

Free access

3,043 Views | 87 CrossRef citations to date | 3 Altmetric

Listen

Articles

From the Subprime to the Exotic: Excessive Mortgage Market Risk and Foreclosures

Dan Immergluck

Pages 59-76 | Published online: 08 Feb 2008

Cite this article <https://doi.org/10.1080/01944360701702313>

- Full Article
- Figures & data
- References
- Citations
- Metrics
- Reprints & Permissions
- View PDF
- Share

Abstract

Problem

profile fa

perspect

foreclos

markets

Purp

what

lending

Methods

to discov

describe

anticipat

financial risk

From the

entrat

ortgage

recommen

k home

or no cost,

ted, and

le to

We Care About Your Privacy

We and our 880 partners store and access personal data, like browsing data or unique identifiers, on your device. Selecting I Accept enables tracking technologies to support the purposes shown under we and our partners process data to provide. Selecting Reject All or withdrawing your consent will disable them. If trackers are disabled, some content and ads you see may not be as relevant to you. You can resurface this menu to change your choices or withdraw consent at any time by clicking the Show Purposes link on the bottom of the webpage. Your choices will have effect within our Website. For more details, refer to our Privacy Policy. [Here](#)

We and our partners process data to provide:

Use precise geolocation data. Actively scan device

I Accept

Reject All

Show Purpose

Results and conclusions: Numbers of subprime, exotic, and zero-down-payment mortgages have all been growing. Where they are spatially concentrated they are linked to rising and geographically concentrated home mortgage foreclosures. I find evidence that subprime lenders achieve greater market penetration in metropolitan areas with less educated residents, and that higher-risk lending is more prevalent where housing prices are high and increasing. I also find that when local housing markets are hot, even high levels of subprime lending are associated with only slightly higher foreclosure filing rates, but foreclosure rates rise quickly when hot markets cool.

Takeaway for practice: Although foreclosures are less likely to be a severe problem in very strong real estate markets, when prices in previously hot markets stagnate or decline, foreclosures can quickly follow. This is a serious concern given recent trends in mortgage financing that have extended credit to more economically vulnerable populations and generally weakening housing markets in many metropolitan areas. These foreclosures tend also to be spatially concentrated within metropolitan areas, particularly stressing housing markets in neighborhoods where the higher-risk products are more prevalent. I recommend that planners: (1) track local lending and foreclosure patterns; (2) promote healthier mortgage markets in vulnerable areas; (3) fund targeted foreclosure prevention and counseling; (4) develop refinancing/restructuring programs; (5) redesign programs to promote sustainable homeownership; (6) get foreclosed properties reoccupied quickly; (7) recognize the effect of foreclosure surges

on rental and fore

Research

Q Keyword

g regulation



Introd

The hist

changes

on neigh

polycyma

f how

major impacts

s and

article

widening of the risk spectrum of mortgage products and to problems of increased and geographically concentrated foreclosures.

Though nationally diversified bond and securities markets tolerated high levels of aggregate risk until late 2006, and the problem of excessive risk in U.S. mortgage markets became front-page news only in 2007, by that time many communities around the country had already been dealing with the problems of increasing and concentrated foreclosures for several years. National awareness increased when housing markets in California, Florida, and the Northeast that had been experiencing high rates of appreciation began slowing in 2006, and local foreclosure rates in these places increased dramatically, pushing up national levels of foreclosures. This devalued the securities backed by deteriorating subprime and alternative mortgages. Moreover, as adjustable rate loans with initially low, teaser¹ interest rates began resetting to higher levels, many markets that had already reached high levels of foreclosures experienced even greater problems.

This article begins by examining how changes in mortgage markets since the middle 1990s led to huge growth in high-risk loan products. I consider the recent rapid growth of three types of home-purchase mortgage products:

1. Subprime mortgages are home loans with relatively high interest rates (and often higher up-front fees) that are generally intended for borrowers whose credit

histori

design

Resear

from 1

(Gruer

2. Exotic

am

loan

prime

3. Zero-c

borrow

down-

the do



more in some places than others. Many California metropolitan areas, for example, experienced very large increases.

To better understand why the increases were greater in some metropolitan areas, and thereby suggest which factors might be most closely related to a region's mortgage risk profile, I used a regression model to estimate the shares of home purchase loans that were subprime in these metropolitan areas in 2003. I controlled for their shares of home purchase loans that were subprime in 1997, and for the other demographic and housing stock characteristics likely to affect their subprime shares. These include: the size of the median purchase loan, the proportion of buyers who were Black, the proportion of buyers who were Hispanic, the proportion of residents who had at least a college degree (hereafter called educational attainment), the proportion of housing units over 50 years old, the ratio of the FHA loan limit to the median loan amount, the ratio of median borrower income to median loan size, and the unemployment rate.³ I also included 1997 to 2003 changes in median loan size, the racial and ethnic composition of buyers, and the unemployment rate as explanatory variables. These variables generally reflect the factors that are expected to impact loan risk or the demand or supply of subprime versus prime loans. For example, race has been shown to be a significant factor in whether borrowers are expected to receive a sub-prime as opposed to a prime loan ([Gruenstein-Bocian et al., 2006](#)). Several of these variables are likely to be somewhat endogenous, so I used a two-stage least-squares model.⁴

Figure 1. Subprime mortgage loans as a share of all home purchase loans in the United States, 1993-2003: Source: [unintelligible] author [unintelligible] 7-2004.



The available indicators show strong growth in exotic mortgages, especially from 2001 to 2005. LoanPerformance, Inc. tracks loans sold to third parties other than the GSEs Fannie Mae and Freddie Mac. While this leaves out a sizeable segment of the overall mortgage market, it likely includes a large portion of the growth in exotic loans.

Table 1. Results of model predicting share of 2003 home purchase loans made by subprime lenders in U.S. metropolitan areas with populations over 500,000 in 2000.



Download CSV

Display Table

These data show that among tracked loans, those that were interest-only rose from under 5% in 2001 to approximately 35% in 2005 ([LoanPerformance, 2006](#)). Negative amortization loans rose from less than 1% in 2003 to more than 7% by 2005. In California, this figure topped 17% in 2005. LoanPerformance also listed 12 metropolitan areas in California and 10 in other states where interest-only loans accounted for more than 50% of the loans that they track.

