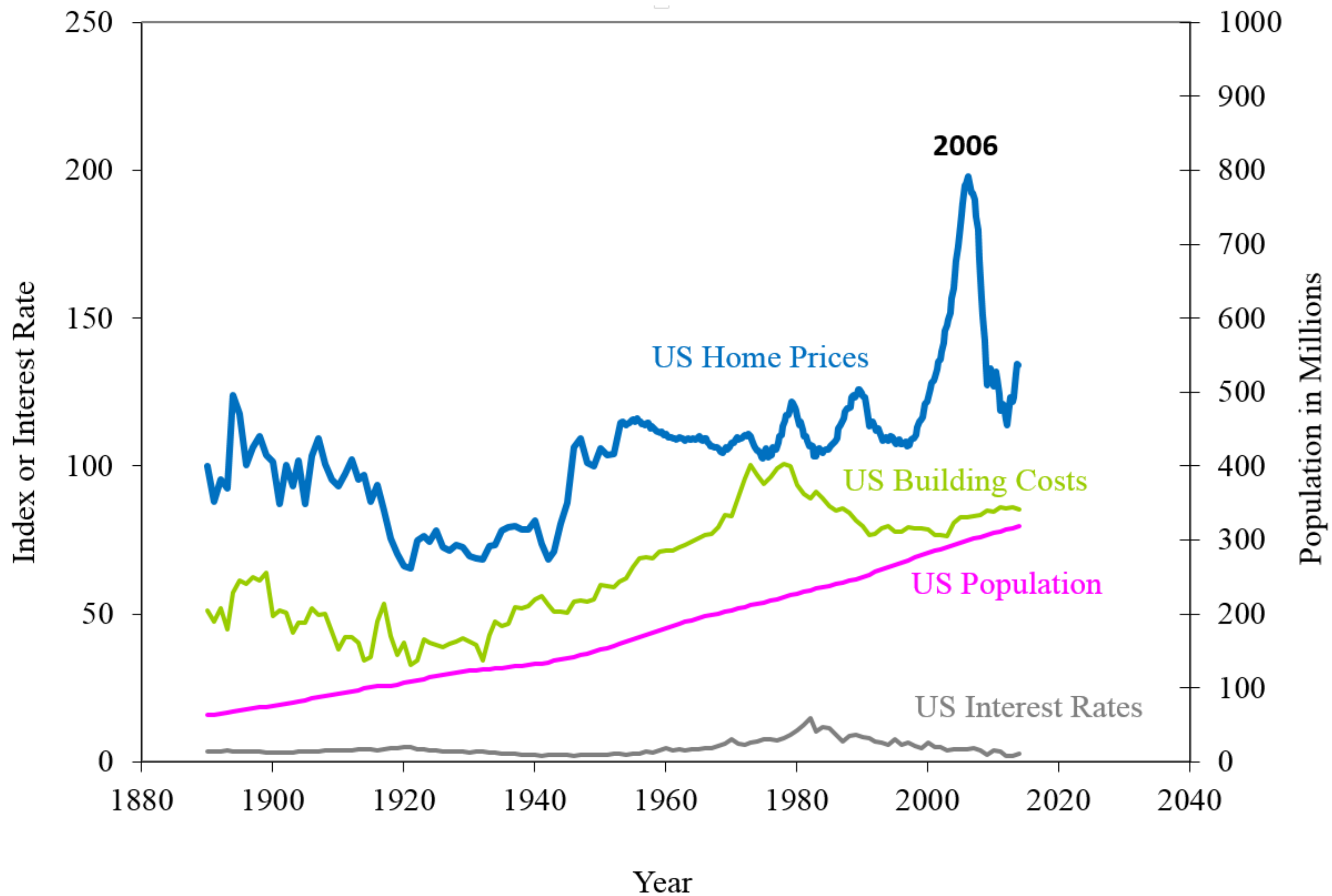
Speculative Asset Prices Pre- and Post- Crisis

