RCF Economic and Financial Consulting Incorporated

ECONOMIC INSIGHTS

A Newsletter For The Chicago Economic Observatory

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Housing and the Financial Crisis: Overlooked Perspectives

"Economic Insights" presents RCF's take on pertinent issues affecting the U.S. and Chicago economies. Our analysis highlights the effects of long-term economic fundamentals on present events.

In this first issue, we report on a re-appraisal of the relation between housing, the credit crisis and the real economy. Among our findings are:

Fears that housing foreclosures will prolong the credit crisis are exaggerated.

The aftermath of the housing boom that ended in 2006 on the real economy will be more serious than commonly recognized.

These findings center housing markets and lead to recognition that:

Higher priority than as yet exhibited by policy makers will be needed to devise a permanent credit fix.

More reliance on fiscal policy and less on monetary policy will be required to stimulate the economy from here on and requires re-learning some old lessons.

Inside this issue

George Tolley and Ella Revzin are principal contributors to this issue.

Overview

We see hope that housing as a source of defaulting loans will diminish earlier than expected.

Many home buyers with questionable credit, aggressive adjustable rate borrowers, and speculators counting on price appreciation are out of the market by now or will have undergone foreclosure by this time next year. New economic events might of course also affect foreclosures.

Foreclosures have accounted for less than 1% of all houses in the U.S., hardly enough to completely destroy value in the remaining homes. There is a limit to the effect that a change in such a small percentage of the housing stock can have on overall home values.

Alarmist discussion that mortgage indebtedness exceeds market value for up to one in six homes ignores reasons why foreclosure is unlikely for most of them. Most view homes as a long-term investment and make mortgage payments on time, realizing that home values are likely to recover eventually. They do not want the disruptions of being uprooted, to say nothing of loss of credit rating.

The attention being given to housing is deflecting attention from the more pressing need to fashion financial reform.

Ever since the rejection of Alexander Hamilton's national bank approach which ushered in a century of monetary chaos resulting from unregulated banking, history has shown that financial institutions, more so than non-financial ones, require regulation to avoid periodic failures of credit arrangements.

Few will disagree that the major problem now appears to be restoring the general confidence on which a credit system depends. Yet, where are the commissions to study the problem, or the legislative proposals that will lay out the system of regulation needed for today's sophisticated financial instruments?

Contrary to the over-emphasized effect of housing on the financial crisis, the more lasting effects of recent housing events on the real part of the economy may have been under-emphasized.

The housing boom that ended in 2006 has left a bloated housing stock that the nation will have to deal with for several years and which will act as a drag on growth.

Ten years of rising prices motivated a large number of young households to purchase homes at an earlier point in their lives than their predecessors. These households would normally have been an important source of ongoing purchase of homes going forward, but that is no longer the case.

More than one million first-time home buyers own homes now who would have bought at a later time if it had not been for the housing boom.

Another longer run legacy of the housing boom is to blunt the effectiveness of monetary policy.

Housing is normally one of the main shock absorbers in combating recessions, but this tool is not available for the current downturn. In the past, in combating recessions, Fed monetary policy has lowered interest rates inducing interest sensitive industries to take up slack in the economy.

Today, because of past housing excesses, we have too much housing supply and can expect little response from changes in already low interest rates.

Emphasis is shifting from monetary to fiscal policy in the form of stimulus payments, unemployment benefits, infrastructure projects and green jobs.

Fiscal policy is less flexible than monetary policy. More time is required for it to take effect, and both economically and politically it is more difficult to turn on and off.

While no one can be sure, it is even possible that the bold fiscal moves now being proposed will stimulate the economy during recovery from the present recession, leading to inflation.

Once again, attention to long-run financial reforms instead of either monetary or fiscal policy is being neglected in working ourselves out of present problems by restoring normal credit market conditions.

Locally, the foregoing national events should be major influences on the Chicago metropolitan area.

The Chicago area foreclosure rate has been a bit above the national average, but it has remained well below 1%, as compared to 2% and 3% in the worst hit areas of the country.

