

Mortgage Performance Summary



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A Summary of the Housing Market and Mortgage Performance in Maryland and the District of Columbia

By Brian Gaines, Anne Stilwell, Sonya Ravindranath Waddell, and Sarah Watt

Introduction

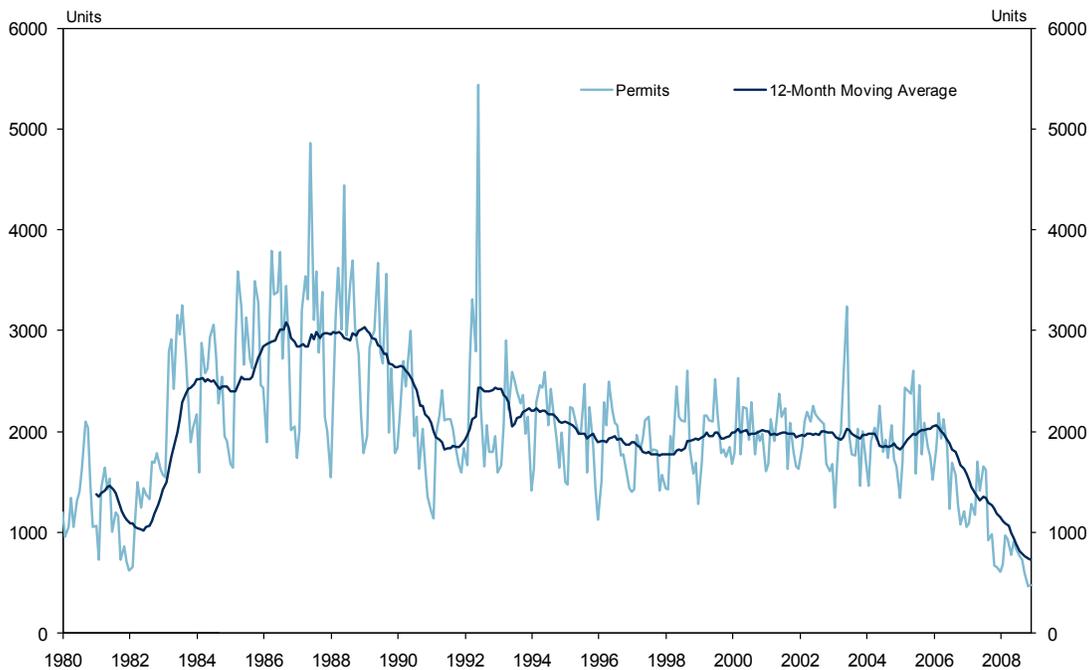
This document provides a summary of the housing market and mortgage performance in Maryland and the District of Columbia. The first section provides background information on Maryland's housing stock and how it has evolved during the past decade. The second section offers data on the size and composition of the Maryland mortgage market. The third section reports mortgage performance in the area. The fourth section details the housing stock, mortgage market, and performance information for the District of Columbia. The last section summarizes the document and considers the future of the mortgage market. Finally, the appendices list more detailed information about mortgage composition and performance at the MSA level and for selected counties.

Section 1: Housing Background

Supply

The Census Bureau's American Community Survey estimates that in 2007 there were 2,082,458 occupied housing units in Maryland, of which 69.9 percent (1,456,103) were owner-occupied. According to the Census Bureau, the total number of housing units rose 8.1 percent in Maryland between 2000 and 2007. Meanwhile, annual single-family building permit levels averaged around 2,000 units per month from 2000 through 2005 (Figure 1) before starting to decline in 2006.

Figure 1
Single-Family Housing Building Permits
Maryland



Source: Census Bureau/Haver Analytics

Maryland experienced signs of excess housing supply in the beginning of the 21st century. According to the National Association of Realtors, between 2001 and 2005, months' supply of homes¹ – a measure of how long homes are on the market – declined in the Cumberland MSA and remained below five months in the Baltimore and Hagerstown metro areas until the beginning of 2006 when the supply began to climb above six months in all three MSAs. Analysts typically use a threshold of six months to assess the sluggishness of sales. Additionally, homeowner vacancies in the state reached a series peak of 2.7 percent in 2007.

Demand

During the first part of the decade, Maryland also experienced an increase in housing demand that can be attributed to a number of factors. The Census estimates that the population of residents 25 years old or older in Maryland increased 6.6 percent between 2000 and 2007. Additionally, the Bureau of Labor Statistics establishment survey indicates that nonfarm employment growth in Maryland accelerated, increasing at an average annual rate of 1.4 percent from 2003 to 2006 compared to an average annual rate of 0.4 percent from 2000 to 2003. Real personal income also continued to grow over the period, increasing at an annual pace of 2.7 percent or more in six of the eight years between 2000 and 2007, according to the Bureau of Economic Analysis.

In addition to a growing population and strengthening economy that boosted housing demand, more liberal and innovative lending practices increased credit access to many borrowers previously unable to qualify for mortgages. New mortgage products, relaxed underwriting standards, and lower interest rates all contributed to existing home sales moving higher. According to the Federal Housing Finance Board, the effective rate on conventional mortgages in Maryland fell every year from 2000 to 2004, reaching as low as 5.9 percent in 2004. And after averaging 71,100 units annually in the 1990s, existing home sales averaged 119,400 units a year between 2000 and 2006, according to the National Association of Realtors.

House Prices

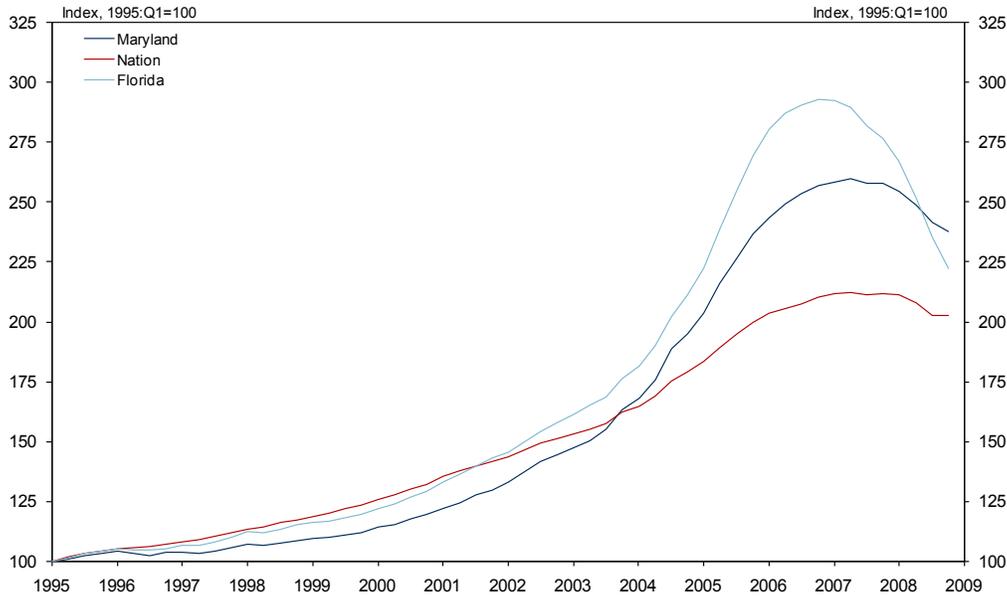
The rise in residential construction and mortgage lending in the United States was accompanied by considerable house price appreciation in the first part of the decade.

Research indicates that declines in house prices, even more than unemployment, are the most important factor in mortgage delinquencies and foreclosures.² As long as house prices do not drop, a borrower will typically have at least some equity in his house and can sell it to avoid foreclosure in the event of cash-flow problems. However, when house prices decline, fewer borrowers will have an equity cushion to fall back on, increasing the likelihood of defaulting on their mortgage.

¹ Months' supply is defined as the number of houses for sale divided by the number of houses that sold in a month. It is a rough measure of how long a house will take to sell.

² See, for example, Doms, Mark, Fred Furlong, and John Krainer, "[Subprime Mortgage Delinquency Rates](#)," Federal Reserve Bank of San Francisco Working Paper 2007-33, November 2007, and Foote, Christopher, Kristopher Gerardi, and Paul S. Willen, "[Negative Equity and Foreclosure: Theory and Evidence](#)," Federal Reserve Bank of Boston Public Policy Discussion Papers Series, Paper No. 08-3. (2008).

