The Devolution of Appraisal Theory and Practice

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The views expressed are those of the author alone and do not necessarily represent those of the American Enterprise Institute.

Lessons Relearned from 2007 Housing Collapse

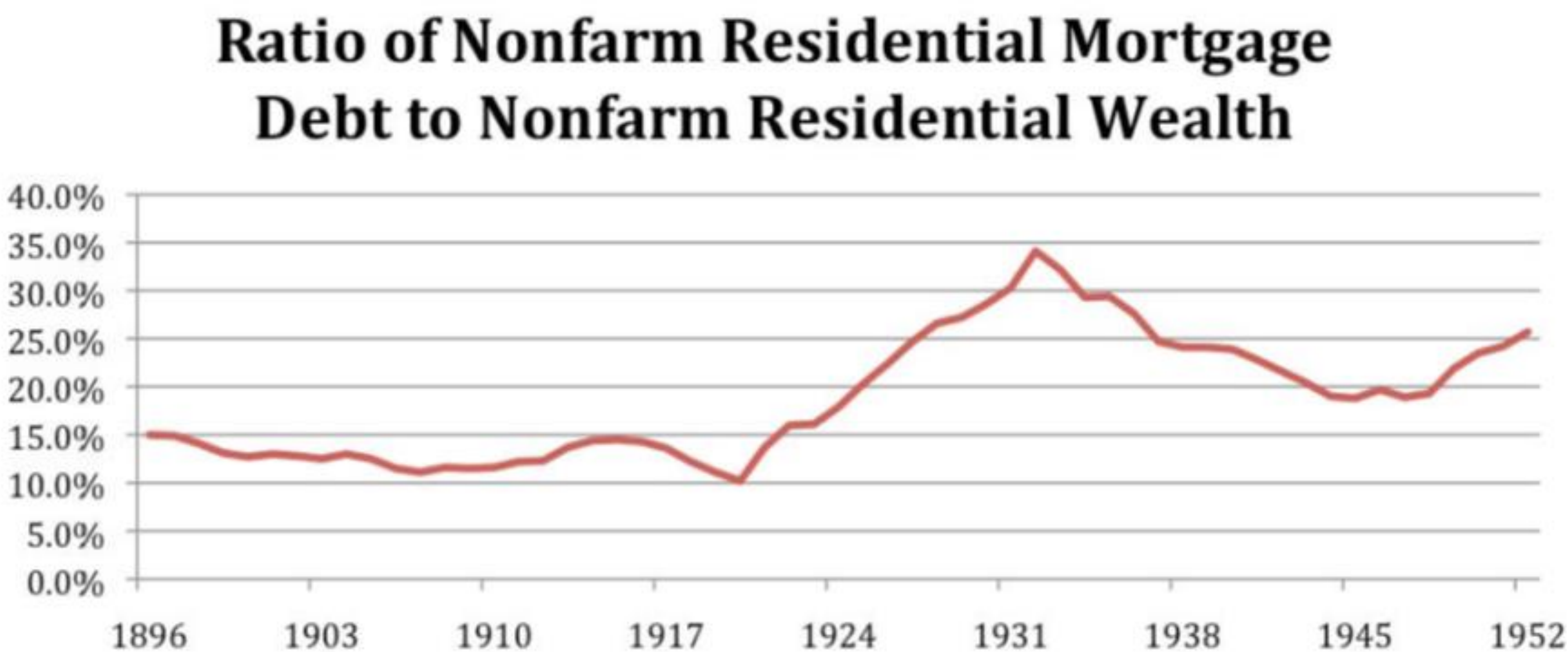
- Mortgage loans are only as sound as the practices used to underwrite and originate them.
  - Relative loan performance is largely determined by risk characteristics at origination.
- Market stability depends on the preponderance of loans being low risk, defined as good performance under stress.
- Assessment of loan risk is only as good as the collateral value determination for mortgage lending purposes.

  "…one of the objectives of valuation in connection with mortgage lending is to take into account dangerous aberrations of market price levels. The observance of this precept tends to fix or set market prices *nearer* to value." FHA 1938 Underwriting Manual
- Political pressures will likely degrade sound lending practices over time.
- Lack of robust risk measures limits the market's ability to impose discipline.
- **<u>Bottom line</u>**: Transparent and objective measures of mortgage and home-price risk needed to evaluate and manage housing risk.

A Century of Lessons

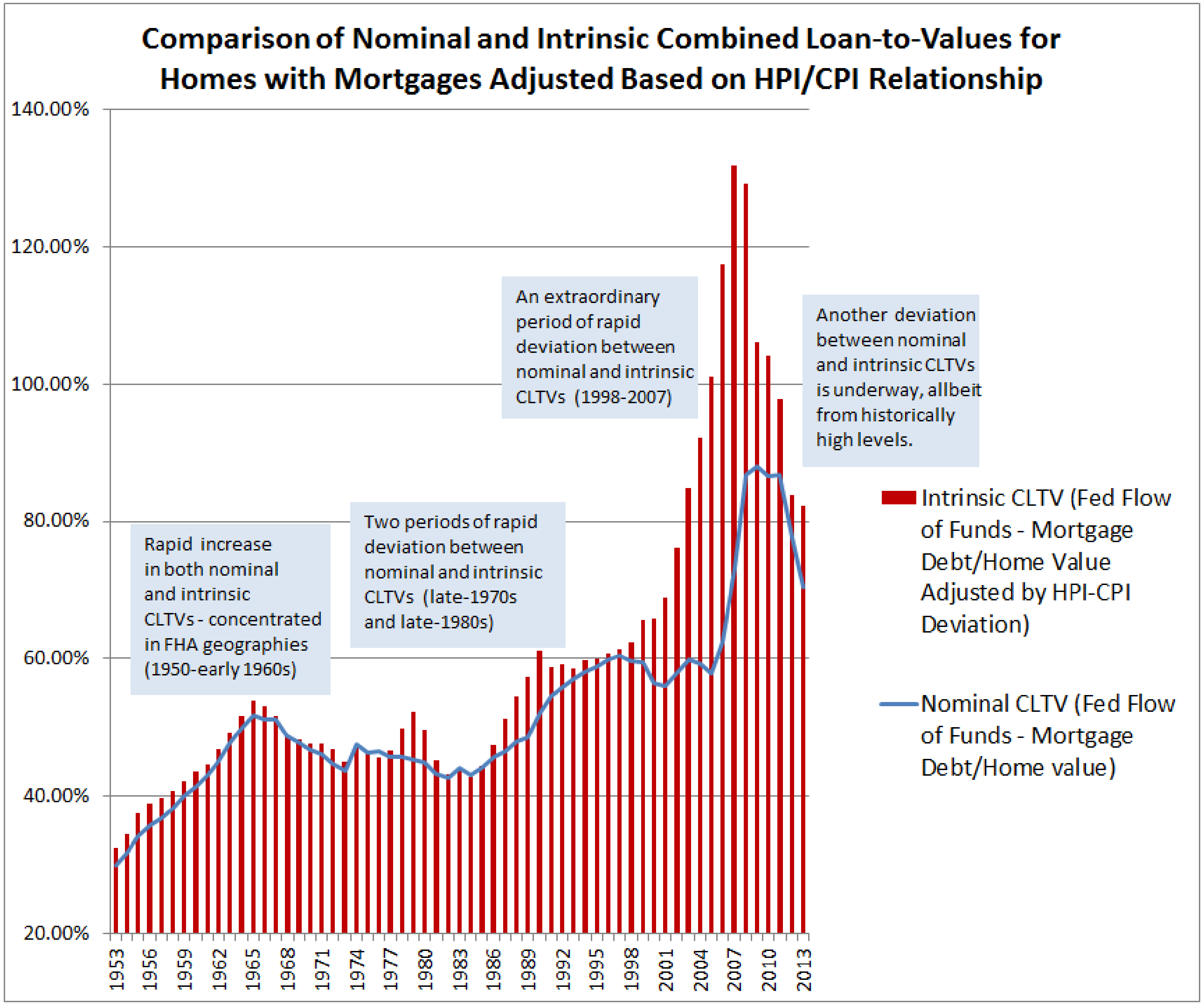
- The deterioration of lending standards from the early 1990s to 2007 has historical precedents.
- Earlier episodes: 1926-33, late 1950s and 1960s, early 1980s, and late 1980s.
- Mortgage default rates rose in every case, sometimes to disastrous levels.
- Prudent lending practices (or at least less risky practices) were then re-established and defaults declined.
- The pattern is clear: the abandonment of sound mortgage underwriting and valuation standards leads to trouble.

