

# ECONOMIC REAL ESTATE TRENDS<sup>SM</sup>

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PMI MORTGAGE INSURANCE CO.



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# What Will Cause Housing to Finally Rebound?

In every recession for which we have data, going back to 1960-61 for single-family housing starts and 1969-70 for new and existing home sales, housing activity has turned upward before the end of the economic downturn. Conversely, job market indicators (payroll employment and the unemployment rate) have never improved before a recession's end, and usually have not improved until some months after the beginning of the next expansion. As a result, in past recessions the housing market has always rebounded before the job market. But will the same relationship hold in the current downturn?

Many commentators have said recently that the housing market won't begin to recover until the job market expands again. While that may be the case this

time, it has not been the historical pattern in any of the recessions for which data exist. **Table 1** shows the relationship between the end of economic downturns and when

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**FIGURE 1: HOW FAR WILL HOME SALES DECLINE? (Total Single-Family Sales Relative to Households)**





## Housing Rebound

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the bottom is reached for the most commonly used measures of the job and housing markets: nonfarm payroll employment, the unemployment rate, existing single-family home sales, new home sales, and single-family housing starts. A figure denoted with a plus sign means that the trough in that measure occurred after the end of the recession – with the number signifying the number of months past the economic trough. A minus sign denotes a bottom before the end of the recession. In every case, each of the housing-related measures bottomed before the end of the recession, with single-family existing sales averaging four months, new sales eight months, and single-family starts seven months. Job-related data, on the other hand, at best are contemporaneous with the end of an economic downturn, but more often lag the economic trough.

Moreover, in each of the past two recessions, the national unemployment rate didn't peak until more than a year after the recession ended.

If the housing market usually turns around before the job market, what are the causes of the rebound in housing activity? Most analysts view two factors as helping to lead the housing market recovery: affordability and demographics. For the former, a combination of lower mortgage rates and faster income than home price growth lead to an increase in affordability and thus in home sales. For the latter, a period in which new housing supply falls short of household formations creates increasing amounts of pent-up demand. Together, these two factors allow the housing market to rebound before the job market does.

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**TABLE 1: RECESSION ENDS: WHAT LEADS AND WHAT LAGS? (Months)**

Recession	Unemployment Rate	Payroll Employment	Existing Home Sales (1-Family)	New Home Sales	Housing Starts (1-Family)
April 1960-February 1961	+3	0	-	-	-2
December 1969-November 1970	+9	0	-8	-12	-10
November 1973-March 1975	+2	+3	-2	-2	-1
January 1980-July 1980	0	+1	-2	-3	-4
July 1981-November 1982	+1	+1	-6	-14	-13
July 1990-March 1991	+15	+2	-3	-2	-2
March 2001-November 2001	+13	+21	-2	-17	-16
<b>Average</b>	<b>+6</b>	<b>+4</b>	<b>-4</b>	<b>-8</b>	<b>-7</b>

# Economic Trends in the Nation's MSAs

**PMI's U.S. Market Risk Index measures the likelihood of home price declines in two years for each of the nation's 381 metropolitan statistical areas and divisions (MSAs). The Risk Index uses economic, housing, and mortgage market factors (including home price appreciation, employment, affordability, excess housing supply, interest rates, and foreclosure activity) to determine these probabilities.**

According to PMI's Risk Index, risk in most of the nation's MSAs continued to increase as the recession deepened during the fourth quarter of 2008. Increasing rates of unemployment and foreclosure continued to place downward pressure on house price appreciation. Combined with upward movements in excess housing supply in many parts of the country, these deteriorating conditions are increasing the risk of house price declines in the next two years. MSAs in **Florida, California, Arizona, and Nevada** continue to lead the nation in risk, but with a growing number of MSAs in various other regions of the country experiencing significant increases in their probabilities of future price declines.

During the fourth quarter of 2008, risk increased in all the nation's 50 most populated (Top-50) MSAs. Among all 381 MSAs, 374, or 98 percent, experienced an increase in risk. The un-weighted average risk score rose from 28.9 to 39.2 between the third and fourth quarters of 2008.

## Trends in Risk

Among the nation's Top-50 MSAs, 21 of them had a risk score exceeding 70, placing them in the highest risk category. Six had risk scores between 50 and 70, designating them as having elevated risk. Overall, more than half of the nation's Top-50 MSAs have a greater than 50 percent chance of seeing lower house prices by the end of the fourth quarter of 2010.

