# Housing's Changing Role in the Business Cycle

*Why prepayable fixed rate mortgages have an important effect on the U.S. economy.*

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**SINCE EARLY 2001,** the U.S. economy has struggled through a recession and experienced a moderate recovery, which is now strengthening. The one bright light during this period has been the nation's single-family housing and mortgage markets, together accounting for as much as a third of the economy's growth since the start of the decade. Without this contribution, the broader economy would have experienced a decline and might still be mired near recession.

It is unprecedented for housing and mortgage markets to dampen an economic downturn. Indeed, in every other downturn in the nation's history, these markets have exacerbated the economy's basic problems. The counter-cyclical behavior of the housing and mortgage markets is due to a number of unique factors. Chief among these is the long-running maturation of the housing finance system, which has integrated the nation's housing and mortgage markets with global capital markets by means of the large and rapidly growing mortgage-backed securities market. In all likelihood, while housing and mortgage markets will not play an identical counter-cyclical role in future business cycles, they will no longer perform the damaging pro-cyclical role they have in the past.

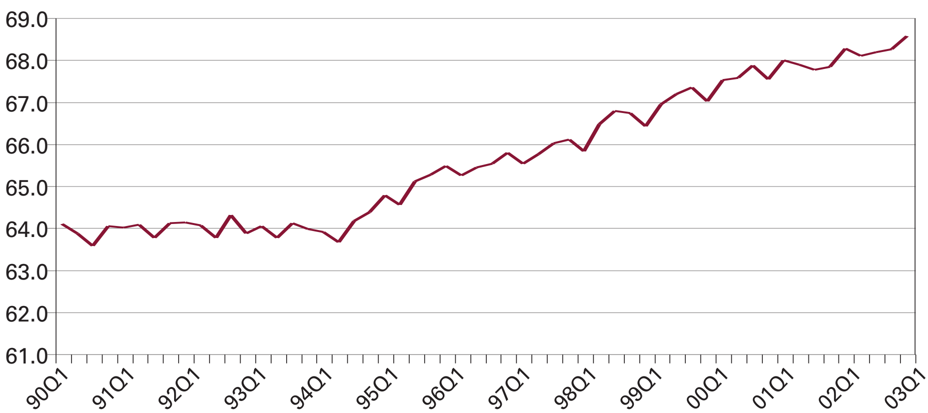
### ECONOMIC CONTRIBUTION

Nowhere is the housing market's current strength more evident than in surging home sales. Total new and existing single-family home sales have been running at an astonishing rate; more than 7 million units were bought and sold in 2003. This is double the rate of home sales during the recession of the early 1990s. Single-family homebuilding is also besting records set in the late 1970s, when the baby boom cohort first entered its home-buying years.

As a result of home-buying and home-building, other measures of single-family housing activity are also breaking records. Homeownership rates have surged, with more than 68 percent of households now owning their own homes, compared to 64 percent less than a decade ago (Figure 1). Moreover, homeownership is rising for virtually all major age and ethnic groups.

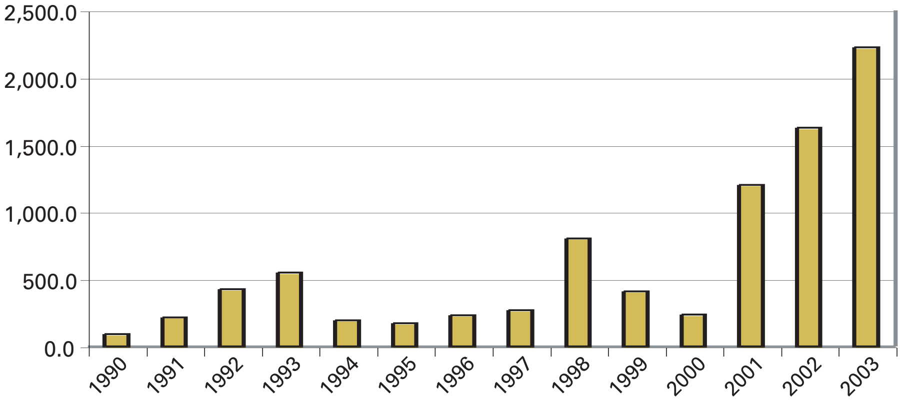
Strong housing demand is also fueling robust house price appreciation. Real house prices, as measured by the Freddie Mac and Fannie Mae repeat-purchase