Mortgage Trouble Occurs When Mortgage Debt Grows Faster than Home Value



Source: “Securitization in the 1920’s”, William Goetzmann , 2009, **Securitization in the *1920's* - Yale University**

Mortgage Trouble Occurs When Home Values Grow Faster than Fundamentals



Too Much of the Wrong Kind of Debt

- Long sustained growth in housing debt (leverage) is unhealthy
  - Jobs create demand for housing, not housing creates demand for jobs.
  - Mortgage debt to smooth housing consumption is positive for the economy.
  - Excessive debt to finance consumption in excess of income is destabilizing.
    - Serves to bid up existing assets and the land they sit on, creating temporary wealth effect.
    - Crowds out productive capital investment that creates real demand and jobs.
    - Borrowers become over extended and susceptible to economic shocks.
    - Debt overhang effect depresses any post-shock recovery.
  - Today nominal and intrinsic housing debt both remain historically high.

The above is largely drawn from Adair Turner's *Too Much of the Wrong Sort of Capital Flow,* January 13, 2014

Back to Basics: Appraisal Theory and Practice

1903: *The Principles of City Land Values*, Richard M. Hurd (1865-1941). Considered the first treatise on city (non-farm) land values.

- Value in urban land, as in agricultural land, is the result of economic or ground rent capitalized.
- In cities, economic rent is based on the superiority of location only, the sole function of urban land being to furnish area on which to erect buildings.
- While intrinsic value is correctly derived by capitalizing ground rent, exchange value may differ widely from it.
- Land prices on the outskirts are lower as area increases as the square of the distance from any given point.
  - If a new utility does not arise, exchange prices may advance and recede, while intrinsic values do not change.
  - If a new utility arrives, both exchange prices and intrinsic values will alter their levels.
- Since value depends on economic rent, and rent on location, and location on convenience, and convenience on nearness, the intermediate steps may be eliminated and say that value depends on nearness.
- General financial and economic conditions enter so largely into exchange values, that values are at times not based on income, or supply and demand, but represent simply a condition of the public mind.

1920's: Lending and Appraisal Practice

- The concept of intrinsic value was largely forgotten, as lending became based on exchange value. This was not withstanding academic involvement with the National Association of Real Estate Boards (for example Richard Ely, see below).
- Property appraising largely the province of local real estate boards.
  - Boards comprised of those realtors who also held themselves out as appraisers.
  - There were neither training nor certification requirements.
- Lending standards were loose.
  - In 1927-28, first mortgages were available at 100% of exchange value.
  - In 1927-28, second mortgages were available at 120% of exchange value.
    - In 1930, over 75% of home purchase loans on the West Coast also had a second mortgage.
  - Commonplace for mortgage underwriting to be based on the mortgaged collateral, ignoring income and credit.
  - Fraudulent lending and appraisal practices were rampant.
  - Mortgage backed bonds were relatively common-place (all failed in the 1930s).

Lending and Appraisal Theory

1931: President's Commission on Home Building and Home Ownership recommends:

"Countless home purchases are doomed to failure from the start owing to insufficient equity… the committee believes that **a down payment of about twenty- five per cent of the purchase price** should be established as the basis of a sound home purchase transaction.

To safeguard the home buyer's ability to meet his payments of principal and interest, exclusive of annual taxes and insurance premiums, the committee recommends that **twenty-five per cent of the buyer's assured income be the maximum allotment for these payments**.

In some States it **takes about 18 months to complete the foreclosures**. This means that such costs must be considered by the lending agencies, and the borrower must suffer in increased costs or in earlier foreclosures.

Individuals or small institutions… have not had at times **the benefit of sound appraisals**. The establishment of central appraisal bureaus in the various cities **for the purpose of stimulating home ownership through sound appraisals**.

Fact-Finding Bureau. To insure greater stability in home property values, and to help correct over- built or under-built conditions where they exist, the division recommends establishment of a permanent [real estate] fact-finding bureau within the Department of Commerce.

The Housing Lobby Dissents

1931 – The National Association of Real Estate Boards (today's NAR) objected to these recommendations of the President's Commission on Home Building and Home Ownership:

> A down payment of about twenty-five per cent of the purchase price is too restrictive and will put up additional bars against home ownership, which the successful experience of the past has proved unnecessary.

> The establishment of central appraisal bureaus in the various cities for the purpose of stimulating home ownership through sound appraisals is unnecessary, as there are currently 562 local real estate boards which for a nominal sum will do exactly what the committee has in mind.

1890 to 1934: Lending and Appraisal Research Lays Foundation for the FHA and Sustainable Lending

- 1890s onward: University of Wisconsin Professor Richard T. Ely (*"Under all, the land")* recognizes land use as the product of economics, institutional forces, and physical constraints (1854-1943).
  - Founder of land economics and real estate studies.
  - 1925: Establishes the Institute for Research in Land Economics and Public Utilities
- Individuals that Ely collaborates with, trains, or are within his circle of influence:
  - 1923: **Ernest Fisher** (1893-1981), student of Ely and member of Ely's Institute, writes *Principles of Real Estate Practice* (edited by Ely and published by the Institute).
  - 1924 and 1932: **Frederick Babcock** (1897-1983) writes *The Appraisal of Real Estate* (1st generalized appraisal book and part of Ely's Land Economics Series) and *The Valuation of Real Estate* (considered to be the most significant appraisal book since Hurd's in 1903). Fisher helped Babcock with his second book as both were at the University of Michigan in the early 1930s.
  - 1933: **Homer Hoyt** (1895-1984) receives PhD (U. of Chicago), publishes his dissertation, *100 Years of Land Values in Chicago* (influenced by Chicago based research done by Institute members). Goes on to write *The Structure and Growth of Residential Neighborhoods in American Cities* (1939) with Ernest Fisher.
  - Early-1930s: **Richard Ratcliff** (1906-1980), student of Ely and Fisher. Goes on to write *Urban Land Economics (1949).*
  - 1934: **Arthur Weimer** (1909-1987) receives PhD (U. of Chicago). Goes on to write *Principles of Urban Real Estate* with Hoyt (1939) and *Urban Land Economics (1949).*
- Fisher (Chief Economist), Babcock (Chief Underwriter), Hoyt (chief housing economist), Ratcliff (economist), and Weimer (economist) all are at FHA in 1934.

