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UNDERSTANDING THE SUBPRIME CRISIS: INSTITUTIONAL EVOLUTION AND THEORETICAL VIEWS

GARY DYMSKI

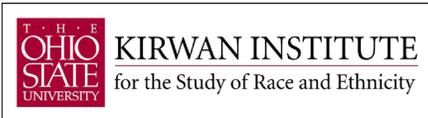
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Understanding the Subprime Crisis: Institutional Evolution and Theoretical Views

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ABSTRACT

The subprime crisis has been at the center of the global news cycle for two years. What began with the exploitation of minority borrowers in marginalized neighborhoods has evolved into a threat to global finance. But ironically, the households suffering from the subprime crisis, a disproportionate number of whom are African American and Latino, get little attention.

This paper tries to provide some needed balance by analyzing the economics of the subprime crisis. We first review the history of this crisis – its institutional economic dynamics. We begin with the shifts in banking strategy, in financial markets, and in economic conditions that transformed financial exclusion, and that made subprime loans into viable credit instruments. We then show how predatory lending, including subprime lending, emerged and spread from the 1990s onward. We next analyze economists' understandings of this unfolding situation. We focus on how two contemporary approaches to credit markets, the efficient-market and asymmetric-information views, understand financial exclusion in the US: that is, credit-market redlining, discrimination, and subprime lending. We then analyze economists' unfolding understandings of the subprime crisis per se, paying special attention to the links between economists' views and policy responses to the subprime crisis.

* Please use my email address to contact me. The research reported here was supported by the Kirwan Institute for the Study of Race and Ethnicity, Ohio State University.

Contents

1. Introduction.....	2
2. The Institutional Origins of the Subprime Crisis 1: Banking Tranformed	3
2.1. The End of US-Coordinated Macroeconomic Stability and the Crisis of US Banking and Housing Finance	3
2.2. The Strategic Repositioning of Banking.....	4
2.3. The Reinvention of Consumer Banking	5
2.4. The Reinvention of Housing Finance	6
2.5. The Discounting and Offloading of Perceived Risks	7
3. Institutional Origins of the Subprime Crisis 2: Financial Exclusion Tranformed.....	8
3.1. Financial Exclusion before the 1990s: Redlining, Discrimination, and the Unbanked	8
3.2. The Emergence of Predatory Lending	11
3.3. Why Predatory Lending and Low-Income Financial Markets Grew.....	13
3.4. Subprime Lending and the Housing Bubble	16
3.5. Collateralized Debt Obligations, Market Interpenetration, and Financial Crisis.....	17
4. Economists' Understandings of Financial Exclusion, Predatory Lending, and High-Risk Securitization	19
4.1. Redlining, Discrimination, Predatory Lending and Efficient Markets	19
4.2. Redlining, Discrimination, Predatory Lending and Asymmetric Information	22
5. What Does Economic Theory Teach Us about the Subprime Crisis?	25
5.1. Economists' Views about Why the Subprime Crisis Occurred	26
5.2. Understanding the Links between Economists' Views and Economic Theory	29
5.3. Policy Alternatives and Economic Theory: Getting Beyond Efficient Markets.....	30

Understanding the Subprime Crisis: Institutional Evolution and Theoretical Views

1. Introduction

The subprime crisis has been at the center of the US and global news cycle for two years. Its emergence in 2007 triggered a parade of dramatic consequences: the collapse of two Bear Stearns structured investment funds in May 2007; the freezing of US money markets in August and September 2007; the run on, and collapse of, Northern Rock Trust in England in late September 2007; the failure of Bear Stearns in May 2008; the failure of Lehman Brothers in September 2008, along with the “receivership” of FNMA and FHLMC and the takeovers of Washington Mutual and of Wachovia; the passage of the \$700 billion Troubled Asset Relief Program in October 2008; and the passage of the American Relief and Recovery Act in February 2009.

These months of dramatic action were so momentous that political commentary and debate focused on how to use fiscal and financial-regulatory policies to fix the global and national economies. What began with the exploitation of minority borrowers in marginalized neighborhoods has evolved into a threat to the commanding heights of global finance. So by this time, every talking economic theorist, political hopeful, and think-tank analyst with a closet global model has put forth her own diagnosis of what is broken and what needs fixing.

In an ironic twist, it is as if the subprime crisis itself – the numerous households, a disproportionate number of whom are African American and Latino, who have been issued mortgage loans with exploitative and unsustainable terms - has disappeared while hiding in plain sight. Indeed, minority borrowers’ profligacy and banks’ legal mandate (such as it is) to meet the credit needs of lower-income (and hence heavily-minority) portions of their market areas have been mentioned frequently as among the root causes of the subprime debacle. Meanwhile, in neighborhood after dusty neighborhood, subprime loans turn into abandonments, foreclosures, and bank repossessions. New clusters of speculative home-buyers scoop up heavily-discounted homes whose former owners are thrown onto the kindness of their relatives, their neighbors, or the streets.

Our task in this paper is to provide some needed balance by undertaking an analysis of the economics of the subprime crisis. Our first task is to review the institutional economic dynamics of the subprime crisis. Section 2 analyzes the shifts in banking strategy, in financial markets, and in macroeconomic and microeconomic conditions that transformed financial exclusion in the US and made subprime loans into viable credit instruments. Next, Section 3 shows how subprime lending emerged as one category of predatory lending. It describes the explosion of predatory lending of all kinds in the 1990s and early 2000s, and the wildfire spread of subprime loans in the mid-2000s.

Sections 4 and 5 then analyze economists’ understandings of this unfolding situation. Section 4 examines economists’ views of subprime lending, in the context of their views of US financial exclusion more broadly – credit-market redlining, discrimination, and predatory lending. Two contemporary approaches to credit markets are featured: the efficient-market and asymmetric-information views. Section 5 then reviews economists’ unfolding understandings of the subprime crisis per se, paying special attention to the links between economists’ views and policy responses to the subprime crisis.

2. The Institutional Origins of the Subprime Crisis 1: Banking Transformed

2.1. The End of US-Coordinated Macroeconomic Stability and the Crisis of US Banking and Housing Finance

In the US, regulations and laws put into effect in the Depression created a segmented financial system. This segmentation included geographic divisions among banks, a legacy of this nation's settlement by frontier expansion. Functional divisions were strengthened in response to the Great Crash. Private commercial banks collected household savings and made loans to businesses; mortgage companies and savings and loan associations emerged to collect savings and meet mortgage demands.¹

The banks and financial firms operating in these regulated markets deployed conservative rules about lending and borrowing. For one thing, their hands were tied by extensive rules governing the markets they could serve, the products they could sell, and the prices they could offer on those products; for another, the stable macroeconomic milieu of the immediate post-War period assured stable cash-flows from “following the rules.”

These arrangements began gradually breaking down in the 1960s. Money-center banks developed more aggressive growth strategies and challenged regulatory restrictions on their sources of funds. Financial markets grew in function and complexity, outside of the close purview of government regulators. Larger firms increasingly obtained credit directly in these markets. Banks were forced to seek out new borrowers. This led larger banks to engage in extensive cross-border lending from the mid-1970s onward.

Macroeconomic instability, which plagued the US economy in the 1970s, worsened by 1979: several years of high inflation, high interest rates, and recession afflicted the US (and for that matter, much of the global) economy. The high interest rates led depositors to pull their money out of the banks; these rates plus global recession led to first to systemic defaults on banks' overseas loans, and then to the US savings-and-loan crisis.

Under this combined pressure, the US banking structure first cracked and then crumbled. The extensive government regulations that segmented financial product markets, limited banks' geographic expansion, and governed many financial-market prices were eliminated in the 1980s and 1990s. An extensive wave of bank mergers was launched within the US banking system. The remarkably balkanized US banking system was gradually reconfigured as a system of hierarchically-organized regional banks (Corestates, Wachovia, and First Union, Bay Bank and First Boston, BancOne and Keybank, and so on). Over the course of time, this system of competing “super-regional banks” eventually consolidated into a set of four nationally-dominant megabanks.²

¹ The historical material presented in this section is drawn from the author's writings over a number of years, especially Dymski (1999) and Dymski (2009). The material on discrimination and redlining in section 3 draws heavily on Dymski (2006). Those interested in further documentation or references are urged to get in touch with the author.

² This evolution was significantly advanced during the subprime crisis: Wells Fargo used its purchase of Wachovia to establish an East Coast branch network; JP Morgan-Chase's purchase of Washington Mutual gave it a West Coast market presence.

2.2. The Strategic Repositioning of Banking

For a time, it appeared that technological change, recurrent overseas-lending crises, and the increasing ease of entry into financial activities would doom both traditional banks and , especially the large money-center banks whose operations overlapped investment-banking and broker-dealer activities. However, banks have been remaking themselves strategically. The old idea of bank behavior – holding to term a portfolio of short-term and long-term loans made to members of a well-defined customer base – has been retired. New models are emerging – including but not limited to the “originate and distribute” approach which underlay the subprime crisis.

The remaking of banking has proceeded differently in distinct segments of financial and banking markets. One part of this remaking involved the spreading scope of activities permitted to banks. Recently, much attention has been given to the impact of the Gramm-Bliley Act of 1999, which eliminated the ‘investment-banking’/‘commercial-banking’ distinction that had been in place since the Glass-Steagall Act. In truth, the permitted scope of banking activities has been expanding continuously since the 1980 federal banking deregulation act.³ So banks organized to take advantage of mass-marketing opportunities have been able to expand into new loan products, new financial services, eventually including insurance and brokerage services.

A second key to this remaking has been the expansion of processes and institutional means for emitting, underwriting, and selling or buying financial securities on a wholesale, not retail, basis. A pioneer here was the money-market mutual fund (MMMF), first created by Merrill Lynch in 1972. The MMMF permitted small savers – those previously able to put aside \$5-10,000 in a time deposit – to collectively purchase larger-scale financial assets (for example, negotiable certificates of deposit, which are denominated in units of \$100,000 or more) without sacrificing access to liquidity. A further development was the mutual fund, which permitted small-scale savers to bundle together their savings so as to hold a portfolio far more diversified than any one saver could have afforded.

As deregulation proceeded, bank holding companies were able to undertake ever more of these activities. So banks could compete to offer services based on wholesale-to-retail linkages to customers they had previously lost to MMMFs and other non-bank intermediaries. Some of these services were attractive to the larger non-financial firms whose borrowing-and-cash-flow business began to escape banks’ balance sheets in the 1970s. Banks and non-banks have also renewed their provision of financial services to non-financial firms in this category by offering non-traditional forms of insurance – lines of credit, loan guarantees, and derivatives.

