PMI

PMI MORTGAGE INSURANCE CO.

Economic & Real Estate Trends

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MARCO VAN AKKEREN
Economist - Director

AYA OGISHI
Analyst

In This Issue

SHORT TERM INTEREST RATES CONTINUE TO RISE AS

U.S. Economy Expands

The Federal Open Market Committee – FOMC – raised the target federal funds rate 25 basis points to 2.25%, as expected following its December 14, 2004 meeting. Our outlook for 2005 is that the FOMC will continue to raise the overnight borrowing benchmark multiple times over the course of the year to a level of 3.5 to 4.0% by year's end. Long-term rates, on the other hand, are expected to rise not nearly as fast and the continued leveling of the yield curve will have significant implications for the mortgage market, as this trend will affect both home affordability and mortgage product attractiveness.

The Bureau of Economic Analysis *(BEA)* upwardly revised the third-quarter 2004 GDP growth rate to 4.0% in their latest restatement. This increase was driven primarily by larger personal expenditure consumption and a deceleration in imports associated with the weak U.S. dollar. While this is an increase over second quarter's growth of 3.3%, the current expansion falls short of the robust growth experienced during the second half of 2003 up to the first quarter of 2004, creating a continued sluggish labor market characterized by weak job creation.

Still, there are many positive signs in the U.S. economy. The manufacturing sector picked up in November for an 18th consecutive month of growth. Factory orders are also up, with industrial

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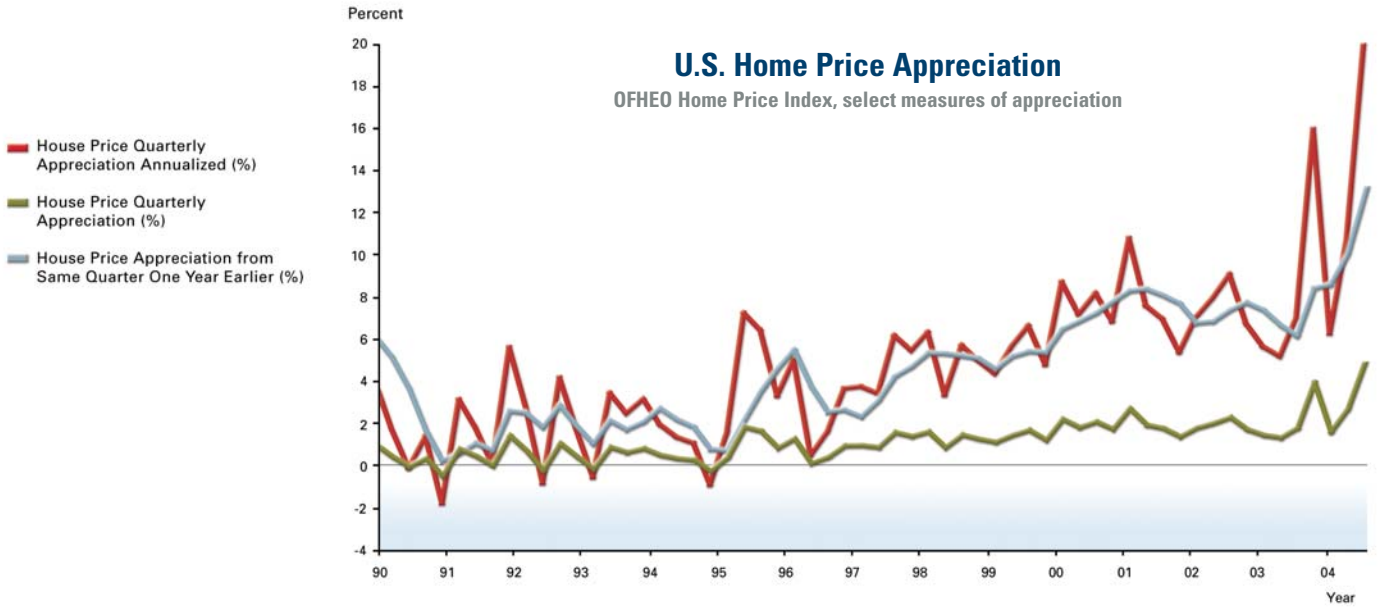
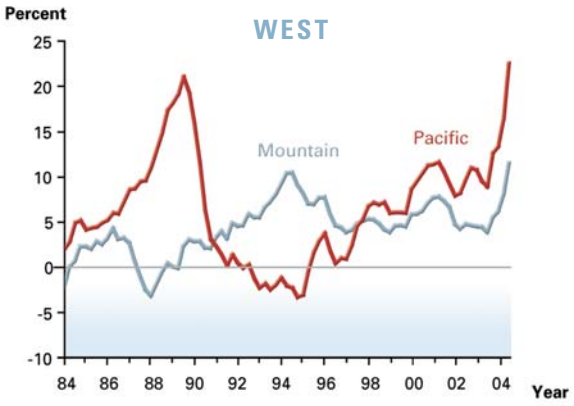
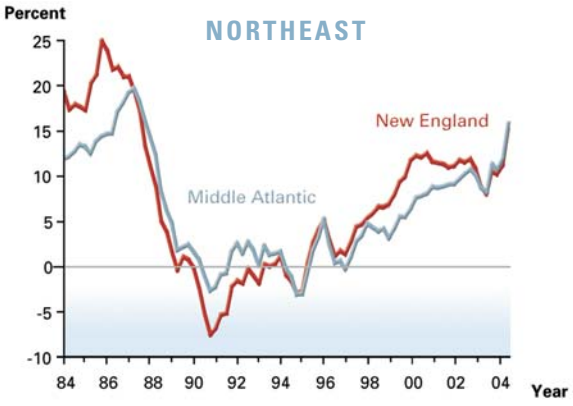
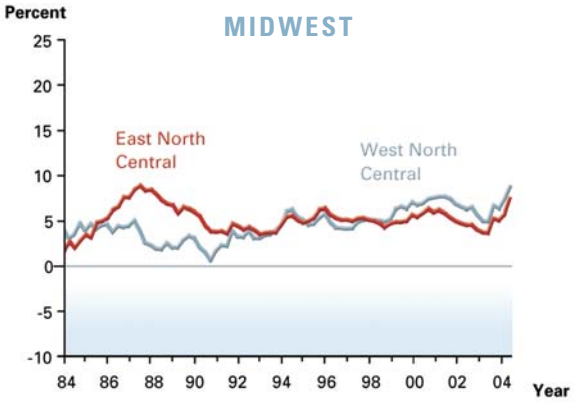