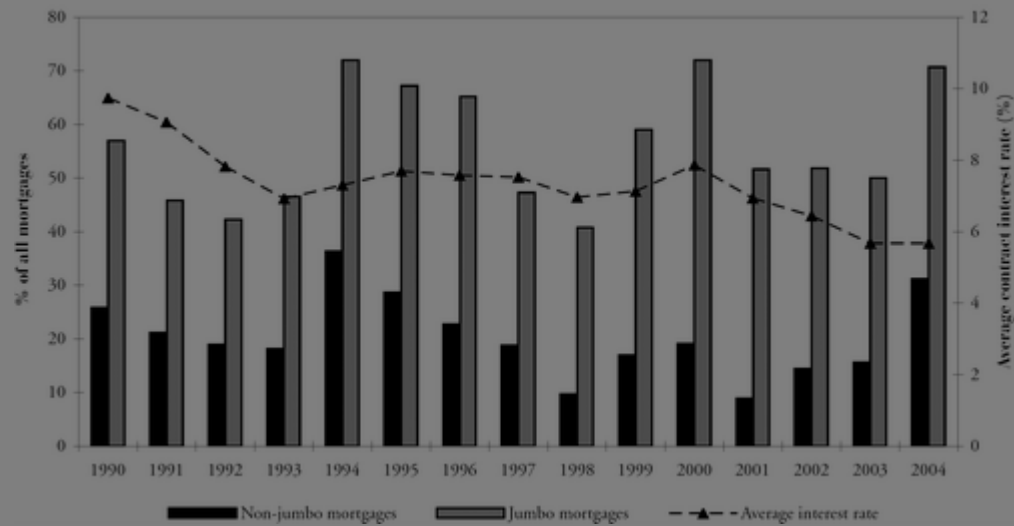
Many, if not most, exotic mortgages involve adjustable interest rates, especially those made between 2003 and 2005, when exotic mortgages became popular. Initially low interest rates, which later rose substantially, made these adjustable rate mortgages (ARMs) a popular choice. Their popularity was largely due to their low initial interest rates, which contributed to their popularity. As interest rates rose, the share of interest-only loans we tracked increased significantly. The increase in ARM and interest-only loans was particularly notable in California.

The Federal Reserve's decision to raise interest rates in 2004 was a major factor in the decline of ARM popularity. Many ARMs (both fixed-rate and floating-rate) had low initial interest rates that were significantly below the prevailing market rate. As the share of ARM loans increased, the share of fixed-rate loans decreased. In 2000, ARM loans accounted for 10% of all home purchase loans. After the Fed's rate increases, the share of ARM loans fell to 5% by 2005. The share of fixed-rate loans increased from 90% to 95% over the same period.



prevailing fixed interest rates. From 2001 to 2003 interest rates generally fell and ARMs held steady for jumbo loans and increased for non-jumbo mortgages. Then, although rates remained relatively flat, ARMs increased dramatically in 2004, making up 71% of jumbo loans and 31% of non-jumbo loans according to the MIRS data. Even so, these data likely understate ARM growth in later years, especially in the subprime market and for loans with teaser introductory rates.⁸

Figure 3. Percentage of conventional jumbo and non-jumbo mortgages with adjustable rates, 1990-2004: Source: [Federal Housing Finance Board \(2006\)](#).



Display full size

The Fed... are for
some of... ventional
home pu... in 2004 for
31 large... politan area
tend to c...
Some sa... ver, such
product... nd
pote... products as
means... because
they and... nt that
propertie... gher-priced
markets... ough to
compens...

Growing Numbers of Zero-Down-Payment Loans

During much of the 20th century, the standard down-payment requirement for a home purchase loan was 20%. Until the 1990s, down payments below 20% typically required either private mortgage insurance or the use of a government-insured or government-guaranteed loan. Some buyers receive seller-funded down-payment assistance. Public and nonprofit entities sponsor zero-down-payment loan programs to subsidize homeownership. The Veterans Administration introduced a zero-down-payment loan program as early as 1944 ([Government Accountability Office, 2005a](#)). The FHA followed with a program permitting down payments of 5% in 1948 and then 3% in 1957. In the 1970s, the GSEs began purchasing loans on which the homeowner had put as little as 5% down. In 1994, Fannie Mae introduced a 3% down product, and Freddie Mac followed with a similar product in 1998. In 2000, both GSEs began offering products that required no down payment. While both GSEs continue to offer products requiring down payments of less than 5%, and they have become more popular, the FHA remains a smaller, but still significant, provider of such loans. Almost 90% of FHA loans had loan-to-value ratios (LTVs) above 95% in 2000, while the figures for Fannie Mae and Freddie Mac were 4.4% and 6.1%, respectively ([Government Accountability Office, 2005a](#)).¹⁰

Figure 4. Proportion of conventional mortgages with adjustable rates versus average home purchase price. [Federal Reserve Bank of Atlanta](#)



According to my calculations using microdata from the 1999 American Housing Survey (AHS), only 5% of owner-occupiers purchasing single-family homes in MSAs (metropolitan statistical areas) in 1998 and 1999 indicated “no down payment” when asked what their main source of the down payment was for their house, but the 2005 AHS data show this figure had reached 13.3% for 2004 and 2005 ([U.S. Census Bureau, 1999, 2005](#)). Given that many zero-down-payment programs are aimed at lower-income borrowers, these products are likely to be more concentrated than this in modest-income neighborhoods.

From 2000 to 2005, the proportion of FHA-insured loans that had LTVs greater than 95% and involved down-payment assistance grew from 35% to nearly 50% ([Government Accountability Office, 2006](#)). From 2000 to 2004, the proportion of FHA loans involving down-payment assistance from a nonprofit organization grew from 6% to 30%. Many lenders permit down-payment assistance from third parties, especially for first-time homebuyers. Both the FHA and the GSEs stipulate that such assistance cannot come from anyone with an interest in the sale of the property. However, the FHA traditionally has allowed nonprofits to receive contributions from the seller of the property (often a developer) and then to turn around and provide down-payment assistance to the buyer.