Indeed, a fierce competition over the emission, distribution, and underwriting of large-scale equity and debt issues broke out in the 1980s among banking megafirms, investment banks, and broker-dealers. Another competition arose over derivatives. This competition resulted in one global mega-crisis – the 1998 collapse of the Long-Term Capital Investment hedge fund. This

³ The formal name of this 1980 federal law is the Depository Institutions Deregulation and Monetary Control Act of 1980.

crisis was certainly a warning sign about potentially adverse consequences of hyper-competition in lightly-regulated financial markets. However, it should be kept in mind that the global financial system has been experiencing severe crises regularly – the 1982 Latin American crisis, the 1994-5 Mexican “Tequila” crisis, the 1997 Asian financial crisis, etc. On each occasion, no lasting damage was done – so it appeared to policy-makers that after-the-fact regulatory adjustments would suffice to insure that market instruments could continue to evolve without causing permanent damage.

In competing for shares of emerging markets in financial services, banks developed capabilities that proved useful in serving their existing customer bases. In particular, banks evolved new processes for the creation and marketing of securities, and an ever-expanding set of mechanisms for transforming, underwriting, and off-loading risk. The key means of offloading risk was an expanding set of secondary markets. Loans were not sold directly onto these markets; they were first bundled together and divided into promised payment streams – often by maturity and risk classes. So in the markets they took the appearance of pure payments streams, divorced from the specific circumstances of borrowers’ time and place.

Lenders initiating these mechanisms, in turn, were able to reduce their lending-related risk. For one thing, measurement of default risk was standardized. The use of FICO scores to measure borrowers’ financial fragility provides the most well-known means of standardization; but there were others too. For another thing, securitized loans sold into the market did not appear on lenders’ balance sheets. And further, banks’ liquidity risk, which is rooted in maturity mismatches, was reduced as they sold loans off into the securities marketplace; banks did not have to pre-commit to obtaining short-term borrowed funds for the loans they had made and then sold off to be managed by other intermediaries. Whether off-balance-sheet risks originated by banks was ultimately banks’ responsibility, of course, would emerge as a central challenge in the subprime crisis of 2007-08; another crisis-related challenge would involve the adequacy of liquidity to support banks on- and off-balance-sheet loan portfolios. But initially, ‘out of sight, out of mind’ was the applicable principle. Consequently, banks began to market new loan instruments that took advantage of the possibilities opened up by securitization.

In short, sophisticated information technologies, the growing number of liquid resale and derivatives markets, and the plethora of modern-day media outlets, taken together, permitted banks to enter credit markets ever more deeply, and to extend the range of credit instruments they offered, apparently without parallel increases in their institutional riskiness. Later it would become clear that banks’ individual decisions to increase expected profits by expanding into securitization and into more loan markets were taken without considering the impact on the effect of heightened liquidity and default risk in the overall credit markets. That is, spillover effects were ignored. But in the late 1980s and 1990s, it seemed that a brave new world of finance was in creation, a theme we explore in section 3.

2.3. The Reinvention of Consumer Banking

Taking advantage of their new risk-management and information-technology tools, banks re-engineered consumer banking. Large banks in the US have taken the lead in creating standardized, mass-market financial products that meet the needs of large numbers of

households, often conveniently located in near geographic proximity to one another in prosperous residential areas.⁴ They cross-sell services and aim at nurturing brand loyalty and “one size fits all” services for the customers of their “upscale retail banking” activities. In the US, many mergers have been undertaken with the aim of extending merging banks’ marketing reach and the captive audiences their deposit-market instruments create. This shift, of course, has occurred even as technological change and income-wealth polarization has created growing numbers of sophisticated, financially-independent, upper-income households.

But while the search in consumer banking is for more customers, not all customers are incorporated in the same way. Cross-subsidies within banking markets have been radically restricted – no longer do blue-chip borrowers, for example, implicitly support loans for mom-and-pop customers (blue-chips have too many market options to be forced to absorb such subsidies). Instead, cross-subsidies are provided only across-markets (and within customer classes), to customers whose business is sought for multiple financial products.

Potential customers that lack the potential to be stable, multi-product consumers of bank services are not discarded; but they are offered restrictive sets of services for which they must pay full price or bear the risks. The packaging and delivery of core banking activities – facilitating purchase-and-sale transactions, receiving income, making payments, storing value, and financial saving – is a new focal point, even for banks that are deeply involved in investment-banking, securities, insurance, and other activities. Bank cards, check-cashing, and money-order services are increasingly being marketed to lower-income households not by independent suppliers or informal markets, but by subsidiaries of multinational banks. Because these households often are cash-short but have access to income flows (if more unstable and lower-level income flows than more prosperous households), they are targeted for short-term loans in a wide range of forms, including payday loans. And because these lower-income households lack competitive alternatives in many cases, the financial products they buy often build in substantial margins for the lenders.

2.4. The Reinvention of Housing Finance

Housing expenditures have been extremely volatile over the business cycle during the post-war period; but surprisingly, the mid-1980s savings and loans collapse had little effect on housing finance.⁵ The reason was that U.S. housing finance was already in the midst of a transformation from an intermediary-based to a securities-market-based system. Previously, lenders held mortgages to maturity, and consequently were exposed (as noted above) to default and liquidity

⁴ US banks have taken the lead in formulating the elements of “upscale retail banking” for several reasons. First, liquid investment alternatives for non-elite households (such as money-market mutual funds, equity-based mutual funds, and so on) were pioneered in the US. Second, the large number of US commercial banks and savings institutions, and the low level of market concentration in US consumer banking markets (by international standards) created the possibility for more gains from innovations in the mix, marketing, and delivery of consumer banking products. Third, banking deregulation in the US occurred somewhat earlier in time than in other nations. Fourth, the continual suburban expansion of middle- and upper-income households in the US continually creates new market-entry possibilities for banks positioned to meet the particular needs of these households.

⁵See Dymski (2002).

risks. In the new system, lenders made mortgages to sell them. Commercial banks interested in expanding their share of consumer-banking markets provided the mechanisms for implementing securitization. The process of originating, servicing, and holding mortgages was split into its constituent parts, with each part priced and performed separately.

A successful securities-based system housing finance required the commodification of risky mortgage assets. This required two steps. The first was the standardization of the instruments being bundled and sold, which required the adoption of standardized mortgage eligibility criteria. These criteria made ‘relationship’ lending unnecessary, and allowed both a new array of non-bank, non-thrift lenders to originate mortgage debt, and a new array of institutions to hold it. The second was the separation of loan-making from risk-bearing. The willingness of wealth-holding institutions to take on securitized mortgaged debt was accomplished by insuring the ready availability of government and private underwriting of mortgage debt. Two federally-chartered agencies, FNMA (the Federal National Mortgage Association) and FHLMC (the Federal Home Loan Mortgage Corporation) have long provided a secondary market for qualifying mortgages. A third agency, the Government National Mortgage Association (GNMA or Ginnie Mae), provides a secondary market for FHA, VA, and FmHA mortgages. These agencies have continued to underwrite most mortgage credit; further, as Figure 1 shows, these agencies hold a significant share of US mortgage debt.

Until the last several years, most of the mortgage debt since the mid-1980s has involved conforming conventional loans, which are bundled and underwritten by these agencies, and then either held in agency portfolios or sold off. These agencies have accommodated the larger flow demand for securitized mortgages by increasing their proportion of pass-through securities. Pass-through securities are claims on mortgage debt which are underwritten by one of these agencies – that is, the buyer of a share in such a security have a claim on mortgage cash-flows. The activities of these agencies are supplemented by several private mortgage insurers that underwrite “non-conforming” loans -- “jumbo” loans larger than are allowed under FNMA. The current limit of \$413,000 for FNMA has, as Figure 1 shows, led in the last several years to more mortgage paper moving into the “jumbo” loan category. In sum, the reconfiguration of U.S. housing finance did not require the invention of new institutions: instead, it required an expansion in the scope of participation in the secondary mortgage-debt market. The divorce of risk-bearing from loan-absorption was so complete that thrifts were able to maintain a large share of originations even as they lost deposit share.

2.5. The Discounting and Offloading of Perceived Risks

The shifts in banking-firm practices and activities described here also shifted the locus of risks within the US financial system. These shifts occurred both at the macro and at the micro level.

Macro-risk arose because mortgage securitization depended a resilient demand for mortgage-backed securities; and this depended on the United States’ unique position within the global Neoliberal regime. The transition from the old housing-finance system to the new was accomplished at a time when the U.S. was both the principal global source of reserve currency and a preferred safe haven. In addition, it occurred while the U.S. had huge current-account deficits, which have necessitated systematic capital-account inflows. Mortgage-backed

securities, like Treasury securities, responded to the needs of offshore investors: government-agency underwritten securities denominated in the world's reserve currency – an attractive option at a time of recurrent global financial disorganization.

How about micro-risks? Given that risks, once created in a borrower-lender relationship, must be borne, one might wonder about the impact of the securitization of mortgage debt on risk-bearing. The new epoch of securitization was accompanied by ambiguity regarding both types of risk. The various types of insurance available for mortgages reduce default risk – *only* if there is an implicit promise to pay that is accepted by the third-party insurer. Both FNMA and the private-market insurers have insisted consistently that they bear limited liability; however, the market has tended to treat their participation as akin to a de-facto government guarantee, based on an implicit “too big to fail” premise. Liquidity risk, in turn, was initially associated with most mortgage-based securities, since these were issued on a fixed-rate basis. Buyers of these securities typically reduced this risk through maturity-matching; but some residual liquidity risk remained. Adjustable-rate mortgages (ARMs) are well-suited for eliminating liquidity risk; but ARMs initially were not good prospects for securitization because of the computability problems their uncertain terms caused for actuarially-sound calculations of price. This constraint was eventually relaxed as the market for securities grew and as computability capacity – and markets for hedging interest-rate risks – increased in number.

From the perspective of banking strategy, this transformation of the mortgage market had profound implications. For one thing, the virtual disappearance of savings and loan institutions as competitors opened up a new field of competition. At the same time, however, that field was populated by a new category of financial institution – the mortgage company. Mortgage companies did not make loans to keep them on their books, as had the thrifts; they made loans only to sell them. Banks followed suit, initially in the mortgage market. They began to systematically sell off mortgages – that is, to offload risk; and in so doing, the basis of their income-earning activities shifted from interest to fee-based income.