**Figure 1:** Homeownership Rate, (%, SA)




Sources: Bureau of Census: Housing Vacancies & Homeownership Rates; Economy.com

**Figure 2:** Mortgage Originations: Refinances, (Mil. $, SAAR)



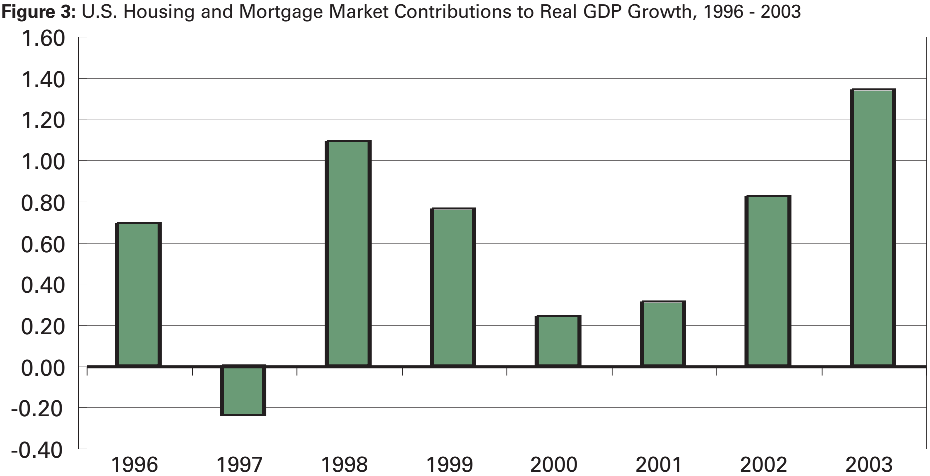

Sources: HUD Survey of Mortgage Lending Activity; Economy.com Adjusted

house price index and deflated by the core consumer price deflator, rose by nearly 7 percent last year. In the more than 25-year history of the index, real house prices rose more rapidly only in 1978.

The mortgage market has also been humming as a consequence of both the strong demand for homes and the super-heated refinancing market. The current annualized pace of $1 trillion, while substantially lower than that of 2001 and 2002, is still considerably higher than any year prior to 2001 (Figure 2).

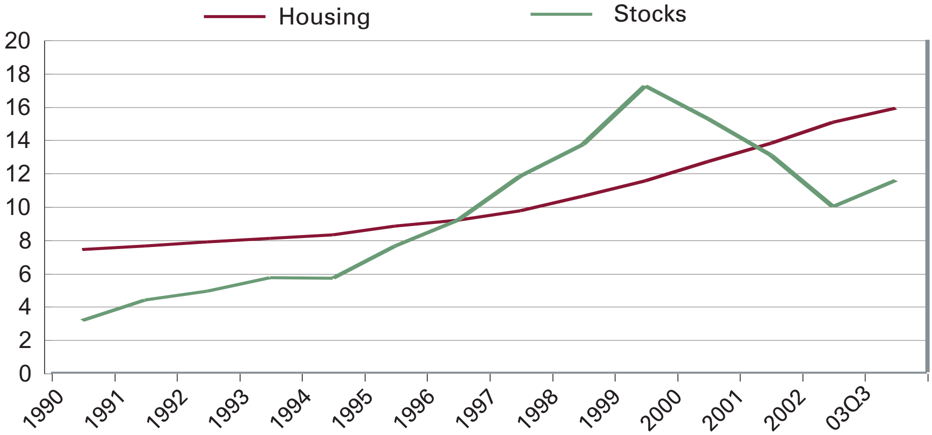
The booming housing and mortgage markets cushioned the severity of the 2001 recession and supported the recovery.