[11](#)

Trends

Although
has unde
brought
benefits
trends a
neig
foreclos
have pla

×

ment loans
s it has
ze the
these
arm
or to
rtgages



Subpri

A substantial body of research points to widespread problems in the subprime market. There is evidence that minority households are more likely to receive subprime mortgages even after controlling for credit quality, and that abusive lending practices have been concentrated in the subprime sector ([Gruenstein-Bocian et al., 2006](#); [Nichols, Pennington-Cross & Yezer, 2005](#); [U.S. Department of the Treasury & U.S. Department of Housing & Urban Development \[HUD\] 2000](#)). However, my main concern is that subprime mortgages have been associated with large, spatially concentrated increases in foreclosures ([Apgar & Duda, 2004](#); [Immergluck & Smith, 2005](#)). For the first three quarters of 2006, over 60% of loans entering foreclosure in the United States were subprime, up from approximately 30% in 2003, even though less than 13% of outstanding mortgages were subprime ([Nassar, 2007](#)).

A number of recent studies have measured foreclosure rates among subprime loans compared to prime loans ([Goldstein, McCullough, Parker, & Urevick-Ackelsberg, 2005](#); [Immergluck & Smith, 2005](#); [Quercia, Stegman, & Davis, 2005](#); [Schloemer et al., 2006](#)). Generally these studies have found that subprime loans of all types foreclose at rates between 10 and 20 times the rate of prime loans, depending on how foreclosures and subprime loans are defined and measured. Although research on the foreclosure rates of subprime home purchase loans specifically has been limited, [Schloemer et al. \(2006\)](#) found that subprime home purchase loans made in 2003 were more than twice as likely to go into foreclosure as subprime refinance loans made that same year. Thus, while subprime refinance loans are generally less likely to go into foreclosure than subprime home purchase loans

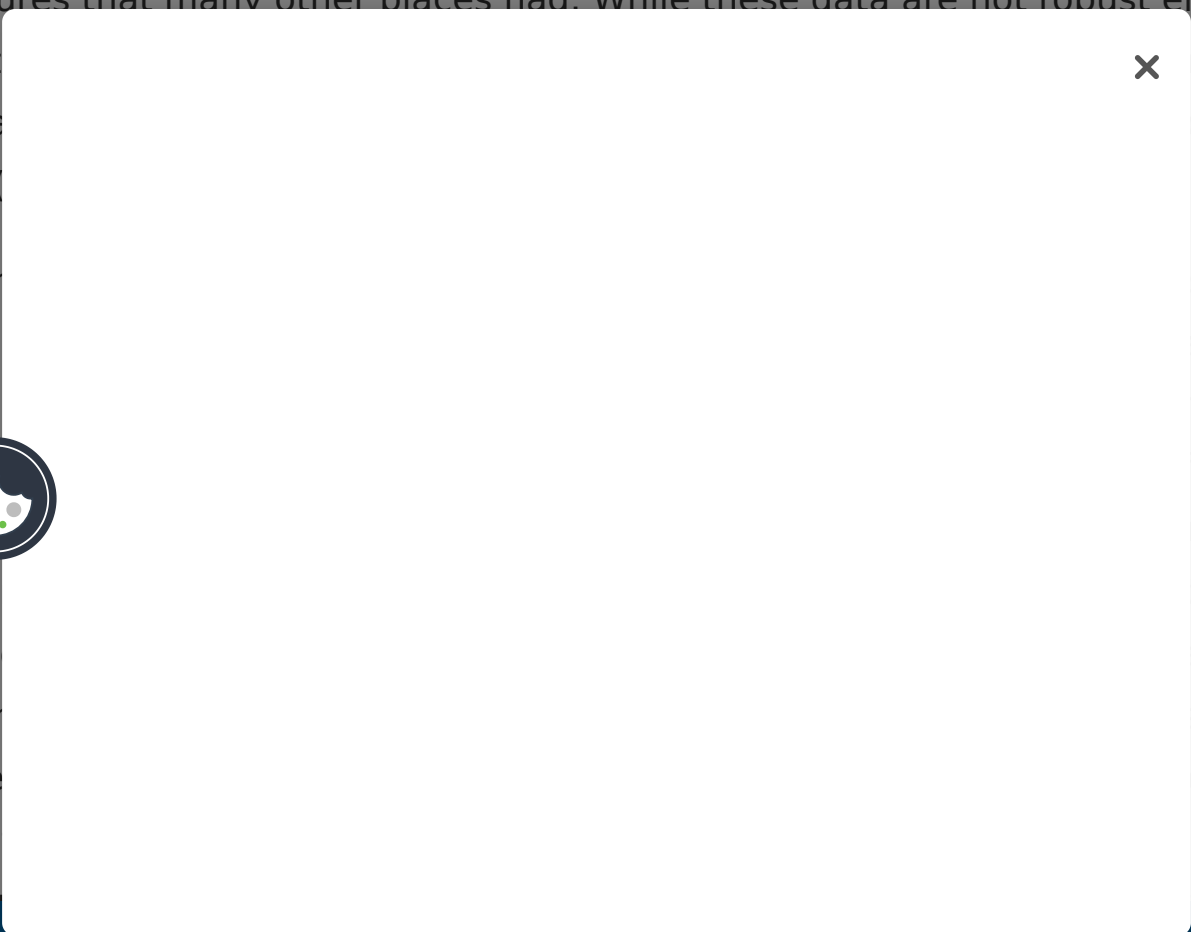
The foreclosures of subprime home purchase loans are generally more likely to go into foreclosure than subprime refinance loans. Data show that subprime home purchase loans are more likely to go into foreclosure than subprime refinance loans in earlier years ([Standard & Poor's, 2006](#)). The mortgage foreclosures in 2006 were more likely to be subprime home purchase loans ([Nassar, 2007](#)).

The relationship between the strength of the economy and the availability of affordable mortgage data supports the idea that subprime home purchase loans are more likely to go into foreclosure than subprime refinance loans. This is because subprime home purchase loans are more likely to be made in areas with higher unemployment rates, where the economy is weaker and the availability of affordable mortgage data is lower.



metropolitan areas I analyzed previously. To estimate a foreclosure filing rate in each of these 81 metropolitan areas, I divided first quarter 2006 foreclosure filings from the RealtyTrac report by the number of home purchase and refinance loans originated in the metro area in 2003 as measured by Home Mortgage Disclosure Act (HMDA) data. **Figure 5** plots my estimated metropolitan foreclosure filing rates against the shares of home purchase loans made by subprime lenders in the same metropolitan areas in 2003. As predicted, it indicates that when local housing markets are hot, even high levels of subprime lending are associated with only slightly higher foreclosure filing rates. In markets where appreciation is lower, high levels of subprime lending are associated with substantially higher foreclosure rates. The metropolitan areas within the dotted oval suggest a line with only a small positive slope, indicating that in this group of places with hot housing markets and high housing values, even very high subprime loan shares did not produce high foreclosure rates in early 2006. For metropolitan areas in the dashed oval, whose housing markets were cooler, and for which **Figure 5** shows lower median property values, the slope implied is steeper, indicating that for these places, a high subprime lender share is associated with high foreclosure rates.