Sub-areas with large concentrations of condominiums are another story. Condos have a longer lag between planning and construction, and there are still many more units that will come onto the market, further adding to the over supply of housing.

An influence of the credit crisis on the Chicago area economy is its effect on financial service employment, which however can be overstated. When the dust settles, there will still be substantial long-run demand for financial services.

* * * *

How Big is the Oversupply of Housing?

The year 2006 marked an end to a ten-year period of accelerating appreciation in real housing prices in the U.S. Although much has been made of subprime borrowers who purchased housing they could not in reality afford, for much of this period market conditions facing prospective buyers made buying a home a reasonably smart decision. During the 1990s, real income per household grew, and prices rose in response to normal market conditions. After 2000, as median income declined, lower interest rates allowed the housing expansion to continue. Ultimately, however, housing prices grew beyond levels that could be sustained, eventually accelerating to untenable levels.

Untenable Home Ownership Levels

Several measures suggest that an untenable housing boom was in progress after 2000. Households bought homes at a higher rate than ever before. According to U.S. Census data, home ownership rose from an average of 64% of all households in 1994 to 69% at the height of the boom in 2004. The ownership rate fell slightly to 68% in 2007 but remains far above pre-boom levels.

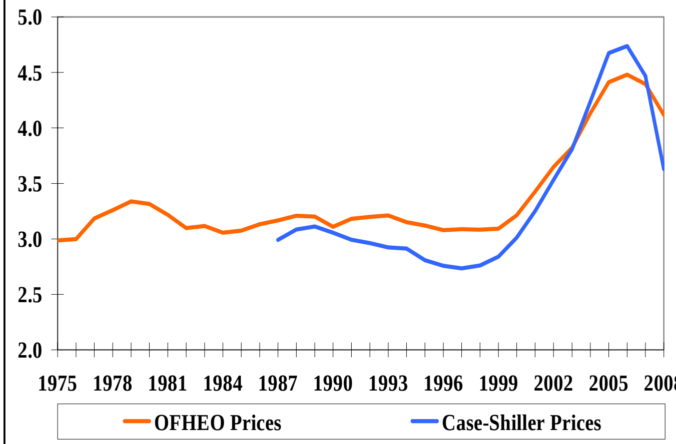
As shown in Figure 1, in the pre-boom period between 1982 and 1994, the growth rates of total households and total owner-occupied households were about the same. During the housing boom period between 1994 and 2006 the growth rate of owner-occupied households far exceeded that of total households.

Figure 1 Growth of Total Households and Total Owner-Occupied Households

	1982-1994		1994-2006	
	Total Households	**Owner-Occupied Households**	**Total Households**	**Owner-Occupied Households**
U.S., total	18%	16%	11%	19%
Less than 30 years old	-8%	-21%	11%	43%
30 years and over	25%	21%	11%	18%

Source: U.S. Census; BLS ; RCF Calculations

Figure 2 Ratio of Median Home Price to Median Household Income



Source: U.S. Census; OFHEO; S&P ; BLS; RCF Calculations

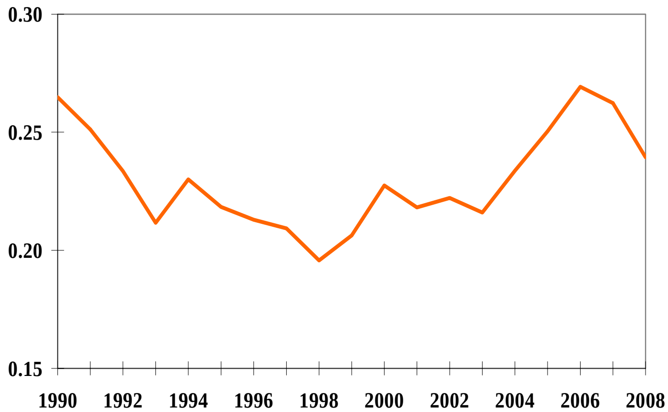
The most striking change occurred for households headed by someone under the age of 30. In the earlier period, homeownership among this group had actually declined. Between 1994 and 2006, the percentage increase in homeowners under the age of 30 was four times as great as the growth in households in this age group. If homeownership rates had not changed since the mid 1990s, then two-thirds of young first-time home buyers under 30, or about 1.2 million households, would not have purchased a home by 2006 and would have waited to buy later in life.

