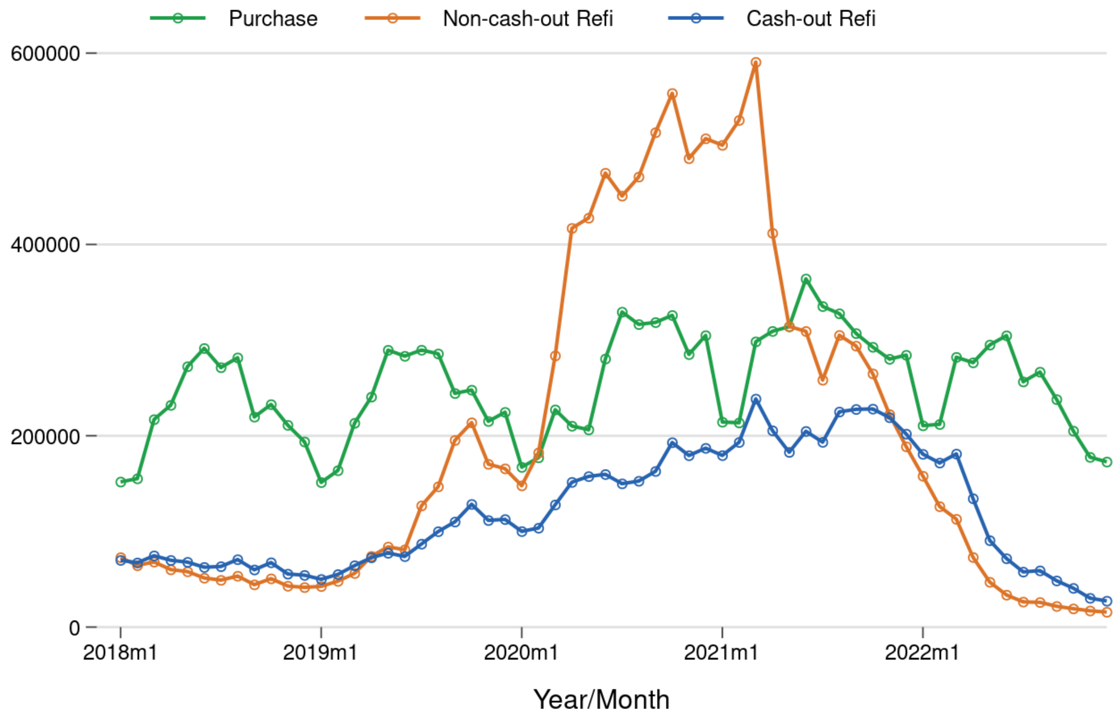
NOTE: Year-over-year percentage changes of monthly originations of closed-end loans secured by site-built single-family homes between January 2019 and December 2022.

Figures 4 to 8 show the monthly loan origination volume of home purchase, cash-out refinance, and non-cash-out refinance loans by enhanced loan types. The trends in the conventional conforming market (Figure 4) were largely similar to the overall trends of the entire mortgage market presented in Figure 3, as conventional conforming loans are the most common enhanced loan type. In the jumbo loans space (Figure 5), cash-out refinance originations fell simultaneously with non-cash-out refinance loans and reached about similar levels in 2022.

The most prominent gaps between the cash-out refinance and non-cash-out refinance in 2022 occurred among FHA (Figure 6) and VA (Figure 7) loans. Unlike conventional conforming and jumbo loans, FHA cash-out-refinance did not drop until the last quarter of 2022. In fact, the monthly cash-out FHA loan origination volume rose year-over-year in the first three quarters of 2022, continuing a trend that began in March 2021. This is despite the sharp decrease in non-cash-out refinance of FHA loans. It did start dropping in the last quarter and was down by 40.4

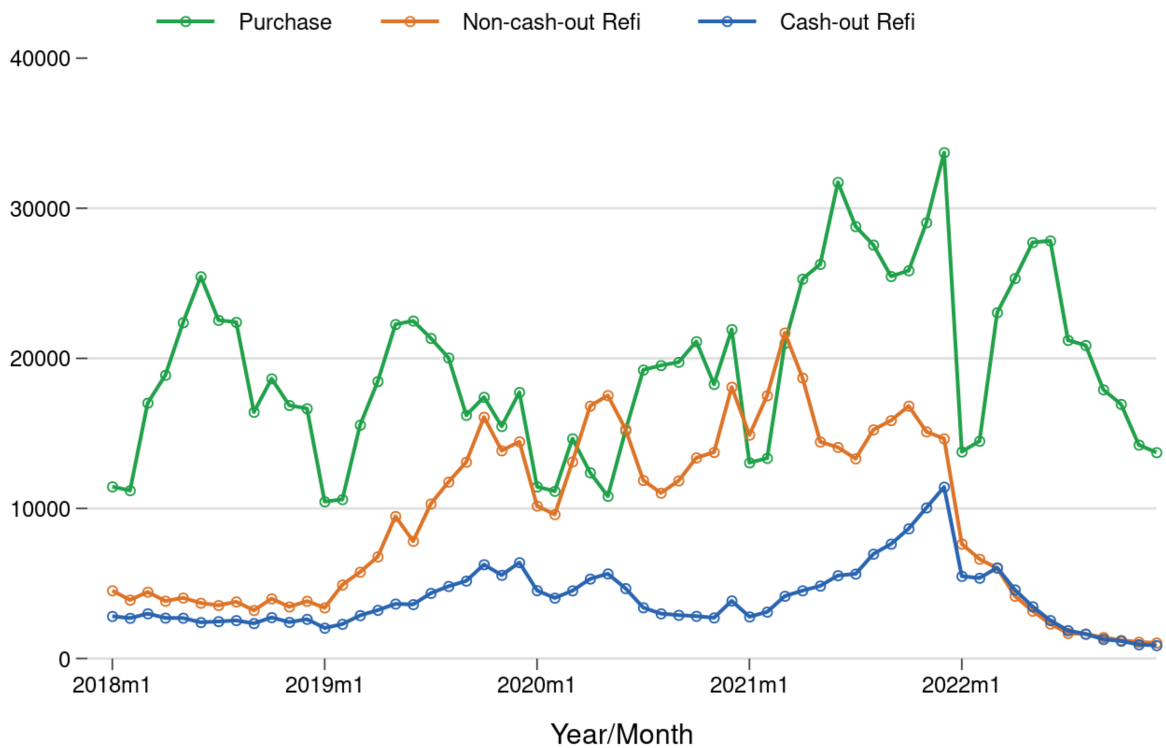
percent in December 2022 compared to December 2021. In terms of ratios, the number of cash-out FHA refinance loans was more than 12 times that of non-cash-out refinance FHA loans in the second half of 2022. Even in December 2022, with only a little over 600 FHA non-cash-out refinance loans originated, about 7,500 FHA cash-out loan originations were reported. Similarly, while non-cash-out refinance VA loans came to a near halt in most of 2022, some borrowers continued to take out cash-out refinance VA loans which only started to dip in the second half of the year. In December 2022, fewer than 200 non-cash-out refinance VA loans were originated, while close to 4,900 cash-out refinance VA loans were originated in that month.

FIGURE 4: Number of Closed-end Conventional Conforming Originations by Loan Purpose



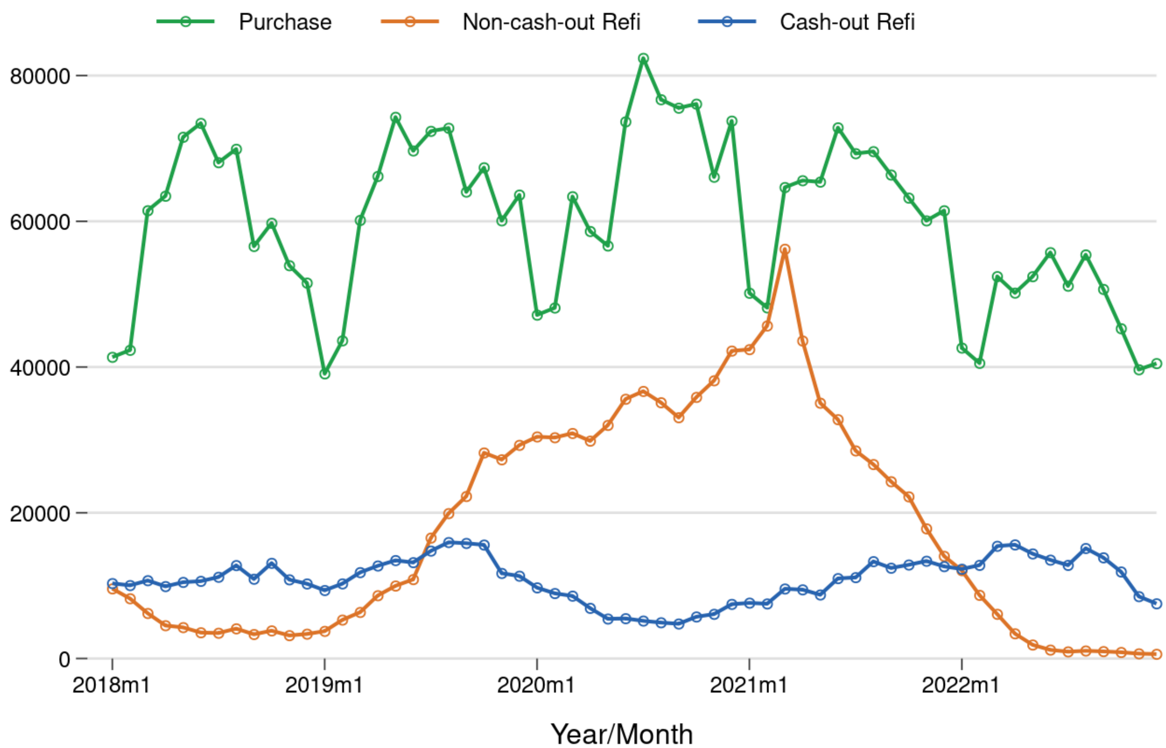
NOTE: Monthly originations of closed-end conventional conforming loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 5: Number of Closed-end Jumbo Originations by Loan Purpose