Figure 2
FHFA House Price Index
Maryland



Source: Federal Housing Finance Agency (formerly OFHEO)/Haver Analytics

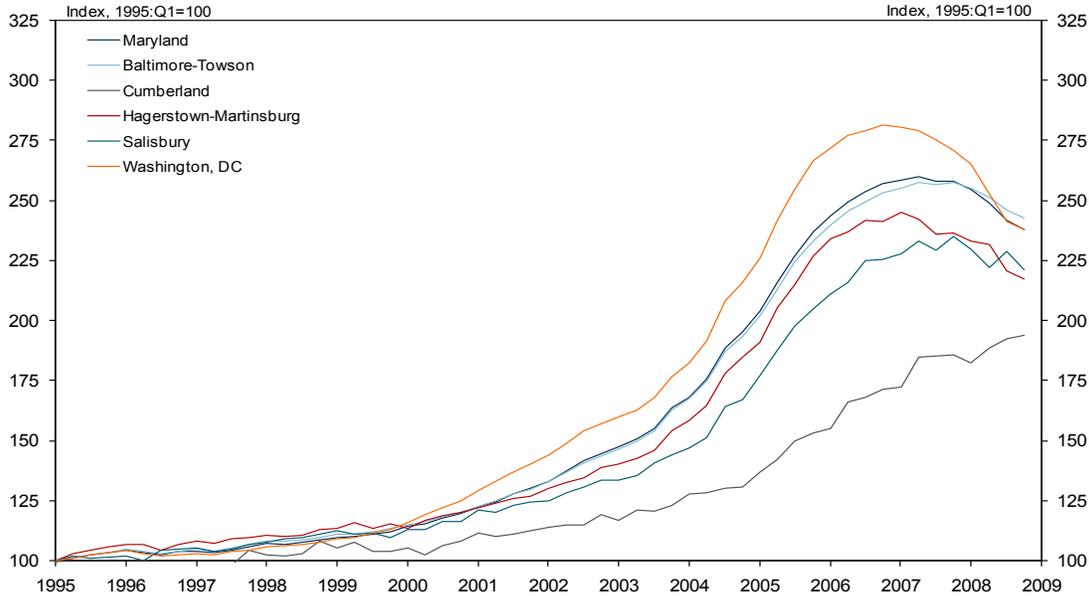
As Figure 2 indicates, house prices grew noticeably faster in Maryland than in the nation between 2003 and 2007, although increases in Maryland were smaller than in some states like California or Florida. Since peaking in the second quarter of 2007, house prices in Maryland have fallen 8.4 percent, according to the Federal Housing Finance Agency (FHFA) House Price Index. The six quarters of decline in house prices that began in the third quarter of 2007 coincided with six of the largest quarterly increases in seriously delinquent mortgages in the state.³

Just as there has been considerable variation in house price changes across the nation, there has been variation within Maryland. Figure 3 shows the FHFA house price index for the state's metropolitan statistical areas (MSAs). The Washington, D.C. metropolitan division⁴ saw the steepest growth of the state's metro areas, much of which was fueled by house price appreciation in the portions of the MSA outside of the District of Columbia proper, particularly in Maryland and Virginia. The nearby metro areas of Baltimore and Hagerstown-Martinsburg, as well as the Salisbury MSA that lies on Maryland's eastern shore, also saw the high levels of appreciation in the first part of the decade. As is true throughout the country, the area of Maryland with the flattest appreciation – the Cumberland MSA – has depreciated the least.

³ Seriously delinquent mortgages are loans 90+ days past due plus those in foreclosure, according to the Mortgage Bankers Association (MBA).

⁴ The Washington, D.C. metropolitan division is a subset of the Washington, D.C. MSA, and is reported here because this series is not available for the D.C. MSA. For all other data series, we use the MSA definition for Washington, D.C. See Appendix C for the MSA definitions.

Figure 3
FHFA House Price Index
Maryland Metro Areas



Notes: Washington DC refers to the Washington DC metropolitan division (MD). See Appendix C for MSA and MD definitions.
Source: Federal Housing Finance Agency (formerly OFHEO)/Haver Analytics

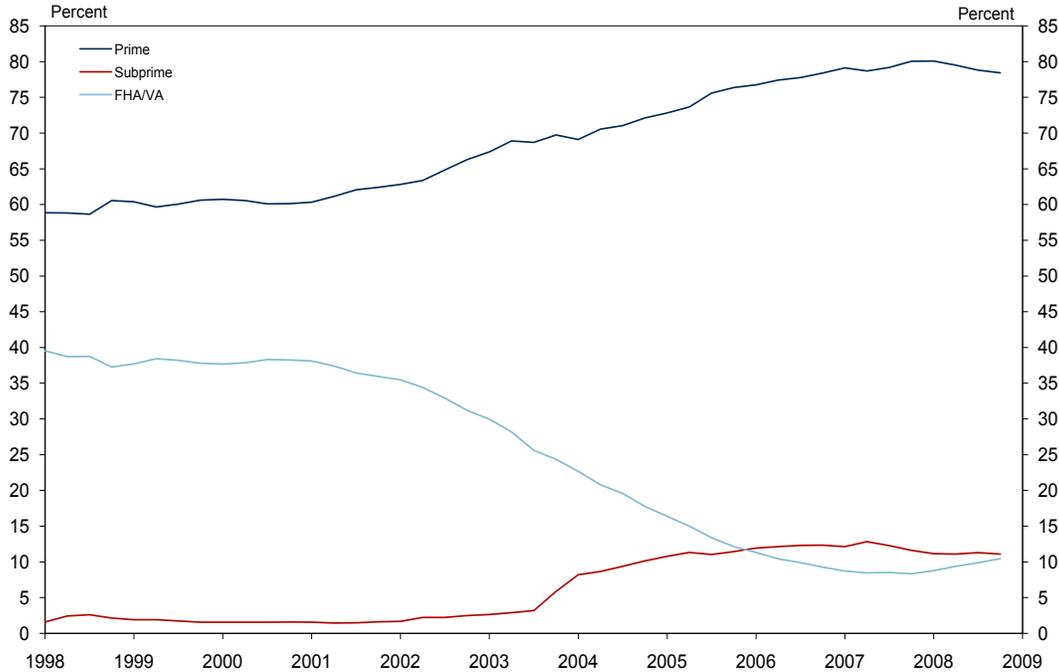
Section 2: Mortgage Composition

Generally, mortgages are classified as either prime or nonprime. Prime mortgages are made to borrowers with strong credit backgrounds. The nonprime mortgage sector is often broken up into the subprime and Alt-A categories. Subprime mortgages are mortgages made to people with poor credit scores; often, a FICO score⁵ below 620 is used to identify one of these mortgages. Alt-A loans, on the other hand, are “near-prime” mortgages made to borrowers with good credit scores, but that contain other risk factors, such as relaxed underwriting (e.g., low documentation of the borrower’s income or a high loan-to-value ratio) or risky loan characteristics (e.g., interest-only or negative-amortization features).

According to the Census Bureau, 77.1 percent of the 1,456,103 owner-occupied housing units in Maryland had an active mortgage in 2007 – the highest percentage in the Fifth Federal Reserve District and almost 10 percentage points higher than the U.S. rate of 68.4 percent. Using the Lender Processing Services Applied Analytics (LPS) mortgage dataset, and scaling to account for this dataset’s approximate coverage, we estimate about \$318 billion of mortgage debt in December 2008 in Maryland that accounted for 2.8 percent of the outstanding mortgage debt in the nation.

⁵ FICO is a commonly used credit score created by Fair Isaac Corporation.

Figure 4
Percent of Mortgages by Type⁶
Maryland



Notes: Federal Housing Administration (FHA) and Veterans Affairs (VA) mortgages partially protect lenders against losses in case of default. Maryland has a relatively high fraction of VA loans due to the relatively high fraction of military personnel who live in the state.

Source: Mortgage Bankers Association (MBA) National Delinquency Survey (2008:Q4)/Haver Analytics

Although subprime mortgages have been originated for more than two decades,⁷ the volume of these mortgages started to increase around 2002 and 2003.⁸ Figure 4 shows the fraction of subprime loans in Maryland as measured by the MBA survey. They reached a peak of almost 13 percent in the second quarter of 2007. However, even with the rise in subprime lending, Figure 5a illustrates that the majority of outstanding loans are prime. The overall distribution of mortgage types in Maryland is similar to that of the United States, although subprime loans accounted for a slightly smaller fraction of total loans in Maryland (11.1 percent) compared to the nation (11.7 percent) in the fourth quarter of 2008.