For total households of all age groups, a return to the typical long-run homeownership ratio of 64% from the recent 69% level, would take 6 and a half years assuming that no additional homes were purchased.

Ratio of Home Prices to Income

As homeownership rose, real median home price growth far outpaced increases in median household incomes, with prices growing even when incomes were stagnating. Over the long-run, the proportion of income that families have been willing to devote to housing has put limits on home prices relative to income and has been quite predictable. From 1975 to 2000, the ratio of median home prices as measured by the Office of Federal Housing Enterprise Oversight (OFHEO) housing price index to median family income (U.S. Census) remained between 3 and 3.5. After 2000, however, the ratio rose to more than 150% of its historical level. As shown in Figure 2, the inflation adjusted OFHEO home price index grew 39% between 2000 and 2006, while the S&P/Case-Shiller national index of home prices grew 54%. During the same period, the U.S. Census measure of real median income per household fell 2%.

Figure 3 Ratio of Mortgage Payment to Median Household Income



Source: U.S. Census; OFHEO; S&P ; Freddie Mac; BLS RCF Calculations

Mortgage Payments and Income

Favorable mortgage terms kept demand for housing up even during years in which median household income fell. For much of the period after 1993, the cost of a monthly mortgage payment remained relatively flat. A contributing factor was the prolonged period of low interest rates maintained by the Fed in response to the 2001 recession and the slow recovery from it.

As an example of the effect on housing affordability, Figure 3 compares the ratio of monthly mortgage payments for a 30-year fixed rate loan with a 20% down payment to household median income. This is based on the real purchase price for a median priced home indexed to the national OFHEO price index. The estimated ratio of pre-tax monthly mortgage payments was between 20% and 23% throughout most of the 1990s and up to 2003. The ratio began to rise in 2004, following a slight rise in rates. Further rate increases in 2005 and 2006 sent it up to 27%. The fall in the ratio since 2006 suggests that a correction has already begun.

Housing as a Credit Crisis Instigator

Historically, booms in real estate lead to distress in financial markets more often than not, but the extent of financial turmoil depends on the structure of the credit market not the health of the real estate market. In a few countries for which there is adequate data, significant real estate booms and busts in the recent past have caused only minimal credit market distress. In these cases, banks maintained high adequacy ratios throughout the entire cycle and government regulators kept check on runaway real estate prices as a matter of policy -- Singapore and Hong Kong are two such examples. [1] More often, however, the collapse of real estate booms has meant significant trouble for financial markets.

For example, Finland and Sweden saw huge increases in property values in the mid-1980s but when prices plummeted in 1990 and 1991, the financial sector in both countries, burdened by excessive exposure to real estate, suffered a major crisis as reflected in loss of confidence and plummeting stock prices. Similarly, the Japanese banking crisis of the early 1990s had its origins in the end of a large real estate market expansion.[2]

In each case, a different combination of factors contributed to excessive credit expansion that increased the demand for real estate. What followed were very large increases in property and land prices above fundamentals. These credit expansions were primarily products of financial deregulation, real income growth, expansionary monetary policy, and various credit market innovations; although this list is not exhaustive of all the factors. As a result, each country's financial system total exposure to real estate increased and became much larger than just the loans kept directly on banks' balance sheets.

In addition, a form of disaster myopia sets in during real estate booms that leads to gross underestimation of risk—in part because the length of real estate cycles is much longer than the regular business cycle, so participants forget that there was ever a downturn in the past when the riskiest borrowers were not able to make their loan payments. [3]

Subprime Lending: A Housing Boom Late Comer

While much has been made of the culpability of subprime borrowers and lenders in the current credit crisis, this crisis is much like any other in the past. The seed was sown during the long period of U.S. economic expansion during the 1990s, which sent assets and equity prices climbing across the board. Following the tech stock market crash, investment moved out of equities and into other assets, especially real estate and mortgage backed securities. After 2001, low interest rates kept the cost of home purchases relatively low even after household incomes stopped growing. Over this entire period, the financial system's total exposure to the real estate market increased both directly via loans to households and indirectly through mortgage securitization.

