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**Research Report**

## Cracks in the foundations of growth: What will the housing debacle mean for the US economy?

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The Levy Economics Institute of Bard College

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# ***Public Policy Brief***

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**No. 90, 2007**

## **CRACKS IN THE FOUNDATIONS OF GROWTH**

What Will the Housing Debacle  
Mean for the U.S. Economy?

DIMITRI B. PAPADIMITRIOU,  
GREG HANNSGEN, and GENNARO ZEZZA

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Text Editor: Barbara Ross

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## Preface

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The fall in the housing market shows no sign of reversing itself. After housing prices rose by 19 percent from 1995 to the first quarter of 2000, and by another 20 percent to the third quarter of 2005, we saw a stagnation and then a fall in the market. More recently, housing received another blow, as the subprime mortgage market began contracting in the face of rising delinquencies and foreclosures, undercutting demand in the lower end of the market. As I write, the major bond rating agencies have downgraded a significant number of securities backed by mortgages. A large share of homes have already been foreclosed and stand vacant in many communities around the country, even in some where the job market is relatively strong. In our new Public Policy Brief, Greg Hannsgen, Gennaro Zezza, and I look at the potential effects of the fall of the housing market on the economy as a whole.

As we point out, a decline in home values is likely to have two important effects on consumer expenditures, according to economic theory. First, people are poorer when their homes decline in value. Second, regardless of net worth, people who lack cash or other means of borrowing often rely on home equity withdrawal (mostly loans, lines of credit, and cash-out refinancings) to finance their purchases. In this brief, we report our econometric estimates of the effect of the first-quarter drop in the market: a 0.9 percent fall in expenditures in the long run. Of course, other factors could combine with the housing market collapse to reduce expenditures even more. Our model cannot take into account certain important variables such as bankruptcies of lenders and financial institutions, which may be important in the coming months.

We next consider various financial developments that have occurred since the last major fall in home values. These new and expanded markets

and laxer lending practices may have an effect on the economy through bankruptcies and foreclosures, along with concomitant falls in the value of securities whose worth is closely tied to residential properties. Along with the subprime market, other novel or until-now rare types of mortgages have become important—those that require no down payments, allow the principal to increase over time, or do not require proof of income, to name a few examples—that pose no less of a threat to the financial system. Economists’ theories about mortgage securitizations and derivatives and subprime and “exotic” mortgages differ. In this brief, we argue for an interpretation based on the work of the late Levy Institute scholar Hyman P. Minsky, which emphasizes certain historical patterns in the growth and collapse of various forms of credit.

We conclude with a brief discussion of policies designed to deal with the crisis. Over the longer term, there is a need for a strong regulatory effort to curtail the risky lending practices that contributed to the current crisis. We also support federal and industry help for homeowners who risk losing their homes. Congress and financial-institution regulators have shown some interest in both of these responses. Also, we recommend two policies that would be beneficial regardless of the state of the housing market: maintaining Social Security benefit levels and inflation adjustments and initiating a federal employer-of-last-resort program, which would help some homeowners meet their financial commitments if they lost their regular jobs. To limit the scale and scope of the current crisis will require these wider commitments, not just the belated reform of lending practices.

As always, I welcome your comments.