FHA and Sustainable Lending

1935: the FHA's first administrator observed: "'Mortgage' was just another word for trouble—an epitaph on the tombstone of their aspirations for home ownership."*

- The FHA launches effort to end loose and dangerous lending practices that had made foreclosures commonplace. In its place is "a straight, broad highway to debt-free ownership."** Sound lending practices include:
  - A sizable down payments (a minimum of 20 percent) and a maximum 20-year loan term;
  - Solid borrower credit histories and solid appraisals;
  - Proper income documentation and sufficient income to make regular payments (this included a comprehensive review of a borrower's monthly expenses and residual income);
  - A ban on second mortgages,
- This highway to debt-free ownership led to an explosion in the homeownership rate—from 43.6 percent in 1940 to 61.9 percent in 1960.
- And to the virtual elimination of foreclosures—over its first 20 years, the FHA paid only 5,712 claims out of 2.9 million insured mortgages, for a cumulative claims rate of 0.2 percent. Claim loss severity was 9 percent of the original insured mortgage balance, or a total of $3 million on 5,712 claims.***

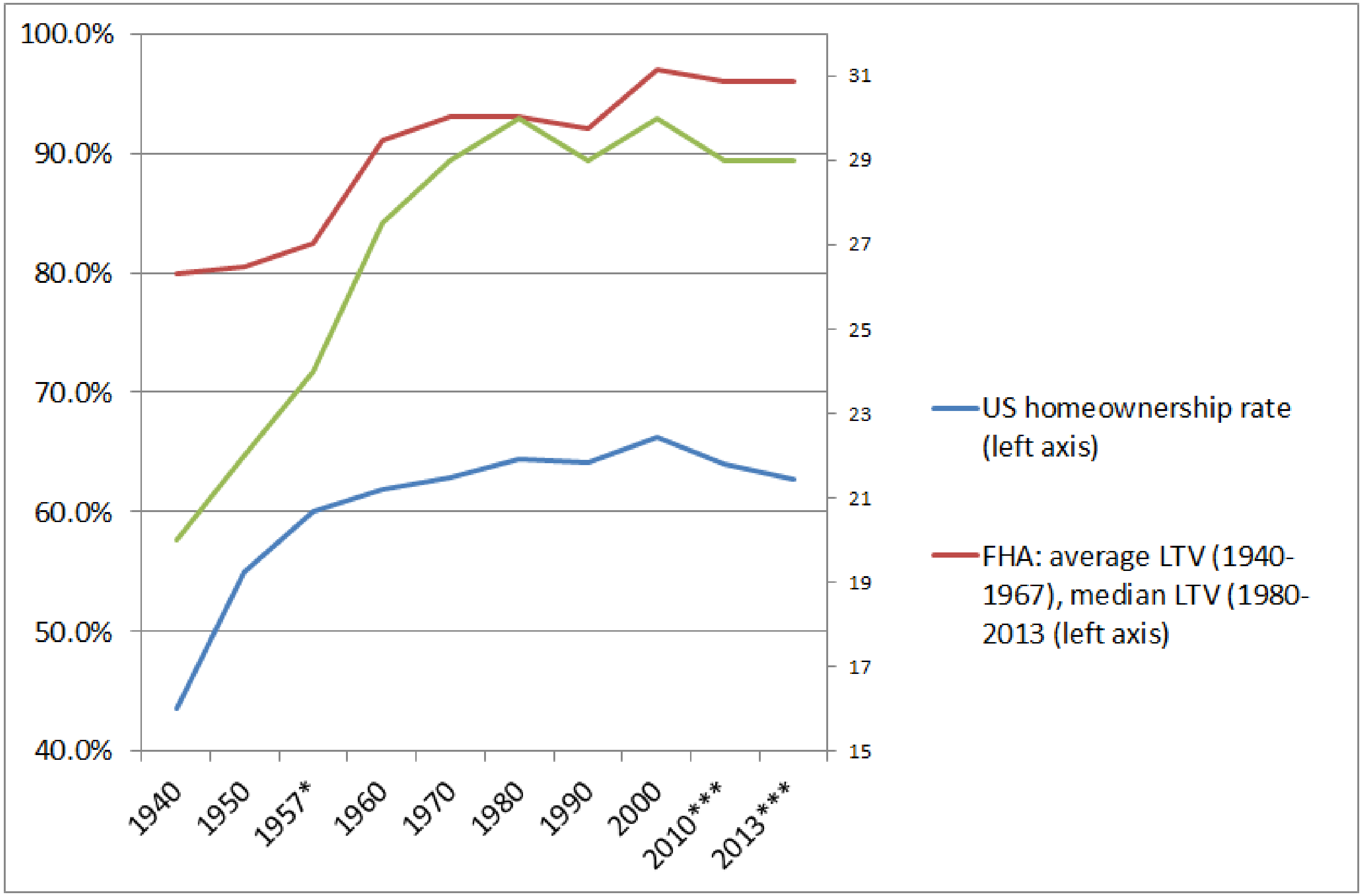
* Federal Housing Administration, "How to Have the Home You Want," 1935.

**Some have dismissed the whole of the FHA's early underwriting standards because the FHA condoned segregation based on race and national origin and followed local customs and practices including racial covenants. It was right to discard the policies condoning segregation and based on long-outdated attitudes. However, many of the FHA's valid guidelines were also thrown out—and underwriting deteriorated as a result. Low-income and minority borrowers have suffered disproportionately in the form of high rates of default, foreclosure, and extreme home price volatility. Martin Luther King Jr. recognized the problem living beyond their means caused for working-class families: "Now the economists also say that your house shouldn't cost—if you're buying a house, it shouldn't cost more than twice your income. That's based on the economy and how you would make ends meet. So, if you have an income of five thousand dollars, it's kind of difficult in this society. But say it's a family with an income of ten thousand dollars, the house shouldn't cost much more than twenty thousand. Well, I've seen folk making ten thousand dollars, living in a forty- and fifty-thousand-dollar house. And you know they just barely make it. They get a check every month somewhere, and they owe all of that out before it comes in. Never have anything to put away for rainy days." See "The Drum Major Instinct" sermon, Atlanta, GA, February 4, 1968, http://mlk-kpp01.stanford.edu/index.php/encyclopedia/documentsentry/doc_the_drum_major_instinct/.

***Thomas N. Herzog, *A Brief History of Mortgage Finance with an Emphasis on Mortgage Insurance*, Society of Actuaries, 2009, www.soa.org/library/monographs/finance/housing-wealth/2009/september/mono-2009-mfi09-herzog-history-comments.pdf.

Sustainable Lending Increases Homeownership

- As high-leverage lending replaced sound practices, the homeownership rate stagnated. Foreclosures again became commonplace with the FHA responsible for 3.4 million foreclosures since 1977, with an average foreclosure rate of 12.8 percent, more than 60 times the level from 1935 to 1954.



- "Mortgage" has once again become just another word for trouble.

Basis for FHA's Valuation Theory

- Babcock in his *The Valuation of Real Estate* (1932) establishes the concept of warranted value.
  - Fair market value would then be the price which a buyer were warranted in paying in view of the potential utility of the property. The fact that several hundred purchasers have been found who were willing to buy certain undesirable subdivision lots at exorbitant prices would in no way be presentable as evidence of market value.
  - Value will be used to designate the concept in which the thoroughly informed buyer is present and market price will be used to designate the prices which properties actually do bring in the real estate market.
- In 1934 Babcock becomes Chief Underwriter for FHA and proceeds to implement his concept of warranted value.

Warranted Value and FHA’s Valuation Theory

- FHA Underwriting Manual (1938)
  - § 13 Methods of dwelling valuation—the character of value
    - The word “value” refers to the price which a purchaser is warranted in paying for a property for continued use or a long-term investment. The value to be estimated, therefore, is the probable price which typical buyers are warranted in paying. This valuation is sometimes hypothetical in character, especially under market conditions where abnormalities in price levels indicate the presence of serious quantitative differentials the two value concepts [warranted value and available market price]. Marked differences between “available market prices” and “values” will be evident under both boom and depression conditions of market. Attention is directed to the fact that speculative elements cannot be considered as enhancing the security of residential loans. On the contrary, such elements enhance the risk of loss to mortgagees who permit them to creep into the valuations of properties upon which they make loans.
    - Value does not exist unless future benefits are in prospect. Its measure is the present worth of expected benefits which may be realized only upon the occurrence of future events.
    - The first step in the basic valuation procedure, the study of future utility, includes the selection of possible uses, the rejection of uses which are obviously lower uses than others, and the determination of uses in terms of alternative kinds of possible buyers and differing motives of such buyers.
    - No other definition is acceptable for mortgage loan purposes inasmuch as one of the objectives of valuation in connection with mortgage lending is to take into account dangerous aberrations of market price levels. The observance of this precept tends to fix or set market prices *nearer* to value.