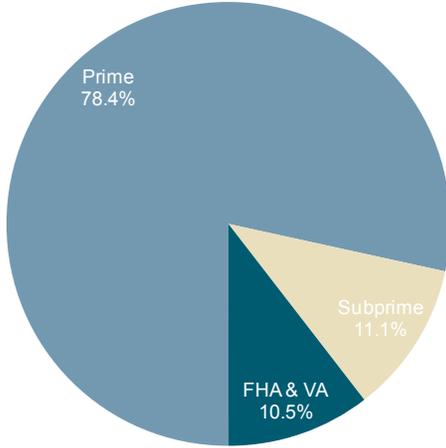
⁶ The MBA National Delinquency Survey and the LPS dataset do not have a separate category for Alt-A mortgages, so in both cases Alt-A loans can be in either the prime or subprime category.

⁷ Ben S. Bernanke, "[The Subprime Mortgage Market](#)," speech delivered at the Conference on Bank Structure and Competition, Chicago, IL, May 17, 2007.

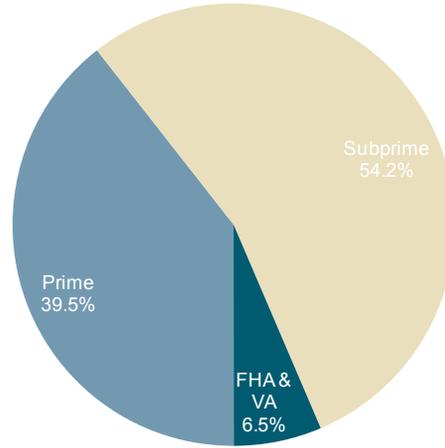
⁸ For a variety of reasons, defining the size of the subprime market is difficult. For the best estimates see Mayer, Chris and Karen Pence, "[Subprime Mortgages: What, Where, and to Whom](#)." Federal Reserve Board, FEDS Working Paper 2008-29. For convenience, we use the MBA numbers, which are discussed in more detail in footnote 9. The spike in subprime lending in mid-2003 in that graph is due to the addition of a large subprime servicer to their survey at that time.

Figure 5 Maryland Mortgage Distribution

5a: Mortgages Outstanding



5b: Foreclosure Inventory



Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics. Percentages may not sum to 100 due to rounding.

Section 3: Mortgage Performance⁹

Not surprisingly, mortgage performance differs by mortgage type. Much of the recent increase in foreclosure activity has been in subprime mortgages as their performance has been notably worse. While subprime loans make up a relatively small fraction of outstanding mortgages, they account for a much larger share of the loans in foreclosure. Figure 5b shows that in Maryland, subprime mortgages accounted for more than half of all foreclosures.

Table 1: Foreclosure Rates by Mortgage Type

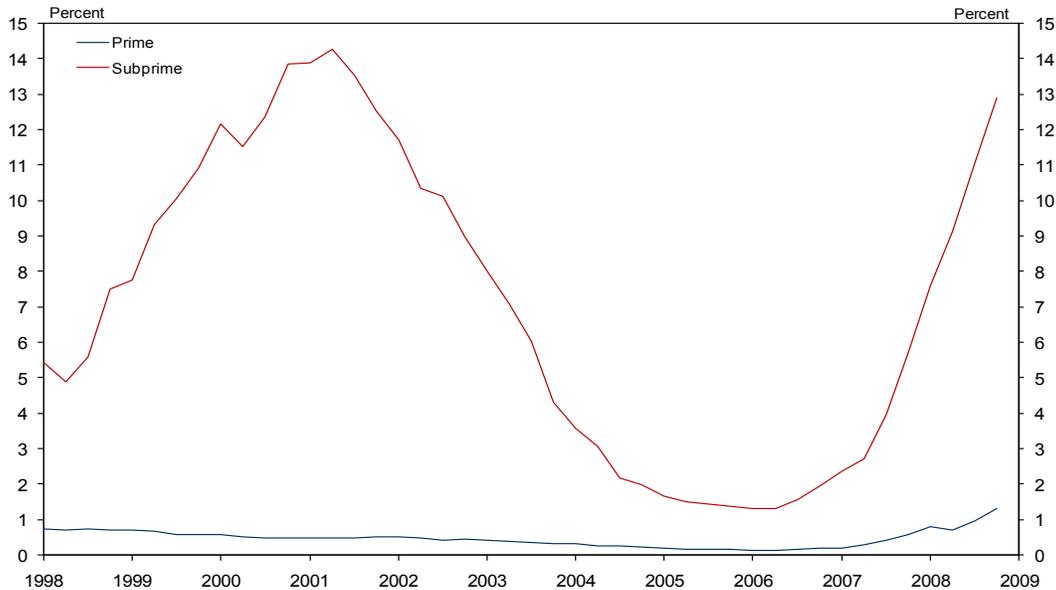
Loan Type	Maryland		United States
	Percent in Foreclosure	National Rank	Percent in Foreclosure
Prime Fixed-Rate	0.70	33	1.05
Prime Adjustable-Rate	4.11	23	5.71
Subprime Fixed-Rate	5.48	22	6.22
Subprime Adjustable-Rate	20.16	16	22.18

Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics

⁹ For mortgage performance data, we use two sources: the MBA National Delinquency Survey and Lender Processing Services Inc. (LPS). The MBA survey has broad coverage, but only provides information down to the state level. The LPS survey is a proprietary loan level database that covers an estimated 60 percent of the market. Its coverage of the prime market is much more extensive than that of the subprime market.

Mortgage performance also differs by whether the loan is an adjustable-rate or fixed-rate mortgage. Table 1 reports performance for these categories. Subprime adjustable-rate mortgage loans perform substantially worse than all the other categories, including subprime fixed-rate loans. The main reason these loans have performed so poorly is that they seem to have been underwritten based on the expectation of continued home price appreciation.¹⁰

Figure 6
Foreclosure Inventory Rate by Type
Maryland



Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics

Prime Loans

As already noted, prime mortgages account for the majority of the outstanding loans in both Maryland and the United States, and perform better than subprime mortgages. Maryland's foreclosure rate for prime mortgages is below the national average according to both the LPS measure (1.2 percent) and the MBA measure (1.3 percent).

¹⁰ For more information on differences between subprime adjustable- and fixed-rate mortgages, see Frame, Scott, Andreas Lehnert, and Ned Prescott, "[A Snapshot of Mortgage Conditions with an Emphasis on Subprime Mortgage Performance](#)," Manuscript, August 2008.

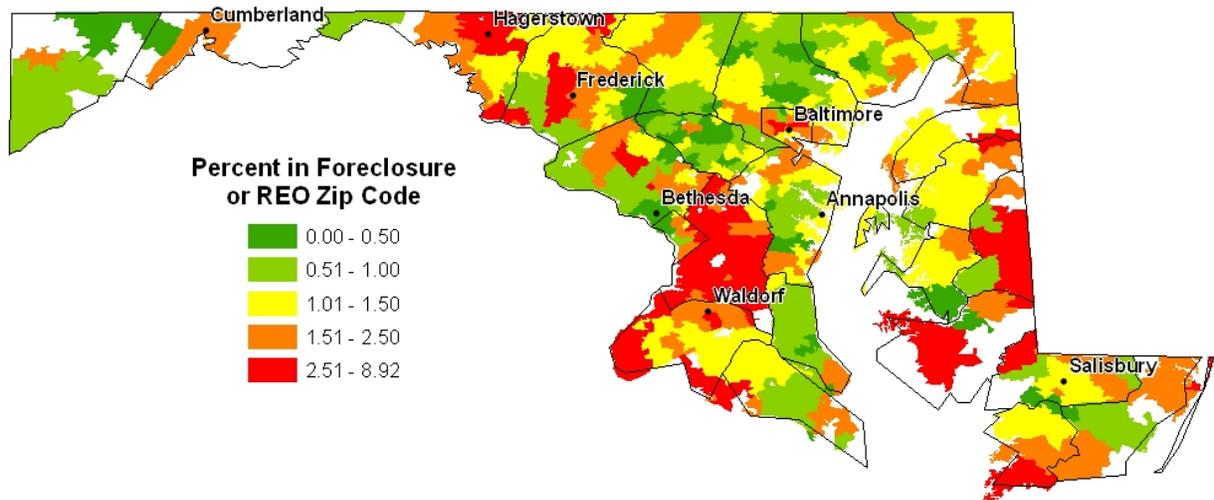
Table 2
Prime Mortgage Delinquency Rates