Dimitri B. Papadimitriou, *President*

July 2007

# Cracks in the Foundations of Growth

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## Introduction

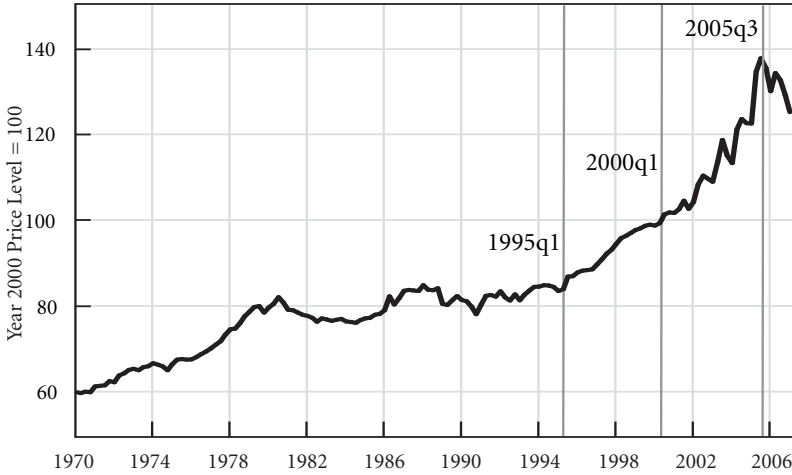
With economic growth having cooled to 0.7 percent in the first quarter of 2007, the economy can ill afford a slump in consumption by the American household. But it now appears that the household sector could finally give in to the pressures of rising gasoline prices, a weakening home market, and a large debt burden. The signals are still mixed; for example, while the ISM manufacturing index for June showed some improvement, retail sales dropped sharply in that month. Consumption growth indicates a slowdown. In this Public Policy Brief, we look at the American household and its economic fortunes, concentrating on how falling home prices might hamper economic growth, generate social dislocations, and possibly lead to a full-blown financial crisis.

First, we review some facts about the U.S. real estate market and recent financial developments. We then discuss and comment on methods used by economists to gauge the economic impact of changes in housing wealth and finance. Next, we step back and view recent developments in housing finance and house values in the context of several broader theories of the benefits and costs of financial innovations, in particular (following McCulley 2007), Hyman P. Minsky's financial fragility hypothesis, which we use as a frame of reference for the current situation. Before concluding, we very briefly discuss some policy options.

There are numerous signs that housing, an important part of the expansion after the 2001 recession, has begun to cool off. The seasonally adjusted real median price of existing homes—the proxy adopted for our evaluation of the impact of the housing market on consumption—reveals a sharp turnaround (Figure 1).<sup>1</sup> After stabilizing for about 15 years, this measure rose by 19 percent from 1995 to the first quarter of 2000—when GDP growth started to slow down—and by an additional 20 percent to the third quarter of 2005,



**Figure 1** Index of Median Price of Existing Homes, Deflated



Sources: National Association of Realtors, Bureau of Economic Analysis, and authors' calculations

when it reached its peak. In the first quarter of 2007, this index lost about 9 percent of its value, and the April 2007 figure shows a further decline.

The rising demand for homes had been driven largely by a steep rise in subprime mortgages, which are made to borrowers with a relatively high probability of default, many of whom would otherwise have been shut out of the market. These loans grew fivefold between 2001 and 2005, reaching \$625 billion annually (*The Economist* 2006). They now account for 14 percent of all mortgages outstanding, and have been used for home-equity withdrawal, not just first-time home purchases (Bernanke 2007c). The rapid growth of the subprime segment of the market took place along with an increase in variable-rate mortgages and “exotic” mortgage products, including loans that require no down payment or proof of income. Lenders have justified lax lending standards with new, more sophisticated and automated methods for evaluating creditworthiness, but events are beginning to bear out the dire forecasts of many pessimistic analysts. The rate of serious delinquencies—with payments at least 90 days late or with the loan in foreclosure—has approximately doubled, to 12 percent, for subprime mortgages with adjustable interest rates, and difficulties have been spreading to

Alt-A mortgages, which are less risky than subprime but still below prime (Shenn 2007; Bernanke 2007b). Some securities backed by subprime mortgages have been downgraded by the major bond rating firms; a Bear Stearns hedge fund holding billions of dollars in such securities narrowly averted a meltdown in late June (Ng 2007; Howley 2007), and the banks that provide capital to mortgage lenders have begun to demand tighter lending standards, more documentation of income, and more money down (Shenn 2007). This will curtail the demand for homes absolutely, probably leading to further price declines. More problems lie around the corner, as many variable-rate mortgages will be subject to upward interest rate adjustments in the coming years, just as mortgage interest rates have finally begun to rise in earnest. The average rate for a 30-year fixed mortgage rose over half a percentage point over a five-week period beginning in early May, a rise that would add \$116 to the monthly payment on a \$300,000 mortgage (Howley 2007). These adjustments alone will cause over one million foreclosures on first mortgages originated in 2004–06, according to an industry study by First American CoreLogic conducted before the recent rate increases (Cagan 2007). Homes lost to foreclosure will wind up in an already overcrowded market, a development that will no doubt depress prices even more.

