One Man's View on the Future of Mortgage Insurance

Prepared for: CAS Annual Meeting 2008

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Overview

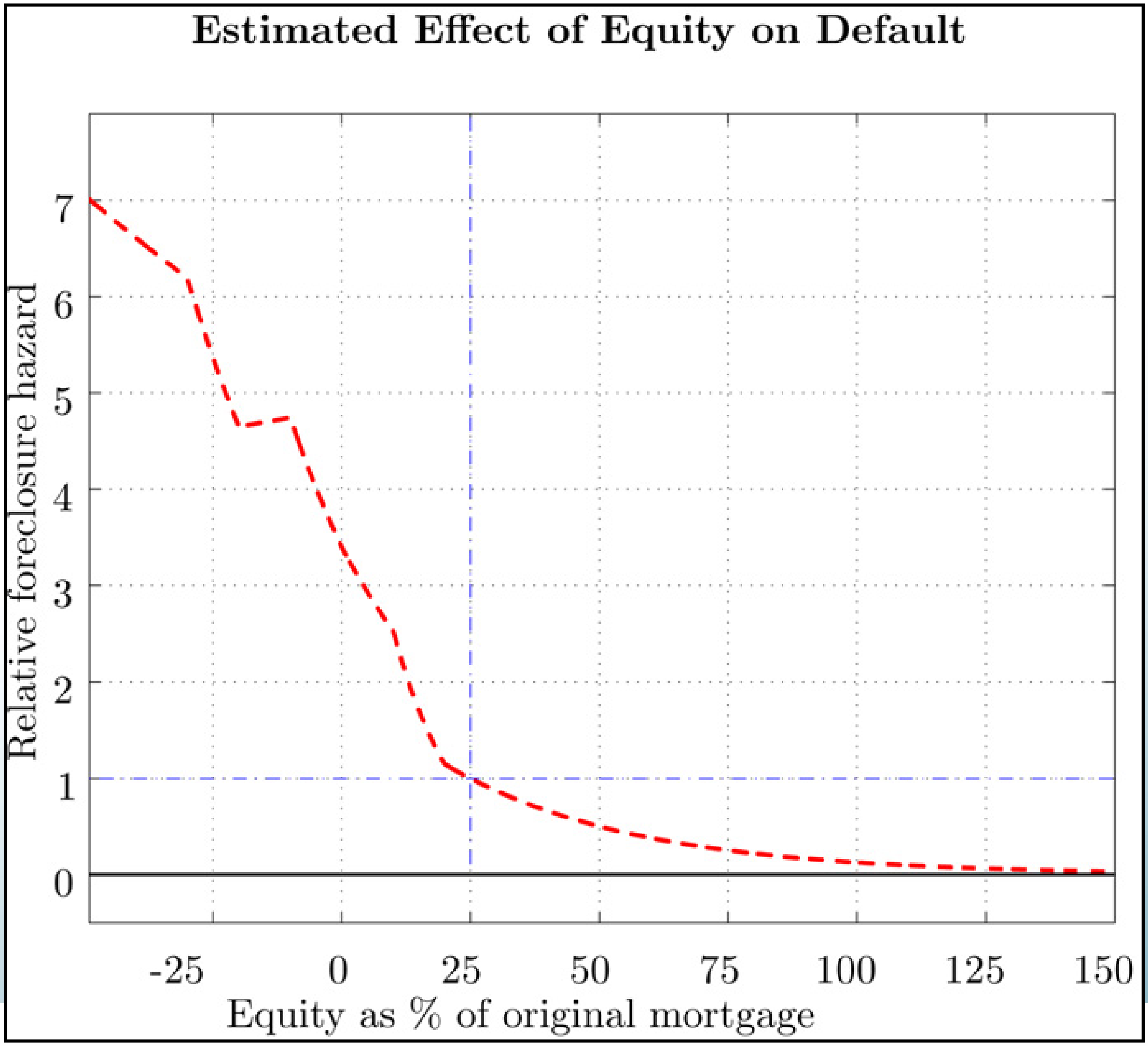
- Economy/housing market
  - House price & supply
  - Government programs
  - Unemployment
- MI Industry Participants
  - Underwriting
  - Pricing
  - Competing products
  - Strategic
  - Perspectives

Home Price & Supply

- "…economists found that homeowners typically lost their homes only after at least two things happened: Their home values dropped and they either couldn't afford the payments or stopped making payments after losing hope that prices would eventually recover."

