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Racial Exclusion and the Political Economy of the Subprime Crisis

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ABSTRACT

This paper develops a political economic explanation of the 2007-08 US subprime crisis which focuses on one of its central causes: the transformation of racial exclusion in US mortgage markets. Until the early 1990s, racial minorities were systematically excluded from mortgage finance due to bank redlining and discrimination. But then racial exclusion in credit markets was transformed: racial minorities were increasingly given access to housing credit under terms far more adverse than were offered to non-minority borrowers. This paper shows that the emergence of the subprime loan is linked, in turn, to the strategic transformation of banking in the 1980s, and to the unique global circumstances of the US macroeconomy. Thus, subprime lending emerged from a combination of the long US history of racial exclusion in credit markets, the crisis of US banking, and the position of the US within the global economy. From the viewpoint of the capitalist accumulation process, these loans increased the depth of the financial expropriation of the working class by financial capital. The crisis in subprime lending then emerged when subprime loans with exploitative terms became more widespread and were made increasingly on an under-collateralized basis – that is, when housing loans became not just extortionary but speculative.

1. Introduction

Most economists' explanations of the roots of the 2007-08 global financial crisis have focused on greed, myopia, and overreach by financial firms and homeowners, and on credit-rating agencies' moral hazard.[1] These diagnoses suggests that this crisis has the same root causes as the 1982 Latin American crisis, the 1980s savings and loan crisis, and the 1997 Asian crisis: moral hazard due to flawed institutional design, combined with regulatory failure.[2] So this latest crisis

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[1] See, for example, Krinsman 2008, Shiller 2008, and Tully 2007.

[2] For representative analyses of these crises, see respectively Eaton, Gersovitz, and Stiglitz 1986, Kane 1989 and Kaufman 1990, and Krugman 1998.

apparently demonstrates that when incentives and information are asymmetrically distributed, and when financial markets are inadequately unsupervised, then myopic, risk-taking, or incompetent borrowers and lenders can generate huge economic and social losses.[3] The implies that policies to offset loan losses would be counterproductive: financial markets have to be taught about down-side risk yet again.[4]

Admittedly, financial crises are a hardy perennial in the capitalist garden. But the depth of the still-evolving economic meltdown that has resulted from this crisis suggested that its history should be interrogated carefully, not written out of the story.

This paper argues that a key element in the 2007-08 subprime crisis was the transformation of racial exclusion in US mortgage markets. Until the early 1990s, racial minorities were systematically excluded from participation in mortgage finance due to banks' practices of redlining and discrimination. From that point forward, however, racial exclusion in credit markets was transformed: racial minorities were no longer denied mortgage credit altogether; instead, they were increasingly given access to housing credit under terms far more adverse than were offered to non-minority borrowers.

The emergence of these subprime loans is linked, in turn, to banks' strategic transformation of banking in the 1980s, in response to their own difficulties at the dawn of the neoliberal era. Banks, having shed their traditional roles as risk absorbers, were seeking out ever more ways to generate net income. They created products designed to provide services to different segments of their customer base in different ways, generating substantial fee-based income along the way. Their successful direct and indirect forays into higher-risk loan products for lower-income and minority markets, together with the emergence of new outlets for higher-risk debt, opened up the subprime mortgage markets. Boom regional housing markets in the US then created opportunities to spread subprime instruments to new homeowners well beyond the boundaries of segregated urban neighborhoods. The apparently endless supply of low-cost liquidity, linked to the US's unique global macroeconomic position, provided the fuel for the large-scale manufacture and distribution of mortgage-based investment vehicles.

As long as subprime loans were fully collateralized by underlying housing assets, banks could use loans to boost their profits with little increase in risk. From the viewpoint of the capitalist accumulation process, these loans increased the depth of the financial expropriation of the working class by financial capital. The conditions for crisis emerged when lenders began issuing subprime loans on an under-collateralized basis. This happened when subprime loans were increasingly used to cover over the growing gap between median earned income and housing prices. As this happened, these housing loans became not just extortionary but speculative. Mortgage brokers and lenders heightened this shift, because so doing maximized their fee-based income. Finally, crisis emerged when the housing price/credit pyramid grew larger than the income flows of financially fragile homeowners could support.

[3] Reinhart and Rogoff 2008.
[4] Allen Meltzer wrote: "Capitalism without failure is like religion without sin. The answer to excessive risk-taking is 'let 'em fail'. … Bailouts encourage excessive risk-taking; failures encourage prudent risk taking." (Meltzer 2007).

The approach developed here emphasizes that economic crises unfold in particular historical and institutional conjunctures of global capitalist processes. Financial processes are understood here as key sources of contemporary capitalist crises. Instability and accumulation problems can arise from financial dynamics both due to fundamental uncertainty in financial processes and due to the emergence of speculative credit flows within the economy.[5] Banks and financial relations are not passive elements in accumulation processes, simply facilitating exploitation in production; they are active elements that independently impact the trajectory of crises. In the case examined here, lenders' innovation of providing minority households with access to mortgage finance via predatory loans was an independent root of the current crisis.[6]

2. Racial Exclusion in US Credit Markets

The post-war period is often celebrated as a period of generalized prosperity for working classes in the US[7] and in Europe.[8] In this Fordist era, the real wage rose for many categories of worker, permitting a substantial increase in living standards. Previously scarce consumer goods became widespread and residential homes became larger and more comfortable. This increased housing consumption was accomplished in the US (not in every country) largely through expanded homeownership.[9] The rise in homeownership rates from the 1950s through the mid-1980s, then, provides one measure of relative household prosperity. Of course, linking increased housing and domestic-appliance consumption to home-building and homeownership also opened up important new venues to market competition. Housing construction became even more pro-cyclical than durable and non-durable investment expenditures.[10] Further, those workers who were homeowners gained an interest in the maintenance of regulatory and economic-stabilization policies that generated higher home prices.

But it must be emphasized that this generalized prosperity existed alongside substantial racial inequality.[11] Until the 1970s, most cities in the US had *de facto*, and sometimes *de jure*, prohibitions on where racial minorities could live. Most minorities moved to urban areas from the rural south and the fields in the labor-shortage periods accompanying World Wars I and II. They were prohibited from home ownership in most areas of cities by racial covenants – contractual agreements between prospective home-buyers and home-sellers that the homes in question would neither be sold or resold to minorities. These social arrangements forced minorities to crowd into available, largely rental, housing in restricted portions of the city. Landlords could charge higher rents than would otherwise have been possible, and to expropriate an extra share of minorities' wages and salaries.

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[5] Dymski 2006.
[6] Throughout this paper, we refer to subprime loans as being predatory, and involving financial exploitation and expropriation. These terms all refer to the fact that these loans require higher-than-average interest rates and fees to be paid. Exploitative relations in the credit market should not be confused with the exploitation of labor from labor power. The question of the relationship between these lender-borrower relations and Marxian exploitation theory is addressed in Lapavitsas' (2009) essay in this issue. On the links between racial exclusion and exploitation theory, also see Dymski (1992, 1996a).
[7] Bowles 1982 and Bowles and Gintis 1982.
[8] Glyn *et al*, 1988.
[9] Dymski and Isenberg (1998).
[10] Dymski 2002.
[11] Dymski 1996b.

So the Golden Age never crossed the race line: African Americans and other minorities largely functioned as a labor buffer-stock, spatially segregated in lower-income neighborhoods with low home-ownership rates.[12] Federal housing policy was partly to blame for these patterns of spatial segregation and low home-ownership. Since its founding in the 1930s, the Federal Housing Administration's guidelines precluded the funding of homes from minority or mixed neighborhoods. This reinforced segregation and racial wealth disparities. Depository institutions were also to blame: they didn't locate branches in minority neighborhoods or make loans there. In reaction, African Americans and other minorities established minority-owned banks in many cities.[13] However, most financial services and credit were provided in these areas by local stores and informal providers - check-cashing stores, finance companies, and pawn-brokers. Some were franchises and some were locally owned; virtually all charged exploitative fees. The political momentum of the Civil Rights movement forced some changes in this situation. Two new laws, the 1968 Fair Housing Act and 1974 Equal Credit Opportunity Act, extended the anti-discrimination principles of civil rights law to housing and credit markets, respectively.

