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## MORTGAGE INSURANCE: WHAT HAVE WE LEARNED? (PART 1)

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David McLaughry, FCAS, MAAA  
CAS Special Interest Seminar, Chicago, IL  
October 1, 2013

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## OUTLINE

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- Overview of Mortgage Guaranty Insurance ("MI").
- Brief history of MI.
- How the industry has fared since 1980.
- What went wrong?
- Fallout from the crisis.

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## WHAT MI IS AND HOW IT WORKS



Lenders or Borrowers pay MI premium for MI coverage, typically on loans exceeding 80% LTV.

Banks provide high-LTV loans. MI is required for >80% LTV loans to be sold to Freddie Mac and Fannie Mae.

Mortgage Insurer provides coverage against borrower default.

### Mortgage Insurance...

- Provides a form of credit risk transfer to protect financial institutions, allowing financial institutions to offer high-LTV residential mortgages.
  - It **does not** insure the borrower.
  - It insures the financial institution's loss due to borrower default.
- Covers mortgage loans with LTV ratios higher than 80%.
- Aims to provide stability and soundness to the housing financing system.

### Mortgage Insurance benefits...

- Benefits the Borrower**
- Purchase home with lower down payment.
  - Afford a larger home.
  - Increase home ownership rate.
- Benefits the Lender**
- Reduces credit risk exposure.
  - Provides independent secondary underwriting review.
  - Expands mortgage markets.

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## WHAT MI IS AND HOW IT WORKS

- The policy insures a lender—who may pass the premium cost directly to the borrower—against borrower default on a mortgage loan.
- Coverage spans the life of a loan and is generally cancellable only under the following circumstances:
  - MI premium is not paid.
  - The loan amortizes below an LTV of 78%, under the Homeowners Protection Act (HPA).
  - The loan prepays completely.
- Insurers provide proportional coverage in the U.S.
  - Insured risk amount ("risk") = (loan amount) x (coverage percentage).
- To settle a claim, the insurer chooses from three options:
  - Approve a short sale of the property and pay remaining deficiency.
  - Purchase the property for the balance due and sell the property.
  - Pay "optional" settlement equal to (coverage percentage) x (loan amount) + (covered fees).
- The claim payment is made to the investor.

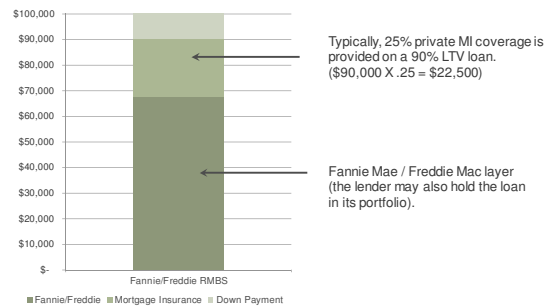
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## MI COVERAGE LAYERS – 90% LTV EXAMPLE



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## MI PREMIUM

- The policy premium can be paid by the lender or can be passed through to the borrower—in the U.S., borrower-paid MI is the predominant form of insurance.
- Several premium payment options are typically available.
  - Single premium.
  - Annual installment, based upon original or declining balance.
  - Monthly installment, based upon original or declining balance.
  - Split premium, a hybrid premium type in which the up-front rate is typically higher than the installment rate.
- Single premiums are earned based on a prescribed earnings pattern.
- Installment premiums are typically earned over the installment period.
- Installment premiums cannot be changed once the policy is written.

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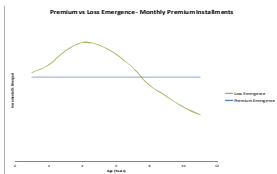
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## MI LOSSES AND RESERVES

- Loss reserves are established at the date of the first missed payment (the "Accident Date").
- Servicers typically report delinquent loans to the MI provider after a loan has been delinquent for 60 days.
- Given the length of time it takes to complete the foreclosure process, it typically takes 1.5–2.0 years before a claim payment is made.
- The short reporting lag results in much larger reserves for known delinquent loans ("Case Reserves") than for IBNR delinquent loans.

- A mismatch of premiums and losses occurs, particularly for installment premiums:



- No explicit reserve for future delinquencies, except if a Premium Deficiency Reserve is indicated.

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## MI – UNIQUE FINANCIAL FEATURES

- First-lien mortgage insurers are monoline—they insure only first-lien home mortgages.
- MI is commercial insurance—customers are financial institutions (banks, credit unions, etc.).
  - Borrowers are neither a party to nor a beneficiary of the insurance.
- Once a mortgage insurer has issued insurance, it can generally only cancel for non-payment of premium.
  - Cannot re-underwrite at any time during coverage.
- The rate / premium charged remains fixed throughout the life of the coverage.
  - Cannot re-rate during the term of coverage.
- The mortgage insurer must maintain a statutory contingency reserve of 50% of earned premium.
- If the coverage on the loan exceeds 25%, the mortgage insurer must reinsure any coverage above 25%.

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## MI – SOME HISTORY

- Written on a non-monoline basis prior to the Great Depression.
- Fifty mortgage insurers were founded in the early 1900s; the industry was profitable until the 1930s
- During the Great Depression, all companies went under (all 50 were liquidated by 1950).
  - Largest insurance company liquidation the New York Department of Insurance had ever done.
- In 1934, the FHA was established to fill the void; Fannie Mae was established in 1938.
- Private Mortgage Insurance was outlawed throughout the U.S. until the 1950s.