Source: Blumenthal, "Underwater Need Not Mean Foreclosure," WSJ 11/5/08

Home Price & Supply



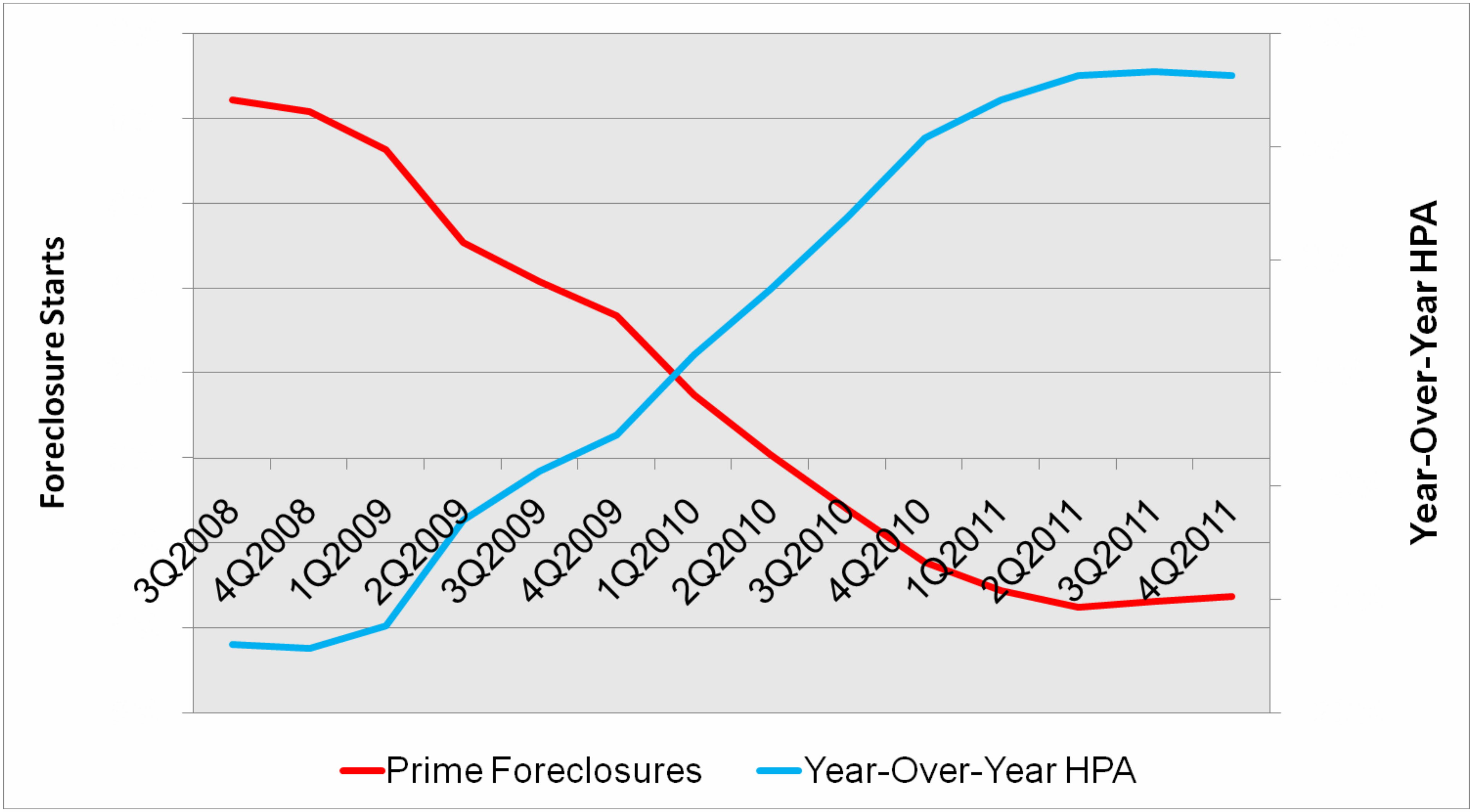
Source: Foote, et al., "Negative Equity and Foreclosure: Theory and Evidence," Journal of Urban Economics 64 (2008)

Home Price & Supply

- MI claims and losses lag foreclosures
- Foreclosures lag foreclosure starts
- Foreclosure starts lag both foreclosure starts and home price appreciation
  - Foreclosure starts are dependent variable
  - A couple previous foreclosure starts and home price appreciations are independent variables
  - Four models, one for each combination of Prime vs Subprime and Fixed vs Adjustable

Source: Jan Hatzius, "Beyond Levereged Losses: The Balance Sheet Effects of the Home Price Downturn"

Projected HPA and Modeled Prime Foreclosure Starts



Source: Jan Hatzius, "Beyond Levereged Losses: The Balance Sheet Effects of the Home Price Downturn" and Moody's

Home Price & Supply

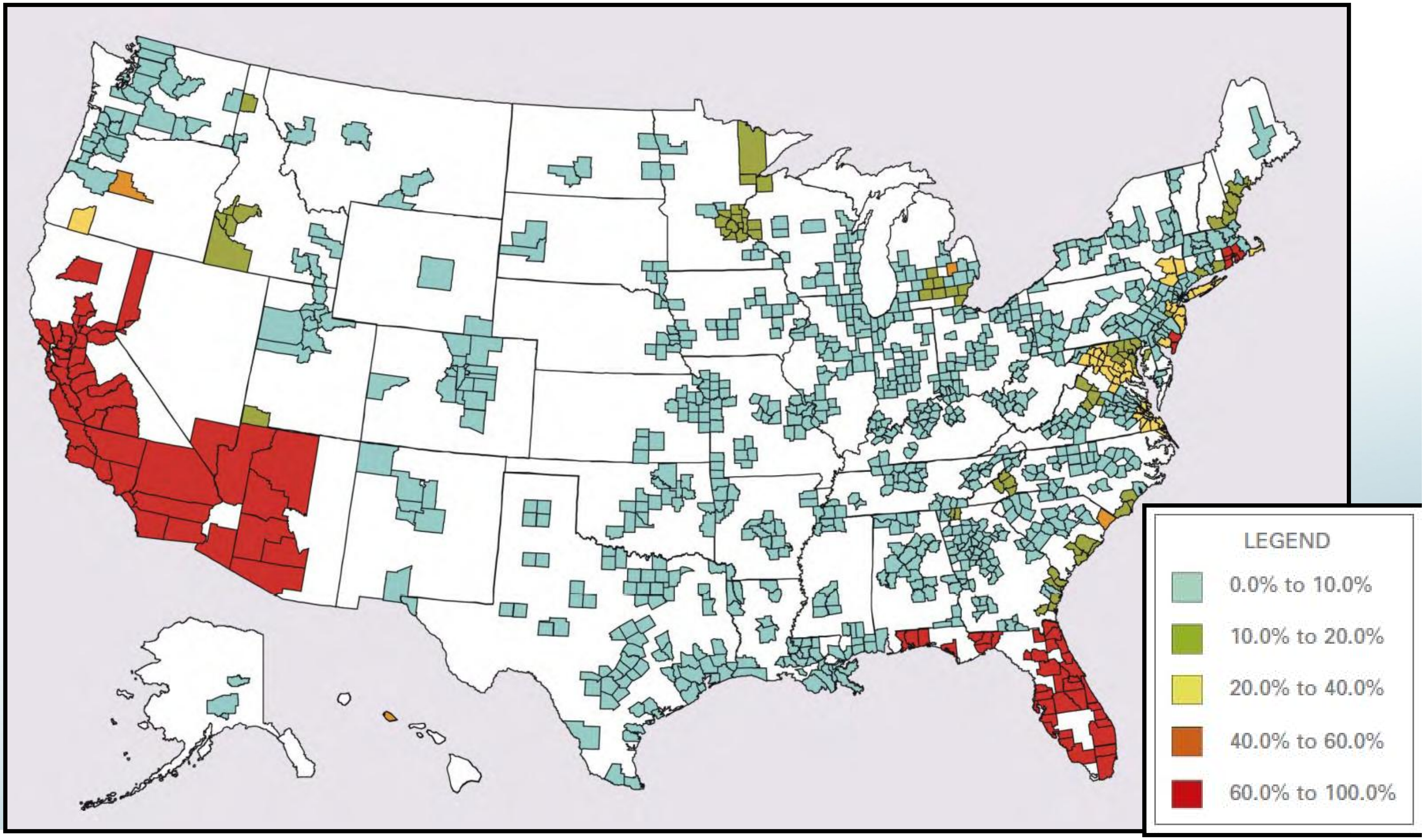
- Predictions suggest the housing market will “reach its lowest price level in 2009Q4” (Zhong Yi Tong, Ph.D., Chief Economist, RMIC. “Economic, Housing & Mortgage Market Outlook.” August ‘08)
- Assuming foreclosures lag home prices, highest level of foreclosure starts to come after 2009Q4?