3. Institutional Origins of the Subprime Crisis 2: Financial Exclusion Transformed

3.1. Financial Exclusion before the 1990s: Redlining, Discrimination, and the Unbanked

Racial inequality in access to credit and to banking services has existed as long as racial inequality itself – which is to say, from the founding of the Americas. Until the subprime era dawned in the 1990s, racial inequality in credit and banking took three primary forms:

- Redlining – the systematic denial of home mortgages to urban areas with high proportions of minority residents, regardless of these areas' economic characteristics (and of the economic characteristics of potential borrowers);
- Racial discrimination – the existence of systematically higher denial rates for home-mortgage credit to minority applicants, despite these applicants' underlying creditworthiness;
- Unbanked areas and people – the tendency of banks and savings and loans to avoid opening branches (or to close branches) in areas with concentrations of minority borrowers; and as a consequence of both lenders' discrimination against minority

individuals and of lenders' paucity of branches in minority areas, the disproportionate number of unbanked individuals among minorities.

There is not space here to enter into a full-fledged discussion of racial discrimination and redlining in credit markets, but some summary comments are appropriate. First, what has been especially egregious about redlining and discrimination in credit markets is that they have disregarded the actual economic circumstances of individuals and areas – racial bias has clouded market processes and led to arbitrarily unfair credit denial. The critique of these practices accepts the idea that borrowers and areas with economically different characteristics *should* be treated differently in the market. In effect, the problem is that black and white loan applicants with similar levels of repayment risk are not treated equally in credit applications – either they are more likely to be denied credit, or are offered less advantageous terms and conditions when credit is offered.

Any accusation of racial discrimination or redlining invariably gives rise to controversy over lenders' intent and over the nature of fair and equal treatment in the credit market. On one extreme are cases in which meritorious applicants are denied credit. In such cases, investigations may uncover racial perpetrators (racist loan agents or assessors) or racially-biased evaluation processes that are not justified by any business purpose. Such discrimination is clearly irrational. Chicago economist Gary Becker's 1971 study of racial discrimination views this as the dominant instance; he predicts that because it is irrational (non-racist lenders will make more good loans than racists), market forces will lead discrimination to disappear.

Things are not always so clear, however. Economists have suggested that discrimination may be rational in some cases. Specifically, it is rational when it is costly to acquire information about borrowers' 'true' levels of creditworthiness, and lenders can use race or characteristics correlated with race to make valid predictions about borrowers' ability to repay debt and their probability of default.⁶ In such a situation two individuals of different races with the same financially-relevant information may be treated differently because the lender augments this information with generalized information based on the differential experience of racial populations (not individuals). Of course, this differential population experience may have arisen due to racially-biased evaluations and racial perpetrators. So on one side, those who are subject to such rational discrimination can ask why they should be victimized; on the other side, those who use race (or proxies for race) to make credit decisions may ask why they should not use all relevant data to avoid undue risks.

Needless to say, these ambiguities have led to debates among policy-makers and economists over what constitutes unfair treatment in credit and banking markets. These debates were far from resolved when new forms of predatory lending, including subprime loans, arose. It should also be noted that the determination of fairness requires not just an assessment of whether two populations' creditworthiness differs systematically, but whether it is fair and just that such systematic differences have arisen. When systematic differences by race (or by some other criteria) are deemed unjust, then some sort of affirmative action or redistribution of resources

⁶ Arrow (1972) first suggested this idea in an essay on labor market discrimination. Stiglitz and Weiss (1981) points out that banks might rationally redline minority neighborhoods if race is a signal of higher risk.

follows as a logical response. In any event, controversy has not abated over the extent to which racial redlining and discrimination have generated unfair outcomes, and over what should be done about it. Indeed, the controversy over whether subprime lending represents exploitative or opportunity-enhancing behavior by banks can be understood as an extension of this older argument.

Beyond controversies over access to housing credit, the other outstanding problem faced by minority communities involved access to bank accounts and to the financial services – checking, secure savings for financial balances, and so on – that banks offer through their branch offices. This was partly due to banks’ reluctance to maintain branch offices in lower-income and high-minority communities.⁷ It also had to do with banks’ redivision of their customer bases, discussed above. And since minority communities have disproportionate numbers of lower-income customers, banks’ pull-back of branches created bank-branch deserts in the midst of many urban areas.

The result was that even while many minorities increased their income levels and professional status, the number of unbanked households remained persistently large. Studies of the underbanked population have come up with widely varying estimates. A November 1999 survey found that 28% of all individuals and 20% of all households in the US were unbanked (General Accounting Office 2002). A 2001 study found 30% of all US households to be either unbanked or underbanked (Katkov 2002). “Underbanked” households consist of those with low-balance checking accounts or savings accounts that are seldom used. This total is ethnically diverse – more than 50% white, and 27% black, with Latinos accounting for 16%. These numbers indicate that minorities are far more likely to be unbanked or underbanked than other Americans. There has been ambiguous evidence about whether the number of unbanked and underbanked households has risen systematically since 2000 (see Aizcorbe *et al* 2003).⁸

The FDIC has weighed in with a December 2009 report that attempts to provide definitive numbers. This study, which reports on the results of a January 2009 survey of 47,000 households, indicates that 7.7% of all US households are unbanked. However, only 3.3% of whites and 3.5% of Asians are unbanked, whereas 21.7% of African-Americans, 19.3% of Latino/Hispanic households, and 15.6% of Native Americans are unbanked. There are even more underbanked households, 17.9% of all US households. Here too, the underbanked are far more likely to be minority. Some 7.2% of Asians and 14.9% of whites are underbanked. But the figure

⁷ For empirical studies of bank-branch locational inequality in Los Angeles, see Dymski and Veitch (1996) and Pollard (1996). These authors show that banks have systematically closed branches in inner-core areas, while opening branches in emerging suburban areas. These inner-core branches often were established in earlier days when these neighborhoods were not majority-minority, and/or had belonged to merged banks no longer in operation.

⁸ According to the Federal Reserve’s triennial Survey of Consumer Finances, the share of households without a current account fell from 15% in 1989 to 10.5% in 1998, and then rose slightly to 11% in 2001. A very different interpretation of these same data was offered by Hogarth *et al.* (2005), who assert: “Results indicate that holding socioeconomic characteristics as well as households’ need for an account, abilities to manage the account, access to accounts, and previous experiences constant, account ownership increased over time, with the biggest gains between 1995 and 1998. Increases over time were experienced across the spectrum of income, net worth, education, race, and age characteristics.” (7)

for African Americans is 31.7%; for Native Americans, 28.9%; and for Latinos/Hispanics, 24.0%. So over half of all African American households, and over 4 in 10 Latino/Hispanic and Native American households, are either unbanked or underbanked.

For those outside the banking system, the core alternative financial services are check-cashing, money orders, money remittances, and payday loans. According to Katkov (2002), the majority of these firms' revenues are generated by the unbanked and underbanked; he estimates that 68% of money transfers are from the underbanked, while 52% of payday loans are made to unbanked people. The FDIC (2009) study provides rich data supporting the idea that the unbanked and underbanked arrange for their financial services in various ways, with convenience being a key factor.

3.2. The Emergence of Predatory Lending

Since the mid-1990s, new forms of discriminatory credit have emerged, referred to collectively as "predatory" lending. Predatory loans are collateralized loans, usually based on the income or home-equity of the borrower, which are significantly costlier or entail higher fees or otherwise entail more onerous terms (such as trigger clauses for non-payment) than for loans made to other customers in other areas, on the basis of similar collateral.

Staten and Yezer (2004) point out that there is no commonly-accepted definition of predatory lending. Nonetheless, attention has focused on two types of predatory loan: the subprime mortgage and the payday loan. Engel and McCoy (2002) suggest that three categories of mortgage loan be differentiated: prime, legitimate subprime, and predatory. They define predatory mortgage loans as those involving any of five characteristics: "(1) loans structured to result in seriously disproportionate net harm to borrowers, (2) harmful rent seeking, (3) loans involving fraud or deceptive practices, (4) other forms of lack of transparency in loans that are not actionable as fraud, and (5) loans that require borrowers to waive meaningful legal redress." (P. 1260).

A payday loan, by contrast, is a loan that provides a percentage of the cash due to an employee from an employer; when payday comes, the lender receives the paycheck. The difference between the amount lent and the amount received constitutes the return for the lender (plus any fees charged). These loans often lead to excessive rates of household and firm non-payment, and thus to foreclosures and personal financial distress. Payday loans often, but not always, involve excessively high interest rates.

Adding fees or increasing rates generates substantially higher effective repayment rates and increases the prospect of non-payment, putting borrower collateral at risk. One or both types of loans are usually supplied by non-banks (and sometimes banks). Predatory lending often involves aggressive telemarketing, phone-phishing, and other methods based on demographic targeting – especially, the targeting of minority households that have traditionally been denied access to credit.⁹

⁹ A November 2001 study of California cities by the California Reinvestment Committee (CRC), using a borrower survey instrument, found that a third of subprime borrowers were solicited by loan marketers, and that minorities and the elderly are targeted in these marketing efforts. These loans often have onerous

Predatory lending began growing frenetically by the mid-1990s. Long before most reporters were aware of them, subprime loan practices were heavily impacting lower-income and minority neighborhoods, especially elderly, low-income, and minority borrowers. For example, Canner *et al.* (1999, page 709) found that in 1998, subprime and manufactured housing lenders accounted for 34 percent of all home purchase mortgage applications and 14 percent of originations. These lenders' impact on low-income and minority individuals was even more pronounced. According to Canner *et al.*, in 1998, 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. Subprime lending grew 900 percent in the period 1993-99, even while other mortgage lending activity actually declined (US Department of Housing and Urban Development 2000). A nationwide study of 2000 HMDA data by Bradford (2002) found that African Americans were, on average, more than twice as likely as whites to receive subprime loans, and Latinos more than 40%-220% more likely.¹⁰

Available evidence suggests that lower-income and minority borrowers are being targeted by these specialized – and often predatory – lenders. Community-reinvestment advocates and consumers are challenging business practices that sometimes victimize borrowers. As evidence of the aggressive business practices pursued in this market, Ameriquest Mortgage Company of Orange, California was forced to settle a consumer protection lawsuit for \$325 million in January 2006. Tellingly, this was second in dollar value, in US history, only to Household Finance Corporation's \$484 million settlement in 2002 (after its sale to HSBC). The *Washington Post* story summarizing the settlement gives some indication of the practices that have plagued this industry:

“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.” (Downey 2006)

Meanwhile, the payday loan – the practice of advancing workers a portion of the money they stand to earn from their paychecks – were becoming common in check-cashing stores. As with subprime loans, financing is often provided by large bank holding companies. This form of credit

terms and conditions; in the CRC study, three in five respondents have punitive repayment penalty provisions, while 70 percent saw their terms worsen at closing. Other common abuses include high upfront fees and costly lump-sum credit insurance.