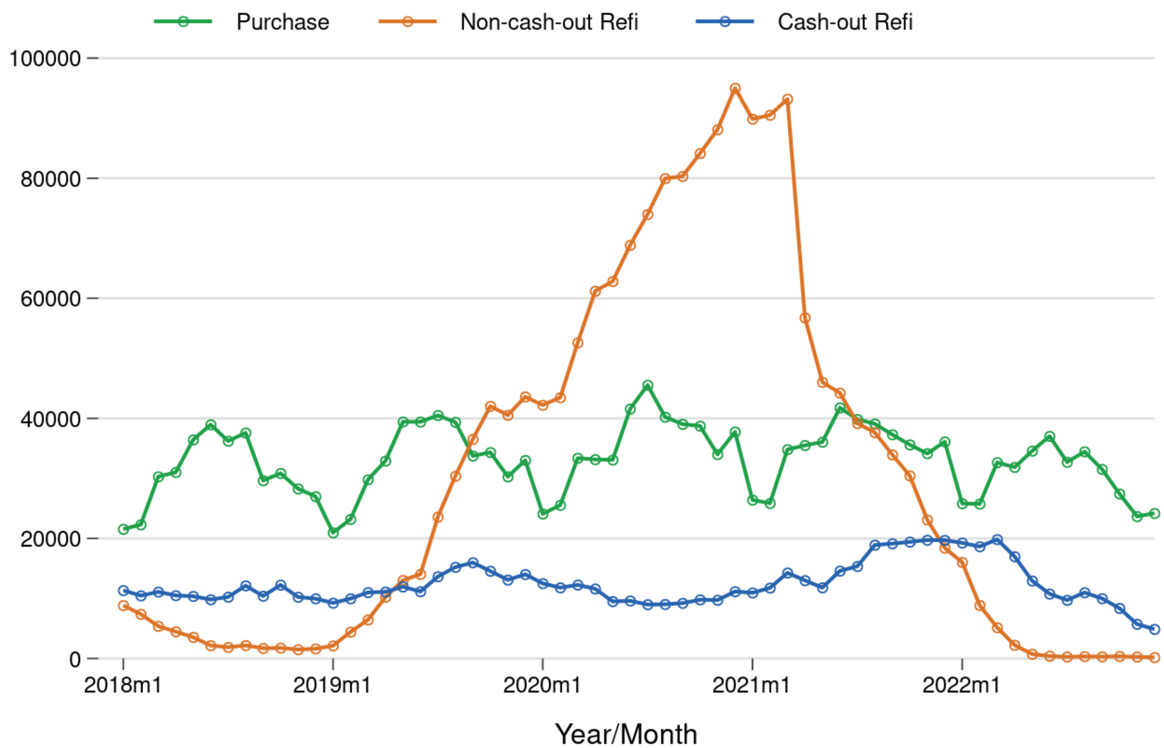
NOTE: Monthly originations of closed-end jumbo loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 6: Number of Closed-end FHA Originations by Loan Purpose



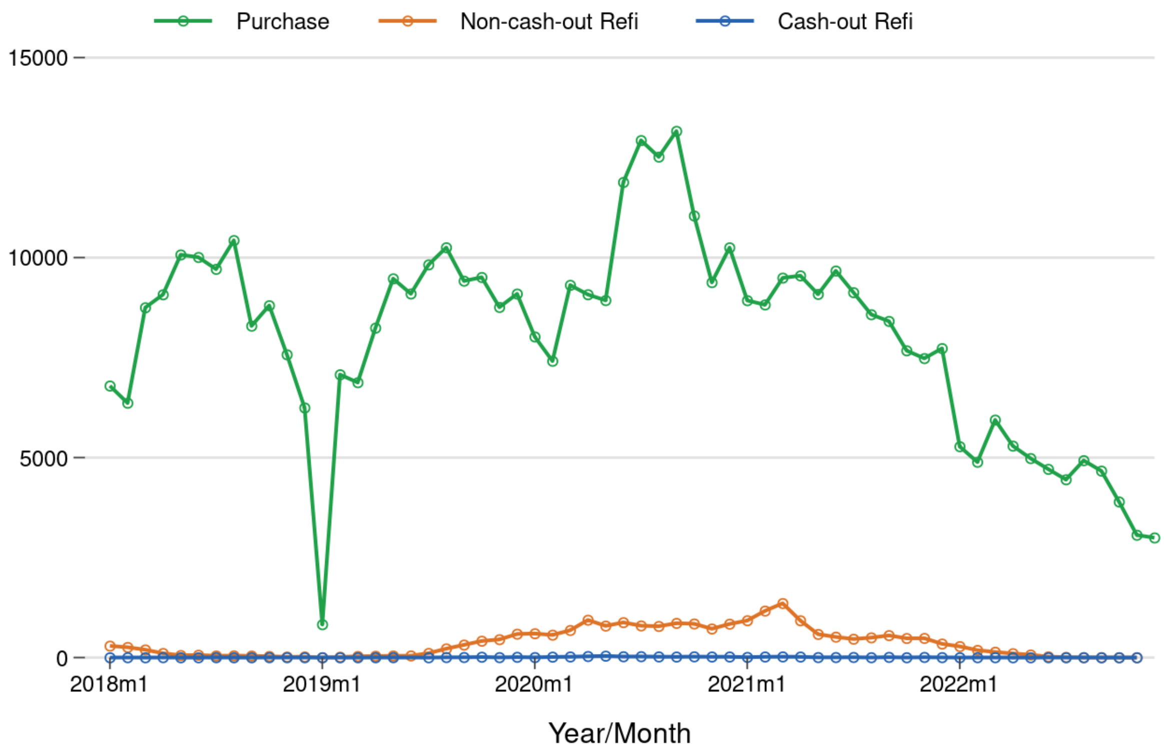
NOTE: Monthly originations of closed-end FHA loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 7: Number of Closed-end VA Originations by Loan Purpose



NOTE: Monthly originations of closed-end VA loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 8: Number of Closed-end RHS/FSA Originations by Loan Purpose

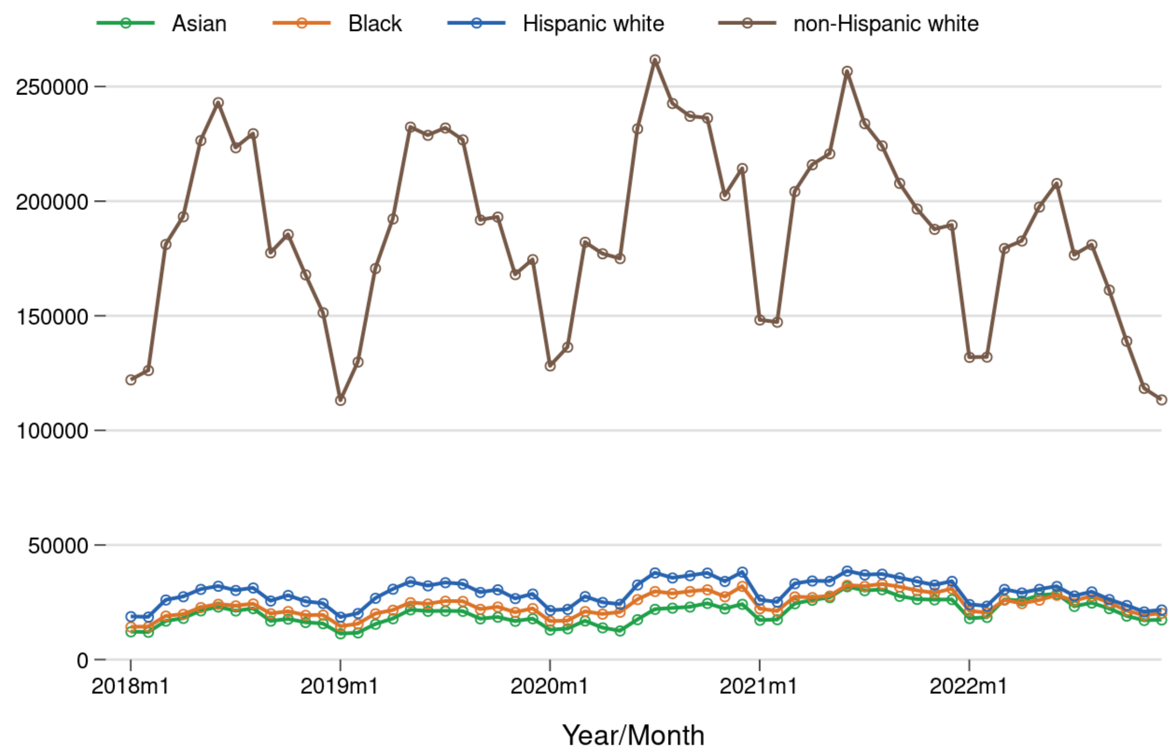


NOTE: Monthly originations of closed-end RHS/FSA loans secured by site-built single-family homes between January 2018 and December 2022.

Figure 9 shows the monthly origination volume of closed-end home purchase loans by race/ethnicity. Compared to the same period in 2021, Asian, Black, Hispanic white, and non-Hispanic white borrowers all saw a significant drop in home purchase origination volumes in almost all of 2022, and the year-over-year rate of decline accelerated throughout the year for all groups. Because the origination volume of non-Hispanic white borrowers far exceeds these of Asian, Black, and Hispanic white borrowers, to aid the visual comparison of lending volumes and shares of minority borrowers over time, we included Figures 9A, 10A, 11A, and 12A where non-Hispanic white borrowers are excluded, and the vertical axis is rescaled accordingly.

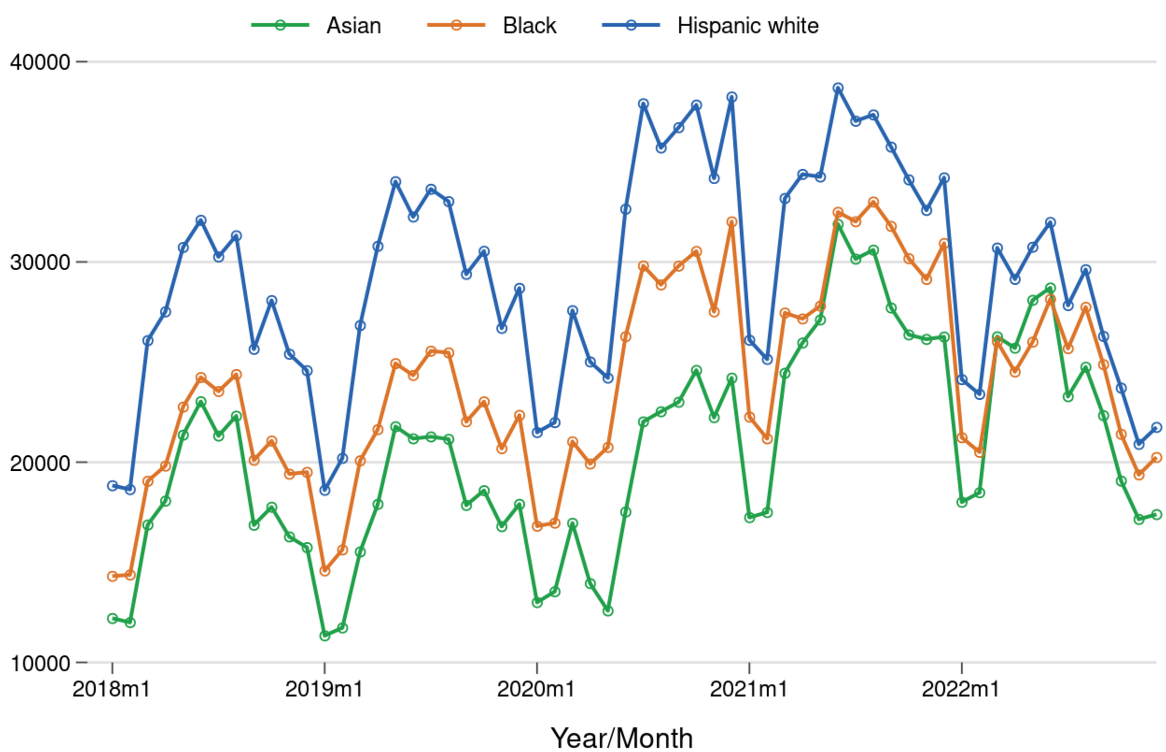
Figure 10 and 10A show the relative shares of monthly home purchase originations by racial/ethnic group. In 2022, non-Hispanic white borrowers' share among home purchase loans continued a downward trend that began in 2020 (Figure 10). Meanwhile, the share of home purchase originations for Asian borrowers continued to stay at a relatively high level compared to past years, an upward trend that began in May 2020. In addition, Black borrowers' share of home purchase originations increased in 2022 compared to the previous years (Figure 10A).