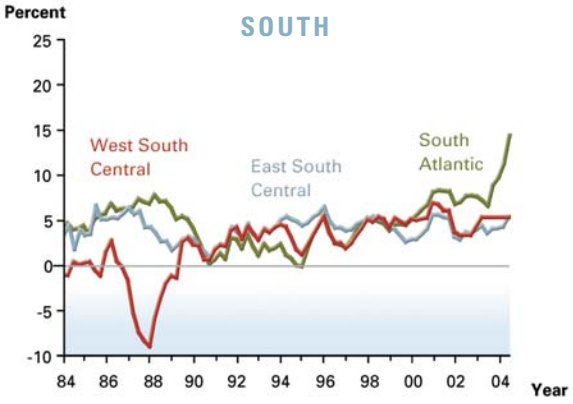
Regional Home Price Appreciation

by Census Division, percent change over 4 quarters earlier as of 3rd Qtr 2004









production operating at the highest rate since May 2001. Weakness in the U.S. dollar will help support these sectors by stimulating exports and reducing import demand. Overall, our outlook for economic growth in 2005 calls for continued expansion of the economy but a slower pace of 3.5 to 4.0%.

The U.S. unemployment rate remained at 5.4% in December while non-farm job creation disappointed with 157,000 *(preliminary)* new jobs for the month, up only slightly from 137,000 in November. October's personal income gains of 0.6% reflected strong job growth for the month, but dropped to 0.3% in November following weak labor market growth. Given projected quarterly GDP growth rates below 4.0%, 2005 is expected to be another year of unimpressive job creation. As a result, personal income growth will remain fairly weak and negatively impact the affordability component of the PMI Risk Index, especially given the recent record U.S. home-price appreciation and rising mortgage rates. Job growth has picked up in recent months, with an average 180,000 new jobs created over the past 3 months compared to an average of 152,000 new jobs over the past 6 months. We do expect average monthly job creation to further increase in 2005, but only between the 180,000 and 220,000 range.

Inflationary pressures have recently shown signs of resurfacing after remaining stable for several months. The CPI rose 0.2% in November and 2.2% over the previous year, while the all-items CPI jumped 3.6% over the previous 12 months. With continued economic growth, consumer prices are expected to move higher despite the absence of wage inflation. Producer prices are also showing signs of accelerating. Excluding the volatile component of energy, at 1.9% over the previous 12 months the core PPI is now at its highest level in 4 years. This makes it unlikely for at least the next 12 months that the Federal Reserve will swerve from its policy of monetary tightening at a "measured" pace.

We anticipate long-term rates to rise over this period, but at a much more modest pace. The benchmark 10YR CMT is projected to increase to 4.6%, causing the 30YR FRM to range between 6.2 and 6.3%. The flattening of the yield curve has caused the spread between the 10YR and 1YR CMT to decline from a high of 3.55% in July of 2003 to less than 1.6% in December 2004. This implies that borrowers now have less of an incentive to finance their homes with adjustable-rate mortgages *(ARMs)* relative to the 30YR FRM, which is tied with a spread to the 10YR CMT. As the yield curve further flattens in 2005, the ARM incentive will continue to decrease *(see* Chart 1 *on page 5)*, causing relatively fewer ARMs to be originated. In terms of recent home-price appreciation, a rise in interest rates will negatively impact the affordability of homes by raising monthly mortgage payments. We expect demand for homes in 2005 to slacken, prompting a slowdown in appreciation rates from the 25YR record highs of 12.97% that prevailed from third-quarter 2003 to 2004, as measured by OFHEO. As historical house-price appreciation, income growth and economic conditions differ by geographic region, supply and demand conditions for homes will also vary in the coming year, leading to differential home-price appreciation rates. *(See the latest PMI Risk Index for regional variation in affordability and house-price appreciation outlook).* ✹

Local Economic Patterns and MSA Indicators

Starting in third quarter 2004, the Office of Federal Housing Enterprise Oversight (OFHEO) has adopted the Office of Management and Budget's 2003 redefinition of the Metropolitan Statistical Areas (MSAs) to produce its latest House Price Index (HPI). This revision of the previous MSA definition has resulted in the creation of new MSAs as well as modifications to existing MSAs, and requires us to update our list of the 50 largest housing markets in the United States. The table on pages 4 and 5 presents our assessment on house-price risk for these realigned MSAs. In addition to the OFHEO HPI data, we use third-quarter 2004 employment data published by the Bureau of Labor Statistics and Affordability Index values calculated by PMI. Overall, the average risk index value declined to 161 for the 50 largest (updated) MSAs, as compared to last quarter's 186, which utilized the previous MSA definitions. This implies that, on average, there exists a 16.1% probability of a house-price decline over the next two years and across the 50 largest housing markets.