Geographic Area	Percent 90+ Days Past Due	National Rank	Percent in Foreclosure	National Rank
District of Columbia	1.37	18	1.13	28
Maryland	1.73	11	1.33	19
North Carolina	1.30	23	0.70	47
South Carolina	1.35	20	1.37	17
Virginia	1.28	24	1.01	37
West Virginia	1.31	22	1.19	23
United States	1.86	--	1.88	--

Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Although Maryland’s 90+ day delinquency rate and its foreclosure rate are below the national averages, Table 2 shows that the state still has the highest rates of all Fifth District jurisdictions and one of the highest rates in the country. As illustrated in Figure 7, however, foreclosure rates on prime loans vary throughout the state. The steepest foreclosure rates are generally higher in the areas of Maryland that are part of the Washington, D.C. MSA.¹¹ Prince George’s County, for example, has the highest prime foreclosure rate of all counties in the state – 2.3 percent – and Charles County is not far behind with 1.7 percent of prime mortgages in foreclosure.

Figure 7
Percentage of Owner-Occupied Prime Loans in Foreclosure or REO¹²



Notes: FHA and VA loans are included in the count of prime loans. Uncategorized zip codes have fewer than 100 loans or no data available.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008), Mortgage Bankers Association (2008:Q4)/Haver Analytics.

¹¹ Part of this is likely due to the fact that the LPS dataset does not explicitly identify Alt-A or jumbo loans, which typically perform worse than prime loans.

¹² Real Estate Owned (REO) properties are in the possession of the lender due to foreclosure or forfeiture.

Figure 7 illustrates the other areas of Maryland that have higher foreclosure rates, such as Baltimore city, the Hagerstown MSA, or some areas of Dorchester or Caroline counties on the Eastern Shore.

Subprime Loans

As illustrated in Figure 5a and shown in Table 3, 11.1 percent of mortgages in Maryland are subprime. This ranks Maryland at number 19 among the nation's states in the prevalence of subprime lending.

Table 3
Subprime Share of all Loans

Geographic Area	Percent Subprime	National Rank
District of Columbia	8.99	36
Maryland	11.10	19
North Carolina	9.35	33
South Carolina	10.75	25
Virginia	8.82	38
West Virginia	11.47	17
United States	11.68	--

Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics

Table 4 reports the performance of these mortgages. The percentage of subprime mortgages that are 90+ days past due in Maryland is not only the highest in the Fifth District, but also passes the United States 9.4 percent mark. According to the MBA data, the subprime foreclosure rate in Maryland is second in the Fifth District only to that of the District of Columbia and is less than a percentage point lower than the national mark.

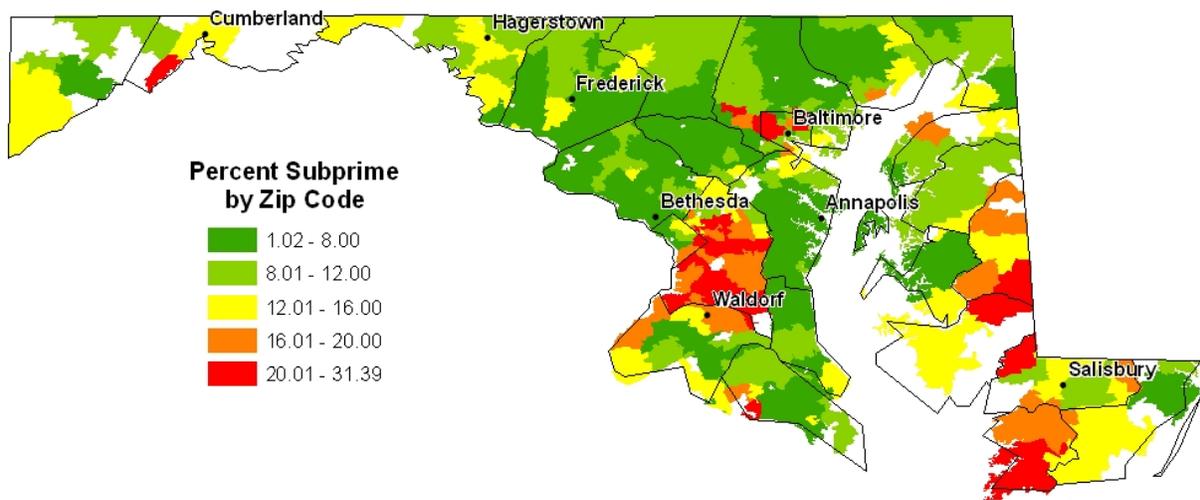
Table 4
Subprime Mortgage Delinquency Rates

Geographic Area	Percent 90+ Days Past Due	National Rank	Percent in Foreclosure	National Rank
District of Columbia	8.85	24	13.24	13
Maryland	10.20	10	12.90	14
North Carolina	8.67	28	5.47	49
South Carolina	8.59	29	9.04	30
Virginia	8.70	26	9.40	25
West Virginia	9.18	19	6.45	45
United States	9.40	--	13.71	--

Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics

As shown in Figure 8, subprime loans are scattered throughout Maryland, with concentrations in the D.C. suburbs, Baltimore, and portions of the Eastern Shore. The areas with the highest concentrations of subprime loans are the highly populated areas of Prince George’s County (18.9 percent), Charles County (14.2 percent), and Baltimore city (17.1 percent). Caroline County and Somerset County also have a high concentration of subprime loans, 18.3 percent and 21.5 percent, respectively, although population density is much lower in those areas, so the number of total loans is considerably lower.

Figure 8
Percentage of Owner-Occupied Mortgages with Subprime Loans



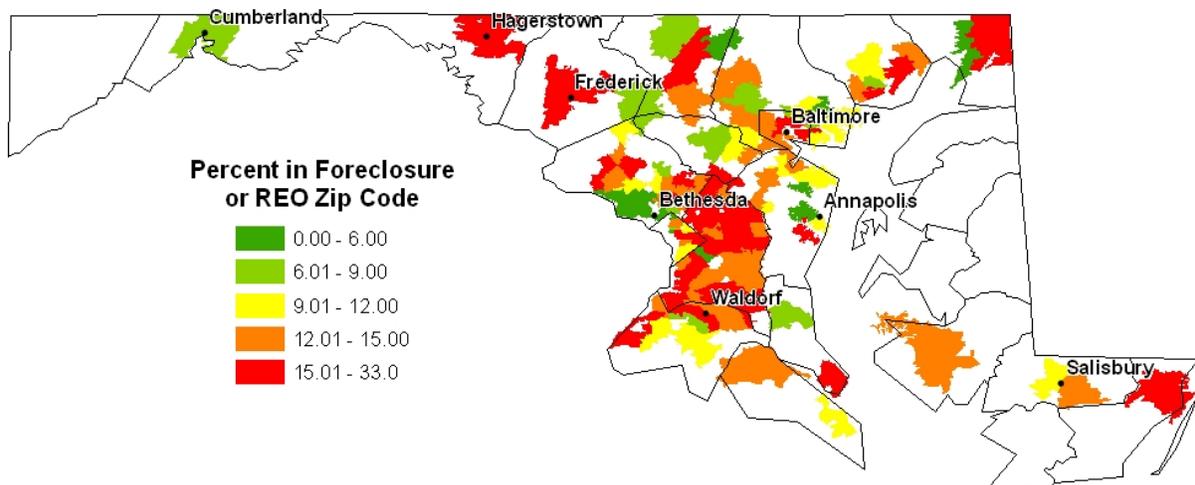
Notes: FHA and VA loans are included in the count of prime loans. Uncategorized zip codes have fewer than 100 loans or no data available.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Figure 9 reports the performance of owner-occupied subprime loans in Maryland according to the LPS data. Unlike in Table 4, here we report both homes that are in foreclosure and homes that have been foreclosed upon but not yet sold (REO). As might be expected, the foreclosure/REO rate for subprime loans in Maryland increased from 7.0 percent to 14.1 percent between December 2007 and December 2008.