FIGURE 9: Number of Closed-end Home purchase Loan Originations by Race and Ethnicity



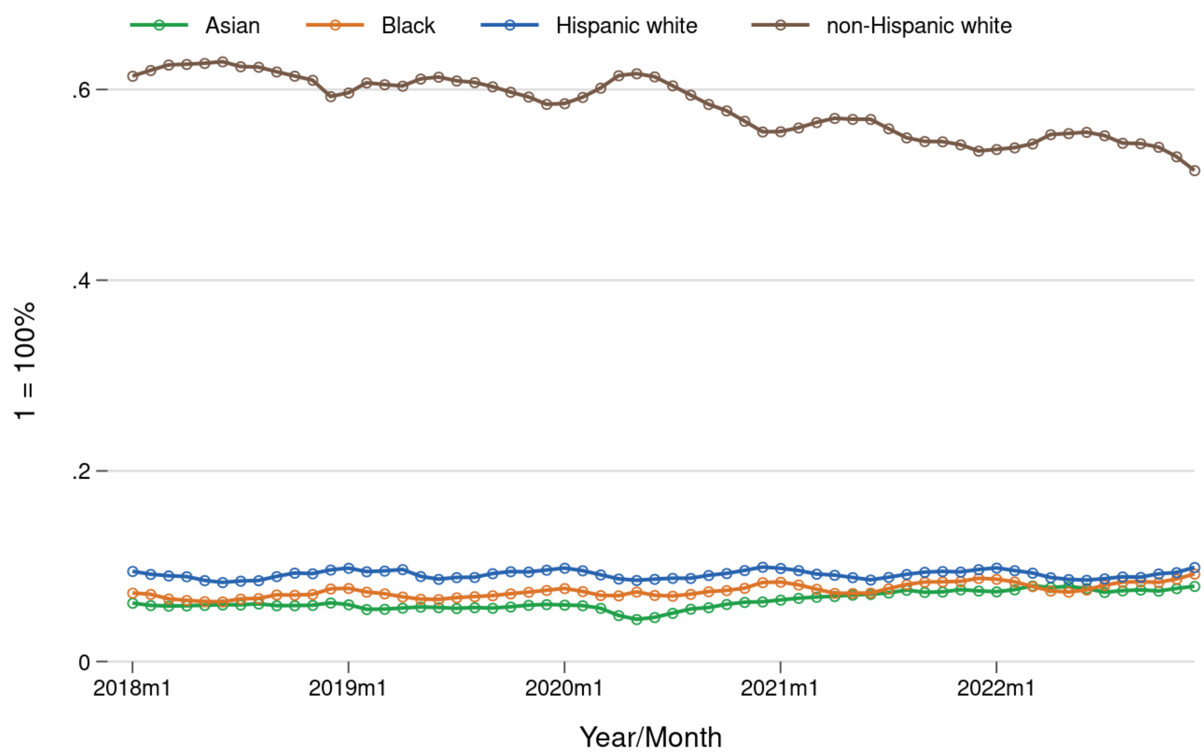
NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 9A: Number of Closed-end Home purchase Loan Originations by Race and Ethnicity (Excluding Non-Hispanic White)



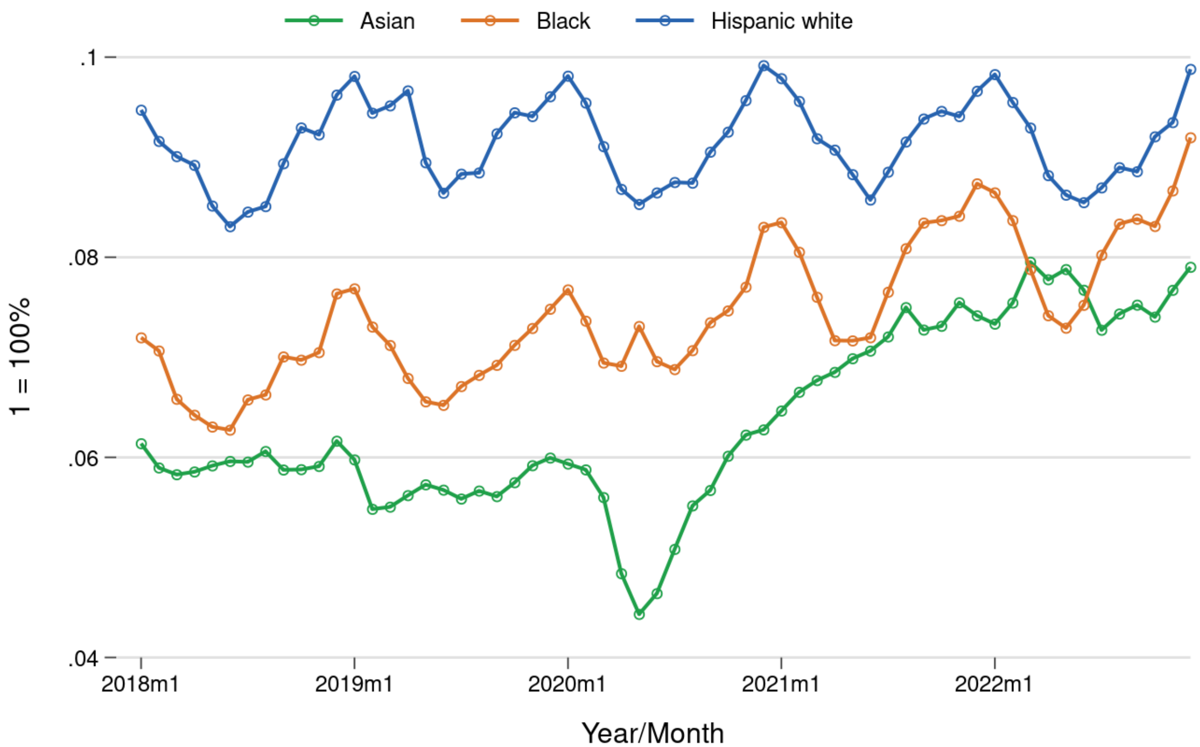
NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 10: Share of Closed-end Home purchase Loan Originations by Race and Ethnicity



NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 10A: Share of Closed-end Home purchase Loan Originations by Race and Ethnicity (Excluding Non-Hispanic White)



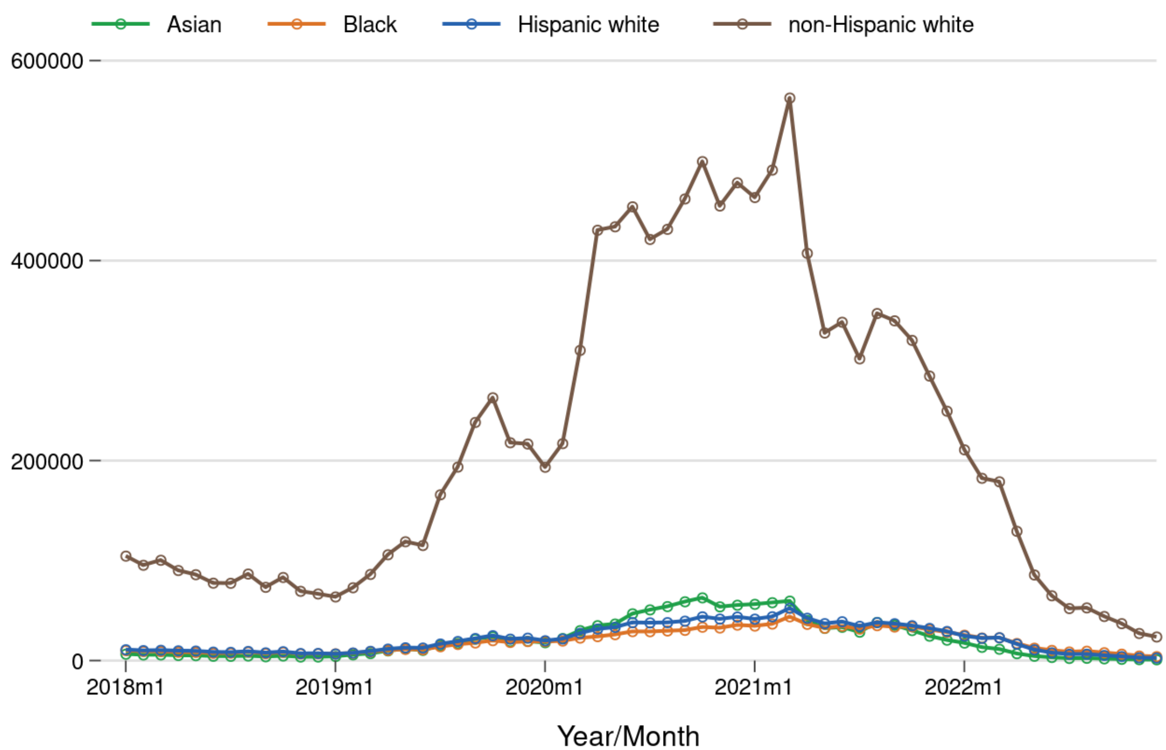
NOTE: Monthly originations of closed-end home purchase loans secured by site-built single-family homes between January 2018 and December 2022.

Plotting the monthly origination volume of closed-end refinance loans broken down by race/ethnicity, Figure 11 shows the refinance boom during 2019 and 2020 turned bust in 2022, following the downturn in 2021 for all major racial/ethnic groups. Figure 11A shows that just as the refinance volume increased the fastest for Asian borrowers in 2019 and 2020, it also declined the fastest in 2021 and 2022.