Robert J. Shiller
Yale University

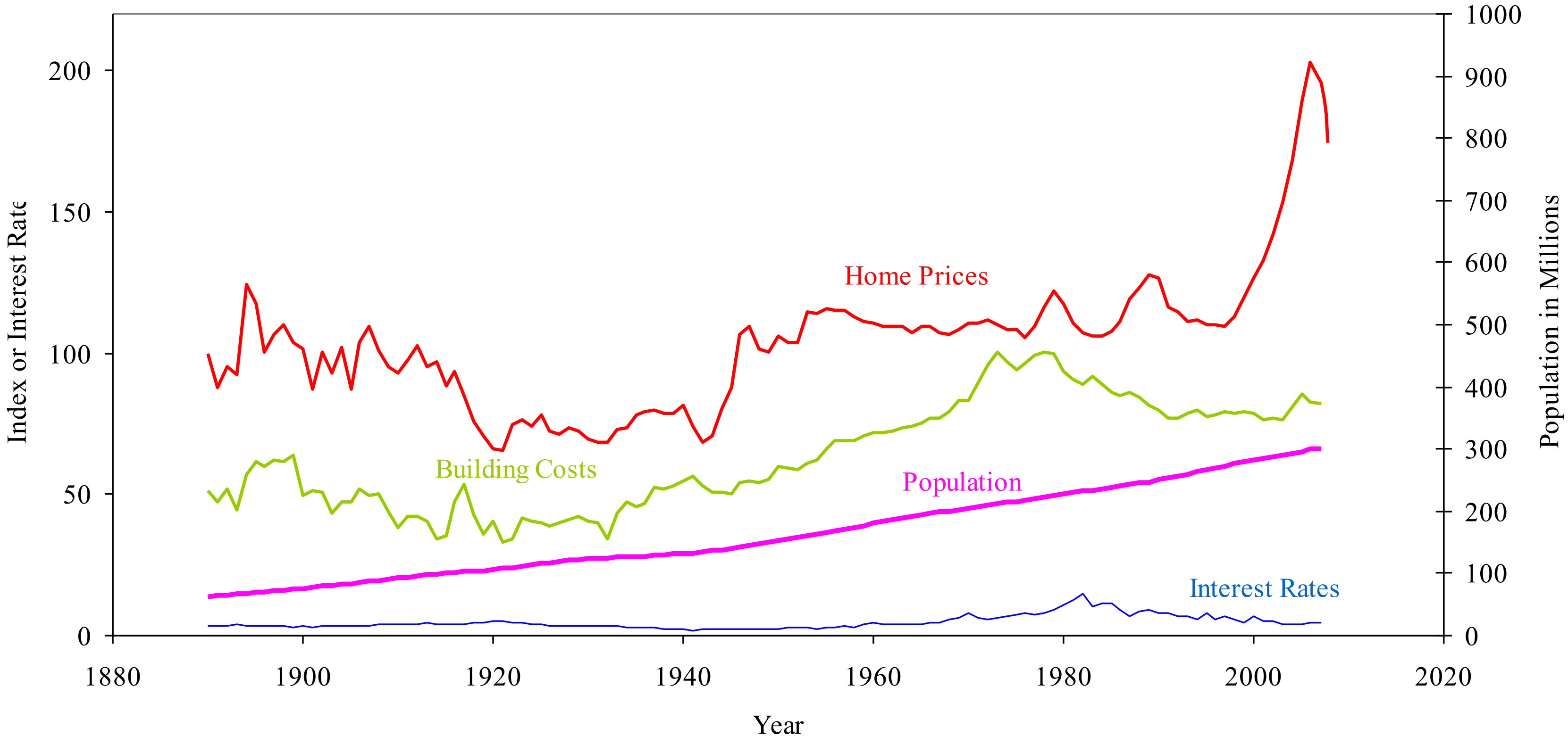
Acapulco, 77th ABM Banking Convention

April 4, 2014

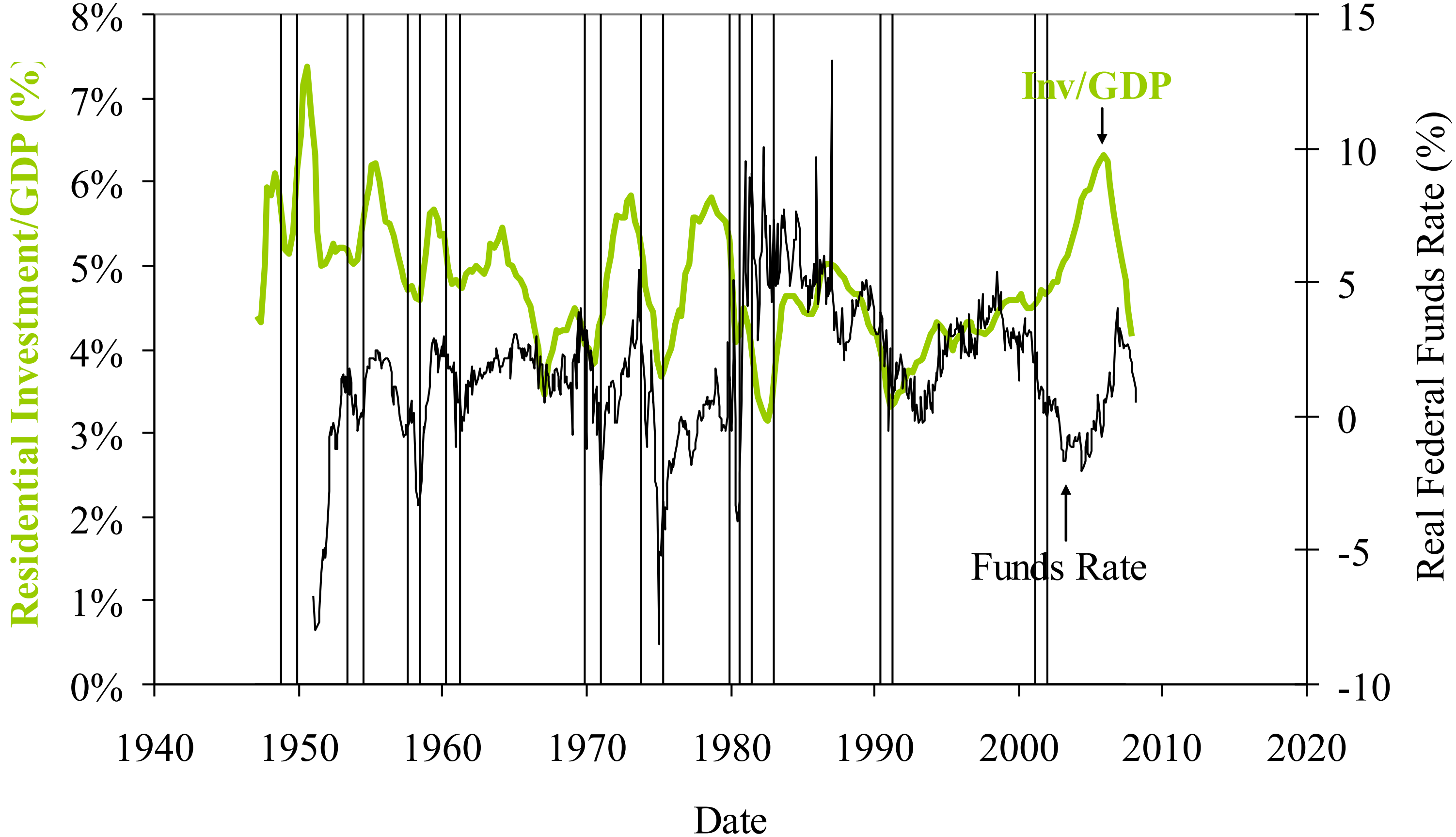
The 2007-9 World Financial Crisis as the Result of a US Housing Bubble



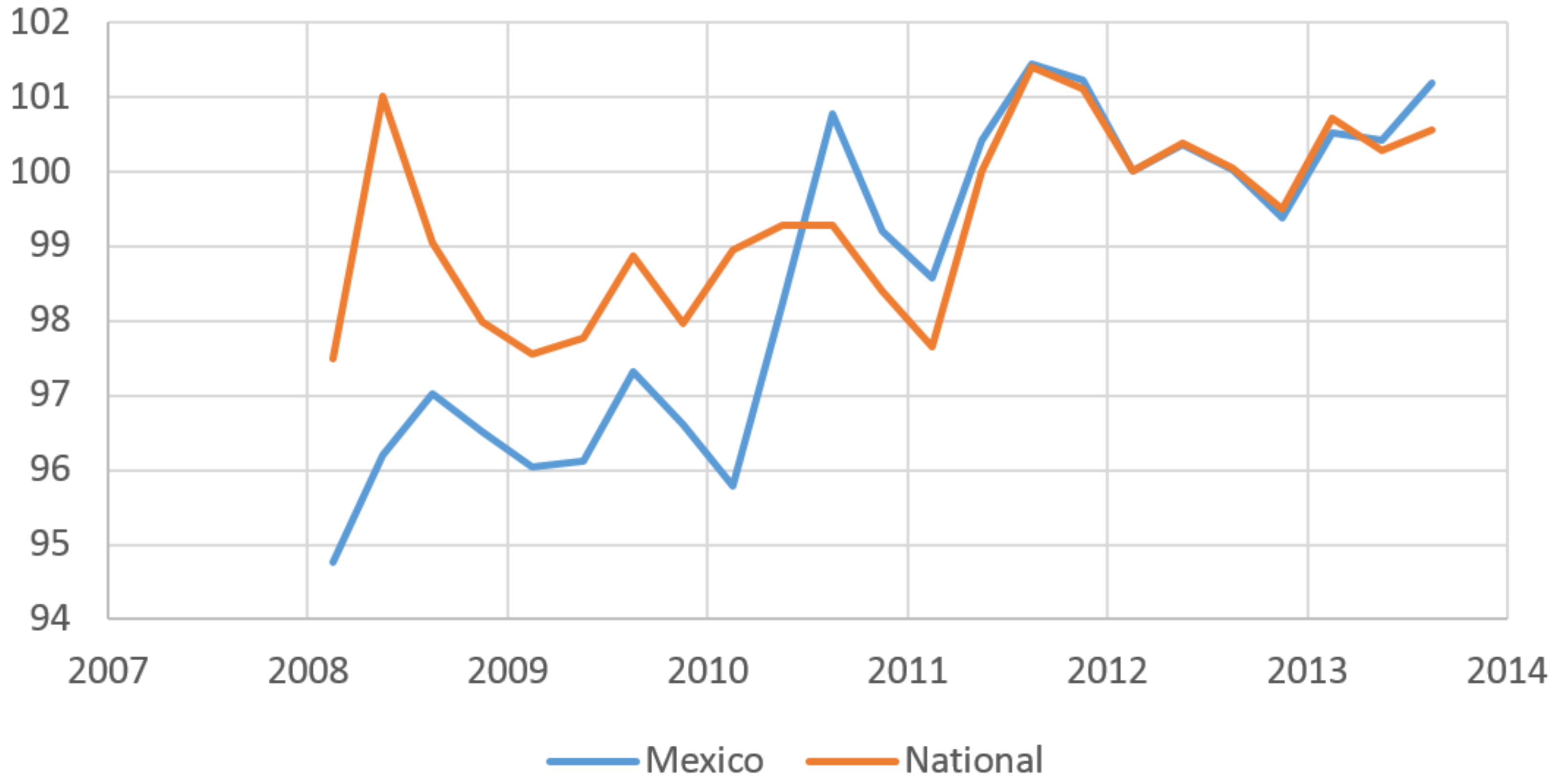
Real Home Prices, Building Costs, Population, Interest Rates 1890-2007



