Keynote address
Should macroprudential policy target real estate prices?

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Bank of Lithuania

Should MacroPrudential policy target real estate prices?

- Real estate is one of the main drivers of
  - crises
  - wealth creation
  - economic growth
  - savings (including pensions)
  - inequality
- It is the most political of all macropru domains
- My plan for the next 30 minutes

MacroPru objectives

a. Prevent excessive risk accumulating

b. Contain financial crises when they happen

c. Ensure the financial system contributes to growth

Effective MacroPru authorities need

VoxEU.org (2016) Jon Danielsson and Robert Macrae

a. Estimates of systemic risk and its impact on the real economy
  - from the early signs of a build-up of stress to
  - the post-crisis economic and financial resolution

b. Tools to implement effective policy remedies

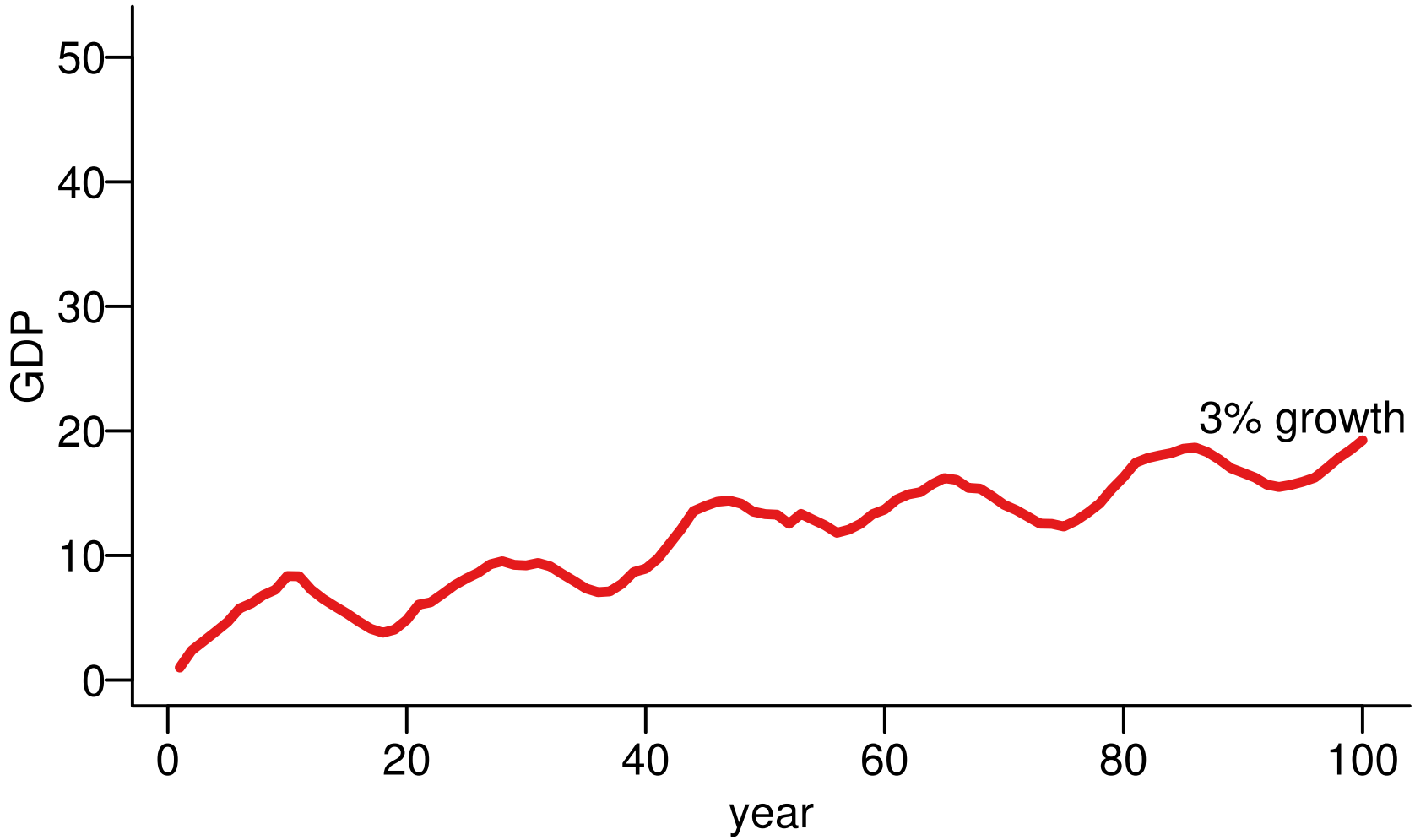
c. Legitimacy, a reputation for impartiality and political support

MacroPru directions

- *Passive*
  - crisis resolution and fixed rules that hold through the financial cycle
- *Ambitious* — lean against the wind — *discretionary*
  - discretion to deviate from rules
  - *tighten* capital and liquidity requirements during upswings and *relax* the same rules during and after a crisis
  - cut through amplifying feedback loops
- Discretionary macropru policies aim to be countercyclical
- If successful, of considerable benefit to the wider economy

Which is the most likely?

GDP over a century



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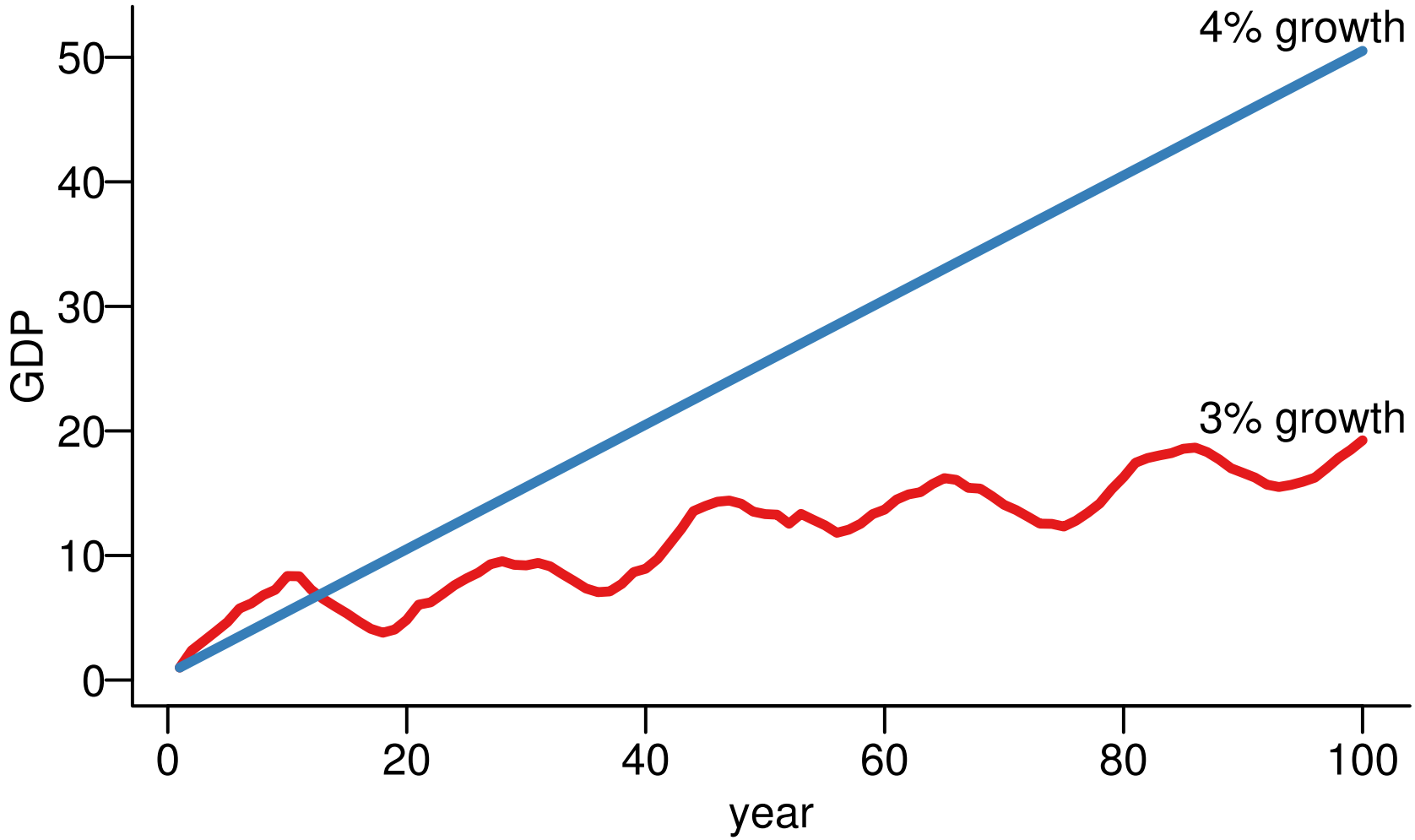

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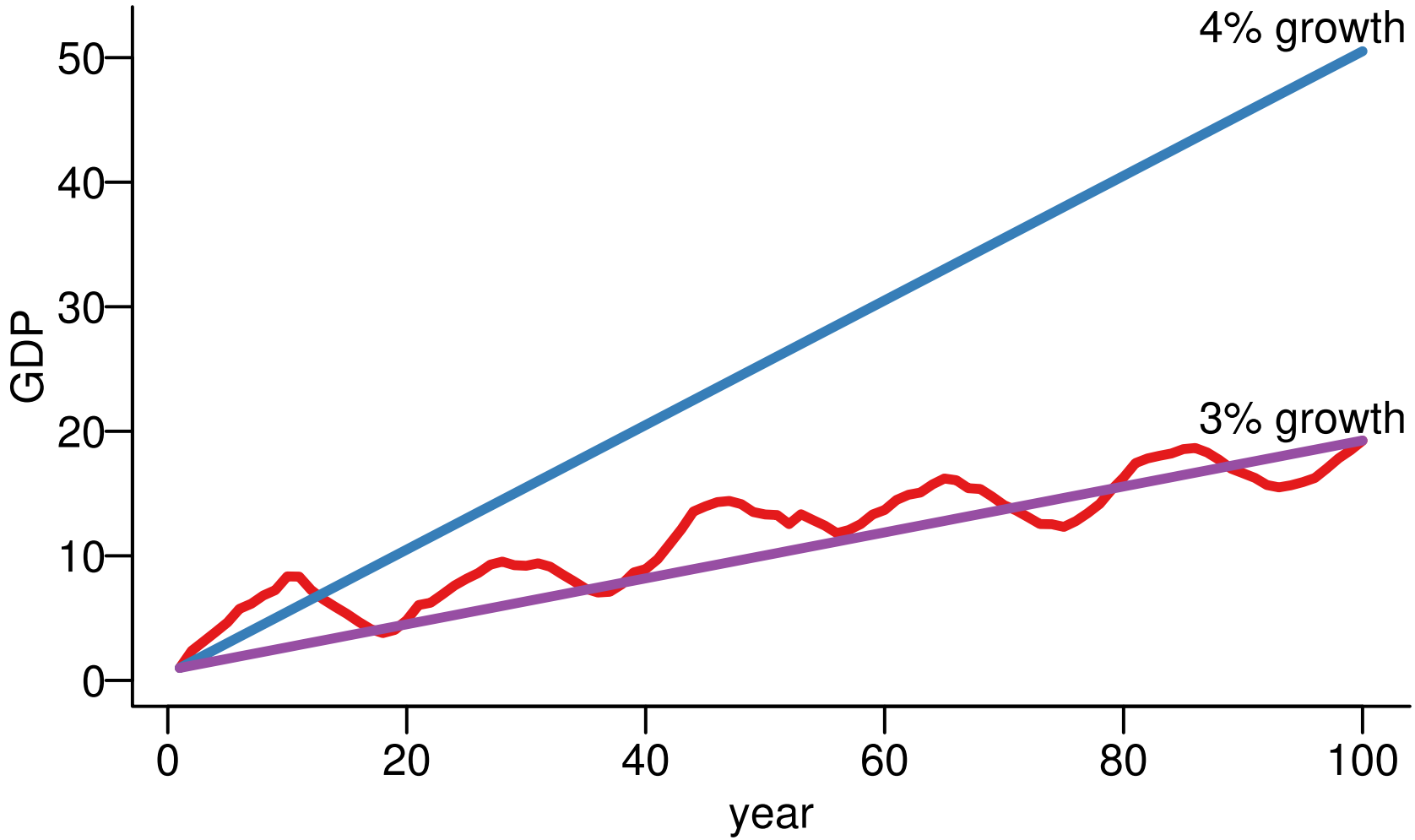