Figures 12 and 12A show the relative shares of monthly refinance originations by racial/ethnic group. Figure 12A shows a significant decline in Asian borrowers' share of refinance loans in 2021 and 2022. At its peak, Asian borrowers accounted for close to 7.7 percent of all refinance loans in September 2021, exceeding the shares of Black and Hispanic white borrowers. By the end of 2022, the share of refinance loans by Asian borrowers dropped to about 2.5 percent, far below the shares of Black and Hispanic white borrowers. In comparison, the Black borrowers' shares of refinance loans have steadily increased since 2020, except for a small dip in the last quarter of 2022, accounting for around 9.9 percent of refinance loans by the end of 2022. A similar, albeit smaller rise in Hispanic white borrowers' share among refinance loans also occurred in the most-recent two years with declines in the second half of 2022.

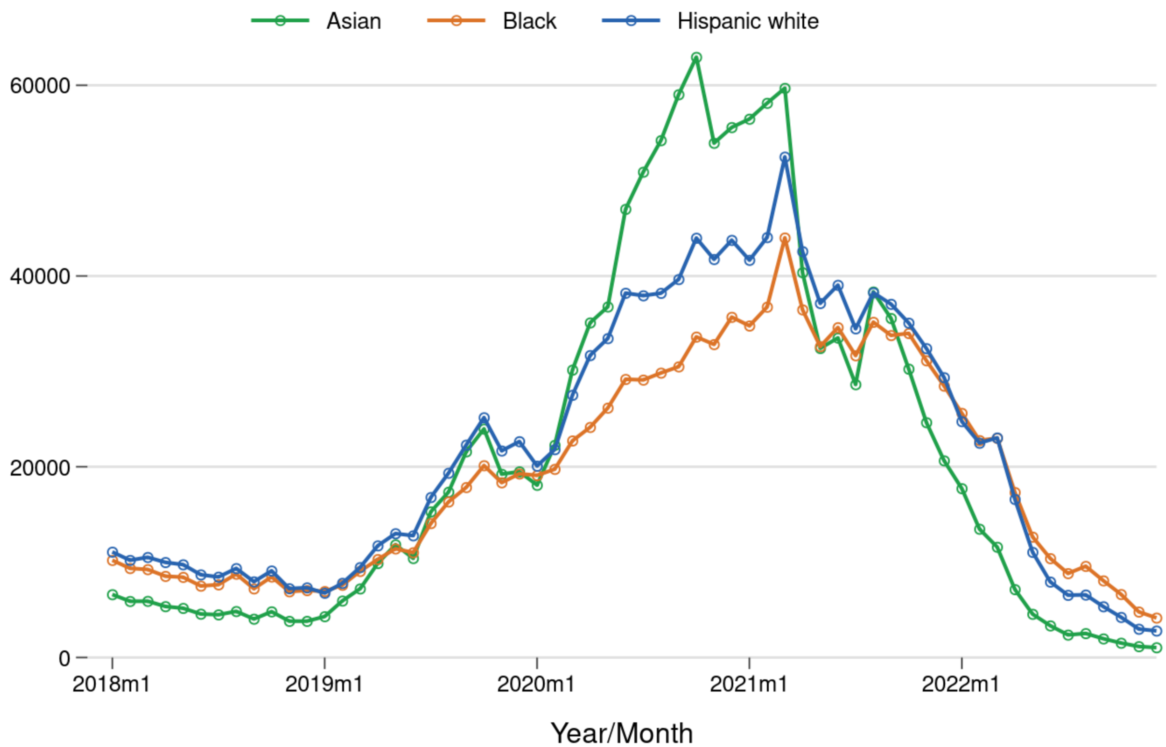
It is important to note that the rise in Black and Hispanic white borrowers' share in refinance loans in the past year happened in a high interest rate environment, with overall refinance volume dropping substantively. Furthermore, most of the remaining refinance originations near the end of the period were cash-out refinance, which many borrowers might have taken out for cash and equity extraction at possibly high interest rate.

FIGURE 11: Number of Closed-end Refinance Loan Originations by Race and Ethnicity



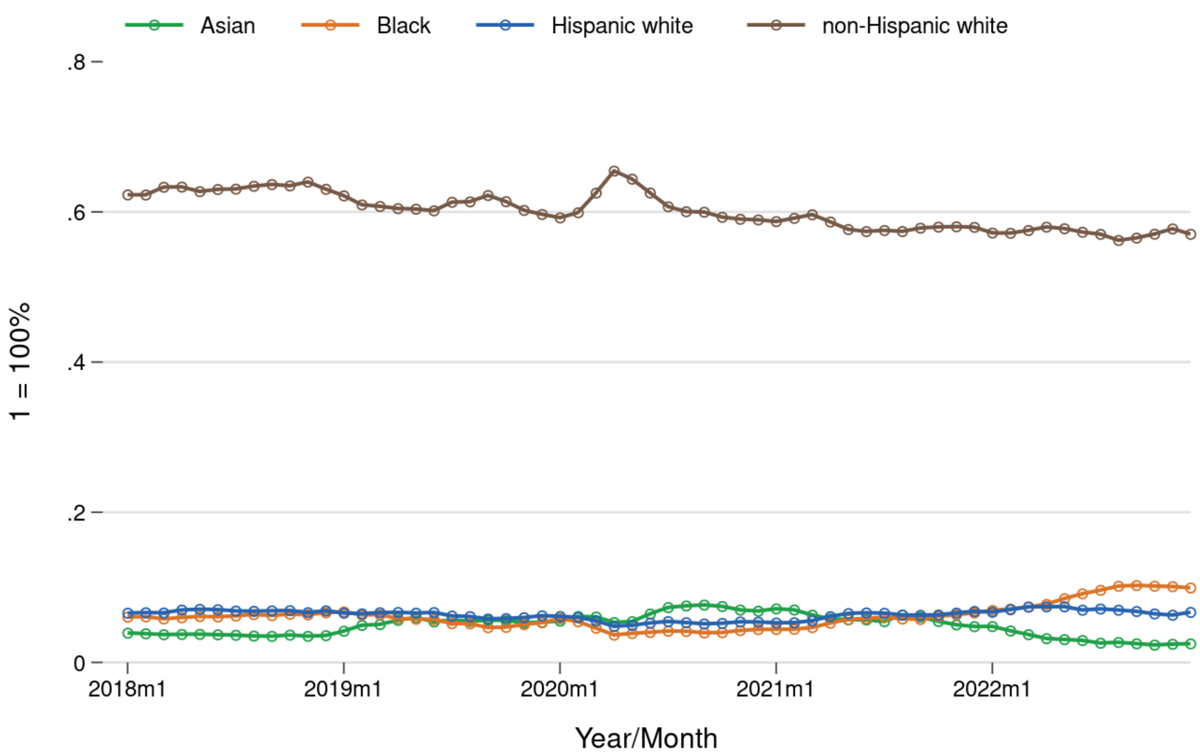
NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 11A: Number of Closed-end Refinance Loan Originations by Race and Ethnicity (Excluding Non-Hispanic White)



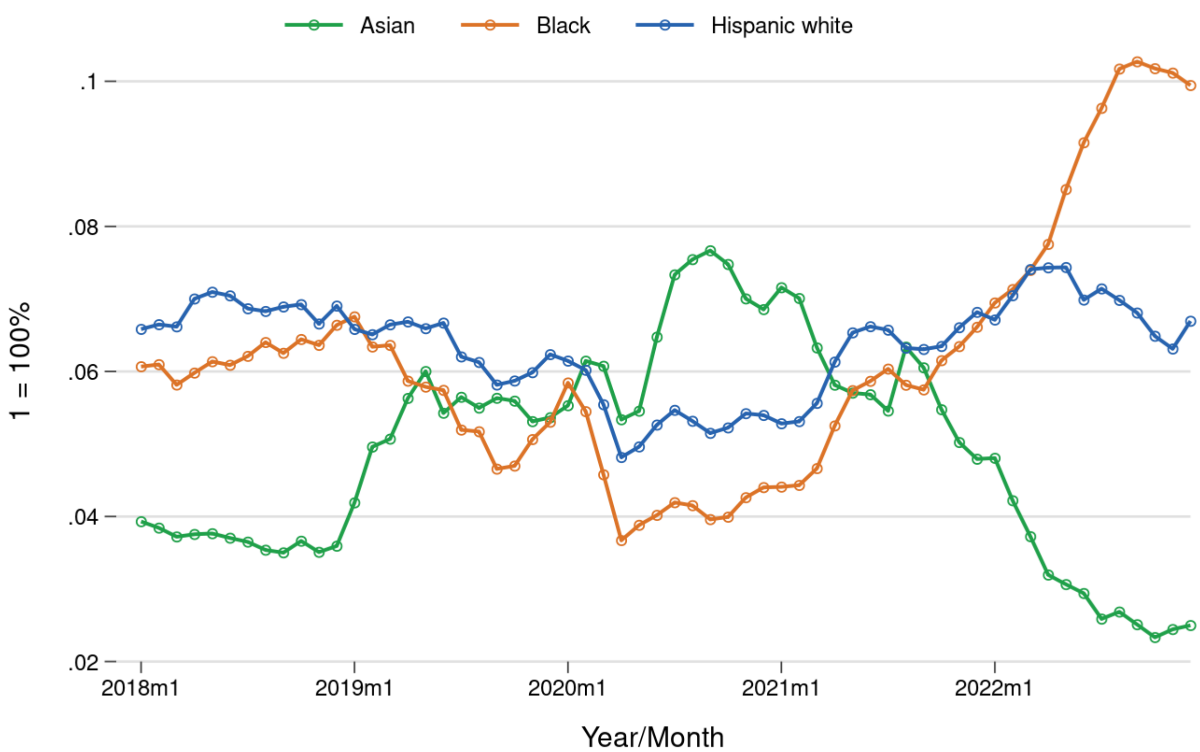
NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 12: Share of Closed-end Refinance Loan Originations by Race and Ethnicity



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2022.

FIGURE 12A: Share of Closed-end Refinance Loan Originations by Race and Ethnicity (Excluding Non-Hispanic White)



NOTE: Monthly originations of closed-end refinance loans secured by site-built single-family homes between January 2018 and December 2022.