**Figure 3:** U.S. Housing and Mortgage Market Contributions to Real GDP Growth, 1996 - 2003




Sources: BEA, Economy.com

**Figure 4:** U.S. Household Asset Holdings, 1990 - 2003, US$ Tril.




Sources: FRB, Economy.com

During the 2001 recession, activity in these markets added some 30 basis points to real GDP growth, while in 2003 these markets contributed well over 100 basis points to growth (Figure 3). All told, as much as a third of real GDP growth since the start of the decade is due to activity in these markets.

The principal conduits through which housing affects the economy include: new homebuilding; home improvement and remodeling; purchases of home furnishings; and the wealth effect resulting from changing house prices and homeowners' equity. Changing house prices also impact local government property tax revenues and their tax and spending policies, as well as the balance sheet of financial intermediaries and their lending decisions.

While stronger homebuilding and spending on home improvement and furnishings were important to the economy in 2003, housing's contribution to overall growth was even stronger through its influence on consumer spending decisions. According to the Federal Reserve Board's Flow of Funds, American households own close to $14 trillion worth of housing and have $8 trillion in homeowners' equity. The median amount of equity owned by homeowners is estimated to be almost $50,000. With lower stock prices, housing is once again the most significant asset in the household balance sheet (Figure 4).

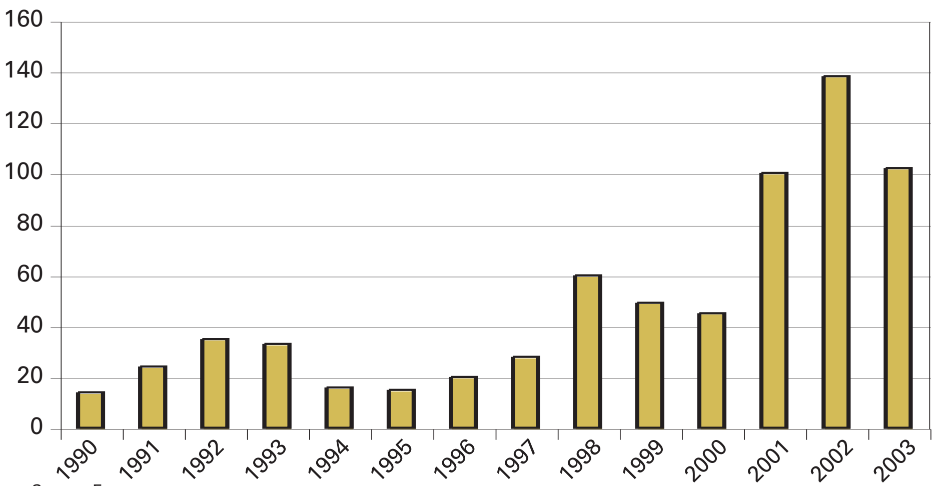
Changes in house prices and homeowners' equity have a significant impact on household net worth, and on consumer spending. The housing wealth effect influences consumer confidence and the ability and willingness of homeowners to raise cash through borrowing. Homeowners follow home sales in their neighborhoods to assess the value of their own homes, and when values are rising, these consumers feel wealthier, have more confidence, and are more willing to spend.

The financial blow to consumers from lower stock values has been offset by the strong increases in house values and homeowners' equity during the same period. Since the turn of the decade, the value of households' stockholdings has fallen by nearly $4 trillion, but the value of their housing has risen by an estimated $4 trillion. Housing is also a more important asset to more households than stocks. While approximately one-half of families have some stockholdings, only one-fourth of families have holdings worth more than $25,000. However, more than two-thirds own their own home, and approximately one-half of families have homeowners' equity that is greater than $25,000. This further cushions the impact of the decline in overall household net worth.

When house values and homeowners' equity are rising strongly, homeowners are also more willing and able to borrow to finance their spending. This has been particularly true during the past several years due to the unprecedented numbers of mortgage refinancings. According to Freddie Mac, approximately one-half of recent refinancings have been so-called cash-out refinancings, in which homeowners significantly increase the size of their mortgages. Stunningly, homeowners raised more than $100 billion in net cash proceeds in 2003 through cash-outs (Figure 5).