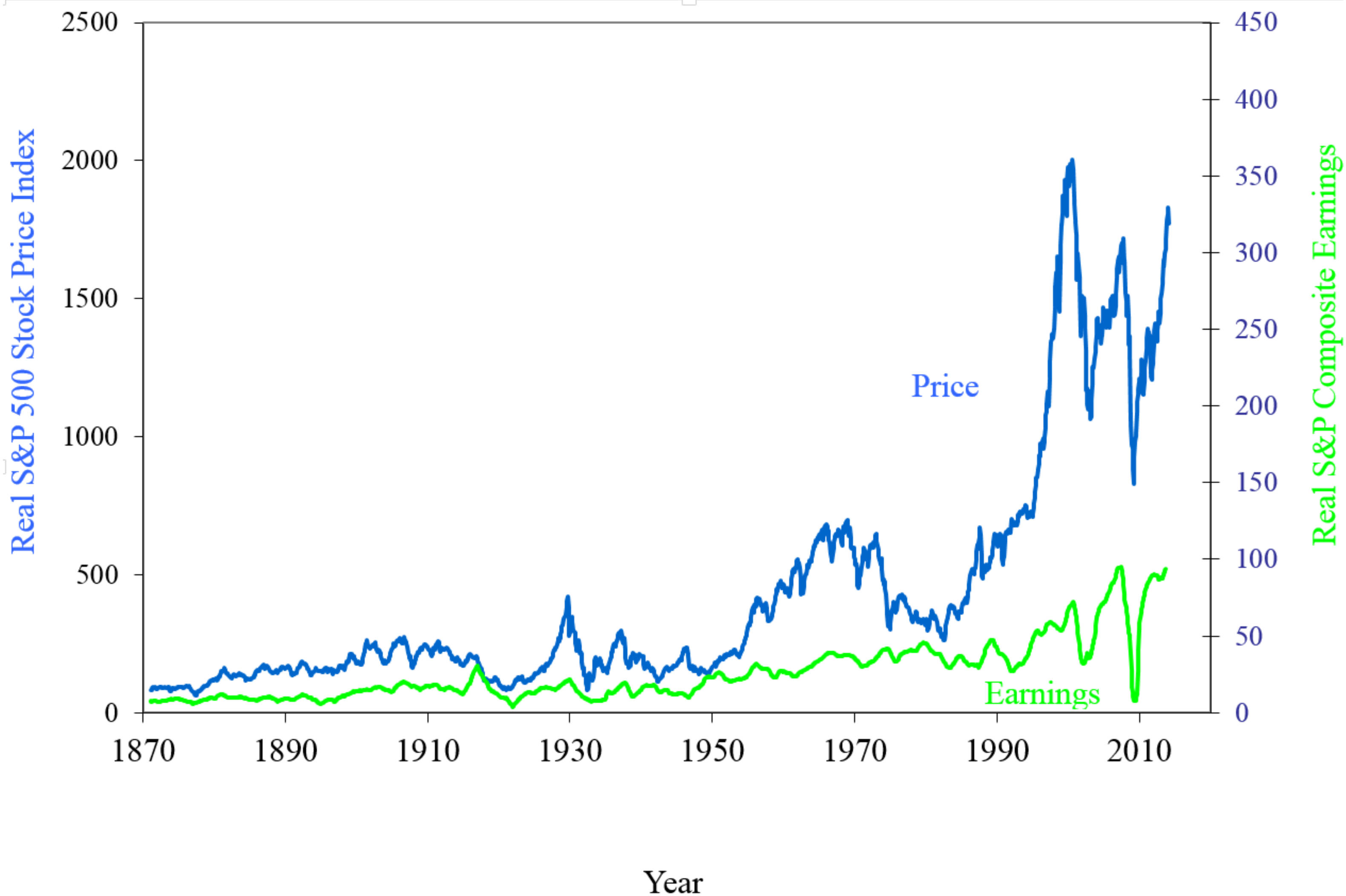
U.S. Residential Investment 1948-I-2007-IV as Leading Indicator of Recessions



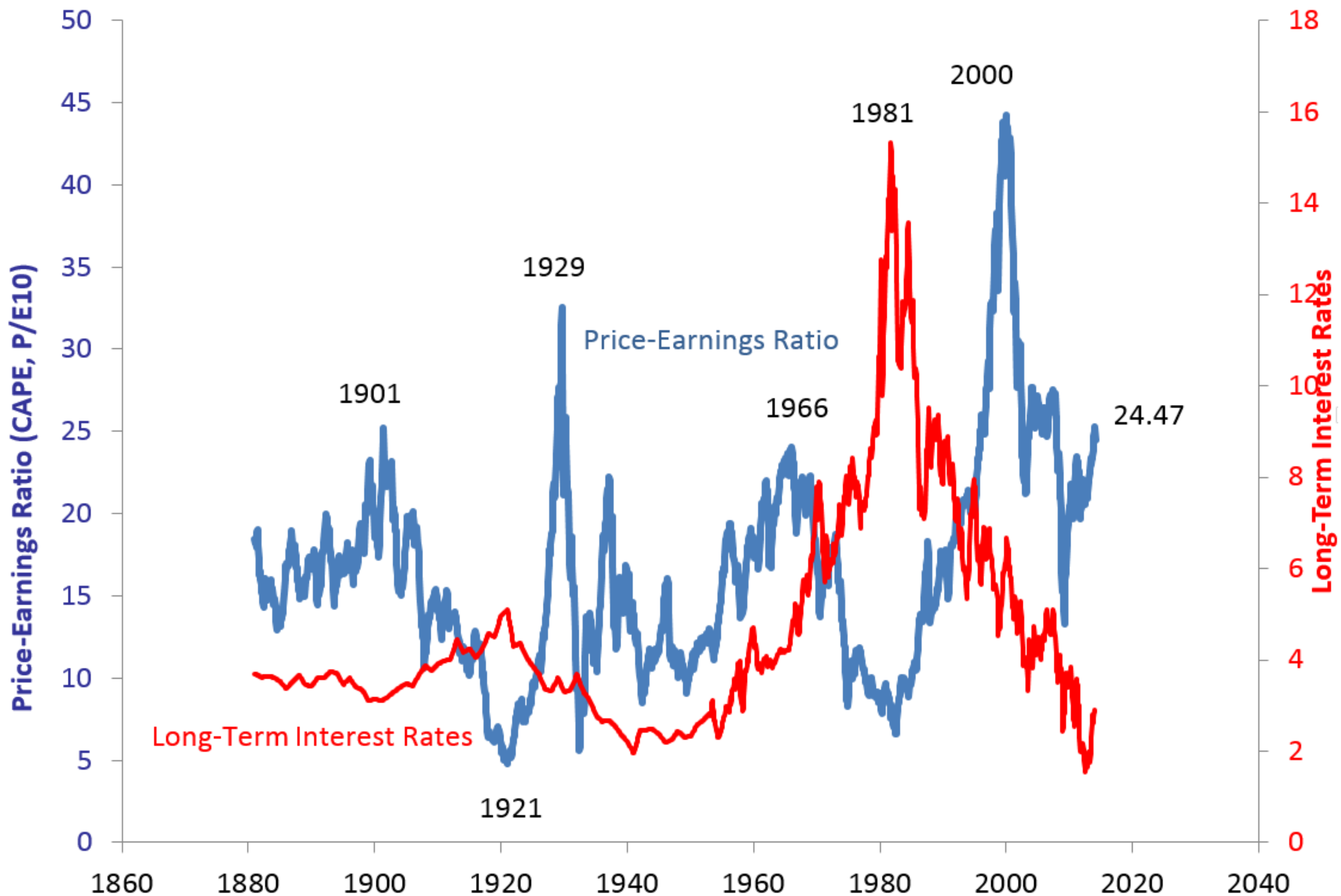
Mexican Real Home Prices Deflated Indice SHF de Precios de la Vivienda