Any analysis of the subprime mortgage debacle would be incomplete without a discussion of how its impact will be felt most strongly among certain demographic groups and neighborhoods. Minority borrowers have been a leading market for subprime lenders, and they stand to lose the most from the ongoing wave of foreclosures. The *Wall Street Journal* (Whitehouse 2007) and the *New York Times* (Eckholm 2007) have recently reported that some neighborhoods and cities already have large numbers of vacant homes. Cities must deal with the problem of maintaining these properties, which can fall into disrepair and become havens for derelicts and criminals. To an economist, idle resources like unoccupied buildings present something of a paradox, but few people want to move into a neighborhood with boarded-up homes, and such homes can remain vacant and gradually deteriorate for decades. It would be incorrect to deny that the decay of entire neighborhoods will have an impact on economic well-being or impose social costs on cities, leaving aside the obvious effect of a loss of household assets. Moreover, there will be a larger economic impact of concentrated hardship, as opposed to hardship that is spread evenly throughout society: even if the

costs of foreclosures are low when considered as a percentage of total loans or national GDP, that part of the population that is especially affected may lose access to credit for some time.

Fed chief Ben Bernanke felt the issue was serious enough to devote speeches to subprime mortgages in mid-May and early June (2007b, 2007c). He believes that recent curbs on subprime lending, along with an increase in foreclosures, will reduce the demand for houses, putting downward pressure on prices. However, he emphasized that the “vast majority of mortgages, including even subprime mortgages, continue to perform well,” and that problems with subprime mortgages were unlikely to spill over into the rest of the economy or the financial system as a whole. He feels that regulators have taken many steps to ensure responsible lending practices, although market forces, especially transparency, are ultimately the most effective restraint against excessive risk taking. An earlier speech called for action to shore up the capital of the government-sponsored entities that invest in hundreds of billions of dollars in mortgages and also bundle them into securities (Bernanke 2007a). Remarkably, it seemed to hint that the current position of these companies could lead to a major financial crisis. We revisit Bernanke’s speeches and their cautiously optimistic view of recent financial developments below. But we turn next to an analysis of how adverse events in the housing market might affect household consumption, and the economy more generally.

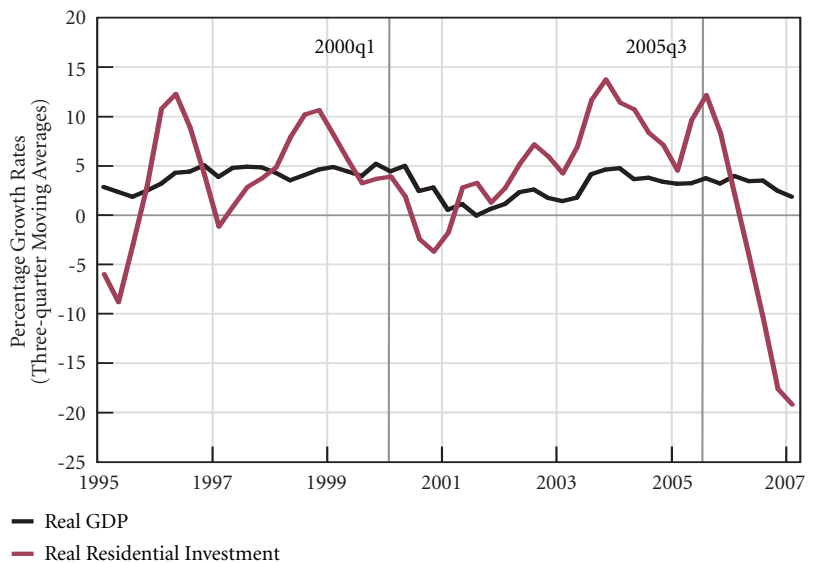
### **The Impact of Housing Wealth and Home Equity Withdrawal on Economic Activity: What We Know and What We Will Find Out**