While the U.S. economy has demonstrated consistent if modest growth in third-quarter 2004, U.S. home prices have manifested continued strength as the average 12-month HPI gain has approached 13%. The Federal Reserve has followed up on its promise of a gradual increase in its target federal-funds rate, but the 30-year fixed rate mortgage has slightly declined, encouraging consumers to pursue their last perceived opportunity to benefit from low mortgage rates. This has led to another quarter of strong housing demand and escalating home prices, further depressing housing affordability. U.S. economic growth, however, remains only moderate, and the expansion has become more region-specific. Third-quarter data show that employment growth was substantial in Phoenix, AZ, Las Vegas, NV, and the Southern California and Florida regions. In contrast, contractions occurred in Denver, CO, Minneapolis, MN, and Chicago IL, as well as the Ohio and the New England regions.

Coastal MSAs continue to crowd the top of our ranking as Boston, with a risk index value of 533, replaces San Jose as No. 1 on the list. While slowing slightly in recent quarters with lower housing demand, the housing market of this northeastern MSA has flourished for the last few years despite the absence of any significant economic improvement. Aside from the expanding biotech sector, cutbacks continue across industries, in particular the manufacturing and IT sectors. Employment has shrunk 5%, or more than 110,000, over the last 3 years as high business and living costs have prompted businesses to relocate and out-migration trends continue. Providence, RI, has similarly climbed up the risk ranking with a strong gain in home prices and reduced affordability. An increase in index value from 330 to 397 has caused this MSA to move into the top 5. Although Providence's demeaned unemployment rate has moved closer to 0 with improved construction and non-financial service sectors, weak manufacturing and financial activities have prevented overall job growth.

Other MSAs on the eastern coastline have followed a trend similar to the New England MSAs, with lower affordability and heightened house-price risk. To the south of Boston and Providence, the newly redefined New York MSA now covers a much larger area and has slightly lowered its affordability index while also reducing its index value from 383, based on previous MSA definition, to today's 363. The inclusion of Nassau-Suffolk in the MSA has elevated the area's overall risk while more affordable Newark, NJ, and Bergen-Passaic have offset this risk. Situated between Boston and New York, Hartford, CT has benefited from relatively lower business and living costs. Its economic conditions, however, continue to suffer from continuously weak manufacturing and service sectors. The government sector has started hiring, which could eventually help stimulate other service sectors of the economy.

While affordability in the New England and New York areas has further dipped to recent new lows, homes in Washington, D.C., and surrounding areas have stayed relatively affordable as these MSAs benefit from healthy population trends. Even with strong home-price appreciation in recent years, the affordability index value is just below 100 in D.C. and much higher in Baltimore, MD, Richmond, VA, and Virginia Beach, VA. This has produced the minimal rise in these areas' risk indices. The tourism and construction industries in D.C. continue to thrive, while Richmond has improved state finances by expanding its education, health services, and financial sectors. Virginia Beach also enjoys vibrant port activities and transportation sectors.

On the west coast, the San Francisco MSA, which now includes Oakland, and San Jose rank second and third respectively. Labor conditions in these Northern California MSAs have improved considerably compared to the previous quarter, but substantial gains in home prices have lowered affordability, pushing up their risk index values to 479 in San Francisco and 530 in San Jose. Usually

(continued on page 7)

THE RISKS OF INTEREST-ONLY ARMS IN A
Rising Interest Rate Environment

When financing homes in the United States, borrowers have traditionally had to choose between fixed-rate mortgages (FRMs) and adjustable-rate mortgages (ARMs). The borrower's choice is generally made by applying an unobservable decision rule that implicitly considers leverage or affordability, interest-rate risk exposure and expected occupancy of the home. Over the past several years, the size of the outstanding residential mortgage debt has grown to $7.7 trillion as measured at the end of 2003, and has exceeded the U.S. national debt, which is currently estimated at $7.4 trillion. With the increasing size of the mortgage market, the complexity of loan products has grown. Interest-Only (IO) ARMs, for example, have become a popular alternative in recent years due to record home-price appreciation and low mortgage rates — but are these products sufficiently understood and their risks properly evaluated by borrowers, especially in a rising mortgage rate environment?

Adjustable-rate mortgages have seen a jump in originations from 20% in 2003 to 34% in 2004 *(see* Chart 2*)*, driven by a steep yield curve and a quest for additional home affordability in the face of record home prices. ARMs represent an alternative to fixed-rate mortgages that commonly have maturities of 30 and 15 years, but also *(less commonly)* of 20 and 40 years. As the name suggests, with FRMs the interest rate is constant over the life of the loan, whereas with ARMs, the rate becomes variable as does the adjustment frequency and the interest rate index to which the mortgage rate is tied. Because borrowers share with the lender the exposure to interest-rate risk, the rate for ARMs is lower than the rate on FRMs. Moreover, the extent to which the ARM borrower is exposed to interest-rate risk also varies with the adjustment frequency. Therefore, origination note rates on Hybrid ARMs will generally be higher than for straight ARMs, but lower than for FRMs. Several ARM indices exist, such as the 1YR CMT, LIBOR or COFI. Each index responds differently to underlying economic conditions and displays different stochastic properties, such as rate volatility. The ARM rate is tied to an index with a margin, or spread, measured in terms of percentage points. In order to attract borrowers to adjustable-rate mortgages, an incentive or discount, also known as a teaser rate, is offered by lenders. This is the source of the typical misunderstanding by borrowers – because, even in a falling interest-rate environment, it is likely that the fully indexed ARM rate *(index plus margin)* will be higher than the teaser rate offered at origination. This could potentially lead, especially in an increasing interest-rate environment, to payment shock, because borrowers with imperfect understanding and limited information are not fully aware of the extent to which their monthly payments can rise.

Interest-Only (IO) ARMs have gained popularity in recent years amidst record home-price appreciation and a large ARM incentive over FRMs, due to a steep yield curve. While the interest-only option exists on FRMs, the 3/1 and 5/1 IOs have become the most desired mortgage loans in those parts of the country that have experienced especially rapid home-price appreciation. With this loan type, the borrower does not pay off any principal during the initial deferral period and therefore does not accumulate equity through amortization.