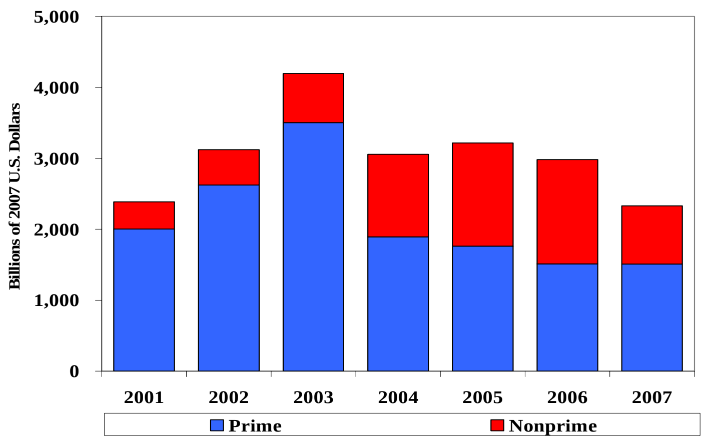
As shown in Figure 4, subprime and other forms of nonconforming mortgage loans rose in prominence only starting in 2004. Although these types of loans were first introduced in the mid 1990s, almost a decade passed before they gained sig-

[1] Hilbers P., Q. Lei, and L. Zacho, 2001, "Real Estate Market Develop ments and Financial Sector Soundness," IMF Working Paper 01/129, Washington D.C.: International Monetary Fund.

[2] Ibid.

[3] Herring R., and S. Wachter, 2003, "Bubbles in Real Estate Markets," in *Asset Price Bubbles*, 2003, Hunter W., G. Kaufman, and M. Pomerleano, eds., Cambridge, MA: The MIT Press. pp.217-229

Figure 4 Prime and Nonprime Mortgage Originations



Source: Harvard University's Joint Center for Housing Studies; RCF Calculations

nificant market share. Until 2004, prime originations accounted for 80% of the value of all mortgage loan originations, while subprime and alt-A loans accounted for about 15% combined, of which more than half were for home equity loans. In 2004, the volume of prime originations dropped by half while that of nonprime loans increased by 68%. The latter grew for another two years and in 2006 commanded a 48% share of all home loan originations.[4]

Not only were nonprime loans a very recent choice for household mortgage financing, a good portion of these loans were refinance loans, which do not have any direct effect on home sale prices. According to recent data compiled by the Federal Reserve Bank of New York, only about 38% of all subprime and alt-A loans were taken out for a home purchase.[5] This is why there is not a particularly close correlation between the timing of the peak in homeownership that occurred in 2004 and the peak of the subprime market in 2005 and 2006.

However, most of the nonprime loans were securitized. By definition, all alt-A loans are securitized and at least 75% of all subprime loans originated in the last three years of housing price increases.[6] When home prices stopped growing and there was a marked increase in subprime defaults, financial firms and investors were forced to re-examine the value of all mortgage backed securities and the entire process by which these were created and marketed. Uncertainty about the extent of the financial sector's exposure to these loans led to panic and the massive lack of confidence that we see today.

The Foreclosure Preoccupation

The level of total household mortgage debt may give an exaggerated impression of the role that foreclosures have in deteriorating levels of bank capital. Household mortgages account for 21% of all outstanding debt in the U.S.[7] Still, only a small share of outstanding mortgages will end in foreclosure. The majority of foreclosures are occurring in just four states (California, Arizona, Nevada, and Florida). This suggests that the foreclosure crises is less a national crises than a local one, though foreclosure rates have risen across the country.