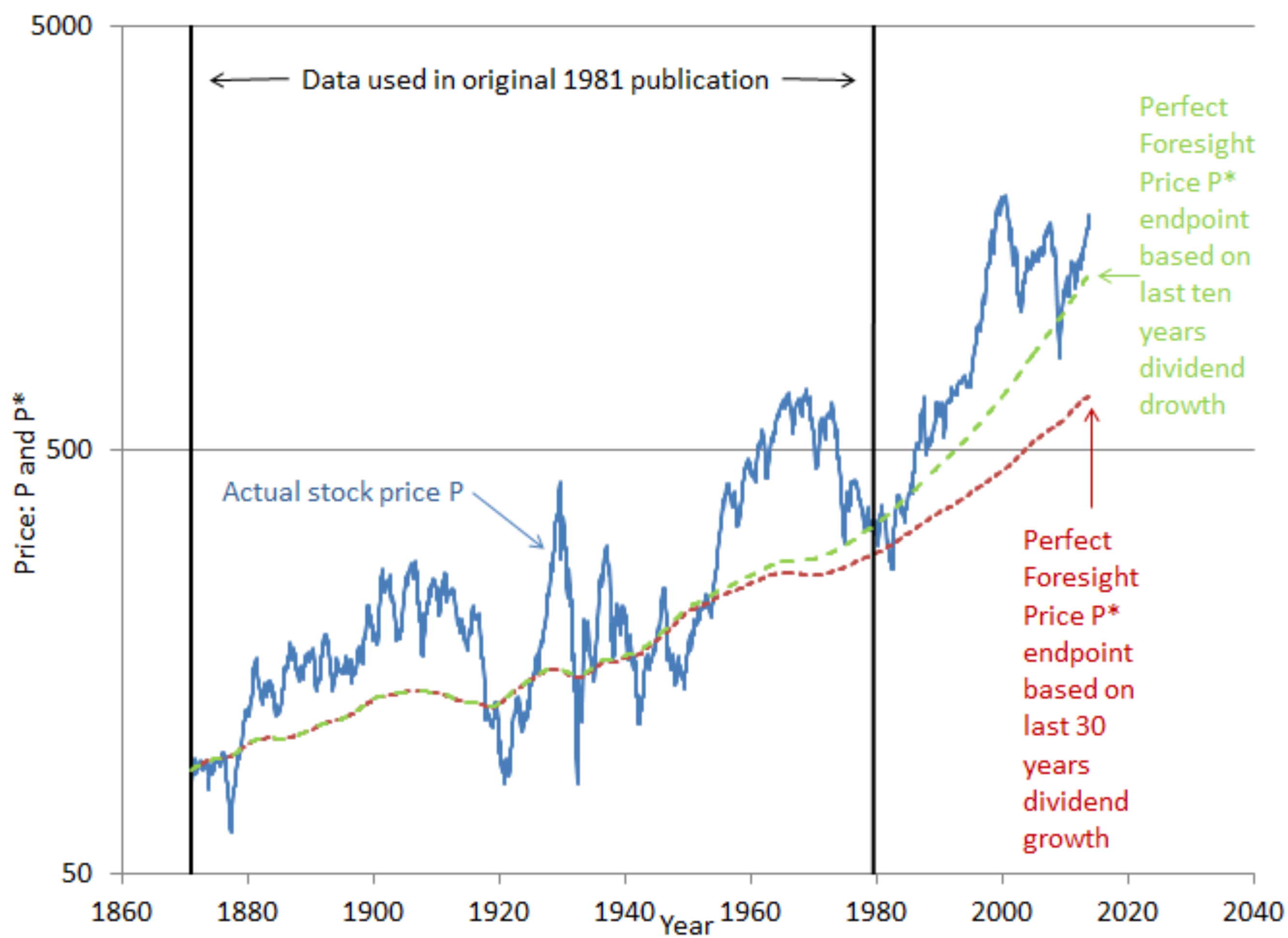
Real Stock Price and Real Earnings US 1871-2014



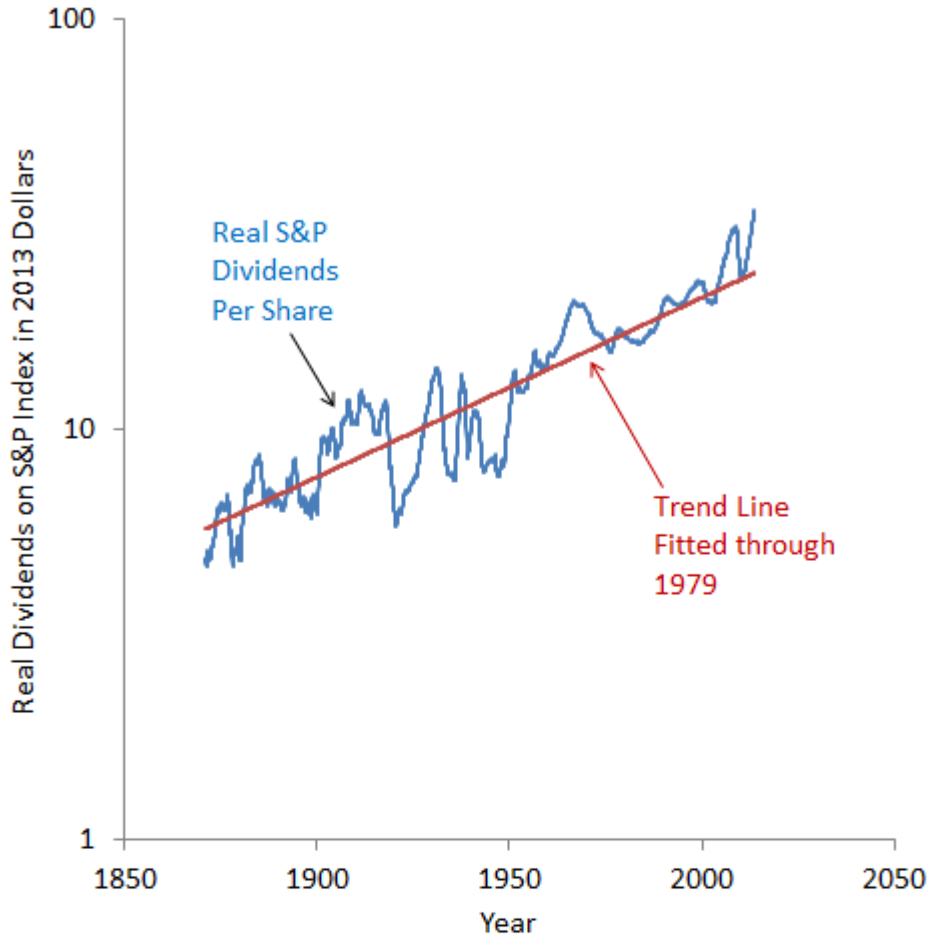
Cyclically-Adjusted Price-Earnings Ratio US 1881-2014