(continued on page 5)

Rising Interest Rate Environment *(continued from page 4)*

CHART 1: RATIO OF 10YR TO 1YR CMT

CHART 2: ARM SHARE OF CONVENTIONAL 1-4 UNIT MORTGAGE ORIGINATIONS

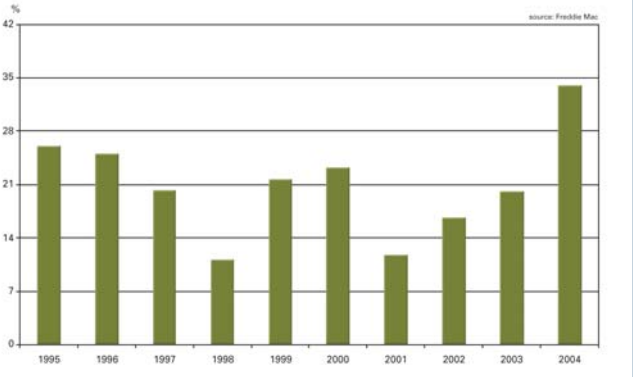


Chart 3 shows graphic examples of amortization schedules for 3/1 and 5/1 IOs compared to two baseline FRMs. As expected, the LTV for a 15YR FRM decreases quickly, but for an IO ARM, it takes significantly more time. In our example, a 90% LTV mortgage declines to an 80% LTV without incorporating home-price appreciation in: (i) 28 months for a 15YR FRM, (ii) 89 months for a 30YR FRM, (iii) 128 months for a 3/1 IO, and (iv) 137 months for a 5/1 IO. Here we have made specific assumptions on the origination note-rates and the increases for each ARM reset period. Creation of home equity during the deferral period is still possible through home-price appreciation, but as Chart 4 shows, IO ARMs have considerably more exposure to downward house-price risk than FRMs. This figure suggests that in an economic scenario similar to the 1990–1995 Los Angeles experience of declining home prices of 4% per year over 5 years, followed by increasing home prices of 5% per year, a 90% LTV can quickly exceed 100%. In this case, the IO ARM borrower actually accumulates negative equity in the property and has a financial incentive to default on his mortgage. The borrower with a 30YR FRM also has an incentive to default, specifically between months 48 and 67, but the magnitude of the incentive is much smaller, at a peak of 103% LTV compared to 111% LTV for the 5/1 IO loan. Because amortization occurs during the period of house-price decline, the length of time over which a default incentive exists is much shorter for the 30YR FRM at 20 months, compared to 46 and 49 months for the 3/1 and 5/1 IOs respectively.

The risk of payment shock at the end of the interest-only period increases significantly with an IO ARM, as there are now two drivers of mortgage payment increases; (i) the increase in payment needed to amortize the loan over a shorter time period, and (ii) the potential increase in the ARM rate. There is nearly always an interest-rate ceiling imposed on an adjustable-rate mortgage. Typically, a 3/1 ARM has a limit of 2/2/6 or a maximum of a 2% increase after the first reset period and 2% each subsequent year, up to a maximum of 6% over the life of a loan. On a 5/1 ARM, because the fixed period is longer, a typical structure on interest-rate increases would be a 5/2/5, or a maximum of 5% increase after the first reset period up to a maximum of 5% over the life of the loan.

As we will show, the interest rate ceiling, while preventing payments from jumping to astronomical highs, will be insufficient to prevent payment shock, especially in a rising interest-rate environment.

Table 1 displays analytical results from our estimation of monthly mortgage payments under assumed interest-rate scenarios and for specific product types. We have selected specific top and bottom MSAs that are listed in our latest PMI Risk Index and calculated the amount based on median home-price data provided by the National Association of Realtors® and a 20% down payment. The two California MSAs have the highest median home prices, with San Francisco homes selling at nearly 7 times the sales price of homes in Buffalo-Niagara Falls, NY. Oklahoma City, OK, and Pittsburgh, PA, rank 48 and 50 on our Risk Index, partly because affordability remains very high, with median sales prices of only $126,000 and $116,000 respectively.

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CHART 3: REDUCTION IN LOAN-TO-VALUE RATIO

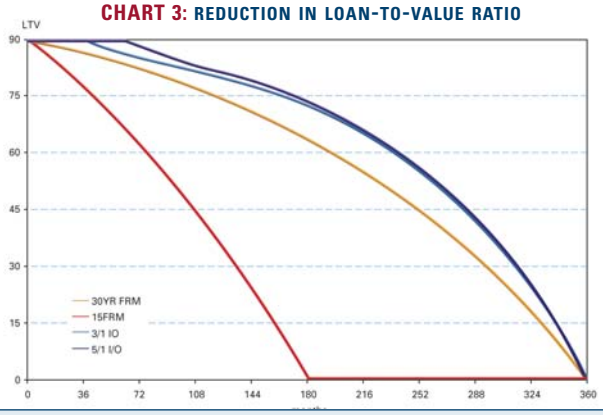
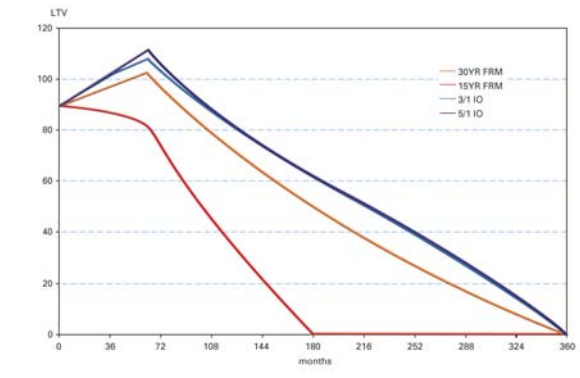