As of 2003, metropolitan areas with high levels of housing appreciation, including many in California, the Northeast, the Atlantic coast, and Florida, had not suffered the spike in foreclosures that many other places had. While these data are not robust enough for a



full mult
home va
market (

Although
in these
problem
mark
natio

When la
subprim
new loa
increase
aggrega
Howeve

and regional
prime

s, as prices
elerating
ng housing
ormance of
r loans.

tion,
ance into
stable rates
or, but
ly expected.
hat had

Spatially concentrated subprime loans can result in poor outcomes for neighborhoods and local governments. A number of studies have shown a disproportionate share of metropolitan foreclosures and increases in foreclosures in recent years to be in lower-income and minority neighborhoods (for a review, see [Apgar & Duda, 2004](#)). A study of foreclosures in Atlanta found predominantly minority census tracts had foreclosure rates (as measured by foreclosures per mortgaged unit) approximately 12 times those of predominantly White tracts ([Apgar & Duda, 2005](#)). These tracts also had the highest concentrations of subprime mortgages. [Figure 6](#) shows that in Cook County, Illinois, foreclosures increased much more in the city and close-in older suburbs than in more distant suburbs. [Immergluck and Smith \(2005\)](#) calculated that conventional foreclosures increased by 215% from 1995 to 2002 in predominantly White census tracts in the five-county Chicago area, while they increased by 544% in predominantly minority tracts.¹³ They also found shares of subprime home purchase and refinance loans to be strong predictors of neighborhood foreclosure rates after controlling for a variety of economic, racial, and housing stock variables.

Table 2. Metropolitan areas with highest and lowest levels of growth in foreclosure filings ^a between the second half of 2006 and the first half of 2007.

[Download CSV](#)

[Display Table](#)



subprime loans, many exotic mortgages have longer initial interest rate periods, meaning that those originated in 2003 through 2005 will reset in 2008 and beyond.

As is the case with subprime loans, one of the key risks for areas with many exotic mortgages is the cooling of hot housing markets. Where exotic mortgages are concentrated in markets likely to lose value, there is a risk of accelerating foreclosures once homeowners can no longer sell or refinance easily. [Cagan \(2007\)](#) found that for ARMs originated in 2006, 23.9% of properties had negative equity (the home's value was less than the mortgage amount), up from only 7.6% in 2004, and compared to only 10.3% of fixed-rate borrowers. Moreover, if prices were to fall by 10%, 48.9% of the adjustable-rate mortgages originated in 2006 would have negative equity. Therefore I expect metropolitan areas at high risk of declining housing prices that also have high ARM shares to be at great risk of large increases in foreclosures.

Figure 6. Change in the proportion of housing units with a mortgage that entered the foreclosure process 1994-1995 to 2001-2005: Source: Data from [Midwest Foreclosures \(2003\)](#).



Chipoli.sh
Tr17_d00.shp
Decrease
Increase
Increase
Increase

Display fu

However, the bulk of studies addressing loan performance do not distinguish borrowers who received any pre- or postpurchase counseling. [Hirad and Zorn \(2002\)](#) found that individual and classroom prepurchase counseling significantly reduces delinquencies for high-LTV loans.

Seller-funded down-payment programs are of particular concern, because the [Government Accountability Office \(2005b\)](#) has found that they make substantially higher claims on FHA insurance (i.e., have higher probabilities of foreclosure) than otherwise comparable FHA loans. Unlike the FHA, the GSEs have not allowed seller-funded down payments, believing that they contribute to overpriced properties and higher foreclosure rates.

Despite the problems associated with zero-down-payment loans and seller-funded down-payment programs, the FHA and some members of Congress are proposing to increase FHA insurance coverage to allow for zero down payments. This has been spurred in large part by the declining FHA market share shown in [Figure 1](#). Moreover, as subprime foreclosures worsened in early 2007, supporters of what has been called “FHA reform” advocated enabling more zero-down-payment activity in FHA products to address the problems in the subprime market, though critics argued the proposed changes would repeat past mistakes ([Donahue, 2007](#)).