Across all of the nation's 381 MSAs, 37 percent (140) ranked in the elevated and high risk of decline categories. Even so, 56 percent (212) of the nation's MSAs still had a minimal-to-low risk of lower prices in two years. The consistent pattern that we have seen over the past several quarters is that risk is rising fastest in the large urban centers across the country, while the smaller MSAs, although experiencing increases in risk, are faring relatively better in their current and projected price performance. There has been a marked increase in risk, however, across more regions of the nation over the past couple of quarters. While the MSAs in **California, Nevada, Florida, and Arizona** consistently rank as the highest risk areas across the nation, increased risk is also appearing in smaller, relatively more manufacturing and construction dependent MSAs across the country. This development is consistent with significantly increasing unemployment rates in many areas of the nation.

One of the two primary drivers of the increased risk scores in the latest quarter is the continued high level of foreclosure rates, and significantly rising level of delinquency rates. The delinquency rate for mortgage loans on one-to-four-family residential properties rose to 7.88 percent of all loans outstanding as of the end of the fourth quarter of 2008 (up by 89 basis points from the third quarter of 2008 and by 206 basis points from a year earlier) according to the Mortgage Bankers Association's (MBA) National Delinquency Survey. This most recent delinquency rate broke the record set just the quarter before, and the quarter-to-quarter jump is also the largest (based on MBA data back to 1972).

The percentage of loans in the foreclosure process at the end of the fourth quarter was 3.30 percent, an increase of 33 basis points from the third quarter of 2008 and 126 basis points from a year earlier. The combined percent of loans in foreclosure and at least one payment past due was 11.18 percent, the highest ever recorded in the MBA delinquency survey. Foreclosures started rose by only one basis point to 1.08 percent in the fourth quarter, and by 20 basis points from a year earlier. The increase in foreclosures started would have been much larger in the fourth quarter but for temporary foreclosure moratoria instituted by a number of states.

**Florida and California** MSAs continued to have most of the highest risk scores in the nation during the fourth quarter.

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## Worst Performing MSAs

### COMPARISON BY PMI RISK SCORE

MSA	RISK CLASSIFICATION	RISK SCORE
Lakeland-Winter Haven FL	High	99.9
Fort Lauderdale-Pompano Beach-Deerfield Beach FL	High	99.9
Punta Gorda FL	High	99.9
Lake Havasu City-Kingman AZ	High	99.9
Miami-Miami Beach-Kendall FL	High	99.9
Cape Coral-Fort Myers FL	High	99.9
Los Angeles-Long Beach-Glendale CA	High	99.9
Riverside-San Bernardino-Ontario CA	High	99.9
Palm Coast FL	High	99.9
Naples-Marco Island FL	High	99.8

### COMPARISON BY ANNUAL HOUSE PRICE APPRECIATION RATE

MSA	RISK CLASSIFICATION	HOUSE PRICE APPRECIATION RATE
Stockton CA	High	-29.92
Salinas CA	High	-29.83
Modesto CA	High	-29.59
Merced CA	High	-29.56
Riverside-San Bernardino-Ontario CA	High	-29.53
Vallejo-Fairfield CA	High	-29.49
Bakersfield CA	High	-29.03
Miami-Miami Beach-Kendall FL	High	-28.46
Madera CA	High	-28.44
El Centro CA	High	-28.05

### COMPARISON BY Demeaned UNEMPLOYMENT RATE

MSA	RISK CLASSIFICATION	DEMEANED UNEMPLOYMENT RATE
El Centro CA	High	8.93
Elkhart-Goshen IN	High	8.09
Palm Coast FL	High	6.14
Dalton GA	High	5.86
Cape Coral-Fort Myers FL	High	5.82
Punta Gorda FL	High	5.04
Ocala FL	High	4.98
Monroe MI	Elevated	4.70
Flint MI	High	4.38
Redding CA	High	4.32

### COMPARISON BY AFFORDABILITY SCORE

MSA	RISK CLASSIFICATION	AFFORDABILITY SCORE
Honolulu HI	High	69.06
Kingston NY	High	74.23
Atlantic City-Hammonton NJ	High	74.43
Ocean City NJ	High	77.25
Yuma AZ	High	77.65
Parkersburg-Marietta-Vienna WV-OH	Elevated	84.87
Nassau-Suffolk NY	High	85.30
New York-White Plains-Wayne NY-NJ	Elevated	85.60
Wilmington NC	High	86.34
Winchester VA-WV	High	88.08

