



# Home Equity Conversion Mortgage

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# Topics for Discussion

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- Program History and Design Overview
- Risk Management – Loan Level
- Portfolio Risk Analysis
- Federal Budget Considerations
- HUD HECM Resources



# HECM Program History

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- Housing and Community Development Act of 1987 authorized HUD to conduct a demonstration of HECM, permanent in 1998.
- Model: provide private lenders with mortgage insurance.
- Statutory consumer protections:
  - Mandatory pre-application counseling
  - Guaranteed loan proceeds (if lender insolvency)
- Details of HECM design left to HUD
- First HECM loan was made in October 1989.



# HECM Overview

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- HECM provides senior citizens (minimum age of 62) cash payments and/or a credit line secured by their home's equity.
- No repayment as long as the borrower continues to live in the home and keeps up with the mortgage requirements.
- Flexibility of cash draws: Borrower can match draws with needs.
- Borrower typically uses reverse mortgages to
  - Access cash for home improvements, medical bills, or for everyday living.
  - Pay off balances on existing traditional mortgages.



# HECM Insures Private Lenders Against Losses

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- Lenders are direct beneficiaries of HECM mortgage insurance, which encourages them to offer reverse mortgage loans.
- Borrowers benefit from lender willingness to offer better loan terms than without the insurance.
- Protects borrowers from lender failure to advance funds (no worry about lender bankruptcy or disruption of lender operations due to natural disaster – this almost occurred after Hurricane Katrina)
- Insurance risk levels borne by HUD managed by limits on loan advances to borrowers (concept of principal limit).
- Cost of insurance paid by premiums assessed on all borrowers.



## Managing HECM Risk at Loan Level: *Concept of Principal Limit*

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- HUD manages risk by limiting cash advances based on each loan's Principal Limit.
  - Net Present Value of All Cash Advances Must Not Exceed the Principal Limit
  - To maintain Net Present Value the Principal Limit and unused credit line grows (note rate plus annual mortgage insurance premium rate).
  
- Principal Limit Factor (PLF)
  - Conceptually similar to a limit on loan-to-value ratio.
  - Contains imbedded assumptions on loan termination rates, cash drawdown patterns, interest rates, and house price appreciation.
  - PLF Varies by expected interest rate (10-year rate + lender's margin if loan rate is adjustable) and borrower's age.



# HECM Insurance Model: Principal Limit Factor Calculations

## Set Actuarial Assumptions

- House Price Growth
- Mortality/Moveout
- Expected Interest Rates
- Cash Drawdown Patterns

## Set Premium Structure

- 2% Adj Property Value Upfront
- 0.5% Annually on Balance



**Solve For Factors**  
Such That  
**Expected Revenues = Expected Losses**



## HECM Principal Limit Factors for Selected Age and Interest Rate

Interest Rate *	Age of Borrower at Loan Origination		
	65	75	85
7.0%	0.489	0.609	0.738
8.5%	0.369	0.503	0.660
10.0%	0.280	0.416	0.589

Factor increases as  
interest rate decreases

\* Expected Rate ( 10-Year Rate + Lender's Margin)

Factor increases with age

**NOTE:** HUD reduced HECM principal limit factors across the board by 10% on October 1, 2009 in response to pessimistic assumptions of future house price growth. The model that produced the factors is being re-estimated with all new assumptions that take into account the latest program data and long run economic forecasts. For example, the factor for 75-yr old borrower and 7.0% has been reduced from 0.609 to 0.548 until new factors have been re-estimated.