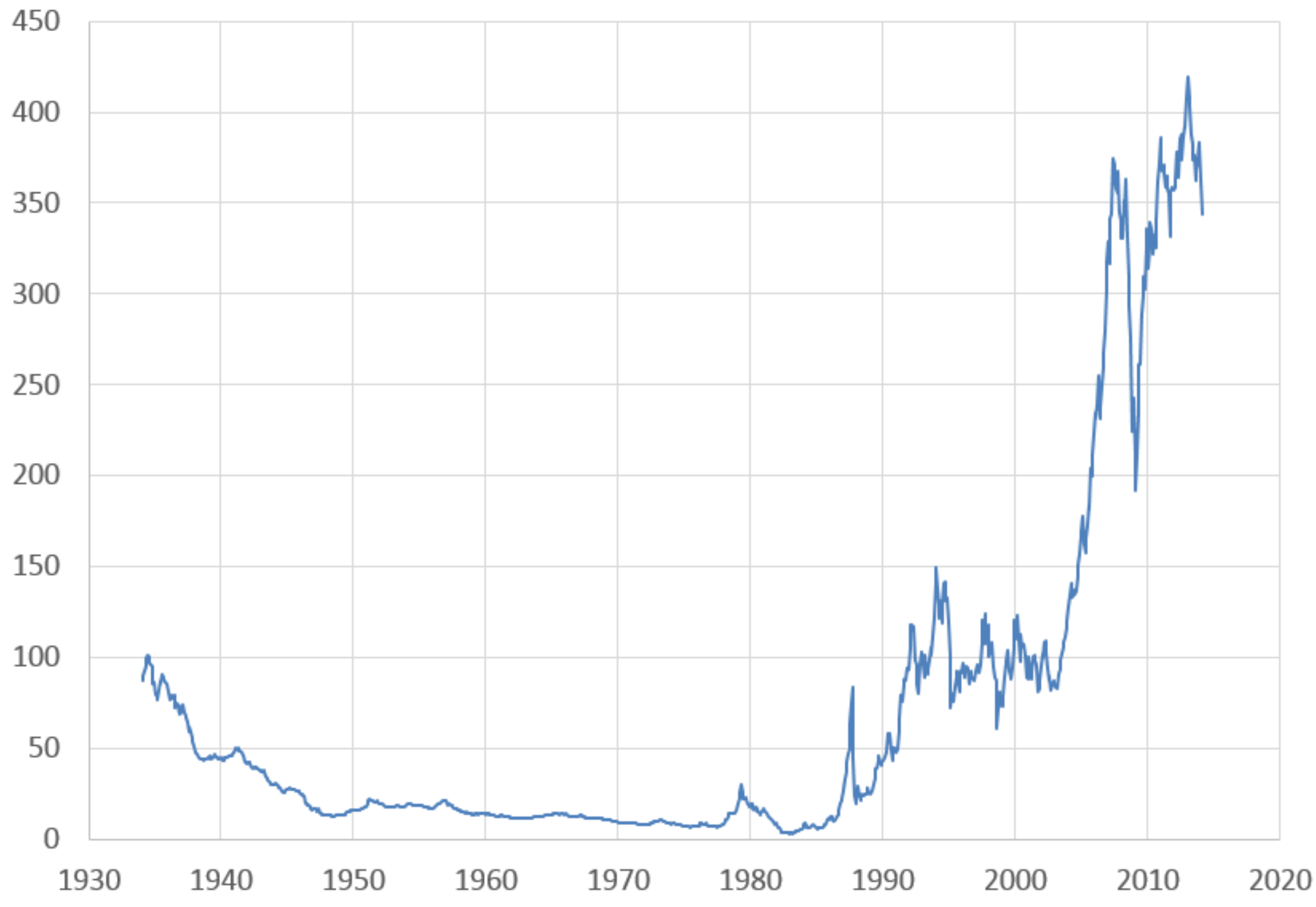
Real US Stock Prices 1871-2013
Actual (Blue) and Ex-Post Rational (Red)
Based on Shiller (Am. Econ Rev. 1981)



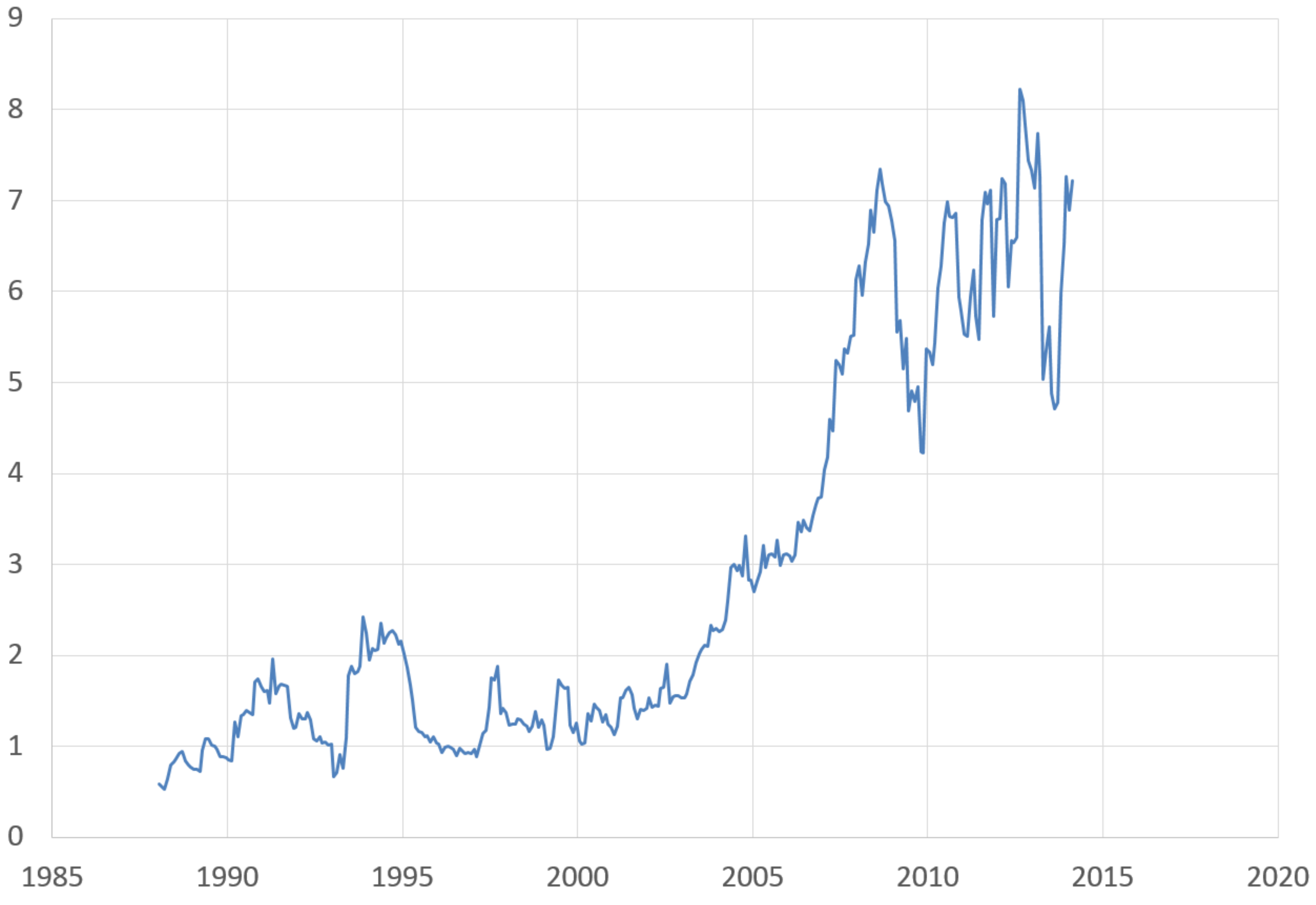
Real S&P Composite Dividends Per Share 1871-2013