Home Price & Supply

- The U.S. Market Risk Index^{SM} score
  - Published quarterly by PMI Group
  - Score published for each MSA
  - Translates to the probability that house prices will be lower in two years within an MSA

Source: PMI Economics Real Estate Trends Fall 2008

PMI Risk Index



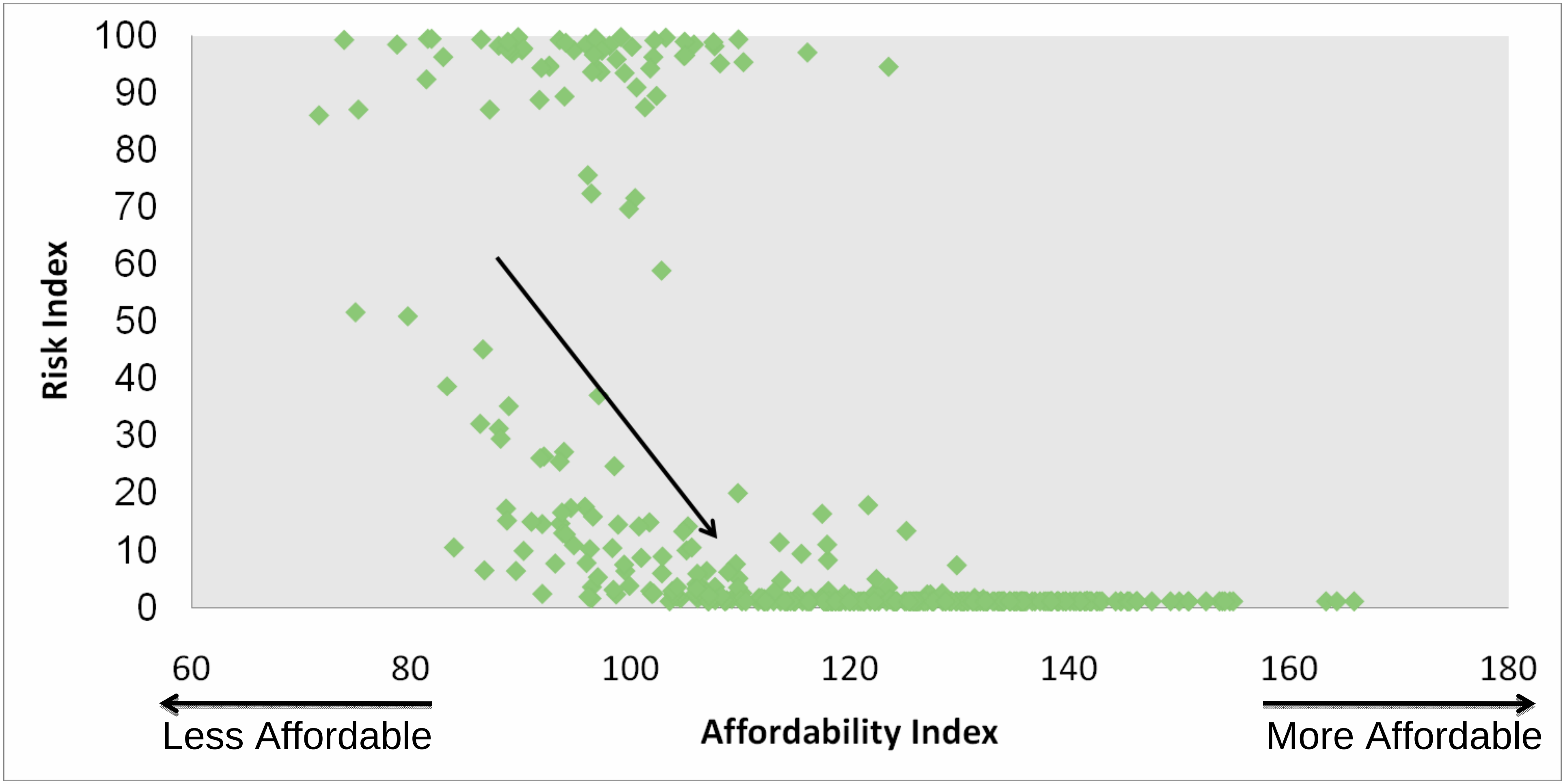
Source: PMI Economic Real Estate Trends Fall 2008

Home Price & Supply

- Negative equity is a necessary (though not sufficient) cause of foreclosure.
  - In MA in 1991, of 100,000 homes “underwater”, only 6.4% of them defaulted.
  - People need someplace to live
- Market Risk Index is connected to affordability