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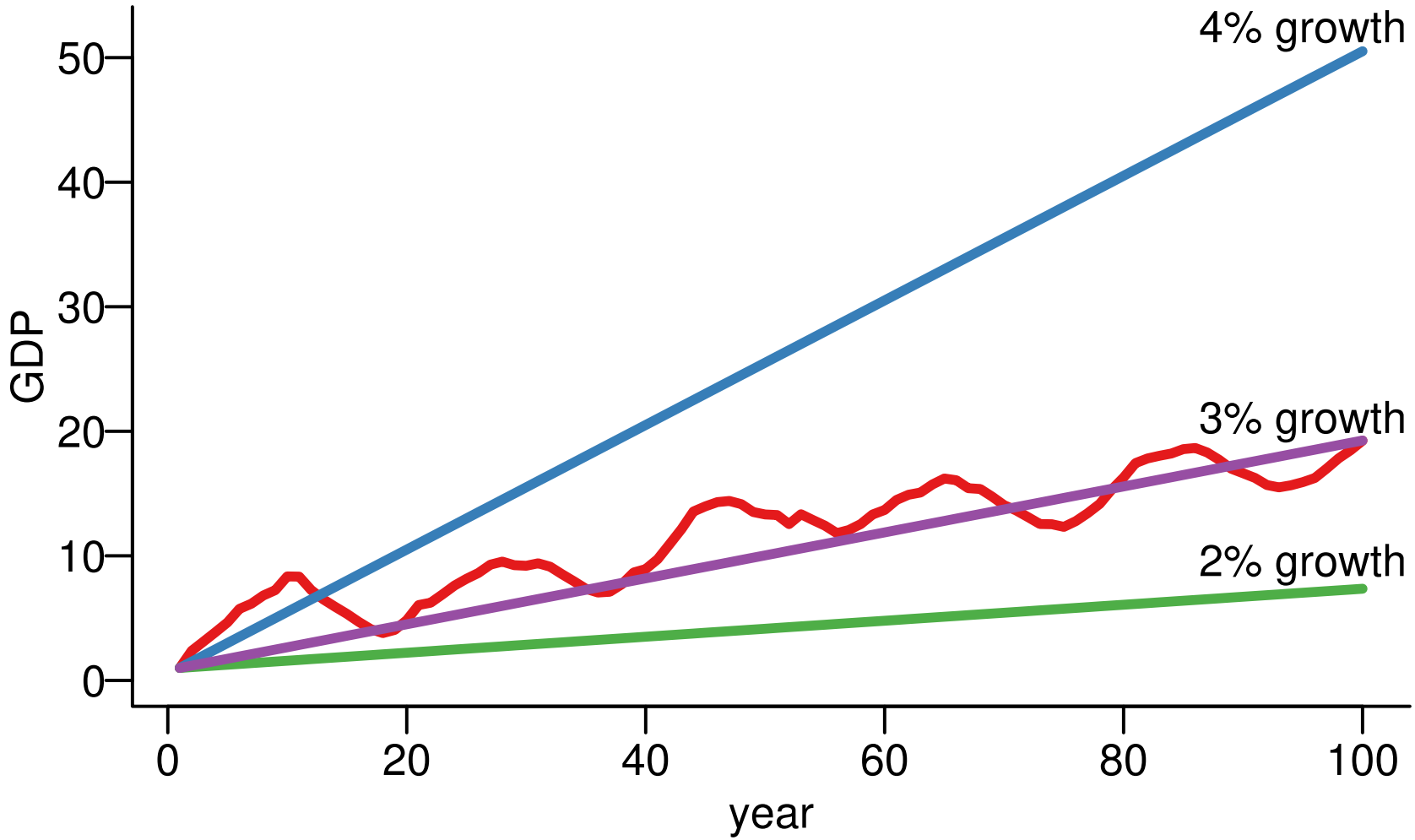


What drives risk?

- 2008 happened because of decisions made years earlier
- In 2003 all the signs pointed to risk being low
- The authorities and the private sector thought we were safe
- And so it was perfectly OK to take extra risk
- But
- "*Stability is destabilizing*" (Minsky)

The unknown unknowns

- The US stock market goes down by $200 billion in one day and nobody cares
- Potential subprime losses of less than $200 billion, and OMG, its the end of civilization
- The risk we know we prepare for — *known unknowns*
- The risk we don't know is the dangerous type
- The *unknown unknowns* are most damaging

Risk is endogenous

Danielsson–Shin (2002)

- Risk is *exogenous* or *endogenous*

  exogenous Shocks to the financial system arrive from outside the system, like with an asteroid

  endogenous Financial risk is created by the interaction of market participants

"The received wisdom is that risk increases in recessions and falls in booms. In contrast, it may be more helpful to think of risk as increasing during upswings, as financial imbalances build up, and materialising in recessions."
Andrew Crockett, then head of the BIS, 2000

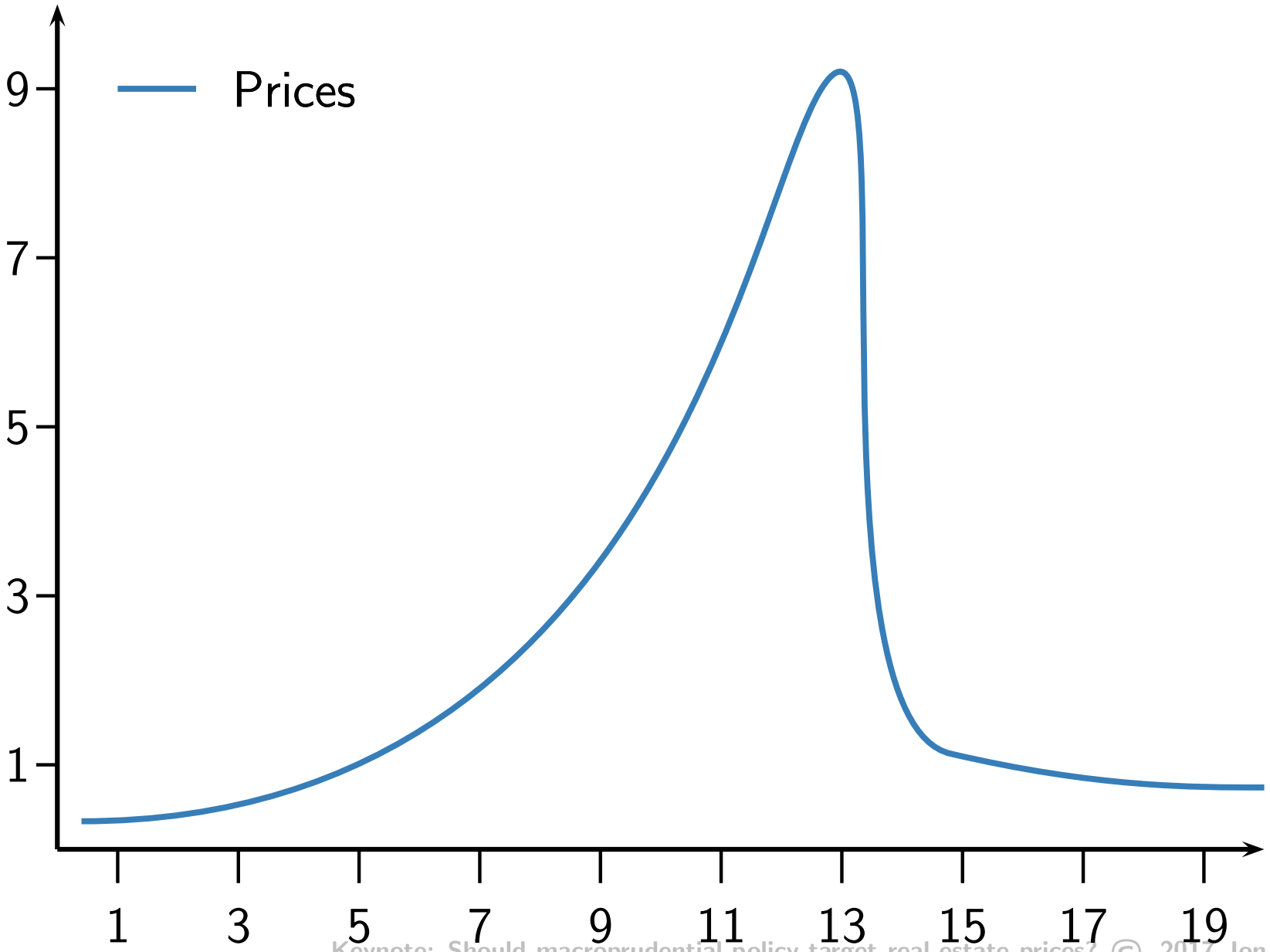
- Market participants are guided by a myriad of models and rules, many dictate myopia
- Prices don't follow random walks in adverse states of nature
- Because that is when the constraints bind
- Endogenous risk is created by the interaction of human beings
- All with their own objectives, abilities, resources, biases
- *All large market outcomes are endogenous*

Risk models underestimate risk during calm times and overestimate risk during crisis — they get it wrong in all states of the world

Two faces of risk

- When individuals observe *and* react — affecting their operating environment
- Financial system is not invariant under observation
- We cycle between virtuous and vicious feedbacks
  - *perceived risk* — as reported by risk models
  - *actual risk* — hidden but ever present