Then a new trend emerged: the emergence of "white flight" from some urban neighborhoods, in the 1960s and 1970s. This destabilized racial boundary lines, as minority households began to move into formerly all-white areas. Banks and thrifts reacted by reducing mortgage lending throughout the inner city. Ironically, this led to the creation of a multi-racial community-based movement opposing lenders' "redlining."[14] This movement created the political pressure that led to the Home Mortgage Disclosure Act (HMDA) of 1975 and the Community Reinvestment Act (CRA) of 1977. Respectively, these acts provided a mechanism for monitoring bank loan-making, and precluded "redlining" – the implicit or explicit refusal of lenders to make mortgage credit available to neighborhoods with large minority populations.

The CRA required banks to meet the credit needs of their entire market areas, and prevented banks from claiming market areas that excluded minority and low-income populations. HMDA required all depository institutions to report annually on the distribution of their mortgage loans by census tract. Academics and community activists used HMDA data to prove in city after city that bank home-ownership loans were made much less frequently in minority and lower-income areas than elsewhere. For example, a 1991 study of banking, race, and income in Los Angeles found that banks made home-mortgage loans five times more frequently in low-minority than high-minority census tracts, controlling for income.[15]

Community advocates used the leverage provided by such studies to frame their demand for "reinvestment." Mortgage finance was central to these advocates' demands, as it would permit more minorities to engage in wealth accumulation through homeownership. Depository institutions argued that they did not redline: there was low demand for home purchases in these areas, which were in any event highly risky. These assertions were supported by economists,[16] and by logic: insofar as the mortgage market is competitive, lenders in that market would not leave "money on the table." In any event, HMDA data were not rich enough to resolve this dispute.

[12] Baron 1985.
[13] Ammons 1996.
[14] Squires 1993.
[15] Dymski, Veitch, and White 1991. For other studies, see the references in Squires 1993.
[16] See, respectively, Benston (1981) and Holmes and Horvitz (1994).

The crisis of the savings-and-loan (thrift) industry in the 1980s made it clear that lenders in the mortgage market had not performed optimally in deciding on which mortgages to make and under what terms. The locally-based thrift industry was perceived as having failed in large part because moral hazard had dominated profit-and-loss considerations in its loan-making. In exchange for the federal assistance provided to clean up the mess, the mortgage market was opened to new lenders. And to permit new entrants into the supply side of the mortgage market, rules on bank-holding company purchases of non-bank lenders were loosened. Due to pressure from CRA advocates, the 1989 bailout bill also required more extensive reporting by mortgage lenders under HMDA.

From 1990 on, lenders had to report annually on mortgage-loan applications, denials, and loans made, including information about applicants' race, gender, income, and loan size. These data permitted researchers to test econometrically for racial discrimination in mortgage markets. These tests almost uniformly found minority applicants to have a systematically lower probability of loan approval than white applicants. What such results meant was contentious.[17] For some, this racial disadvantage demonstrated that lenders' racial animus toward borrowers outweighed other factors. For others, it represented "rational discrimination" based on the greater risks associated with loans made to minorities and to minority areas.[18]

From the perspective of capital accumulation, the result that minority status per se affected loan-market decisions represented a paradox: why wouldn't profit-seeking firms set aside racial bias and make profitable loans? This racial exclusion would reduce profits, all things equal. Two responses suggest plausible explanations of this paradox: first, while lenders seek profits, most lending institutions and lending officers are non-minority, and thus susceptible to perceptual racial bias (despite their commitment to profit maximization); second, the perceived risks associated with lending in minority areas and to minorities are sufficiently great to deter lending.

This situation was about to change. To understand how, we need to review the strategic transformation of US banking.

3. US Banking from the Golden Age to the Neoliberal Age

After being reorganized during the 1930s Depression era, the US banking system consisted of a tightly controlled set of specialized institutions that provided different categories of credit to different economic sectors. Housing credit was provided primarily by savings and loan companies and savings banks ("thrifts"), which attracted longer-term consumer savings.

The evolution of US housing finance in the post-War period reflected the federal government's commitment to expanded homeownership. The Federal Housing Administration provided almost half of all US mortgage funding in the 1949-59 period, and guaranteed a portion of the remaining mortgages. Further, federal deposit insurance underwrote the deposit holdings that supported most outstanding mortgages. The homeownership rate climbed from 44% in 1940 to 61% by 1960, to 63% a decade later, and then to 66% in 1980.

[17] Dymski 2006 reviews the theoretical discrimination models and these extensive econometric debates.
[18] Calomiris, Kahn, and Longhofer 1994, for example, characterize rational discrimination as an appropriate lender behavior.

After having been a source of economic stability in the Great Depression,[19] the segmented US banking system –including the housing-finance subsystem – was very safe. Bank failures virtually never occurred from the 1940s until the 1980s. Consequently, the Federal Reserve used the banking system as a key lever in stabilizing the macroeconomic growth path. In the 1950s and 1960s, the Federal Reserve would reduce inflationary pressure by engineering credit crunches whose point of impact was the banking system.[20] This would slow economic growth; expanding the availability of reserves, in turn, would stimulate more economic activity by way of increased housing finance (and other forms of lending).

Because of its susceptibility to credit crunches, and because potential home-buyers incomes vary pro-cyclically, housing finance is highly sensitive to the business cycle. Housing construction outlays are more volatile over the cycle than durable or non-durable investment spending.[21] Figure 1 shows that fluctuations in mortgage debt outstanding were more volatile than fluctuations in real GDP. Further, Figure 2 demonstrates that the ratio of unsold houses relative to home sales varies over the cycle as well – this ratio rises when the economy slows.

Until the mid-1970s, banks and thrifts navigated these chronic cyclical downturns without significant institutional stress. But then stresses started to emerge. The trigger was a shift in the global position of the US macroeconomy. A decade of instability in the 1970s undercut the stable, low-inflation, high-growth period that had prevailed under the Bretton Woods system. By the late 1970s, macroeconomic turmoil had broken out: stagflation and interest rates well above banks' regulatory maxima led to systematic disintermediation – the loss of depositors to innovative savings outlets, such as money-market money instruments. Banks' credit supply to non-financial businesses was threatened; large non-financial corporations responded by creating the modern commercial paper market and vastly expanding the scope of corporate bond markets.

Depository institutions, short of sufficient deposits to cover their asset positions, were forced to borrow at high nominal rates. The inverted yield curve caused substantial losses from realized liquidity risk, especially in the thrift industry. Thrifts, originators of most US mortgages, were hit especially hard, because their asset portfolio was dominated by fixed-rate, illiquid mortgages.

These banking and thrift crises led to the passage in 1980 and 1982 of federal legislation designed, respectively, to deregulate commercial banks' liability instruments and to free thrifts to undertake more asset-side activities. This legislation unleashed a period of competitive deregulation between federal and state regulators of thrifts. This led some states' thrifts to undertake ill-advised speculative investments in the mid-1980s, including equity participation in speculative housing development. As a result, the problem of thrift illiquidity was transformed into a pandemic of failed investments and non-performing assets.

Consequently, some of the post-deregulation thrifts crashed, often spectacularly. Federal legislation in 1989 then provided the funding for cleaning up the savings-and-loan crisis. The size of the thrift industry was vastly reduced; many insolvent thrifts were merged into commercial banks. The macro-instability in the early 1980s also precipitated the Latin American debt crisis and a crisis of commercial-bank solvency in several "oil-patch" states. These events

[19] Fisher 1933.
[20] Wojnilower 1980.
[21] Leamer 2008.