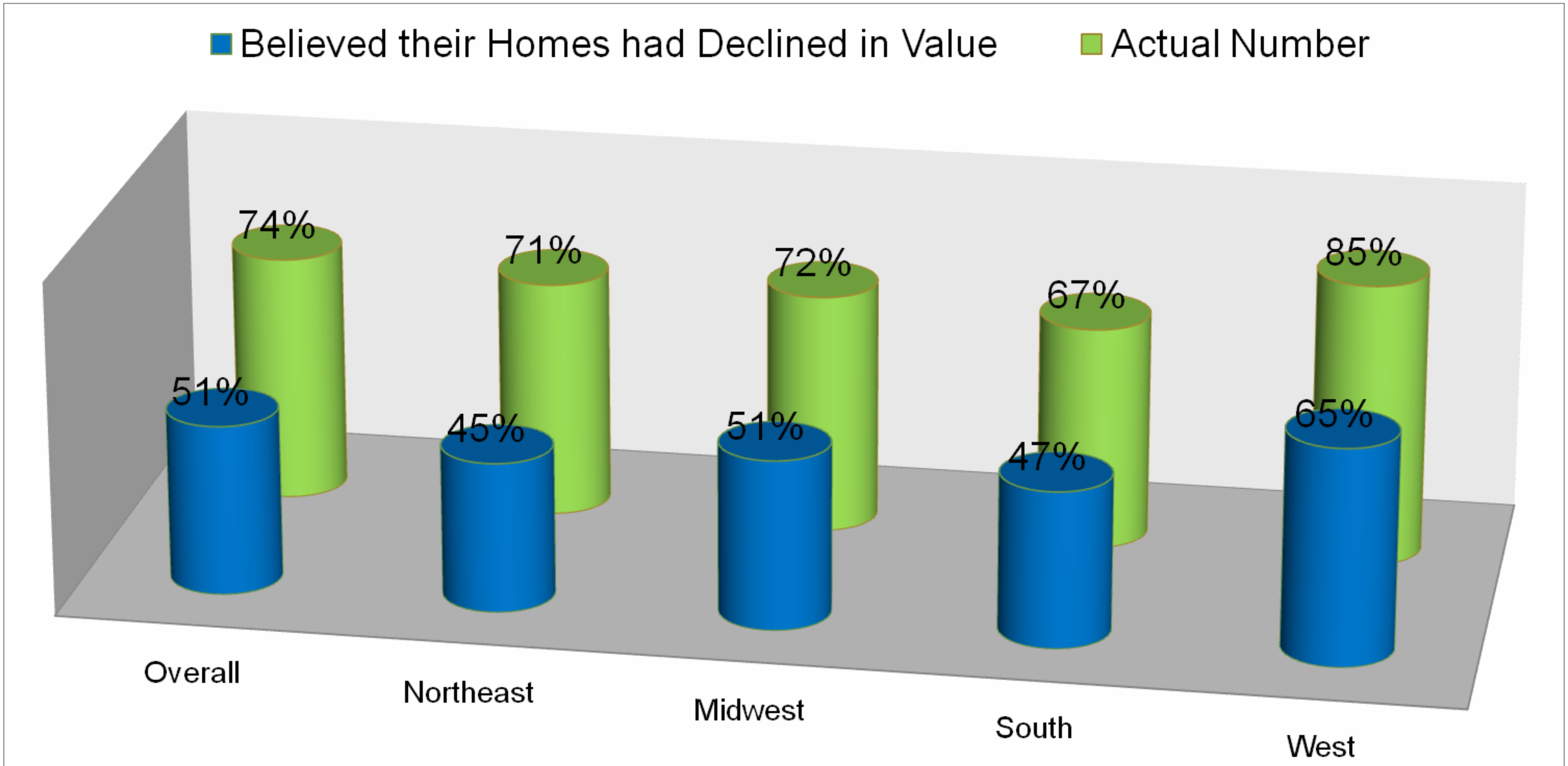
Source: Blumenthal, “Underwater Need Not Mean Foreclosure,” WSJ 11/5/08

Home Price & Supply



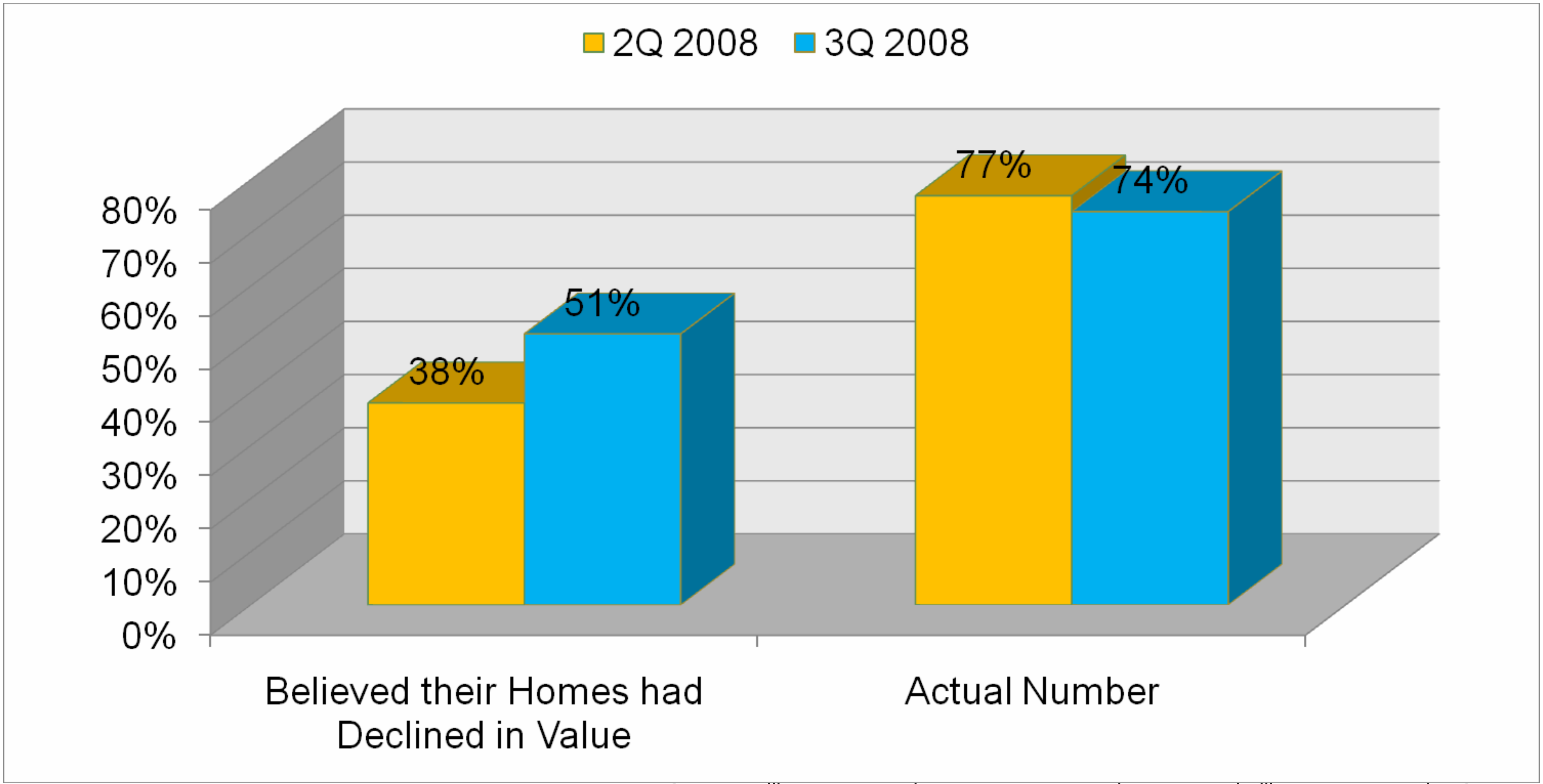
Source: PMI Economic Real Estate Trends Fall 2008