¹⁰ Also see United States HUD (2000) and the extensive statistics in ACORN (2000). The Department of Housing and Urban Development, together with the Treasury Department, published a study that both discusses the core issues raised by subprime lending and reports on the results of several public forums and task forces (Joint HUD-Treasury Task Force, 2000). The findings reported in the text have also been largely supported in the academic research that is beginning to emerge on predatory lending. Most of the initial empirical academic studies are collected in two journals' special issues: volume 29, number 4 of the *Journal of Real Estate Finance and Economics*, published in 2004, with an introductory essay by guest editors Staten and Yezer (2004); and volume 15, number 3 of *Housing Policy Debate*, with an overview essay by McCoy and Wyly (2004).

is also spreading very fast, as is the infrastructure of lenders disbursing it. Payday lenders were unheard of 15 years ago; but several years ago, Sheila Bair (2005) estimated there are 22,000 store locations offering payday loans, with a market volume of \$40 billion, in the 37 states that allow this practice. Her study found that the average 2005 fee for a \$100-payday check was \$18; the average fee per transaction was \$37; and the average store location was taking in approximately \$200,000 annually in payday loan fees.

The payday loan industry grew rapidly in the 2000s – Bair estimates an increase of 46% in the number of payday-loan locations 2001 and 2005, and a 70% increase in fees. This rapid growth can be explained by the interaction of two factors. The first is banks’ increasingly high not-sufficient-funds (NSF) fees – the fees that banks charge customers who cannot cover all the payments for which they have written checks. The second factor is the increasingly high late fees that are charged 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).

Interestingly, the customers for these loans are not the unbanked. Payday-loan customers must have checking accounts. Some 29% earn less than \$25,000/year, and 52% earn \$25-50,000/year. African Americans and military families are overrepresented. Some 41% are homeowners. There is recurrent use; most customers use payday loans 7-12 times per year.¹¹

3.3. Why Predatory Lending and Low-Income Financial Markets Grew

Why have predatory loan markets – and more broadly, financial instruments targeting those that previously would not have been provided with credit – grown so much?¹² The convergence of several forces operating at two different levels of financial-market processes explains what has happened. The first level involved the emergence of the demand for and supply of non-traditional (and predatory) financial services, including expanded lending.

Demand for services among lower-income households has grown tremendously. As noted above, the number of un- and underbanked people is sizable. The increasing polarization of US income and wealth has meant that more people – and thus potential customers – are in the bottom rungs of the distribution. Those on the lower end of the income distribution have significantly fewer assets than those in the upper end; this increases their riskiness as borrowers and implies they will need to access credit markets (Wolff and Zacharias 2009). Further, lower-income households in the US typically have much more volatile incomes than do other households (Gosselin 2004). Hence they have a recurring need for credit as a way of closing their income-expenditure gaps. Newly published research, using an all-in measure of the distribution of income and wealth, finds that the racial gaps in these measures of material well-being have not changed substantially over the past 40 years (Masterson, Zacharias, and Wolff 2009).

We now turn to the supply side of these markets. Probably the key factor is the emergence of a

¹¹ The 2009 FDIC study shows that unbanked and underbanked households are far more likely than others to use payday loans and other informal-market loan products.

¹² Community reinvestment advocates tend to use the term “predatory lending” in describing payday and subprime lending. This term would be challenged by analysts hypothesizing that serving the needs of lower-income and riskier borrowers requires higher rates and tighter terms and conditions than more creditworthy customers will be charged. See section 4 below.

new consumer-banking business model for lower-income households. The idea is to generate profits from a combination of fees and interest. Fee-based income can be generated by providing transaction services and access to credit, interest from credit contracts. Higher risks are offset by having fees paid up-front, by imposing penalty fees for contract termination, and by making loans whenever possible on the basis of attachable assets. Targeting customers who have been largely neglected by formal-sector firms comprises another part of this business model. Of particular interest would be potential customers with relatively low incomes, who have either relatively stable incomes or the prospect higher future earnings, and who own equity in non-financial assets. Focusing on overlooked customers means that firms can exercise some market power – these customers can be charged higher fees and rates than if they were being offered accounts by mainstream financial institutions.

This model readily explains the initial growth of the subprime mortgage-loan market. During the long history of racial segregation in US cities, most minorities lived in segregated areas; some of these residents were able to purchase homes. These minority-majority areas of US cities sometimes have been gentrified, but more often have stagnated. The incomes of resident homeowners in these areas is generally modest; and often, because of spatial jobs-residential mismatches, family member of these homeowners have had trouble finding stable employment. This customer profile explains why subprime mortgages first emerged in such neighborhoods, as second mortgages on homes whose primary mortgage loans have been partly or even fully paid down. The logic of the payday loan industry is very similar – next month's paycheck serves as a guarantee against loss for this new form of lending.

Consequently, lending to lower-income customers has expanded faster than lending to middle- and upper-income customers. Data from the Survey of Consumer Finances show that households in the two lowest-income quintiles have had surging levels of debt, not paralleled by proportionate increases in asset levels, from 1992 to 2004 (this survey is taken every three years). Further, the financial-obligation ratios of both homeowner and renter households rose steady from 1990 until 2008, with those of renters consistently higher than those of homeowners.

Apart from credit operations, transactions and money-transfer operations serving lower-income customers also exploded in recent years. A key factor here was the explosive growth of global remittances. In 2003, cross-border remittances originating in the US totaled \$39 billion, 31.4% of the global total (Orozco 2004). But banks had only a minor share of remittance fees. There were 40 million transmissions of money from the U.S. to Mexico in 2003; the four highest-volume banks – Citibank, Wells Fargo, Harris Bank, and Bank of America – accounted for only 1.2 million (3%). Banks would like more of this market: in the late 1990s, fees were as much as 15% of a typical transfer; by 2004, fees remained high, but had fallen considerably to 7.5% (Orozco 2004). Megabanks and niche banks alike began competing for this market by cutting costs and creating more appropriate accounts and convenient locations. Banks have not succeeded thus far in capturing much of either migrant workers' or new immigrants' bank-account or remittance business.

Another element pushing banks toward lower-income customers has been the creation of bank and payroll cards. The evolution of card technology has permitted the emergence of new, card-based payment media. Employers have increasingly used smart reloadable cards to pay their

workers, including migrant workers. Products for card-based purchases and money transfers have also developed rapidly.¹³ A 2005 study (US Comptroller of the Currency 2005) estimated that 20% of unbanked US households were using smart payroll cards by 2004 – up from 0% in 1998. Fees are \$1.50-5.00 per month for consumers; retailers pay a fee of about 1% to the card company as well. In the US, retail automated clearinghouse transactions grew 15% to 19% annually from 1979 to 2000; debit card transactions grew 42% annually from 1995 to 2000 (Gerdes and Walton II 2002).

Significant growth in lending to lower-income – and riskier – customers also depended on another set of institutional developments – the emergence of secondary markets for this debt. The premise of the securitization that transformed housing finance in the US in the 1980s, as noted above, was standardization. FNMA and FHLMC created mortgage-backed securities by accepting only “plain vanilla” loans. This term meant both that mortgage terms and conditions were standardized and that credit risks were shared by lenders and home-owners (via down-payment and loan/income standards). In effect, mortgage securitization in the 1980s involved the homogenization of risk, thus privileging low-risk borrowers and minimizing the consequences of loan default when it did occur.

However, mortgage securitization was gradually transformed in the 1990s. Technologies of securitization and risk-pooling developed in parallel with the growth of pools of finance – such as hedge and private-equity funds - seeking above-market rates of return. The creation of “jumbo” mortgages underwritten by non-governmental entities in the 1980s suggested that private markets could assemble and sell housing-based securities. With increasing risk tolerance and increases in computability – and with fees to be made - private markets developed methods for bundling and pricing mortgages with heterogeneous terms and risk characteristics. As noted, most subprime mortgages in the 1990s had collateral at stake. So while subprime borrowers’ longer-term payment prospects were often doubtful, the combination of high fees, high penalties, and pledged collateral made these loans profitable.

The supply of both financial services to lower-income households and market mechanisms for securitizing these households’ debt was expanded by the increasing interpenetration among major banking corporations, finance companies, and subprime lenders. On one hand, large lenders bought up lenders in the late 1990s, and rationalized what had been a chaotic set of loan originators (Quinn 1998). Wall Street investment banks channeled an increasing amount of funds to subprime lenders (an average of \$80 billion annually in 1998 and 1999); and Wall Street insurers backed the mortgage-backed securities that subprime lenders sold off into the markets (Henriques and Bergman 2000). 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.¹⁴ Associates First represented a step toward Citi’s goal of establishing its Citifinancial subsidiary as the nation’s largest consumer

¹³ Visa and Mastercard have used data from these new card markets has helped them develop better credit-risk assessment methods for lower-income customers (Punch 2004).

¹⁴ In another case, First Union Bancorp bought the Money Store in June 1998. First Union subsequently closed this unit in mid-2000 in the wake of massive losses (Mollenkamp 2000). In 2003, HSBC bought Household International, parent of Household Finance Company, after the latter settled on charges that it had engaged in predatory lending.

finance company (Oppel and McGeehan 2000).¹⁵ This consumer-lending subsidiary quickly proved valuable in stabilizing Citi's earnings (Sapsford, Cohen, *et al.* 2004, *Business Week* 2002).

3.4. Subprime Lending and the Housing Bubble

As we have seen, then, the 1990s saw a new appreciation for the revenue potential of lower-income financial markets and the creation of new housing-finance markets. What the creation of the subprime loan did, more fundamentally, was to significantly widen the pipeline for distributing risk. Subprime lenders at one end of this pipeline made mortgage loans; at its other end, these securities could be sold world-wide. While mortgage-backed securities built from "plain vanilla" mortgages attracted risk-averse buyers, the structured investment vehicles (SIVs) into which subprime mortgages were made created higher-risk, higher-return options.¹⁶

In the 2000s, these options were adapted for new purposes, in effect widening the pipeline for originating risk. The demand for residential real estate began to take off in the late 1990s; by the early 2000s, a housing bubble gripped the US. In some areas, the housing-price boom 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 stagnation of household incomes – and, it should be said, the clear bias of housing policy toward home-ownership, rather than renting – fed potential buyers' sense of desperation. 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% that had typically been financed, the remainder for most or even all of the down-payment. To get potential buyers "into" a home, a below-market "teaser" rate could be charged for the first two years (typically) of the borrowers' primary 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. In "hot" markets, buyers increasingly had to resort to loans with "teaser" or adjustable rates (Wray 2007, p. 9.). But as housing euphoria grew, both lender and borrower alike anticipated that housing-price appreciation would permit refinancing on a sounder basis before the 24-month window closed.