CHART 4: LOAN-TO-VALUE TRENDS UNDER A DOWN HPI SCENARIO



METROPOLITAN AREA ECONOMIC INDICATORS *As of February 2005*

PMI

MSA	RISK MEASURES	HOME PRICES			LABOR MARKETS			AI
		Appreciation[2]			Employment Growth[4]	Unemployment Rate 2004Q3		
	Risk Index[1]	2002Q3:2003Q3 percent	2003Q3:2004Q3 percent	Acceleration[3]	2003Q3:2004Q3 percent	Local[5]	Local De-meaned[6]	Index[7] (1995Q1=100)
Boston-Cambridge-Quincy, MA-NH	533	7.02%	12.40%	5.38%	-0.83%	4.91%	1.66%	84.13
San Jose-Sunnyvale-Santa Clara, CA	530	0.83%	11.77%	10.94%	0.71%	5.89%	1.98%	86.70
San Francisco-Oakland-Fremont, CA	479	5.23%	15.84%	10.61%	0.39%	5.08%	1.48%	85.87
San Diego-Carlsbad-San Marcos, CA	433	11.95%	26.56%	14.61%	1.54%	3.98%	0.60%	75.78
Providence-New Bedford-Fall River, RI-MA	397	11.66%	19.04%	7.38%	-0.73%	5.56%	0.89%	84.85
Sacramento-Arden-Arcade-Roseville, CA	369	10.61%	23.57%	12.96%	1.43%	5.15%	0.69%	80.56
New York-Northern New Jersey-Long Island, NY-NJ-PA	363	8.65%	17.31%	8.66%	1.03%	5.58%	0.39%	86.35
Los Angeles-Long Beach-Santa Ana, CA	359	11.82%	26.60%	14.77%	2.05%	5.76%	0.47%	77.43
Riverside-San Bernardino-Ontario, CA	316	13.64%	29.12%	15.48%	5.51%	5.99%	0.49%	76.93
Detroit-Warren-Livonia, MI	274	2.71%	4.47%	1.76%	-1.07%	7.09%	3.05%	103.46
Minneapolis-St. Paul-Bloomington, MN-WI	263	6.37%	10.94%	4.57%	-1.34%	4.35%	1.64%	93.47
Denver-Aurora, CO	224	1.61%	4.07%	2.46%	-2.05%	4.98%	1.75%	103.41
Miami-Fort Lauderdale-Miami Beach, FL	176	11.08%	21.15%	10.07%	3.62%	5.64%	0.11%	81.72
Jacksonville, FL	158	6.78%	13.24%	6.46%	3.18%	5.00%	1.39%	97.23
Washington-Arlington-Alexandria, DC-MD-VA-WV	151	8.50%	21.52%	13.02%	0.62%	3.20%	0.20%	97.38
Hartford-West Hartford-East Hartford, CT	142	6.28%	12.76%	6.48%	0.57%	4.85%	1.54%	112.01
Tampa-St. Petersburg-Clearwater, FL	137	7.41%	16.31%	8.90%	4.02%	3.83%	0.57%	93.33
Austin-Round Rock, TX	117	-0.03%	2.06%	2.08%	1.18%	4.44%	1.38%	126.85
Richmond, VA	117	5.56%	12.55%	6.99%	0.56%	4.15%	1.31%	114.65
Charlotte-Gastonia-Concord, NC-SC	113	2.12%	3.37%	1.24%	0.96%	5.48%	1.82%	127.11
Dallas-Fort Worth-Arlington, TX	112	2.45%	2.63%	0.18%	-0.51%	5.79%	1.91%	128.65
Portland-Vancouver-Beaverton, OR-WA	109	3.50%	10.27%	6.78%	0.72%	6.67%	1.65%	107.13
Phoenix-Mesa-Scottdale, AZ	105	4.17%	12.44%	8.27%	3.84%	3.98%	0.57%	101.62
Kansas City, MO-KS	105	3.42%	6.38%	2.96%	-0.33%	5.81%	1.91%	114.49
Houston-Baytown-Sugar Land, TX	103	3.54%	4.57%	1.03%	0.50%	6.41%	1.77%	129.05

1. The index is based on the probability of a metropolitan statistical area *(MSA)* wide decline of house prices over the next two years. An index value of 100 implies a probability of falling house prices of 10%. For an index value of 200, the probability of declining house prices doubles to 20%. The model yields a high Risk Index if Home Price Appreciation *(see footnote 2)* is low, if Home Price Acceleration *(see 3)* is low, if Employment Growth *(see 4)* is low, and if the de-meaned Unemployment Rate *(see 6)* is high. The general level of the Risk Index is adjusted for all MSAs depending on the overall strength of housing markets as indicated by housing affordability, national unemployment rate, GDP growth, and other factors.
2. Annual MSA-wide home price appreciation based on quarterly OFHEO House Price index for the last two years. Calculated using the indicated quarters *(4-quarter growth rate)*.
3. Home Price Acceleration measures the change of Home Price Appreciation from the previous to the current year. Calculated as the difference of the previous two columns.
4. Growth rates of MSA-wide employment, calculated with Bureau of Labor Statistics total non-agricultural employment monthly observations, using observations from the indicated months *(12-month growth rate)*.
5. MSA-wide unemployment rate, monthly observations, seasonally adjusted.