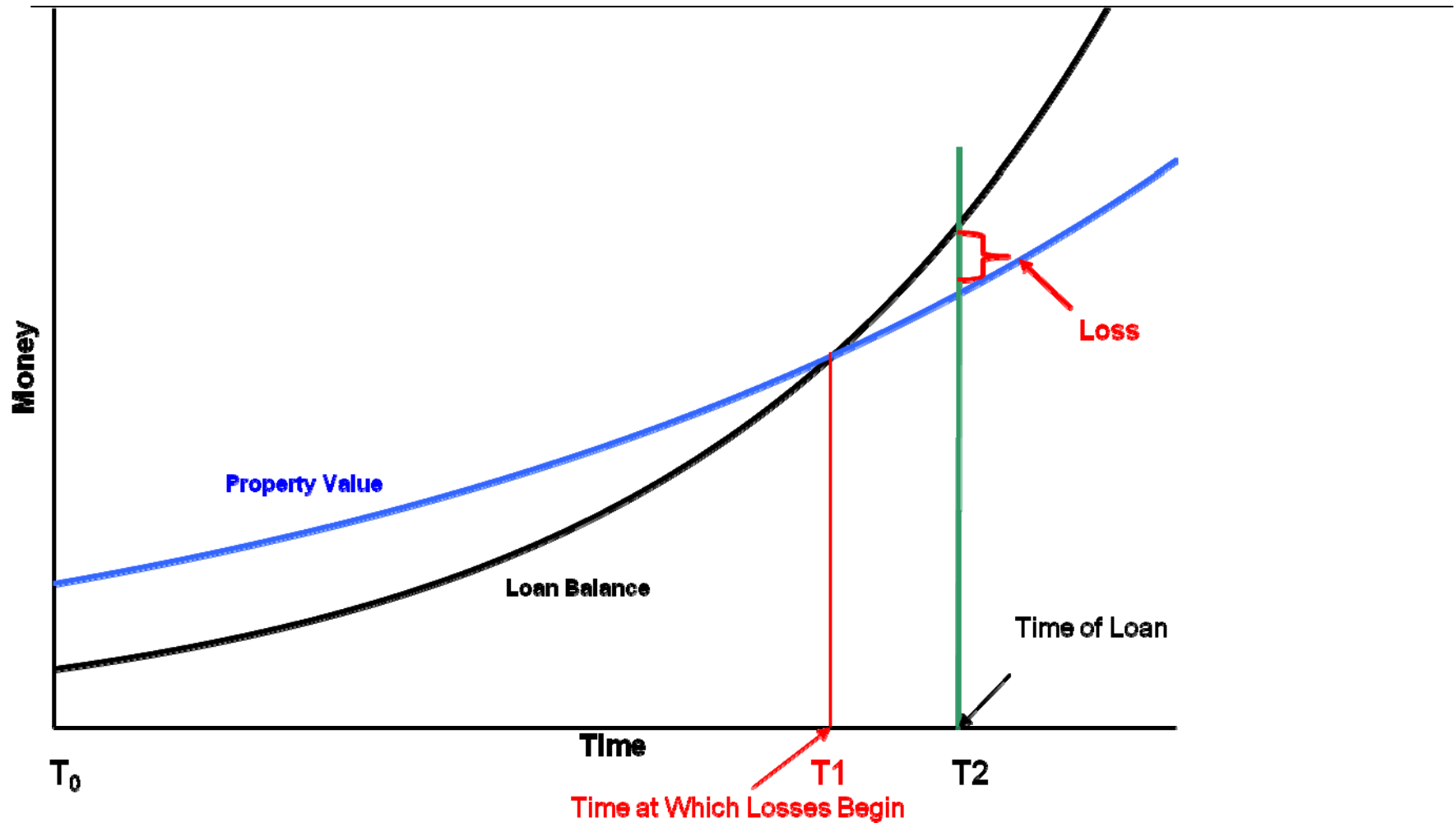
## How Principal Limit Factors Determine Payment Limits

75 Year Old Borrower and 7 Percent Expected Interest Rate

Appraised Value & Maximum Claim	\$	200,000.00
Times Principal Limit Factor		<u>0.548</u>
Initial Principal Limit		109,600.00
Less:		
Upfront Premium		(4,000.00)
Loan Closing Costs		(3,000.00)
Servicing Fee Set Aside		(4,084.96)
Initial Cash to Borrower		<u>(23,515.04)</u>
Net Principal Limit		75,000.00
Maximum Monthly Tenure Payment (Without a line of credit)		550.80
Maximum Line of Credit (Without monthly payments)		75,000.00

