

How Rising Housing Prices Have Stimulated U.S. Consumption

A discussion of the broad economic effects of the recent run-up in housing prices.

THE GREAT INCREASE in housing prices between the mid-1990s and early 2006 stimulated massive increases in U.S. consumer spending. That spending kept the economy expanding, especially since the small quasi-recession of 2000-02. Housing prices as reported by the National Association of Realtors are shown in Figure 1 (in current dollar terms) from 1970 to 2005. The chart shows a marked increase in the rate of change in housing prices especially in California, but also in the entire U.S. (including California) from about 1996 to 2005. What caused that surge?

A huge flow of financial capital flooded real estate markets throughout the

ANTHONY DOWNS

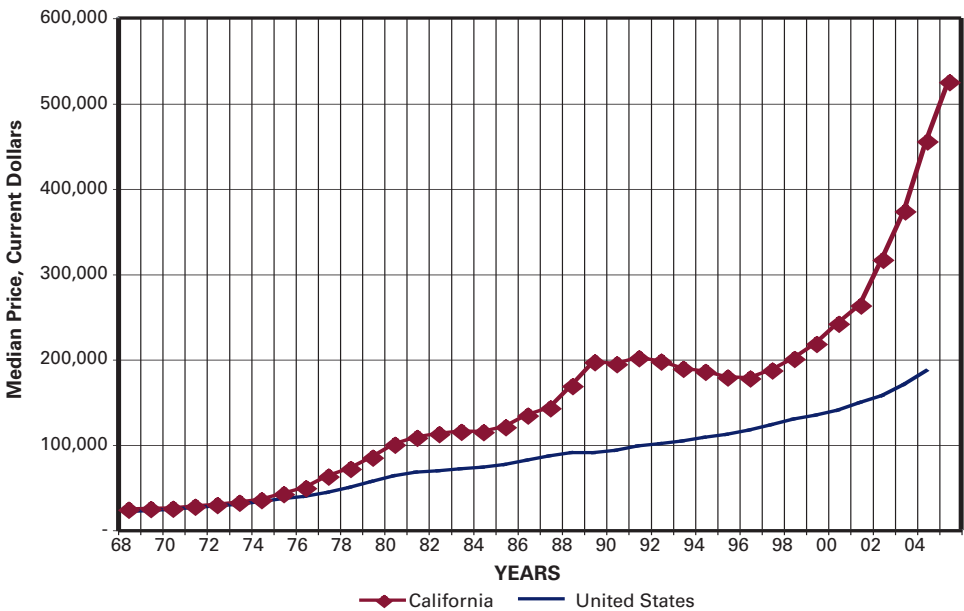
world, starting in the late 1990s, and especially after 2000. This massive inflow of money drove up prices for all types of real estate, including single-family and other owner-occupied homes. This “Niagara of capital,” as one lender put it, had six very different causes.

The first cause was the entry into world’s industrialized manufacturing markets of millions of low-wage Asian workers during the 1980s and 1990s and beyond, mainly in China but also in India and other Asian nations. Over two decades, these new entrants resulted in an almost 30 percent increase in production workers worldwide, according to Brookings

Institution estimates. Their entry depressed wages and prevented manufacturing firms all over the world from raising (or even maintaining) prices. By the late 1990s, this impact seemed to threaten a deflationary effect on prices of manufactured goods throughout the developed world. As a result, central banks the world over began increasing monetary liquidity to prevent domestic prices from falling.

The second cause was the U.S. stock market crash of 2000, precipitated by the speculative excesses of the dot-com boom in the late 1990s. The NASDAQ Composite Index more than doubled in 1999, rising to a peak of 5,048 on March

Figure 1. Median house prices in U.S. and California



10, 2000. It then plunged more than 60 percent, and has yet to return to half that peak. The Dow-Jones and S & P 500 indices also fell precipitously, though not as far. This crisis was further aggravated by the terrorist attacks of September 11, 2001, which stalled much of the U.S. economy. Many investors, both individuals and institutions, were so badly burned in stocks that they sought a safe harbor for their money. That harbor was real estate, which by 2000 had recovered from the stigma of the real estate crash of 1990-91. As a result, financial capital flowed into both housing markets and commercial property markets. This pushed up property prices, in spite of rising vacancies and falling rents in offices, hotels, and industrial properties.