It will come as no surprise to most readers that economists suspect that the housing boom has been an important force behind the economic recovery that began in 2002, and that an unstable housing market may now be leading the economy into a recession or an extended period of very weak growth (Godley, Papadimitriou, and Zezza 2007). But here we provide some further perspectives on the “housing wealth effect” and other related impacts on consumption spending.

There are several ways in which housing is an integral part of a growing economy, especially in periods of rapidly rising home values. First, home

building, furniture sales, and home improvements account for a large percentage of GDP. Government statistics show that the residential investment sector is already acting as a drag on economic growth (Figure 2). Second, rising home prices increase household net worth, and consumers probably base their spending decisions partly on their net worth, not just their income (Friedman 1957; Keynes 1936, pp. 92–93). It is important to distinguish the two roles of home equity. First, along with financial assets and the discounted value of future income, it is a component of what we call “permanent income,” which in turn determines the total amount of overall household consumption. Second, through its role as a piggy bank, home equity can make consumption possible when consumers lack cash and have no other way to borrow at a reasonable interest rate. Since the general increase in the availability of mortgages extends to second mortgages, home equity lines of credit, and the like, the “piggy-bank effect” has become more potent in recent years. The importance of loans secured by residential real estate had already increased when, in 1986, the tax-deductibility of interest payments on other types of consumer loans used

**Figure 2 Growth in GDP and Residential Investment**



Source: Bureau of Economic Analysis

to purchase durable goods—automobiles, appliances, and so on—or obtain cash was eliminated. Most studies of how housing wealth affects consumption deal with this dual role—as both balance sheet item and a source of cash. The theory on which these studies are based has well-known flaws, but it is a reasonable starting point for a discussion, since it is the basis of almost all academic and popular assessments of the effect of housing on the economy.

The simplest method used by econometricians to estimate the impact of housing wealth on consumption and other economic activity is to suppose a linear relationship, in which economic activity is a function of other variables, including housing wealth and perhaps mortgage equity withdrawal (the latter comprising mostly home equity loans and credit lines, and cash-out refinancings). This allows one to measure the effect of a given increase in home equity or home prices on economic activity when other variables are held constant. Of course, “causality” is an important issue that must be dealt with (Campbell and Cocco 2005; Aron and Muellbauer 2006). For example, if one finds that a one-dollar increase in home equity is associated with 10 cents of additional consumption, it cannot be assumed that the increase in home equity directly caused the increase in consumption. There may be some third force driving both home values and consumption—for example, expectations of future income increases or increased credit availability. There are econometric ways of dealing with problems of causality (and the Levy Institute macro model uses some of these), but some quoted estimates of the magnitude of housing wealth effects do not incorporate such corrections, and are essentially correlations or observations of ratios.<sup>2</sup>

In a useful summary of previous studies, Menegatti and Roubini (2007) find that estimates of the propensity to consume out of an additional dollar of housing wealth range from 4.5 to 16 cents and that each dollar of home equity withdrawal leads to 10 to 50 cents of additional consumption spending. We note that such estimates typically do not include home improvements, which are thought to constitute a form of investment in the home. But at a time of falling home prices, when such investments (say, marble countertops installed in a home in a marginal neighborhood) are probably not leading to appreciation, home improvements may in fact best be considered a form of consumption. Also, like consumption expenditures, home improvements stimulate employment, a boost to the economy

that will be partly lost if the home equity piggy bank is effectively taken away. A related point is that home equity withdrawals used for paying off other forms of debt are not technically considered consumption expenditures. But when someone pays for a purchase with a credit card and later pays off the credit card balance with a lower-interest home equity loan, that loan has in effect financed the original purchase. When home improvements and payoffs of nonmortgage debt are added to actual consumption expenditures, the impact of a dollar of home equity withdrawal is multiplied several times over (Greenspan and Kennedy 2007). Shiller (2004) argues that there is strong evidence of a regional effect of rising or falling home prices on consumption.