Marked Similarities Between FHA's Valuation for Mortgage Loan Purposes (1930s) and Germany's Mortgage Lending Value (1990s)

- **From Pfandbrief Act**
  - **§ 3 Principle of the determination of the mortgage lending value**

    (1) The value on which the lending is based (mortgage lending value) is the **value of the property which based on experience may throughout the life of the lending be expected to be generated in the event of sale**, unattached by **temporary, e.g. economically induced, fluctuations in value** on the relevant property market and **excluding speculative elements**.

    (2) To determine the mortgage lending value, the **future marketability** of the property is to be taken as a basis within the scope of a prudent valuation, by taking into account **long-term sustainable aspects of the property**, the normal and local market conditions, **the current use and alternative appropriate uses of the property**.

1930s Onward – Competing Valuation Theories

- FHA's warranted value
- Exchange value or price, point-in-time value or price, or market value or price.
  - Over time this approach received support from the rational pricing theory.
    - The same asset must trade at the same price on all markets.
- Reconciliation of the three approaches: market, income, and cost.
  - These derived from classical economic theory based on the three aspects of value.

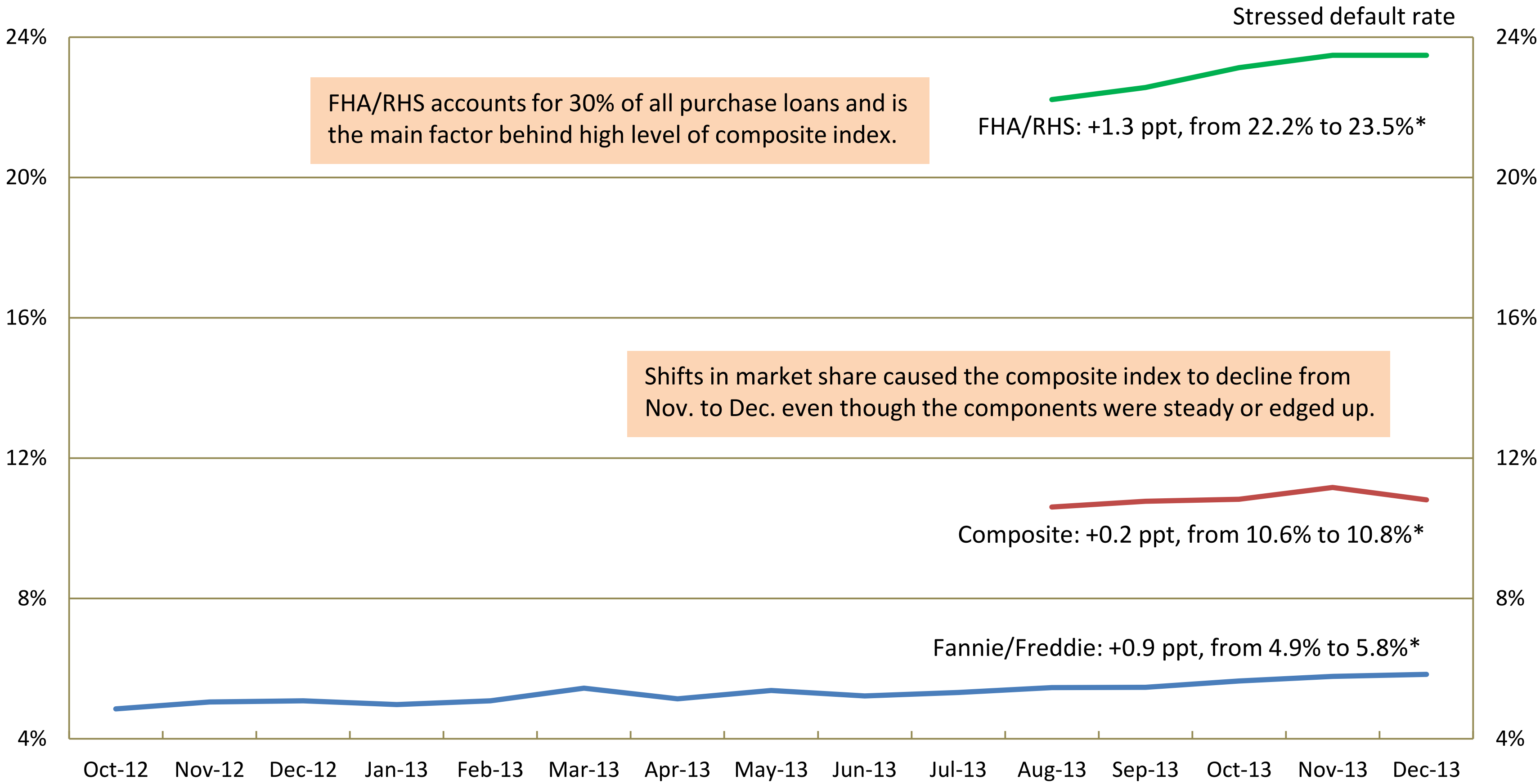
What Will the Housing Risk Center Do to Help Fill the Void?

The AEI/Pinto-Oliner Risk Indices:

- **National Mortgage Risk Index (NMRI)**
  - Classifies loans into low, medium, and high risk based on default experience of 2007 vintage loans with similar characteristics.
    - MSA level indices to be added in early 2014.
  - Currently covers nearly all gov't-guaranteed mortgages for home purchases (about 75% of all purchase loans)
  - Limited to purchase loans now; refi loans to be added in 2014.
- **10-metro Composite Collateral Risk Index (CRI)**
  - Metro areas chosen to represent housing market in U.S. as a whole.
  - Expected release dates: DC-area index, early 2014; other metro areas throughout 2014.
  - Have plans to expand to 25 metros based on market support.
- **Capital Adequacy Index (CAI)**
  - Assesses capital reserves at institutions with large mortgage exposure.
  - Under development. Expected release date: Late 2014.

NMRI for Home Purchase Loans

All indexes shown are high relative to prudent standards and have trended up.



* Index changes measured from first month shown.

Source: AEI International Center on Housing Risk, www.HousingRisk.org. Separate index not available for VA guaranteed loans. RHS is Rural Housing Service.