A third cause was a fall-out from the 2000 stock crash in the form of a global reaction by central banks—especially the U.S. Federal Reserve—to cut interest rates and increase liquidity still more to forestall a deeper recession. This further encouraged investors, including households seeking financial shelters, to buy properties at record-low mortgage rates, using generous credit terms.

The fourth cause was the rise in overall uncertainty generated by world terrorism, and the U.S. invasion of Afghanistan and Iraq, which helped elevate world oil prices to record levels. This created even more financial capital looking for a home. Most

oil-generated profits did not flow directly into the U.S., but since money is fungible, those profits increased world liquidity, pushing money into the U.S. economy. More important, uncertainty inhibited business firms and financial institutions worldwide from expanding their investments to absorb all their profits. So they accumulated large amounts of surplus savings. This glut of savings helped finance the huge U.S. trade imbalance stemming from the surplus of imports over exports.

The fifth cause of rising U.S. home prices was federal policy aimed at promoting homeownership. This policy involved generous income tax provisions, easier credit terms for buyers, and encouragement of home production to keep the economy expanding. Record percentages of households became homeowners, causing a major flight out of rental housing that increased apartment vacancy rates nationwide.

The last cause was an epidemic of suburban NIMBYism (Not In My Back Yard). Suburban communities are politically dominated by homeowners, including many new homeowners who, having sunk most of their assets into their homes, ferociously opposed any efforts by developers to build less expensive homes nearby, lest their homes lose market value. Since homeowners are a majority in almost all suburbs, they have been able to pressure their local governments to adopt exclu-

sionary regulatory policies in thousands of communities across the nation. These policies have driven housing prices in such communities upward and have forced developers to move geographically farther out, generating new sprawl.

IMPACT UPON HOUSEHOLD WEALTH

In the six years from 1999 to 2005, median housing prices in current dollars rose 55 percent in the entire U.S., and no less than 141 percent in California. This huge rise in housing prices created immense increases in the wealth of homeowners in the form of larger net equities in their homes. Householders treated such equity gains as both income and savings, although the official national income accounts do not recognize either, because purely financial home equity gains do not involve direct production of real goods or services.

In theory, the home equity gains enjoyed by homeowners amount to a potential redistribution of future claims on society's existing real wealth to homeowners from non-homeowners, since homeowners can monetize their equity gains and use them in the future to claim real resources from others. But non-homeowners do not participate in that process. Since non-homeowners will have to give up real resources when homeowners actualize that

potential, rising homeowners' equities reduce the wealth of non-homeowners as a group. So increases in homeowners' equity are not true additions to society's real wealth; rather, they represent a redistribution of wealth.

Such abstractions may seem too esoteric to be meaningful, but their essence is fully understood by most homeowners. They are well aware of the potential benefits from the larger equities in their homes generated by rising home prices. That is a key reason why so many more households have sought to become homeowners during the past decade. The share of households owning their own homes was 64.4 percent in 1980, and declined to 64.2 percent in 1990. But then it rose to 66.2 percent in 2000, and to 69 percent in 2005. More and more households wanted to get on the escalator of rising home prices to enjoy its clear benefits. How fast did this escalator actually ascend?

According to the National Association of Realtors, median housing prices for single-family homes in the entire United States in current dollars rose 47.9 percent in the 1980s, 51.1 percent in the 1990s, and 53.2 percent from 2000 to 2005. That is a compound annual growth rate of 8.9 percent from 2000 to 2005, versus 4.1 percent from 1980 to 2000. Federal Reserve Board balance sheet data show a rise in U.S. household assets in real estate (in current dollars) from \$12.5 trillion in

2001, to \$19.1 trillion in 2005—a gain of \$6.6 trillion, or 53 percent. In the same period, households’ disposable income rose by \$1.6 trillion, or 21 percent. That was 76.5 percent less than their gain in real estate values, which is almost all in owner-occupied homes.