   Source: Bureau of Labor Statistics.
6. Indicates by how much current unemployment rates differ from average levels in the recent past. Calculated by subtracting from the local unemployment rate its mean over a 5-year period ending two years prior to the current observation.
7. Measures regional home affordability as a function of median household income, home price appreciation, and the 30-year fixed rate mortgage (FRM). It is calculated as $AI_t = (I_t/QI_t)/(I_{95}/QI_{95})$ where subscript t denotes the current quarter, I_t measures household income, and QI_t represents qualifying income defined as

$$QI_t = HPI * 0.80 * 4 * 12 * \left[\frac{r}{12} \frac{(1+r)^{360}_{12}}{(1+r)^{360}_{12} - 1} \right]$$

   where r denotes the 30-year FRM, 0.80 is LTV, and $4*12*[.]$ represents the annual mortgage payment under a 25% mortgage payment-to-income threshold.

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Orlando, FL	102	6.56%	14.85%	8.29%	3.75%	4.28%	0.92%	101.36
Atlanta-Sandy Springs-Marietta, GA	101	2.93%	4.85%	1.93%	0.89%	4.41%	0.90%	111.89
Virginia Beach-Norfolk-Newport News, VA-NC	101	7.50%	20.56%	13.06%	0.08%	4.37%	0.92%	108.14
Las Vegas-Paradise, NV	97	6.97%	34.88%	27.91%	3.36%	4.23%	-0.43%	85.85
Seattle-Tacoma-Bellevue, WA	97	3.65%	11.07%	7.42%	-1.06%	5.59%	1.21%	109.08
Baltimore-Towson, MD	96	8.66%	20.34%	11.67%	0.17%	4.80%	0.15%	107.21
St. Louis, MO-IL	94	4.48%	9.63%	5.15%	-0.85%	6.24%	1.87%	113.09
Chicago-Naperville-Joliet, IL	90	4.85%	10.72%	5.87%	-1.45%	6.00%	1.30%	109.92
Cleveland-Elyria-Mentor, OH	74	3.29%	4.84%	1.55%	-2.34%	6.23%	1.57%	122.59
Milwaukee-Waukesha-West Allis, WI	73	4.51%	12.35%	7.84%	-0.88%	5.11%	1.15%	114.44
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	71	8.20%	16.81%	8.61%	-0.05%	5.22%	0.90%	110.43
New Orleans-Metairie-Kenner, LA	70	5.33%	9.28%	3.95%	0.96%	5.08%	0.24%	115.69
San Antonio, TX	69	4.06%	6.05%	1.99%	0.47%	4.91%	1.16%	134.86
Columbus, OH	68	3.05%	5.11%	2.06%	-1.53%	4.88%	2.00%	128.44
Nashville-Davidson-Murfreesboro, TN	65	2.83%	5.52%	2.69%	2.06%	3.82%	0.65%	124.00
Louisville, KY-IN	63	3.27%	5.55%	2.28%	-0.80%	4.59%	0.70%	126.05
Cincinnati-Middletown, OH-KY-IN	63	3.05%	5.24%	2.20%	-1.01%	4.86%	1.19%	128.62
Birmingham-Hoover, AL	62	4.00%	5.56%	1.56%	0.55%	4.82%	1.28%	130.44
Salt Lake City, UT	61	1.71%	4.34%	2.63%	0.57%	5.08%	1.19%	130.78
Memphis, TN-MS-AR	60	2.27%	3.86%	1.58%	-0.32%	5.85%	1.68%	134.72
Indianapolis, IN	60	2.28%	3.30%	1.02%	-0.52%	4.55%	1.74%	136.05
Rochester, NY	59	3.80%	5.00%	1.20%	-0.20%	5.17%	0.89%	142.34
Oklahoma City, OK	57	4.32%	6.03%	1.71%	1.14%	3.66%	0.37%	131.63
Buffalo-Niagara Falls, NY	57	4.26%	7.13%	2.87%	1.86%	6.10%	0.74%	142.61
Pittsburgh, PA	57	4.33%	6.46%	2.13%	-0.43%	5.24%	0.70%	132.58

Rising Interest Rate Environment *(continued from page 5)*

TABLE 1: MONTHLY MORTGAGE PAYMENT ANALYSIS

					Reset				
					0	1	2	0	1
	Risk Index	Median Home Price*	30YR FRM	15YR FRM	3/1 IO	3/1 IO	3/1 IO	5/1 IO	5/1 IO
Boston-Cambridge-Quincy, MA-NH	533	398.9	1913	2591	1330	2195	3056	1463	3013
San Francisco-Oakland-Fremont, CA	479	646.3	3100	4197	2154	3556	4951	2370	4882
San Diego-Carlsbad-San Marcos, CA	433	578.3	2774	3756	1928	3182	4430	2120	4368
New York-Northern New Jersey-Long Island, NY-NJ-PA	363	405.4	1944	2633	1351	2231	3106	1486	3062
Houston-Baytown-Sugar Land, TX	103	137.5	660	893	458	757	1053	504	1039
Oklahoma City, OK	57	125.8	603	817	419	692	964	461	950
Buffalo-Niagara Falls, NY	57	94.2	452	612	314	518	722	345	712
Pittsburgh, PA	57	116.0	556	753	387	638	889	425	876

*preliminary estimates in thous.$ provided by National Association of Realtors as of 2004Q3
**based respectively on 6.0%,5.4%,5.0%, and 5.5% note rates at origination, and 80 LTV

TABLE 2: SHARE OF ANNUAL MORTGAGE PAYMENTS TO INCOME*

					Reset				
					0	1	2	0	1
	Risk Index	Income**	30YR FRM	15YR FRM	3/1 IO	3/1 IO	3/1 IO	5/1 IO	5/1 IO
Boston-Cambridge-Quincy, MA-NH	533	44,410	52%	70%	36%	59%	83%	40%	81%
San Francisco-Oakland-Fremont, CA	479	49,534	75%	102%	52%	86%	120%	57%	118%
San Diego-Carlsbad-San Marcos, CA	433	36,815	90%	122%	63%	104%	144%	69%	142%
New York-Northern New Jersey-Long Island, NY-NJ-PA	363	43,578	54%	72%	37%	61%	86%	41%	84%
Houston-Baytown-Sugar Land, TX	103	36,530	22%	29%	15%	25%	35%	17%	34%
Oklahoma City, OK	57	29,881	24%	33%	17%	28%	39%	19%	38%
Buffalo-Niagara Falls, NY	57	30,518	18%	24%	12%	20%	28%	14%	28%
Pittsburgh, PA	57	34,720	19%	26%	13%	22%	31%	15%	30%