Implic

The rece

consequ

2) shifte

and othe

housi

appro

rates inc

foreclos

risk proc

available

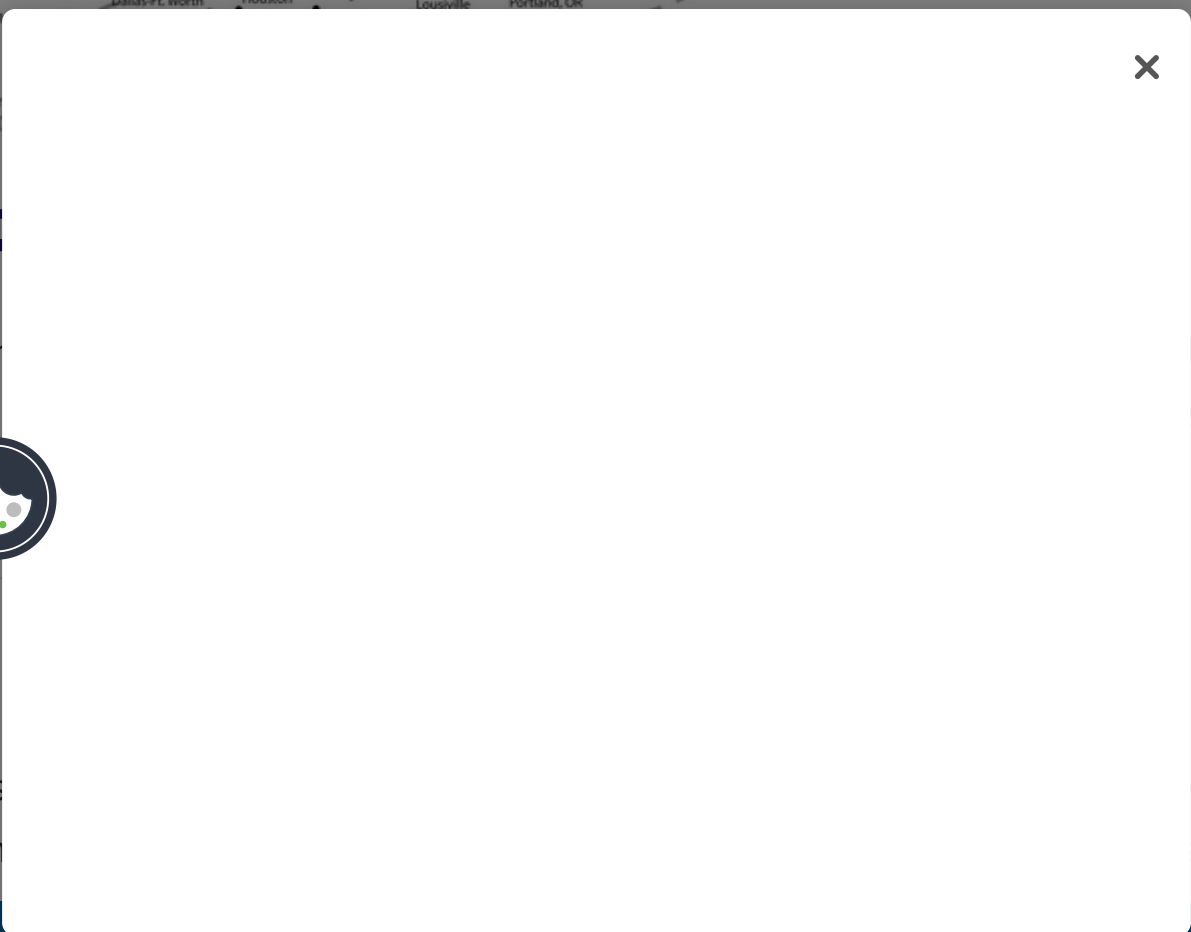
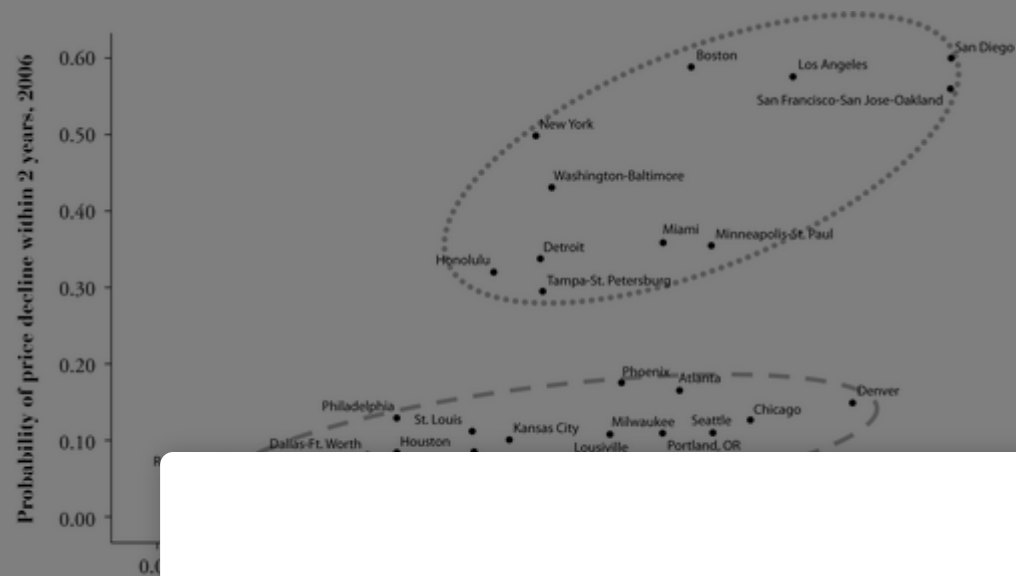
least ter

can bec



One important goal of planning and public policy is sustainable homeownership. Foreclosures are not only bad for the individual who loses his or her home, but entail considerable negative externalities, especially when spatially concentrated. In weaker housing submarkets (e.g., neighborhoods or groups of neighborhoods) within a metropolitan area, and where borrowers have fewer resources and limited networks, foreclosure is both more likely to occur and more likely to impose significant costs on the surrounding neighborhood and urban area. For example, [Immergluck and Smith \(2006\)](#) found that each foreclosure within one eighth of a mile of a single-family home in a low- and moderate-income neighborhood reduced the home's value by more than 1.4%, an effect more than 40% greater than in middle- and upper-income tracts.

Figure 7. Adjustable rate mortgage presence and overvaluation risk, large metro markets: Sources: [PMI, Inc. \(2006\)](#) and [Federal Housing Finance Board \(2006\)](#).



alternatively, map all loans that have high interest rates as defined by HMDA. Planners can also map the loans of the lenders who local legal aid offices and housing groups consider to exhibit poor underwriting or to engage in predatory practices. Planners should also track foreclosure filings to identify where hot spots may be emerging. In some areas, reliable data on foreclosures can be obtained from private data vendors, while in others, regional planning agencies may want to collect raw foreclosure data and make it available to community groups and researchers in an affordable digitized format.¹⁵

States can require that the identity of any mortgage broker and the lender be recorded for each loan originated, so that originating brokers and lenders can be linked directly to foreclosures. If such data were made readily available to the public on state mortgage regulator websites it would make it possible to identify originators associated with large numbers of foreclosures in particular neighborhoods or cities.

Some communities have developed “neighborhood early warning systems” that alert planners, community groups and officials to signs of increased housing problems, including foreclosures, code violations, and tax delinquencies, so they can take action before problems grow too large. The Providence Urban Land Reform Initiative, a joint effort of the [Providence Plan \(2006\)](#) and the Providence Department of Planning, is an excellent example of such an effort.

Promo

Planners

more ag

monitor

work

subp

can be s

(An & B

encoura

promoti

little use

the CRA



community. Planners also may advocate screening banks' and thrifts' local lending practices before allowing them to receive local government deposits.

Fund Targeted Foreclosure Prevention and Counseling

Education is an important predictor of access to prime mortgages and therefore of lower foreclosure rates. However, given limited resources and the complexity of mortgage transactions, increasing the financial acumen of borrowers is no simple feat. Planners should devote resources to helping homeowners avoid predatory or overly risky loans through targeted counseling initiatives aimed at borrowers or likely borrowers. For examples of local foreclosure prevention programs, see [Higgins \(2005\)](#). A key ingredient in most successful foreclosure prevention programs is access to low-cost or free legal assistance. Lenders are likely to be more responsive to borrowers who are represented by qualified legal counsel, and skilled attorneys will be able to identify any abusive features of the loan, providing the borrower with much more negotiating power.