Endogenous bubble



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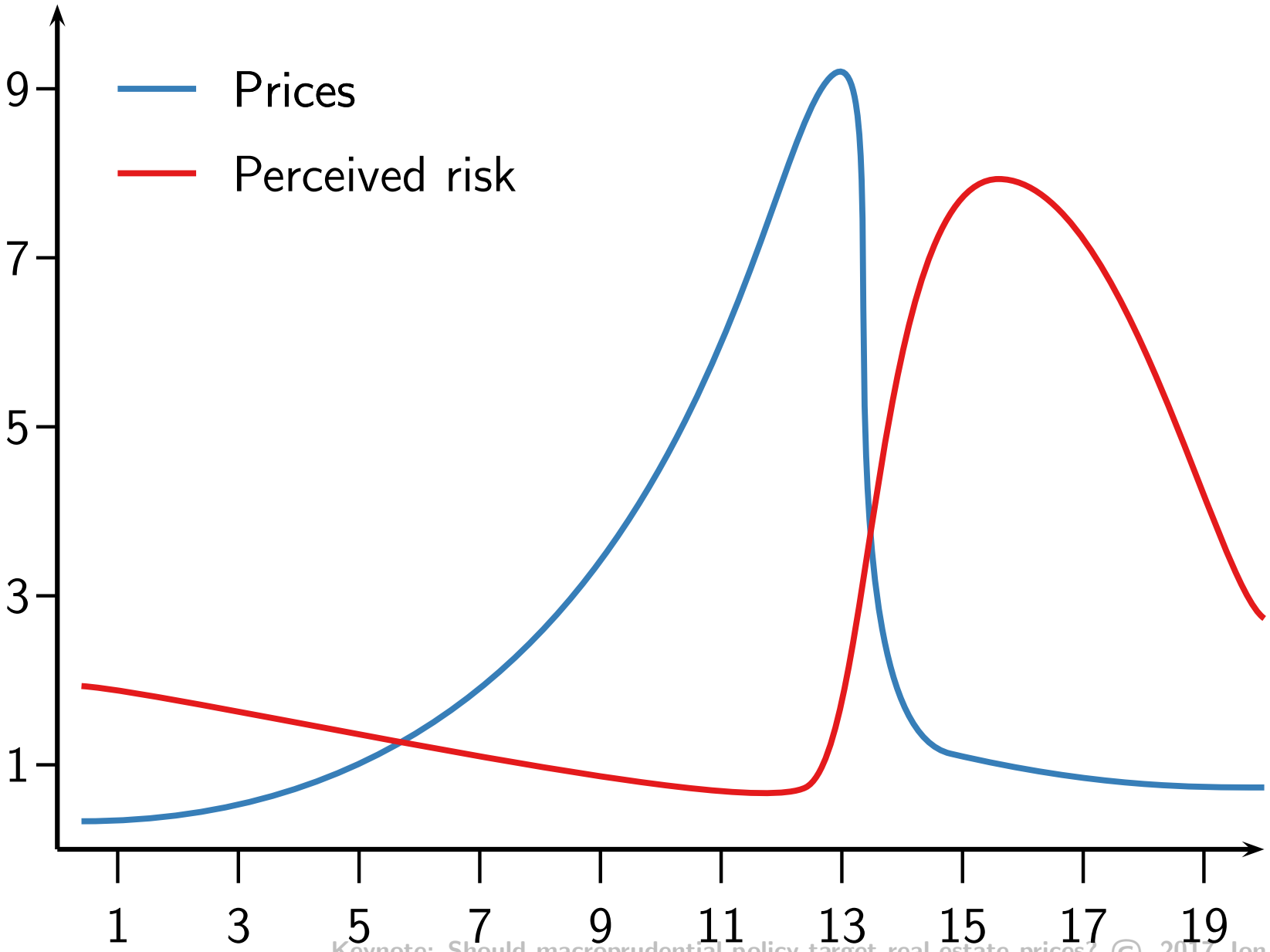

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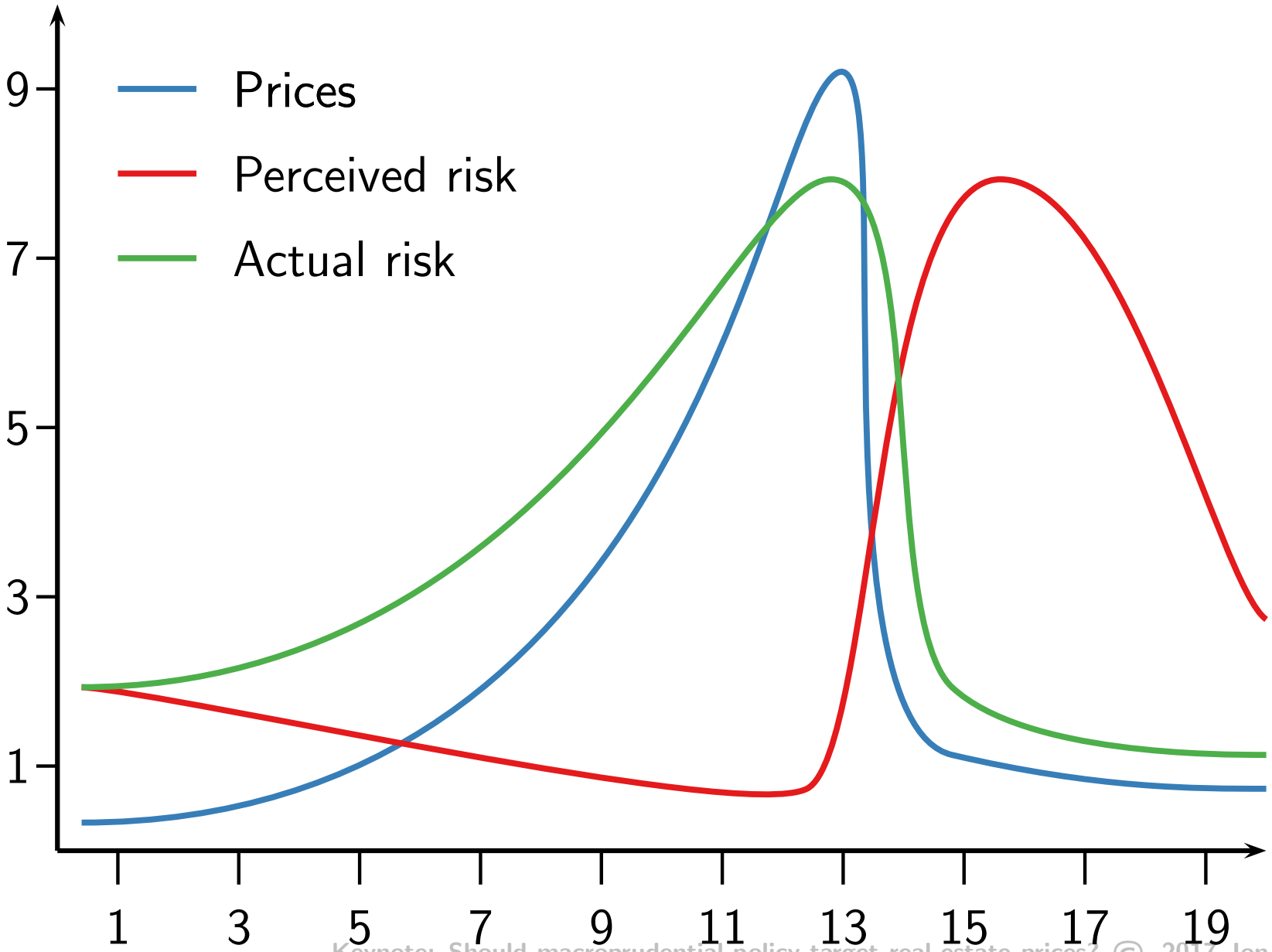
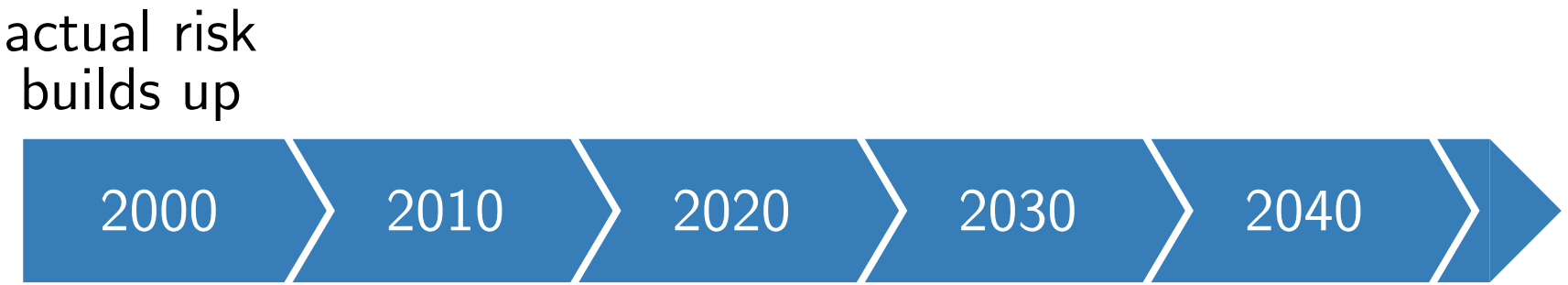


How often do systemic crises happen?

- Ask the IMF–WB systemic crises database (only OECD)
- Every 43 years (17 for UK)
- Best indication of the target probability for policymakers
- However, most indicators focus on much more frequent events
- Typically every month to every five months

The 43 year cycle of systemic risk



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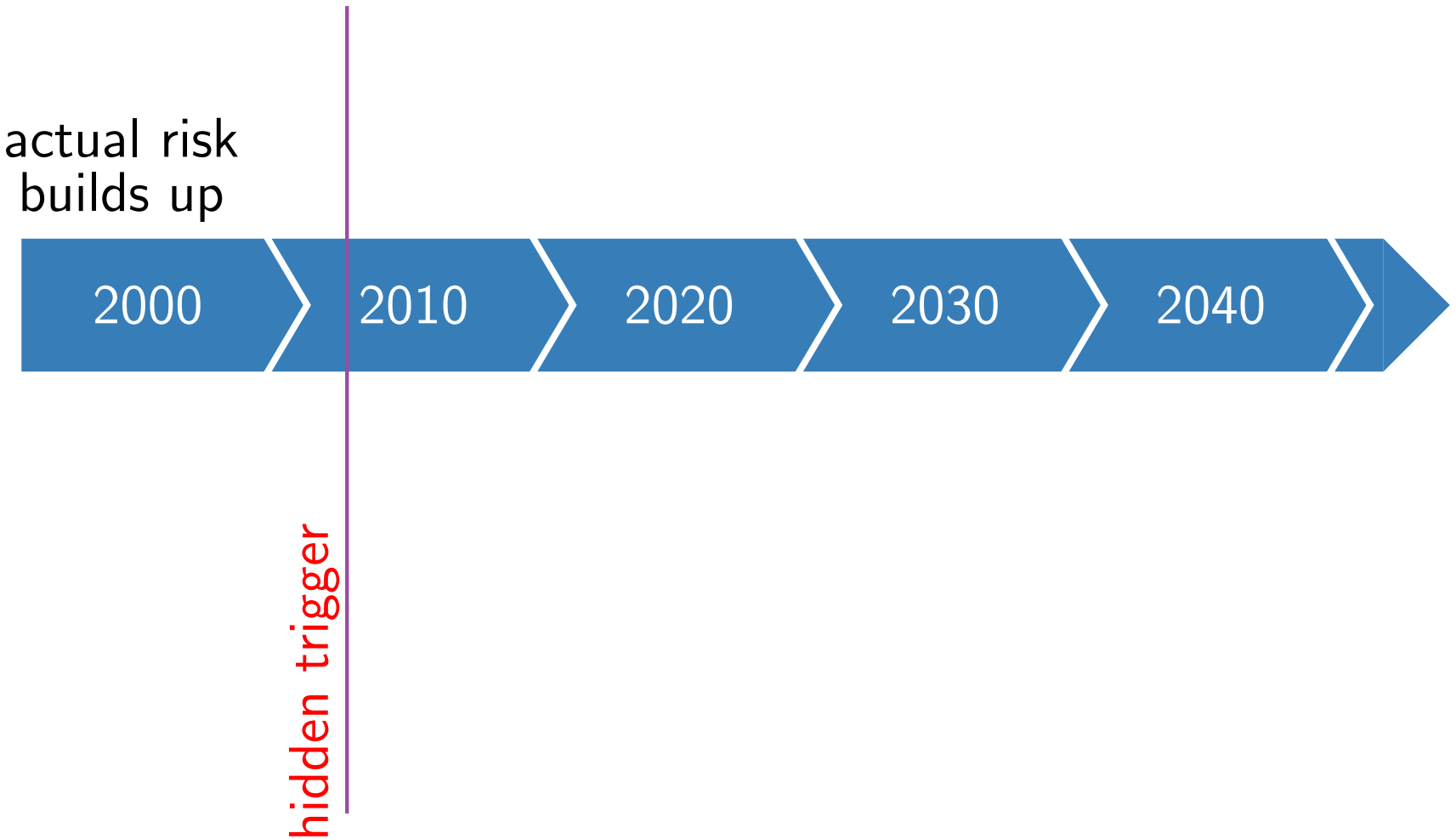