Homeowners’ borrowing against their real estate equaled 44.9 percent of their home values in 2005, versus 41.8 percent in 2001. So the net equity of homeowners rose from \$7.3 trillion in 2001, to \$10.9 trillion in 2005. That was a gain of \$3.6 trillion, or 50 percent in four years. That gain in net equity was 2.25 times larger than households’ gain in disposable income.

Total homeowner borrowing of all types against homes in this period (including home equity loans) rose from \$5.2 trillion to \$8.2 trillion, or by \$3.0 trillion (57 percent). Thus, as of the end of 2005, homeowners still had \$10.9 trillion in home equity free and clear. That amount was 57 percent of the value of real estate owned by households. However, homeowners’ ability to monetize this net asset is limited by interest rates in relation to their incomes. As interest rates rise, their ability to borrow is limited.

In sharp contrast to homeowners’ real estate wealth, their holdings of corporate equities fell drastically after the 2000 stock market crash, according to Federal Reserve data. In 1999, all households and non-

profits together held \$12.1 trillion (in current dollars) in corporate equities and mutual funds, which was 24 percent of their total assets. By 2005, those assets equaled \$10.2 trillion, or 16 percent of their total assets. Thus, their stock holdings had fallen in current value by \$1.9 trillion, or 16 percent. But the gross real estate assets of households alone went from \$10.3 trillion dollars in 1999 to 19.1 trillion in 2005, a gain of \$8.8 trillion (85 percent). By 2005, real estate was 30 percent of households’ total assets.

Moreover, the share of all households who were homeowners had risen from 66.2 percent in 2000 to 69.0 percent in 2005. So this immense increase in household wealth was spread over a large share of the total population. According to Federal Reserve Board balance sheet data, the net housing equity per homeowning household—after subtracting all mortgage and home equity loans—rose from \$92,844 in 2000, to \$139,169 in 2005, a gain of \$46,324 (50 percent) in five years (in current dollars).

In contrast, median household incomes (in current dollars) have not increased much. In 2000, the median was \$41,990; in 2005, it stood at \$45,000. That is an increase of \$3,010 (7.1 percent) in five years, or an average income increase of \$602 per year. In contrast, the typical U.S. homeowning household had an average increase in net housing equity wealth

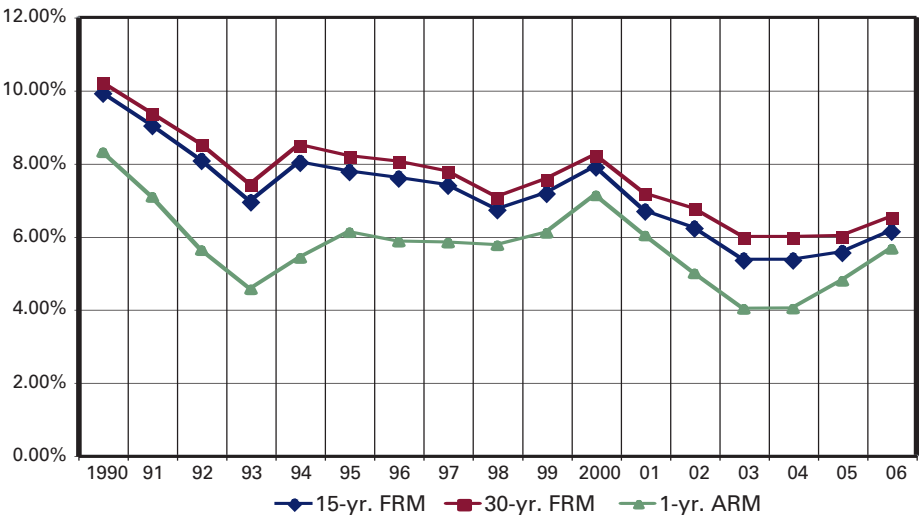
of no less than \$9,264 per year, or 15.4 times as much, in the same period. If the median home was worth \$139,000 in 2000, and \$207,000 in 2005 (NAR data), the homeowner could have borrowed 45 percent against the home's value in 2000 (the average percentage of mortgage and home equity financing in Federal Reserve Board balance sheet accounts) and received \$62,550. The monthly payment for that loan would have been \$593, since the 15-year fixed mortgage interest rate was 7.89 percent.