# Best Performing MSAs

## COMPARISON BY PMI RISK SCORE

MSA	RISK CLASSIFICATION	RISK SCORE
Fayetteville NC	Minimal	<1
Lawton OK	Minimal	<1
Killeen-Temple-Fort Hood TX	Minimal	<1
Texarkana TX-Texarkana AR	Minimal	<1
McAllen-Edinburg-Mission TX	Minimal	<1
Cheyenne WY	Minimal	<1
Tulsa OK	Minimal	<1
Wichita KS	Minimal	<1
Little Rock-North Little Rock-Conway AR	Minimal	<1
Wichita Falls TX	Minimal	<1

## COMPARISON BY ANNUAL HOUSE PRICE APPRECIATION RATE

MSA	RISK CLASSIFICATION	HOUSE PRICE APPRECIATION RATE
Cedar Rapids IA	Minimal	8.83
Bay City MI	Elevated	6.87
College Station-Bryan TX	Minimal	6.78
Rocky Mount NC	Low	6.69
Lebanon PA	Low	6.41
Elmira NY	Low	6.28
Johnstown PA	Minimal	6.20
Altoona PA	Minimal	6.02
State College PA	Minimal	5.99
Charleston WV	Minimal	5.87

## COMPARISON BY Demeaned UNEMPLOYMENT RATE

MSA	RISK CLASSIFICATION	DEMEANED UNEMPLOYMENT RATE
Gulfport-Biloxi MS	Low	-2.26
Farmington NM	Minimal	-1.84
Odessa TX	Low	-1.37
Pascagoula MS	Low	-1.35
Charleston WV	Minimal	-1.26
Las Cruces NM	Minimal	-1.26
Salt Lake City UT	Moderate	-1.20
Lake Charles LA	Minimal	-1.19
Lafayette LA	Minimal	-1.17
Provo-Orem UT	Moderate	-1.08

## COMPARISON BY AFFORDABILITY SCORE

MSA	RISK CLASSIFICATION	AFFORDABILITY SCORE
Fayetteville NC	Minimal	182.75
Canton-Massillon OH	Minimal	176.12
Cleveland-Elyria-Mentor OH	Minimal	175.93
Cheyenne WY	Minimal	169.40
Lawton OK	Minimal	167.20
Akron OH	Minimal	162.56
Memphis TN-MS-AR	Minimal	159.96
Niles-Benton Harbor MI	Low	159.24
Sandusky OH	Minimal	158.00
Dayton OH	Minimal	156.42