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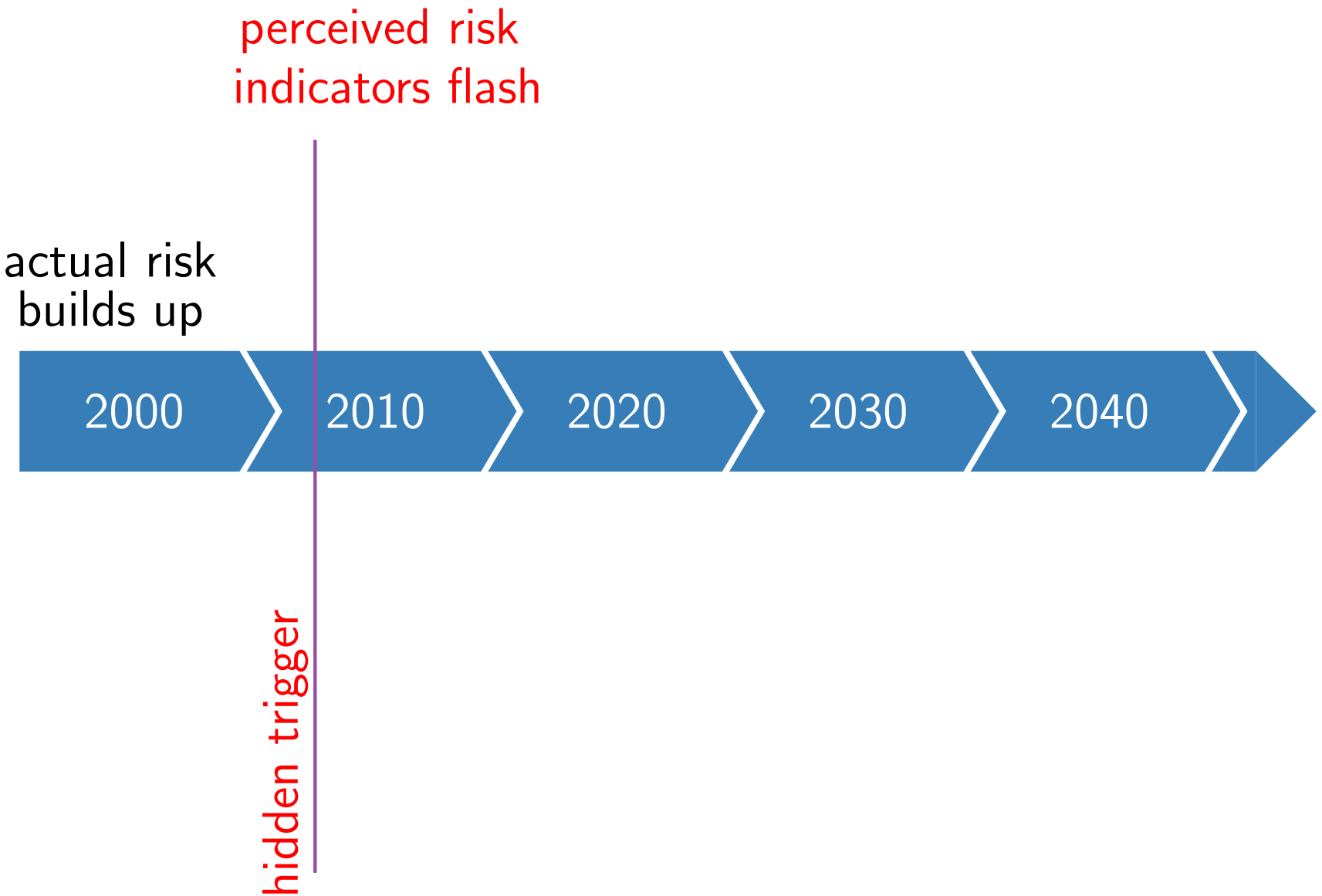

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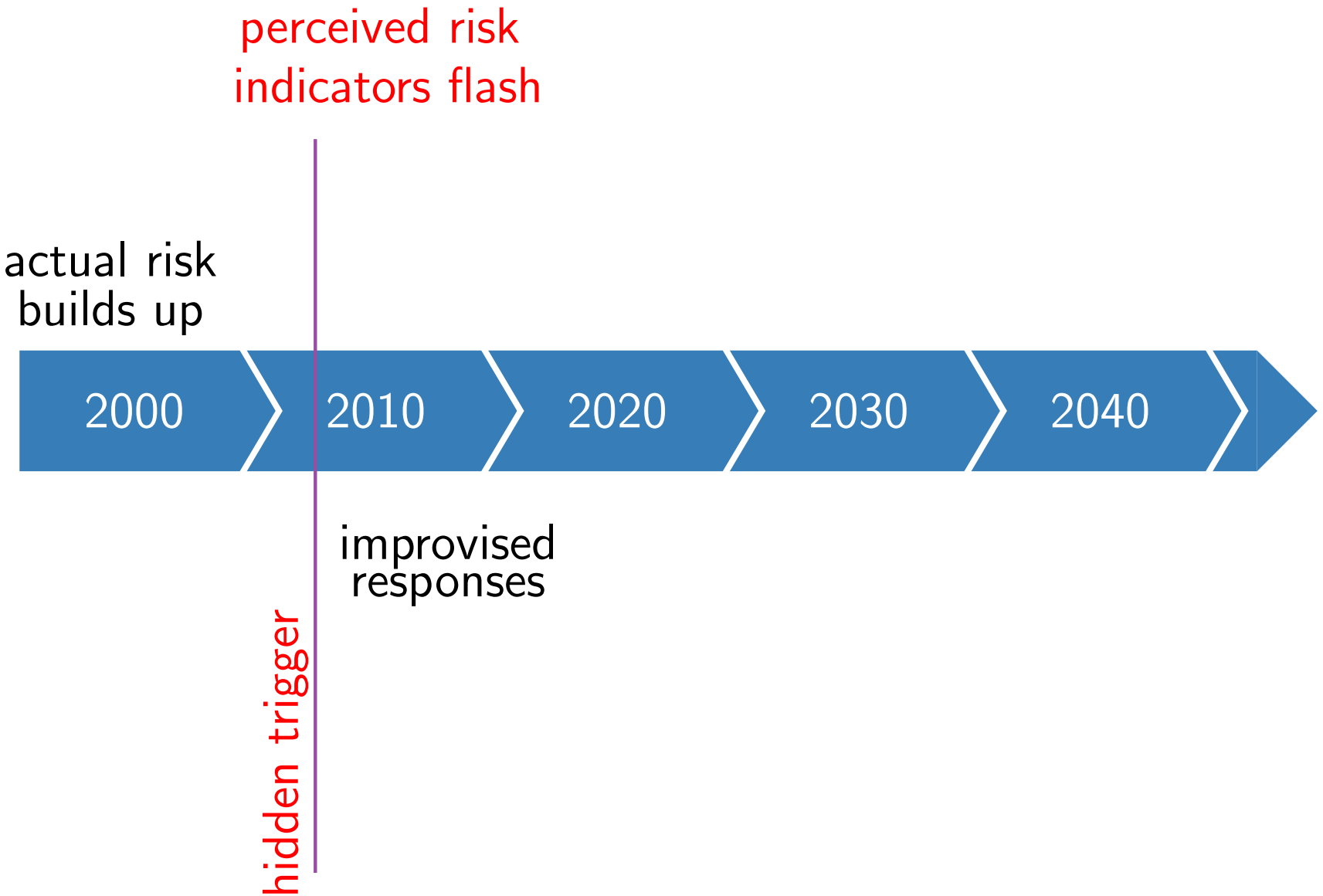

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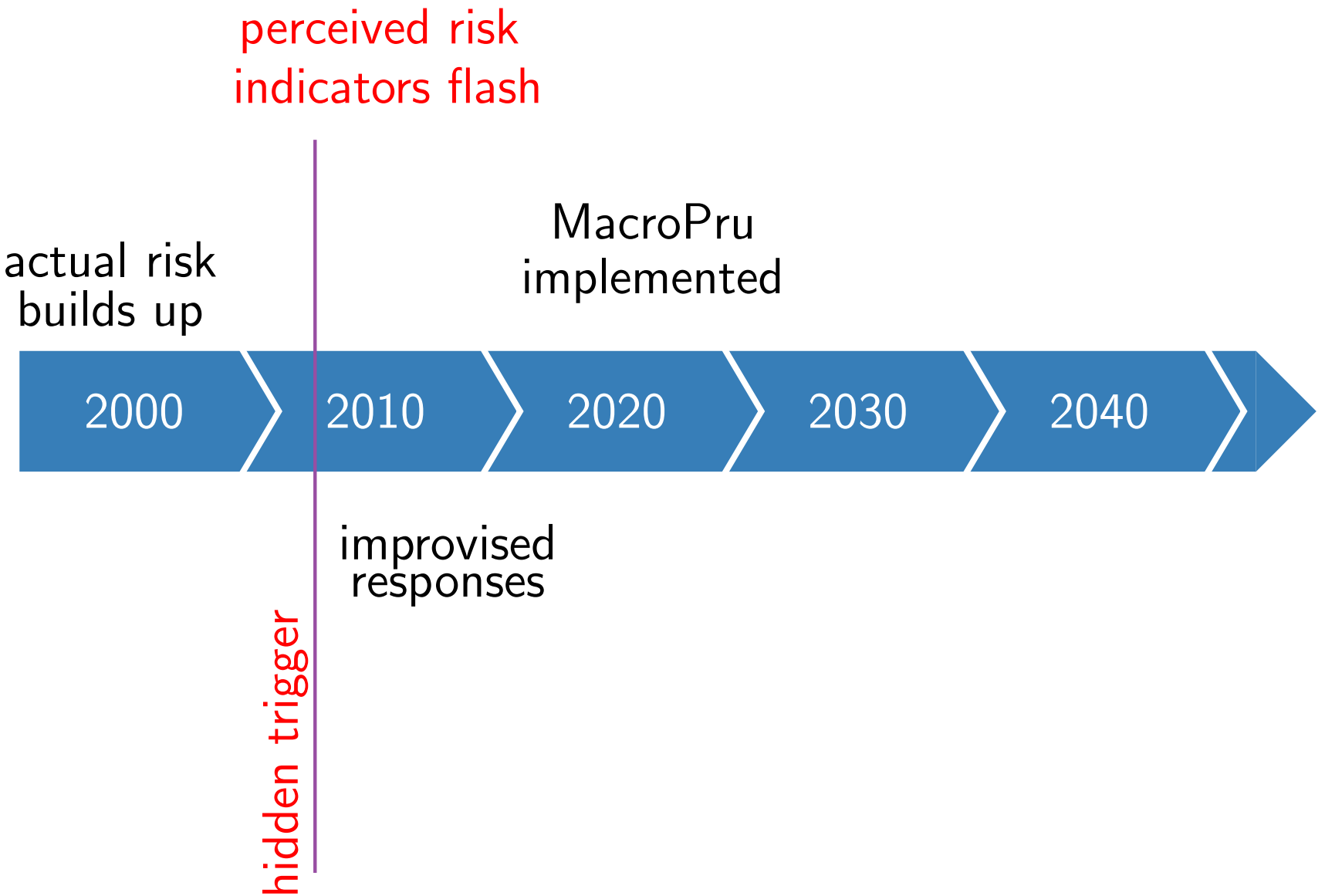