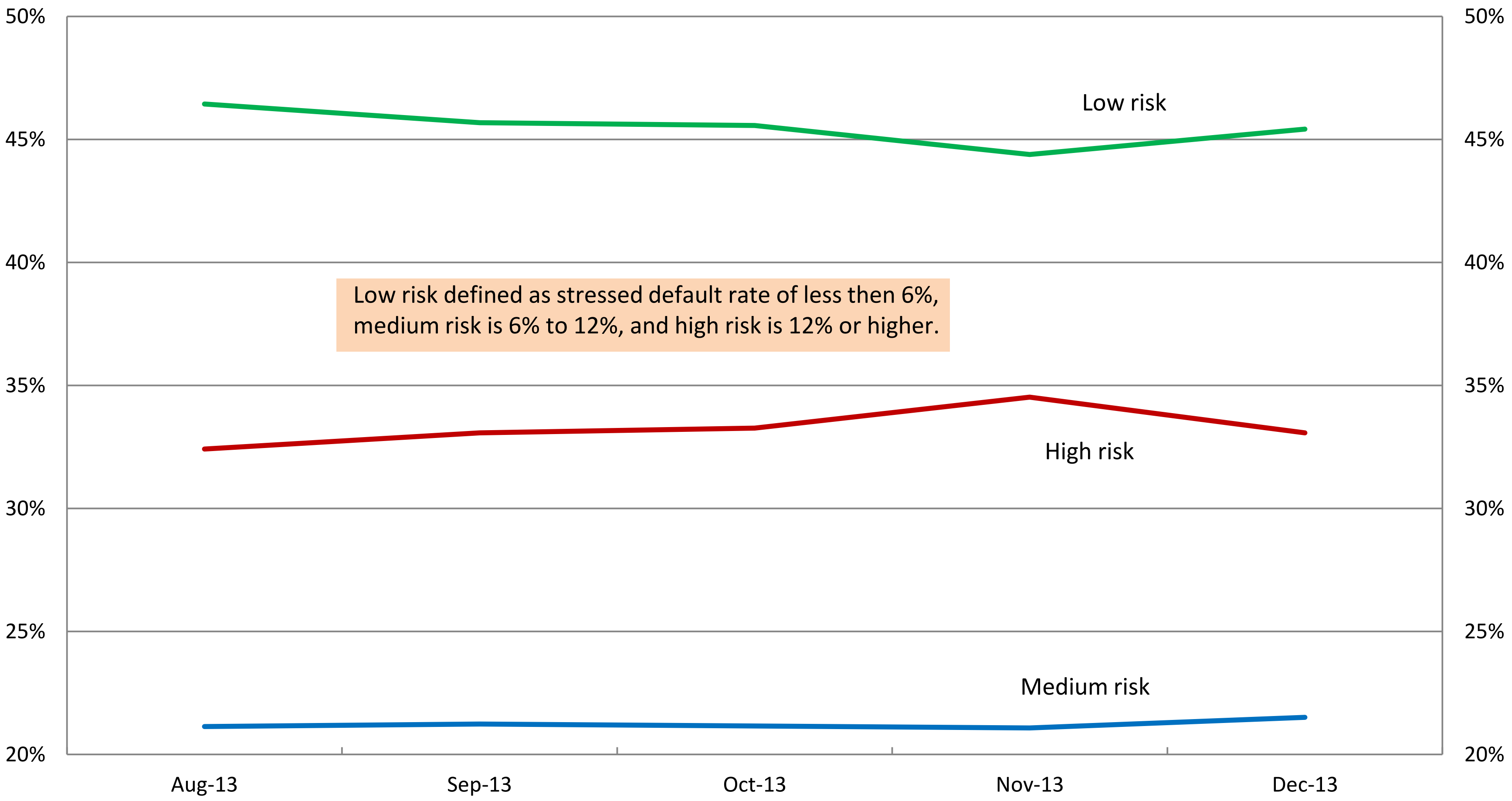
Calibrating Mortgage Safety

NMRI - purchase loans	Latest date	Latest Value	1935-1955 vintages (est.)	1990 vintage (est.)	2007 vintage (est.)
Composite index	Dec.	10.8%	NA	6%	19%
Fannie and Freddie	Dec.	5.8%	NA	4%	13%
FHA	Dec.	24.1%	3%	15%	30%
A low-risk loan has an average default rate under stress of 3% and a maximum default rate of less than 6%. An index value of less than 6% is indicative of conditions conducive to a stable market.					

- Composite index substantially above 1990 level, but not approaching 2007 level when underwriting was exceptionally lax.
- Fannie/Freddie index somewhat above 1990 level and rising.
- FHA index extremely high and rising. Sharp contrast with safe underwriting during 1935-55.

Purchase Loan Origination Shares, by Risk Level

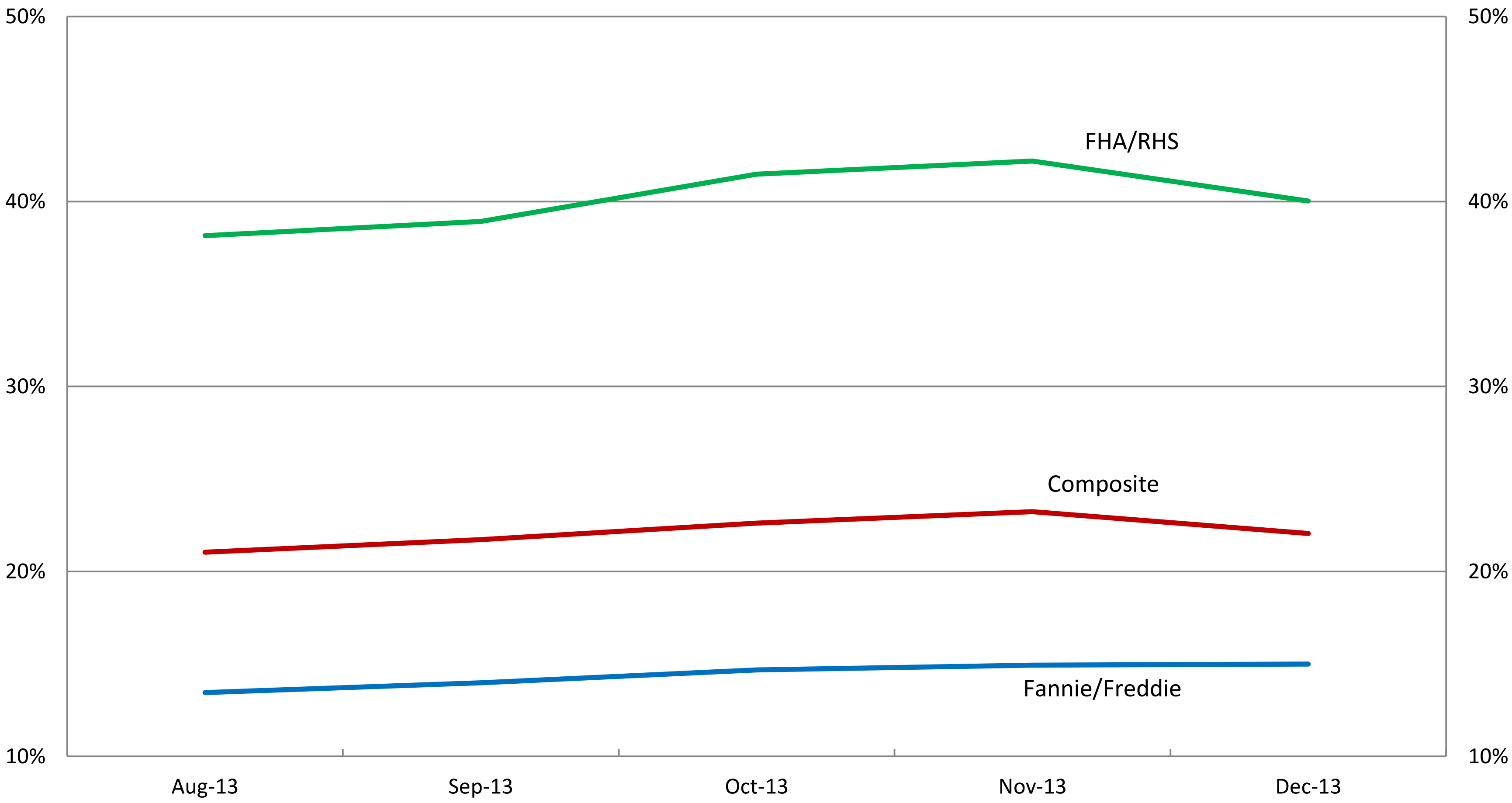
Less than half of new purchase loans are low risk, and the share has edged lower on net since Aug. Likely would lead to market difficulties in event of recession.



Source: AEI International Center on Housing Risk, www.HousingRisk.org.