Maryland’s portion of the Washington, D.C. MSA maintains the highest foreclosure/REO rates in the state, although it is clear from Figure 9 and Table 8 in Appendix A that subprime foreclosures are spread across the state. Prince George’s County, Charles County, the Hagerstown metro area, and parts of Montgomery County and Baltimore city had particularly high foreclosure/REO rates on subprime loans. In addition, foreclosure rates were high in Ocean Pines (in Worcester County), and the Salisbury metro area, although those areas on the Eastern Shore had relatively fewer loans.

Figure 9
Percentage of Owner-Occupied Subprime Loans
in Foreclosure or REO



Notes: FHA and VA loans are included in the count of prime loans. Uncategorized zip codes have fewer than 100 loans, fewer than 50 subprime loans, or have no data available.
 Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008), Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Going Forward

As shown in Figures 5a and 5b, subprime loans make up a disproportionately large share of properties in foreclosure. However, since subprime loans are such a small percentage of the mortgage market and since so many of those loans have already defaulted, it is likely that the share of foreclosures in the prime mortgage market is likely to grow. In particular there is concern that with house price declines and general recessionary conditions, foreclosures will grow among Alt-A and/or jumbo mortgages.¹³ Generally, borrowers of Alt-A loans have a better credit history than subprime borrowers and thus are more likely to be able to absorb declines in home equity. However, many Alt-A borrowers put little money down for their purchase and had interest-only or negative amortization features in the mortgage in order to afford the payments for the first few years after purchase. In areas where property values have dropped, these loans are particularly likely to end up with negative equity, making foreclosure more likely.

One category of Alt-A mortgages consists of loans that have a period over which only interest payments are required. Using LPS data, Table 6 in Appendix A reports the fraction of mortgages that have interest-only characteristics in Maryland's MSAs. These types of loans are most prevalent in the Washington, D.C. MSA, where they account for 13.0 percent of mortgages. They are also common in the Bethesda (12.7 percent) metro division and the Easton (12.3 percent) micropolitan area.

Table 9 reports the performance of interest-only loans for Maryland MSAs. In the state as a whole, the 90+ day delinquency rate for interest-only loans is more than double the prime loan 90+ day delinquency rate (although it is still far below the subprime rate).¹⁴ Tables 15-16 report

¹³ The MBA National Delinquency Survey and the LPS dataset do not have a separate category for Alt-A mortgages. These can be either in their prime or subprime category.

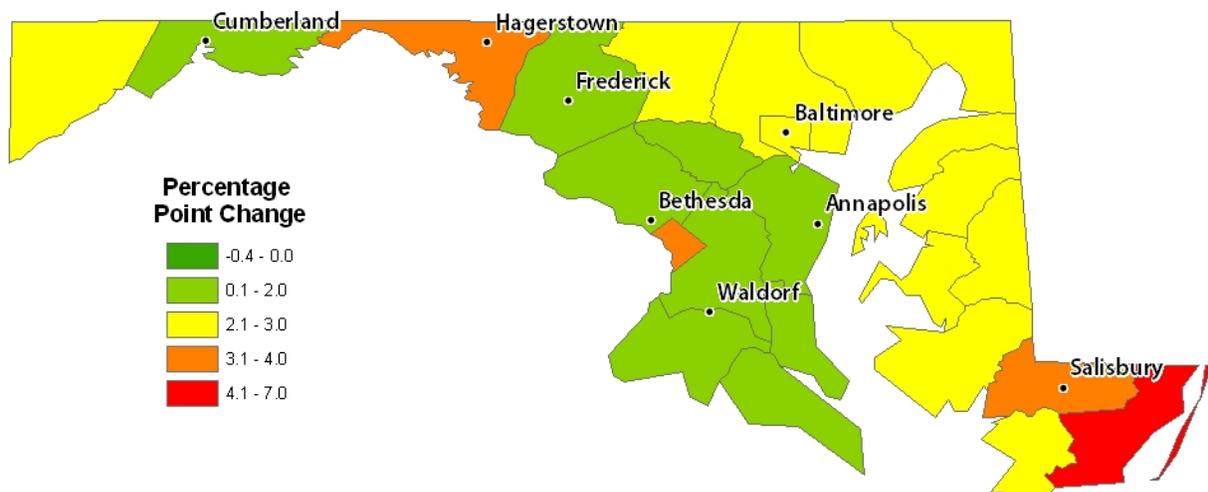
¹⁴ Note that interest-only and VA/FHA loans are included in the prime loan count.

performance numbers for Maryland localities within the Washington, D.C. MSA and the Baltimore-Towson MSA. Prince George’s County and Charles County saw the highest levels of foreclosure and REO on interest-only loans in either metro area. Interestingly, however, foreclosure rates on interest-only loans were universally higher among the Baltimore MSA localities than in D.C. proper.

Many people with negative equity in their house still pay their mortgage, although this is much more difficult to do if the borrower faces a negative shock to his income, such as losing a job or incurring an unexpectedly large expense.¹⁵ The unemployment rate is a good proxy for negative income shocks that borrowers potentially face.

The unemployment rate in Maryland climbed 2.1 percentage points from December 2007 to December 2008, ending the period with 5.5 percent joblessness. Figure 10 shows the change in the unemployment rate in each of Maryland’s counties from December 2007 to December 2008. If we use unemployment to predict where we might see increased foreclosures, the area of biggest concern is Worcester County located on the Eastern Shore of Maryland, where unemployment jumped from 9.0 percent in December 2007 to 13.5 percent in December 2008. Joblessness also grew notably in Washington and Wicomico counties.

Figure 10
Change in the Unemployment Rate



Notes: Twelve-month change is between December 2007 and December 2008.
Source: Bureau of Labor Statistics

¹⁵ See Foote, Christopher, Kristopher Gerardi, and Paul S. Willen "[Negative Equity and Foreclosure: Theory and Evidence](#)," Federal Reserve Bank of Boston Public Policy Discussion Papers Series, Paper No. 08-3. (2008).

Section 4: District of Columbia

Although the District of Columbia is a part of the Washington, D.C. MSA, its mortgage market characteristics are not identical to those of its suburbs in Maryland, Virginia, and West Virginia.

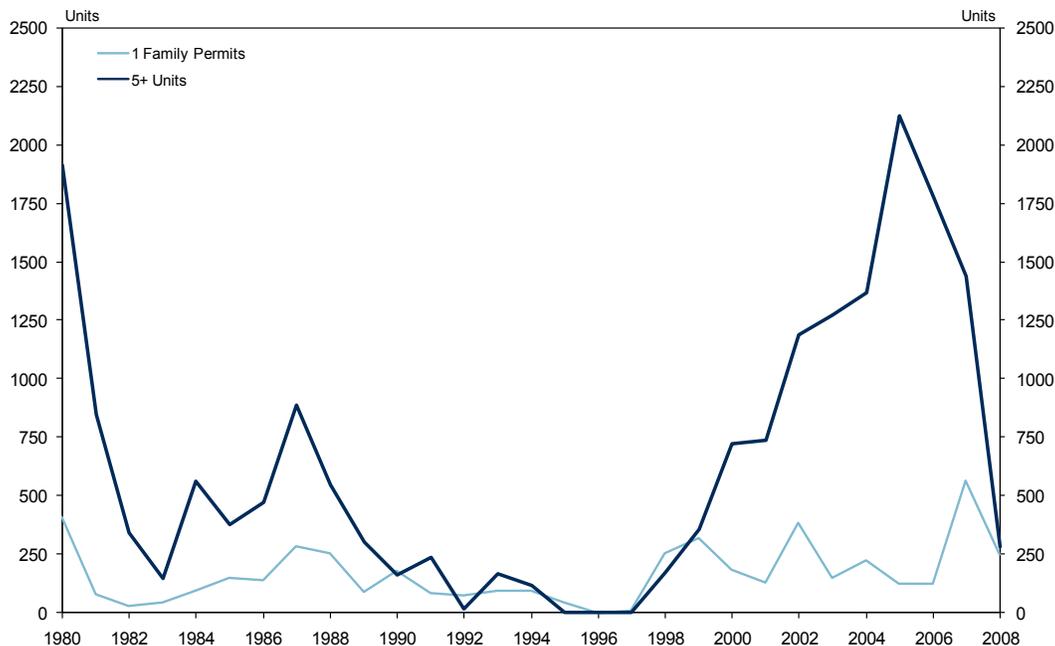
Supply

The Census Bureau's American Community Survey estimates that the occupied housing stock in the District of Columbia comprised 251,039 housing units in 2007. Not surprisingly, D.C. had a notably smaller share of owner-occupied housing units – 44.5 percent or 111,813 units – than Maryland or the nation.