Further housing price declines may not have as much effect on credit as the recent declines. Most extreme cases causing foreclosures have been shaken out of the market. Continued price declines may reduce values below market values for some additional homes, but increasingly those affected will be people who can afford the mortgage payments and may properly view the present situation as temporary, choosing to hold onto their homes. Solutions to the current credit crisis are more largely to be found outside of measures to help forestall further foreclosures.

Challenges and Unknowns in a Permanent Credit Fix

Will a turnaround in housing relieve uncertainty and put a stop to panic in credit markets? Uncertainty has spread beyond mortgages and extends to most other types of financial vehicles. Much of the present loss of confidence of investors in the financial system is no different from a run on banks in the days before there was bank deposit insurance. While housing may have been a trigger to the present loss of confidence, the loss of confidence at this point extends to all credit, not just housing.

Perhaps above all, voices of reason are called for, rising above the bickering between those who support and those who are against regulation. An essential element in devising a fix is to specify maximum leverage ratios on all firms that are financial intermediaries. Beyond this, detailed technical analysis is needed to delve into problems related to securitization that stem from highly sophisticated financial instruments that lack transparency and whose effects are magnified by global markets.

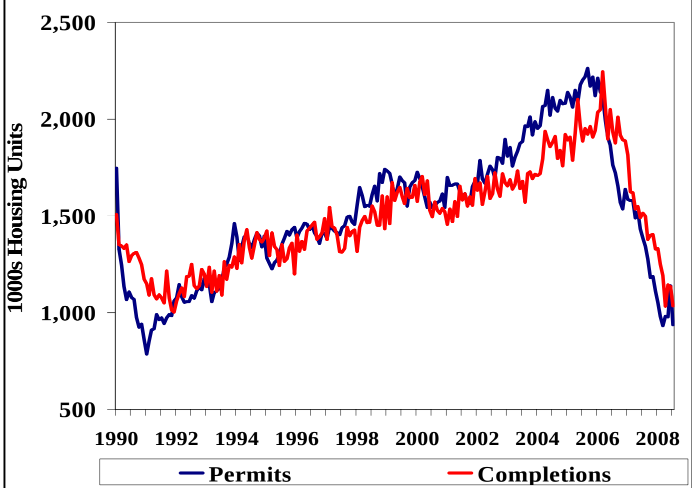
[4] Joint Center for Housing Studies of Harvard University. *The State of the Nation's Housing 2008. http://www.jchs.harvard.edu/son/index.htm.*

[5] Federal Reserve Bank of New York, *Credit Conditions in the United States*, http://www.newyorkfed.org/regional/subprime.html. (FRB Subprime).

[6] Inside Mortgage Finance. 2007. *The 2007 Mortgage Market Statis tical Annual, Top Subprime Mortgage Market Players and Key Data.* Bethesda, MD: Inside Mortgage Finance Publications.

[7] Federal Reserve, *Flow of Funds Accounts of the United States*, September 2008, http://www.federalreserve.gov/releases/z1/

Figure 5 New Housing Permits and Completions



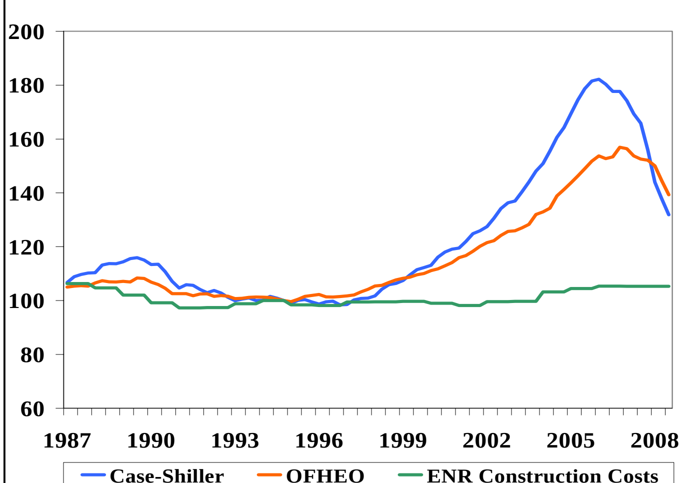
Source: U.S. Census

The Housing Price Bottom: How Far, How Soon?