Purchase Loans with DTI Greater Than 43%

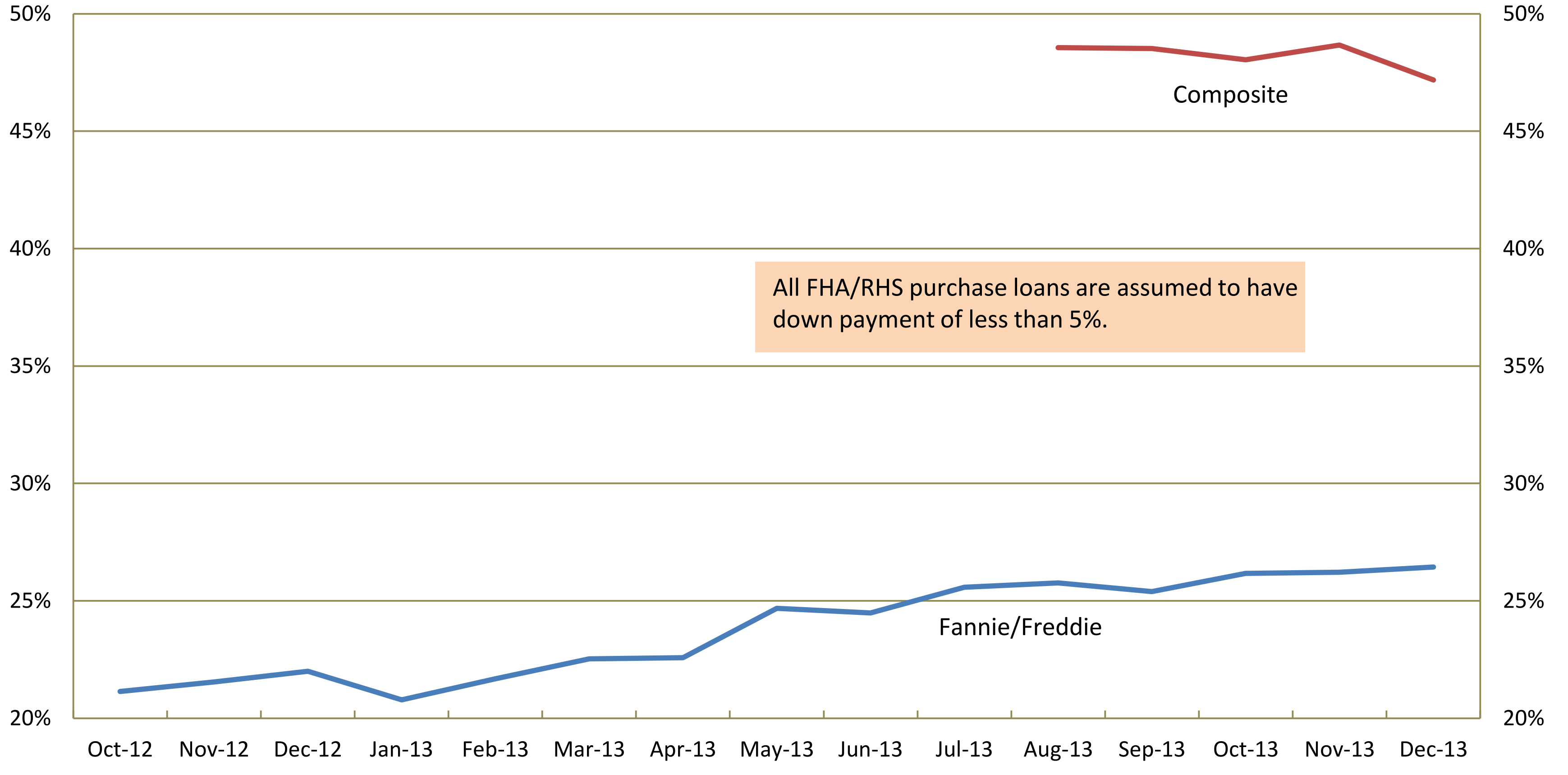
Nearly one in four loans don't meet DTI limit in QM – and likely won't going forward because Federally guaranteed loans are exempt from limit.



Source: AEI International Center on Housing Risk, www.HousingRisk.org.

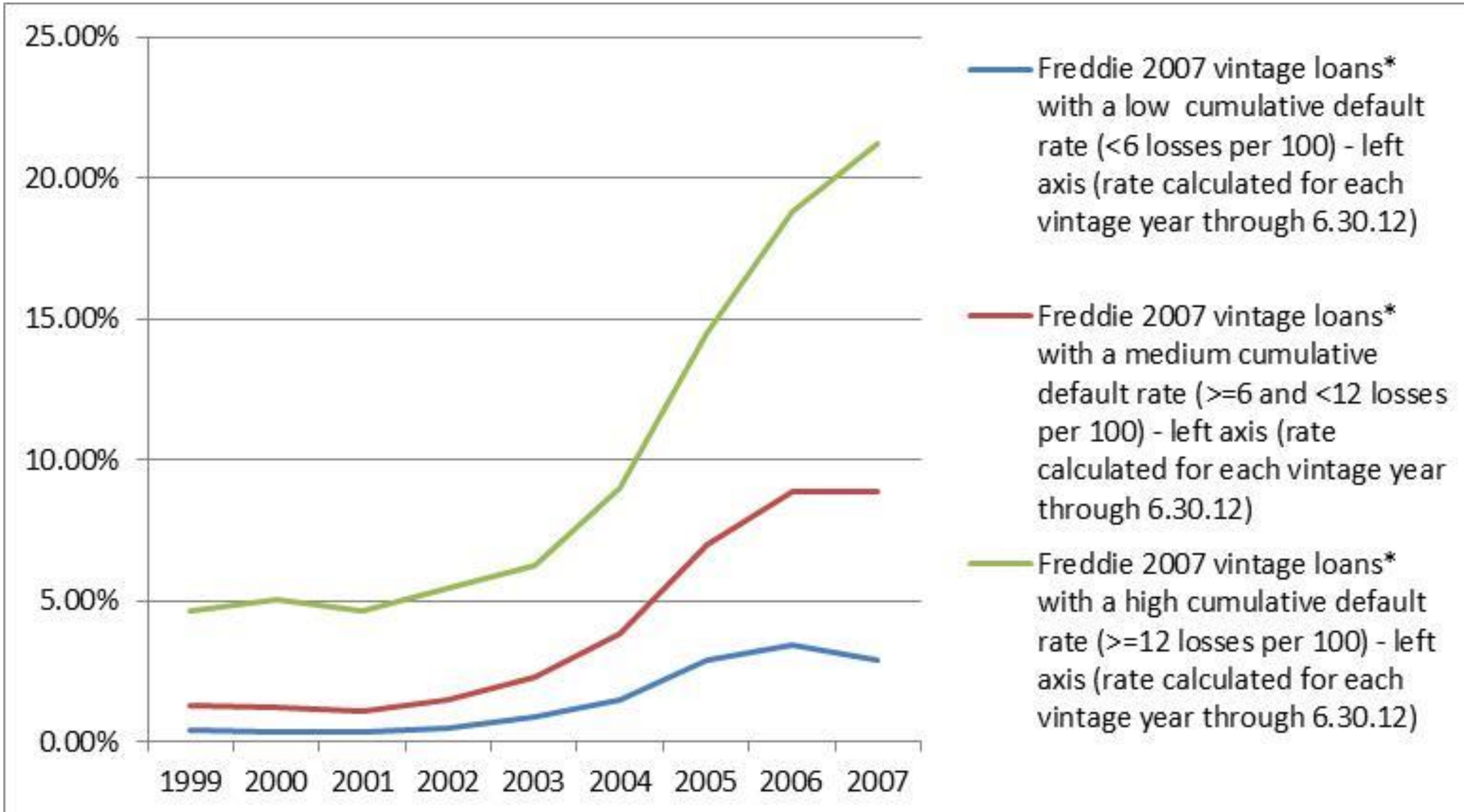
Purchase Loans with Down Payment of 5% or Less

Nearly half of all purchase loans and about a quarter of Fannie/Freddie purchase loans have a minimal down payment.