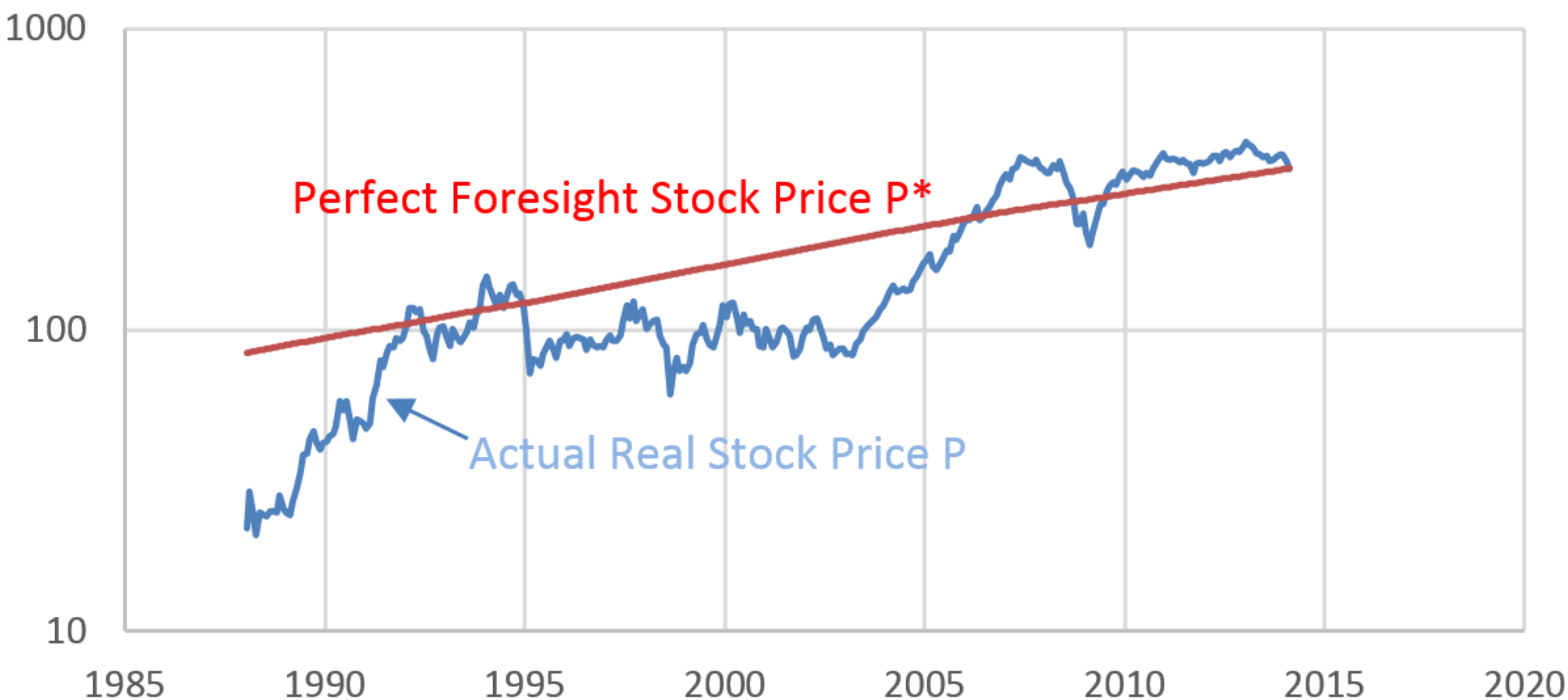
GFD Mexican Real Stock Prices 1930-2014



Mexican Real Dividends



Real Mexican Stock Prices 1988-2014 Actual (Blue) and Ex-Post Rational (Red) Based on Shiller (Am. Econ Rev. 1981)



Definition of Speculative Bubble

"I define a speculative bubble as a situation in which news of price increases spurs investor enthusiasm, which spreads by psychological contagion from person to person, amplifying stories ["new era"theories] that might justify the price increases and bringing in a larger and larger class of investors, who, despite doubts about the real value of the investment, are drawn to it partly through envy of others' successes and partly through gambler's excitement (Shiller, *Irrational Exuberance*, 2nd Edition, 2005)

The Abrupt End of the US Housing Bubble

- Public mood in US changed abruptly in 2005
- Public learned the meaning of “speculative bubble”

The Economist June 16, 2005

- “PERHAPS the best evidence that America's house prices have reached dangerous levels is the fact that house-buying mania has been plastered on the front of virtually every American newspaper and magazine over the past month.”

Time Magazine, June 13, 2005

- "HOME $WEET HOME: Why We're going gaga over real estate
  - Will your house make you rich?
  - Super hot markets.
  - Is it time to buy or sell?
  - The case for renting"

Barrons, June 20, 2005

- "Economist Robert Shiller whose book predicting a stock market rout arrived just before the Nasdaq began its sickening slide in 2000, sees another bubble ready to burst. Home prices, he contends, could fall by as much as 50% adjusted for inflation."
- (Ex post: Actual US peak to trough decline was 43%, over 50% in many cities)


BARRON'S

Economist Robert Shiller, whose book predicting a stock-market rout arrived just before the Nasdaq began its sickening slide in 2000, sees another bubble ready to burst. Home prices, he contends, could fall by as much as 50%, adjusted for inflation.