Home Price & Supply



Source: LA Times, “Zillow measures homeowners’ perception gap”, and Zillow.com Perception Survey

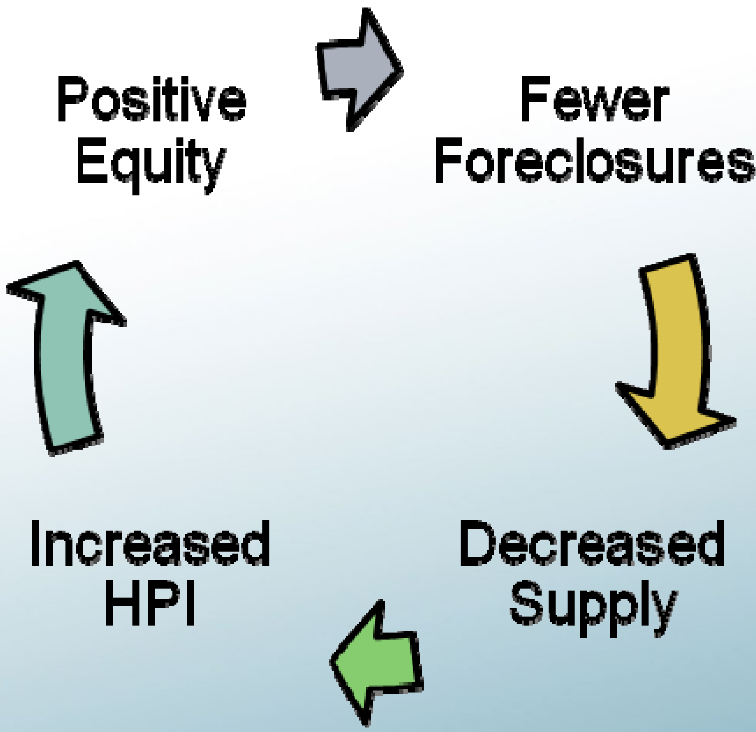
Home Price & Supply



Source: "Zillow measures homeowners' perception gap", and Zillow.com Perception Survey

Home Price & Supply

- Government programs tend to treat housing supply by attempting to reduce the number of foreclosures or increasing the number of buyers (instead of helping people when they would have to sell at a loss):



Source: FHA, Foote et al, and as noted.

Federal Programs

- Hope for Homeowners (H4H)
  - Part of the Housing and Economic Recovery Act of 2008
  - Effective from October 1, 2008 to September 30, 2011
  - Refinance existing mortgage into a new 30-year fixed with low rate
  - ORIGINALLY, believed it could prevent as many as 400,000 foreclosures over 3 years (CBO 10/01/08)
  - More recently, 20,000 borrowers expected to be able to refinance by Fall 2009 (FHA 11/14/08)
  - FHA received only 42 applications in its first two weeks
  - Due to 60 day processing window, FHA is yet to approve one
- Many federal programs also target the credit market, with the hope of encouraging lending…