Develop Refinancing/Restructuring Programs

In localities where housing agencies and local members of distressed households and to maintain the loan. Two basic strategies and officials can work together to improve the processes through which loans, including mortgages, are serviced. Individuals generally lack the resources to service mortgages, and officials in Massachusetts, for example, are generally involved in housing programs involving local housing agencies and officials on how to improve housing conditions and avoid foreclosure.



Second, states or localities can use mortgage revenue bonds, federal housing funds, or community development funds to refinance and restructure unaffordable existing mortgage loans. As of this writing, Congress is considering various means of intervening, including relaxing restrictions on Federal Housing Administration loan programs as well as on Fannie Mae and Freddie Mac, to allow them to play a larger role in restructuring or refinancing existing debt ([Solomon, 2007](#); [U.S. Senate Joint Economic Committee, 2007](#)).¹⁶ With or without federal action, however, state or local government may need to step in. Any federal action is likely to provide assistance for only a modest portion of borrowers facing foreclosure. [Sayeed \(2007\)](#) reviewed some examples of existing state and local programs that provide financing to assist families facing potential foreclosure, but most were not designed for the levels of foreclosures many communities now face, and new resources and program designs may be needed.

Since the national spike in foreclosures in late 2006 and early 2007, several states, including Maryland, Massachusetts, New Jersey, New York, and Pennsylvania, have initiated programs to provide refinance or bridge loans of some sort to distressed borrowers ([Krauss, 2007](#)). However, these programs are not large enough to help more than a few of the borrowers needing assistance. For example, Massachusetts' program is funded at \$250 million, and estimated sufficient to assist approximately 1,000 homeowners. Moreover, if the funding sources and state administrations have low tolerances for risk, the proportion of distressed borrowers able to qualify for such program

Redesi

ip

Most me

ed by

federal

by some

segr

y so much

that eve

le to obtain

affordab

specially

importan

ng programs

for low-

ensure that

such pro

nable

homeow

uld advocate



practices, and requiring that they both demonstrate low default rates in their existing lending and provide counseling, smart servicing technologies, and foreclosure prevention.

Get Foreclosed Properties Reoccupied Quickly

Some of the costs of foreclosure to the community occur because foreclosed homes end up vacant or abandoned ([Immergluck and Smith, 2006](#); [Spencer, 1993](#)). Planners should work to quickly return homes in or near foreclosure to occupancy. One particular challenge, especially in lower-income neighborhoods, is to prevent “walkaways,” in which lenders do not take possession of a property in default because they fear that the property's liabilities and risks exceed its value. Neighborhood [Housing Services of Chicago, Inc. \(2005\)](#) has worked with the real-estate-owned (REO) divisions of major lenders to give the lenders alternatives to abandoning properties on which they have foreclosed.

Recognize the Effect of Foreclosure Surges on Rental Housing Markets

As subst... of the local
housing... ill put
demand... prepare for
the risin... ses in
foreclos... on an
individu... al
disadv... e tenants
with... rhoods for
foreclos...



Be Pro
Forecl

Too often planners and local policymakers pay attention only to certain types of issues being debated at state and federal levels. Although eminent domain and transportation funding are important, housing finance has proven time and again to have major impacts on communities. Planners should pay close attention to the regulation of the mortgage market.¹⁷ Otherwise, this critical influence on communities is left completely in the hands of lenders, investors, and brokers, none of whom necessarily focus on the long-term impacts of their decisions on neighborhoods and cities.

Certainly, many changes in home finance are affected by market forces. However, housing finance systems vary widely across the industrialized world, due to differing government policies ([Green & Wachter, 2005](#)). In many ways, the U.S. has built a successful home finance system. It has served much of suburban America quite well over the last 70 years. But major changes have occurred in the last 10 to 15 years that have radically increased mortgage risk and shifted much of the downside risk to particular homeowners, neighborhoods, and cities.

The recent contraction in high-risk lending is likely to be temporary. The subprime market went through a less severe decline after the Asian financial crisis of 1998, only to roar back to become larger than ever. Unless we change federal and state lending policies to reduce the effects of future wide swings in liquidity on lending standards and eventually on foreclosures, mortgage markets are likely to exhibit booms and busts like

the most challenging. In any such cycle, local planners should be analytical, and respond more effectively.



Note: a. ... excludes 21
metro ar
Source:

the endogenous variables arising from the firststage regressions, and estimated the main model.

5. Though the median loan size and proportion Hispanic variables are not significant at the .10 level, their t -statistics are not far outside this range given the limited size of my sample.

6. Fannie Mae and Freddie Mac are government-sponsored private businesses, with significant government benefits (e.g., exemption from local taxation, access to low-interest government debt, and an implicit too-big-to-fail expectation in credit markets). They purchase predominantly prime mortgages from lenders, pool them, and issue mortgagebacked securities to provide liquidity to mortgage markets.

7. Nonagency securitization is the process in which mortgages are pooled to create collateral for mortgage-backed securities issued by investment firms other than Fannie Mae or Freddie Mac.

8. The MIRS data omit some significant segments of the mortgage market, including refinance loans, very large loans, loans made by specialized subprime lenders, and in latter years, loans with interest rates below 2.75%, including many ARMs with teaser rates ([Congressional Budget Office, 2001](#)). This last omission is particularly relevant in recent years with the advent of exotic mortgages and given the relatively low interest rate env

9. Even if the government were to act as a public lender, it would not be able to promote the purchase of a bigger house, a product that is not in the market.

10. The data show that 98% of the loans included in this calculation are from the same source ([Berkovec, Canner,](#)

11. In 2000, the government was providing seller-funded mortgage assistance to help low-income, first-time homebuyers. This program was based on the idea of providing a down payment to help the buyer get into the market. The program was designed to help the buyer get into the market by providing a down payment to help the buyer get into the market.

The Secondary Circuit of Capital and the Restructuring of the US Housing Finance System

Source: John Wiley & Sons, Ltd

Evidence from Chicago

Source: SAGE Publications

Has mortgage capital found an inner-city spatial fix?

Source: Informa UK Limited

Abandoned buildings: Magnets for crime?