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## MI – SOME HISTORY

**Safeguards were built into state laws beginning in 1956; the resulting NAIC model law:**

- Recognized the catastrophic nature of MI.
- Established the requirement of a Contingency Reserve (segregated surplus).
  - Contingency Reserves are initially established at 50% of the earned premium amount.
  - Must be held for 10 years and are only allowed to be released under certain conditions, typically driven by incurred loss levels.
- Required that first-lien MI carriers be monoline—only insure first-lien home mortgages.
- Capital requirements:
  - Certain states require risk-to-capital levels of less than 25:1.
  - The GSEs and rating agencies require even lower risk-to-capital ratios in order to maintain eligibility to write MI and to sustain investment grade ratings, respectively.
  - The net result is that MI companies maintain premium-to-surplus ratios of ~0.30.
- Investment restrictions: MI companies cannot originate mortgages or invest in mortgages or real estate.

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## MI – HOW THE INDUSTRY HAS FARED

- At least 11 mortgage insurance groups were formed between 1957 and 1987.
- The industry suffered significant losses in 1980s and 2000s.
- Flagship carriers of at least four groups ceased writing new business by 1990.
- Of the seven mortgage insurers in business in 2008, three have gone into runoff.
  - Those three are paying their claims at the 50–60% level and issue a deferred payment obligation for the remainder.
- MI companies that survived are still struggling with legacy exposure to loans insured prior to 2009.
- Two new companies have recently entered the market (Essent and NMI).

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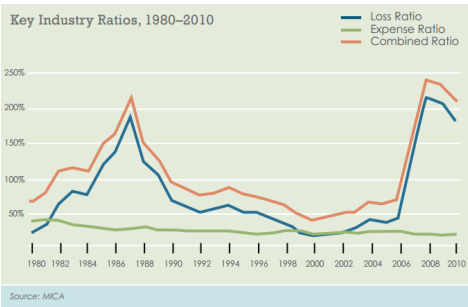
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### MI – HOW THE INDUSTRY HAS FARED



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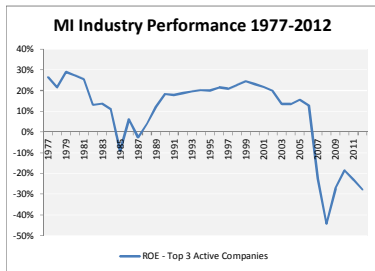
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### MI – HOW THE INDUSTRY HAS FARED



Average ROE 1977-2012 = 9.4%

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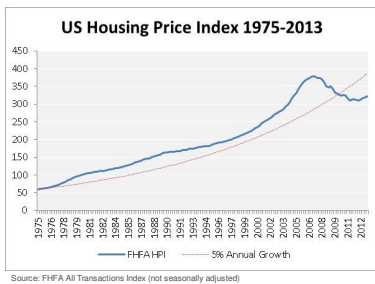
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### MI – WHAT WENT WRONG?



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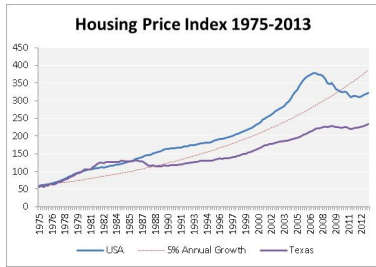
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### MI – WHAT WENT WRONG?



Source: FHFA All Transactions Index (not seasonally adjusted)

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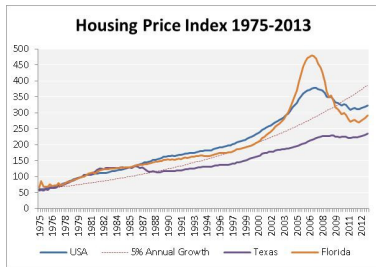
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### MI – WHAT WENT WRONG?



Source: FHFA All Transactions Index (not seasonally adjusted)

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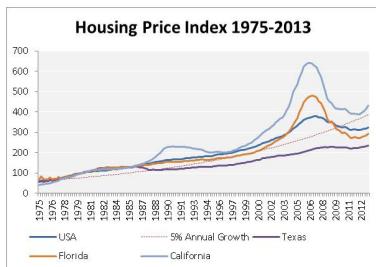
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### MI – WHAT WENT WRONG?



Source: FHFA All Transactions Index (not seasonally adjusted)

Local shocks drive MI losses, often masked by aggregate trends.

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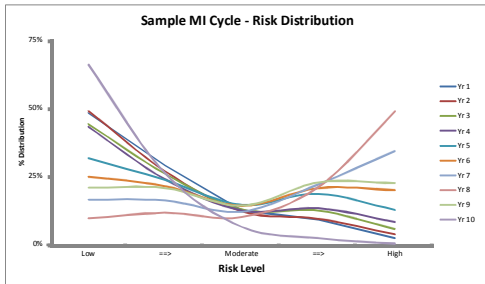
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## MI UNDERWRITING CYCLE



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## MI – WHAT WENT WRONG?

- Industry accommodated risky lender behavior, rather than safeguard against it:
  - Delegated underwriting model.
  - Bulk and Pool coverage.
  - Product expansion (low-doc, interest-only, ARMs, etc.)
  - Minimal pricing segmentation.
- The mortgage system failed on many fronts, and mortgage insurers participated in that failure.

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## MI – FALLOUT FROM THE CRISIS

- MI failures/ratings downgrades.
- Sharp drop in private MI market share.
  - FHA/VA share of insured loans rose from less than 25% in 2007 to more than 80% in 2009.
- Lender dissatisfaction: rescinded coverage and denied claims.
- Profits of many years wiped out.
- Future of industry regulation and government participation uncertain.

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MI – WHAT HAVE WE LEARNED?

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Questions?

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