Source: Federal Housing Administration,,Los Angeles Times, CBO, AP

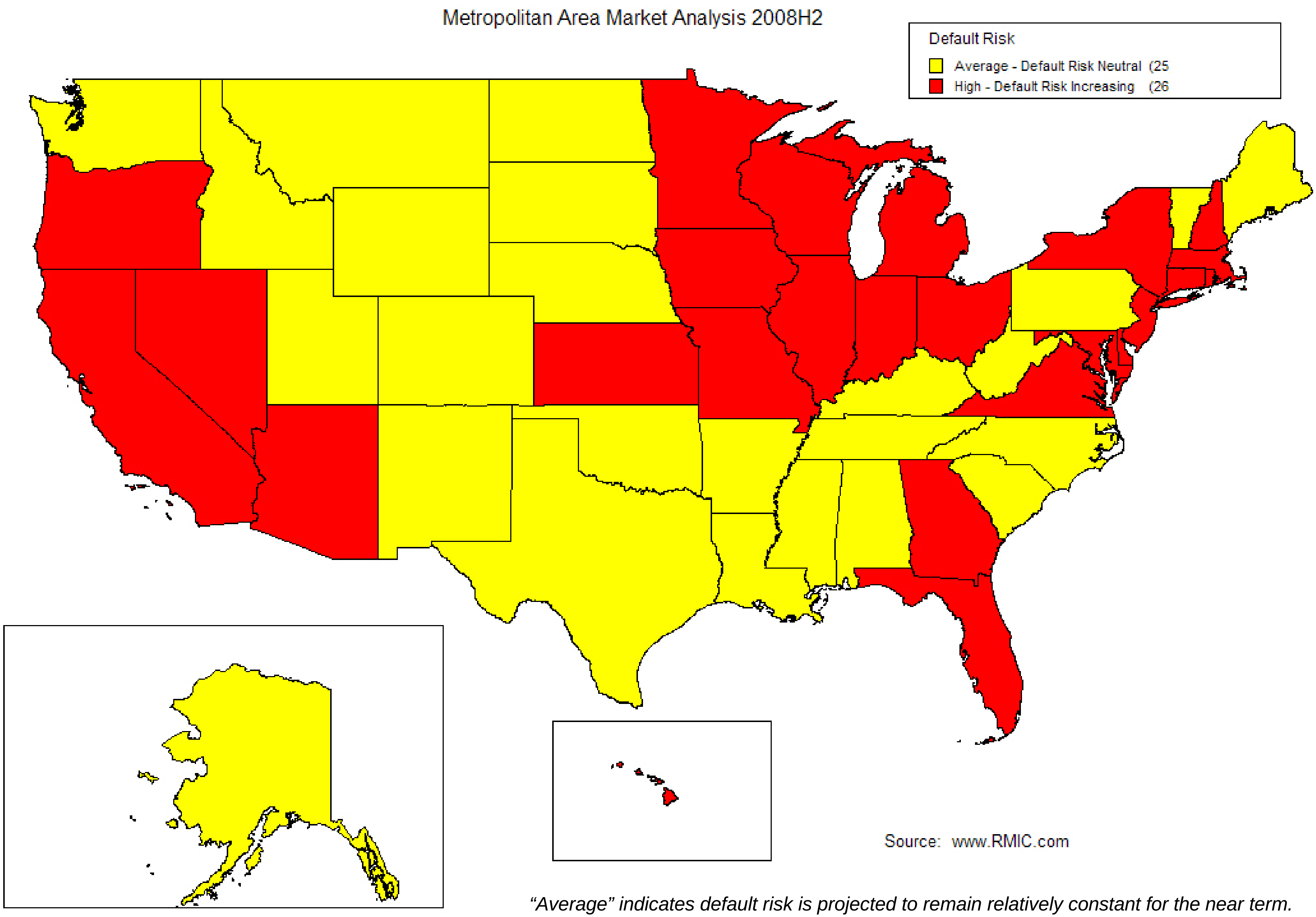
Federal Programs

- Liquidity is important so that lenders will continue to make loans that MI companies can insure
- Bailout Plan, or “Emergency Economic Stabilization Act of 2008”
  - Government can spend up to $700 billion to stabilize and add liquidity
  - As of Nov. 12, “…the Treasury has put a plan to purchase illiquid mortgage-related assets on hold.” (Solomon, “Treasury not Planning to Buy Bad Loans, Assets,” Wall Street Journal.)
- Troubled Asset Relief Program (TARP)
  - No MI claim if lender writes-down principal of a mortgage
  - “the [MI] coverage is applied to the new loan amount and we [PMI] do not suffer that loss. It is absorbed by the investor.” (The PMI Group 9/30/08 Earnings Call Transcript-Seeking Alpha)
  - “Recent legislation and loan modification programs…could have a positive impact by potentially reducing the number of defaults going to claim.” (Radian 2008Q3 10Q)

Source: Boston Business Journal, Bank of America Form 10-Q and as noted.

State Programs

- Foreclosure Freezes
  - Schwarzenegger proposed 90-day freeze on pending home foreclosures for CA on Wednesday, Nov. 5th.
  - In May of 2007, MA became "the first state in the country to declare a moratorium on foreclosures stemming from predatory lending" *(TheBostonChannel.com, "Move Against Predatory Lending is Unprecedented")*
    - The following August, "foreclosure filings in Massachusetts jumped 454 percent…about 90 days after the law took effect" *(RealtyTrac, September Foreclosure Report)*
  - MI Loss Reserving Impacts
- Different regions require different approaches: "Homes go into foreclosure [in CA, NV, and FL]…because of inflated home prices; in Cleveland,...due to deceptive subprime loans" *(Washington Independent, "A False Fix for the Mortgage Crisis")*



"Average" indicates default risk is projected to remain relatively constant for the near term.
"High" indicates default risk is projected to increase for the near term.

Unemployment

- Unemployment rise → increased numbers of defaults

- It has been reported that “In June, 45.5% of all delinquencies reported by Freddie Mac…were due to unemployment or the loss of income, according to the company.” (CNNMoney.com, “Mounting job losses fueling foreclosures”)

Underwriting

- Lower maximum LTV
- Higher minimum FICO (particularly high LTVs)
- Full documentation
- Interest Only / Option ARM

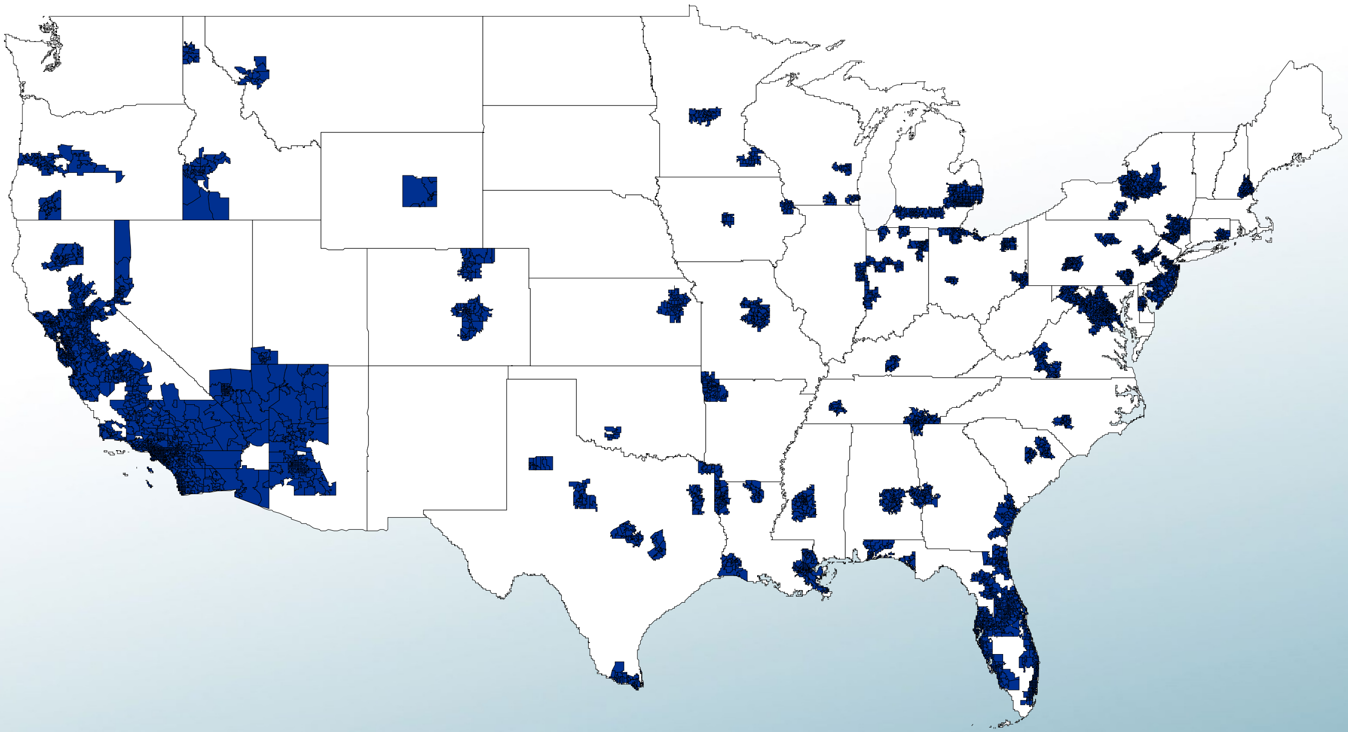
First-Lien Risk Mix	Loans > 95% LTV*	FICO > 660	Interest Only	Option ARMs	Fixed Rate
New Risk 3Q2007	44.1%	69.7%	12.5%	2.9%	80.5%
New Risk 2Q2008	6.4%	92.3%	3.9%	0.0%	92.1%
New Risk 3Q2008	1.1%	97.1%	3.1%	0.0%	90.8%