To be sure, there are a number of studies showing that the United States has had other periods of regionally inflated housing prices but has not experienced a national boom-bust episode (e.g., Bordo 2005). Aside from choosing the appropriate measure of the effect of housing on consumption, it is important to keep in mind the broader issue that estimates of the marginal effect of one variable on another may not fully capture certain synergies and positive feedbacks that come with any major recession or financial crisis. For example, a weakening home market may prevent financially distressed households from refinancing their homes, which would lead to foreclosures, which would in turn add supply to the market, pulling prices down further. Add to the mix variables such as job losses, defaults in other subprime credit markets, tightening standards for obtaining loans, and bankruptcies of financial institutions, and one can concoct scenarios that seem plausible but that cannot be understood simply in terms of an econometric estimate of the marginal effect of one variable on another. No one can be sure that such a scenario will occur or how serious it might be, but the possibility is there.

Given the potential shortcomings of econometric estimates, we have evaluated the impact of the housing market slowdown on the economy using the Levy Institute macroeconometric model and some simple indicators affecting domestic private expenditure. Our results are calculated in the form of elasticities—the percentage increase in one variable for a 1 percent increase in another variable. We find that the elasticity of real private expenditure to the median home price, at 0.04, is quite low during the quarter when a shock to home prices hits, and rises to 0.12 when the shock is

entirely absorbed, with a mean lag of about five months. According to our estimates, the recent decline in home prices is slowly having its effects on real private expenditure, and we expect these effects to persist in the second and third quarters of this year. More importantly, a drop in home prices is likely to reduce the willingness and ability of consumers to borrow, and according to our estimates this will have additional effects on expenditure. Our estimates imply a short-run elasticity of real expenditure to household borrowing at 0.01, and a long-run elasticity of 0.03.

In the first quarter of 2007, home prices declined 3 percent over the previous quarter, and household borrowing dropped 15.6 percent. Combined, the two effects imply a drop of about 0.9 percent in expenditure in the long run, and about 0.4 percent by the second quarter of 2007. These effects can, of course, be countered by positive shocks arising from real disposable income or the equity market, but May data on real weekly earnings show that wages have not been keeping up with inflation, and this will put further pressure on household expenditure.

Although real consumption growth remained high in the first quarter of 2007, at 4.2 percent, a growth-recession scenario, such as those outlined in recent Levy Institute Strategic Analysis reports (Papadimitriou, Zezza, and Hannsgen 2006; Godley, Papadimitriou, and Zezza 2007), is becoming more and more likely.

### **Recent Financial Developments: Adding to, or Conjuring Away, Systemic Risk**

Real estate crises have happened before in many countries, but two recent developments in the way homes are financed will greatly affect how the current situation plays out. First, financial institutions that originate mortgages often do not hold them on their books or bear the risk of a default. Rather, an increasing number of mortgages are sold by their originators to institutions that bundle them into mortgage-backed securities, which are traded like any other bonds. The biggest players in this business are the so-called government-sponsored entities, or GSEs (such as Freddie Mac and Fannie Mae), which have drawn the fire of Bernanke (2007a) and others. These critics within the financial establishment and elsewhere argue that GSEs enjoy an implicit government guarantee that allows them to pay low

interest rates on the money they borrow. This arrangement amounts to a subsidy by taxpayers, who may ultimately foot the bill for a bailout. Another aspect of the “securitization” business is the resale of various “tranches” of mortgage-backed securities, a practice that divvies up default risk among investors who are yet another step removed from the actual lending process. There also exist credit derivatives that simply obligate someone to insure against default a certain bundle of mortgages held by someone else. The result is that your pension fund may bear the risk of someone else failing to pay the interest on their mortgage, while your spouse’s pension fund will lose out if the same person fails to pay his or her principal. While it is known that various institutional investors hold much of this risk, there is no complete accounting of exactly who is exposed and to what extent, since hedge funds and the like are not as heavily scrutinized by regulators as traditional financial intermediaries, such as banks.<sup>3</sup> In what might be a sign of things to come, Bear Stearns, one of the biggest investors in subprime mortgages, has recently lent \$3.2 billion to rescue one of its own hedge funds that had large holdings in securities backed by subprime mortgages.