**MSA**

	STATE	RISK RANK	PMI U.S. MARKET RISK INDEX <sup>1</sup>		PRICE APPRECIATION <sup>3</sup>			
			4Q '08	3Q '08 <sup>2</sup>	Volatility <sup>4</sup>	4Q '08	4Q '07	Difference
Miami-Miami Beach-Kendall FL	FL	High	99.9	99.9	31.9	-28.46	-12.27	-16.19
Riverside-San Bernardino-Ontario CA	CA	High	99.9	99.9	38.5	-29.53	-20.39	-9.13
Fort Lauderdale-Pompano Beach-Deerfield Beach FL	FL	High	99.9	99.8	30.8	-23.30	-15.25	-8.05
Los Angeles-Long Beach-Glendale CA	CA	High	99.9	99.8	32.2	-25.12	-15.69	-9.43
Las Vegas-Paradise NV	NV	High	99.8	99.4	35.5	-27.90	-15.72	-12.18
Tampa-St. Petersburg-Clearwater FL	FL	High	99.7	99.2	24.5	-17.98	-12.62	-5.36
Orlando-Kissimmee FL	FL	High	99.6	98.7	28.7	-20.76	-14.23	-6.53
Santa Ana-Anaheim-Irvine CA	CA	High	99.0	98.3	28.8	-18.92	-12.82	-6.10
Jacksonville FL	FL	High	98.9	97.3	15.6	-9.25	-6.23	-3.01
Phoenix-Mesa-Scottsdale AZ	AZ	High	98.8	96.8	31.2	-24.25	-13.93	-10.32
Providence-New Bedford-Fall River RI-MA	RI	High	98.3	95.1	23.2	-15.84	-6.41	-9.43
Sacramento--Arden-Arcade--Roseville CA	CA	High	97.9	95.0	34.1	-25.44	-17.28	-8.15
San Diego-Carlsbad-San Marcos CA	CA	High	97.2	95.7	31.9	-22.03	-15.61	-6.42
Edison-New Brunswick NJ	NJ	High	89.4	72.2	18.1	-8.70	-3.18	-5.53
Washington-Arlington-Alexandria DC-VA-MD-WV	DC	High	88.2	62.3	25.1	-13.13	-9.32	-3.81
Detroit-Livonia-Dearborn MI	MI	High	86.3	70.1	7.5	-6.88	-1.32	-5.56
Newark-Union NJ-PA	NJ	High	84.1	64.9	15.1	-8.88	-3.01	-5.87
Baltimore-Towson MD	MD	High	83.8	53.3	18.3	-6.68	-1.80	-4.88
Oakland-Fremont-Hayward CA	CA	High	80.7	68.2	27.0	-27.84	-15.58	-12.26
Nassau-Suffolk NY	NY	High	78.3	65.6	17.1	-8.22	-5.51	-2.71
Virginia Beach-Norfolk-Newport News VA-NC	VA	High	77.6	55.0	17.5	-4.90	-0.45	-4.45
New York-White Plains-Wayne NY-NJ	NY	Elevated	67.6	50.5	16.0	-6.88	-3.83	-3.05
Portland-Vancouver-Beaverton OR-WA	OR	Elevated	66.4	22.2	13.4	-10.96	0.56	-11.52
Minneapolis-St. Paul-Bloomington MN-WI	MN	Elevated	58.5	37.1	11.7	-10.56	-7.82	-2.75
Boston-Quincy MA	MA	Elevated	56.6	42.8	16.0	-9.71	-6.14	-3.57
Atlanta-Sandy Springs-Marietta GA	GA	Elevated	55.8	21.0	5.0	-3.04	-4.02	0.97
San Jose-Sunnyvale-Santa Clara CA	CA	Elevated	51.4	30.9	20.8	-21.52	-11.05	-10.47
San Francisco-San Mateo-Redwood City CA	CA	Moderate	31.6	19.5	16.9	-15.16	-7.42	-7.74
Seattle-Bellevue-Everett WA	WA	Moderate	30.3	10.5	11.9	-10.57	-0.87	-9.71
Philadelphia PA	PA	Low	27.5	13.3	11.8	-1.93	0.49	-2.42
Milwaukee-Waukesha-West Allis WI	WI	Low	27.5	8.3	9.3	-3.88	-3.13	-0.75
Cambridge-Newton-Framingham MA	MA	Low	27.3	17.8	11.8	-5.76	-3.15	-2.61
Warren-Troy-Farmington Hills MI	MI	Low	23.6	12.2	8.6	-8.84	-7.64	-1.19
Austin-Round Rock TX	TX	Low	17.4	5.4	7.1	3.70	8.56	-4.86
Denver-Aurora CO	CO	Low	14.2	4.1	5.0	0.04	-5.55	5.59
St. Louis MO-IL	MO	Low	13.8	9.3	6.3	-4.89	-1.13	-3.75
Chicago-Naperville-Joliet IL	IL	Low	13.7	10.0	10.4	-12.10	-5.27	-6.83
Cincinnati-Middletown OH-KY-IN	OH	Low	12.1	7.2	2.9	-1.74	0.19	-1.93
Nashville-Davidson--Murfreesboro--Franklin TN	TN	Low	12.0	6.3	4.3	-3.40	-0.07	-3.32
Kansas City MO-KS	MO	Low	11.2	5.4	3.1	-3.21	0.93	-4.14
Indianapolis-Carmel IN	IN	Minimal	9.6	3.9	1.3	-0.33	2.39	-2.72
Charlotte-Gastonia-Concord NC-SC	NC	Minimal	5.7	2.2	2.1	-3.97	2.96	-6.92
San Antonio TX	TX	Minimal	3.8	1.0	3.5	0.17	8.71	-8.54
Memphis TN-MS-AR	TN	Minimal	2.8	2.1	5.1	-6.00	-4.36	-1.64
Houston-Sugar Land-Baytown TX	TX	Minimal	2.7	<1	1.7	3.30	5.54	-2.24
Fort Worth-Arlington TX	TX	Minimal	2.5	<1	1.2	-0.06	3.92	-3.98
Dallas-Plano-Irving TX	TX	Minimal	2.5	<1	1.0	1.92	3.66	-1.74
Columbus OH	OH	Minimal	2.4	2.8	5.0	-3.16	-3.11	-0.05
Cleveland-Elyria-Mentor OH	OH	Minimal	2.3	3.4	9.0	-5.00	-11.39	6.39
Pittsburgh PA	PA	Minimal	1.7	<1	3.3	3.23	4.62	-1.38

**Weighted Average Values by Risk Rank:<sup>5</sup>**

High	94.2	86.9	27.1	-19.3	-11.7	-7.7
Elevated	62.0	38.5	13.3	-8.1	-4.7	-3.5
Moderate	30.8	14.1	13.9	-12.4	-3.5	-8.9
Low	17.6	9.4	8.1	-5.4	-2.3	-3.1
Minimal	3.2	1.5	2.9	0.2	2.3	-2.2
All	55.2	45.5	16.17	-10.93	-5.85	-5.08