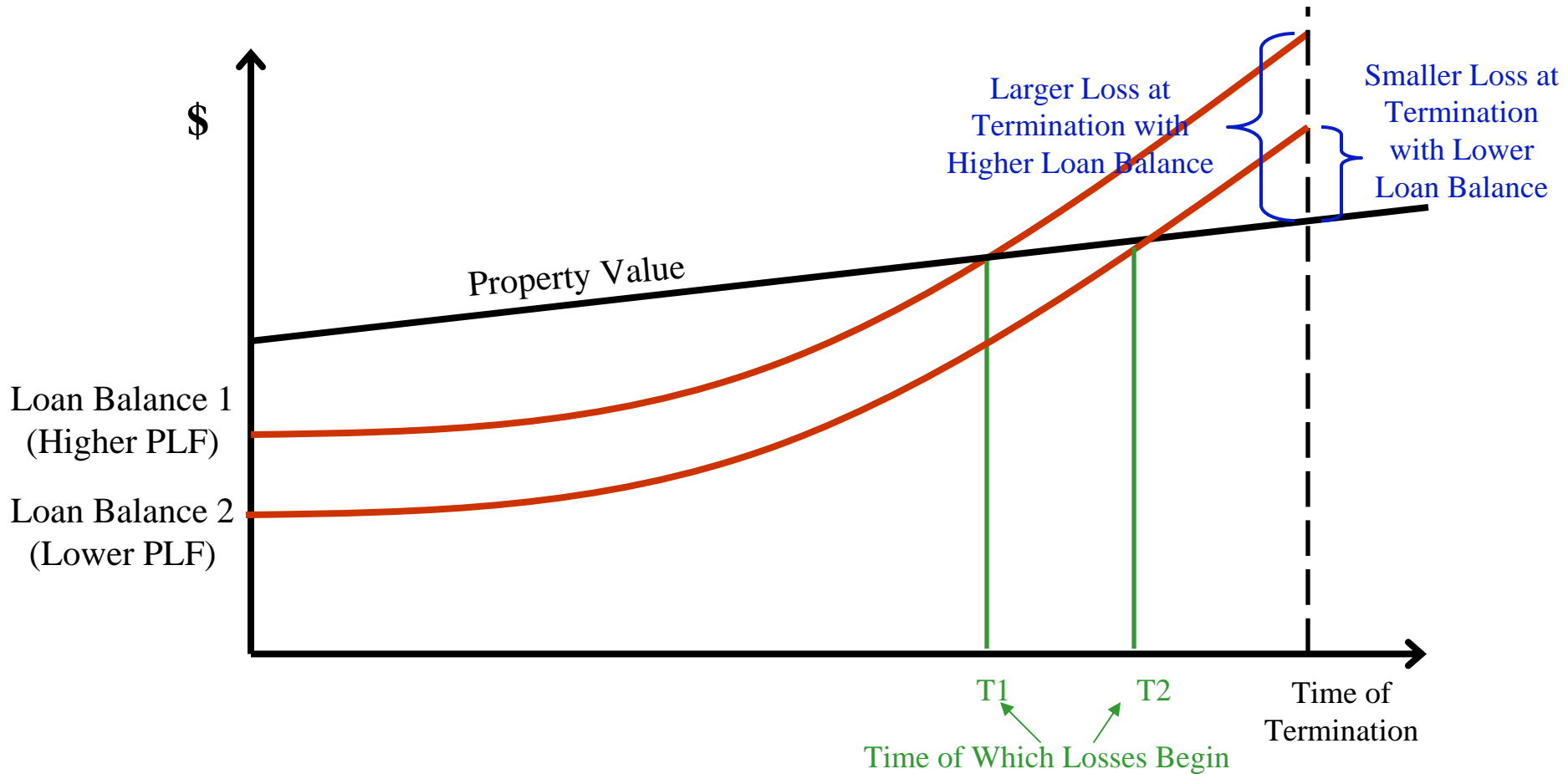


## How Reverse Mortgage Losses Occur





# Lower PLFs Make Expected Losses Smaller & Occur Later





# Portfolio Risk Analysis

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- HECM Demonstration Period (1989 - 1998)
  - Originally limited to a small pilot or demonstration program
  - Mandated reports to US Congress included actuarial reviews of portfolio
  
- Permanent HUD Program (1998 – present)
  - Subject to same portfolio risk management requirements as HUD's other credit guaranty programs pursuant to
    - Credit Reform Act
    - Other laws and government accounting guidance
  - Annual estimates of remaining liability for existing portfolio reported in HUD's audited financial statements
  - Annual estimates of credit subsidy rate for future cohorts reported in federal budget