Despite any further declines in prices, the effect on financial institutions will be muted going forward as the rising levels of foreclosures diminish next year. The bulk of the speculators, having watched prices fall for two years, should be out of the market by now. In addition, of the riskiest loans given to subprime borrowers (about 63% of all subprime mortgages outstanding in August 2008), 54% have already reset (monthly payments have adjusted up), and another 30.5% will reset by August 2009 (FRB Subprime).

Real home prices peaked in 2006 and since then have been dropping in most markets across the U.S., with the worst depreciations in California, Nevada, Florida, and Arizona—places which had the highest escalations in prices. The S&P Case-Shiller index shows a drop of 28% since its peak in the first quarter of 2006, while the OFHEO index has only fallen 11% since its peak in the fourth quarter of 2006.

Figure 6 Home Prices and Construction Costs



* Indices are set to equal 100 in 1994Q4 and adjusted for inflation

Source: OFHEO; S&P ; ENR; BLS; RCF Calculations

There are several reasons for the divergence of these two series. The OFHEO index takes into account only those loans that are sold to Fannie Mae or Freddie Mac, which excludes all jumbo and nonprime mortgages. On the other hand, the Case-Shiller index reflects homes bought only in the largest 100 U.S. metropolitan areas but does include data on <u>all types</u> of loans. [8]

In addition, although the market still has excess unsold inventory, the supply of new housing units stopped growing two years ago and has been on the decline, as shown in Figure 5. New residential permits peaked in September 2005, and new housing completions hit their peak in March 2006. Since then, in the wake of declining demand, both indicators plummeted and seem to have bottomed out slightly above their levels in the last housing downturn. This has kept the total number of unsold new homes from rising this year. Although having a deleterious effect on the construction industry, the contraction in new housing supply may be a blessing in terms of helping to speed the end of price declines, because it helps reduce the housing inventory overhang.

As Figure 6 shows, real construction costs, as measured by Engineering News-Record's Construction Costs index, remained constant through the entire housing boom. The cost of new home construction will remain an important influence on the price of existing homes because they act as substitutes in the housing market to some degree. The fact that prices in markets with excess supply are capable of adjusting very rapidly means that we could be closer than many think to the housing price bottom.

Two Legacies of the Housing Boom

It may be some time until housing again becomes a significant source of growth.

A first legacy of the housing boom is the increase in homeownership among the youngest households. However, youngest households tend to buy when the market is in an upswing but delay home ownership during downturns. We estimated previously, that around 1.2 million young households bought homes during the boom who might have bought housing at a later stage in their lives. With the collapse in home prices, the downward adjustment in the homeownership rate has already begun. Homeownership rates, particularly for young house-

[8] Leventis, A. 2008 *Revisiting the Difference between the OFHEO and S&P/Case-Shiller House Price Indexes: New Explanations*, Office of Federal Housing Enterprise Oversight., http://www.ofheo.gov/media/research/OFHEOSPCS12008.pdf

holds are likely to fall back to their pre-boom levels, dampening future demand for new housing even more.

A second legacy of the housing boom has been to reduce the effect of monetary policy in controlling the economy. Often housing growth is countercyclical to sharp downturns in the economy. In recessionary periods, the Fed can lower interest rates to motivate growth in the housing sector. This was the case in the wake of the 2001 recession. Interest rates went down and with that the cost of an average mortgage payment sparking demand for housing and increased construction investment. However, interest rates are already low and cannot provide further stimulus to housing. In fact, while the rates charged by the Fed have decreased over the last few quarters, mortgage rates have climbed. This is especially troubling as the economy heads into a downturn.