** Loan-to-value*

Source: Company rate cards and AIG Conference Call Credit Presentation 11/10/08

Underwriting

- Distressed markets



Source: Company rate cards

Pricing

- Rate increases

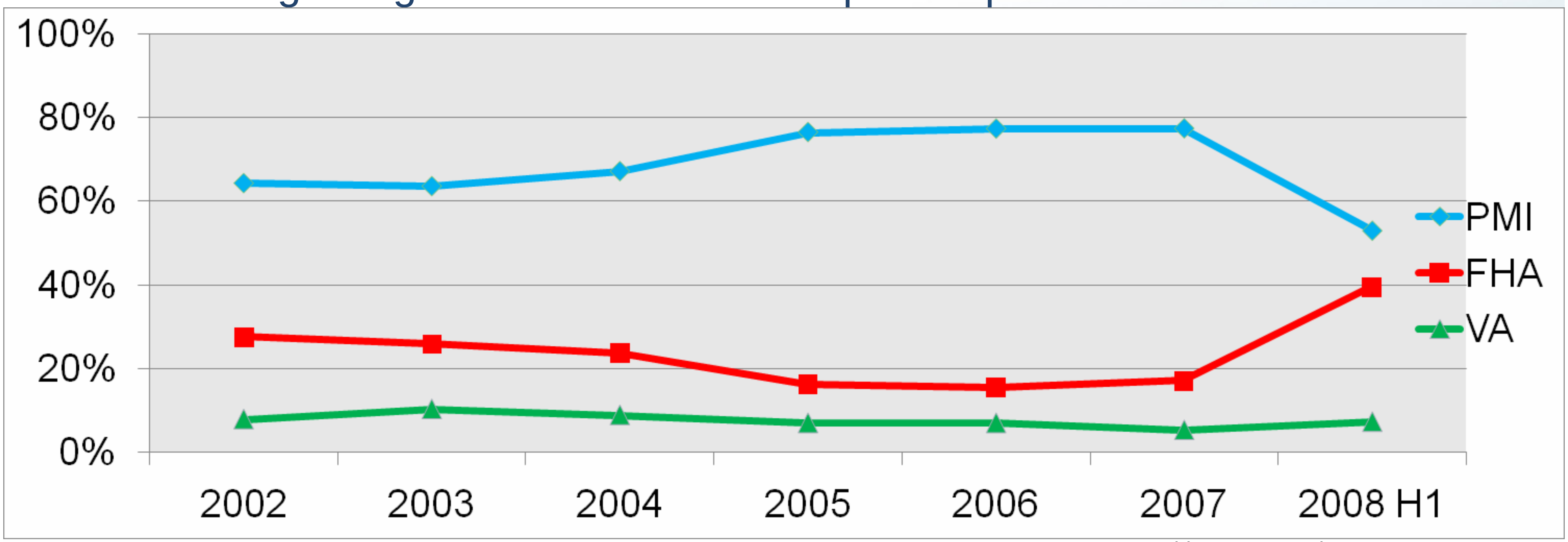
Comparison of Standard MI Premium Rates
Fixed Payment
30 year term
Nonrefundable

		Annualized Monthly Rate (bps)		Relative
LTV	Coverage	May 2006	August 2008	Change
(90-95]	30%	78	94	21%
(85-90]	25%	52	62	19%
(80-85]	12%	32	38	19%

Source: United Guaranty

Competing Products

- Competing Products
  - CDS
  - "Piggyback" loans
- FHA is gaining market share with respect to private MI:



Source: Inside Mortgage Finance, August 15, 2008

Strategic

- Shifts in business strategies:
  - Short term-capital preservation, expense reduction, back to basics, geographic contraction
  - Mortgage insurers are reorganizing themselves
    - "Genworth said it's examining a number of strategic alternatives for the U.S. mortgage insurance business, including a possible spinoff" *(Barr. "Genworth Says it may Spin Off Mortgage Insurance Unit," Marketwatch)*
    - "Genworth's foreign units, which analysts see as the likeliest to go up for sale, include mortgage-insurance businesses in Canada and Australia." *(Wall Street Journal, Nov. 12 2008)*
    - AIG selling non-core US P&C companies
  - Lender captive reinsurance structures
  - Long term-product expansion (financial guaranty, student loans, payment protection)
  - Long term-geographic expansion

Management Perspective

- MIs point to economic turmoil
  - "Steep Declines in real estate values, tightening markets for obtaining capital or credit, and the liquidity concerns of financial institutions have created a significant amount of uncertainty in the capital markets, which has resulted in significant downward pressure on asset values, especially single family homes" *(Triad 3Q2008 Form 10-Q)*
  - "The significant weakening of employment in the United States and the U.S. credit, capital, residential mortgage, and housing markets continues to negatively affect our U.S. Mortgage Insurance Operations segment." *(PMI Group 3Q2008 Form 10-Q)*