If the homeowner refinanced the same home in 2005 (when the 15-year fixed mortgage rate was 6.13 percent) using the same monthly payment in order to avoid a higher monthly burden, the loan would have been \$69,785. This drop in interest rates can be seen in Figure 2, which is

based on data from HSH Associates. After repaying the first loan, the owner could have taken \$7,235 of the loan proceeds and applied that amount to consumption. Thanks to rising home prices, the owner's remaining net home equity would actually have increased from \$76,450 to \$137,214 (79 percent), while his or her consumption spending capacity notably expanded.

Thus, the homeowner would have been able to afford more consumption spending from even such a partial "cashing in" on increases in home equity than from increases in income in the same period, even without making any higher monthly payments on the mortgage loan. Moreover, if the owner could afford a higher monthly payment of \$792, he or she could have borrowed 45 percent on the greater value of the home, or \$93,150,

Figure 2: National average home mortgage interest rates, 1990-2006



paid off the original loan of \$62,550, had \$30,660 to spend on more consumption, and still had a gain in net home equity—after subtracting the new larger debt—of \$113,850. In both cases, rising home prices would have both expanded the owner's ability to consume and increased his or her remaining wealth substantially.

It may seem unwise to base the above computations about home equity on the median home sales prices in current dollars reported by the NAR since these prices do not correct for changes over time in the quality mix of homes sold each year. Since new homes have been steadily getting larger, one would suppose that some of the increases in prices NAR data show over the years were due to higher quality rather than a true change in price. But Freddie Mac publishes a home sales price index based on resales of the same homes over time. This index implicitly corrects for quality changes (except those due to remodeling the same homes). The home price series shows an overall increase in U.S. home prices from 1980 to 2005 of 296.6 percent. That is 27.4 percent larger than the 232.8 percent increase in the NAR median price measure over the same period. In fact, annual percentage increases in prices calculated for both series are 70 percent correlated with each other. Apparently, by using the lower median rather than average prices, the NAR measure more than offsets the rising quality

problem mentioned above. Therefore, I use NAR data in computing home equity trends.

The contention that homeowners have used rising prices to “cash out” some of the equity thereby created in their homes is not just a theory—it is borne out by statistical data. Mortgage interest rates as reported by Freddie Mac fell from 10.13 percent in 1990 to 6.94 percent in 1998, rose to 8.05 percent in 2000, but then dropped to 5.66 percent in 2004 and 5.87 percent in 2005. This fall in mortgage rates motivated millions of American homeowners to refinance their homes, and many of them increased the sizes of their mortgages when they did so—thus “cashing out” some of their equity in the process.

When interest rates dropped from 8.05 percent in 2000 to 5.66 percent in 2003, homeowners could borrow more money for the same monthly payment. The monthly payment on a 30-year fixed-rate \$100,000 mortgage loan at 8.05 percent is \$737. When the interest rate fell to 5.66 percent in 2003, the same monthly payment supported a loan of \$127,581. So a refinancing homeowner in 2003 could take out \$27,582 in cash without having to increase the monthly payment.

This advantage could have been increased if the borrower used an adjustable rate mortgage, since interest rates on those have recently been lower

than on fixed-rate loans. In 2000, effective fixed-rate mortgage loan rates averaged about 8.25 percent, whereas adjustables averaged 7.00 percent, or 15.2 percent lower than fixed-rate loan rates, according to the Federal Housing Finance Board. The same source indicated that fixed-rate loans in 2004 averaged 6.01 percent, while adjustables were at 5.2 percent, or 13.7 percent lower.