The second major development that will make this real estate collapse different from those that came before is the greatly expanded use of subprime and “exotic” mortgages and the general trend toward higher loan-to-home-value ratios. Shiller argues that the new real estate crash could be more severe than it was in 1990, “since this time the loan to value ratio is much higher, and so the effects of the decline on defaults would be bigger” (2004, p. 14). The term “exotic” simply refers to such risky practices as interest rates that jump after a period in which the borrower enjoys a below-market “teaser” rate; mortgages that allow the principal to grow for a time, rather than being steadily paid off; zero down payments; and waivers of the usual requirements to provide proof of income when applying for a loan. The subprime business is simply the extension of credit to those who are regarded as relatively poor credit risks; these mortgages carry higher interest rates, and the people who grant them usually earn commensurately higher commissions. The mortgage industry has steadfastly maintained that more efficient, automated credit scoring makes these loans safe, but apparently lenders are no longer sure of this, as they are rapidly eliminating some of the newer lending practices (Shenn 2007; Bajaj 2007; Ng 2007). Some investment bankers who provided the ultimate source of funding for many



of these loans now deny that they were aware of the amount of risk being taken on, and some lenders in turn say they would not have taken such risks if the investment banks hadn't pressured them to do so (Bajaj 2007). Also, some lenders have apparently been using creative accounting techniques to hide losses they have been incurring for some time (Browning 2007). All of these facts have been reported in the financial press, but those in the industry who are using questionable lending criteria have so far been a few steps ahead of the sheriff—the governmental bodies that have real power to stop the most irresponsible practices. Moreover, some financial practices that have hidden the extent of the problem—such as valuing illiquid derivatives according to an optimistic model rather than market prices—are legal and have been accepted for many years. We look at possible belated responses from the authorities below.

The course of the housing crisis will depend on what has really been going on, as a dizzying array of new financial products has become available. We have offered a pessimistic view: lightly regulated lenders have been taking undue risk. Those who see a brighter picture acknowledge risks but see mortgage developments as part of a market-driven flowering of innovations that bring benefits to the economy and society (Rajan and Zingales 2003). These optimists, who range from articulate, broad-brush advocates of free markets to learned experts in academic economics, point to three key themes in the rapid growth and development of modern financial markets and banking: 1) a *democratization* that brings credit to those who lack “collateral and connections” (Rajan and Zingales 2004); 2) increased *choice* of when to spend lifetime income that sometimes arrives erratically or too late in life (Hurst and Stafford 2004; Gerardi, Rosen, and Willen 2007); and 3) reduced *costs* of borrowing due to increased efficiency of the lending process and the spreading of risk to those most willing and able to bear it (Kroszner 2007). Innovations in mortgage lending are believed to bring all three of these benefits. Democratization occurs when increasing numbers of moderate-income people of all races and ethnicities are enabled to obtain subprime mortgages (Goolsbee 2007; Posner 2007; Becker 2007). Choice is expanded, for example, when families with an unemployed adult are able to take out a home equity loan to pay their bills until a job is found. The costs of lending are reduced when modern software is used to reduce the costs of verifying creditworthiness and grinding through mortgage-related paperwork.

Another approach to recent financial developments, one that concentrates on the borrowers rather than the supply side, alleges irresponsible or “infantile” behavior on the part of overextended and pampered consumers (Barber 2007; Surowiecki 2007). Writers in this vein have argued that citizens have become absorbed in the acquisition of material goods and/or have knowingly taken on unmanageable loans.