**Top 50 Weighted Averages:**

AFFORDABILITY INDEX <sup>5</sup>		
4Q '08	3Q '08	Difference
100.79	88.23	12.56
100.20	89.04	11.15
103.77	93.33	10.44
98.62	89.86	8.76
138.02	122.23	15.79
108.91	98.03	10.88
111.05	100.06	10.98
98.59	91.71	6.88
105.56	95.95	9.61
116.85	106.66	10.19
107.38	97.36	10.02
121.07	112.89	8.18
116.55	106.93	9.62
90.78	84.90	5.88
108.68	100.19	8.49
118.74	112.06	6.67
102.94	95.87	7.08
108.25	99.16	9.09
120.85	109.43	11.41
85.30	81.03	4.27
100.32	93.54	6.78
85.60	79.20	6.41
97.38	88.92	8.46
111.59	101.74	9.84
102.20	92.62	9.58
122.40	117.81	4.59
112.75	100.48	12.27
118.38	106.84	11.54
105.41	95.67	9.74
114.21	108.71	5.50
117.26	112.19	5.07
109.53	99.70	9.83
132.13	119.24	12.89
109.97	107.29	2.68
121.55	115.06	6.50
128.96	116.14	12.81
128.90	118.46	10.44
133.12	127.02	6.11
121.97	114.58	7.39
121.44	114.82	6.63
135.85	128.53	7.31
133.47	127.47	6.00
122.68	120.62	2.06
159.96	147.10	12.86
133.63	130.14	3.49
135.09	132.60	2.49
131.27	129.85	1.42
155.65	137.78	17.87
175.93	156.48	19.45
139.96	131.87	8.09

106.4	97.2	9.2
100.4	93.2	7.3
110.6	100.1	10.5
123.5	115.1	8.4
139.7	133.0	6.6
114.67	106.37	8.30

UNEMPLOYMENT RATE		
Rate <sup>6</sup>	Demeaned <sup>7</sup>	
4Q '08	4Q '08	3Q '08
6.23	0.77	-0.07
9.73	4.11	3.01
6.60	2.02	1.11
8.80	2.87	1.48
8.20	3.30	1.95
7.87	3.34	2.10
7.33	2.84	1.65
6.27	2.09	1.31
7.00	2.66	1.74
5.70	1.14	0.26
8.50	3.56	2.50
8.23	3.11	2.09
7.07	2.46	1.62
5.60	1.19	0.42
4.53	0.97	0.29
10.80	2.74	1.73
5.93	1.03	0.34
5.43	1.21	-0.05
7.33	1.85	0.96
5.30	1.14	0.62
4.83	1.05	0.59
6.17	0.03	-0.95
7.17	0.55	-1.22
5.83	1.82	1.45
5.43	0.71	-0.01
7.07	2.37	1.30
7.33	0.67	-0.48
5.80	0.70	-0.09
5.63	0.16	-1.03
5.97	1.01	0.47
5.37	0.34	-0.35
4.58	0.31	-0.34
8.80	2.94	1.73
5.00	-0.03	-0.91
5.93	0.49	-0.29
7.27	2.00	1.46
6.57	0.76	0.72
6.30	1.28	1.21
6.07	1.67	1.45
6.17	0.67	0.49
5.93	1.51	0.72
8.10	2.56	1.16
5.27	0.05	-0.71
7.17	1.44	1.55
5.47	-0.26	-1.14
5.43	0.05	-0.66
5.80	-0.01	-0.86
5.97	1.14	1.04
6.73	1.59	1.68
5.47	0.40	-0.14