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 (Brooks and Simon 2007).

¹⁵ This development was resisted by fair-lending advocates. For example, Martin Eakes of the Durham (NC) Self-Help Credit Union commented, "Those of us who have worked on the community level .. believe that Associates is a rogue company and may alone account for 20 percent of all abusive home loans in the nation" (Oppel 2001).

¹⁶ The first SIVs were created for Citigroup in 1988 and 1989 (Mollenkamp, Solomon, *et al.* 2007).

This study also found that the mortgage brokers selling these claims earned fees far higher than conventional mortgages would have netted. Subprime loans remained concentrated in minority areas; these loans' excessive use when not warranted by underlying credit scores especially disadvantaged minority loan applicants (Wyly, Moos, *et al.* 2008).

On the supply side of the housing-finance market, funds were plentiful. The US current-account stayed negative: so savings continued to flow into US asset markets. The market for mortgage-backed securities had always attracted foreign investors. Now, many UK and European banks, and even some Asian banks, acquired subprime paper (Mollenkamp, Taylor and McDonald 2007). A strong dollar and low nominal interest rates negated liquidity risk.

Banks' strategic shifts toward fee-based income and the increasing interpenetration among financial firms led to what one insider described as "... fierce competition for these loans. .. They were a major source of revenues and perceived profits for both the investors and the investment banks." Another participant in these markets observed, "The easiest way to grab market share was by paying more than your competitors." (Anderson and Bajaj 2007).

3.5. Collateralized Debt Obligations, Market Interpenetration, and Financial Crisis

Section 3.4 describes the widening of the subprime pipeline at the point of origination, as subprime (or semi-subprime) loans were used to make loans in the broader housing market. This same pipeline was widened in another dimension as well. Specifically, the notion of estimating and insuring against the risk of a set of loans with heterogeneous risk and other characteristics, then bundling and selling these loans off as securities, spread far beyond the boundaries of the mortgage market. The market's appetite for risk suggested to bankers, especially at large institutions, that a new era of lending had arisen, in which banks "originated" credit with the intention of "distributing" it to numerous holders.

The premise was that the holders of credit risk could increase their returns via de-facto portfolio diversification – taking advantage of the lack of complete correlation in the risk-return profiles of the different kinds of credit included in the SIVs they held. In addition to mortgage credit, many types of credit were securitized and included in SIVs – bridge loans for leveraged buyouts, real-estate acquisition loans, construction finance, credit-card receivables, and so on. The relative transparency associated with "plain vanilla" pass-through mortgage-backed securities was replaced by SIVs' opacity. Banks geared up to supply loans to the securitization pipeline could 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. The US's low nominal interest rates weakened any concerns about liquidity risk. And various means of insuring against SIVs' credit risk were found; indeed, credit risk derivatives were often used to shift risks onto third parties (*The Economist* 2007a). SIVs seemed a sure-fire way to generate interest-margin-based income with minimal equity investment. 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” (Mollenkamp, Solomon, Sidel, and Bauerlein 2007).

By the mid-2000s, subprime loans and SIVs were growing explosively. In the 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 securitized.¹⁷ SIVs became a \$400 billion industry. By the mid-2000s, megabanks the world over were heavily invested in SIVs and US mortgage paper, much of it subprime; and these investments interlinked these firms’ balance sheets, as any one lender’s loans – and the guarantees that lender had arranged – might be distributed via financial instruments held across the globe.

The subprime crisis built momentum, beginning in 2007, through a series of interconnected events that had a domino effect 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 (Pittman 2007). 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 (Kelly, Ng, and Reilly 2007). Six weeks later, American Home Mortgage closed its doors (Dash 2007). Meanwhile, Countrywide Financial, which had originated about one-sixth of recent US mortgage loans, descended more and more visibly into crisis (Hagerty and Richardson 2007).

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 (*The Economist* 2007b). 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 (Anderson and Bajaj 2007). By September 2007, 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 in these securities alone. By December 2007, 15 percent of the \$6 billion in new originations Goldman had made in the first 9 months of 2007 were already delinquent by more than 60 days.

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 (California Reinvestment Committee *et al* 2008); 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 (Housing and Economic Rights Advocates and California Reinvestment Coalition 2007).

¹⁷ These data, from the Mortgage Market Statistical Annual, appear as Table 1 of Wray 2007, p. 30.

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.

This narrative will not further pursue institutional developments – the Troubled Asset Relief Program (TARP), governmental confusion about how to confront the bank insolvency problem, the distribution of bailout funds between megabanks and smaller banks, and so on. Suffice it to say that events through the end of 2009 have provided little reassurance that a normal state of affairs in banking and credit markets has been restored. At best, the megabanks that led the way into the subprime crisis have mostly paid back their TARP funds, and raised new capital in the markets. But their lending remains anemic at best; it isn't clear whether the “originate and distribute” model of lending can be re-initiated amidst far greater market suspicion about credit risk and about the solvency of banks emitting this paper. Smaller banks have, in the meantime, been more and more distressed as economic conditions in their market areas deteriorate. The year 2009 brought the highest number of bank failures (148, through December 28) since 1992; 2008 saw 30 bank failures. Foreclosure rates finally leveled off, but the number of homeowners in arrears and of bank-owned (“REO” or real-estate owned) homes hit new peaks.

4. Economists' Understandings of Financial Exclusion, Predatory Lending, and High-Risk Securitization

The final two sections of this paper turn from the unfolding history of the subprime crisis to economic theory. The next section examines how economists understand the subprime crisis, and how this informs their proposed policy responses to this crisis. This section prepares the way for that discussion by examining how economists understand subprime lending; this, in turn, requires examining economists' understanding of credit-market redlining and discrimination.

We focus on two approaches to explaining credit-market behavior. The first is the “efficient market” approach often identified with “freshwater” economists; the second is the asymmetric-information approach linked with “saltwater” economists. We focus on these two “mainstream” approaches to economics because these views have been the most prominent in national media coverage. Some key perspectives of “heterodox” economic approaches are discussed briefly in section 4.2.

4.1. Redlining, Discrimination, Predatory Lending and Efficient Markets

Most economists have what Schumpeter (1954) called an analytical pre-commitment to the idea that businesses and households who depend on market processes to achieve their material ends (whether survival or riches) look after their own self-interest. While agreeing to use this distinctive lens for seeing the world, economists disagree on how to implement their analyses. Are interests formed at the individual level alone, or do they reflect class positions in production, or racial/ethnic and gender divisions? Is significant social power wielded by some players within the economy? Do nonlinear relations affect market dynamics?

Broadly speaking, at this level of generality, economists can be divided into two groups: one group prefers to generate models under the assumption that conditions for reaching socially optimal outcomes – equilibria – through decentralized market processes do exist. This section

pursues this logic; the next, the idea that because of asymmetric information, market outcomes can systematically generate socially suboptimal outcomes.

The idea is that this provides a secure benchmark for what *should* happen. The conditions in question include the notion that social and market power (the ability of monopoly buyers or sellers to determine prices) is unimportant, and that all participants in markets must accept market prices. Another key assumption is that the distribution of information is relatively unimportant: some market participants may have more information than others, but it doesn't matter, because those with information advantages will use them in ways that will be reflected in prices. This means that all agents, whether or not they have informational advantages, can use price signals to guide their behavior. So informational advantages are eventually 'arbitraged away.' Agents cannot sustain whatever positions of market power they may temporarily acquire; in the end, left to the inexorable logic of competition and self-interest, the price mechanism is fair. We might say, more precisely, that it is fairer than any alternative method of allocating scarce resources among competing ends. Efforts by government to reallocate or regulate resources, in particular, will distort the price signals that market participants are sending to one another, thus leading to socially-suboptimal outcomes – if with the best of intentions.

So if markets are so perfect, why have activists and analysts alleged that race-based redlining and discrimination exist in credit markets? Recall from section 3.1 that these phenomena may be traced in part to racial *perpetrators* – suppliers of credit whose unwillingness to make market transactions with minorities will lead to their leaving “money on the table.” As noted, such racially-biased lenders should either be eliminated or forced to change their practices by market competition with unbiased lenders. A second possibility is that there are cost barriers to making full and complete assessments of each potential borrower. Suppose there is unequally distributed information about each loan applicant's creditworthiness. If it is costly to extract this information, and – as noted above – if creditworthiness is correlated with factors that are correlated with race, then individual or area race can be used rationally to determine who will and will not get credit, all things equal.¹⁸

Since racial inequality in access to credit remained relatively constant over time, but econometric tests for lender bias did not universally sway expert opinion, the second possibility regarding cost barriers has been regarded as more convincing. Indeed, the cost argument goes further. Suppose first that the riskiness of the various sets of borrowers differs along several directions (probability of default, likelihood of early termination of mortgage contract, and so on). Then it may be difficult to price this risk accurately using simple credit contracts. Next, supposing that risk can be appropriately priced; there is a question of funding this risk. And since mortgage finance has moved away from intermediary-held loans toward market-sold contracts, this means finding wealth-holders willing and able to provide the required finance. This means having contracts that can be assessed and priced differentially. This in turn requires mechanisms for bundling, pricing, and distributing risk in the market. But as we have seen, this is precisely what the emerging market nexus in housing finance provided.

¹⁸ One approach here is to suppose that lenders may have 'cultural affinity' with loan applicants of their own race. In this event, informational barriers will be higher whenever lenders and loan applicants are drawn from different racial/ethnic groups. Thus, if most bankers are white, then non-white applicants will be at a disadvantage. See, in particular, Calomiris *et al.* (1994) and Hunter and Walker (1996).

This approach then suggests that subprime and alt-A loans – and for that matter, payday loans – should be priced differently from “plain vanilla” loans, both for those demanding mortgage credit and for those supplying it. The fact that subprime borrowers face stiffer penalties and higher rates is simply the market’s response to their circumstances.