The sequence of refinancing events described above is illustrated by several charts. Figure 3 shows that loans skyrocketed after 2000, both because of low interest rates and because so many households were shifting wealth from stocks to real estate. In 2003, total home mortgage lend-

ing reached nearly \$4.5 trillion in 2005 prices—more than four times its level in 1995. Furthermore, the proportion of all those mortgage loans consisting of refinancings also shot upward, as shown in Figure 4. Re-Fis comprised 58 percent of all 1-4 family mortgage loans in 1993, fell off when mortgage rates rose slightly in 1999 and 2000, but then soared from 2001 through 2003, reaching 65 percent in that year.

Figure 5 reveals that most refinancing homeowners increased the nominal sizes of their loans by 5 percent or more. Moreover, the rate at which they did so is 95 percent correlated with the median percentage by which the homes they were refinancing had

Figure 3: Total volume of 1-4 family mortgages, 1994-2005

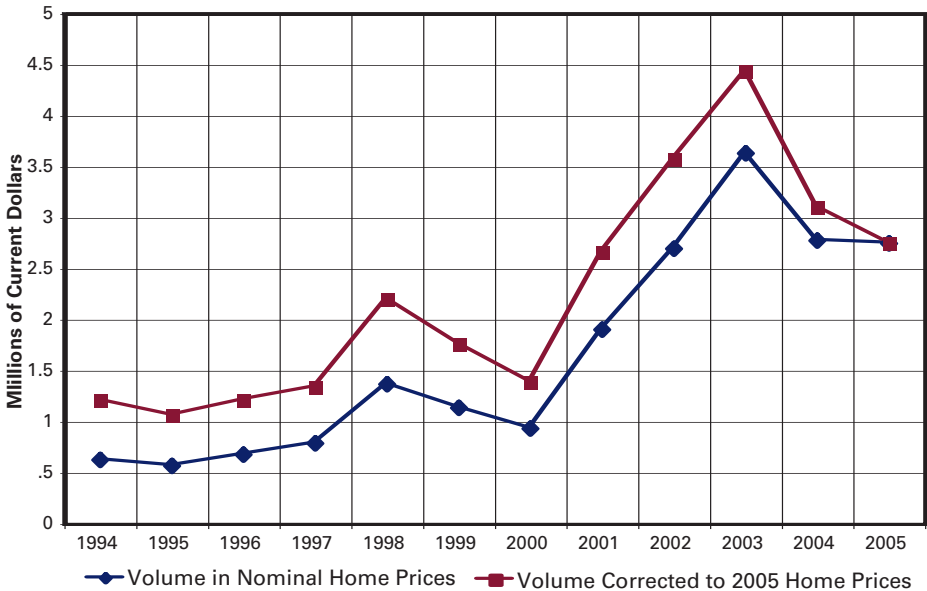


Figure 4: Average annual percentages of Freddie Mac Re-Fi mortgages