5. Trends in interest rates and mortgage payment burdens

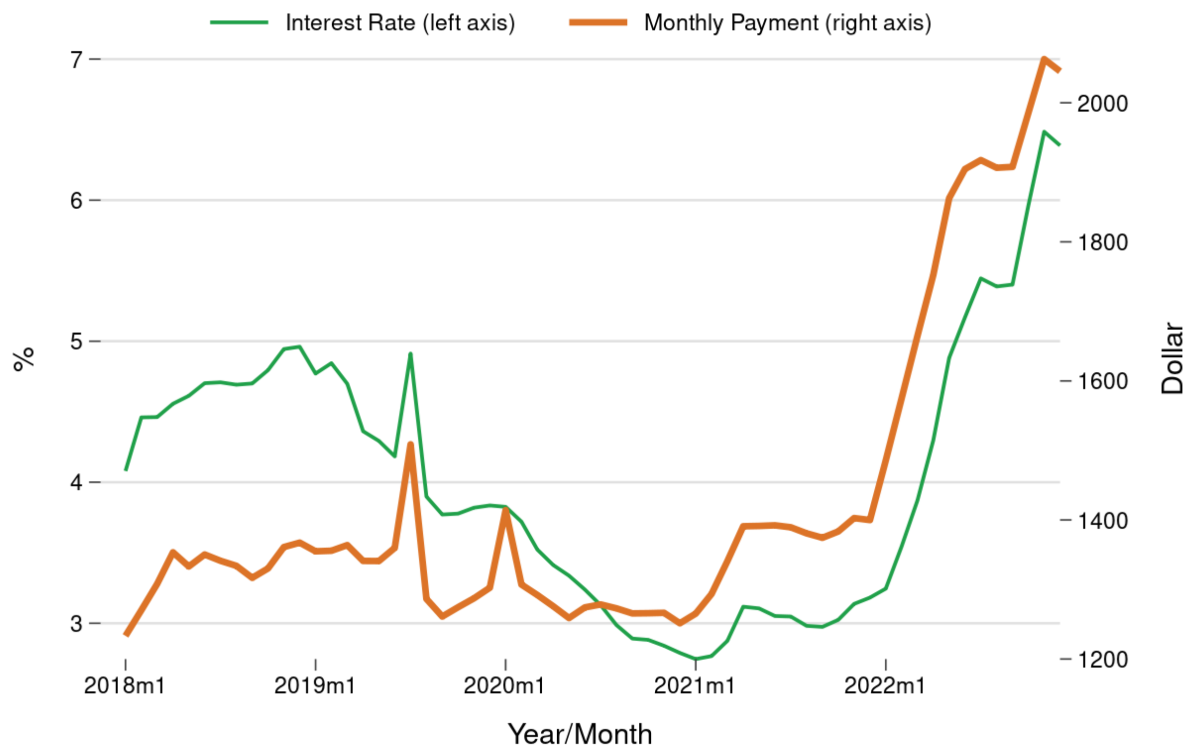
Mortgage interest rates rose sharply in 2022. In this section we discuss the impact of rising interest rates on borrowers' monthly payments and overall debt burdens, as well as the impact of increasing rates of debt on potential homebuyers' ability to qualify for a mortgage. We limit the analyses to closed-end home-purchase loans secured by site-built, single-family, and first-lien principal residence. Reverse mortgage loans have also been excluded from this analysis.

The green line (corresponding to left axis) in Figure 13 plots the monthly average interest rates for 30-year fixed-rate closed-end conventional conforming loans originated to prime borrowers secured by first-lien principal residence. As the figure shows, after two years of decline, the mortgage interest rate began rising in 2021 and really took off in 2022.

One direct consequence of higher interest rates is the higher monthly payments borne by borrowers. Even though monthly payment information is not reported in HMDA data, using the reported loan amount, loan term and interest rate, we can impute the monthly principal and interest payment of loans at origination. This does not include taxes and insurance, which also factor into the borrower's total monthly payment. The thicker orange line (corresponding to right axis) in Figure 13 illustrates the sharp rise of monthly mortgage payment amounts since the beginning of 2022. While the average monthly payment excluding taxes and insurance for borrowers taking out a conventional conforming 30-year fixed-rate mortgage was mostly stable throughout 2018 to 2020, it started to rise in 2021 and shot up in 2022, from $1,400 in December 2021 to $2,045 in December 2022 – a 46.1 percent increase in a span of one year. This increase was driven almost entirely by the rise in mortgage interest rates, as the average loan amount only increased by a very modest 1.7 percent from December 2021 to December 2022, while the average interest rate for those prime borrowers increased from 3.18 to 6.39 percent.

This increase in monthly payment amounts was felt across all racial and ethnic groups. While not shown on the graph, over the same period, the average monthly payment for 30-year fixed-rate conventional conforming mortgages rose by about 47.3 percent for Black borrowers, 44.0 percent for Hispanic white borrowers, 45.4 percent for non-Hispanic white borrowers, and 46.4 percent for Asian borrowers.

Figure 13: Average prime interest rate and monthly mortgage payment for 30-year fixed-rate conventional conforming mortgages



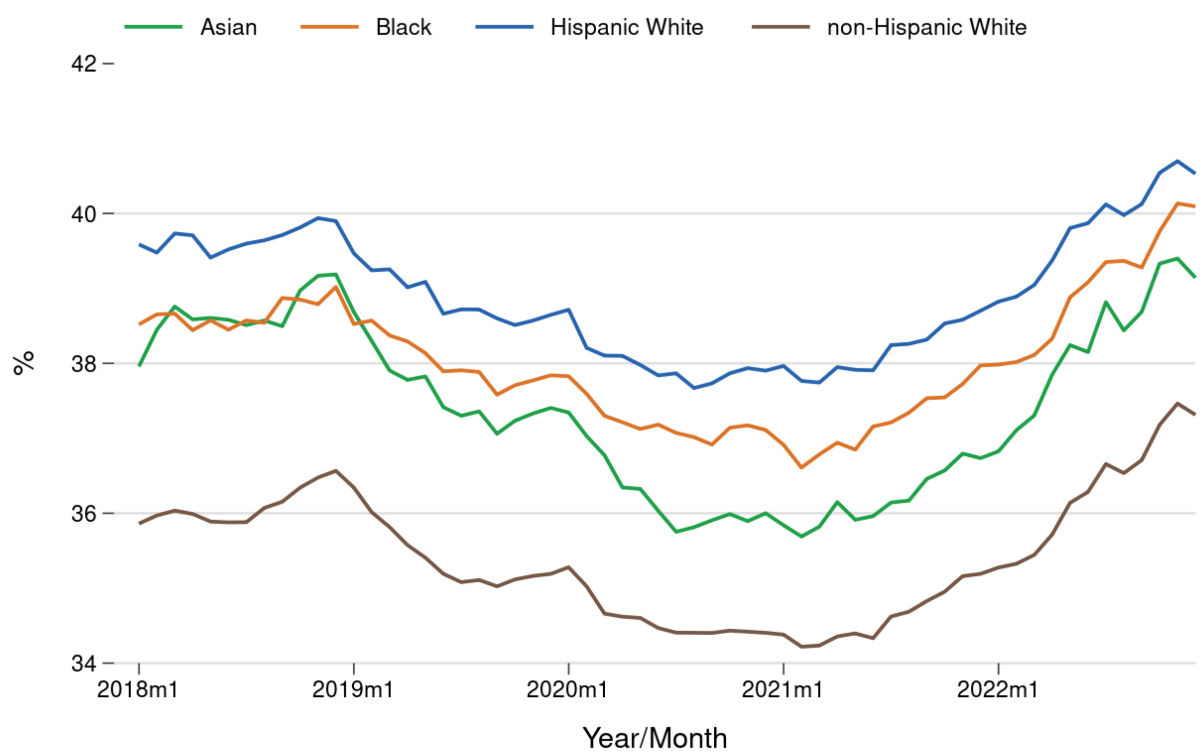
The chart represents newly originated home-purchase closed-end loans secured by site-built single-family first-lien principal residence, excluding reverse mortgages. Prime borrowers are defined as those with a credit score of at least 720 and CLTV of around 80 percent (79 percent ≤ CLTV ≤ 80 percent).

One important measure of a consumer's total debt burden is their debt-to-income ratio (DTI), which is calculated by dividing the applicant's or borrower's total monthly debt – including mortgage payments or housing expenses, plus other debts such as credit card debts and car loans – by their gross income. A higher DTI means that consumers have more debt obligations relative to their income, which could put them in a more precarious financial position if they experience a financial shock or emergency.

Figure 14 plots the average DTI for 30-year fixed-rate conventional conforming home purchase loans by race and ethnicity. Overall, the average DTI declined between the end of 2018 and beginning of 2021, given the historical decline of mortgage interest rates taking place over the same period.

The trend has reversed since the beginning of 2021. The average DTI rose significantly for all groups and exceeded 2018 levels by the end of 2022. In particular, by the end of our observation period, the average DTIs for Hispanic white and Black borrowers both reached over 40 percent. This means that consumers taking out new mortgages are likely devoting a higher share of their income towards servicing debts, especially mortgage payments, with the average DTI for all groups approaching levels not seen since the DTI information was first collected in the HMDA data in 2018.

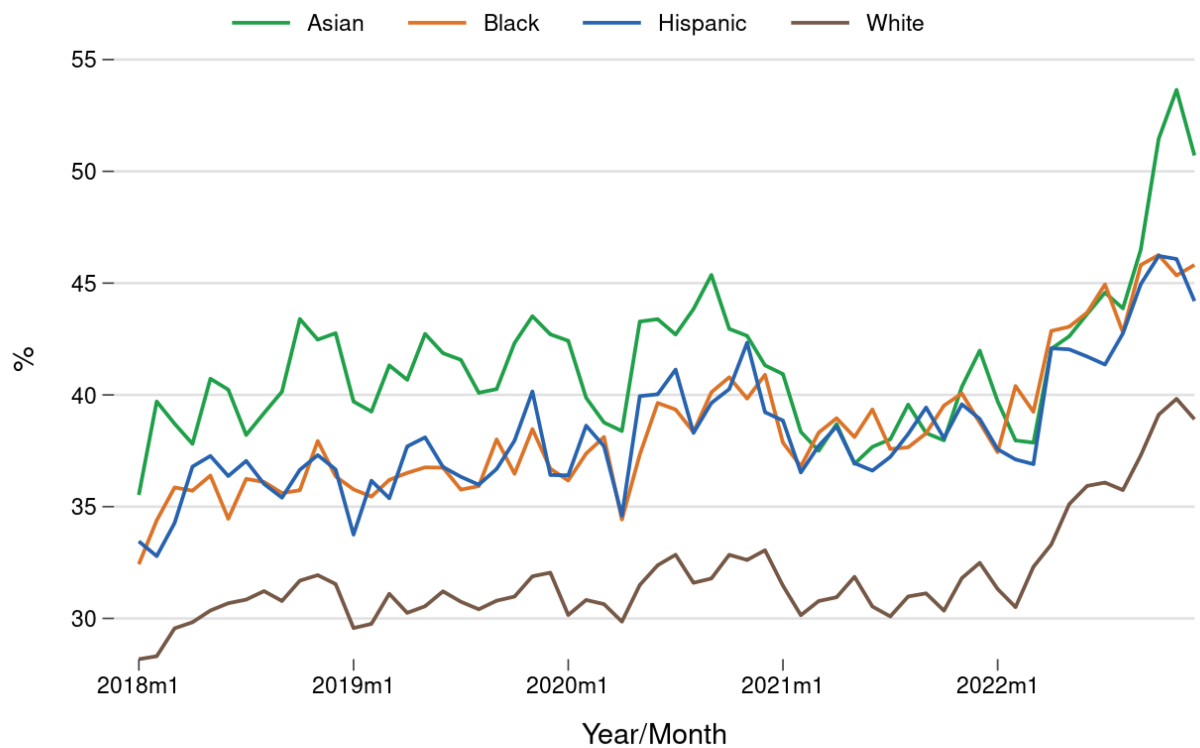
Figure 14: Average debt-to-income ratio (DTI) for 30-year fixed-rate conventional conforming mortgages, by race and ethnicity



The chart represents newly originated home-purchase closed-end loans secured by site-built single-family first-lien principal residence, excluding reverse mortgages.