Figure 1: Growth Rates of Real GDP and Mortgage Debt Outstanding, US, 1971-2006 (%)

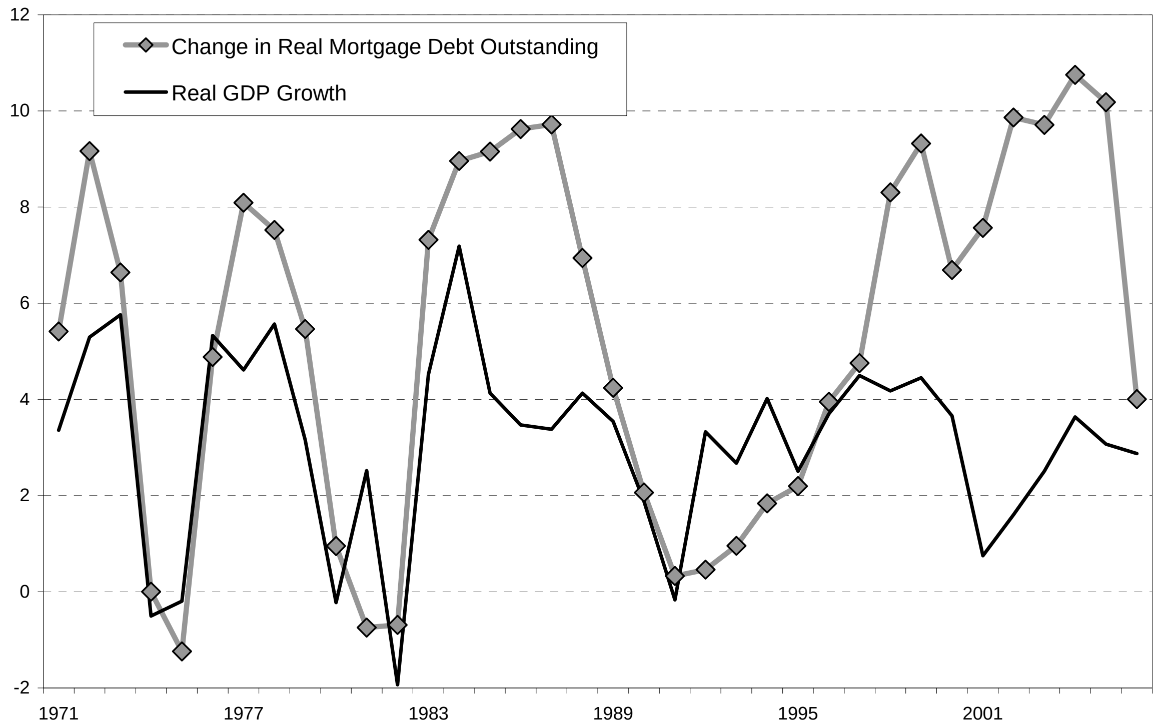
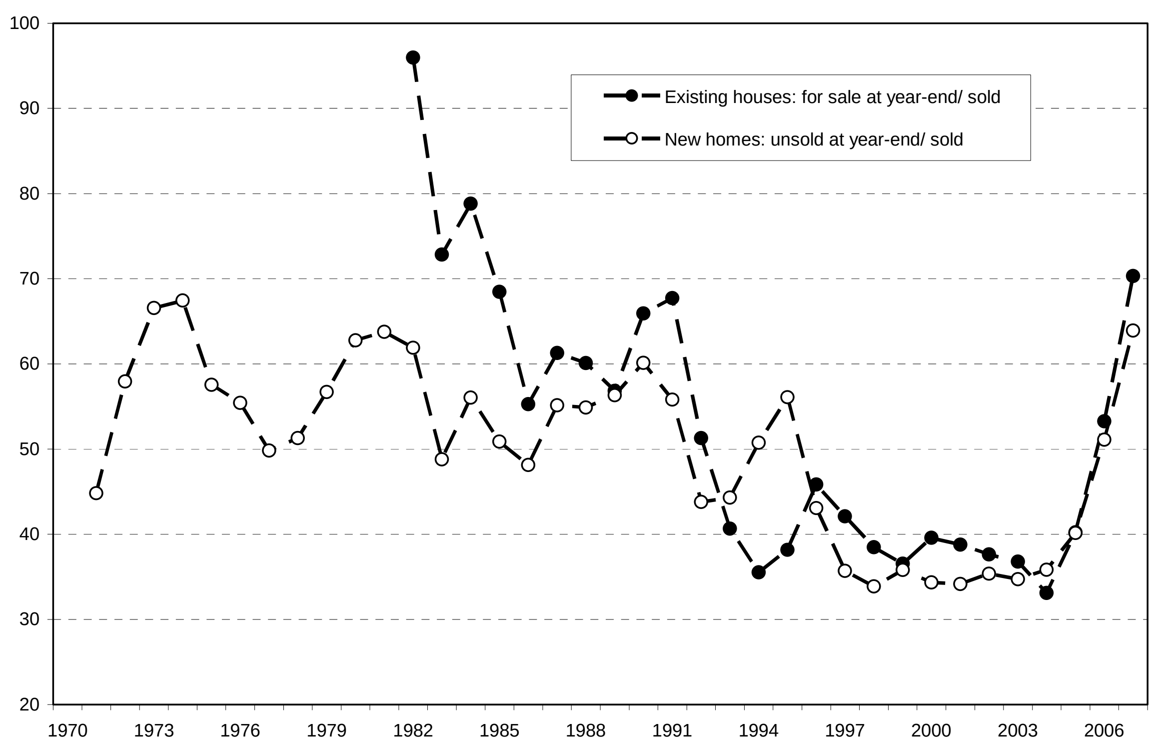


Figure 2: Homes on the Market at Year-end as a Percentage of Homes Sold, Existing and new homes, 1970-2007



led to substantial commercial bank losses, and to several US money-center bank failures.

Banks' survival was threatened. Banks reacted in part by developing new business strategies.Banks' first strategic shift involved the creation of upscale retail-banking strategies, which focused on selling financial services to consumer and business customers with stable incomes and positive wealth positions. These strategies saw banks concentrating in upper-income areas, and systematically avoiding lower-income, African-American and Latino areas. These new strategies shifted the balance from net earnings based on interest margin to net earnings based on fees for financial services.

These shifts toward desirable up-market customers and fee-based services were mutually reinforcing: the customers most sought by banks are targeted for the marketing of standardized financial services – credit cards, specialized deposit and investment accounts, and mortgage loans. Both strategic shifts led to bank mergers aimed at market expansion: so over time, a shrinking number of ever-larger banks were serving ever more of the US banking market.

4. Securitization and the Mortgage Market

As Figure 3 shows, the overall homeownership rate in the US, which had risen secularly in the 1970s, began a decline from a 1980 peak of 65.6% to a 1986 level of 63.8%. However, the early-1980s thrift collapse did not lead to a meltdown of mortgage finance in the early 1980s. Mortgage debt outstanding did turn negative (Figure 1). But this 1980s event was no deeper a downturn than the mid-1970s recession; and GNP growth slowed even more. One factor in this downturn was the sensitivity of mortgage-backed securities rates to balance-sheet risk – a characteristic of the market until a 1989 federal act bailed out savings-and-loan depositors and owners.[22] As Figure 2 shows, the ratio of unsold-to-sold new homes rose, but to a slightly lower peak than in the mid-1970s.

This profound institutional crisis had a muted effect for two reasons. First, the housing market adjusted rapidly to the income downturn. Between 1974 and 1979, real household median income grew modestly (0.84% annually), while real median housing prices climbed 3.6% per annum; see Table 1. When real incomes were declining 2% annually in the 1980-82 period, real housing prices fell almost as fast. When real incomes began rising significantly again in 1983 and 1984 (2.3% per annum), housing prices remained stable, so that housing affordability (measured by the housing-price/income ratio) declined. For the remainder of the 1980s, both variables rose, housing somewhat faster than income.

Second, the 1980s thrift crisis had such a restrained impact because it only accelerated a trend already in motion for US housing finance – from an intermediary-based to a securities-market-based system. As noted, lenders previously held mortgages to maturity, exposing them to both default and liquidity risk. The new norm involved making mortgages so as to sell them to the securities markets. The process of originating, servicing, and holding mortgages was split into its constituent parts, with each part priced and performed separately. One immediate implication is that commercial banks, mortgage companies, and others could compete for fees from originating mortgages and from bundling and servicing them.

[22] Brewer III and Mondschaen 1992.