7.2	2.2	1.2
6.4	0.9	-0.1
5.7	0.4	-0.7
6.4	1.1	0.6
5.9	0.5	-0.1
6.61	1.39	0.57

## EXPLANATORY NOTES

- The **U.S. Market Risk Index<sup>SM</sup> score** translates to a percentage that predicts the probability that house prices will be lower in two years. For example, a Risk Index score of 100 means there is a 100 percent chance that the Loan Performance All Transactions House Price Index for that MSA will be lower two years from the date of the data.
- Historical risk scores may change as updated/revised source data become available.
- Past **price appreciation** is a key predictor of future price appreciation potential. In general, rapid and continued increases in the rate of price appreciation lead to increases in the risk of future price declines.
- Price volatility** is calculated as the standard deviation of quarterly two-year house price appreciation rates for the previous five years. In general, higher price volatility indicates a greater risk of future home price declines.
- Using per capita income, Loan Performance house price appreciation rates, and a blended interest rate based on the mix of 30-year fixed rate and 1-year adjustable rate mortgages (as reported by the Mortgage Bankers Association), PMI's proprietary **Affordability Index<sup>SM</sup>** measures how affordable homes are today relative to a baseline of 1995. An Affordability Index score exceeding 100 indicates that homes have become more affordable; a score below 100 means they are less affordable. The value of this index is generally inversely related to the value of the Risk Index – as affordability increases, the Risk Index score declines. By using a blended rate, the index factors in the use of adjustable rate mortgage products, which can increase affordability.
- The **local unemployment rate** is calculated with Bureau of Labor Statistics MSA-wide quarterly averages, not seasonally adjusted.
- The **demeaned unemployment rate** is the current unemployment rate minus the five-year average unemployment rate. A negative number means that the current unemployment rate is lower than the five-year average, indicating that labor markets are strong by the area's historical standards. High employment levels are generally associated with strong housing demand.
- All averages are population weighted.



## Housing Rebound

(continued from page 2)

What do these causal factors of housing recovery tell us about the prospects for a rebound in the current environment? The news appears to be mixed. Positively, according to the National Association of Realtor's composite housing affordability index, affordability has risen to all-time highs. Moreover, the increase in affordability over the past year is at a record level. Negatively, the demographic news is not as good. Even though homebuilders have cut back significantly on new construction, household growth has fallen by even more. According to the Census Bureau's March 2008 annual estimate, which is an estimate for the full year 2007, the increase in households was only 772,000. This is well below the increase in the supply of housing units in 2007 of 1.45 million – or even the 987,000 unit increase for 2008. A large portion of the difference between the number of new households and the increase in the number of new housing units is a jump in the number of vacant units. Moreover, even this low estimate of the number of new households may be too large – as it implies an unrealistically large jump in the number of net removals from the housing stock (down by more than 1 million units). There is some good demographic news, however.

As shown in **Figure 1**, the ratio of total home sales to households dropped below its long-term average in September 2007. Of course, it was well above the average in the 2003-6 period, so it has a long way to go before the excesses of that period have been worked off. Monthly data on household growth over 2008 is more upbeat, showing an annual increase of 1.103 million households – but this estimate may also overstate the magnitude of the gain.

The significant overhang of unsold homes along with the steep economic decline suggests that the housing bottom is not likely to be early in this cycle. Demographics should continue to improve slowly, while affordability is expected to stay at record levels, and together these factors will ultimately boost home sales. If, as we project, the recession ends around the beginning of the fourth quarter, then home sales should bottom sometime in the third quarter. Housing starts, on the other hand, may lag in this cycle because of the still high inventory-sales ratio for housing. ♦



## Trends in the Nation's MSAs

(continued from page 3)

In **Florida**, risk continued to increase in **Fort Walton Beach**, **Tallahassee**, and **Gainesville** – the few remaining MSAs in which risk scores had not already exceeded 90 percent. Only the **Tallahassee** and **Gainesville** MSAs have risk scores below 90, at 87.4 and 85.9 percent, respectively. All of **Florida's** twenty MSAs are now characterized as having a high probability of cumulative two-year price declines.

**California** continues to experience a growing divergence in risk paths across the state. The outlook for price declines is substantially higher in the southern and central regions of the state, as opposed to the northern MSAs. The greatest probability of decline is now in the southern portion of the state, followed closely by the **Central Valley**. The **Inland Empire (Riverside, San Bernardino and Ontario)** and **Los Angeles** MSAs now have the highest risks of decline, maxing out at 99.9 percent each. Their risk scores are largely identical to those from the previous quarter. Meanwhile, risk in the **Central Valley** MSAs increased relatively less than the southern portion of the state. Mostly because of lower foreclosure rates, **San Francisco** and **San Jose** continue to have lower risk scores than most of the rest of the state, at 31.6 and 51.4 percent, respectively. Even so, all MSAs in the state are experiencing upward pressure on risk scores in response to rising unemployment rates. **California** is currently experiencing one of the highest rates of unemployment in the nation. The Bureau of Labor Statistics recently estimated that unemployment in the state rose to 10.1 percent in January (compared with the national average of 7.6 percent), up from 8.7 percent in December.

### Trends in Home Price Appreciation

There continues to be an increase in the percentage of MSAs with year-ago price declines. Across all 381 MSAs, 73 percent ended 2008 with lower house prices than a year earlier. The rate

at which prices were declining also accelerated during the quarter relative to a year earlier. The population-weighted average price for all MSAs fell by 8.7 percent between the fourth quarters of 2007 and 2008, compared with a decline of only 3.8 percent between the same quarters of 2006 and 2007.