Yet another way of looking at the recent explosion of new lending practices is more deeply skeptical than that of the free marketeers and technocratic economists and more circumspect than that of the moral critics (for this alternative view, see McCulley 2007; Minsky 1975, 1986; and Wolfson 1994). The financial and banking industries have undergone waves of innovation since consumer credit became widely available early in the 20th century. These waves have been spurred partly by the profit motive and the need to outwit the regulators, and partly by the innate human tendencies of greed, herd behavior, and overoptimism. Minsky’s financial fragility theory (1975; 1986) showed how the economy is subject to one crisis after another, as “Ponzi” and “speculative” finance repeatedly burgeon until an inevitable and disastrous bust. Each time, the problem is caused by a new, apparently failsafe investment—ranging from tulip bulbs to junk bonds—but the pattern is the same. Supporting this interpretation is the fact that lending standards have been very lax relative to historical norms, and the ratio of home prices to rents, compared to previous levels, is still high. Moreover, the use of credit derivatives to shed risk associated with holding mortgages can be seen as a kind of shell game—well known to Minsky—in which financial firms evade regulatory control by introducing new financial instruments and markets that, at least initially, escape the purview of the regulators.<sup>4</sup>

Seen in this way, the housing crisis takes on a different cast. Clearly, there is some truth to the notion that credit has been democratized over the years and that borrowers have more choices and enjoy easier terms. Regarding the democratization, though, subprime borrowers do not benefit when they take out loans that they simply cannot afford, while mortgage bankers reap commissions and some company insiders exit with millions of dollars in profits from timely stock sales (Ordover 2007). In particular, recently originated subprime mortgages will probably result in a net *decrease* in home ownership because there will be numerous foreclosures, and because many subprime home loans are not used to finance first-time

home purchases (Center for Responsible Lending 2007). As we have noted, the social costs of foreclosures will be borne by the very people who have apparently been the beneficiaries of democratization.

Turning to the argument that the widespread availability of loans confers an increased ability to choose when to consume lifetime income (a process known by economists as “consumption smoothing”), it is interesting to note the diametrically opposed views of the market-oriented optimists and the Minskyans. According to the optimists, modern, liberalized finance and banking stabilize the economy by allowing people to borrow during recessions to maintain consumption. Conversely, the Minskyan view holds that the increasing availability of credit and proliferation of new financial products represents the unsustainable upward phase of a potentially unstable cycle. This may seem transparently accurate, at least with regard to the most exotic lending practices. According to this view, when the inevitable decline occurs, easy credit will no longer be around to cushion the impact, and we will all be reminded that the cycle is a brutal reality, and that financial innovations have both costs and benefits.

The Minskyan view not only belies the optimists’ story of the end of financial history but also sheds light on the myopia of those who foresee a decadent end of the world. Consumerism is nothing new, and while the boundless quest for material goods undoubtedly draws attention away from the world’s real problems and wreaks environmental havoc, human psychology is such that people find it hard to turn down easy money. As mentioned above, history is rife with examples, reminding us that we may be witnessing one phase of a cycle that has repeated itself many times in the United States alone since the 1960s (Wolfson 1994). Moreover, we have little empirical evidence that home equity is withdrawn mainly to finance frivolous or luxurious purchases. Finally, it is probable that many borrowers have simply been deceived or confused by the fine print. (How many of us have been stuck with a piece of faulty merchandise or failed to peruse the details of a disclaimer?) All this is not to gainsay the role of individual responsibility and education, which are always relevant in these episodes, or to say that loans are never used for wasteful purposes, but simply to put this financial episode into perspective, as a single chapter in a very long historical narrative. This narrative also shows that the solution lies partly in a regulatory response, not harsh bankruptcy terms for irresponsible individuals, which would only delay recovery.