Source: Elsevier BV

Cartographies of Race and Class: Mapping the Class-Monopoly Rents of American Subprime Mortgage Capital

Source: Wiley

Homeownership motivation, rationality, and housing prices: Evidence from gloom, boom, and bust-and-boom economies

Source: Wiley

Bailing out the Wealthy: Responses to the Financial Crisis, Ponzi Neoliberalism, and the City:

Source: SAGE Publications

Variations in Housing Foreclosures by Race and Place, 2005–2012

Source: SAGE Publications

Roug

Sour

Race

Term

Sour

The

Sour

An

s

Sour

Raci

acros

Sour

Evid

Sour



Source: Springer Science and Business Media LLC

More than gentrification: geographies of capitalist displacement in Los Angeles 1994-1999

Source: Informa UK Limited

Analysing Determinants of Foreclosure among High-income African-American and Hispanic Borrowers in the Washington, DC Metropolitan Area

Source: Informa UK Limited

All's Fair? The Foreclosure Crisis and Middle-Class Black (In)Stability:

Source: SAGE Publications

A Dynamic Look at Subprime Loan Performance

Source: Federal Reserve Bank of St. Louis

A python script for longitudinally measuring the duration of vacant land uses

Source: Informa UK Limited

Risk-Based Mortgage Pricing: Present and Future Research

Source: Informa UK Limited

What explains the resolution of property tax delinquency prior to forfeiture?

Evidence from Hennepin County, Minnesota

Source: Informa UK Limited

Borrower Self-Selection, Underwriting Costs, and Subprime Mortgage Credit Supply

Source:

The I

Nativ

Source:

Race

Mesc

Source:

"W

c

Source:

The e

forec

Source:

Mort

Source:



References

1. AEW Research . 2007 . Subprime market: What does it mean for commercial real estate? , Boston : AEW Research .

[Google Scholar](#)

2. An, X., & Bostic, R. (2006, April 28). Have the affordable housing goals been a shield against subprime? Regulatory incentives and the extension of mortgage credit. [Unpublished working paper.] Los Angeles: University of Southern California Lusk Center for Real Estate. Retrieved September 20, 2007, from

http://www.usc.edu/schools/sppd/lusk/research/pdf/wp_2006-1006.pdf

[Google Scholar](#)

3. Apgar , W. and Duda , M. 2004 . Preserving homeownership: Community development implications of the new mortgage market , Chicago : Neighborhood Housing Services of Chicago .

[Google Scholar](#)



4. Apgar , W. and Duda , M. 2004 . Preserving homeownership: Community development implications of the new mortgage market , Chicago : Neighborhood Housing Services of Chicago .
today's
Found
<http://www.nhs.uk/pubs/permissions/Apgar-Duda-2004.pdf>

[Goog](#)

5. Bai , J. and Brueggemann , B. 2000 . The impact of subprime mortgage originators on the residential mortgage market , April :
C-1
[Goog](#)

6. Berkowitz , J. and Brueggemann , B. 2000 . The impact of subprime mortgage originators on the residential mortgage market , April :
reside
Econo



7. Cagan, C. (2007, March 19). Mortgage payment reset: The issue and the impact. Santa Ana, CA: First American CoreLogic, Inc. Retrieved April 3, 2007, from <http://www.firstamres.com/MPR2007>
[Google Scholar](#)
8. Congressional Budget Office. (2001). Interest rate differentials between jumbo and conforming mortgages, 1995-2000. Washington, DC: Author. Retrieved December 23, 2006, from <http://www.cbo.gov/ftpdocs/28xx/doc2840/InterestRate.pdf>
[Google Scholar](#)
9. Danis, M. and Pennington-Cross, A. May 2005. A dynamic look at subprime loan performance, May, St. Louis, MO: Federal Reserve Bank of St. Louis. (Working Paper No. 2005-029A)
 | [Google Scholar](#)
10. Deng, Y., Quigley, J. and Van Order, R. July 1995. Mortgage default low downpayment loans: The costs of public subsidy, July, Cambridge, MA: National Bureau of Economic Research. (Working Paper No. 5184)
 | [Google Scholar](#)

1. Donah... Committee
on Ap...
Devel...rch 20,
2007,
[Goog](#)
2. Feder... Disclosure
Ac...ce.org
[Goog](#)
3. Feder... Washington,
DC : A
[Goog](#)



4. Fishbein, A., & Woodall, A. (2006, May). Exotic or toxic? An examination of the non-traditional mortgage market for consumers and lenders. Washington, DC: Consumer Federation of America. Retrieved June 20, 2006, from http://www.consumerfed.org/pdfs/Exotic_Toxic_Mortgage_Report0506.pdf
[Google Scholar](#)

5. Frantantoni, M. (2005, September 6). Housing and mortgage markets: An analysis. Washington, DC: Mortgage Bankers Association. Retrieved June 30, 2006, from http://www.mortgagebankers.org/files/News/InternalResource/29899_HousingandMortgageMarkets-AnAnalysis.pdf
[Google Scholar](#)

6. Galster, G. and Santiago, A. March 29–30 2007. Low-income homeownership as an asset-building tool: What can we tell policymakers? March 29–30, Washington, DC Paper presented at the Conference on Urban and Regional Policy Effects
[Google Scholar](#)

7. Government Accountability Office. February 2005a. Mortgage financing: Actions needed to help FHA manage risks from new mortgage loan products (GAO-05-194), February, Washington, DC: Author.
[Google Scholar](#)

8. Government Accountability Office. February 2005b. Additional actions needed to help FHA manage risks from new mortgage loan products (GAO-05-195), February, Washington, DC: Author.
[Google Scholar](#)

9. Government Accountability Office. February 2005c. Administration: Additional actions needed to help FHA manage risks from new mortgage loan products (GAO-05-196), February, Washington, DC: Author.
[Google Scholar](#)

10. Goldstein, J. S. (2005). The impact of mortgage foreclosures on the housing market. Retrieved from [http://www.fhfa.gov](#)



×

September 20, 2005, from

<http://www.trfund.com/resource/downloads/policypubs/Mortgage-Forclosure-Filings.pdf>

Google Scholar

21. Green , R. and Wachter , S. 2005 . The American mortgage in historical and international context. . Journal of Economic Perspectives , 19 (4) : 93 - 114 .

Web of Science ® | Google Scholar

22. Gruenstein-Bocian , D. , Ernst , K. and Li , W. May 2006 . Unfair lending: The effect of race and ethnicity on the price of subprime mortgages. , May , Washington, DC : Center for Responsible Lending. . 31

Google Scholar

23. Hershaff, J., Wachter S., & Russo, K. (2005, April 7-9). Subprime lending patterns over time: Promises & pitfalls. Paper presented at the Federal Reserve System's Fourth Community Affairs Research Conference. Retrieved April 21, 2006, from http://www.chicagofed.org/cedric/files/2005_conf_paper_session1_wachter.pdf.