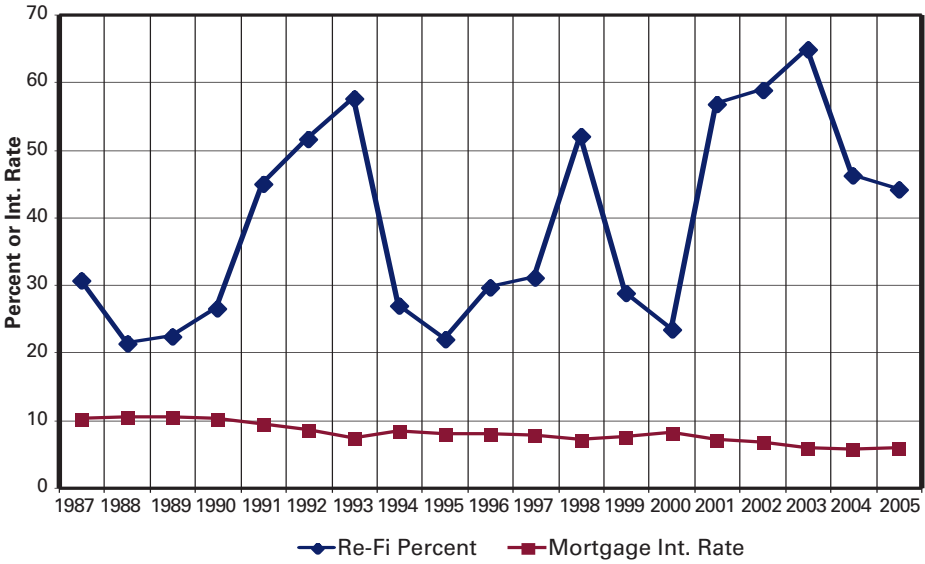
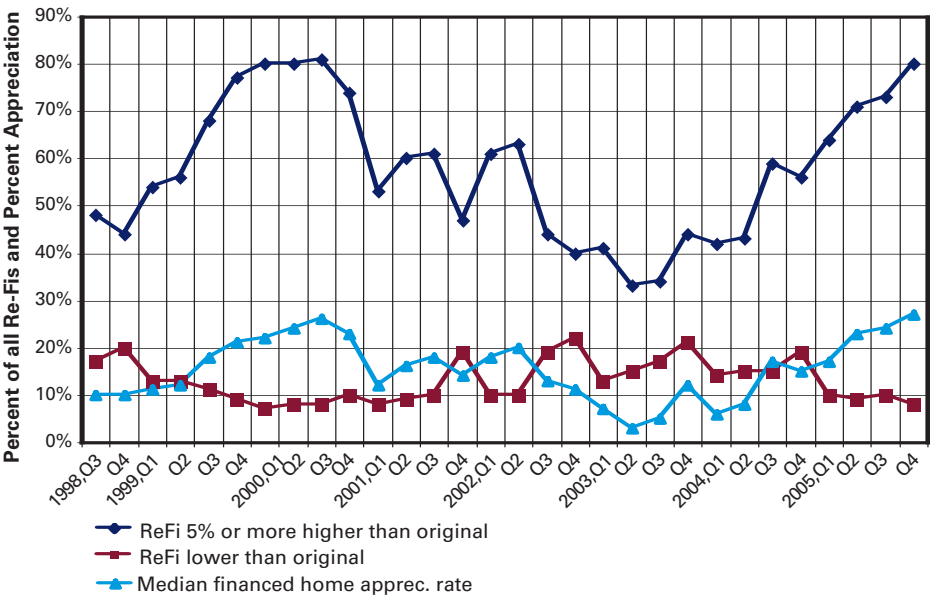


Figure 5: Shares of Re-Fis



appreciated. This demonstrates that rising home prices stimulated homeowners both to refinance and to take out some of their expanded home equity for use in consumption or other non-housing spending, which enriched millions of American homeowning households.

The increased wealth of homeowners is not contradicted by larger mortgages, since there has been an even greater increase in homeowners' net equity, even after subtracting increased mortgage and home equity debts. According to the Federal Reserve's Household and Non-Profits Balance Sheet data, households' net equity in real estate rose from \$6.6 trillion in 2000 to \$11.4 trillion in 2006 (72 percent), even though mortgages held by homeowners also rose from \$4.8 trillion to \$8.9 trillion, or by 87.5 percent, in the same period. Thus, even though homeowners expanded the mortgage debts on their homes from 2000 to 2005 by \$4.2 trillion, that did not prevent them from experiencing a \$4.8 trillion increase in their remaining net equities in those homes, thanks to rising home prices.