## What to Do Now

We have argued that the stage has been set for very serious and widespread economic difficulties, which may have begun to unfold. Policymakers cannot possibly forestall further declines in home values, save the more reckless mortgage lenders from bankruptcy, or bail out every overextended household. Clearly, macroeconomic policy will be critical: if the Fed and Congress can work to stop any incipient recession, they will prevent job losses, which are one of the main contributors to foreclosures. An effective job-creation method could be some form of employer-of-last-resort program that offers government jobs to all workers who ask for them (Minsky 1986; Wray 1998; Papadimitriou 1999). Moreover, the Fed must be ready to step in as a lender of last resort, should major financial institutions falter. In the current situation, pension funds, with their vast direct and indirect mortgage-related investments, may be as exposed to danger as banks. Pensions are backed by a separate bailout fund (which at present is also in jeopardy), not by bank regulators. The pension system is already failing millions of retirees, and many pension funds are not financially sound even now. Moreover, home ownership historically has been the most important form of personal saving, but with the rise in home equity withdrawal and declining home values, this may no longer be true. Social Security, long the main source of income for older Americans of modest income, will be more important than ever. Benefit increases may be politically infeasible, but the system must be protected from ill-advised efforts to make cuts, which would probably increase poverty (Papadimitriou and Wray 1999).

Congress has begun to hold hearings on possible remedies, and the Fed is well aware of the need for action. Bernanke has stated that some new regulatory efforts to stem abuses have been in the pipeline since 2006 (2007b). However, proposed rules focus narrowly on the mortgage problem. Bernanke supports efforts by nonprofit organizations and others to help financially distressed homeowners renegotiate the terms of their loans (2007c). Some members of Congress argue that federal dollars, matched with contributions from financial firms, should be offered to help finance such “workouts.” This approach would allow more families to stay in their homes, though the majority could not be helped. Even if the terms of loans are changed to help homeowners, payments will usually still be burdensome, and foreclosure for some families will be families merely postponed.

However, there may be no better option for many householders who cannot afford their mortgages.

Bernanke remains supportive of a system that relies on transparency rather than regulation, suggesting that the mortgage industry would not be in trouble if it had been credibly warned years ago that it could not rely on a government bailout. Strong opponents of regulation would go further, claiming that the financial fallout from the current episode will deter fresh abuses (Becker 2007; Posner 2007). But in the competitive and freewheeling mortgage banking and hedge fund industries, the pressure to improve the bottom line in the current quarter is very strong, even in the face of a credible threat of devastating losses at some point in the future. Bankers and others who lend money cannot be concerned with defaults that may occur in a few years if they risk losing their jobs tomorrow. (Some of the perils of this exposure have been discovered in the Bear Stearns hedge funds.) Moreover, company insiders often profit handsomely, even when their employers approach bankruptcy (for an example, see Ordower 2007). The proposition that firms and investors rarely take on excessive risk without the assurance of a government guarantee seems empirically dubious.

Whatever the future prospects for a transparent system that punishes risky behavior, Congress, the administration, and regulators must now deal as best they can with the failures of the past. In doing so they must be slaves neither to an idealized view of the financial system nor to old ways of doing business that seemed until recently to be working well.

## Notes

1. In general, such indices can be misleading. For the home market, there is no observation of a market-clearing vector of prices reached in an auction market; rather, we observe a relatively small number of transactions that leave many homes unsold. Hence, certain problems arise: for example, those homeowners whose property values have declined the most may be the most likely to resist an immediate sale, leading to an upward bias in the index.
2. Partial correlations are sometimes used, allowing other variables to be taken into account. But this technique does not eliminate the problem of causality.

3. See Chilcote (2006) for a detailed discussion of credit derivatives.
4. In one of his first articles (1957), Minsky, possibly under the influence of his undergraduate mentors at the University of Chicago, developed the notion that financial innovations could be used to circumvent regulation. In that article, he was concerned with the ways in which banks skirted reserve requirements using new institutions such as the federal funds market, but the general notion that banks outfox regulators by staying one technological step ahead of them also applies to recent mortgage innovations. There is also a less sinister motive: simply to obtain funds at the lowest possible interest rate.

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