*calculated as a function of per capita income
**estimated annual per capita income as of 2004Q3

For fixed-rate mortgages, the monthly payment remains constant until maturity of the loan, but for IO ARMs, we assume a worst-case scenario, with rates increasing 2% per year on a 3/1 IO and a one time shock of 5% on the 5/1 IO. From Chart 1, we observe that a 2% jump in the ARM rate may not be as unlikely as thought and a 5% jump while perhaps not probable, may be still possible in 5 years' time. As expected, the absolute size of the payment increase is the largest for the priciest homes. Median-priced San Francisco homes financed with 3/1 IOs have payments increased by $1,402 to $3,556 or a 65% jump in monthly mortgage payment after the first reset period, while increasing to $4,951 per month after the third 2% interest-rate increase. This represents a payment shock of almost 130% compared to 106% on the 5/1 IO. The percentage increase in monthly payment driven by interest rate jumps is equal in all MSAs, however, the impact on affordability clearly is not. Payments on a 3/1 IO in Buffalo-Niagara Falls, NY, in comparison increase from $314 to $722 after the last reset, while in Pittsburgh, PA, payments increase from $387 to $889.

Table 2 estimates the impact of payment shock on local affordability as measured by the ratio of annual mortgage payments to per capita income. Family and/or household income can form an additional basis for comparison, but the purpose of Table 2 is to compare mortgage payment increases as a share of income across MSAs. We also avoid the issue of different family/household sizes across regions and instead focus on the purchasing power of an individual borrower. From this table, we observe why interest-only ARMs are popular in certain coastal areas that have experienced rapid home-price appreciation. The use of IO ARMs temporarily improves affordability as compared to fixed-rate products, but they can also worsen affordability considerably after the reset period, as shown in our increasing interest-rate scenarios. Under a 30YR FRM, a borrower in San Diego with a $36,815 annual income *(equal to the per capita amount)* spends 90% of his income on the median-priced home he has purchased. This fraction drops to 63% for the first 3 years under a 3/1 IO, but could potentially increase to 144% after the third reset period. In San Francisco, this amount is 120%, followed by New York at 86% and Boston at 83%. The 4 lower ranked MSAs in Table 2 also experience an increase in income share spent on mortgage payments, but their increase stays relatively low and does not top 39%.

(continued on page 7)

Rising Interest Rate Environment *(continued from page 6)*

From these examples, we learn that the drivers of payment shock include; (i) the note-rate at origination, (ii) the loan size amount, (iii) the length of the deferral period, (iv) the mortgage duration period, and (v) the interest-rate increases after each reset period. When we investigate the default rates of IO and non-IO borrowers based on limited data over the past decade, we find that in most cases the claim rates were lower for IO loans. At first, this appears to be a contradiction in view of the higher level of risk identified with prepayment shock and house prices as discussed above, but a closer look at the data explains this discrepancy. The period 1995-2004 was characterized by strong home-price appreciation nationwide as well as generally falling interest rates. Lower monthly payments during the deferral period acted as a positive and improving force on affordability. Even if payments increased after the reset period, the IO borrower was able to refinance his mortgage in a decreasing rate environment. Moreover, in a strongly upward house-price environment of nearly 40% appreciation nationwide over the past 4 years and 13% over the past 12 months, the probability of negative equity as shown in Chart 4 has been very remote. However, in today's environment of rising interest rates and slowing future home-price appreciation, the risks of interest-only ARMs will become a more important component in the performance of these loans. This may be especially true for the ill-informed borrower who does not have good spending habits or credit scores, but is in pursuit of the extra leverage nevertheless, enabling him to afford his monthly payments at least temporarily. ✸

Local Economic Patterns *(continued from page 3)*

considered more affordable in comparison to the Bay Area, Sacramento in the North has also substantially advanced its HPI index by 23.57% over the previous 12 months. Only the HPI indices for the Southern California MSAs and Las Vegas have advanced faster than this rate. Employment growth in the region is supported by strong construction activities and the financial sectors, despite slow hiring for manufacturing and state government.

Affordability in Southern California MSAs has fallen below the 80-index mark as the result of another quarter of strong home-price appreciation. San Diego, Los Angeles, and Riverside all experienced price jumps of more than 25% from third-quarter 2003 through third-quarter 2004. Labor conditions in the region are much better than the national average, but the brisk pace of recent home-price hikes continues to magnify uncertainty about future home-price gains. Another strong performer in home-price appreciation, Las Vegas, has achieved a more than 30% gain over the past 12-month period, with an acceleration rate of 27.91%. This has caused affordability in the area to dip to 85.85. The risk index value in Las Vegas has consequently climbed from 66 to 97, with its rank up from 45 to 29 — even with strong job growth similar to Southern California.

Besides Detroit, MI — a top-10 regular — other non-coastal MSAs ranking near the top include Minneapolis, MN, and Denver, CO. While relatively higher housing affordability has made these MSAs narrowly escape the top 10, their high ranking is indicative of weak employment growth across industries coupled with unfavorable population growth and migration trends. Minneapolis' risk has increased from 251 to 263, due to slow industrial employment growth and a particularly hard-hit airline industry. Denver has suffered similarly from slow job growth, but its risk has declined from 255 to 224. The airline, telecom, and technology industries appear to have a slow road to the recovery, but transportation sectors have achieved stronger performance in recent quarters.