On the whole, the supply of housing in D.C. increased over the first part of decade, according to the Census Bureau's American Community Survey. Although the estimated number of housing units in D.C. fell 0.9 percent from 2000 to 2003, the downward trend reversed and rose 4.3 percent from 2003 to 2007. Furthermore, although an average of only 237 single family building permits were issued annually between 2000 and 2007, the bulk of permitting activity in D.C. – five or more unit family buildings – rose every year from 2000 and 2005, peaking at 2,124 units (Figure 11).

There is evidence, too, of some supply overhang in D.C. The homeowner vacancy rate in D.C. fluctuated over the period, but remained consistently higher than in Maryland and Virginia, and rose to an 11-year high in 2006 (3.7 percent) before falling in 2007 and 2008. Furthermore, the National Association of Realtor's months' supply of homes indicator for the Washington, D.C. MSA remained below 6 months until the beginning of 2006, when it began to rise steadily, peaking at 15 months at the beginning of 2008.

Figure 11
Building Permits
District of Columbia



Source: Census Bureau/Haver Analytics

Demand

As in Maryland, various factors led to an increased demand for D.C. housing in the first part of the decade. The population of residents age 25 years or older increased 4.3 percent in the jurisdiction between 2000 and 2007. The Bureau of Labor Statistics payroll survey indicated an average annual increase in nonfarm employment of 0.9 percent from 2000 to 2007. In addition, real personal income growth accelerated toward the end of 2003, increasing 5.7 percent in 2004, 5.9 percent in 2005, and 5.2 percent in 2006, according to the Bureau of Economic Analysis.

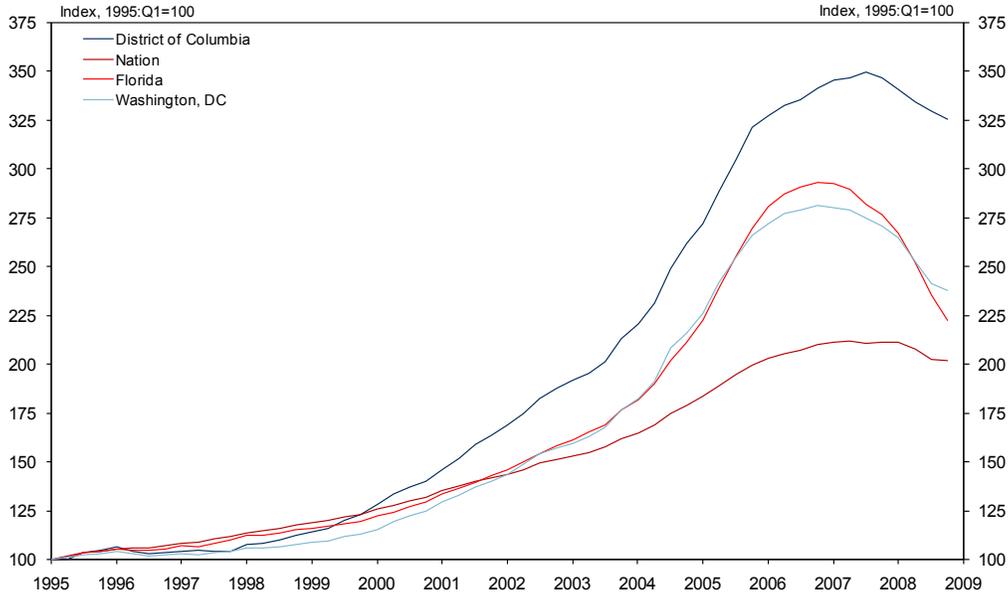
Not only were new mortgage products and relaxed underwriting standards available nationwide during this period, but also interest rates were lower. Data from the Federal Housing Finance Board show that the effective rate on conventional mortgages in D.C. fell every year from 2000 to 2004, reaching as low as 5.5 percent in 2004. After averaging 6,700 units annually in the 1990s, existing home sales in D.C. averaged 11,400 units a year between 2000 and 2006, according to the National Association of Realtors.

House Prices

House prices in the District of Columbia appreciated considerably between 2003 and 2007, outpacing the nation and roughly on par with growth in states such as Florida and California from 2003 to 2006. Since the third quarter of 2007, house prices in D.C. have fallen 6.9 percent – considerably less than the 14.7 percent decline in the Washington, D.C. metropolitan division.¹⁶ D.C.'s house price depreciation outpaced Virginia's overall decline of 5.1 percent but fell short of Maryland's 8.4 percent drop. The decline in house prices that began in the fourth quarter of 2007 coincided with D.C.'s largest consecutive increases in seriously delinquent mortgages, culminating in the steepest increase on record in the fourth quarter of 2008 (1.1 percentage points to 4.4 percent).

¹⁶ The Washington, D.C. metropolitan division is a subset of the Washington, D.C. MSA, and is reported here because this series is not available for the D.C. MSA. For all other data series, we use the MSA definition for Washington, D.C. See Appendix C for the MSA definitions.

Figure 12
FHFA House Price Index
District of Columbia



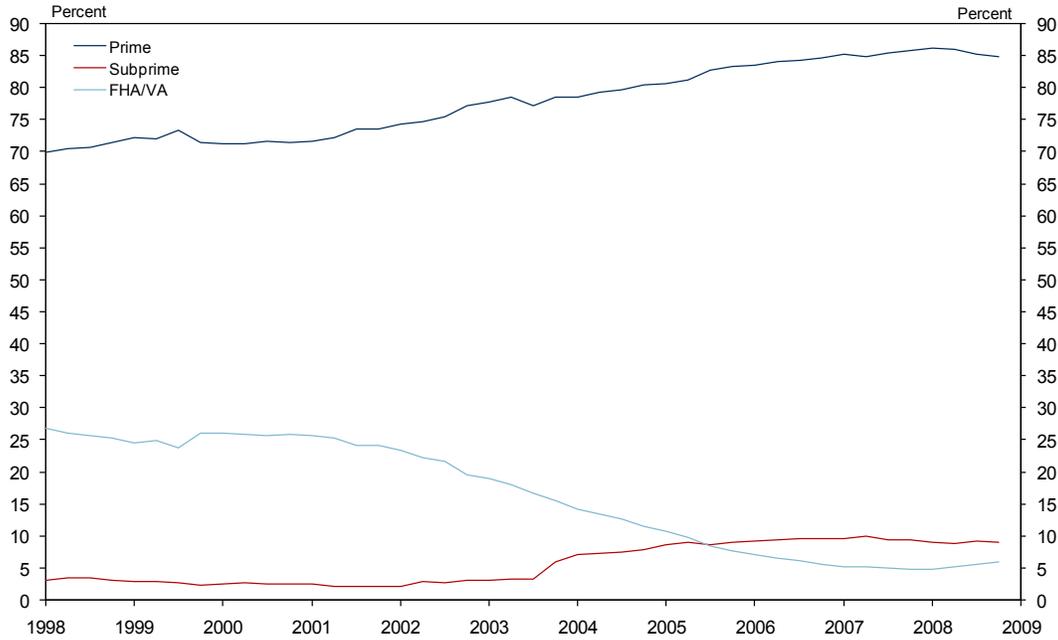
Notes: Washington DC refers to the Washington DC metropolitan division (MD). See Appendix C for MSA and MD definitions.
 Source: Federal Housing Finance Agency (formerly OFHEO)/Haver Analytics

Mortgage Composition

According to the Census Bureau, 76.7 percent of the 111,813 owner-occupied housing units in D.C. had an active mortgage in 2007 – a higher rate than the U.S. mark of 68.4 percent. Using the Lender Processing Services Applied Analytics (LPS) mortgage dataset, and scaling by this dataset’s coverage, we estimate that there was about \$20.5 billion of mortgage debt in the District of Columbia, accounting for 0.3 percent of the outstanding mortgage debt in the nation.

The number of subprime mortgages in D.C. began to increase in 2003. Figure 13 shows the fraction of subprime loans in D.C. as measured by the MBA survey. The fraction reached a peak of nearly 10 percent in the second quarter of 2007. Nonetheless, as Figure 14 illustrates, the majority of outstanding loans in D.C. – and across the nation – are prime.