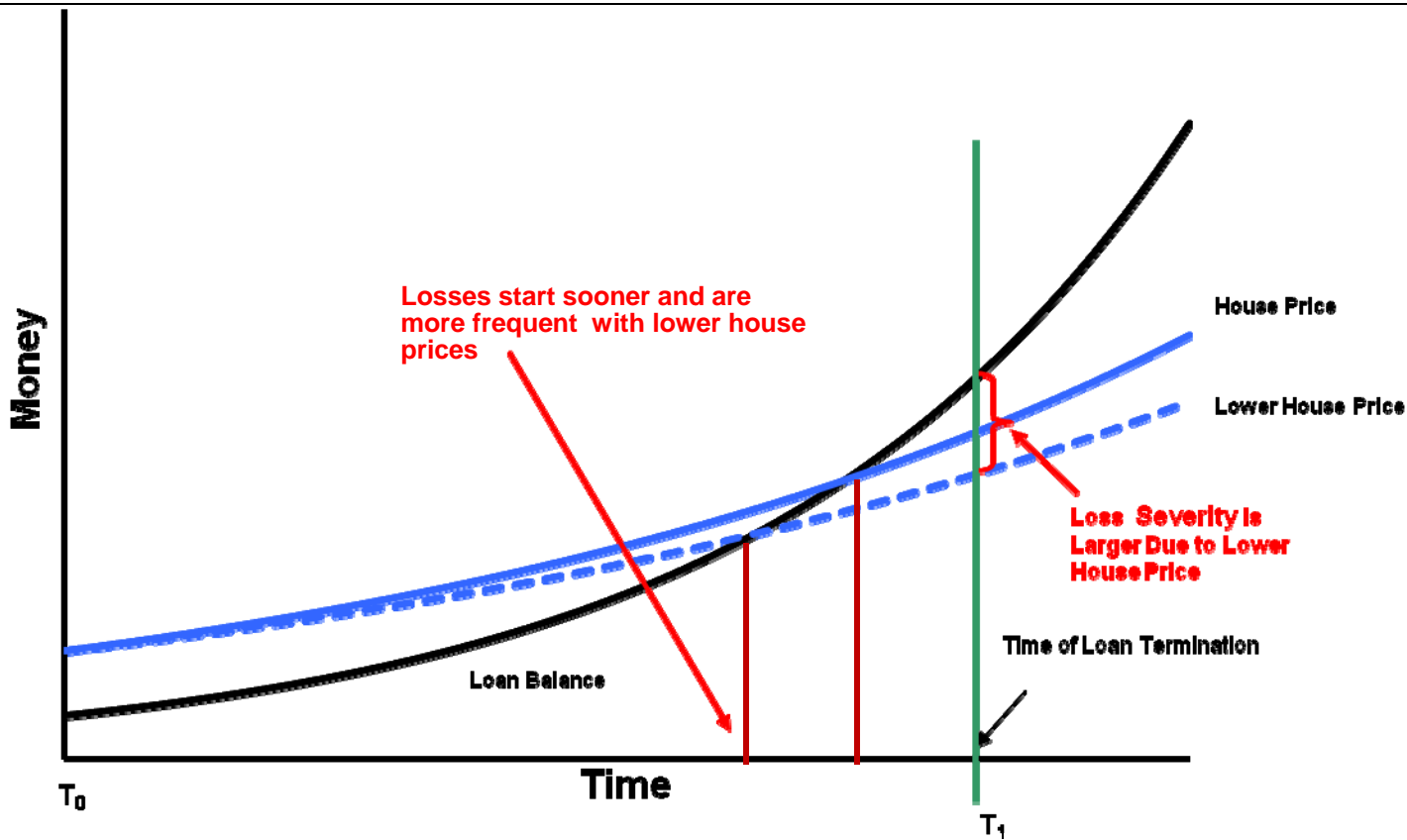
# Credit Reform Act of 1990

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- Subsidy cost for federal loan programs (direct loans and guarantees) must be fully budgeted in the year in which the loan is made
- Eliminates prior practice of yearly cash budgeting which often deferred long term loan costs to future budget years
- Subsidy cost is net present value (NPV) of cash flows to and from the government (except administrative expenses) associated with the loan or guarantee over the full term of the loan
- Positive subsidy requires Congressional appropriation prior to loan commitment
- Negative subsidy represents receipts to government
- Administrative costs are budgeted separately on a cash basis



## Why Lower House Price Growth Increases Losses





## Housing Crisis Affected HECM Budget Last Year

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- Until FY 2010, HECM consistently maintained a negative credit subsidy rate (self supporting).
- For FY 2010, low house price forecast led to the first-ever positive subsidy rate.
  - Under Credit Reform Act, the positive subsidy was based only on forward looking analysis and was driven primarily by a forecast of lower house price growth in the future.
- Absent Congressional discretionary appropriation last year, HUD reduced PL Factors by 10% to get subsidy rate for new business written in FY 2010 to slightly negative to continue operating program.



# HUD HECM Resources

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- HUD Resource Center  
1 (800) CALL-FHA
- Join FHA's Single Family Housing Industry Email List
- HECM Policy Guidance, HECM Handbook, Mortgagee Letters, etc.  
<http://www.hud.gov/offices/hsg/sfh/hecm/hecmhomeleaders.cfm>
- Single Family HECM Portfolio Snap Shot



# HUD HECM Resources

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- §255 of NHA – 12 USC 1715z-20
- Regulations – 24 CFR Part 206
- Policy Development and Research at [www.HUD.gov](http://www.HUD.gov)