Figure 3: US homeownership rate and real median household income, 1970-2008 (% of all housing units occupied year-round)

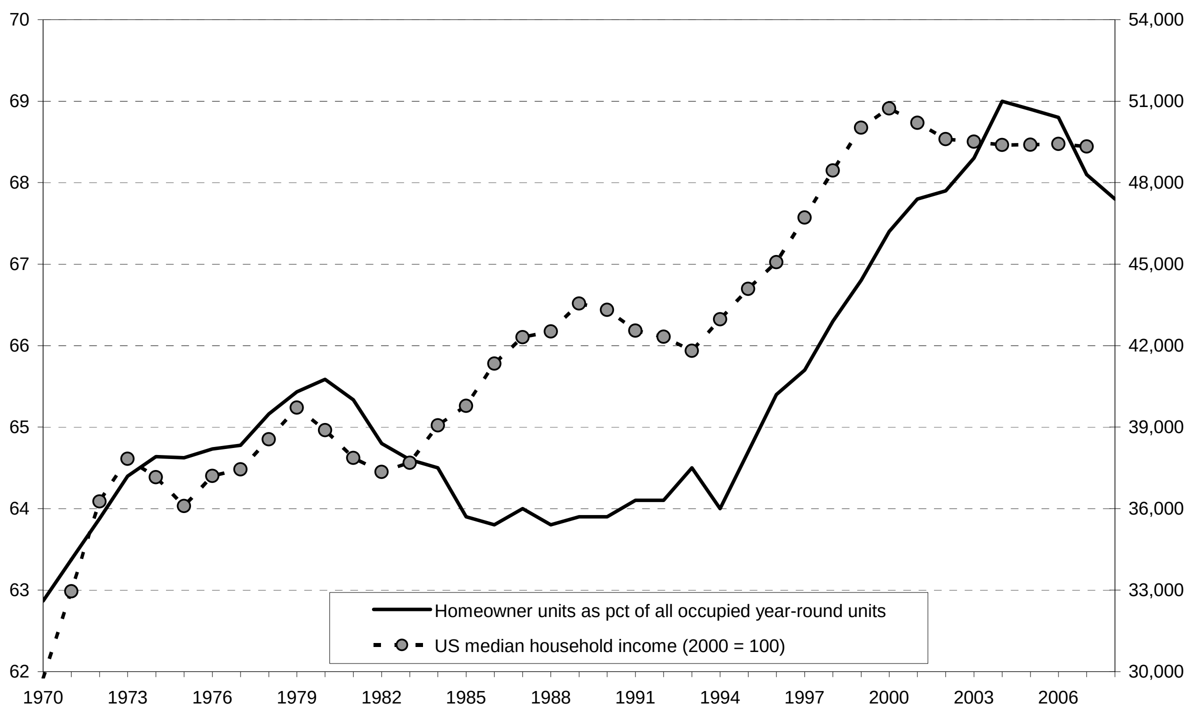


Table 1: Percent Changes in US Median Housing and Income, 1974-2007

	Real Median Household Income	Real Housing Price (New & Existing)	Housing-price to Income Ratio
1974-1979	0.84	3.55	2.71
1980-1982	-2.02	-1.81	0.22
1983-1984	2.28	0.25	-1.96
1985-1990	1.75	2.15	0.39
1991-1994	-0.19	0.93	1.15
1995-1999	3.08	2.77	-0.30
2000-2005	-0.21	4.97	5.20
2006-2007	0.04	-3.05	-3.09

Securitizing housing finance depended on the commodification of mortgages. In the 1980s, securitisation necessitated standardized eligibility criteria. The criteria that emerged privileged customers with minimal default risk. This risk aversion had several sources. First, the computational challenges embodied in combining multiple dimensions of riskiness – and especially in calculating default risk on a given bundle of mortgages that were also subject to pre-payment risk – required that default risk per se be standardized to the extent possible. Second, two federally-chartered agencies, FNMA (the Federal National Mortgage Association) and FHLMC (the Federal Home Loan Mortgage Corporation) were buying an increasing share of mortgage debt. These entities accounted for just 16% of all mortgage debt outstanding in 1979; but their share surpassed 25% by 1986, and grew steadily until it reached a peak of 43% in 2003. Most agency-bought debt was then at least implicitly guaranteed and sold onto the market.[23] The agencies then insisted on low-risk ("plain vanilla") mortgages, which set minimal levels for down-payment/loan ratios and for mortgage-payment/income ratios. This leads to the third factor: a large share of the customers for agency-backed mortgage securities were overseas wealth-holders, who were relatively risk-averse.

These changes rescued the mortgage-finance system by transforming it from a system with localized savings circuits, provided by numerous thrifts making decisions autarchically, to an increasingly national market dominated by lenders using market-wide criteria. The 'relationship' lending at the heart of the post-war system was replaced: credit allocation no longer relied on lenders deciding which borrowers' micro-characteristics and motivations warranted risk-taking, but instead involved identifying which prospective borrowers met globally-established thresholds. These thresholds marked dividing lines among borrowers with different generalized default-risk profiles. In effect, growing macro-uncertainty and institutional and technological innovations resulted in the repositioning of risk assessment on the basis of standardized macro-parameters, not micro-decisions.

With a growing population of mortgage originators generating standardized credit, and a growing demand to hold this mortgage debt, loan-making was separated from risk-bearing. And as this market was initially structured, both default and liquidity risk would be reduced. Depository institutions could make long-term mortgages without absorbing liquidity risk. In turn, the funds and firms buying mortgage debt could, if they held longer-term payout commitments (such as insurance or pension funds) turn, match the maturity dates of these liabilities with those of their assets (the mortgages they bought). So liquidity risk could be transferred and substantially ameliorated. And given a stable interest-rate environment and cautious lending criteria, the default rate would remain low and predictable.

From the mid-1980s to the mid-1990s, most mortgages were conforming conventional loans, underwritten by the quasi-governmental agencies, FNMA and FHLCC, and held in these agencies' portfolios until, in most cases, they were sold off.[24] These agencies accommodated the need for more securitized mortgages by creating more pass-through securities – that is, securities whose

[23] What governmental guarantee exists for FNMA paper is unclear; see note 10.
[24] Whether these agencies have implicit governmental backing is, and remains, contentious. FNMA was removed from the federal budget in 1968; and FHLCC was created as a separate entity to facilitate secondary-market sales of mortgage-backed securities in 1970. Both now operate as independent, wholly-private entities. However, the notion that these entities are implicitly backed by the US government is widely held (see, for example, *The Economist* 2007a.

share holders have claims on the underlying mortgage cash-flows. These agencies' efforts were supplemented by the expanded efforts of private mortgage insurers; these private companies specialize in loans that are "non-conforming" because they exceed FNMA loan loans -- "jumbo" loans larger than are allowed under FNMA. In any case, the upward limit for FNMA-qualifying loans was increased by 63% between 1989 and 1985, after rising just 22% in the previous four years. In sum, maintaining the strength of US housing finance did not require the invention of new institutions in the 1980s – only an adjustment of these institutions' parameters, and a market for the financial paper these institutions had to sell.

This returns us to a key point. What kept mortgage flows relatively resilient was the unique position of the US within the global Neoliberal regime. As noted, a crisis in the global economy – and in the position of the US within it – spurred the change in banking strategy, and necessitated a transition to a new housing-finance mechanism. What made this transition relatively seamless vis-a-vis US housing finance (Table 1) was that much of the rest of the world was caught in low-growth traps or crises. Since the US was the principal global source of reserve currency and had huge current-account deficits, it needed systematic capital-account inflows.

The fact that the US appeared to be a global safe haven was then triply fortuitous. Mortgage-backed securities responded to the needs of offshore investors: securities implicitly backed by the government, paying more than Treasuries, and denominated in the world's reserve currency during a period of global financial disorganisation.[25] Further, the US macroeconomy needed overseas buyers for its securities, so as maintain cross-border balances. And finally, these savings inflows permitted the US to re-establish low nominal interest rates. Low rates minimized the implicit financial risks on the mortgages being packaged and traded in secondary markets. In time, these risks would be exposed.

This triple global financial conjuncture was eventually unwound in part because this safe-haven situation invited excessive risk-taking. To understand how this happened, we must first unfold the next step in the evolution of racial exclusion in US credit markets.

5. Racial Exploitation from Redlining to Predatory Lending

The 1980s, as we have seen, forced the rethinking of long-established banking processes: *how* housing is financed and *how* banks generate earnings finance mechanism and banking strategies were in transition. The steady deepening of wealth and income inequality, combined with strong competition for upscale customers, led banks to develop strategies to capture and hold business from lower-income and minority customers. One magnet for banks was the astronomically-growing market for cross-border remittances, of which banks had a tiny share (about 3% in the early 2000s).[26]

A particular challenge in accessing lower-income financial markets was the high proportion of unbanked people in that market segment. According to the General Accounting Office (2002), 28% of all individuals and 20% of all households lack bank accounts, and thus were "unbanked." Minorities are overrepresented among the unbanked; but more than half of unbanked US households are white. This segment offered large potential profits. Underbanked and unbanked

[25] Dymski 2008 develops the argument about the US role within the international system at length.
[26] Orozco 2004.

households generate $6.2 billion in fees – an annual average of $200 per household, even for the very poor.[27]

So racial exclusion – the refusal to make loans to minority credit applicants – was partly replaced by extortionary racial inclusion – providing access to credit to those formerly excluded from it, but only at terms and conditions that are predatory, that is, which involve far higher costs and penalties for non-compliances than 'normal' loans. Banks have moved into these markets by acquiring subsidiaries and then designing special instruments aimed at lower-income and minority customers they had previously overlooked. These banks then marketed, originated, and distributed these predatory loan instruments. Since the mid-1990s, these instruments have been growing at a frenetic pace in neighborhoods historically subject to financial exclusion. These loans often have led to excessive rates of household and firm non-payment, and thus to foreclosures and personal financial distress – well *before* the 2007 mortgage-market meltdown. There are two principle categories of these loans: income-based payday loans and housing-based subprime loans.