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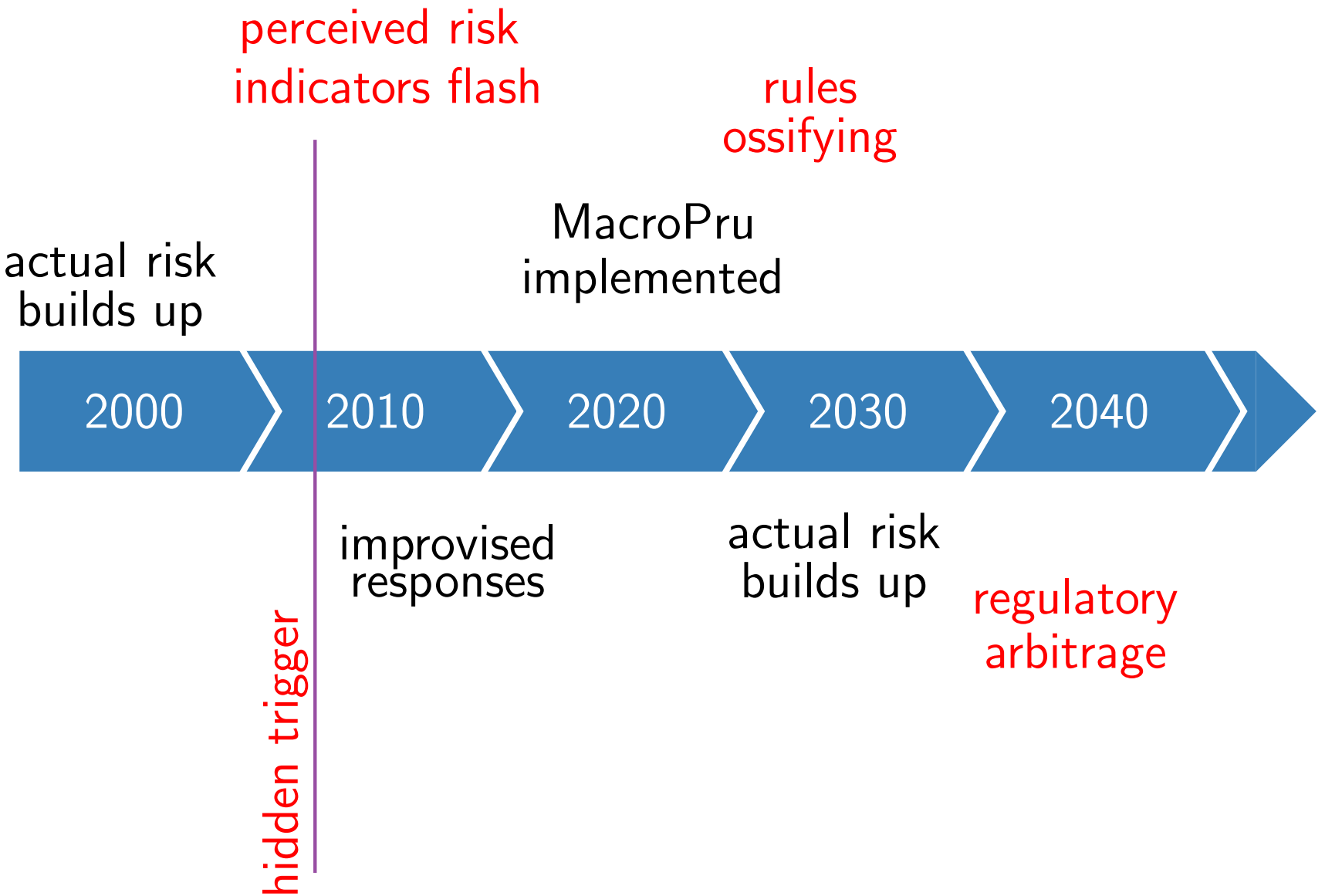

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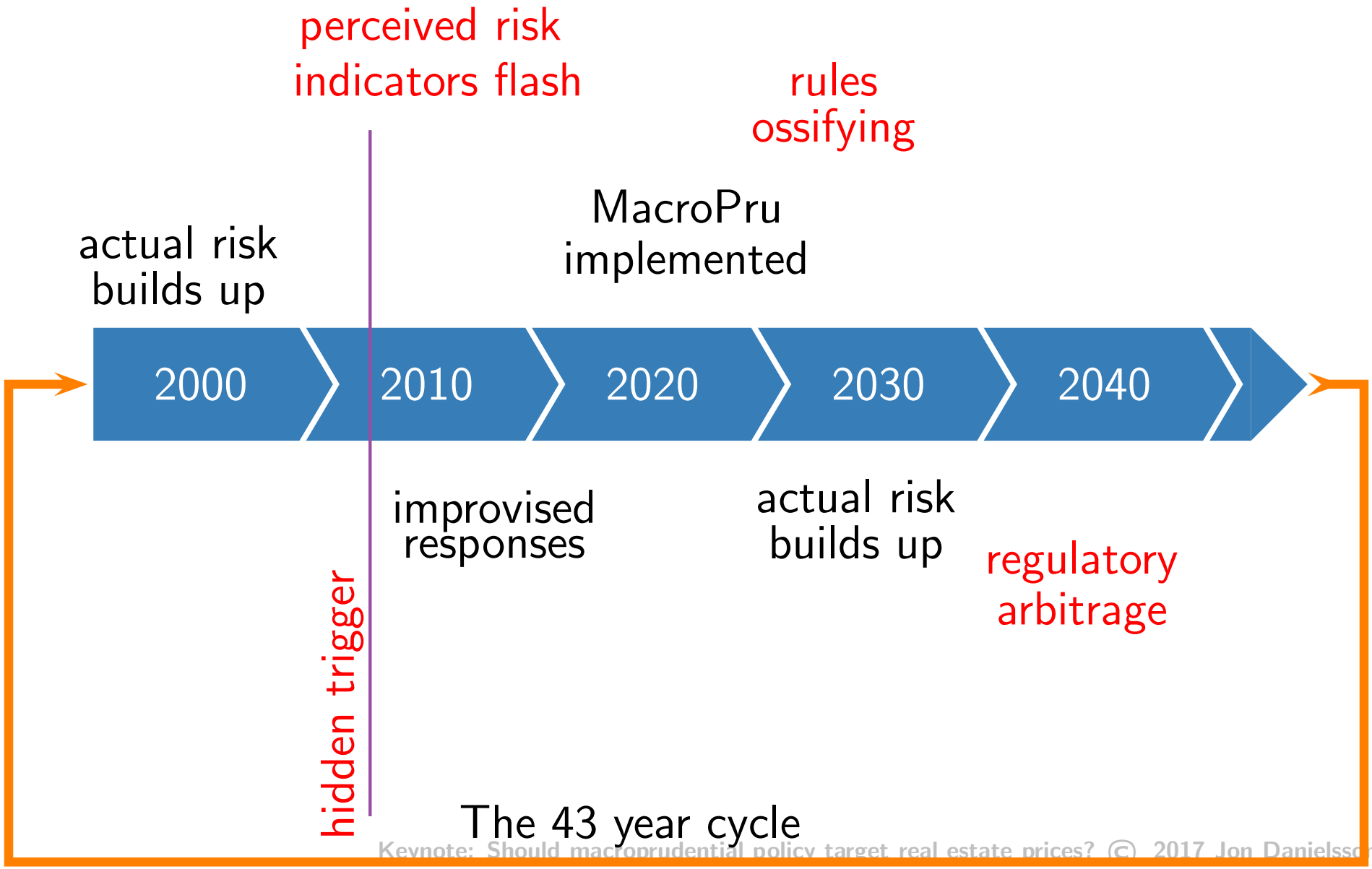

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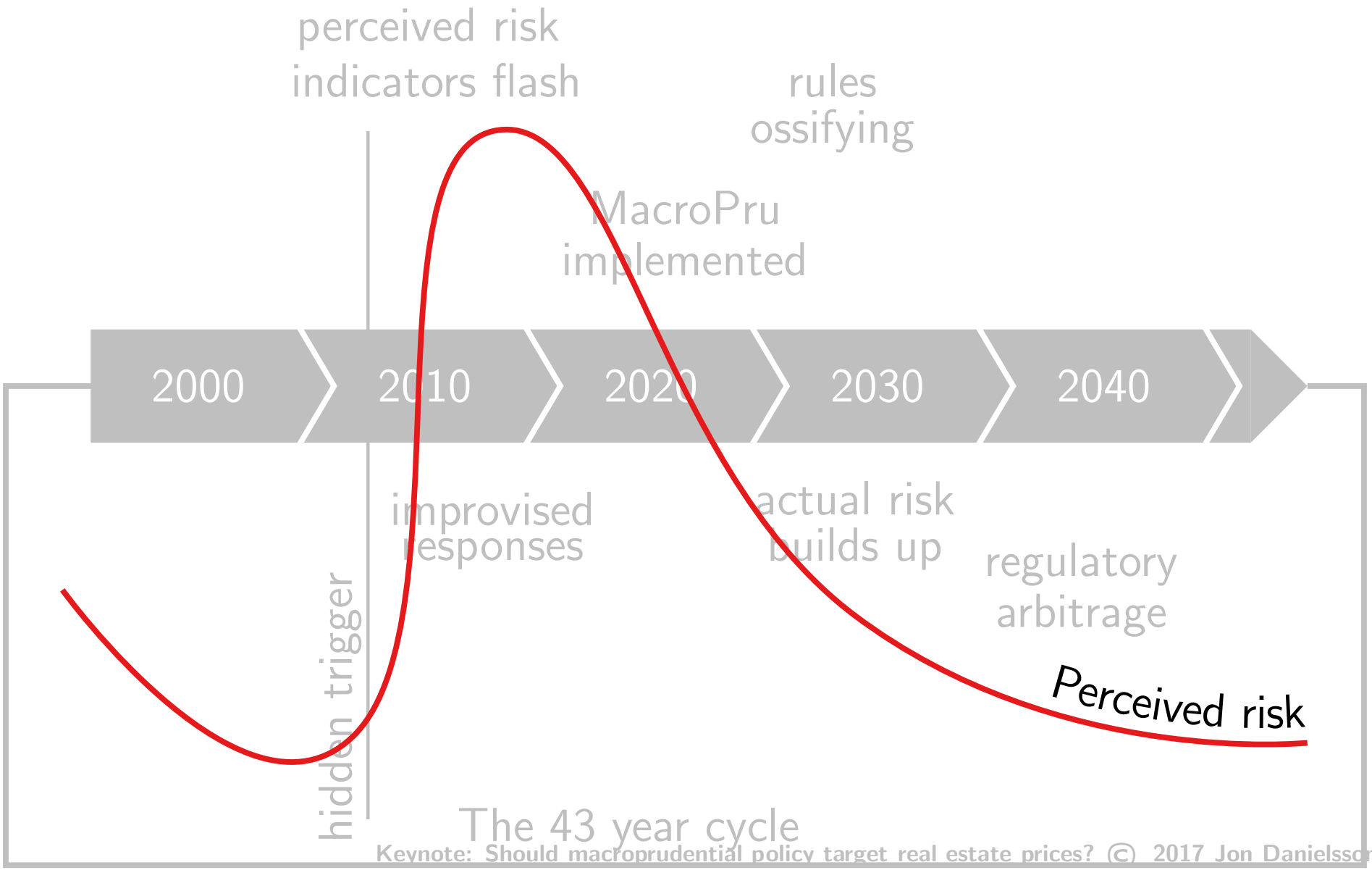