Rising interest rates could also affect whether consumers qualify for mortgage loans. For many mortgage applicants who are on the margin of qualifying, the higher projected DTI could potentially lead to their applications being rejected, when they would have otherwise been approved given a lower DTI. One telltale sign of the impact of higher mortgage interest rates comes in the form of reported reasons for denials. Figure 15 plots the percentages of applications that reported “debt-to-income ratio” as the principal reason or one of the reasons for denial among the home purchase mortgage applications that were denied. Compared to 2021, DTI has become more likely to be reported as a denial reason for denied applications of all major racial/ethnic groups in 2022. Notably, by the end of 2022, over 50 percent of all Asian applicants and around 45 percent of all Black and Hispanic white applicants who were denied had DTI reported as a denial reason. That is the highest share since the revised HMDA data collection and reporting requirements took effect in 2018.

Figure 15: Percentage of denials with DTI reported as reason



The chart represents closed-end home-purchase mortgage applications secured by site-built single-family first-lien principal residence, excluding reverse mortgages.

6. Lending institutions

In 2022, 4,451 financial institutions reported closed-end applications and originations excluding reverse mortgages[22], up from 4,332 in 2021 and close to 4,466 in 2020. As discussed in Section 2, the overall market volume of closed-end transactions excluding reverse mortgages, however, decreased after increasing over the past few years, from 21.5 million applications in 2021 to 11.8 million in 2022.

The financial institutions are broadly categorized into depository institutions (DIs) and non-depository institutions (non-DIs). Table 5A shows the number of DIs and non-DIs among the closed-end reporting institutions in 2022. DIs included 1,945 banks and thrifts (hereafter, banks) of which 1,168 were small (assets less than $1 billion), as well as 1,455 credit unions. Non-DIs included 93 mortgage companies affiliated with DIs and 958 independent mortgage companies.[23]

Among DIs, banks collectively originated most of the reported closed-end loans, whereas, among non-DIs, independent mortgage companies originated significantly more loans than mortgage companies affiliated with DIs. For example, banks collectively originated 2.00 million loans, accounting for 28.7 percent of all reported closed-end originations in 2022. Credit unions originated 724,000 loans, accounting for only 10.4 percent. Independent mortgage companies originated 3.99 million loans, accounting for 57.2 percent of all reported loans, whereas affiliates of DIs originated only 257,000 loans or 3.7 percent. In contrast, independent mortgage companies accounted for 63.3% of all reported closed-end loans in 2021, implying that during the downturn in 2022 the mortgage origination volume of independent mortgage companies shrank even more than any other types of institutions.

In 2022, independent mortgage companies originated 61.6 percent (about 2.18 million) of all closed-end (excluding reverse mortgage) first-lien, owner-occupied, site built, one-to-four-family, home purchase loans, which compares to 64.1 percent in 2021. They also originated 62.3

[22] Reverse mortgages can be structured as either closed- or open-end transactions. Tables 5a and 5b exclude reverse mortgages. There is no separate reporting threshold for reverse mortgages.
[23] Data on bank assets were drawn from the Federal Deposit Insurance Corporation's Reports of Condition and Income. The $1 billion threshold is based on the combined assets of all banks within a given banking organization. Fed. Fin. Inst. Examination Council, *HMDA Data Publication,* https://ffiec.cfpb.gov/data-publication/ (data from the HMDA Reporter Panel can be used to help identify the various types of institutions).

percent (about 1.19 million) of all closed-end, first-lien, owner-occupied, one-to-four family site-built refinance loans, which compares to 65.8 percent in 2021.[24]

Only a small percentage of institutions (21.9 percent, 974 out of 4,451) reported fewer than 100 closed-end originations in 2022, accounting for about 53,000 total originations or about 0.8 percent of all originations. About 3.5 percent of institutions (154 out of 4,451), originated fewer than 25 loans, totaling just under 2,000 originations.[25]

As in previous years, several differences exist between DIs and non-DIs with respect to the closed-end activity reported in 2022. First, DIs originated a significantly higher percentage of conventional home purchase loans than non-DIs. Second, overall, smaller shares of loans originated by DIs went to minority borrowers, LMI borrowers, and LMI neighborhoods than non-DIs. Third, non-DIs sold more of their originated loans compared to DIs.

The HMDA data provide information on whether lenders sold originated loans within the same calendar year that they were originated, as well as the type of institution to which the lenders sold the loans, such as one of the GSEs or a banking institution.[26] Table 5A shows that non-DIs, particularly the ones that are affiliated mortgage companies, sold almost all of their loans in the same calendar year that they originated them. In contrast, DIs sold smaller shares of their loans than non-DIs. Among DIs, credit unions were the least likely to sell originated loans compared to banks. Credit unions sold 23.7 percent of their refinance loans and 31.6 percent of their home purchase loans in 2022. In comparison, during the same period, small banks and large banks sold 55.7 percent and 60.3 percent of their refinance loans and 63.8 percent and 57.4 percent of home purchase loans, respectively.

Notably, compared to 2021, a smaller share of originated loans were sold in 2022. In 2021, about 85.0 percent of home purchase loans and 86.6 percent of refinance loans were sold across all types of institutions. In 2022, the percent of loans sold dropped to 81.2 percent for home purchase loans and 79.3 percent for refinance loans. This implies that against the background of a significant downturn in the market, portfolio lending – loans that financial institutions originated and kept on their portfolios instead of selling them to the GSEs or other investors – suffered relatively smaller declines than the loans that were originated to be sold.

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[24] See "2021 Mortgage Market Activity and Trends," available at https://www.consumerfinance.gov/data-research/research-reports/2021-mortgage-market-activity-and-trends/.

[25] These results include all originated dwelling-secured, closed-end loans, excluding reverse mortgages for all reporters.

[26] Because loan sales are recorded in the HMDA data only if the loans are originated and sold in the same calendar year, loans originated toward the end of the year are less likely to be reported as sold. For that reason, statistics on loan sales are computed using only loans originated during the first three quarters of the year.

The 2022 drop in the shares of loans that were sold was only among DIs and not among non-DIs. For instance, the share of loans sold by large banks declined by 9.9 percentage points for home purchase loans and 13.5 percentage points for refinance loans year-over-year. In contrast, in 2022 the shares of loans sold by independent mortgage companies increased slightly by 1.5 percentage point for home purchase an 0.6 percentage point for refinance loans.

TABLE 5A: LENDING ACTIVITIES BY INSTITUTION TYPES: CLOSED-END EXCLUDING REVERSE MORTGAGES

	Type of Institution					
	Small Bank	Large Bank	Credit Union	Affiliated Mortgage Company	Inde-pedent Mortgage Company	All
Number of institutions	1,168	777	1,455	93	958	4,451
Applications (thousands)	411	2,727	1,189	371	7,055	11,753
Originations (thousands)	303	1,700	724	257	3,994	6,977
Purchases (thousands)	6	619	30	154	709	1,518
SIZE DISTRIBUTION						
Institutions with originations <25						
Number of institutions	12	1	85	7	49	154
Originations (thousands)	<1	<1	1	<1	<1	2
Institutions with >= 25 originations < 100						
Number of institutions	225	50	427	8	110	820
Originations (thousands)	16	4	25	1	6	51
Institutions with >= 100 originations < 1000						
Number of institutions	904	492	804	45	429	2,674
Originations (thousands)	213	215	265	21	175	889
Institutions with >= 1000 originations						
Number of institutions	27	234	139	33	370	803
Originations (thousands)	73	1,481	433	235	3,812	6,034
Home purchase loans (thousands)	126	805	250	174	2,178	3,533
Conventional (percent)	83.5	86.4	89.4	65.9	64.4	71.9
LMI borrower (percent)	30.4	24.5	27.3	28.2	29.0	27.8
LMI neighborhood (percent)	16.4	15.4	17.1	16.5	20.1	18.5
Non-Hispanic White (percent)	71.1	59.7	59.0	51.1	51.2	54.4
Minority borrower (percent)	16.6	22.6	21.0	28.7	27.8	25.8
Sold (percent)	63.8	57.4	31.6	96.6	95.3	81.2
Refinance loans (thousands)	58.3	432.4	194.2	31.5	1,186.0	1,902.4
Conventional (percent)	84.4	95.6	95.3	89.6	71.8	80.3
LMI borrower (percent)	33.0	32.3	35.3	43.2	35.9	35.1
LMI neighborhood (percent)	14.3	14.6	17.9	18.8	19.0	17.7
Non-Hispanic White (percent)	76.1	66.6	62.4	68.0	51.9	57.3
Minority borrower (percent)	10.8	17.2	19.0	15.8	21.2	19.7
Sold (percent)	55.7	60.3	23.7	91.1	96.3	79.3

(1) Small banks consist of those banks with assets (including the assets of all other banks in the same banking organization) of less than $1 billion at the end of 2021. Affiliated mortgage companies are non-depository mortgage companies owned by or affiliated with a banking organization or credit union.

(2) Closed-end first-lien mortgages for site-built single-family, principal-residence homes.

(3) See table 2, note 3.

(4) See table 2, note 4.

(5) See table 2, note 1. "Minority borrower" refers to non-white borrowers (excluding joint or missing) or Hispanic white applicants.
(6) Excludes originations made in the last quarter of the year because the incidence of loan sales tends to decline for loans originated toward the end of the year, as lenders report a loan as sold only if the sale occurs within the same year as origination.

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (https://www.fdic.gov).

In 2022, 1,150 financial institutions reported open-end applications and originations excluding reverse mortgages (Table 5B), an increase from the number of institutions reporting in 2021, 2020, and 2019 (936, 938, and 936 respectively). As discussed in Section 2, the overall market volume of open-end transactions excluding reverse mortgages increased significantly from approximately 1.8 million applications in 2021 to 2.5 million in 2022.