The End of Monetary Policy As We Know It

Fiscal policy, now being turned to, is a blunter tool than monetary policy both economically and politically. Fiscal policies may rightly be chosen at this time, but their problems as well as their promise need to be recognized. Start-up times are longer, and fiscal policies tend to be inflexibly targeted to specific projects. Getting approval politically takes time and suffers from slippages in quality. These types of measures are harder to time accurately and are especially difficult politically to turn off after the need for them has passed. New Deal fiscal policies never did get us out of the Great Depression as unemployment remained high until WW II. On the other hand, given the belated recognition that we have been in recession for some time, the possibility of a self-correcting recovery cannot be entirely ruled out. Then, the fiscal measures now being proposed could turn out to be inflationary.

A case can be made for building in discretion to vary fiscal stimuli and response to changing conditions. An even more important lesson could be, once again, that fundamental financial reforms to get credit markets back to normal need to receive more emphasis given the difficulties with both monetary and fiscal policy.

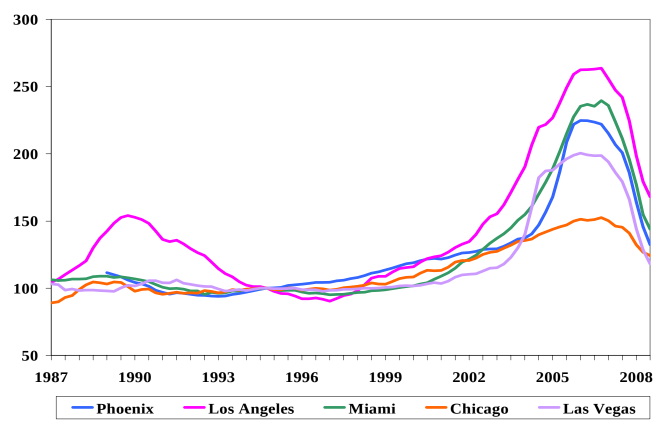
What Does It All Mean for Chicago?

With housing prices continuing to drop nationally, the Chicago metropolitan area housing market is better off and won't see the large decreases in its housing values that are occurring in California, Florida, and elsewhere where there were acute price bubbles. As can be seen in Figure 7, in comparison to areas with the highest price appreciation, Chicago's market saw only moderate price increases during the boom and should have less of a downward adjustment. Currently, Chicago MSA prices are falling at half the rate as in some of the overheated markets on the coasts. The inflation adjusted Case-Shiller Price Index for the Chicago MSA has fallen 14% over the last 12 months, while the OFHEO index has declined 9%. These changes are actually less than half the rate at which the same indices have fallen for Los Angeles, Phoenix, Miami, and Las Vegas.

Although there has been some spike in foreclosures locally, the worst problems are geographically isolated to markets that either experienced the highest run-ups in prices such as Las Vegas or areas such as Detroit, that were already on the decline before the housing boom even began. About 57% of all U.S. foreclosures are concentrated in five states: California, Florida, Ohio, Arizona and Michigan. Comparing ratios of foreclosure filings to households, four states have rates above 1%: Nevada, California, Arizona, and Florida. In Illinois, only 0.5% of all households have had a foreclosure filing in the second quarter of this year. The slightly higher foreclosure rate of the Chicago metropolitan area of 0.7% does not begin to approach the foreclosure rates of 2% to 3% observed in the problem areas.

The same national considerations noted covered in this newsletter are also affecting the Chicago economy. Additional negative influences may occur but can be overstated. As in some other large cities, condo booms may raise some problems. Because of the longer lead times for condos than houses, there are still many condos in the pipeline and will continue to come onto the market. Investor speculation was concentrated in condos, but has now evaporated driving demand down. Another consideration is Chicago's importance as a financial center. While layoffs of financial firms throughout the country are receiving publicity, there will still be a long-run demand for financial services that will ultimately cushion these effects.

Figure 7 Case-Shiller Price Indices for Selected Metropolitan Areas



* Indices are set to equal 100 in 1994Q4 and adjusted for inflation

Source: S&P ; BLS; RCF Calculations

The Chicago Economic Observatory

The Chicago Economic Observatory tracks the Chicago area economy, makes forecasts, analyzes issues affecting Chicago's future. Principal concerns are employment, real estate, government finances, transportation, education, and the environment.

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