Figure 13
Percent of Mortgages by Type¹⁷
District of Columbia



Notes: FHA and VA mortgages partially protect lenders against losses in case of default.
 Source: Mortgage Bankers Association (MBA) National Delinquency Survey (2008:Q4)/Haver Analytics

As in other states, despite their small share of the mortgage market, subprime loans account for more than 50 percent of all foreclosures in D.C. And, as illustrated in Table 5, adjustable-rate mortgages play a more prominent role in foreclosure activity than fixed-rate loans.

Table 5: Foreclosure Rates by Mortgage Type

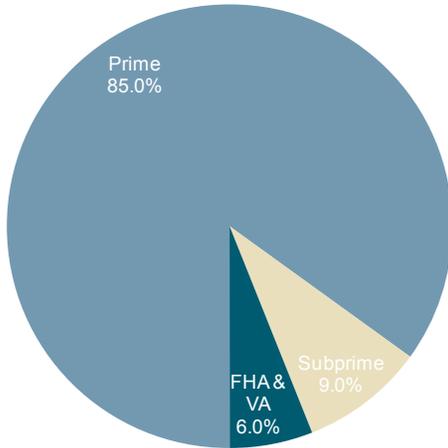
Loan Type	District of Columbia		United States
	Percent in Foreclosure	National Rank	Percent in Foreclosure
Prime Fixed-Rate	0.61	39	1.05
Prime Adjustable-Rate	2.36	48	5.71
Subprime Fixed-Rate	6.07	17	6.22
Subprime Adjustable-Rate	18.98	20	22.18

Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics

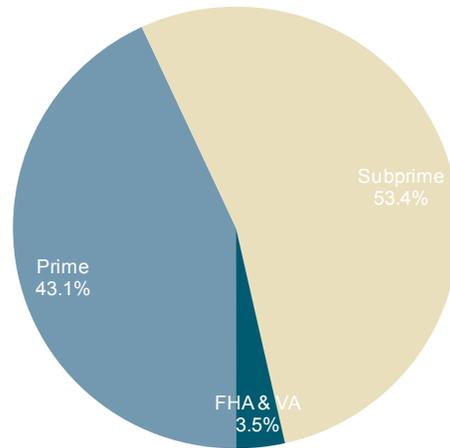
¹⁷ The MBA National Delinquency Survey and the LPS dataset do not have a separate category for Alt-A mortgages, so in both cases Alt-A loans can be either in the prime or subprime category. Also, the jump in subprime mortgages measured in 2003 is due to the addition of a major subprime servicer to the MBA survey in that year. For more detailed estimates of the prevalence of subprime lending over time, see Mayer, Chris and Karen Pence, "[Subprime Mortgages: What, Where, and to Whom.](#)" Federal Reserve Board, FEDS Working Paper 2008-29.

Figure 14 District of Columbia Mortgage Distribution

14a: Mortgages Outstanding



14b: Foreclosure Inventory



Source: Mortgage Bankers Association (2008:Q4)/Haver Analytics. Percentages may not sum to 100 due to rounding.

Comparing D.C. to its Maryland (and Virginia) suburbs, Figures 7 and 9 and Tables 11, 13, and 15 indicate that D.C.'s prime and subprime foreclosure/REO rates are not as high as other areas of the Washington, D.C. MSA. However, from Figure 8, it is clear that there is a much higher concentration of subprime loans in the southeastern section of the city, and Figures 7 and 9 illustrate sharp differences in foreclosure and REO rates between the eastern and western sections of D.C. Furthermore, Table 6 indicates that D.C. has a much higher percentage of adjustable rate mortgages and interest-only loans. That, combined with the large jumps in unemployment evidenced in Figure 10, implies that the District of Columbia might see growth in delinquency and foreclosure rates in the future.

Section 5: Summary

Although mortgages have generally performed better in the Maryland and D.C. markets than in the nation as a whole, both areas have struggled with volatility in house prices and rising delinquencies and foreclosures. Given rising unemployment rates, continued declines in house prices, and the prevalence of ARMs and Alt-A loans, we expect some further deterioration in mortgage markets going forward, particularly in the District of Columbia and its Maryland suburbs.

For more information on foreclosures, please visit the Richmond Fed's Foreclosure Center at: http://www.richmondfed.org/community_development/foreclosure_resource_center/

The views expressed in this article are those of the authors and do not necessarily reflect the views of the Federal Reserve Bank of Richmond or the Federal Reserve System.

Appendix A: Metropolitan Area Data

Table 6
General Housing Statistics

Geographic Area	Housing Units					Percent of Owner-Occupied Mortgages With:			
	Total	Vacant	Occupied	Owner-Occupied		Prime Loan	Subprime Loan	Adjustable Rate	Interest Only
				Total	With a Mortgage				
Baltimore-Towson	1,106,041	110,386	995,655	688,118	518,351	89.87	10.13	14.28	8.99
Cambridge	-	-	-	-	-	83.79	16.21	12.47	7.91
Cumberland*									
Entire MSA	46,230	6,003	40,227	28,034	14,563	-	-	-	-
Maryland Portion	-	-	-	-	-	84.64	15.36	5.29	1.83
Washington, DC MSA**									
Entire MSA	2,133,143	175,039	1,958,104	1,329,204	1,108,999	-	-	-	-
District of Columbia	-	-	-	-	-	90.36	9.64	24.48	17.12
Maryland Portion	-	-	-	-	-	87.94	12.06	18.34	13.04
Easton	-	-	-	-	-	92.53	7.47	17.15	12.27
Hagerstown***									
Entire MSA	113,041	13,041	100,000	70,564	46,779	-	-	-	-
Maryland Portion	-	-	-	-	-	88.33	11.67	12.26	7.95
Lexington Park	40,825	3,984	36,841	26,763	21,279	91.76	8.24	11.17	9.67
Ocean Pines	-	-	-	-	-	91.60	8.40	15.67	10.46
Salisbury	51,816	6,929	44,887	28,760	19,316	85.20	14.80	9.31	4.91
Maryland	2,318,430	235,972	2,082,458	1,456,103	1,122,941	88.90	11.10	16.51	11.09
Fifth District	12,904,601	1,661,582	11,243,019	7,766,133	5,395,627	90.17	9.83	15.02	8.68

*Maryland portion includes: Allegany County, MD

** Maryland portion includes: Calvert County, MD; Charles County, MD; Frederick County, MD; Montgomery County, MD; Prince George's County, MD

*** Maryland portion includes: Washington County, MD

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Housing units are 2007 estimates from the Census Bureau. Mortgage estimates are Federal Reserve Bank of Richmond calculations using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Definitions of the metropolitan areas are provided in Appendix B. Note that the Washington, D.C. MSA includes counties in Maryland as well as the District itself.

Table 7
Owner-Occupied Prime Loan Statistics

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Baltimore-Towson	0.85	0.36	0.22	1.76	0.94	0.33
Bethesda-Rockville	0.48	0.33	0.26	1.43	1.10	0.47
Cambridge	1.74	0.46	0.69	3.29	2.12	0.50
Cumberland*	0.83	0.53	0.34	1.69	1.01	0.43
Easton	0.62	0.13	0.13	1.36	0.86	0.27
Hagerstown*	0.96	0.62	0.49	2.12	1.63	0.58
Lexington Park	0.71	0.31	0.16	1.58	0.97	0.31
Ocean Pines	0.68	0.46	0.32	1.92	1.48	0.60
Salisbury	0.96	0.38	0.16	2.31	1.25	0.21
Washington, DC*	1.30	0.74	0.39	3.46	2.10	0.79
Maryland	0.84	0.43	0.27	2.03	1.24	0.46
Fifth District	0.96	0.50	0.37	1.97	0.89	0.52

*Only the Maryland portion of these MSAs is included here.

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4), and Haver Analytics.

Table 8
Owner-Occupied Subprime Loan Statistics

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Baltimore-Towson	8.38	3.18	2.77	17.04	7.46	4.67
Bethesda-Rockville	7.89	3.88	4.55	15.77	8.21	6.54
Cambridge	8.22	6.85	1.37	21.37	5.98	5.98
Cumberland*	7.66	1.91	2.39	9.41	5.29	2.35
Easton	8.65	0.96	1.92	13.41	2.44	4.88
Hagerstown*	7.75	4.50	4.50	16.36	9.93	6.62
Lexington Park	8.11	3.93	2.46	16.52	7.81	3.30
Ocean Pines	6.81	5.76	3.14	13.55	12.90	5.16
Salisbury	9.09	3.68	3.29	16.79	10.07	4.56
Washington, DC*	10.57	4.23	3.51	20.81	9.45	6.78
Maryland	9.00	3.70	3.33	18.02	8.39	5.67
Fifth District	8.36	4.41	3.71	16.40	6.32	4.73

*Only the Maryland portion of these MSAs is included here.