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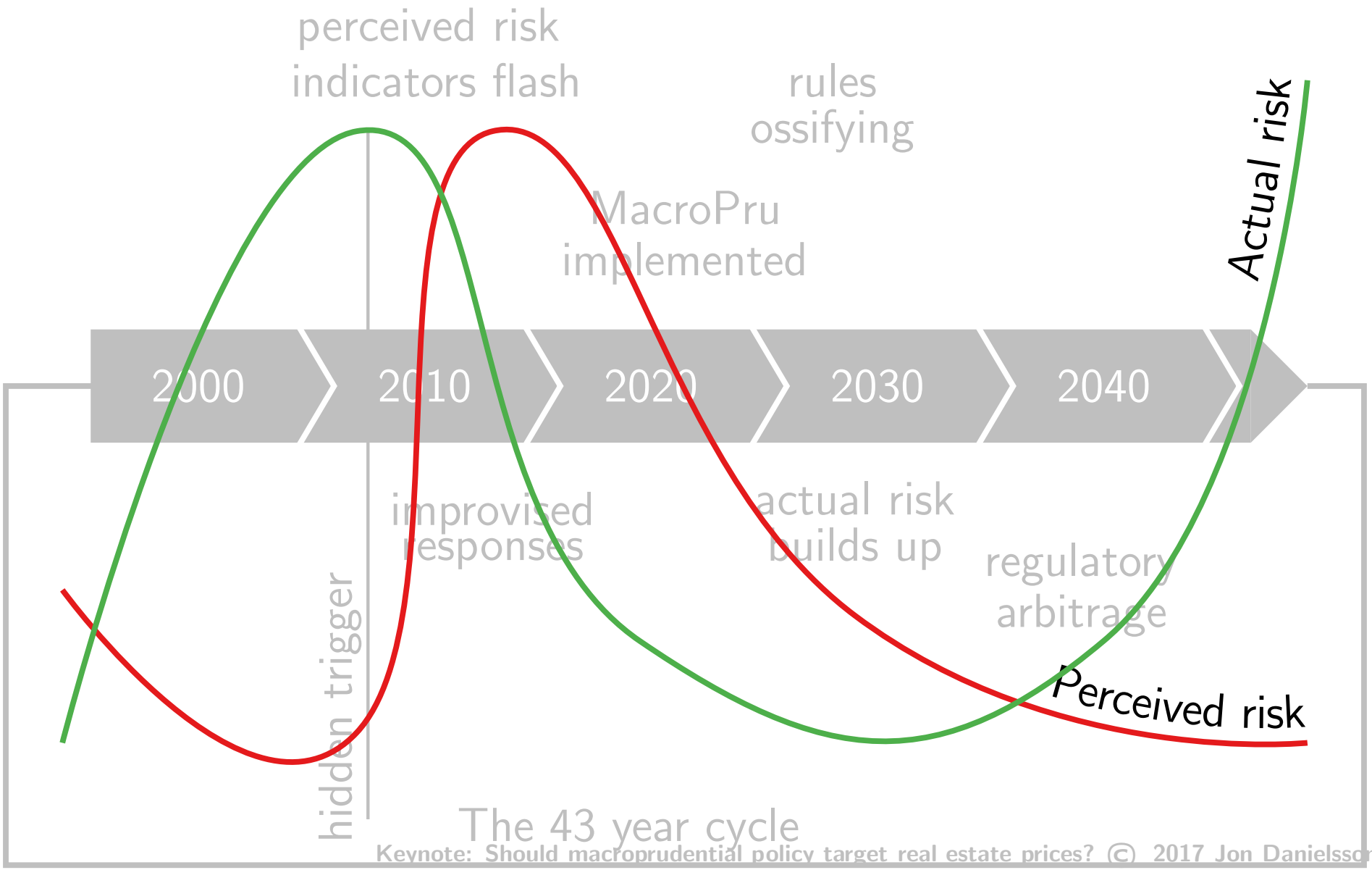


"Learning from History: Volatility and Financial Crises"

(2017)

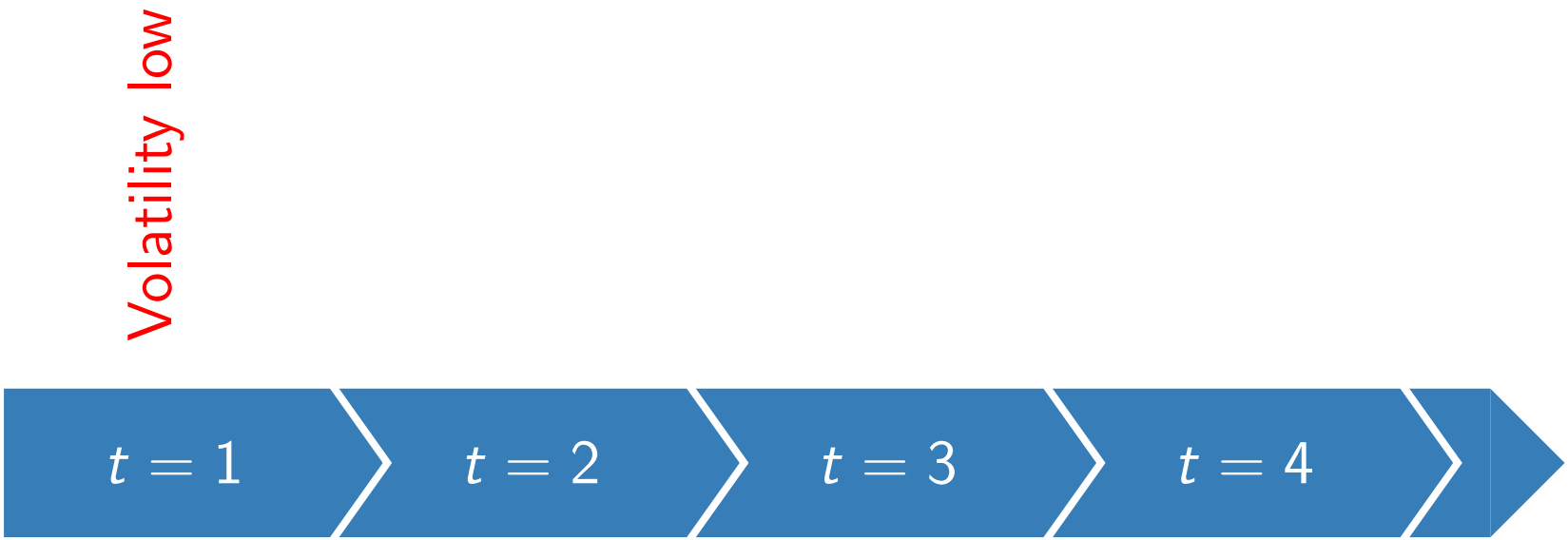
with Marcela Valenzuela (University of Chile)

Ilknur Zer (Federal Reserve)

Crises volatilities

"Volatility in markets is at low levels, both actual and expected, ... to the extent that low levels of volatility may induce risk-taking behavior ... is a concern to me and to the Committee."
Federal Reserve Chair Janet Yellen, 2014.

The volatility — crisis cycle



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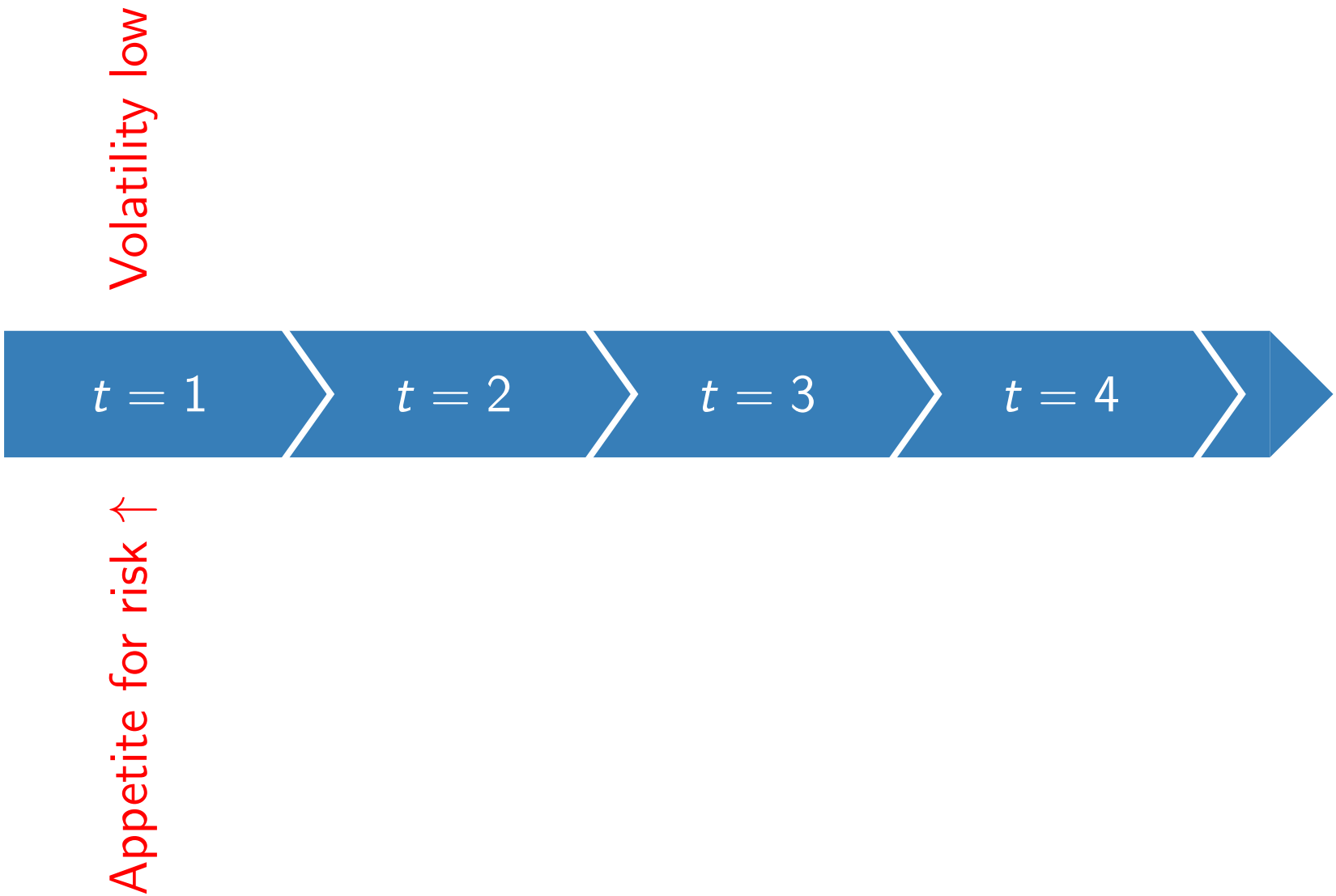

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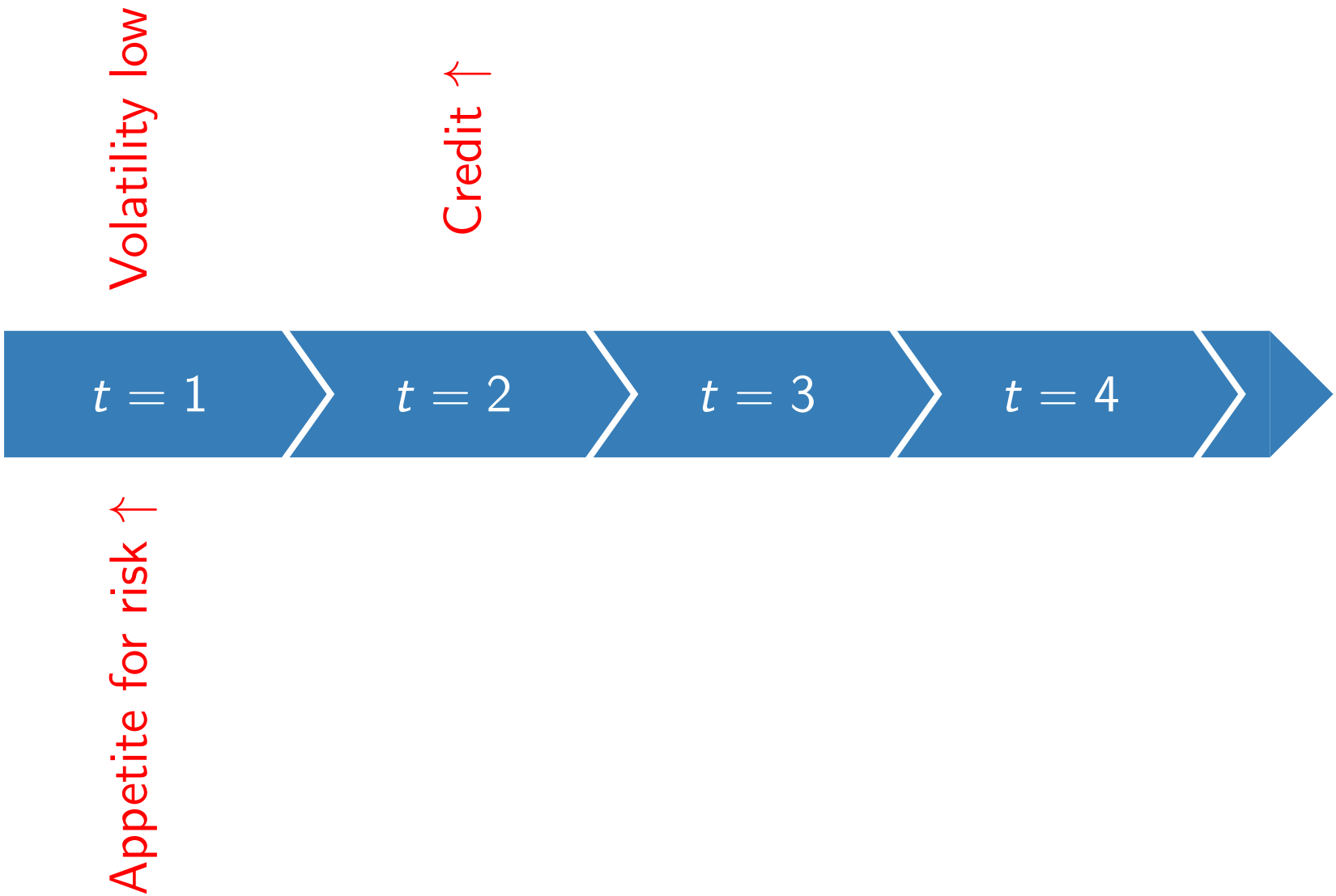