The payday loan – lower-income US households have more volatile incomes than do other households, and hence need credit to close income-expenditure gaps more frequently than other households.[28] But in obtaining credit, many such households lack the financial track record to be fundable for credit cards or loans.[29].This volatility provides the payday loan market with its rationale.

The practice of advancing workers a portion of the money they stand to earn from their paychecks has become a common check-cashing service. This form of credit has spread very fast, as has the infrastructure of lenders disbursing it. Unheard of in 1990, now some 22,000 store locations offer payday loans. These loans have a market volume of $40 billion in the 37 states that allow this practice.[30] The average fee for a $100 check is $18. In 2001 there were 15,000 stores in the US offering payday loans, with 70 million transactions and $2.6 billion in fees -- $37 per transaction, on average, with $173,310 in fees per store location. Fees from this market reached $4.4 billion in 2005.

Some financial firms are now developing new sources of information which could qualify households for higher levels of credit, over longer time-frames. However, the absence of this information has not inhibited the growth of these credit markets. The reason it has not is the structural transformation of the markets for lower-income – and ultimately for lower-income and higher-risk – collateralized loans in the US economy.

Why has the payday loan industry grown so rapidly? On the credit-supply side, financing is often provided by large bank holding companies, by investment banks and hedge funds (through intermediaries) interested in bringing structured investment vehicles (see below) to market. On the demand side, several factors have converged. One is the falling real value of workers' wages, and the increased volatility of wage earnings. Among payday customers, some 29% earn less than $25,000 per year, and 52% earn $25-50,000 per year. African Americans and military

[27] Katkov 2002.
[28] Gosselin 2004.
[29] Information Policy Institute 2005.
[30] The payday-lending statistics in this subsection are drawn from Bair 2005.

families are overrepresented. Some 41% are homeowners. There is recurrent use; most customers use payday loans 7-12 times per year. A second, related factor is the ready availability of credit in recent years; this has encouraged even lower-wage workers to take on debt to meet living expenses or to acquire durable consumables.

A final demand factor concerns changing banking practices. Note that the customer base for payday loans does not include the unbanked: payday loans require checking accounts. Banks are charging increasingly high fees for returned (not sufficient funds or NSF) checks. Combined with these charges are the increasingly high late fees for rent, credit-card, and utility payments. Some $22 billion in NSF fees and $57 billion in late fees were collected in 2003 (Bair 2005). That is, the increasing probability of very high fees for being late due to an overdrawn checking account pushes workers toward payday loans.

Subprime lending originated when lenders created predatory mortgages – that is, mortgages with excessively high fees, penalties, and interest rates – and began to market them to higher-risk households who had restricted access to other sources of credit, especially low-cost credit. Lenders' marketing of these loans focused on redlined areas, and on households that had traditionally been denied access to credit.[31] Initially, most subprime loans were second mortgages. These were attractive to borrowers because they permitted owners of modest homes to gain access to money for whatever financial contingencies were being faced. Funds that could be pulled "out of a house" ameliorated the deteriorating economic fortunes of worker households, especially the minority households hit disproportionately hard by deindustrialisation.

Soon, subprime loans were marketed to those seeking to acquire homes. From the viewpoint of community advocates, these loans' terms and conditions were predatory; for bank apologists, they were legitimate responses to some home-seekers' special risk characteristics. In any case, many households formerly excluded from access to longer-term credit – especially lower-income and minorities – were now offered credit on exploitative terms. In 1998, for example, subprime and manufactured housing lenders accounted for 34 percent of all home purchase mortgage applications and 14 percent of originations. In this same year, subprime and manufactured housing lenders made a fifth of all mortgages extended to lower-income and Latino borrowers, and a third of all those made to African American borrowers.[32] Subprime lending grew 900 percent in the period 1993-99, even while other mortgage lending activity actually declined.[33] A nationwide study of 2000 HMDA data found that African Americans were more than twice as likely as whites to receive subprime loans, and Latinos more than 40%-220% more likely.[34]

A set of specialized – and often predatory – lenders emerged, using aggressive business practices to sell loans. This new class of lenders reflected the drastic changes in this industry. The largest subprime lender, Ameriquest Mortgage Company, began life as Long Beach Savings in 1979. It moved to Orange County, California in 1991, and gave up its banking license in 1994 and focused instead on retail and wholesale sales of subprime mortgages. In 1999, Long Beach Savings split into two: a public subsidiary, which was sold to Washington Mutual in 1999, becoming that bank's subprime trading arm; and a privately-held subsidiary, Ameriquest. which

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[31] See, for example, California Reinvestment Committee 2001.
[32] These statistics are drawn from Canner *et al.* 1999.
[33] ACORN 2000.
[34] Bradford 2002. Also see Staten and Yezer 2004 and McCoy and Wyly 2004.

was forced to settle a consumer protection lawsuit for $325 million in January 2006 (based on practices in 49 states).[35] A *Washington Post* account of this settlement indicates the character of abuses under subprime lending: "Under the agreement, Ameriquest loan officers will be required to tell borrowers such things as what a loan's interest rate will be, how much it could rise and whether the loan includes a prepayment penalty. Loan officers who do not make that disclosure will be subject to discipline. The company would also be forbidden from giving sales agents financial incentives for pushing consumers into higher-interest loans or prepayment penalties."[36]

The subprime mortgage loans and payday loans already had some common structural features that later opened the door to the broader subprime markets of the 2004-06 period: (1) they were based on some collateral (homes and paychecks), which had value no matter the income-based cash-flows of the economic units to whom these loans were made; (2) they represented higher-risk assets, whose holders could anticipate higher returns in compensation for these risks; (3) the lenders originating these loans needed to move this paper systematically off their balance sheets. What this new set of financial market needed to grow precipitously were customers that would readily buy securities comprised of highly risky loans. The requisite customer growth would soon come.