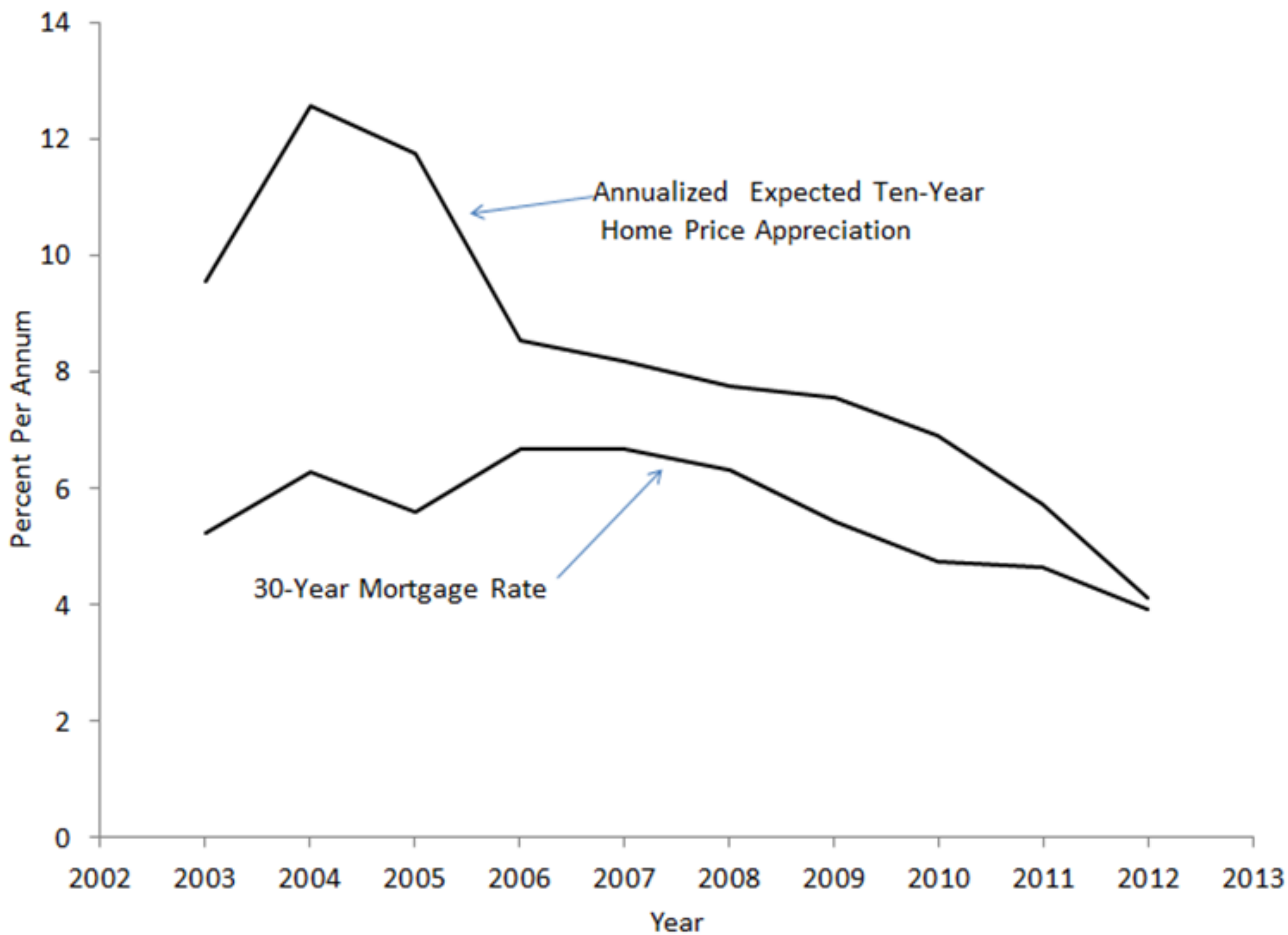
The Bubble's New Home

by Jonathan R. Laing

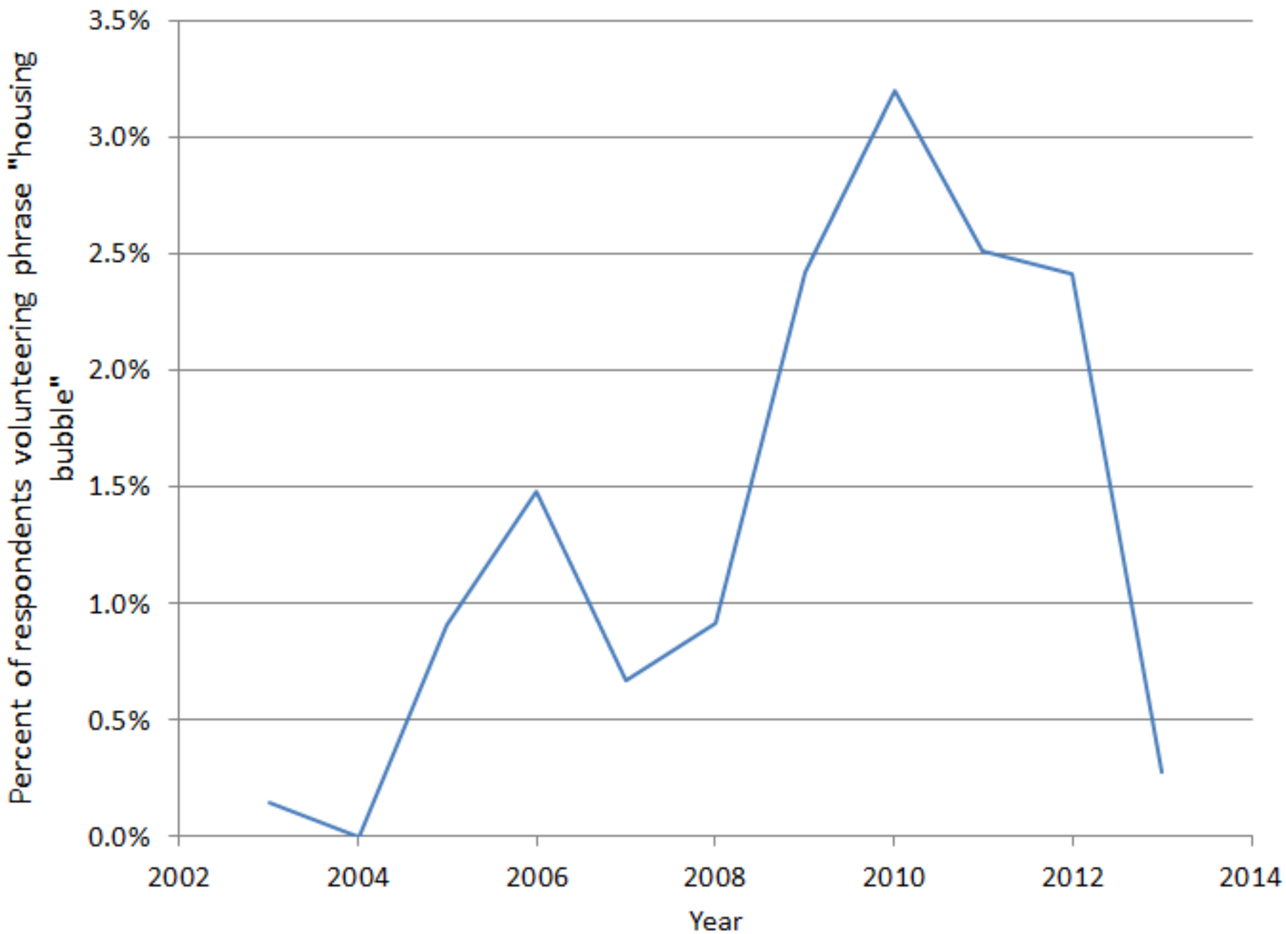
Shiller sees no rational reason for the sharp rise in housing prices over the past few years in many major markets, such as those shown in the charts below.

Shiller's view of a medical grad's plan to "flip" a condo unit: "Tulipmania reigns."

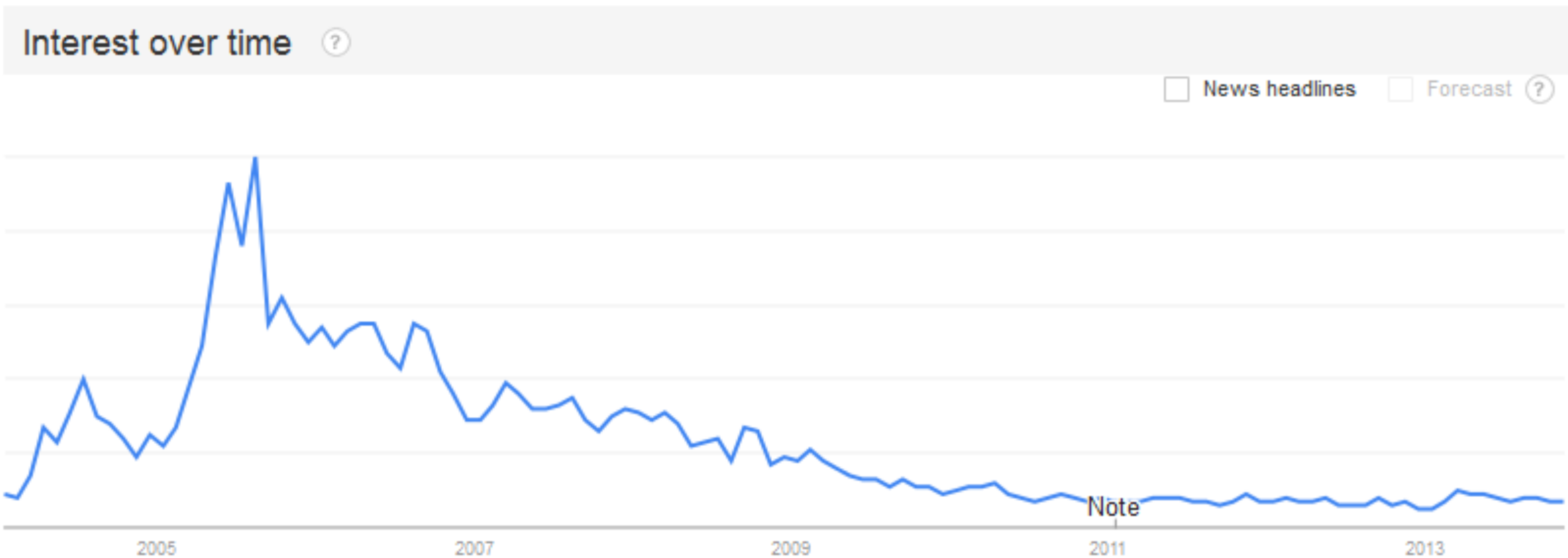
Ten-Year Expectations And 30-Year Mortgage Rate (Case-Shiller-Thompson Brookings Papers 2013)



Percentage of Respondents' Unprompted Use of "Housing Bubble" in Open-ended Questions (Case-Shiller-Thompson Brookings Papers 2013)



Google Trends:
Web Searches for "Housing Bubble"
From the US Peak Aug 2005



Definition of Negative Bubble

- In [a negative bubble] feedback occurs in a downward direction, as initial price declines discourage some investors, causing further price declines, and so on. . . Price continues to decline until further price decreases begin to seem unlikely, at which point there is no reason for people to want to stay away from the stock and the negative bubble fills back up (Shiller, *Irrational Exuberance*, 2nd Edition, 2005)

The Financial Crisis as a Negative Bubble: Europe

- 2008: Greek street protests against raising the retirement age (in some cases from 50 to 55)
- Story resonates with subprime crisis story unfolding in US
- Rising Greek interest rates 2009 fed a story of Greek sense of entitlement, loss of reality
- Stories spread to include other “profligate” countries such as Spain and Italy

Government Intervenes

- Post crisis, US government has borne the risk of default for 90% of new mortgages issued (through FHA, Fannie Mae, Freddie Mac) to support these markets
- Post crisis, central banks in US, UK, Japan, Europe, have expanded their balance sheets dramatically
- Quantitative easing, invented in Japan since 2000, has been the newly important policy tool