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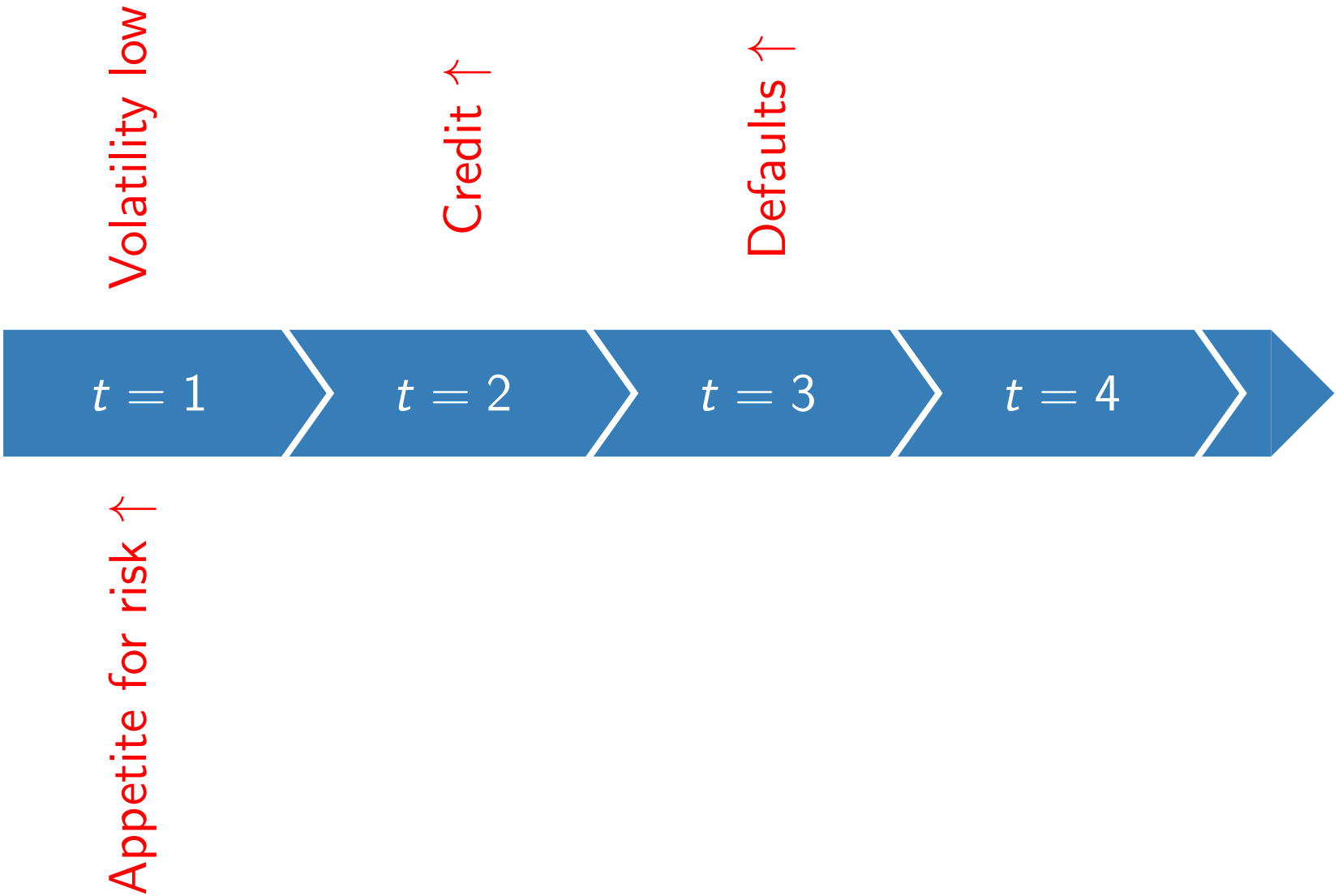

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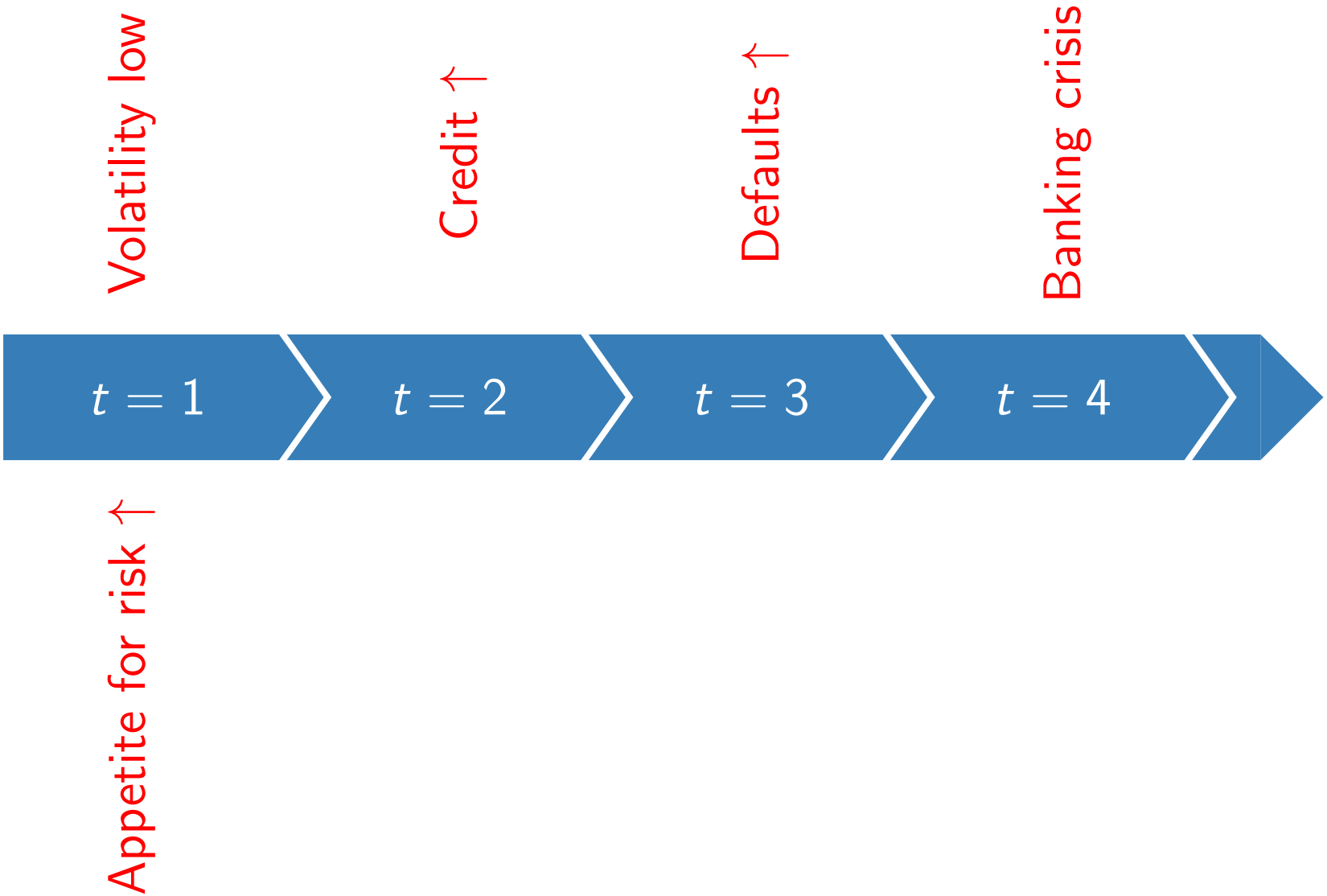

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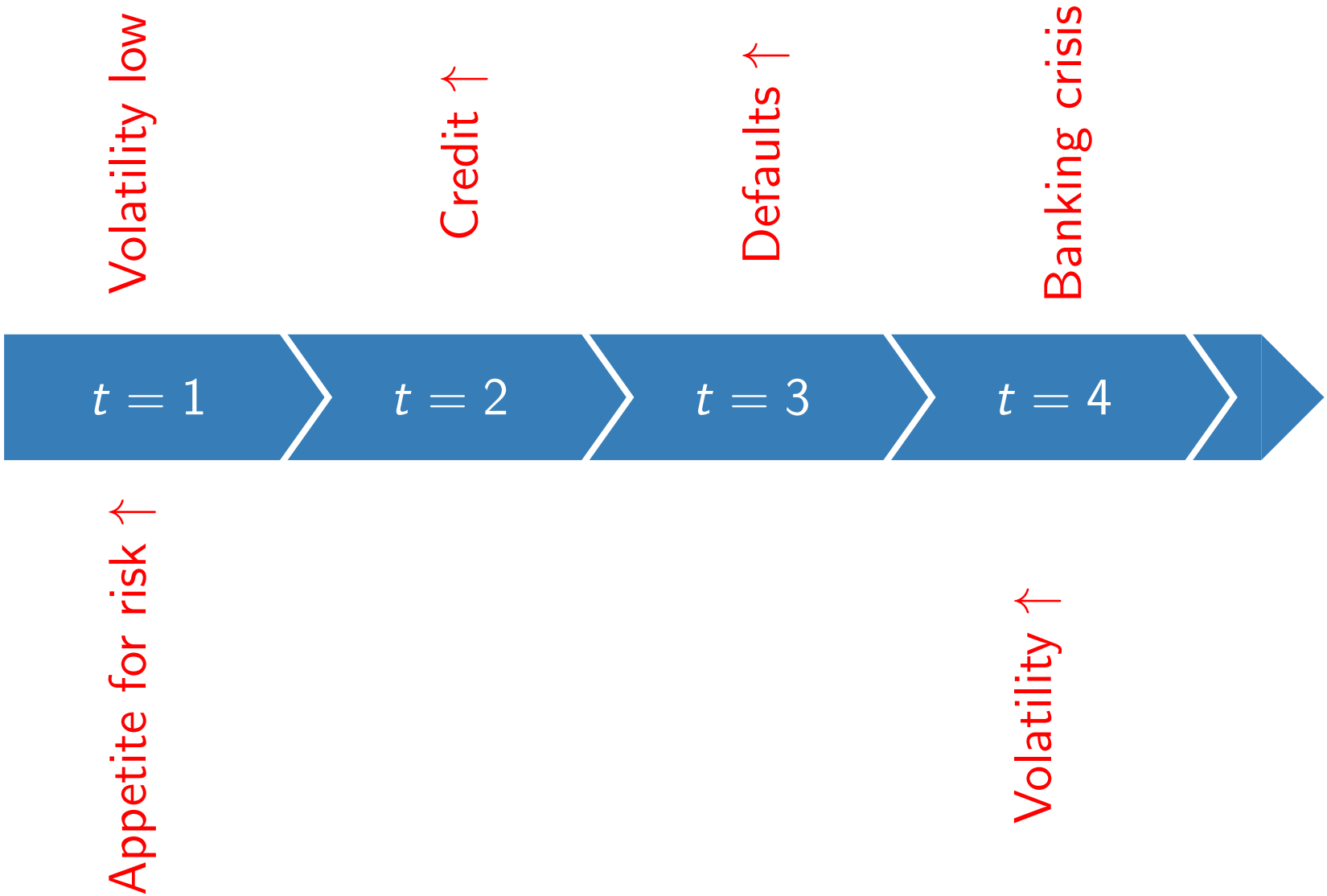