According to First American Core Logic's Loan Performance House Price Index, growth remained weakest in **California, Florida, Nevada, and Arizona**. **California** averaged a 21.5 percent annualized decline in the fourth quarter. Bad as this was, it was better than the second and third quarter's drops of 30.7 and 28.8 percent, respectively. In contrast, **Florida's** home price decline accelerated significantly during the quarter – with a 28.2 percent annualized decline in the fourth quarter, compared with a third quarter drop of 15.7 and a second quarter falloff of 8.5 percent. **Nevada** averaged a 29.4 percent decline in the fourth quarter, following a third quarter decline of 24.0 percent. **Arizona** averaged a 23.5 percent decline in the fourth quarter, almost identical to its 23.6 percent rate in the third quarter.

### Trends in Housing Affordability

Housing affordability increased significantly during the fourth quarter as prices continued to decline and mortgage rates fell. PMI's proprietary affordability index measures how affordable homes are today in a given MSA relative to a baseline of 1995. An Affordability Index score exceeding 100 indicates that homes have become more affordable; a score below 100 means they are less affordable.

For all 381 MSAs, the weighted average Affordability Index reading was 120.6 in the fourth quarter, compared with the third quarter reading of 114.5. Across the nation, 93 percent of the nation's 381 MSAs showed higher affordability. Affordability also improved in the 106 MSAs ranked in the two highest risk classifications.

(continued on page 10)



## Trends in the Nation's MSAs

(continued from page 9)

Among these categories average affordability improved by 7.8 index points – a greater rate of improvement than the rest of the nation; which improved by 5.5 index points.