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4), and Haver Analytics.

**Table 9
Owner-Occupied Interest Only Loan Statistics**

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Baltimore-Towson	1.36	0.86	0.53	3.34	2.95	1.15
Bethesda-Rockville	1.29	1.14	0.82	3.88	3.90	1.62
Cambridge	1.91	0.64	0.64	3.97	4.64	1.32
Cumberland*	1.64	1.64	0.00	7.41	1.85	3.70
Easton	0.96	0.24	0.72	1.58	2.11	0.53
Hagerstown*	2.30	1.42	2.04	5.73	7.21	2.47
Lexington Park	1.85	1.18	0.76	5.85	2.74	1.83
Ocean Pines	1.60	0.71	1.07	4.26	3.15	2.41
Salisbury	1.66	1.66	0.55	6.06	0.00	1.82
Washington, DC*	2.90	1.61	1.21	8.09	6.28	2.61
Maryland	1.74	1.15	0.83	4.78	4.15	1.69
Fifth District	1.50	1.13	1.14	3.78	2.88	2.08

*Only the Maryland portion of these MSAs is included here.

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008)

**Table 10
Unemployment Rates**

Geographic Area	Unemployment Rate	Percentage Point Increase from December 2007
Baltimore-Townson	5.8	2.3
Cambridge	9.3	2.9
Cumberland	6.5	1.7
Easton	5.9	2.3
Hagerstown-Martinsburg	6.7	2.7
Lexington Park	4.3	1.6
Ocean Pines	13.5	4.5
Salisbury	7.6	3.2
Washington, DC	4.7	1.7
Maryland	5.5	2.1
5th District	6.6	2.3

Source: Census Bureau (December, 2008)

Appendix B: Selected County Data – Selected MSAs

Table 11
Owner-Occupied Prime Loan Statistics
Washington, DC MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Calvert County	0.84	0.46	0.12	1.94	1.05	0.24
Charles County	1.25	0.54	0.28	3.23	1.66	0.53
Prince George's County	1.38	0.81	0.44	3.72	2.34	0.92
District of Columbia*	0.64	0.37	0.23	1.49	0.78	0.49

*Not part of Maryland

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Table 12
Owner-Occupied Prime Loan Statistics
Baltimore-Towson MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Anne Arundel County	0.53	0.28	0.17	1.38	0.89	0.31
Baltimore City	1.85	0.63	0.52	3.16	1.52	0.59
Baltimore County	0.84	0.35	0.19	1.76	0.85	0.29
Carroll County	0.55	0.28	0.14	1.27	0.72	0.27
Harford County	0.77	0.34	0.18	1.64	0.91	0.23
Howard County	0.41	0.22	0.10	0.96	0.66	0.21
Queen Anne's County	0.65	0.26	0.19	1.67	0.82	0.37

Notes: FHA and VA loans as well as interest-only loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008 and, Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Table 13
Owner-Occupied Subprime Loan Statistics
Washington, DC MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Calvert County	10.31	3.44	3.44	19.61	7.11	4.17
Charles County	14.00	3.54	2.97	21.44	10.57	4.95
Prince George's County	10.12	4.37	3.59	20.79	9.42	7.18
District of Columbia*	7.18	3.77	3.41	13.84	5.88	6.88

*Not part of Maryland

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Table 14
Owner-Occupied Subprime Loan Statistics
Baltimore-Towson MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Anne Arundel County	8.21	3.88	2.07	16.65	7.32	3.63
Baltimore City	8.73	2.97	3.98	16.59	8.35	5.85
Baltimore County	7.89	3.08	2.11	17.45	7.02	3.70
Carroll County	10.74	3.07	2.91	17.99	6.58	6.00
Harford County	8.66	2.52	2.94	17.05	6.87	5.65
Howard County	7.59	3.21	1.65	17.53	7.22	3.55
Queen Anne's County	7.54	6.03	2.51	18.13	6.25	6.88

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008) and Mortgage Bankers Association (2008:Q4)/Haver Analytics.

Table 15
Owner-Occupied Interest Only Loan Statistics
Washington, DC MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Calvert County	2.04	0.86	0.68	3.84	3.10	1.01
Charles County	3.21	1.22	0.89	7.22	4.61	1.72
Prince George's County	2.94	1.78	1.34	8.76	6.99	2.98
District of Columbia*	0.86	0.60	0.59	2.23	1.25	1.32

* Not part of Maryland

Notes: N/A means there are too few loans to accurately calculate this statistic. FHA and VA loans are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008)

Table 16
Owner-Occupied Interest Only Loan Statistics
Baltimore-Towson MSA

Geographic Area	December, 2007			December, 2008		
	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO	Percent 90+ Days Past Due	Percent in Foreclosure	Percent in REO
Anne Arundel County	0.98	0.75	0.47	2.85	2.61	1.12
Baltimore City	1.85	0.84	0.76	3.38	3.56	1.57
Baltimore County	1.75	1.05	0.61	4.31	3.26	1.19
Carroll County	2.04	0.86	0.68	3.84	3.10	1.01
Harford County	1.64	1.19	0.65	4.08	4.03	1.11
Howard County	0.91	0.72	0.30	2.57	2.53	0.78
Queen Anne's County	1.29	1.03	0.39	3.09	1.97	1.26

Notes: N/A means there are too few loans to accurately calculate this statistic. FHA and VA are included in the count of prime loans.

Source: Federal Reserve Bank of Richmond estimates using data from Lender Processing Services (LPS) Applied Analytics (December, 2008)

Appendix C: MSA Definitions

1. **Baltimore-Towson, MD MSA** – Anne Arundel County, MD; Baltimore County, MD; Carroll County, MD; Harford County, MD; Howard County, MD; Queen Anne’s County, MD; Baltimore city, MD
 2. **Bethesda, MD MSA**- Frederick County, MD; Montgomery County, MD
 3. **Cambridge, MD MSA** – Dorchester County, MD
 4. **Cumberland, MD MSA** – Allegany County, MD; Mineral County, WV
 5. **Easton, MD** – Talbot County, MD
 6. **Lexington Park, MD** – St. Mary’s County, MD
 7. **Ocean Pines, MD** – Worcester County, MD
 8. **Philadelphia-Wilmington MSA** – Burlington County, NJ; Camden County, NJ; Gloucester County, NJ; Bucks County, PA; Chester County, PA; Delaware County, PA; Montgomery County, PA; Philadelphia County, PA; New Castle County, DE; Cecil County, MD; Salem County, NJ
 9. **Salisbury, MD** – Somerset County, MD; Wicomico County, MD
 10. **Hagerstown-Martinsburg, MD MSA** - Martinsburg, WV; Washington County, MD; Berkeley County, WV; Morgan County, WV
 11. **Washington, DC MSA** - District of Columbia, DC; Calvert County, MD; Charles County, MD; Frederick County, MD; Montgomery County, MD; Prince George’s County, MD; Arlington County, VA; Clarke County, VA; Fairfax County, VA; Fauquier County, VA; Loudoun County, VA; Prince William County, VA; Spotsylvania County, VA; Stafford County, VA; Warren County, VA; Alexandria city, VA; Fairfax city, VA; Falls Church city, VA; Fredericksburg city, VA; Manassas city, VA; Manassas Park city, VA; Jefferson County, WV
- The Washington, DC metropolitan division** includes all of the above localities except Frederick County and Montgomery County in Maryland.

Source: Office of Management and Budget, 2008

Appendix D

Loan Processing Services, Inc. Applied Analytics Mortgage Data (LPS Data) does not have as complete coverage of subprime loans as it does of prime loans. To compensate for this, we scaled the LPS subprime and prime data for each locality by common factors such that the LPS totals matched the MBA data at the state level. While this method of dealing with LPS’s underrepresentation of loans is far from perfect, it only impacts the figures and tables that report the prevalence of subprime loans within geographic areas of Virginia. It has no impact on the subprime performance numbers.