Good housing affordability and improved economic conditions have enabled Austin, TX, Dallas, TX, and Charlotte, NC, to stay in the middle of our ranking and have also lowered their risk index by about 20 compared to last quarter. Despite nationwide price acceleration, these regions' home prices have remained relatively flat and affordability continues to hover above 120. Austin has experienced the slowest home price appreciation among the 50 MSAs over the past 2 years, and now commands a much healthier economy, with expanding construction, education, leisure, and government sectors. Dallas has benefited from expanding its transportation, distribution, and financial activities, with the defense sector as well adding to the health of the economy, although the telecom and travel sectors continue to lose jobs. Charlotte also supports a growing defense base and enjoys an expanded role as the nation's financial service center.

Indianapolis, IN, and Pittsburgh, PA, in addition to three newcomers on our list — Rochester, NY, Oklahoma City, OK, and Buffalo, NY — round out the bottom 5 on our index. Rochester and Buffalo occupy the near bottom with highly affordable housing markets. For more than 10 years, these areas' home prices have appreciated at a much slower pace compared to the national average, and the local economy, with its heavy concentration in manufacturing and hampered by chronically weak population trends, has expanded only modestly. Oklahoma City has also trailed the nation in home-price appreciation, but the MSA shows positive demographic trends. Manufacturing, mostly in auto and related industries, may continue to do as well as the government sector, but construction, financial services, and professional and business services are driving the area's stronger economic expansion in the future. ✸

METROPOLITAN AREA ECONOMIC INDICATORS STATISTICAL MODEL OVERVIEW

The **Risk Index** shown in the Metropolitan Area Economic Indicators table is based on the results of applying a statistical model to data on local economic conditions, income and interest rates, as well as judgmental adjustments in order to reflect information that goes beyond the Risk Index's quantitative scope. For each Metropolitan Statistical Area (MSA), the statistical model estimates the probability that an index of metropolitan-area-wide home prices will decline over the next two years (eight quarters), with an index value of 100 implying a 10% probability of falling house prices.

The Risk Index uses information on past house price growth and variables measuring local employment and unemployment, as well as local income measures and interest rates. The Risk Index is determined by the following variables: (i) Home Price Appreciation, (ii) Home Price Acceleration, (iii) Employment Growth, (iv) the de-meaned Unemployment Rate, which we define as the difference of the local Unemployment Rate from its average in recent years, and (v) a local measure of home affordability as defined by PMI. Home Price Appreciation is the growth rate of home prices from four quarters earlier. Research indicates that house price growth is very persistent in the short run: A year of low Home Price Appreciation is likely followed by another year of low growth. Consequently, low or even negative **Home Price Appreciation** in the past year is a sign of impending trouble and consequently the model calculated Risk Index will vary inversely with last year's Home Price Appreciation. **Home Price Acceleration** is the change in Home Price Appreciation from the current quarter to four quarters earlier. For example, consider a metropolitan area where the property value of a typical house was $100,000 at the end of 2000, $110,000 in 2001, and $111,100 in 2002. Home Price Appreciation for this area is 10 percent for the year 2001 and 1 percent for the year 2002. Because the appreciation rate dropped by 9 percentage points from the year 2000 to the year 2001, Home Price Acceleration is minus 9 percentage points at the end of 2002. The model interprets negative Home Price Acceleration (slowing growth) as a warning sign that the level of home prices may be close to its peak and likely to fall soon. Accordingly, the Risk Index increases as Home Price Acceleration declines, other things equal.

Home prices are measured with a **Repeat Sales Index** provided by the Office of Housing Enterprise Oversight (OFHEO). This method follows homes that are sold repeatedly over the observation period and uses the change of the purchase prices to construct a price index. The index is based on data from Fannie Mae and Freddie Mac and covers only homes financed with loans securitized by these two companies. Consequently, this index does not apply to high-end properties requiring jumbo loans.

Employment Growth measures the growth rate in local employment from the current month relative to 12 months earlier. Lower employment growth is a sign of weakness in the local economy; therefore, the model's estimated Risk Index increases as Employment Growth falls.

Another indicator of the strength of labor markets is the local **de-meaned Unemployment Rate**. Our research indicates that it is not the level of Unemployment Rates that matters primarily for future house price growth, but the difference of the current unemployment rate from its average in the years before. The higher the de-meaned Unemployment Rate, the higher is the Risk Index.

Finally, an important variable and new addition to our model is the **PMI Affordability Index (AI)**, which captures changes in the demand for housing as a function of local median household income and interest rates. The AI index is normalized to equal 100 in first-quarter 1995 and measures the changes in home purchasing power over time. In our research, we have found a strong relationship exists between extended periods of home-price declines and poor affordability. Thus, the higher the Affordability Index (AI), the less vulnerable a housing market is to local economic shock and hence the lower is the Risk Index.

Periodically, we may re-estimate our model to update the statistical parameters with the latest available data. We also may make adjustments from time to time to account for general macroeconomic developments that are not captured by our model.

Cautionary Statement: Statements in this document that are not historical facts or that relate to future plans, events or performance are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, the risk measures contained in the chart, Metropolitan Area Economic Indicators, and our discussion of future economic conditions including statements relating to future levels of interest rates, economic growth, job creation, personal income growth, inflation, housing demand and housing appreciation. Forward-looking statements are subject to a number of risks and uncertainties including but not limited to, the following factors: changes in economic conditions, economic recession or slowdowns, adverse changes in consumer confidence, declining housing values, higher unemployment, deteriorating borrower credit, changes in interest rates, or a combination of these factors. Other risk and uncertainties are discussed in the Company's filings with the Securities and Exchange Commission, including our report on Form 10-Q for the period ended June 30, 2004.

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