HELOC originations are dominated by DIs. In 2022, 1,032 DIs, including 372 banks, of which 50 were small (assets less than $1 billion), and 660 credit unions, originated a total of 1.31 million HELOCs reported under HMDA, accounting for 96.2 percent of all HELOC originations reported. Only 118 non-DIs, including 8 affiliated mortgage companies and 110 independent mortgage companies reported HELOC originations, accounting for 4.6 percent of the market. Only a very small percentage (4.1 percent) of HELOCs were sold to other institutions.

TABLE 5B: LENDING ACTIVITIES BY INSTITUTION TYPES: OPEN-END EXCLUDING REVERSE MORTGAGES

	Type of Institution					
	Small Bank	Large Bank	Credit Union	Affiliated Mortgage Company	Inde-pedent Mortgage Company	All
Number of institutions	50	322	660	8	110	1,150
Applications (thousands)	6	1,477	864	<1	128	2,476
Originations (thousands)	5	761	541	<1	52	1,358
Purchases (thousands)	<1	9	13	<1	4	26
SIZE DISTRIBUTION						
Institutions with originations <100						
Number of institutions	33	26	203	7	86	355
Originations (thousands)	<1	1	5	<1	<1	6
Institutions with >= 100 originations < 500						
Number of institutions	16	80	159	1	10	266
Originations (thousands)	4	22	30	<1	1	58
Institutions with >= 500 originations						
Number of institutions	1	216	298	<1	14	529
Originations (thousands)	<1	738	506	<1	50	1,295
LMI borrower (percent)	23.2	21.8	21.8	5.9	16.5	21.6
LMI neighborhood (percent)	10.7	11.5	13.5	14.1	14.7	12.4
Minority borrower (percent)	80.6	69.5	63.6	65.2	57.1	66.7
Non-Hispanic White (percent)	4.5	13.4	15.8	10.4	20.3	14.6
Sold (percent)	<1	<1	3.2	85.9	70.2	4.1

(1) See table 5A, note 1.

(2) See table 2, note 3.

(3) See table 2, note 4.

(4) See table 5A, note 5.

(5) See table 5A, note 6.

Table 6A lists the top 25 closed-end reporting institutions by the total number of closed-end originations and their lending characteristics[27], limited to first-lien mortgages for site-built single-family, principal-residence homes excluding reverse mortgages. Together the top 25 closed-end lenders originated 2.6 million loans in 2022, accounting for 37.2 percent of the national market, a decline from 43.9 percent last year. Prior to this year, the top 25 closed-end lenders had increased their share of total origination volume each year, from 33.8 percent in 2018, to 37.2 percent in 2019, to 38.9 percent in 2020, to 43.9 percent of all closed-end originations in 2021.[28]

As in previous years, the top 25 lenders' combined market share in refinance loans is higher than their share in home purchase loans. In 2022, they originated 957,000 refinance loans, accounting for 50.3 percent of refinance loans by all reporting institutions, down from 53.0 percent in 2021. The top 25 lenders originated 1.3 million home purchase loans, or 36.8 percent of home purchase loans, up from 34.4 percent in 2021

With about 464,000 originated loans, Rocket Mortgage continued to be the highest volume closed-end lender, with a market share of about 6.6 percent.[29] Seventeen of the 25 top financial institutions were independent mortgage companies, 5 were large banks, 2 were affiliated mortgage companies, and 1 was a credit union. Two institutions, DHI Mortgage Company and PRIMELENDING, A PLAINSCAPITAL COMPANY, were new to the list of top 25 closed-end

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[27] Some institutions may be part of a larger organization; however, the data in Tables 6A and 6B are at the reporter level. Because affiliate activity has declined markedly since the housing boom in the mid-2000s, a top 25 list at the organization level is not likely to be significantly different from Tables 6A and 6B.
[28] For the top 25 closed-end lenders in each of the past four years, see the Data Points for those years: "2021 Mortgage Market Activity and Trends," available at https://www.consumerfinance.gov/data-research/research-reports/data-point-2021-mortgage-market-activity-trends/, "2020 Mortgage Market Activity and Trends," available at https://www.consumerfinance.gov/data-research/research-reports/2020-mortgage-market-activity-and-trends/, "Data Point: 2019 Mortgage Market Activity and Trends," available at https://www.consumerfinance.gov/data-research/research-reports/data-point-2019-mortgage-market-activity-and-trends/, and "Data Point: 2018 Mortgage Market Activity and Trends," available at https://www.consumerfinance.gov/data-research/research-reports/data-point-2018-mortgage-market-activity-and-trends/.
[29] Notably, loan counts and market shares derived from the HMDA data can differ from some other industry sources, such as the market shares compiled by Inside Mortgage Finance (https://www.insidemortgagefinance.com/). For HMDA reporting purposes, institutions report only mortgage applications for which they make the credit decision. Under HMDA, if an application was approved by a third party (such as a correspondent) rather than the lending institution, then that third party reports the loan as its own origination, and the lending institution reports the loan as a purchased loan. Alternatively, if a third party forwards an application to the lending institution for approval, then the lending institution reports the application under HMDA (and the third party does not report anything). In contrast, Inside Mortgage Finance considers loans to have been originated by the acquiring institution even if a third party makes the credit decision. Thus, many of the larger lending organizations that work with sizable networks of correspondents report considerable volumes of purchased loans in the HMDA data, while Inside Mortgage Finance considers many of these purchased loans to be originations.

reporting institutions in 2022, with market shares of 0.9 and 0.6 percent respectively. Two institutions, NewRez LLC and Better Mortgage Corporation fell off the list.

Table 6B lists the top 25 HELOC reporting institutions by origination volume in 2022. In total, the top 25 HELOC reporters accounted for 591,000 HELOC originations or 43.5 percent, of all HELOC originations reported under HMDA in 2022. All but two of the top 25 HELOC lenders were DIs and none of the DIs were small banks. The two largest HELOC reporters in 2022 were PNC Bank and Citizens Bank, accounting for 5.8 and 4.8 percent, respectively of all HELOC originations reported in 2022. Last year, Citizens Bank had the largest market share of HELOC origination at 5.1 percent.

Table 6C lists the top 10 reverse mortgage lenders by origination volume in 2022.[30] In total, the top 10 reverse mortgage lenders accounted for close to 53,000 reverse mortgage originations, or approximately 88.8 percent, of all reverse mortgage originations reported under HMDA in 2022. American Advisors Group continued to be the largest reverse mortgage lender that reported HMDA data in 2022, accounting for approximately 27.1 percent of all reverse mortgage originations reported. This was followed by Finance of America Reverse LLC with an annual market share of 18.4 percent.

[30] Applicants generally do not need to provide income information when applying for reverse mortgage loans. Therefore, the values for applicant income of reverse mortgages in the HMDA data are mostly "Not Applicable" and we excluded the LMI borrower column in Table 6C.

TABLE 6A: TOP 25 CLOSED-END RESPONDENTS BY TOTAL ORIGINATIONS (PERCENT EXCEPT AS NOTED)

	Institution Type	Total Originations (thousands)	Market Share (percent)	Total Purchases (thousands)	Home purchase loans							Refinance loans						
					Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Rocket Mortgage, LLC	Independent Mortgage Company	464	6.6	7	140	72.8	28.6	19.7	45.8	23.7	99.8	274	73.9	40.3	19.7	50.6	17.9	99.8
UNITED SHORE FINANCIAL SERVICES, LLC	Independent Mortgage Company	347	5.0	4	209	70.8	26.8	20.6	48.0	32.2	99.8	94	76.9	34.0	18.8	48.3	25.1	99.9
Loandepot.Com, LLC	Independent Mortgage Company	156	2.2	1	64	68.6	23.6	20.1	39.5	34.4	99.8	73	73.0	41.6	19.2	35.8	16.6	99.9
Wells Fargo Bank, National Association	Large Bank	143	2.0	123	58	93.9	17.5	11.7	54.4	26.0	67.1	61	97.8	34.5	17.0	59.4	22.6	87.5
Fairway Independent Mortgage Corporation	Independent Mortgage Company	127	1.8	<1	93	67.0	30.6	20.5	57.7	21.2	99.7	15	85.9	33.2	16.6	62.4	17.9	99.7
JPMorgan Chase Bank, National Association	Large Bank	115	1.6	71	50	96.1	22.2	15.5	54.9	31.9	76.3	43	98.6	36.7	15.6	62.8	26.2	84.6
CROSSCOUNTRY MORTGAGE, INC.	Independent Mortgage Company	99	1.4	1	73	68.1	30.6	21.1	56.3	23.9	99.5	13	70.2	34.3	18.9	57.8	20.8	99.7
Caliber Home Loans, Inc.	Independent Mortgage Company	87	1.2	2	54	59.0	32.4	22.5	51.6	27.6	99.9	21	72.7	37.0	19.5	56.0	23.2	99.9
GUARANTEED RATE, INC.	Independent Mortgage Company	82	1.2	41	58	73.6	27.0	17.4	53.5	22.1	99.9	13	91.0	28.7	14.2	52.9	19.1	99.8

	Institution Type	Total Originations (thousands)	Market Share (percent)	Total Purchases (thousands)	Home purchase loans							Refinance loans						
					Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Mortgage Research Center, LLC	Independent Mortgage Company	79	1.1	<1	72	4.2	32.7	21.6	50.9	23.3	100.0	5	6.3	28.1	17.0	55.5	18.9	99.8
U.S. Bank National Association	Large Bank	78	1.1	78	35	92.8	21.1	13.2	59.8	22.8	55.9	22	99.0	37.1	17.5	68.1	18.7	58.0
PENNYMAC LOAN SERVICES, LLC	Independent Mortgage Company	76	1.1	152	17	67.3	25.9	17.9	53.1	25.4	95.7	52	54.5	27.3	18.5	54.3	27.7	98.3
Nationstar Mortgage LLC	Independent Mortgage Company	76	1.1	35	5	79.2	21.9	13.9	56.3	18.5	100.0	67	76.2	38.5	20.7	49.9	21.2	100.0
MOVEMENT MORTGAGE, LLC	Independent Mortgage Company	71	1.0	1	52	63.5	31.0	20.6	60.7	23.1	73.9	7	81.8	37.6	17.1	66.3	19.8	71.2
FREEDOM MORTGAGE CORPORATION	Independent Mortgage Company	66	0.9	28	10	19.3	27.3	21.2	48.4	29.7	99.0	53	42.8	29.4	18.2	56.9	26.7	99.8
Bank of America, National Association	Large Bank	64	0.9	9	32	96.4	25.9	20.3	47.7	38.9	30.3	22	99.9	25.6	13.5	58.5	26.0	18.1
HOME POINT FINANCIAL CORPORATION	Independent Mortgage Company	64	0.9	14	34	66.5	29.1	20.0	52.5	29.5	99.9	23	81.7	31.0	17.0	53.0	24.8	99.9
GUILD MORTGAGE COMPANY	Independent Mortgage Company	60	0.9	3	40	64.8	30.2	20.1	55.2	17.9	99.6	10	82.2	36.6	19.0	57.8	18.2	99.9
DHI MORTGAGE COMPANY, LTD.	Affiliated Mortgage Company	60	0.9	<1	56	54.7	21.1	13.4	36.2	42.5	99.8	<1	87.5	17.5	10.0	65.0	20.0	100.0
Navy Federal Credit Union	Credit Union	59	0.8	1	32	45.1	21.8	17.0	48.0	28.9	41.4	13	50.5	23.6	17.0	46.9	32.5	30.3
Flagstar Bank, FSB	Large Bank	51	0.7	34	24	62.7	30.2	19.3	54.6	25.2	89.1	18	84.9	36.0	16.8	57.6	18.4	96.2