P E R S O N A L C O N S U M P T I O N S P E N D I N G

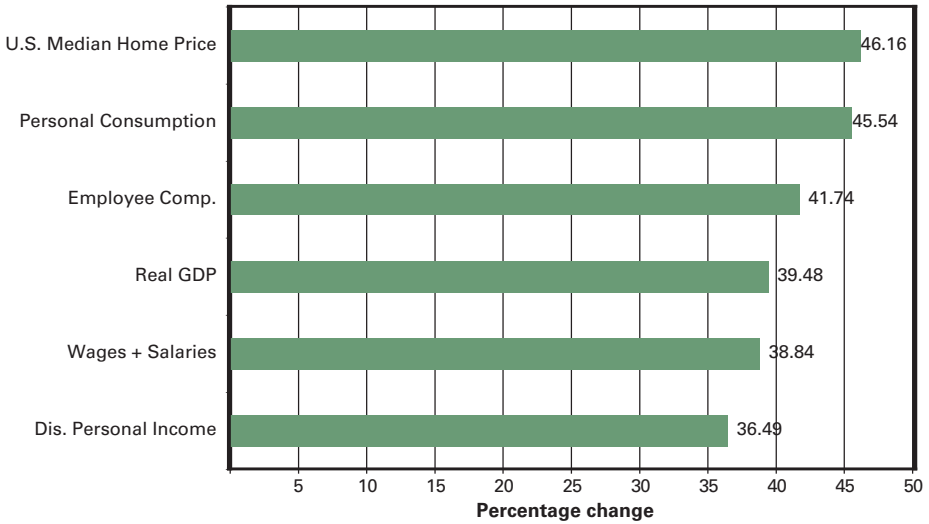
Personal consumption and national income statistics demonstrate that a considerable amount of the wealth arising

from rising home equities has been used by households to increase their personal consumption. Total personal consumption spending (in current dollars) was between 67 percent and 68 percent of gross domestic product (GDP) in every year from 1990 through 1998. It then it rose to 70.8 percent in 2003 and remained at 70.6 percent in 2004 and 2005. In percentage terms, that may not seem a large change, but 70.6 percent of total GDP in 2005 was \$291 billion greater than was 68.0 percent.

Personal consumption spending also rose faster than personal disposable income in constant-value (2000) dollars; it was 92 percent in 1992, rose to 94 percent in 2001 through 2004, and hit 98 percent in the third quarter of 2005. In relation to wage and salary payments (in current dollars), personal consumption was 146 percent in 1995, but has steadily risen to 153 percent in 2005. The relevant percentage increases in personal consumption and several other key economic variables (in constant dollars) are shown in Figure 6. Only median home prices reported by the NAR and corrected for inflation increased faster than personal consumption in that period. Personal consumption's rise was especially greater than that of personal disposable income. Hence, income alone was not responsible for the large increase in personal consumption in that decade.

Many economists have concluded

Figure 6: Percentage changes in key real variables



from these data that American households were simply reducing their savings to increase their consumption. This inference is supported by official national income statistics, which do not count increases in home equities as either income or savings of greater wealth possessed by households. But homeowners know the truth. Rising home equities are equivalent to discovering gold buried in their backyards. Why? Because home equities can be sold and the proceeds used to buy almost anything else. So homeowners, greatly stimulated by lower interest rates that reduced the monthly cost of “cashing out” some of their newly increased home equities, have been doing just that.

It is hard to find hard evidence of what

homeowners have done with their newfound equity since there are no official statistics about where that money has gone. However, the fact that personal consumption spending since 2000 has risen faster than income, wages, or gross domestic product, and to record levels of gross domestic product, certainly suggests that householders are using those funds, at least in part, to increase their consumption.

HOUSING MARKET SLOWDOWN

There is little doubt that housing market activity has slowed in 2006 compared to its levels during the preceding few years. The first sign is a lengthening of the time

it takes for owners to sell homes they have placed on the market. Those homes are no longer going in just a few days, with hordes of buyers vying to snap them up. Now homes for sale linger on the market, which in turn increases the inventory of homes available to buyers. Yet record new construction and sales levels in 2005 still influence many homeowners to believe they can still cash in on their homes near the top of the market.

Even so, the increasing influence of slightly higher interest rates is making itself felt in 2006. California has already had a decline of 10 percent in the number of homes sold in the last quarter of 2005, compared to the same period one year earlier. But median prices there still rose 16.4 percent over the last quarter of 2004, to a median price of \$548,200—more than double the nationwide median. Many households that bought homes in the past few years were anticipating their future housing needs while home financing was easy. So they have robbed future demand while expanding existing housing market action. This tendency will have a slowing effect in the next two years or so.

However, there is no evidence of anything like a catastrophic bursting of the housing bubble that many pessimists have predicted. In fact, if the NAR forecast of a somewhat less than 10 percent decline in existing home sales, new housing construction, and new home sales

during 2006 holds true, that would still make 2006 the third-best year ever in these categories.