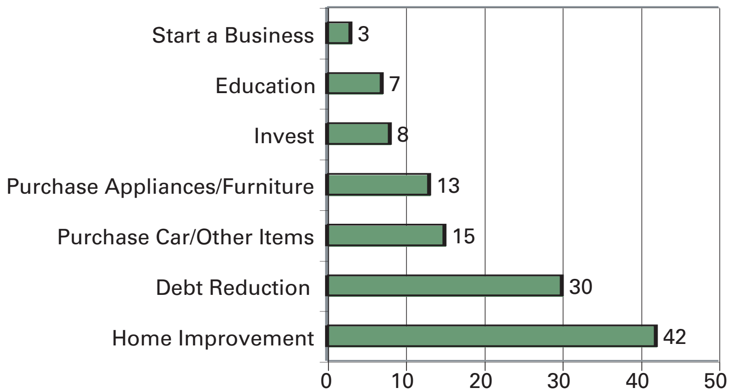
Based on recent surveys conducted by the Federal Reserve and Fannie Mae, it is

**Figure 5:** Cash Raised in Cash-Out Mortgage Refinancings, 1990 - 2003, US$ Bil.




Source: Economy.com

**Figure 6:** Uses of Proceeds From Cash-Out Refinancings and Home Equity Borrowings




Source: Fannie Mae

reasonable to conclude that more than half of the cash being raised is being used to finance consumer spending. This spending includes home improvements, vehicle purchases, vacations, college tuitions, medical expenses and, since many households are hard-pressed by the soft economy, even general living expenses (Figure 6). Since most homeowners refinancing their homes probably view the cash as a windfall, rather than as a substitute for other sources of cash or income, much of this additional spending would otherwise likely not have occurred.

Close to one-third of the cash raised in cash-outs is being used to repay credit cards, pay other installment debt, and retire second mortgages. When combined with the lower debt payments being enjoyed by those homeowners who are refinancing and not significantly increasing their mortgage balance, this frees significant amounts of cash that are also supporting spending. Indeed, refinancing households are saving an estimated $10 billion in annual interest payments on their mortgage and consumer installment liabilities.

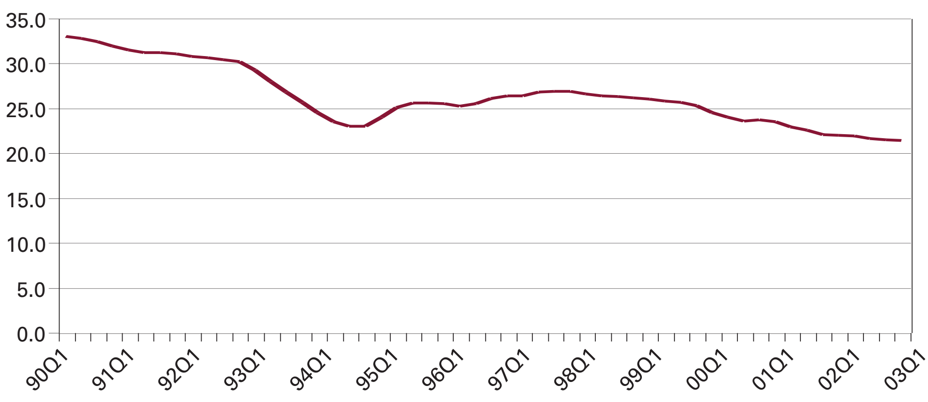
The remaining money raised via cash-out refinancings is being used to finance investments, which, given the current situation of the stock and bond markets, are likely to be real estate (second homes, vacation homes, income-generating properties). This supports housing demand, house price gains, and even more consumer spending. This positive wealth effect helps offset the negative effects of the recent substantial declines in stock values.