	Institution Type	Total Originations (thousands)	Market Share (percent)	Total Purchases (thousands)	Home purchase loans							Refinance loans						
					Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)	Number (thousands)	Conventional (percent)	LMI borrower (percent)	LMI neighborhood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
Broker Solutions, Inc.	Independent Mortgage Company	47	0.7	<1	26	56.7	32.0	22.7	44.7	28.0	73.7	13	72.2	36.9	19.9	48.9	22.9	81.0
AmeriSave Mortgage Corporation	Independent Mortgage Company	44	0.6	<1	13	63.5	27.8	20.2	33.3	19.8	99.9	28	76.5	38.2	17.9	33.9	12.8	100.0
Cardinal Financial Company, Limited Partnership	Independent Mortgage Company	41	0.6	<1	25	50.7	33.3	23.4	49.8	32.9	99.3	11	67.7	40.9	21.5	55.3	23.1	100.0
PRIMELENDING, A PLAINSCAPITAL COMPANY	Affiliated Mortgage Company	40	0.6	1	29	67.7	30.8	18.1	58.5	22.0	99.9	5	90.4	35.0	16.4	63.5	18.3	100.0
Top 25 institutions		2,597		603	1,300	66.3	27.5	19.2	50.5	27.4	91.2	957	75.6	36.2	18.5	51.8	21.2	93.7
All institutions		6,956		1,507	3,521	72.0	27.8	18.5	54.4	25.7	81.1	1,897	80.4	35.1	17.7	57.4	19.7	79.3

(1) See table 5A, note 1.

(2) Closed-end (excluding reverse mortgage) first-lien mortgages for site-built single-family, principal-residence homes.

(3) See table 2, note 3.

(4) See table 2, note 4.

(5) See table 5A, note 5.

(6) See table 5A, note 6.

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (https://www.fdic.gov).

TABLE 6B: TOP 25 OPEN-END RESPONDENTS BY TOTAL ORIGINATIONS (PERCENT EXCEPT AS NOTED)

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI borrower (percent)	LMI neighbor-hood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
PNC Bank, National Association	Large Bank	78,473	5.8	<1	22.3	11.5	66.8	15.2	0.0
Citizens Bank, National Association	Large Bank	64,687	4.8	41	30.0	13.2	68.4	14.9	0.0
Bank of America, National Association	Large Bank	57,084	4.2	6	18.8	10.6	59.7	22.9	0.0
U.S. Bank National Association	Large Bank	41,554	3.1	<1	17.7	10.7	67.6	14.9	0.0
Truist Bank	Large Bank	37,186	2.7	<1	24.4	13.0	72.1	15.2	0.0
The Huntington National Bank	Large Bank	32,027	2.4	<1	29.2	11.9	75.3	6.8	0.0
Figure Lending LLC	Independent Mortgage Company	25,150	1.9	4,011	19.7	16.2	58.6	22.4	95.1
Fifth Third Bank, National Association	Large Bank	22,617	1.7	<1	33.4	11.4	86.5	10.9	0.0
STATE EMPLOYEES'	Credit Union	17,687	1.3	<1	22.9	19.7	67.4	21.6	0.0
Boeing Employees Credit Union	Credit Union	16,921	1.2	<1	21.0	16.9	62.1	17.6	0.0
Navy Federal Credit Union	Credit Union	16,576	1.2	<1	18.1	12.6	49.8	29.1	0.0
Third Federal Savings and Loan Association of Cleveland	Large Bank	16,332	1.2	<1	15.1	8.9	63.6	15.8	0.0
TD Bank, National Association	Large Bank	16,198	1.2	<1	18.1	12.9	62.9	17.9	0.0
Regions Bank	Large Bank	15,916	1.2	<1	27.9	12.3	78.9	15.5	0.0
MOUNTAIN AMERICA	Credit Union	15,236	1.1	35	23.6	10.3	82.4	8.5	0.0
PENTAGON FEDERAL CREDIT UNION	Credit Union	15,189	1.1	<1	31.5	9.9	89.4	8.2	3.6

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI borrower (percent)	LMI neighbor-hood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
KeyBank National Association	Large Bank	13,756	1.0	30	23.9	10.9	79.9	9.6	4.1
Manufacturers and Traders Trust Company	Large Bank	12,596	0.9	<1	32.8	13.1	78.2	12.1	0.0
AMERICA FIRST	Credit Union	12,472	0.9	<1	19.4	11.5	69.8	14.0	0.0
SPRING EQ, LLC	Independent Mortgage Company	11,820	0.9	133	8.5	11.0	50.3	19.4	99.6
Zions Bancorporation, N.A.	Large Bank	10,999	0.8	<1	13.7	10.0	73.5	18.1	0.0
Ent Credit Union	Credit Union	10,877	0.8	<1	19.2	16.0	65.1	13.5	0.0
Flagstar Bank, FSB	Large Bank	10,220	0.8	<1	17.5	12.4	61.2	15.9	0.0
BMO Harris Bank National Association	Large Bank	9,872	0.7	<1	36.7	11.7	78.5	11.9	0.0
First-Citizens Bank & Trust Company	Large Bank	9,528	0.7	<1	11.7	10.7	60.3	6.1	0.0
Top 25 institutions		590,973		4,221	22.4	12.4	66.8	16.1	6.7
All institutions		1,355,679		26,296	21.6	12.4	66.8	14.6	5.2

(1) See table 5A, note 1.

(2) See table 2, note 3.

(3) See table 2, note 4.

(4) See table 5A, note 5.

(5) See table 5A, note 6.

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (https://www.fdic.gov).

TABLE 6C: TOP 10 REVERSE MORTGAGE RESPONDENTS BY TOTAL ORIGINATIONS (PERCENT EXCEPT AS NOTED)

	Institution Type	Total Originations (count)	Market Share (percent)	Total Purchases (count)	LMI neighbor-hood (percent)	Non-Hispanic White (percent)	Minority borrower (percent)	Sold (percent)
AMERICAN ADVISORS GROUP	Independent Mortgage Company	16,035	27.1	313	20.6	61.1	10.0	100.0
FINANCE OF AMERICA REVERSE LLC	Independent Mortgage Company	10,895	18.4	2,794	16.5	65.2	12.2	97.9
Mutual of Omaha Mortgage, Inc	Independent Mortgage Company	5,844	9.9	27	18.5	73.4	10.1	100.0
REVERSE MORTGAGE FUNDING LLC	Independent Mortgage Company	5,586	9.4	1,518	15.5	74.6	10.8	52.3
LONGBRIDGE FINANCIAL, LLC	Independent Mortgage Company	5,531	9.3	5,683	16.7	75.5	11.6	100.0
PHH Mortgage Corporation	Independent Mortgage Company	4,166	7.0	2,333	20.8	75.9	14.2	100.0
OPEN MORTGAGE, LLC	Independent Mortgage Company	1,893	3.2	<1	26.7	59.6	23.2	92.9
CHERRY CREEK MORTGAGE, LLC	Independent Mortgage Company	936	1.6	<1	16.9	84.2	4.8	99.6
HighTechLending Inc	Independent Mortgage Company	882	1.5	<1	20.3	68.6	21.9	99.7
Fairway Independent Mortgage Corporation	Independent Mortgage Company	876	1.5	<1	15.3	78.4	5.0	99.5
Top 10 institutions		52,644		12,668	18.6	68.2	11.6	93.8
All institutions		59,253		13,388	18.8	68.2	11.7	91.4

(1) See table 5A, note 1.

(2) See table 2, note 4.

(3) See table 5A, note 5.

(4) See table 5A, note 6.

SOURCE: FFIEC HMDA data; bank asset data drawn from Federal Deposit Insurance Corporation Reports of Condition and Income (https://www.fdic.gov)

7. Conclusion

The 2022 HMDA data are the fifth year of data that reflect changes implemented by the 2015 HMDA rule. Overall, 2022 was a year marked by a significant downturn of mortgage lending activities across all major segments, except for lending in open-end lines of credit.

The total number of applications and originations dropped significantly in 2022, with the number of applications decreasing by about 9.0 million or 38.6 percent and originations decreasing by 6.6 million or 44.1 percent. The significant decline occurred in both home purchase and refinance lending but was more prominent in refinance, with the closed-end site-built single-family refinance originations decreasing by 73.2 percent from a year ago. The decline continued throughout the year. By the end of 2022, the only refinance originations left in the market were a small number of cash-out refinance loans.

Median total loan costs jumped significantly in 2022. A higher percentage of borrowers reported having paid discount points in 2022 than any other year since this data point was collected in the HMDA data. Furthermore, borrowers who paid discount points also paid larger dollar amounts in points. Black and Hispanic white borrowers continued to have lower median credit scores and higher denial rates, in addition to paying higher median interest rates and total loan costs relative to non-Hispanic white and Asian borrowers.

The average monthly mortgage payment at origination excluding taxes and insurance for borrowers rose significantly in 2022, driven almost entirely by the rise in mortgage interest rates. With higher interest rates, the average debt-to-income ratio (DTI) rose for all groups. DTI has become more likely to be reported as a denial reason for denied applications in 2022. By the end of 2022, over 50 percent of all Asian applicants and around 45 percent of all Black and Hispanic white applicants who were denied had DTI reported as a denial reason. This is the highest share since the revised HMDA data collection and reporting requirements took effect in 2018.

Erratum to: Data Point: 2022 Mortgage Market Activity and Trends
May 15, 2025

The original article entitled "Data Point: 2022 Mortgage Market Activity and Trends" published on September 27, 2023 (at link below) has been corrected as follows:

1. Page 14, Figure 1.

    The label on the y-axis has been changed from "Year/Month" to "Percent"
    A label on the x-axis reading "Year/Month" has been added.

2. Pages 29-30, Table 3B.

    The table title and header row labels previously read "average"; this has been corrected to read "median" instead. As noted in the body text, the numbers in the table (which have not changed) are medians, not averages.

Link:
https://www.consumerfinance.gov/data-research/research-reports/data-point-2022-mortgage-market-activity-trends/