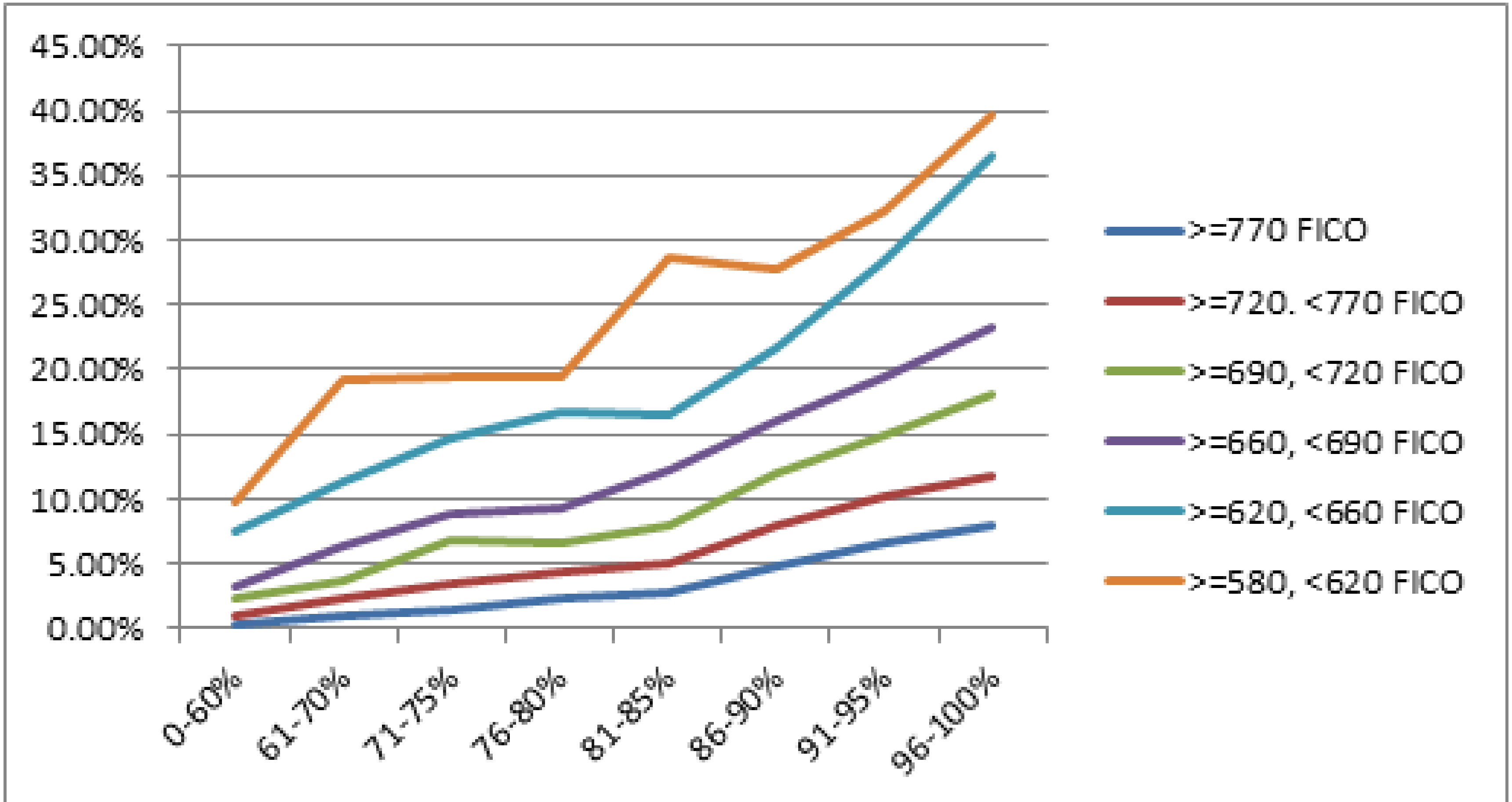
Source: AEI International Center on Housing Risk, www.HousingRisk.org.

Risk Level Correlates to Default Rate Regardless of Vintage

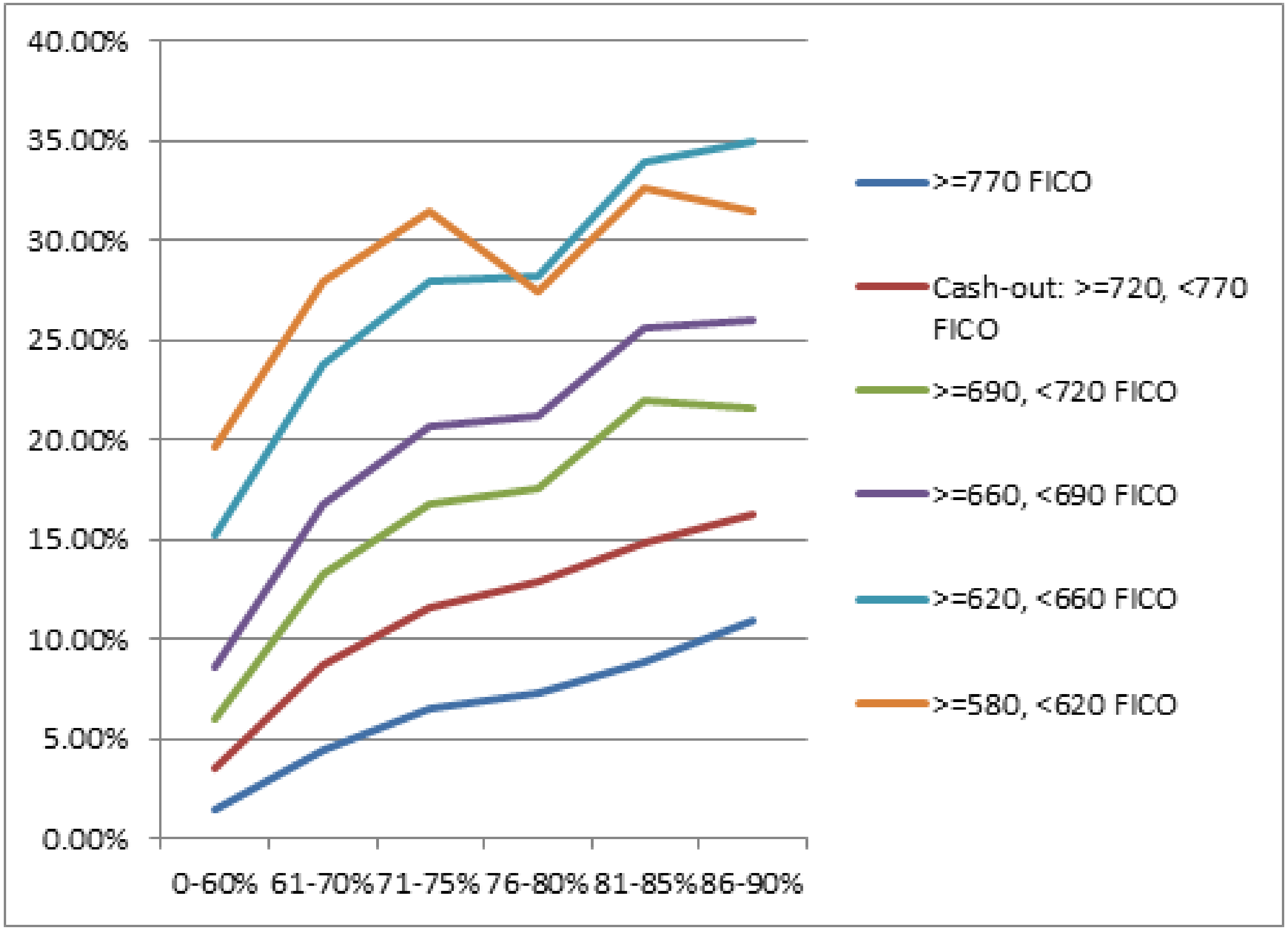


*30 year, fixed rate, fully amortizing, fully documented, owner occupied loans

Combined LTV and FICO Are Heavily Determinative of Default Rate for Home Purchase Loans (2007 Vintage)