A knife’s-edge problem does arise when it comes to regulating these new lending instruments.¹⁹ On one side, if one suspects that lenders are using their market power (and/or borrowers’ isolation within credit markets) to extract unfair contractual terms from borrowers, the solution is to permit more lenders to supply credit to these customers. This implies regulating less so that more providers of finance are induced (by the temporarily high profit markets) to serve these previously-excluded credit customers. On the other side, insofar as one suspects that lenders providing these new loan products may be prone to excessive risk-taking, and/or may exploit the naïve or desperate, then prudent regulation of these new credit markets should be put into place. This would simply parallel the long-established regulations for formal-sector banks. Another dimension of government involvement also comes into play, however: explicit or implicit subsidies or guarantees of privileged activities. In the financial arena, these subsidies especially involve guarantees against failure, the exact extent of which are fuzzy for both regulators and market participants.²⁰

This knife’s-edge problem has not been resolved since predatory lending first arose in the 1990s. This is hardly surprising; after all, since US banking-deregulation legislation was first passed in 1980, the broader question of how to adapt a financial regulatory apparatus designed for a regulated banking system to the emerging deregulated environment has itself still not been answered.

In this perspective, innovations such as subprime lending and securitization promise to improve credit allocation and to expand access to capital. For example, Fender and Mitchell (2005, page 2) argue that structured finance overcomes “adverse selection and segmentation.” while Partnoy and Skeel (2007) discuss how “financial engineering [can be used] to complete markets”. They write: “Because synthetic CDOs .. essentially create new instruments, instead of using assets already on bank balance sheets .. complete markets by providing new financial instruments at

¹⁹ A “knife’s edge” problem in economics arises when a precise balance between two offsetting forces is needed to sustain an equilibrium.

²⁰ The author of this text was writing his dissertation in the economic studies section of the Brookings Institution in the mid-1980s, a time during which debate about the causes of and solutions to the savings-and-loan crisis occurred on a nearly-daily basis. The many experts and regulators who came to Brookings to discuss this topic, at that time, were all agreed that while no explicit federal guarantees underlay the mortgage-backed securities market, at the end of the day the federal government would guarantee against these securities’ failure. At the crux of the matter were FNMA and FHLMC; as we have seen, their underwriting permitted the take-off of the mortgage-backed securities market. These two agencies were nominally independent, and not part of the federal budget; but they were carrying out a crucial social/political/economic function- that is, facilitating the flow of mortgages in the US economy. The semi-public/semi-private ambiguity about FNMA and FHLMC has been problematic and unresolved since that time. It remains unresolved at this writing.

lower prices.” (11-12) On the side of borrowers, more complete markets provide a wider range of contractual choice.²¹ As Barth *et al.* (2008) put it:

“Those individuals choosing adjustable-rate mortgages typically receive an initial interest rate that is lower than one with a fixed-rate mortgage, but then face the prospect of higher rates if market interest rates rise. At the same time, the development and wide use of credit scores for individual borrowers and credit ratings for individual issuances of mortgagebacked securities provided more information for both lenders and borrowers to better assess and price risk.” (4)

In this framework, these developments will clearly lead to more socially optimal equilibria: subprime and Alt-A mortgages expand credit-market choice and permit more efficient financial risk-sharing. Austan Goolsbee, while he was principal economic advisor to candidate Barack Obama, articulated precisely this view of the potentially positive social and economic impacts of subprime lending in an op-ed article in the *New York Times*.²²

4.2. Redlining, Discrimination, Predatory Lending and Asymmetric Information

The efficient-markets view of markets set out in section 4.1 has a strong hold on economists’ imagination: economists who regard themselves as “mainstream” find it difficult to disagree with the notion that except in special circumstances, unconstrained market processes generate higher levels of economic welfare than alternative non-market arrangements, and thus allocation through markets is normally preferable to other methods of resource allocation.²³ This said, many economists who define themselves as mainstream believe that market processes, left to themselves, can systematically generate sub-optimal outcomes. This potential for sub-optimality arises analytically because of one or more deviations from the conditions required to achieve a unique, optimal equilibrium.

Much recent work in the contemporary fields of development, labor economics, and monetary economics builds on one crucial deviation from these conditions – asymmetric information in credit or labor markets. To see what this deviation is and why it matters, suppose first that some agents in the economy have more resources (wealth) than others, so that some agents will either hire others to work for them, lend money to other agents, or both.²⁴ And suppose that those doing the hiring and the lending have perfect information about those being hired and/or those receiving credit – specifically, about their competence and about the level of effort they will put forth if hired or provided with credit. If credit markets open under perfect information, lenders

²¹ Ashton (2008) also explores the notion that subprime lending represents market completion.

²² Goolsbee (2007). Goolsbee’s arguments were based largely on Gerardi, Rosen, and Willen (2007).

²³ Economists “outside the mainstream” generally would disagree with this “in principle” statement, on the basis that power, social conflict, historical oppression, or other factors underlie the distribution of economic resources; so to suppose that even apparently neutral market allocations can be fair or non-exploitative is to write history out of economic analysis. Entire libraries have been written on the divides within economics and between economics and other social sciences (and the consequences of these divides); recently, the author of this paper wrote an article reflecting on this problem in analyses of urban issues (Dymski 2009).

²⁴ The argument that follows is based on Stiglitz (1987).

can maximize expected return and minimize the probability of default by lending only to borrowers who are the most capable and who will use the funds they receive most efficiently.

Now, narrowing our focus to credit markets, suppose that loan applicants know their own capabilities and their own efficiency in using loans if they are selected as borrowers (that is, each knows her own type and effort level), but lenders do not. Suppose lenders have set a loan rate sufficiently low that loan applicants' demand for credit exceeds the loans the lender is able or willing to make. Anyone who needs credit will line up in this market – the capable and the incapable, the efficient and the inefficient. If market signals work, lenders could simply increase the loan rate, inducing some loan applicants to drop out of the market; at some point, loan supply would equal loan demand. But there is no reason to think that the quality of the applicant pool will remain the same as the price of credit rises. To the contrary, more capable and more efficient applicants are likely to have more options, so the quality of the applicant pool is likely to deteriorate. This means that lenders must find other devices than the price mechanism to sort the more capable and more efficient applicants from the rest. Regarding efficiency (effort level), lenders can closely monitor borrowers, and/or make future borrowing contingent on current performance. Regarding capability (applicant type), lenders can search out signals about loan applicants' type, so as to screen in the more capable and to screen out the less capable.

The implications of the addition of asymmetric information, then, are profound. Mathematically, markets so affected no longer have one optimal market equilibrium, but many equilibria. So the analyst of these markets must sort out what information lenders (in this case) are using, how they are using it, and in turn how loan applicants are reacting to lenders' sorting procedures. While the tools of game theory can help sort out the analytical possibilities, a satisfactory analysis of any such economic situation *must* consider what political institutions and societal characteristics in a given situation may affect the behavior of lenders or borrowers (or both).²⁵

This brings us back to redlining and discrimination. In Stiglitz' most influential article on credit rationing, he and coauthor Andrew Weiss use "red lining" as an example of how lenders can differentiate among "observationally distinguishable" borrowers by type (Stiglitz and Weiss 1981). If the racial composition of an area is correlated with borrower creditworthiness, then banks can sort by area race as a low-cost means of sorting loan applications by credit risk. Asymmetric information theory also readily explains why lenders might "rationally" use individual applicants' race to sort by credit risk. This is not fair, for several reasons; but lenders make decisions based on what is profitable, not what is fair.²⁶

²⁵ An example of relevant political institutions would be the state-owned banks that helped guide East Asian growth in the 1980s and early 1990s; an example of societal characteristics would be the social cohesion among rural women in South Asia, which facilitated the creation of the Grameen Bank lending model. Joseph Stiglitz, one of the principle contributors to this approach, terms it "information economics"; he argues that the implications are so fundamental as to constitute a paradigm change in economics (Stiglitz 2001).

²⁶ There are two problems with using race as a signal of loan-applicant 'type.' First, signals should ideally be emitted purposely by applicants; the classic example involves candidates for post-secondary teaching posts, who emit signals of their capability by earning advanced degrees in their fields. Race is not 'earned,' but is socially defined; fails this test. Second, racial inequality varies systematically in all the factor markets – labor, credit, and capital. So it will always be feasible for a lender (say) to justify loan

Predatory lending can, in turn, be understood by imagining that lenders screen loan applicants about whose creditworthiness they lack information not into two categories (creditworthy or not), but into three or more categories. Some customers may qualify for loans in a primary credit market; others, for loans in a credit market for riskier customers; others, in a credit market for even riskier customers; and so on. An alternative possibility is that one set of lenders makes “qualify/not qualify” decisions in a primary market; those loan applicants rationed out of this market then turn to a second set of lenders, and then perhaps to a third and fourth set.²⁷ Those receiving loans far down the riskiness scale will have stiff terms and conditions that can be interpreted as predatory.

As a purely logical exercise, then, the asymmetric-information approach can provide a plausible explanation for redlining, “rational” discrimination, and predatory lending. The theorist need not pursue the matter further; indeed, Stiglitz and Weiss did not in the 1981 article in which they described “red lining”; indeed, they did not even mention “race” as the “observational distinguishable” characteristic in question.

What this approach *does* do differently than the efficient-markets approach, however, is to open the door to further investigations about the links between market outcomes and broader social dynamics. After all, the “red lining” explanation relies on, even while not elaborating, correlations between area or individual race and socio-economic variables. The door is opened to analyses of how this market fits into this broader socio-economic matrix. Efficient-market approaches want to keep this door closed, so as to isolate how markets can most faithfully serve as vehicles for maximizing individual and firm “welfare”, given the distribution of wealth, talents, and so on. This is why, when market malfunctions occur, suspicion centers on how it might be that government interference may have prevented the market from being properly isolated so as to do its allocational work.

Thus, whereas the efficient-markets approach puts into analytical focus only the specific market mechanisms relevant to any analysis, the asymmetric-information approach puts into play the broader interplay of market, regulation, and social context. Indeed, since his 1981 article with Weiss was published, Stiglitz has realized the potential inherent in this framework for conducting critical political-economic analysis of real-world problems and crises. He has not revisited – and thus not revised - his analysis of neighborhood redlining as a “rational” outcome. But he has written profound critiques of financial globalization, focusing especially on how East Asian economic growth, which relied in part on government-led credit allocation, collapsed into crisis once these markets were opened to speculative credit flows.²⁸

This opening to the analysis of the broader social context, in turn, opens the way for dialogue with other social scientists, including non-mainstream (“heterodox”) economists. This dialogue is facilitated by the fact that some of the most important ideas of heterodox economists are readily translated into the conceptual categories of asymmetric-information theory. For example, power is a key concept in radical political economy. There are multiple ways of defining power, to be sure. One

denial based on a minority applicant’s greater vulnerability in the labor market – and vice versa. This sets up a trap: members of groups that are easily typed and consistently disadvantaged across all factor markets will be unable to systematically overcome their disadvantaged status in any one factor market.