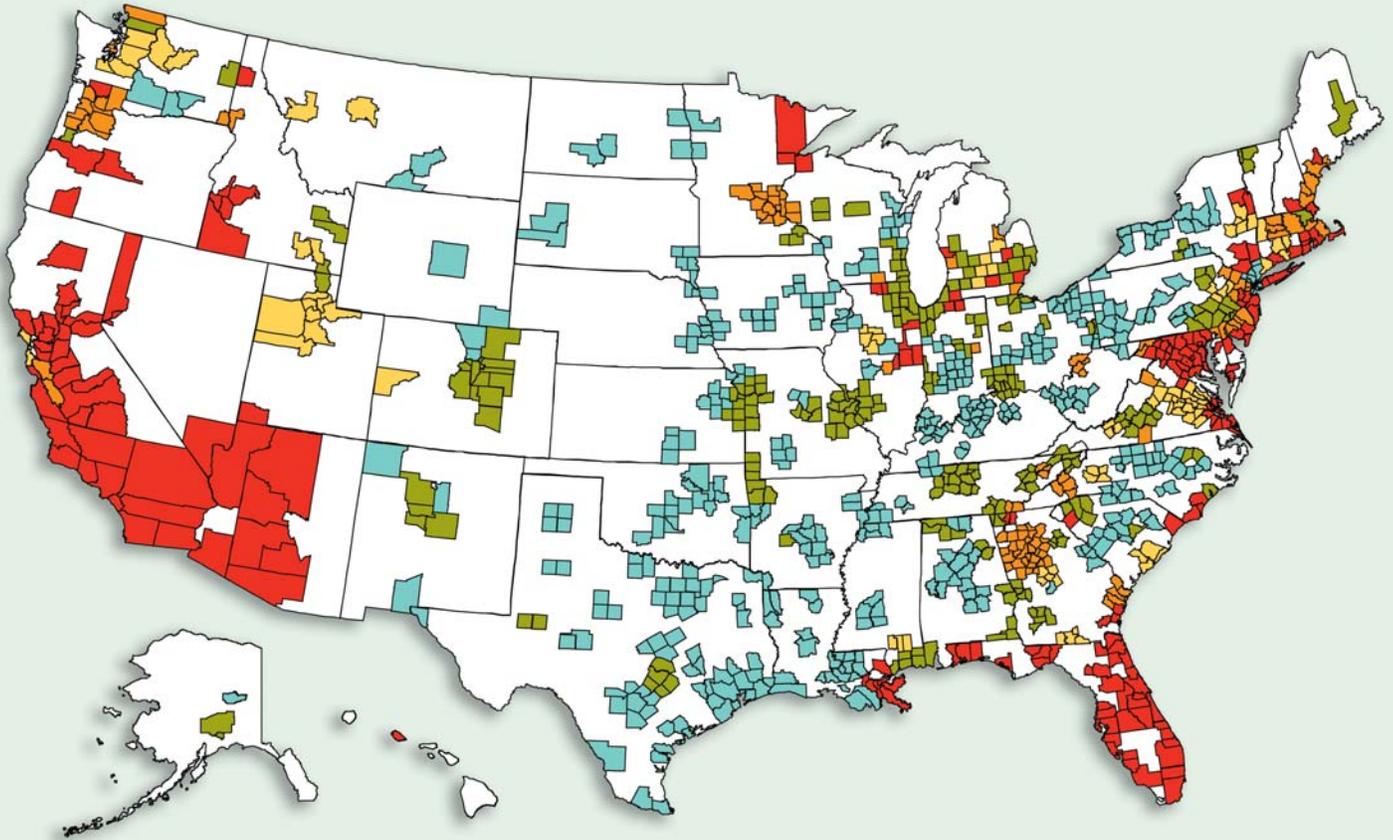
### Trends in Employment

Unemployment rates continue to increase rapidly across the nation. Across all 381 MSAs, unemployment rates averaged 6.53 percent during the fourth quarter, compared with 5.97 percent during the third quarter and 5.24 percent in the second quarter. Moreover, rising unemployment continues to spread beyond the construction and real estate sectors into manufacturing and services. **Michigan**, primarily a manufacturing state, continued to lead the nation with an 11.6 percent unemployment rate in January, followed closely by **South Carolina** at 10.4 percent, **Rhode Island** at 10.3 percent, and **California** at 10.1 percent. All of these performances represent at least a 4.0 percentage point increase from January 2008 levels.

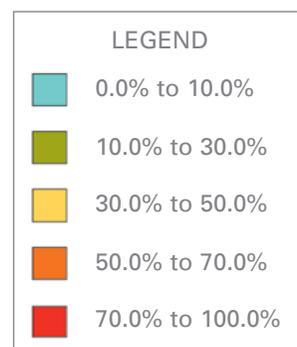
### Conclusion

The fourth quarter of 2008 saw substantial increases in price risk as the nation experienced weaker home price growth, rising mortgage delinquency rates, and higher rates of unemployment. Risk is likely to continue increasing for a while. Even with the modest home sales gains that we project for the second half of 2009, we still expect that national home prices will fall further because of the large number of homes for sale. The worst national price drops are probably behind us, however, and by 2010 national prices should begin to stabilize. ♦

# Geographic Distribution of HOUSE PRICE RISK



The above map depicts the geographic distribution of house price risk for all 381 MSAs and the District of Columbia. Each MSA is assigned a risk rank and corresponding color. Among the 50 largest MSAs, **Miami-Miami Beach-Kendall, FL** ranks the highest on the index, with a 99.9 percent chance that home prices will be lower in two years. At the other end of the risk spectrum lies a group of MSAs, largely located in the central and southern part of the nation, whose risk scores are moderate to low.



The Risk Index scores for all 381 MSAs are provided in an appendix, available on the publications page of the media center at [www.pmi-us.com](http://www.pmi-us.com).

**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 our expectation with respect to the economy and the housing and mortgage markets. Readers are cautioned that forward-looking statements by their nature involve risk and uncertainty because they relate to events and depend on circumstances that will occur in the future. Many factors could cause actual results and developments to differ materially from those expressed or implied by forward-looking statements. Such factors include, among others, national or regional recessions, credit market disruptions, changes in interest rates, housing prices and employment rates, and regulatory and legislative developments. Other risks and uncertainties are discussed in our SEC filings, including our Annual Report Form 10-K for the year ended December 31, 2008 (in Item 1A). We undertake no obligation to update forward-looking statements.

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## METROPOLITAN AREA ECONOMIC INDICATORS STATISTICAL MODEL OVERVIEW

The U.S. Market Risk Index 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) or Metropolitan Statistical Area Division (MSAD), the statistical model estimates the probability that an index of metropolitan-area-wide home prices will be lower in two years, with an index value of 100 implying a 100 percent probability that house prices will be lower in two years.

House price data are provided by LoanPerformance, a First American CoreLogic company. The LoanPerformance house price index (HPI) is a repeat-sales index that tracks changes in sales prices for the same homes over time, thereby providing a more accurate “constant-quality” view of house price trends than transaction-based measures. The index incorporates more than 30 years worth of repeat sales transactions, representing more than 45 million observations sourced from First American CoreLogic’s industry leading property information database. The LoanPerformance HPI provides a multi-tier market evaluation based on price, time between sales, property type and loan type (conforming vs. nonconforming).

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.

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