A slowdown in housing markets will have several important impacts on the economy. First, falling home construction will negatively affect employment and incomes for those in the homebuilding industry and related activities. Since homebuilding has been a major star of this economic expansion, this is not a trivial effect. On the other hand, if interest rates rise significantly, the outflow of renters into purchasing first-time homes will also slow down, improving the prospects for the apartment industry. Vacancy rates should stop rising and stabilize, and rents may even begin rising again. The Census Bureau reported that vacancy rates in apartment buildings containing five or more units peaked at about 12 percent in late 2003, and were about 10.7 percent in early 2005. The vacancy rate in apartment buildings operated by members of the National Multi-Housing Council was even lower—about 4.5 percent in early 2005.

Third, there will be some bursting bubbles in geographic areas where high-rise condominium construction has been overbuilt. High fractions of speculative buyers may lead to significant defaults and sharply falling condo prices in such markets. Fourth, in those markets where home prices stop rising and begin to decline,

many homeowners will take their units off the market to avoid accepting less than they think their homes are worth. Instead, those owners will simply wait out what they believe will be a temporary setback in the market until prices start to rise again. Such shrinkage of the for-sale market normally does not happen immediately after a slowdown begins, but comes somewhat later. Yet this withdrawal phenomenon is what prevents home prices from collapsing after a big run-up such as the one sellers have enjoyed since the late 1990s. That is why the United States is unlikely to experience a bursting bubble phenomenon throughout its housing markets.

Fifth, many home buyers who have used minimal down-payment mortgages, often of the interest-only type in the initial years, will have difficulty meeting their monthly payments. This could cause a substantial increase in mortgage defaults, especially in those markets where such marginal financial methods have become widespread, as in Southern California.

Sixth, and perhaps most important of all, personal consumption spending is likely to reduce. Many homeowners will be less eager to cash out some of their newly expanded home equity through re-financing when mortgage interest-rates are higher. With refinancing already falling below its record levels in 2001-2003 because of the threat of higher interest rates, fewer households will be swimming in cash

derived from switching to larger mortgages at no-larger monthly payments.

If as a result, personal consumption in 2006 falls to 67 percent of GDP instead of the 70.6 percent level it reached in 2005, such spending would decline by over \$400 billion, or 5 percent. That would slow the overall economy, since personal consumption accounts for two-thirds of all the economic activity in the United States. Millions of homeowner households would no longer be willing or able to rely on cashing out some of the equity in their homes to compensate for their lack of savings. This might also increase worker dissatisfaction with the relatively slow growth—or even shrinkage—in their incomes caused by low-wage competition from abroad. Sentiments against the continued impacts of globalization might become much more intense, once the positive impacts of low foreign wages on American home prices has declined or disappeared. That could lead to increasingly anti-open-market views among the American electorate influencing the 2006 and 2008 elections.

CONCLUSION

The dramatic run-up in American home prices has been a major factor stimulating the expansion of the overall U.S. econo-

my. Not only did record activity levels in housing construction increase employment and incomes, but also a huge increase in the wealth of American homeowners helped them expand their personal consumption spending to record levels. Since consumption accounts for more than two-thirds of our total national income, this has been a major factor sustaining American prosperity while we have been fighting a war on terrorism.

But the generally expansionary economic force of American housing markets will lose a lot of its force in the next year or two. As interest rates rise, new construction and sales will slow down, and home prices will not escalate as fast, if at all. Demands for housing that have already been met by home-buyers taking advantage of easy financing terms will no longer be available to push building and sales upward. Consequently, the market balance between buyers and sellers that has long favored sellers will shift as more sellers try to cash out, and as fewer buyers have access to the favorable financing of the past five years.

This shift will almost surely not be accompanied by any widespread collapse in housing prices, the proverbial bursting housing bubble that some doomsayers have predicted. But the multiple impacts of slowing housing markets will have a similarly downward influence upon

many other aspects of the American economy, especially personal consumption. It will not be a catastrophe, but it will definitely be noticeable.

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