The current refinancing boom supports the economy's longer-term performance, allowing borrowers to lock in very low, long-term interest rates. The vast majority of those who are refinancing are taking fixed-rate mortgages, even homeowners whose original mortgages were adjustable rate loans. An estimated one-fifth of all household liabilities, largely mortgage and consumer installment debt, has interest rates that adjust within one year of a change in market interest rates. This compares to one-fourth of household liabilities in the mid-1990s and one-third a decade earlier (Figure 7). Thus, the refinancing boom allows households to insulate themselves from rising interest rates, which will have key positive macroeconomic implications when interest rates increase.

Changing housing market conditions influence government revenue and outlays. A large part of the costs of the federal government's clean-up of failed thrifts and banks in the 1990s, estimated by the General Accounting Office to have cost $500 billion, is attributable to deteriorating real estate markets (commercial rather than single-family). State and local governments also suffered when real estate values fell, since taxes on business and household property account for nearly one-fourth of state and local government receipts. In some municipalities, tax receipts on property account for more than one-half of tax revenues. Rising property values in recent years have increased the growth in local property tax revenues, allowing many governments to cut other taxes and fees or to increase their own spending.

The condition of the housing market also influences the health of financial intermediaries. FDIC-insured institutions hold nearly one-third of their assets in single-family mortgages and mortgage-backed securities. Deteriorating credit quality in the residential loan portfolios of banks and thrifts in the early 1990s was a significant

**Figure 7:** Adjustable-Rate Liabilities as Share of Total Household Liabilities, 1990 - 2003




Source: Economy.com

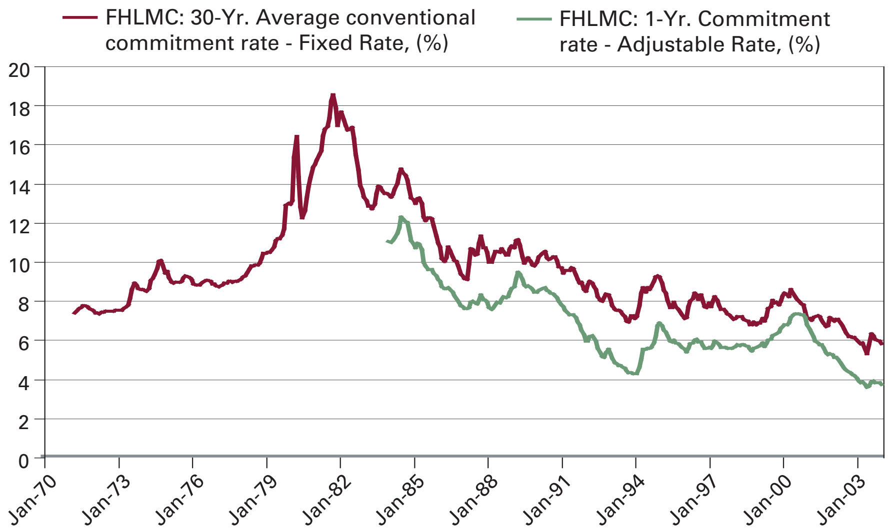
contributing factor to the credit crunch of that period. Improved residential loan portfolios in more recent years have contributed to greater profitability at intermediaries and thus easier credit standards and increased lending.

## TEMPORARY SUPPORTS

The recent strong performance of the housing and single-family markets is due to a number of unique factors. The most significant is the decline in mortgage rates to 50-year lows (Figure 8). Fixed mortgage rates have been consistently near or below 6 percent. One must remember that fixed rates had risen to as high as 8 percent prior to the 2001 recession, and were in the double-digits as recently as a decade ago. Such low mortgage rates are the result of extraordinarily low inflation; core consumer price inflation is currently well below 2 percent, compared to over 5 percent a decade ago. There has even been some concern voiced by policymakers about further disinflation, or even deflation.