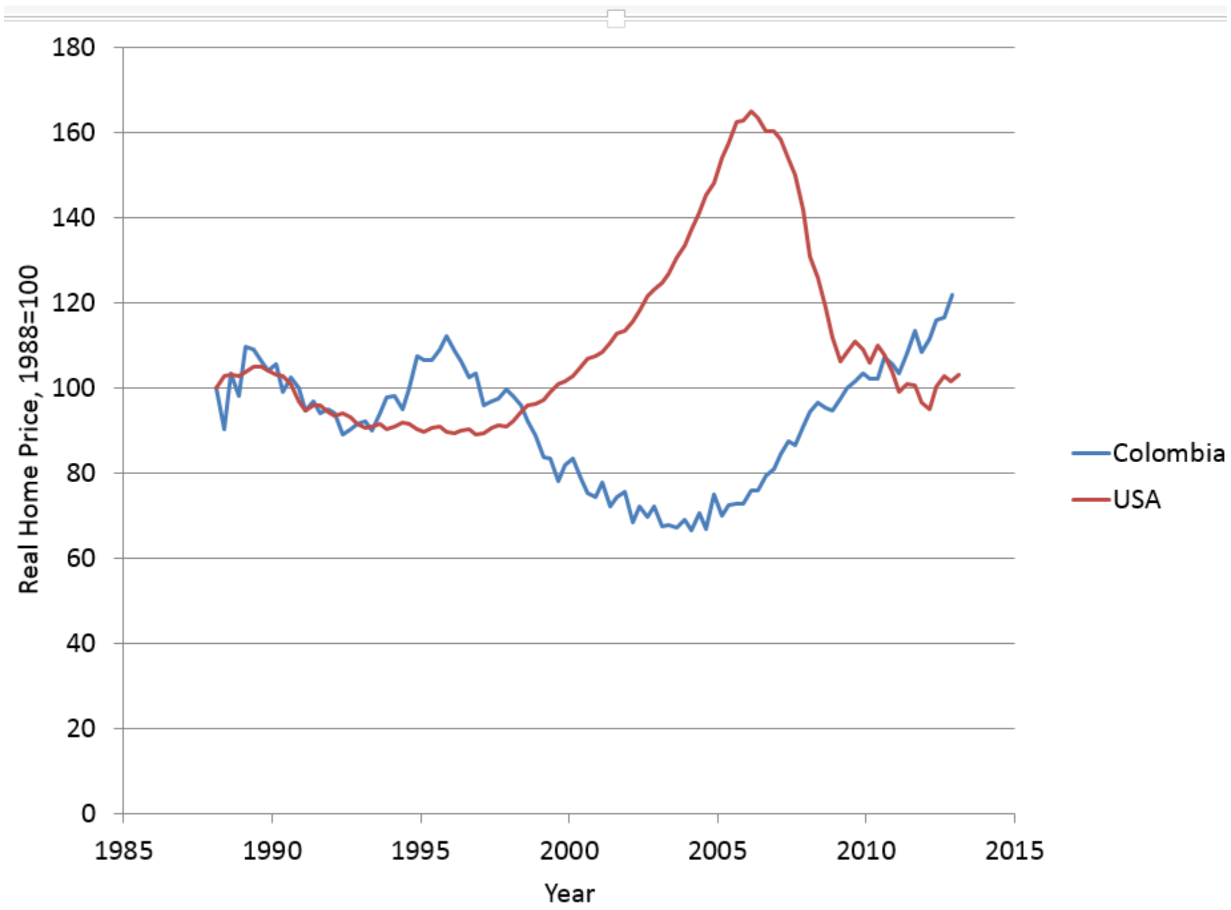
Quantitative Easing Has Supported Bond Market through a Variety of Public Expectations Channels

- Krishnamurthy and Vissing Jorgenson NBER 2011
  - Signalling channel
  - Inflation expectations channel
  - Default-risk channel
  - Repayment-risk channel
  - Liquidity channel
- Most of these channels have to do with expectations, ultimately public stories, and may not play out the same way next time

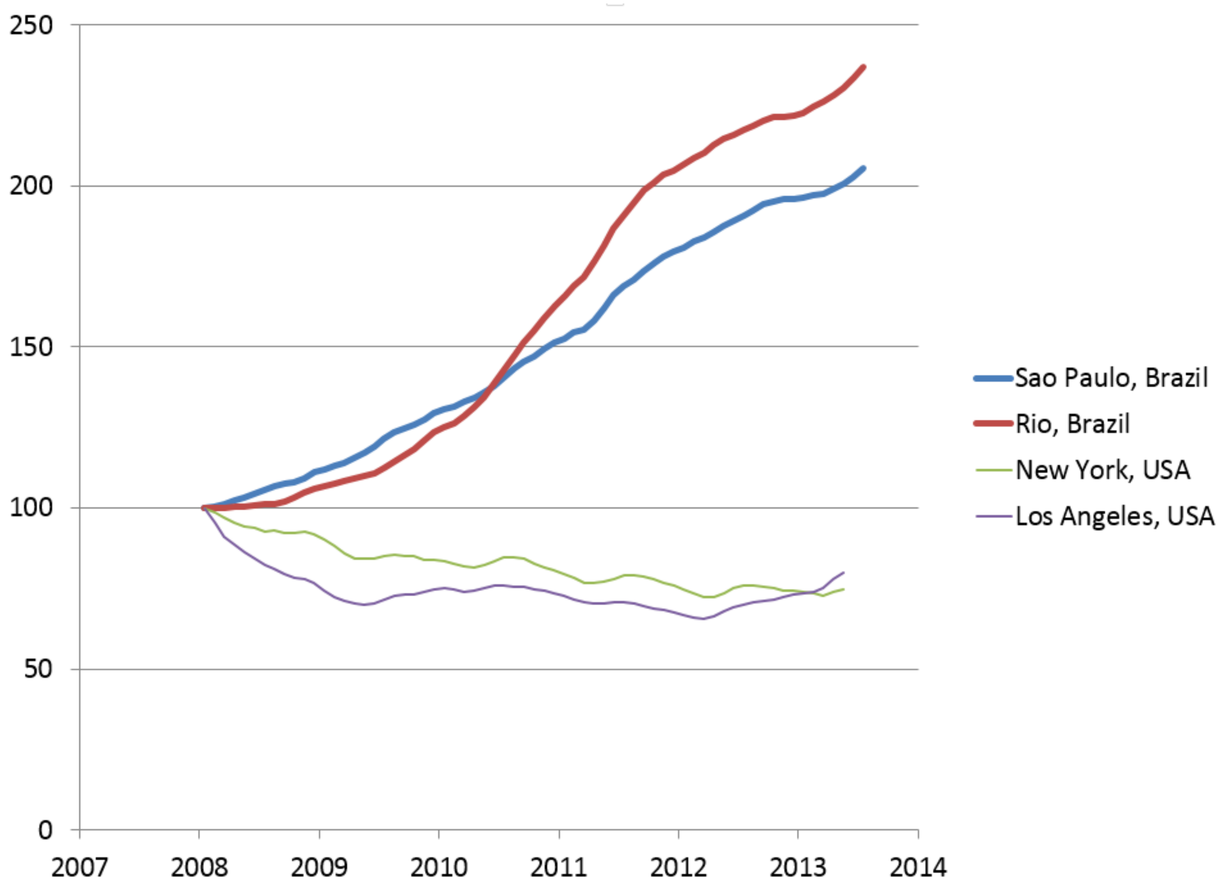
Risks of Quantitative Easing

- Quantitative easing is played by independent central banks, not legislative branch
- Quasi-fiscal operations
- Quantitative easing puts taxpayer money at risk
- Could be a threat to central bank independence if risks turn out badly
- Already, Dodd-Frank 2010 in the US prohibits the kind of actions the Fed used to support Bear Stearns and AIG

Some Current Situations in Latin America: Colombia



Some Current Situations in Latin America: Brazil



Finance and the Good Society

- Complexity of human psychology rules out strict efficient markets hypothesis
- Efficient markets theory is a half truth
- And yet our financial markets are important pillars of civilization
- Trend will be towards more and more advanced financial markets