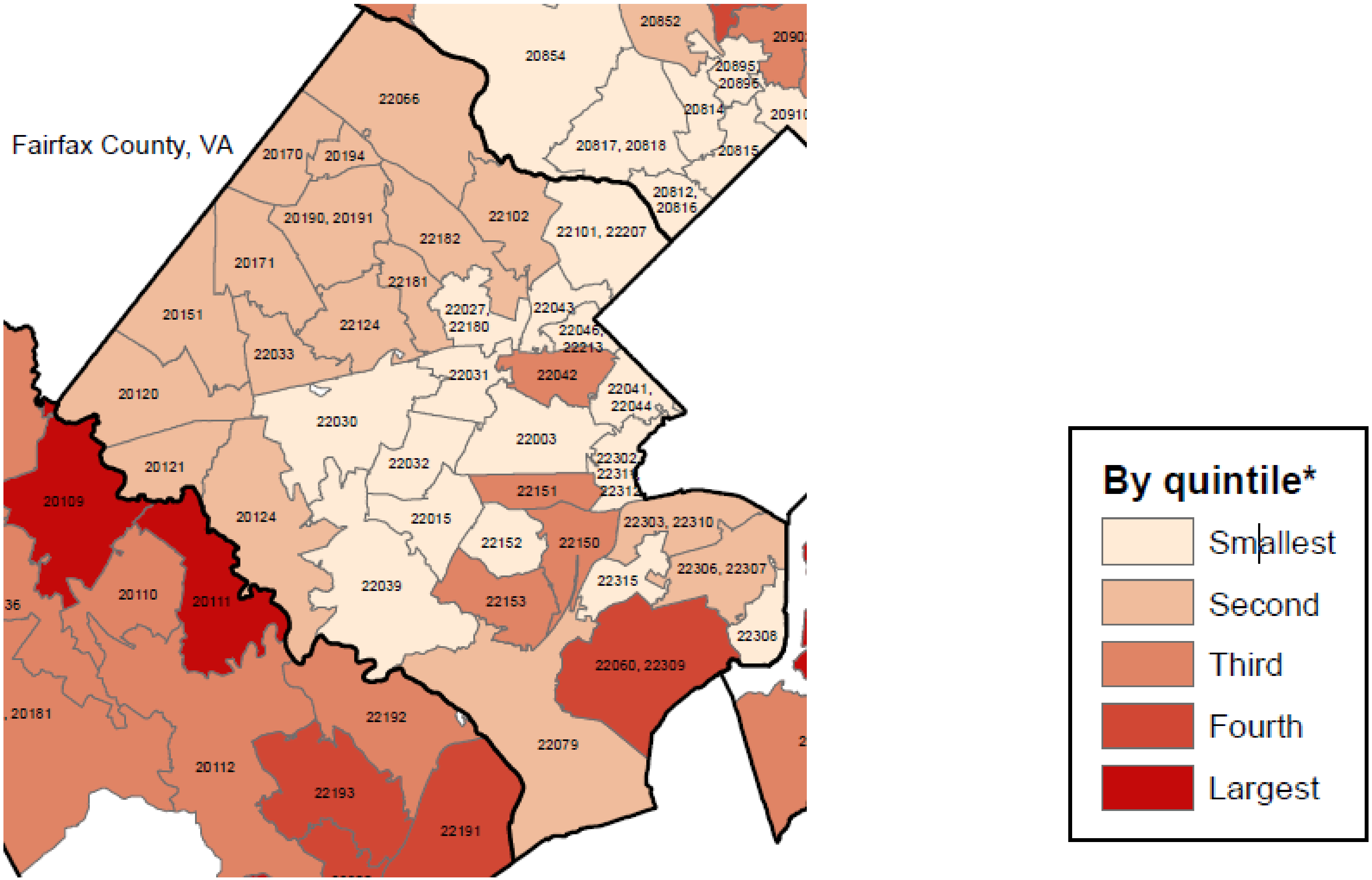
Combined LTV and FICO Are Heavily Determinative of Default Rate for Cash Out with Refinance Loans (2007 Vintage)



Quick survey - please rate the DC Metro Market

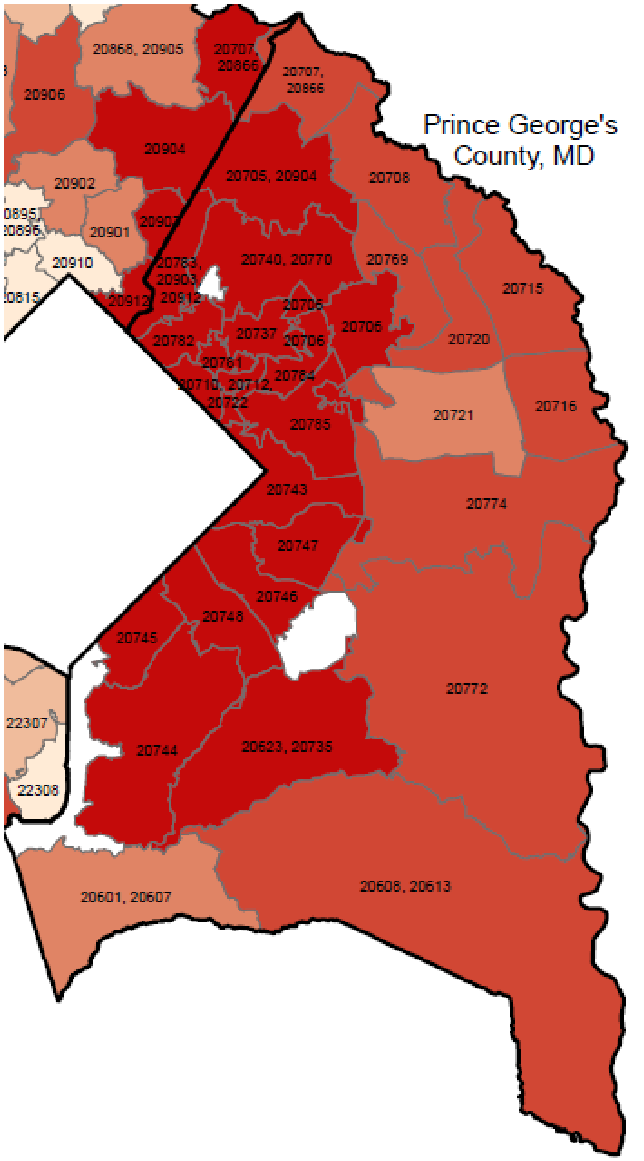
- Very strong
- Strong
- Average
- Below average

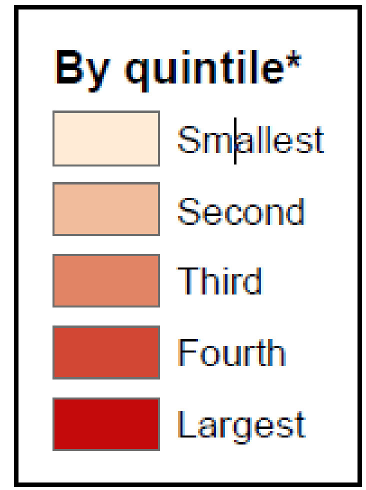
Composite Collateral Risk Index
House Price Decline in Fairfax, VA: 2006-2012



*Range of house price decline by quintile for Fairfax Co., Prince William Co., Montgomery, Co. and Prince George's Co. (rounded to the nearest1%) is less than 18%, 18% to 22%, 22% to 34%, 35% to 41%, and 41% to 51%. Source: Author's calculations using data from FNC, Inc.

Composite Collateral Risk Index
House Price Decline in Prince George's, MD: 2006-2012





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