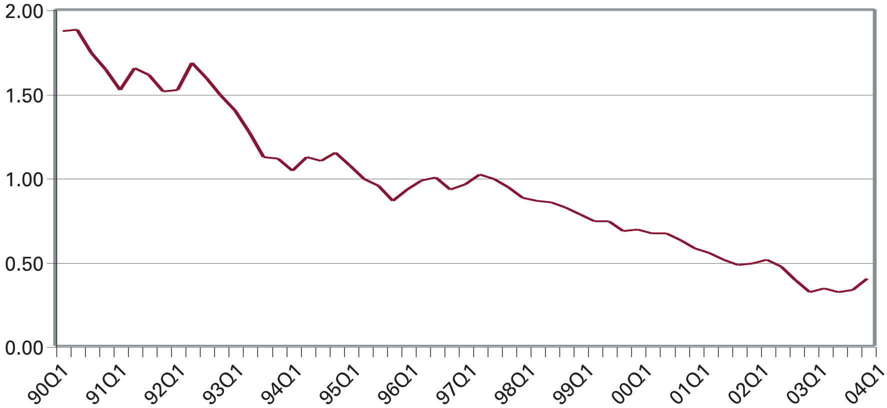
Rapidly falling mortgage transaction costs have also been instrumental in supporting activity in the housing and mortgage markets. Average fees and points on mortgage loans originated today are roughly 30 basis points, compared to 100 basis points in the mid-1990s, and 200 basis points a decade earlier (Figure 9).

**Figure 8:** FRM and ARM rates




Source: Freddie Mac Mortgage Rates

**Figure 9:** Terms Conventional Mortgages: All Loans - Composite Initial Fees & Charges, (%)




Source: Federal Housing Finance Board: Rates & Terms on Conventional Single-Family Mortgages

Aggressive mortgage lending has also fueled housing and mortgage activity. So-called subprime, affordable and high loan-to-value mortgage lending has surged during the past decade. Subprime loans, or loans to mortgage borrowers with blemished or no credit histories, has ballooned from essentially nil in the early 1990s to some $800 billion in mortgage debt outstanding currently. Households that would have likely been unable to borrow at all just a few years ago thus owe one-seventh of all mortgage debt.

Housing and mortgage markets have benefited from other factors unique to this period, including the travails of the stock market and heightened fears of terrorism. Investors who have sold stocks in recent years, and have tired of low and falling returns on money market accounts, have invested in housing. Given recent strong house price gains, the returns on a housing investment appear attractive, especially on a leveraged basis. Heightened fears of terrorism and travel have at least temporarily convinced families to stay at home. This so-called nesting has encouraged some households to purchase bigger homes and to spend more on home improvement and home entertainment systems.

The boost to housing and mortgage markets provided by each of these factors will likely be temporary. Mortgage rates and transaction costs cannot fall below a certain level, lenders are beginning to struggle with the greater credit problems prompted by their aggressive lending, the stock market is rebounding, and barring further terrorism, fears of travel will eventually diminish. Housing and mortgage market activity will thus doubtless cool at some point in the not-distant future.

## SECONDARY MARKET

Housing and mortgage markets will cool, but they will not collapse. Providing a solid long-term foundation to these markets is their growing links with global capital markets via the burgeoning mortgage-backed securities market. The secondary market ensures a steady source of mortgage credit to homebuyers, expands the types of mortgage loans available, and is instrumental in facilitating the prevalence of fixed-rate mortgage loans, ameliorating the worst of the economy's recent difficulties and securing stability in households' balance sheets, going forward, as interest rates rise.

The importance of the secondary market to mortgage finance in the United States is relatively new. Historically, mortgages in the United States, as elsewhere, were funded by primary market institutions such as savings and loans (S&Ls), and to a lesser degree, by commercial banks. Today, the secondary market is the primary source of mortgage capital, funding nearly two-thirds of all outstanding mortgage debt. The predominant holders and lenders of secondary debt are the government-sponsored enterprises, Freddie Mac, and Fannie Mae, with a growing share held by private-sector conduits.

The secondary market was born in the late 1960s, when volatile interest rates necessitated changes in the regulation of the S&L industry. When market rates rose above legislated deposit ceiling rates, which were initially designed to attract funds to housing by allowing S&Ls to pay higher interest rates than commercial banks, depositors withdrew their funds in S&Ls. This disintermediation resulted in shortages of mortgage funds, disrupting homebuying and building.