Management Perspective

- Double Bind:
  - "Unless we raise new capital and/or reduce…NIW and risk-in-force…[policyholders' positions] will likely decline and its risk-to-capital ratio could increase beyond levels necessary to meet certain regulatory capital adequacy requirements and/or certain credit facility financial covenants….In addition, any reduction in new insurance written would have an adverse effect on premiums earned." *(PMI Group 3Q2008 Form 10-Q)*
- Legislation
  - "There can be no assurance that any changes resulting from the implementation of this new regulatory regime will not alter our relationship or ability to conduct business with the GSEs in a materially adverse manner…There can be no assurance that current, or future, legislation or agreements to modify loans, should they occur, will materially reduce the level of delinquencies and claims we are currently experiencing or could experience in the future." *(MGIC Investment 3Q2008 Form 10-Q)*

Rating Agency Perspective

- *Ratings as of Nov 12, 2008:*

	Rating Agency		
MI	Fitch	Moody's	S&P
CMG	AA	N/R	AA-
Genworth	A+	Aa3	AA-
MGIC	BBB-	A1	A
PMI	BBB+	A3	A-
Radian	N/R	A2	BBB+
RMIC	A+	A1	A+
Triad	N/R	N/R	B
UGC	AA-	A3	A-

Source: Fitch, Moody's, S&P

Rating Agency Perspective

- "The root cause of the crisis can be attributed to the rapid appreciation of real estate prices between 2000 and 2006, widely characterized as the "housing bubble," and the evolution of innovative mortgage products that both fed the bubble and ultimately led to its collapse." *(AM Best Research 2008 Special Report)*
- "The boom also created lax underwriting standards…underwriting discipline was [also] weakened by…the securitization of mortgage loans." *(AM Best Research 2008 Special Report)*
- "For the MI industry, the end of the housing boom and resulting record losses was largely a credit-driven phenomenon." *(AM Best Research 2008 Special Report)*
- "…the current period of credit market turmoil and the downturn in real estate may not end until 2010 through 2011, when the bulk of the ARMs are slated to reset." *(AM Best Research 2008 Special Report)*

Rating Agency Perspective

- "…the mortgage insurance industry's troubles are not over and may, in fact, get worse before they improve." *(Fitch Ratings Special Report 2Q2008)*
- "…stricter underwriting standards…[are] expected to produce better performances for 2008 and future years." *(Fitch Ratings Special Report 2Q2008)*
- "Over the course of 2008 and 2009…Fitch expects that the mortgage insurance industry will need to continue posting very high loss reserves as the industry's pipeline of troubled mortgages becomes increasingly made up of 2007 vintage loans and current loss reserves are paid out as claims." *(Fitch Ratings Special Report 2Q2008)*

Fannie/Freddie Perspective

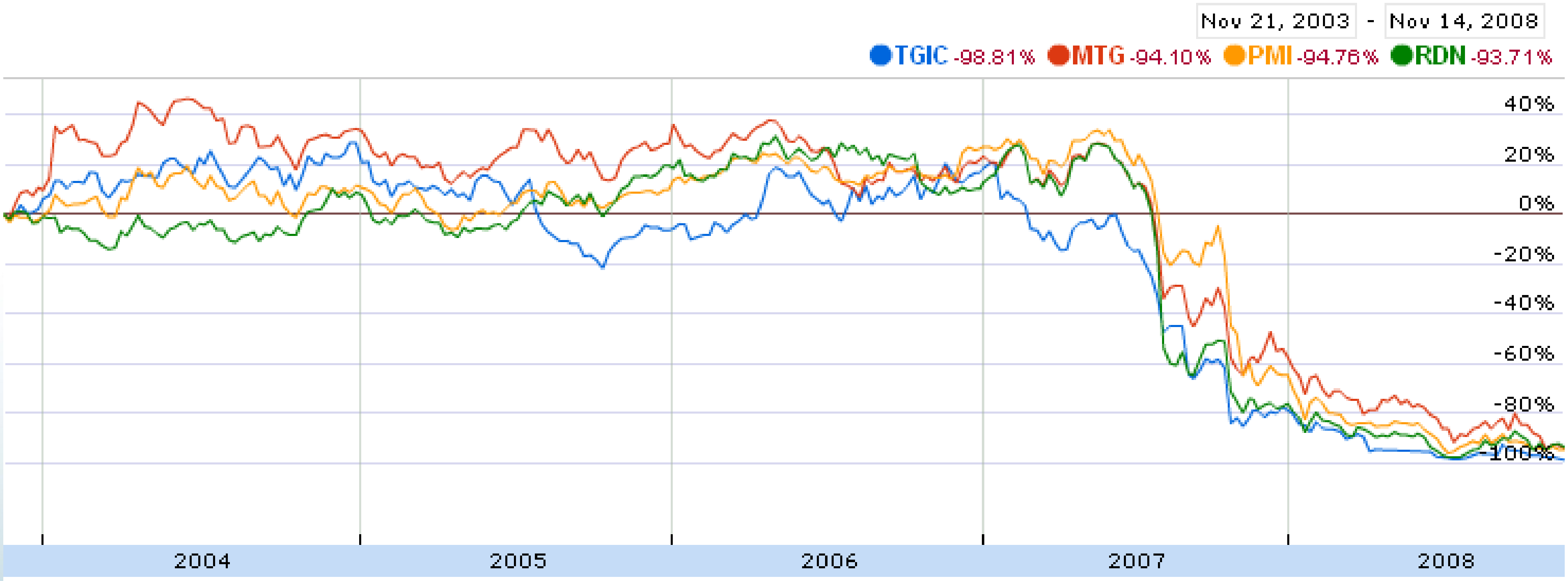
- "Based upon currently available information, we expect that most of our mortgage insurance counterparties possess adequate financial strength and capital to meet their obligations to us for the near term."

  (Freddie Mac 2008Q3 10-Q)

- "If we are no longer willing or able to obtain mortgage insurance from our primary mortgage insurer counterparties, or these counterparties restrict their eligibility requirements for high loan-to-value ratio loans, and we are not able to find suitable alternative methods of obtaining credit enhancement for these loans, we may be restricted in our ability to purchase loans with loan-to-value ratios over 80% at the time of purchase." (Fannie Mae 2008Q3 10-Q)

Investor Perspective

- Declines in MI stocks
- Tight credit



Closing Thoughts

- People are going to buy houses
- People are going to need mortgage finance
- Mortgage default risk will continue to exist
- Lenders to share risk of default
- Private MI's domain
  - Expertise
  - Information exchange systems
  - Underwriting/pricing systems
  - Claims handling/loss mitigation
  - Regulatory