Google Scholar

24. Higgins (2007) ... preventing foreclosures, 2007, from <http://.../905.pdf>

Goog

25. Hirad ... al evidence of pre ... ership: Exa ... 146 - 174 .

Wa

Goog

26. Immer ... t and fair lending

Goog

27. Immergluck , D. and Smith , G. 2005 . Measuring the effects of subprime lending on neighborhood foreclosures: Evidence from Chicago. . Urban Affairs Review , 40 (3) : 362 - 389 .

[Web of Science ®](#) | [Google Scholar](#)

28. Immergluck , D. and Smith , G. 2006 . The external costs of foreclosure: The impact of single-family mortgage foreclosures on property values. . Housing Policy Debate , 17 (6) : 57 - 79 .

[Web of Science ®](#) | [Google Scholar](#)

29. Jackson , K. 1985 . Crabgrass frontier. , New York : Oxford University Press. .

[Google Scholar](#)

30. Krauss , C. August 2007 . “ Belatedly, some states move to limit damage from subprime lending. ” . In New York Times August , C-1 24

[Google Scholar](#)

31. LoanPerformance, Inc. 2006 . The Marketpulse. , San Francisco : Author. . [December, 2005 data.]

[Google Scholar](#)

32. Midwe IL : Author. .

[Data

[Goog](#)

33. Nassa lending in

Ameri

nt and

Go

[http](#)

[Goog](#)

34. Neigh ago home

owner

Retrieved

June 2



35. Nichols , J. , Pennington-Cross , A. and Yezer , A. 2005 . Borrower self-selection, underwriting costs, and subprime mortgage credit supply. . Journal of Real Estate Finance and Economics , 30 (2) : 197 - 219 .

 | [Web of Science](#) ® | [Google Scholar](#)

36. PMI, Inc. (2006, Summer). Economic and real estate trends. Retrieved July 15, 2006, from http://www.pmigroup.com/lenders/media_lenders/pmi_eret06v3s.pdf

[Google Scholar](#)

37. Quercia , R. , Stegman , M. and Davis , W. January 2005 . The impact of predatory loan terms on subprime foreclosures: The special case of prepayment penalties and balloon payments. , January , Chapel Hill, NC : Center for Community Capitalism at the University of North Carolina at Chapel Hill. . 25

[Google Scholar](#)

38. RealtyTrac, Inc. (2006). [Data.] Retrieved July 10, 2006, from <http://www.realtytrac.com>

[Google Scholar](#)

39. RealtyTrac, Inc. (2006). [Data.] Retrieved July 10, 2006, from <http://www.realtytrac.com>
Chann

[Goog](#)

40. Rhee , S. H. and Yoo , S. H. 2005 . The impact of subprime mortgage on the urban housing market. . Journal of Real Estate Finance and Economics , 45 (1) : 1 - 15 . Retrieved July 10, 2006, from <http://www.realtytrac.com>

[Goog](#)

41. Rusk , J. W. 2005 . The impact of subprime mortgage on the urban housing market. . Journal of Real Estate Finance and Economics , 45 (1) : 1 - 15 . Retrieved July 10, 2006, from <http://www.realtytrac.com>

[Goog](#)



2. Sayeed, A. (2007, March). From boom to bust: Helping families prepare for the rise in subprime mortgage foreclosures. Washington, DC: Center for American Progress. Retrieved April 12, 2007, from http://www.americanprogress.org/issues/2007/03/pdf/foreclosure_paper.pdf
Google Scholar
3. Scheessele, R. (1999, October). 1998 HMDA Highlights. (Housing Finance Working Paper Series). Washington, DC: U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Retrieved September 1, 2006, from <http://www.huduser.org/publications/hsgfin/workpapr9.html>
Google Scholar
4. Schloemer, E., Li, W., Ernst, K., & Keest, K. (2006). Losing ground: Foreclosures in the subprime market and their cost to homeowners. Washington, DC: Center for Responsible Lending. Retrieved December 23, 2006, from <http://responsiblelending.org/pdfs/FC-paper-12-19-new-cover-1.pdf>
Google Scholar
5. Sharick, M., Omba, E., Larson, N., & Croft, J. D. (2006, April). Eighth periodic mortgage fraud case report to Mortgage Bankers Association. Retrieved January 10, 2006, from [Goog](#)
6. Solom and avoid foreck
[Goog](#)
7. Sp Criminal Jus
8. Stand subprime RMBS 2007, from [http://1,0,1148442](#)
75611



49. The Providence Plan. (2006). Providence urban land reform initiative. Retrieved August 1, 2006, from <http://maps.provplan.org/ulr/about.html>
 Google Scholar

50. U.S. Census Bureau. (1999). American Housing Survey for the United States in 1999. [Data file.] Retrieved December 20, 2006, from <http://www.census.gov/hhes/www/housing/ahs/nationaldata.html>
 Google Scholar

51. U.S. Census Bureau. (2005). American Housing Survey for the United States in 2005. [Data file.] Retrieved December 20, 2006, from <http://www.census.gov/hhes/www/housing/ahs/nationaldata.html>
 Google Scholar

52. U.S. Department of Treasury . 2000 . “ U.S. Department of Housing Urban Development. ” . In Curbing predatory home mortgage lending. , Washington, DC : Author .
 Google Scholar

53. U.S. Senate Joint Economic Committee. (2007, April). Sheltering neighborhoods from the su... , from <http://...>
 Goog

54. Wasse...ramento
 Bee M...
 Goog

55. Wh...ch. . Housing
 Policy

56. Wyly , ...n inner-city
 spatia



Related research

People also read

Recommended articles

Cited by
87

Information for

- Authors
- R&D professionals
- Editors
- Librarians
- Societies

Opportunities

- Reprints and e-prints
- Advertising solutions
- Accelerated publication
- Corporate access solutions

Open access

- Overview
- Open journals
- Open Select
- Dove Medical Press
- F1000Research

Help and information

- Help and contact
- Newsroom
- All journals
- Books

Keep up

Register to receive updates by email



Sign up



Copyright

Accessibility

Registered
5 Howick Place

John Wiley & Francis Group
an informa business