6. Pressures and Strategic Adaptations in 1990s Consumer Credit and Housing markets

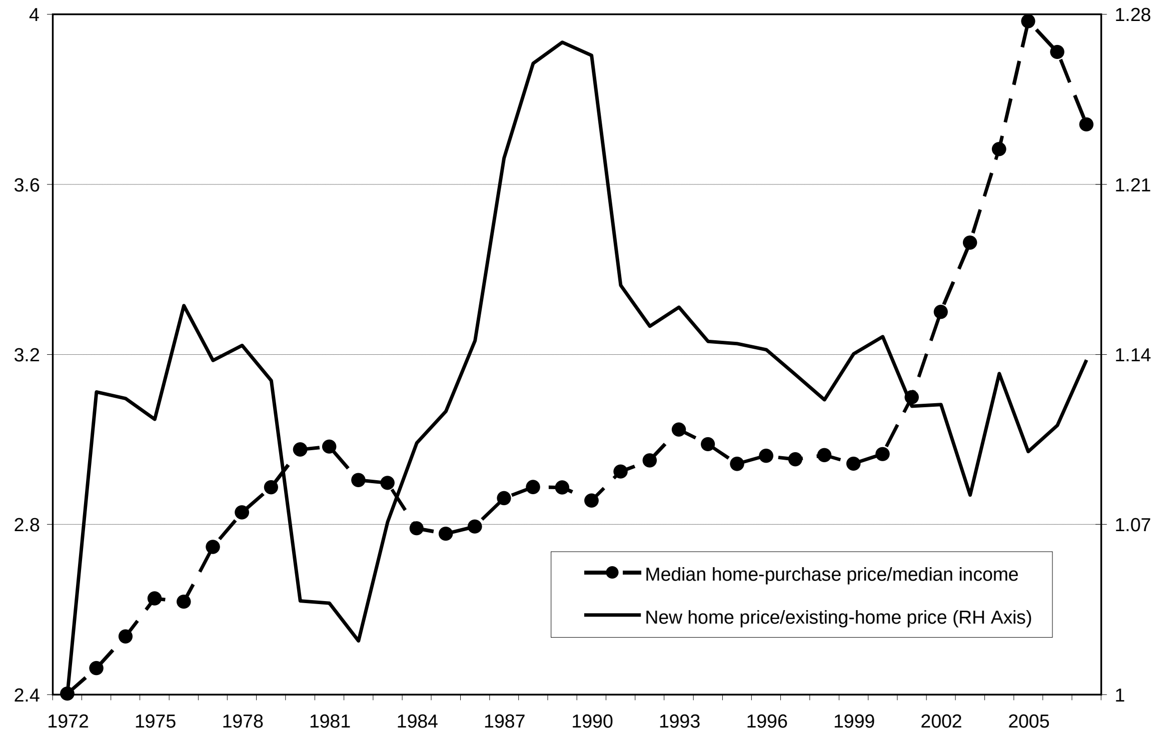
For banks, doing business systematically with lower-income and previously-excluded households required a new consumer-banking business model. The core concept in this model is that riskier customers can be supplied with credit if the combination of fees and attachable assets is sufficient to permit the overall transaction to pencil out. Since equity in homes represents most households' primary asset, the logic of subprime mortgage lending is readily grasped. The logic underlying the payday loan industry is similar – next month's paycheck serves as a guarantee against loss. The success of this new model is evident in the Survey of Consumer Finances: data for the period 1989-2004 shows that households in the two lowest-income quintiles have had surging levels of debt, not paralleled by proportionate increases in asset levels.

Much of the pressure for debt buildup in this period stemmed from forces in the housing market. The trajectory of federal housing policy for lower-income households was increasingly biased toward home-ownership. The central public housing program in the 1980s and 1990s was Section 8 housing, which provided housing rental vouchers to selected qualifying households but did nothing for the supply of affordable rental housing. After 2000, the Bush Administration pushed the idea of universal home ownership, in part through converting formerly public rental housing into owner-occupied units. The scale of both public low-income rental and homeowner programs was far less than the potentially eligible populations. Both the creation of new lower-income credit channels and the absence of federal programmatic capacity led US households toward market-based innovations in homeownership practices.

This growth in the demand for homeownership is evident in the empirical evidence. As Figure 3 shows, after the crisis years of the 1980s, US median household income rose until 1990; it then declined through 1994, and then grew rapidly again until 2001. Housing prices were also rising; but as Figure 4 shows, the ratio of median home-purchase price-to-median income rose only

[35] Gittelsohn 2007.
[36] Downey 2006.

Figure 4: Housing Price-to-Income Ratio and New-Home/Existing-Home Price Ratio, 1972-2008



slightly between 1983 and 2000. Table 1 shows that, as in the 1980s, aggregate real housing prices were at least partially responsive to real income trajectories. In the 1991-94 period, real median household incomes fell; real median housing prices rose, but by less than 1% per annum, must more slowly than in the later 1980s. When real incomes grew again in the 1995-99 period, housing prices did too, but a somewhat lower rate.

The US homeownership rate grew from 64% to 69% between 1994 and 2004 (Figure 3). Figure 5 illustrates, in turn, that while whites' homeownership rates increased systematically from the mid-1980s onward, African-American and Latino homeownership rates grew at slightly faster than that for whites. Trends in new home construction moved the entire market upscale in the 1980s: Figure 4 shows that new-home prices, which were almost at parity with existing-home prices in 1982, rose rapidly to a premium of 28% by 1990. After the early-1990s recession – that is, during the period of minorities' homeownership rate rising as fast as whites' – the new-home premium fell below 10%.

The increasing strength of housing demand – spurred into hyperdrive by the extortionary inclusion of African American and Latino homeowners – is traced out in Figure 2. The percentage of existing-houses-for-sale to existing-houses-sold fell systematically from a peak of 68% in 1991 to a low of 33% in 2004; that for new homes fell from 64% to 35% in the same time-period. Subprime mortgages shaped this ever-hotter market: the rise of minority homeownership rates coincided with a declining new-home premium; and the housing shortage created an environment in which it became as easy to sell an existing home as a new one. The construction industry boomed, and existing homeowners experienced rapid equity gains.

So much for the demand side; how about supply? The subprime lending industry has grown so explosively in the past several years precisely because the links required to connect loan-making with the securitisation of diverse, and often risky, credit claims were put into place. This riskiness, due to ever more adventurous house-price-to-income ratios, paled in comparison with the apparently ceaseless upward rise of housing prices. Wall Street investment banks channeled an ever-increasing amount of funds to subprime lenders: securitisations in this market already averaged $80 billion annually by 1998 and 1999. Further, Wall Street insurers backed the mortgage-backed securities that subprime lenders sold off into the markets.[37]

The large fees to be made in the loan-origination and securitisation process, and the ready availability of low-interest money-market funds – linked in turn to the macroeconomic capital-account-dependency of the US economy – attracted many supply-side players to these markets. This supplier influx has led to ever more interpenetration between major banking corporations, finance companies, and subprime lenders. Major banking corporations have undertaken or attempted numerous acquisitions. Some bank holding companies purchased subprime lenders. Citicorp acquired Associates First Capital Corporation, which was then under investigation by the Federal Trade Commission and the Justice Department. In another case, First Union Bancorp bought the Money Store in June 1998 – and then closed it in mid-2000 after it generated massive losses.[38] In 2003, HSBC bought Household International, parent of Household Finance Company, after settling charges that it had engaged in predatory lending. Associates First represented a step toward Citi's goal of establishing its Citifinancial subsidiary as the nation's

[37] Henriques and Bergman 2000.
[38] Berman *et al.* 2006.

largest consumer finance company.[39] In any event, this consumer-lending subsidiary helped to stabilize Citi's cash-flow during a period in which most megabanks' earnings slumped.[40]

So the 1990s prepared the way for the subprime crisis a decade later. The initial premise of securitisation was the homogenisation of risks. Securitisation centered on borrowers whose risk was low and who were expected to pay. Federal agencies' underwriting underlay a large share of the market. Then, due to heightened financial competition, more relaxed attitudes about risk-taking, and increases in computability, this premise was systematically punctured. Lenders originated and sold off heterogeneous housing-based loans, sometimes to borrowers whose longer-term payment prospects were doubtful. The combination of high fees and penalties, along with sufficient pledged collateral, made these loans profitable.

But what the 1990s brought was not just a new housing-finance instrument, the subprime loan, but an increasingly efficient pipeline for originating and distributing risk. Subprime lenders at one end of this pipeline made mortgage loans, then sold them to banks, which in turn manufactured securities that could be held or sold to investors. Before, the mortgage-backed securities built from "plain vanilla" mortgages had attracted buyers more interested in risk-aversion than return-maximisation. But the structured investment vehicles (SIVs) into which subprime mortgages were made created higher-risk, higher-return options.[41]

Many different types of collateralized debt, not just subprime mortgages, were combined on the asset side of SIVs. The relative transparency associated with pass-through securities was replaced by opacity. This provided banks an opportunity to move diverse types of debt off their balance sheets – with fees to be made each step of the way. SIVs found ready funding in the money markets. High profit rates left many corporations awash in funds; and the prospect of sustained low nominal interest rates – linked, as noted above, to the US capital-account surplus – made it seem quite natural to fund SIVs with commercial paper. Indeed, "asset-backed commercial paper" became commonplace. Ignoring liquidity risk, SIVs seemed a sure-fire way to generate interest-margin-based income with minimal – or even no – equity investment. The next step, soon taken, was for hedge funds and private-equity funds to get into the game. Whether such SIV investors were taking on the default risks implicit in the assets underlying these securities was unclear; indeed, as opacity replaced transparency in the mortgage-backed securities market, SIV investors lost track of what risks they were bearing. Further, credit risk derivatives were often used to shift risks onto third parties.[42] In any case, SIVs quickly became a $400 billion industry. As the *Wall Street Journal* put it, SIVs "boomed because they allowed banks to reap profits from investments in newfangled securities, but without setting aside capital to mitigate the risk."[43]

The third significant shift in the 1990s lay in banks' direct or third-party lending practices in inner-city areas. Previously, banks' reluctance had led to credit starvation in minority and lower-income neighborhoods. Now cities were awash with credit. Banks set up or contracted with intermediaries to make and securitize huge volumes of subprime and payday loans. The same

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[39] Oppel and McGeehan 2000.
[40] Sapsford *et al. 20*01, *Business Week* 2007.
[41] According to Mollenkamp *et al*. 2007, the first SIVs were created for Citigroup in 1988 and 1989.
[42] *The Economist 20*07b.
[43] Mollenkamp, Solomon, Sidel, and Bauerlein 2007.

lender might make exploitative loans in some portions of a city, while making prime loans elsewhere. Lenders, banks, and markets came to regard aggressive and even expectationally unsustainable terms and conditions for a subset of their borrowers as normal business practices. And these practices soon migrated from inner-city areas to the broader markets.