²⁷ As Vandenberg (2003) points out, borrowers in financial markets are not passive but are active: they will do what they must to find credit, the question being at what price, and on what terms, and with what security and risk they will find it.

²⁸ See, for example, Stiglitz (2003).

way is to observe that because those on the “short side” of the market can choose among customers or applicants, whereas those on the “long side” cannot, the former have power over the former.²⁹ So in the credit-rationing case, lenders have power over loan applicants.

Post Keynesians, by contrast, prioritize the impact of uncertainty on economic outcomes. Reliable, statistically knowable information does not exist for some of the most important decisions that agents must make in markets.³⁰ In such situations, they tend to base their decisions on what other agents think they know. Their degree of confidence in their own assessment is very fragile – an adverse shock can destroy confidence and lead agents to violently shift their stance in markets. Clearly, socio-economic divides (race, gender, etc.) among loan applicants in the context of missing information can cause lenders – their eyes very much on one another’s decision-making – to make different sorts of decision for different applicant groups (who gets credit, who gets offered a subprime versus a prime loan, etc.).

The relevance of these “heterodox” ideas about how power and uncertainty can come into play in market dynamics, biasing outcomes and accentuating or prolonging breakdowns in formerly-stable market arrangements, is obvious. Clearly there is much to be gained from combining, when possible, analytical methods from mainstream and heterodox economists alike, especially in contemplating phenomena as socially complex as predatory lending and financial crises.

5. What Does Economic Theory Teach Us about the Subprime Crisis?

The subprime crisis and subsequent financial collapse and recession have generated a huge outpouring of writing by economist and economic commentators about its causes of and possible policy solutions. This final section of the paper undertakes an abbreviated tour through this commentary. This tour is undertaken so as to make the point that what economic theory (which is to say, economists) “teaches” (teach) us about the subprime crisis and policy responses to it has little to do with the institutional background of subprime lending and the subprime crisis, and instead focuses on debates and issues internal to economics. A number of influential economists about subprime borrowers describe those borrowers’ situation as their theoretical priors imagines them, with little regard for their actual circumstances. Further, economists are all but silent on some of the most crucial institutional dimensions of the subprime crisis, such as the shifting strategies of banks, in large part because contemporary economic theory has abstracted from most institutional features of real economies.

This inattention to some of the core political-economic causes and implications of the subprime crisis is not surprising, in light of the fact that many economists have characterized subprime lending per se as welfare-improving and not exploitative (as section 4 showed). It does mean that efforts to construct policy responses to the subprime crisis that touch the individuals and communities victimized by predatory lending are unlikely to emerge from any consensus reached by economists.

²⁹ See, for example, Bowles and Gintis (2000).

³⁰ Keynes put it this way in a famous passage: “By ‘uncertain’ knowledge, let me explain, I do not mean merely to distinguish what is known for certain from what is only probable. The game of roulette is not subject, in this sense, to uncertainty. . . . the expectation of life is only slightly uncertain. . . . The sense in which I am using the term is that in which the prospect of a European war is uncertain, or the price of copper and the rate of interest twenty years hence, or the obsolescence of a new invention, or the position of private wealthowners in the social system in 1970. About these matters there is no scientific basis on which to form any calculable probability whatever. We simply do not know.” (Keynes 1937, pp. 213-214)

5.1. Economists' Views about Why the Subprime Crisis Occurred

The first thing to be said about economists' reactions to the subprime crisis, when its first manifestations appeared in 2007, is that economists have had ample opportunities to react to financial crisis in the past quarter-century. Debates about financial instability and financial regulation have encompassed the US savings-and-loan and Latin American debt crises in the 1980s, and over the Mexican "Tequila," Asian, and Russian/Long Term Capital Management financial crises in the 1990s, to mention only the most prominent. As noted in section 2.2, these earlier crises – as serious and devastating as they have been for many nations throughout the world – have not threatened the viability of the US financial system per se, nor the prosperity of the US macroeconomy per se. They have been, in effect, controlled explosions, and as such have provided ammunition for participants in the recurrent battles between those with "freshwater" and "saltwater" views.

Given this history of neoliberal-era financial crises, and given the view of many economists that subprime lending had enhanced opportunity for borrowers, many economists initially downplayed the subprime crisis. For example, economists affiliated with both the Brookings Institution and the American Enterprise Institute (AEI) – respectively, Downs (2007) and Calomiris (2007) – registered their skepticism that this meltdown would have profound effects on either the economy as a whole or on the housing and housing-finance markets. Some commentators did stake out the opposite view: Dean Baker was writing numerous papers arguing that the housing bubble was there in full sight (see, for example, Baker 2006); and Henry Kaufman (2007) wrote an op-ed column in the *Wall Street Journal* that warned of "our risky new financial markets."³¹

But while Kaufman, nicknamed "Dr. Doom," had been regarded as most influential analyst of US finance in the 1980s, his 2007 commentary received little attention in the press or in the blogosphere, as Yves Smith pointed out in an August 16, 2007 post to his "naked capitalism" blog. Perhaps more in line with the general view of market analysts was the opinion expressed by AEI's Alex Pollock (2007) that the subprime crisis is only the latest example of a long history boom-bust cycles in financial markets. That is, history repeats itself, and yet people with access to financial markets learn nothing from it. This suggests that it is useless and even counterproductive to intervene to offset losses. Allen Meltzer expressed this view clearly in the pages of the *Wall Street Journal*, writing (a month before Kaufman's article appeared), "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).

Two *New York Times* columnists weighed in on the other side of the equation, emphasizing the social as well as economic dimensions of the emerging crisis. Bob Herbert (2007) reminded readers of the roots of subprime lending in racial exclusion and in unfair, inadequately regulated lending practices. Krugman (2007a, 2007b, 2007c) also continually emphasized the culpability and bad faith shown by lenders, and the need to focus on wronged homeowners as well as a dangerously insolvent banking system. He wrote (2007c):

³¹ There is some irony in this juxtaposition, as Charles Calomiris is the Henry Kaufman Professor of Financial Institutions at Columbia University.

“There are, in fact, three distinct concerns associated with the rising tide of foreclosures in America. One is financial stability: as banks and other institutions take huge losses on their mortgage-related investments, the financial system as a whole is getting wobbly. Another is human suffering: hundreds of thousands, and probably millions, of American families will lose their homes. Finally, there’s injustice: the subprime boom involved predatory lending — high-interest loans foisted on borrowers who qualified for lower rates — on an epic scale.”

As the situation worsened, economists’ attention focused more on understanding what specifically had gone wrong in *this* crisis. In a financial crisis rooted in bad debt, this means finding the sector responsible, blaming it, and proposing reforms. In the savings-and-loan (S&L) crisis of the 1980s, the last US crisis of comparable magnitude, proposed reforms included tightening regulation, eliminating or selling off weak institutions, and providing government support while asset prices recover. In resolving that crisis, all these steps were taken. The debate over who to blame and what to do differed from the S&L-era debate in three ways, which unfolded sequentially in 2007 and 2008: first, the list of potential wrong-doers or duped innocents included mortgagees; second, virtually every US megabank was at risk of insolvency; third, the viability of global financial markets was uncertain; fourth, a global recession resulted from (or at least coincided with) the deepening crisis.

The deepening of the crisis in real time – played out against the political drama of the 2008 presidential-succession campaign – had two important effects. First, analysts’ and policy-makers’ attention was diffused, not concentrated. The solution of the situation of subprime borrowers – duped innocents, manipulative speculators, exploited minorities, in some combination – fell from view in policy discussion, replaced by a debate over megabank bailouts, which in turn was replaced by a debate over economic-recovery strategies. Second, the multiplying dysfunctions of the US economy shifted the ground of the policy conversation: it was not possible to sustain a technocratic discussion about how to resolve a serious but contained problem; instead analysts asked for solutions over ever-expanding portions of the economy will begin connecting the dots and, in effect, articulate core elements of their underlying philosophies of government and market. This makes impossible the fragile fiction often required when those with partisan differences must solve significant political problems – the notion that ‘as sensible people, we all agree (or agree to disagree) on most things, and can thus resolve our bottom-line differences regarding this *one issue*.’

For many economists, the notion that ‘we all believe in market efficiency, in the end’ provides this solidaristic fiction; it was called on, for example, in resolving the S&L crisis.³² However, differences among efficient-market economists that appear subtle in controlled contexts of that sort widened into distinct visions of the relationship between government and the market. In one vision, the subprime crisis occurred because market forces had been undermined.

For example, writing about FNMA and FHLMC, Wallison and Calomiris (2008) point out the “inherent conflict between their government mission and their private ownership” (1). Calomiris was more specific in an article written a month later; the subprime crisis arose because of

³² See Litan and Kaufman (1993), which memorializes an ex-post discussion among key policy-makers involved in the thrift crisis.

“agency problems in asset management. In the current debacle, as in previous real estate-related financial shocks, government financial subsidies for bearing risk seem to have been key triggering factors, along with accommodative monetary policy.” (Calomiris 2008: 1) In October 2009, Calomiris articulated a view of financial crises at odds with the “hardy perennial” story articulated by Pollock: he argued that banking crises generally occurred due to “risk-inviting rules” established by banking systems’ regulators (Calomiris 2009a). In the same month, he argued against the notion that global banks that had become “too big to fail” were problematic: instead, he argued they are growth-enhancing and efficiency-creating (Calomiris 2009b).

Wallison’s recent writings have also emphasized the idea that government interference in banking markets – in effect, too much regulation – is the underlying cause of the crisis. Wallison is among those who have asserted that the Community Reinvestment Act forced banks into making home loans to borrowers whose incomes were 80% or less of median income and encouraged banks to buy subprime loans (Wallison 2009a). He has also argued that FNMA and FHLMC engaged in purchases of excessively risky subprime loans because they enjoyed the umbrella of federal protection, if only implicitly (Wallison 2008). More recently, Wallison has argued that Congress has worsened the moral-hazard problem by using the Federal Housing Agency to take on more unsustainable subprime loans, burdening taxpayers ever more (Wallison 2009b). It should be said that the charge that the CRA caused the subprime crisis has no basis in fact. The CRA predates the creation of subprime loans by almost two decades; and most subprime loans were made by lenders not covered under the CRA (Center for Responsible Lending 2008). Those involved in advocating for and monitoring the CRA took an adverse view to predatory lending (including subprime mortgages) since it emerged, and recommended that the CRA ratings of banks that engaged in predatory lending be penalized (Engel and McCoy 2007). Wallison’s interpretation of what the CRA requires is miscast.³³ What *is* clear, however, is that Wallison sees a pattern of ever-more-governmental interference in bank credit allocation, which in his view only leads the US banking system deeper into crisis.