The periodic bouts of disintermediation worsened with the rampant inflation of the 1970s and early 1980s. In an effort to cushion the financial blow to S&Ls, regulators abolished the deposit rate ceilings, allowed S&Ls to originate adjustable-rate mortgages (ARMs), and significantly increased the ability of S&Ls to broaden their lending activities. By the late 1980s, however, it had become clear that many S&Ls had abused their lending powers, making poor and even fraudulent investment decisions in commercial real estate and junk bond markets. Bad debts climbed and the industry was insolvent by the time it was largely dismantled in the early 1990s. The secondary market blossomed out of the ashes of the S&L industry, as regulators facilitated the expansion of the market.

With the rapid expansion of the secondary market has come the integration of the mortgage market with global capital markets. Global investors from Europe, Asia, and elsewhere have become large buyers of securitized U.S. mortgage debt. This ensures the availability of mortgage credit to U.S. homebuyers. It is no longer a question of whether homebuyers can get a mortgage loan; the only question is at what price.

Another major economic benefit of the growth of the secondary market is that it has facilitated the prevalence of the fixed-rate mortgage loan. More than 80 percent of U.S. homeowners, and close to 40 percent of overall U.S. households, have such a mortgage. The secondary market is better placed to fund prepayable FRMs than primary lenders who rely on demand deposits as their principal source of funding. It is difficult for primary lenders to match the cost of holding onto their deposits, which vary with market interest rates, to the fixed rate they receive on their FRM holdings. Primary lenders have historically experienced significant asset liability mismatches during periods of high interest rate volatility.

The major economic benefit of prepayable FRMs in a weak economy is a massive wealth shift to mortgage borrowers with FRMs as they refinance to take advantage of unexpected interest rate declines. The wealth shift is permanent and unanticipated. Because such events are more likely to occur in economic downturns, this wealth transfer moderates the downturn and automatically stabilizes the economy. This pre-supposes that the financial hardship on investors in FRMs is widely distributed and thus not debilitating. A further economic benefit of the FRM is that it facilitates mobility. During recessions, as job opportunities erode in some regions and improve in others, the ability to sell one's home and prepay the mortgage without a substantial mortgage penalty reduces the transaction costs of moving to where the jobs are located. Conversely, when the economy is rising, FRMs also provide an economic benefit in a strong economy when interest rates are rising, as homeowners with FRMs are protected by the fixed rates and thus are unaffected by the rising mortgage rates.

The United States is largely unique in the depth of its secondary markets and the prevalence of prepayable FRMs. The major instruments used to fund house purchases elsewhere continue to be ARMs, balloon mortgage loans, and FRMs with heavy prepayment penalties. Households thus have limited ability, or incentive, to refinance even in response to substantial interest rate declines. The U.S. economy has thus benefited substantially more than the rest of the global economy from the decline in interest rates in recent years. Similarly, the U.S. economy will be far more protected than the rest of the global economy from destabilizing impacts of relative rate rises, going forward.

## CONCLUSION

The economy's performance in recent years has been significantly shaped by the booming housing and mortgage markets. Without the strength of these markets, the 2001 recession would have been substantially more severe, and the subsequent recovery substantially more muted.

Fueling housing and mortgage market activity have been a multitude of factors, including falling mortgage rates and mortgage transaction costs, aggressive mortgage lending, portfolio shifting, and nesting.

While activity is expected to weaken as the broader economy improves and mortgage rates eventually rise, the housing and mortgage markets have solid long-term underpinnings. The rapid growth of the secondary market into the principal source of funding for the housing and mortgage markets ensures that U.S. mortgage borrowers will always have access to mortgage credit and a wide range of mortgage products. The prevalence of the FRM, due in large part to the blossoming secondary market, will also ensure that the housing and mortgage markets will provide important benefits to the broader economy's performance throughout the business cycle.