7. The Subprime Explosion and Crisis in the 2000s

Once securities markets accepted heterogeneous assets not backed by iron-clad underwriting, these markets were set to absorb ever riskier mortgages and other financial claims.[44] As noted above, the demand for residential real estate began to take off in the late 1990s. This asset boom soon blossomed into a mania: homeowners who had homes wanted bigger ones; those who weren't yet homeowners wanted to get into the housing market, even at premium prices. The fact that many potential home-buyers had neither the income nor savings to support "plain vanilla mortgages" – which prescribed that no more than 30% of income spent on housing, and 20% down on any mortgage loan – fed a feeling of desperation, of "now or never", especially in markets experiencing the fastest price appreciation.

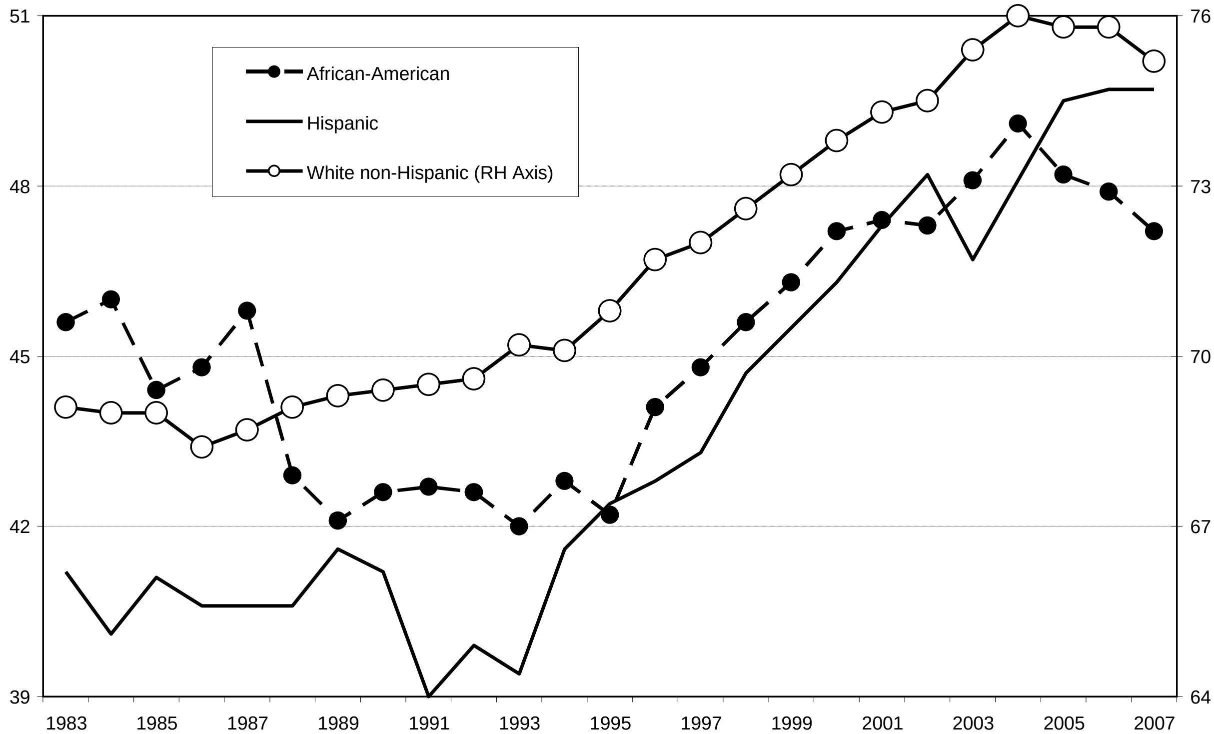
Lenders' and brokers' successful experience in creating loans for borrowers with very risky parameters suggested the required solution: to create loans tailored to the special risks of those whose income and down-payment profiles had not kept pace with many cities' white-hot housing markets. Since housing prices were rocketing upward, buyers could be given loans for amounts more than 80% of their new homes' prices; or they could be given two loans, one for the 80% -- making the loan potentially sellable to FNMA -- and another for the other 20% of the price.

At the level of macro-aggregates, what triggered the housing market's bubble phase was the continued expansion of real housing prices even while real incomes stagnated. Table 1 shows that real median household income declined by 0.21% per annum from 2000 to 2005, while real housing prices rose 5% per annum. Consequently, as Figure 5 shows, the median-housing-price-to-median-income ratio rose rapidly as of year 2000. However, as Figure 3 shows, while median household income peaked in 2000, the homeownership-rate peaked only in 2004. As Figure 4 shows, African-American and white homeownership rates both peaked in 2004 (that for Latinos peaked prematurely in 2002, then rose steadily). The bubble began bursting by 2005: after 2004, unsold inventories of both existing and new homes rose precipitously (Figure 2).

In effect, the concept of subprime was stretched along a different dimension of the mortgage instrument. Previously, subprime loans went primarily to borrowers who had previously been shut out of mainstream credit markets, as section 5 showed. As of the 2000s, however, subprime also referred to loans made to homeowners unable to support "plain vanilla" mortgage packages. These borrowers might be permitted to take on loans at special discount rates for limited periods of time. To get potential buyers "into" a home, a loan could be made at a below-market "teaser" rate for the first year or two of the mortgage. Any gap between market and "teaser" rates could be amortized, and the entire mortgage refinanced at a risk-adjusted market rate after the "teaser" rate expired. Housing-price appreciation would eventually negate the risks of a 100%-financed housing purchase; and anticipated income growth and/or anticipated housing-price growth could,

[44] The failure of Franklin National Bank in 1974 due to incautiously gathering non-homogeneous risks into real-estate investment trusts (Sinkey 1981), should have served as a warning.

Figure 5: US Homeownership Rates by Race/Ethnicity, 1996-2007
(Percent of all households who are homeowners)



in turn, offset overly burdensome home payments. Fees and penalty clauses could be attached as warranted to such paper.

As housing prices and as euphoria about housing-price increases intensified, especially in some regional hot-spots, buyers were more and more forced into “teaser” rates, hybrid ARMs, and so on.[45] But housing-price appreciation so dominated the consciousness of buyers and sellers that the high fees and high expected payments associated with getting into a loan seemed merely what was necessary to get in while the window of opportunity remained cracked open. For certainly, reasoned buyers, future price increases would allow the renegotiation of non-viable terms and conditions in two years, when one’s 2/28 mortgage loan “flipped” from below-market entry-level rate to fixed market rate.

The rising housing-price/income ratio explains some but not all of the growing demand for subprime mortgage loans. Mortgage brokers manufactured some of it themselves. A survey of 2005 and 2006 experience found that 55% and 61% those acquiring subprime mortgages, respectively, had credit scores high enough to obtain conventional loans.[46] This study also found that the mortgage brokers selling these claims earned fees far higher than conventional mortgages would have netted.

On the supply side of the housing-finance market, funds were plentiful. Macro-structural circumstances remained favorable – the US’s current-account remained strongly negative, so that savings continued to flow into the US. The market for mortgage-backed securities, which had been the largest financial securities market in the world for two decades, was familiar to foreign investors. In particular, many UK and European banks rushed to acquire subprime paper.[47] A strong dollar and low nominal interest rates negated liquidity risk.