But other analysts who take an efficient-markets view of subprime lending did not blame government subsidies. Instead, they emphasized inadequate regulation, which provided incentives for undue risk-taking. Quigley (2008), for example, wrote:

“One does not need to invoke the menace of unscrupulous and imprudent lenders or of equally predatory borrowers to explain the rapid collapse of the mortgage market as house price increases slowed in 2006, before ultimately declining. There were certainly enough unscrupulous lenders and predatory borrowers in the market, but the incentives faced by decent people—mortgagors and mortgagees—made their behavior much less sensitive to the underlying risks. ...

How, you may wonder, could contracts with such poor incentives have evolved? To some extent, that remains a mystery. But to a large extent, the system worked just fine, as long as property values were rising and interest rates falling—so that bad loans made at teaser rates could be refinanced after a couple of years at even lower rates.” (2-3)

³³ It should be noted that Peter Wallison was not uniquely associated with this view of the CRA.

Quigley opens up two possibilities here beyond the “perverse government policies” narrative that Calomiris pursues: first, unscrupulous players could exploit the unwary and naive in underregulated markets; second, people can be systematically fooled when caught in an asset bubble. These two possibilities have been explored by Morris (2008) and Shiller (2008), respectively. Neither possibility challenges the idea that market participants are rational; but each shows that letting market behavior loose without oversight can lead to disasters. Analysts like Shiller and Quigley insist that prudential regulation can improve outcomes, without generating governmental “control of markets.”

5.2. Understanding the Links between Economists’ Views and Economic Theory

The reader might note that Quigley’s response to Calomiris does not directly address the issue of whether the CRA can plausibly be linked to the subprime crisis. Direct refutations of this link have generally not been economists.³⁴ Instead, Quigley defends the need for government policy in broad terms. This has been characteristic of pro-government-regulation economists’ responses to subprime-related charges made by anti-regulation economists.

This leads to an important point regarding this entire policy and theoretical debate. With the exception of some writing by some heterodox economists, and by economists at modestly-ranked departments, this entire debate among economists about subprime lending and the subprime crisis has largely occurred with virtually no attention to racial discrimination and redlining, nor to predatory lending.³⁵ These terms do not receive even a mention in any of the texts referred to above. This list can now be multiplied a hundred-fold. Many economic theorists have proposed new wrinkles in their economic models, and sometimes entirely new models, attempting to capture some of the dynamics of the unfolding financial and banking crisis. But in this vast outpouring, there has been no mention of financial exclusion, predatory lending, or racial inequality and exploitation. To introduce such issues into models that other economists will judge, in the first place, by whether they are equilibrium models as close to the efficient-markets norm as possible, would disqualify their authors from having a chance to influence the modeling conventions (and to capture the resulting storm of citations) of post-crisis models of borrowing and lending. Analysis of incentives, asset bubbles, and government/market interaction is sufficient to formulate hypotheses about “what went wrong.”

Nor is financial economics’ blind spot restricted to racial inequality and exploitation in credit markets per se. Economists who study the institutional transformation of financial practices and structures, for example, have entirely ignored the implications of this transformation for racial inequality and financial exclusion. In effect, economists have been so uninterested in racial inequality as a core topic of theoretical inquiry – and so skeptical of any efforts to show that racial inequality matters empirically – that they are blind to its critical role in the current financial crisis.

Economists are far more likely to debate issues that other economists – especially prestigious ones – are debating. This has been demonstrated very dramatically in the past several months.

³⁴ See, for example, Gordon (2008) and Seidman (2008).

³⁵ For a summary of some of these writings, see Galbraith (2009). Other social scientists, of course, have done extensive research on the links between racial inequality and subprime lending; see the work cited in footnotes 9 and 23 above.

The notion that economics itself as a discipline should be indicted (or transformed) for not foreseeing the financial crisis has been circulating informally in think tanks and university departments for some time. But then Paul Krugman did some finger-pointing in a September 2009 article in the *New York Times* Sunday magazine. Krugman criticized the profession both for not generating models that anticipated the financial crisis, and for its failure to broadly embrace the need for large-scale fiscal stimulus efforts in the wake of that crisis. His broadside evoked furious responses from members of the profession.³⁶ It is safe to say that few economists' core convictions that their models remain valuable on analytical and practical grounds have been shaken; even Krugman's critique doesn't suggest that sociologists' or historians' models of economic markets should be given equal weight. To the contrary, he wants economics models that allow for the "possibility of the kind of collapse that happened last year." (Krugman 2009).

In essence, debate in economics about the subprime crisis followed the same trajectory as has the broader policy debate: efforts at understanding the subprime crisis have been quickly swamped by those aimed at the subsequent collapse and recession. Further, just as ideas about how best to intervene in the real-world crisis differ because of conflicting political ideologies, points of view in economics differ because of deep differences regarding how market behavior should be modeled. And as in the world of politics, the depth and persistence of the current problems of the American political economy have heightened polemics within the dismal science.

5.3. Policy Alternatives and Economic Theory: Getting Beyond Efficient Markets

This paper has presented, first of all, a political economy of the emergence of the subprime crisis. This crisis has to be seen in the context of several interwoven trajectories – the crisis and remaking of the US banking system from the 1980s onward, the history of financial exclusion and racial inequality in financial services, and the evolution of financial markets and of banking strategy. Next, this paper has presented a summary of how economics has understood subprime lending – including its precedents, racial redlining and credit-market discrimination - and the subprime crisis.

The political economy story is dramatic. Before the 1990s, banks' reluctance had led to credit starvation in minority and lower-income neighborhoods. From the mid-1990s on, 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 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. These practices soon migrated from inner-city areas to the broader markets; and then the crisis came.

This crisis, which has devastated financial firms' balance sheets, promises to shift the US into yet a new lending regime – one in which banks' search for safety may lead to renewed financial exclusion. We can expect that financial firms, in the wake of the subprime crisis, will more insistently search for those loan customers that have sufficient wealth and income that loans made to them will be virtually default-free. But there are fewer (apparently) default-proof

³⁶ On the profession's failure to predict the financial crisis, see Cochrane (2009); on Krugman's recommended fiscal policy, see Mulligan (2009).

customers in a general population that also has an increasing proportion of lower-income households, and a sky-rocketing share of households with damaged credit and/or foreclosures on their records. So the likelihood in market after market is that potential borrowers will break into two prototypical groups: one group whose assets and position are secure, and which both national and overseas lenders will regard as ‘good risks’ with whom they want long-term, sustained relationships; and a second group, whose wealth levels are so low that contracts are written with the hope of extracting sufficient returns in the short run to compensate for what will inevitably be (for most) longer-term insolvency problems. These new lines of financial exclusion will not be racially neutral: to the contrary, they will deepen the historical patterns of racial wealth differentials.

Despite this dramatic prospect, we have seen that economists have had very little to say about either subprime lending or the links between the subprime crisis and the historical patterns of financial exclusion and racial inequality in the US. Subprime lending has been defined here in the context of the long tradition of treating minorities and the socially excluded, both at the individual and the community levels, differently than other customers. Some economists understand that if problems exist, market competition will eventually take care of them; so markets should be left free to do their magic. Other economists are less sold on free markets per se: they acknowledge that while banks and other lenders may have their reasons – profit maximization – for engaging in exclusion or predatory lending. They feel that justice is not served, but often are blocked from objecting more strongly because of their deep-seated belief in market efficiency: if the market is working as well as it can, how can one object?

There are still other economists than those featured in this paper, economists who embrace the importance of institutional history, who understand that power imbalances and exploitation are fundamental features of real-world economic dynamics. These economists regard efficiency as a concept that necessarily involves a social evaluation of market outcomes, as well as the individual-welfare assessment (the Pareto criterion) that is taught in graduate microeconomics courses. Some of these economists anticipated the dynamics that occurred (Galbraith 2009). And they may have hoped that the subprime crisis, unraveling as it did both the financial structure and the prosperity of the American people, would have already led to a deeper reconsideration of both how the economy should be organized and how economics should be done. Such hopes have not come to pass, at least not yet. Policy debate among economists, who is mostly blind to racial inequality, passed swiftly right over problems of predatory lending and onto questions of whether megabanks should be saved and how the macroeconomy could be most efficiently stabilized.

It is not clear at this writing whether the economic storm has passed or merely paused. We do know that banks’ historical – if contested – legacy of denying equal credit-market access led to the creation of new instruments of financial exploitation that, once generalized and transported into a raging home-purchase market, led the banking system and the US economy to the edge of a very high cliff. We do not know whether we are floating or still falling – whether the conditions are in place for renewed growth. It does not seem that the megabanks that provided the high-octane fuel for subprime lending are yet prepared to lend; so the economy – an economy populated by millions who have lost wealth, homes, businesses, and stability – must get along without them – unless, that is, banks’ role in and obligations to the broader economy are

redefined. For while the destruction of billions of dollars' worth of bank equity may have been some kind of retribution for banks' failure to turn away from historical patterns of exclusion and injustice, we know that most banks – especially the largest – have dodged a bullet. And while bankers ponder how to preserve their bonuses, and economists wonder what wrinkles to insert into their formal models, the American people are confronting the same answered question that was posed at the beginning of this crisis: how to build a socially-functional banking system which helps people meet their financial needs and which protects and expands their wealth, free of exploitation and exclusion.

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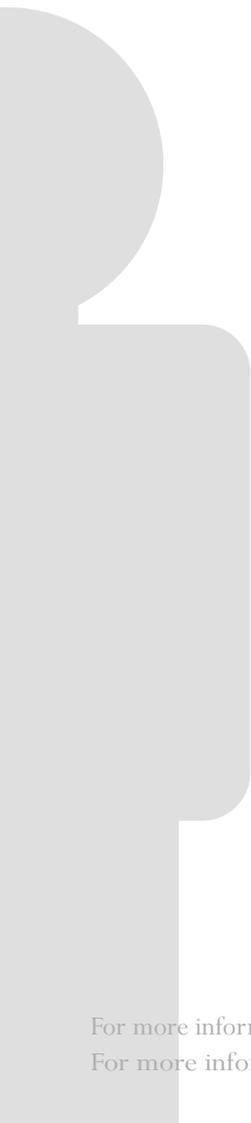
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