Other factors spurring supply were banks’ strategic shifts toward fee-based income and risk-shedding, analyzed above, and hyper-competition among lenders. For example, a recent *Wall Street Journal* article highlighted the “once-lucrative partnership” between Wall Street and subprime lenders, which according to one insider involved: “.. fierce competition for these loans. .. They were a major source of revenues and perceived profits for both the investors and the investment banks.”[48] In this article, Jeffrey Kirch, president of a firm that buys home loans, is quoted as saying, “The easiest way to grab market share was by paying more than your competitors.” At stake were large prospective income flows for investment banks, as well as lucrative management bonuses. Managing directors in investment banks averaged total compensation in 2006 of $2.5 million. These inducements led many firms to continue aggressively in these markets even as warning signs loomed.

Subprime loan volumes exploded in 2004-2006, even as the housing boom peaked. In 2001-03 period, mortgage originations totaled $9.04 trillion, of which 8.4% were subprime loans; and 55% of subprime originations, or $418 billion, were securitized. In the 2004-06 period, total mortgage originations were the same in nominal terms, $9.02 trillion. However, 19.6% of all originations consisted of subprime loans, of which 78.8% - some $1,391 billion – were

[45] Wray 2007, p. 9.
[46] Brooks and Simon 2007.
[47] See, for example, Mollenkamp, Taylor and McDonald 2007.
[48] Anderson and Bajaj 2007.

securitized.[49] Further, as noted above, the opaque character of SIVs and other vehicles for securitisation led to more types of credit being included on these instruments' balance-sheets. Among these were private-equity funds' bridge loans for leveraged buyouts, real-estate acquisition loans, construction finance, credit-card receivables, and so on.

The Onset of the Subprime Crisis. Like the Asian crisis in 1997, the subprime credit crisis built momentum through a domino effect involving interconnected events over a large geographic area. Some 80 subprime mortgage companies failed in the first seven months of 2007. The big credit-ratings agencies came under pressure to overhaul their methods of assessing default risk in the US subprime market.[50] As they did so, banking firms in the US and abroad were affected. On June 20, 2007, Bear, Stearns was forced to shut down two subprime funds it operated for its investors.[51] Six weeks later, American Home Mortgage closed its doors.[52] Meanwhile, Countrywide Financial, which had originated about one-sixth of recent US mortgage loans, descended more and more visibly into crisis.[53]

In August, the German bank IKB was bailed out by Deutschebank and other banks when it could no longer access the money markets to finance Rhineland Funding, an offshore vehicle containing $17.5 billion of collateralized debt obligations, including some US subprime mortgages.[54] Some of the largest banks, such as Goldman Sachs, added fuel to the crisis by continuing to package and sell securities backed by subprime mortgages, even while reducing their exposure to subprime debt on their own balance sheets.[55] By September, between 16% and 24% of the subprime securities packaged by global banks in 2006 were at least 60 days in arrears – a total of $73.7 billion of 60-day-delinquent loans in these securities alone.

In 2008, the situation got successively grimmer. Many homes went into foreclosure. Many of these had been marketed to the formerly racially-excluded and built in close proximity to areas historically subject to mortgage-market redlining. That is, even when subprime lending had expanded beyond the inner city in the bubble period, racial dividing lines in urban land use had remained in place. So when the crisis hit, it had a disproportionate impact on minority and lower-income neighborhoods;[56] minority households, the most likely to be targeted by subprime lenders, were also most likely to live in neighborhoods in which subprime-based foreclosure cycles would cause terrible losses.[57]

Further, short-term credit for subprime paper and SIVs dried up. Consequently, ever more global banks, in the US and abroad, were forced to take subprime paper back onto their balance sheets, declaring losses in the tens of billions. These banks had to seek out capital injections even while drastically tightening credit supply.

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[49] These data, from the Mortgage Market Statistical Annual, appear as Table 1 of Wray 2007, p. 30.
[50] Pittman 2007,
[51] Kelly, Ng, and Reilly 2007.
[52] Dash 2007.
[53] Hagerty and Richardson 2007.
[54]*The Economist 20*07c.
[55]Anderson and Bajaj 2007. Goldman's new originations equaled $6 billion in the first 9 months of 2007; by December, 15 percent of these loans were already delinquent by more than 60 days
[56] California Reinvestment Committee *et al* 2008.
[57] Housing and Economic Rights Advocates and California Reinvestment Coalition 2007.

8. Conclusion

The meltdown in global banking and credit markets began when the end of the US housing bubble in 2007 precipitated a rapid increase in mortgage delinquencies. These mortgages were held in securitized form in portfolios around the world. So payments difficulties at the base of the financial food-chain led to seismic financial-market eruptions at the top.

One root of the still-unfolding subprime crisis, then, is banks' transformation of their revenue-generation strategies due to macro- and micro-distress at the onset of the neoliberal age. This involved separating loan-making from risk-taking, that is, the creation of risk from its absorption. These strategic adaptations, which apparently reduced the overall riskiness of financial intermediation, had a huge collateral impact: banks no longer had to balance the profit potential from loan-making with the default and liquidity risks to which loan-making gives rise: a key brake on finance-based expansion was removed.

This strategic re-orientation of banks then transformed the landscape of racial and social exclusion in US credit markets. A scenario of financial exclusion and loan denial became a scenario of financial expropriation and loan-making. Households previously denied mortgages were now awarded high-cost, high-risk loans. As direct markets' institutional capacity grew, non-bank lenders joined banks in providing – for a high fee – high-risk, high-cost loans. And when practices pioneered in predatory loan-making to socially excluded communities were generalized and introduced into the broader housing market, the conditions were created both for the unsustainable explosion of US housing prices and for the unsustainable stretching of the limits of financial-market liquidity.

The third root of the crisis is the long decline in wages of the US working class. As the possibilities of a dignified life based on the wages of labor faded, US workers' desire to share in the "American dream" came to include homeownership. But the gap between housing prices and incomes has been widening for two decades (Figure 4). Our analysis of the 1980s showed how US median household income rose in the 1980s after the crisis then. But analysis of the post-peak subprime period indicates that US median income remains flat (Table 1) even while housing prices have fallen.

This made homeownership more costly and more desirable at the same time. For housing seemed to gain market value at rates faster than even subprime borrowing rates. In effect, it became workers' means of participating in the speculative gains to which the US economy had become addicted in the post-industrial age. Ironically, the growing gap between housing price and income was moderated in part through adaptations that both represented and worsened the working class's positional weakness – more two-wage or three-wage households, the perfection of mass housing production techniques, and the use of non-union labor on construction sites: all so that working class households could move into 'affordable' units ever more distant from worksites and urban centers.

The fourth structural root of the subprime crisis emphasized here is the US macrostructural context. After the chaotic early 1980s, the US's current-account deficit and its status as a global "safe haven" created ready liquidity for the securitisation machine. This situation, based ultimately on the unique circumstances of US monetary hegemony, was ultimately unsustainable.[58] Here a second irony emerges. Subprime lending and opaque high-risk securitisation, which was rooted in part in the ready availability of liquidity, reached its high point at precisely the time – June 2004 to July 2006 – in which the Federal Reserve was making a sustained effort to restrict liquidity. The Fed's efforts were overwhelmed by the continuing inflows on the US capital account; linked to the US's current-account deficit, these inflows seemed out of the central bank's control. When overseas wealth-holders became leery of dollar-based assets generally in the wake of the gathering subprime crisis, the Federal Reserve similarly faced limits in its ability to manage the damage.

In sum, the sub-prime crisis originates in the perverse interaction between America's legacy of racial discrimination and social inequality, its unique and ultimately uniquely-fragile global position, and its hyper-competitive, world-straddling financial sector. To put it provocatively, America's racial chickens have come home to roost in the subprime crisis.

The racial roots of this crisis have also drawn attention in the extended and vigorous debate regarding policy responses to this crisis. *New York Times* columnists Bob Herbert (2007) and Paul Krugman (2007) have asserted that racial exclusion underlies the subprime crisis. Other experts have turned this argument on its head, by arguing that the Community Reinvestment Act – which, as we have seen, was passed into law in response to banks' racial redlining – forced banks into speculative loan-making.[59] The analysis in this paper lets us see how profoundly this latter line of reasoning twists the trajectory of history. It is banks' continuation of their historical – if contested – legacy of denying equal credit-market access led to the creation of new instruments of financial expropriation that, once generalized and transported into a raging home-purchase market, has led the banking system and the US economy to the edge of a very high cliff.

[58] Dymski 2008.
[59] See, for example, Calomiris (2008) and Liebowitz (2008).

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