Empirical approach

- We construct a comprehensive database on historical volatilities from primary sources (1800 to 2010, 60 countries
- Realized volatility
- Decomposed with HP filter into low and high volatilities (deviations from trend)

- Strong and significant support for volatility cycle
- Low volatility increases the probability of banking crises 5 to 10 years in future
- Low volatility significantly increases risk-taking (credit-to-GDP)
- High volatility *correlated* with crisis but *not causal*

Central banks and monetary policy

- The powers given to central banks are *extraordinary* for a democratic society
- Who is more powerful, Janet Yellen or the chairman of the Joint Chiefs of Staff?
- Justified by the importance of politicians not manipulating monetary policy for short-term gains
- But it is relatively straightforward
  a. One measurement (inflation)
  b. Two tools (price and quantity of money)
- *Clear objective, target and tools*

By contrast

- Macropru is complex and ill-defined
- Indicators are imprecise and conflicting
- Surgical tools are ineffective
- Powerful tools too blunt
- Identifies clear winners and losers (lobbying and politics)

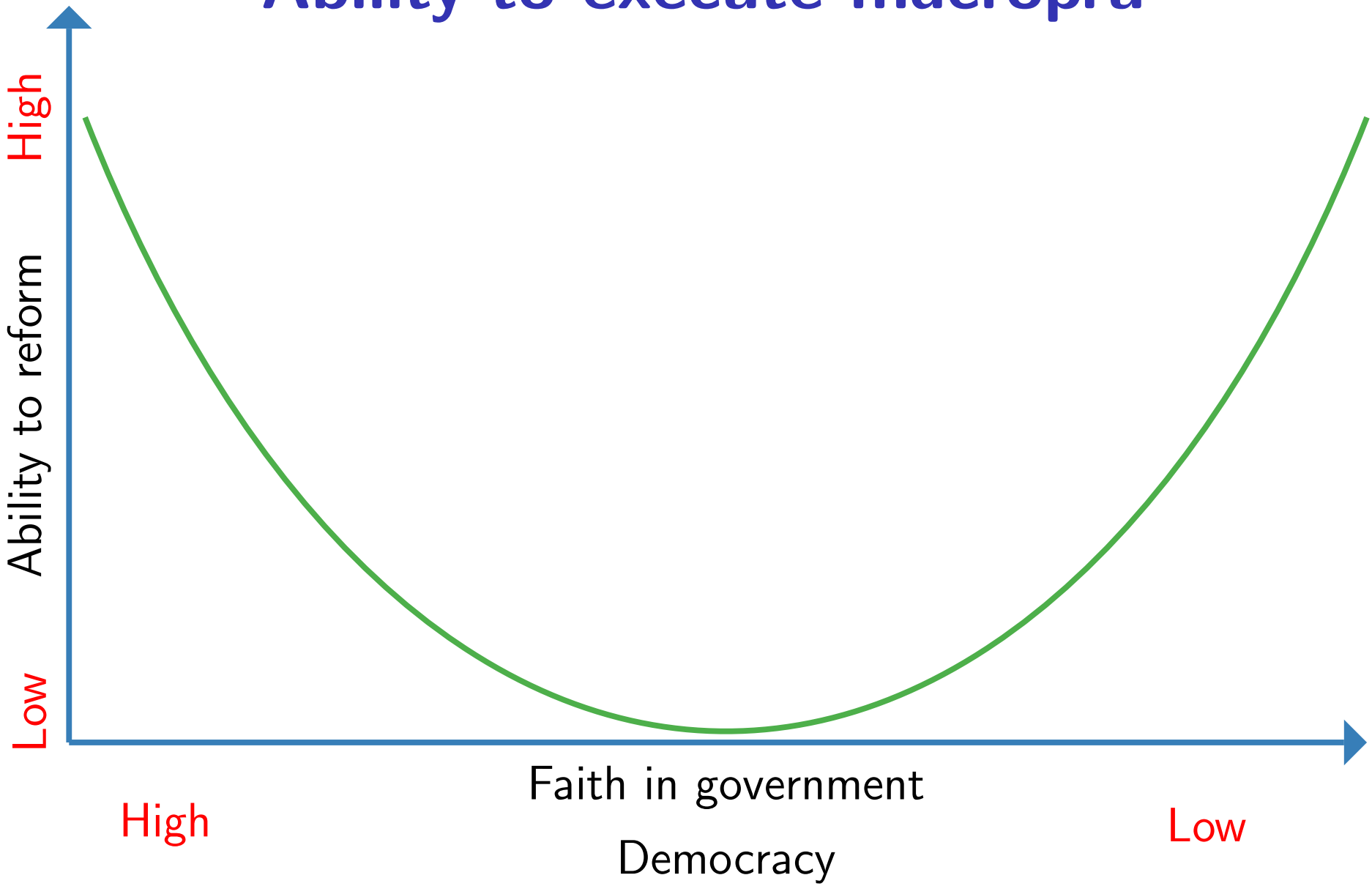
Major financial stress events

- Very few stress events arise purely from excessive risk (I can only think of one)
- Most are strongly influenced by politics
  a. Wars
  b. Venezuela
  c. Transition between political systems
  d. Populism and anti-globalism
  e. Government policies promoting home ownership
- The macropru event is only a consequence of something bigger

The dilemma of political risk

- Can a nonpolitical entity legitimately implement macroprudential policies that affect democratic outcomes?
- Recall Bank of England and Brexit
- Does the mandate given by the political leadership to the regulator extend to the behavior of the political leadership?
- If the macropru authorities are not able to incorporate political risk in their analytic frameworks, how effective can they be?
- And how legitimate?

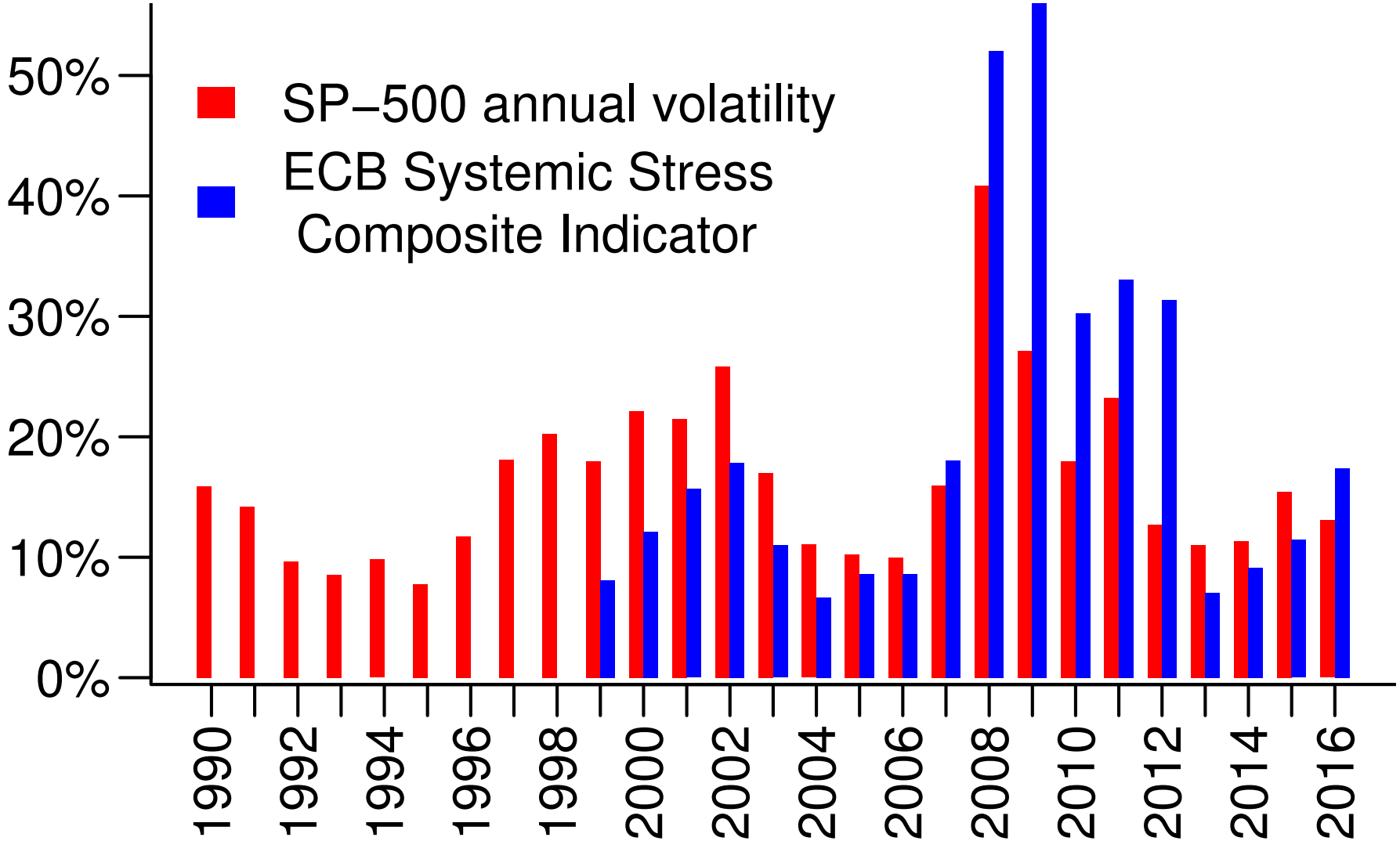
Ability to execute macropru



The potential for procyclical macropru

VoxEU.org (2016) Jon Danielsson, Robert Macrae, Dimitri Tsomocos, Jean-Pierre Zigrand

- Minsky — stability is destabilizing
- Homogenization of the financial system
- Measurement
  - Most current indicators of systemic risk only identify perceived risk
  - Reacting with lag to indicators measured with a lag
  - Out of cycle response


SP–500 annual volatility
ECB Systemic Stress Composite Indicator
50%
40%
30%
20%
10%
0%
1990
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016

- Transparency
  - When macropru policy is known to the market, banks will schedule risk-taking around indicators, stress tests and expected policy reaction
- Symmetry
  - The authorities should be willing to *reduce* aggregate risk-taking and leverage during booms and *increase* it in times of stress
  - Post 2008 response

Real estate

- Changes in real estate prices directly affect both individual and public welfare
- Very high degrees of leverage financing, both individual and institution
  - procyclical leverage cycles on the way up and down
- Price stickiness
- Supply — land and zoning laws
- Government policies promoting ownership
- Temporary economic boost from construction
- Large regional differences
- Bank capital charges that favor mortgages

MacroPru in Europe

- National domain
- Perhaps implemented by a central bank which does not benefit from the credibility of monetary policy
- High degree of democracy
- Varying degrees of faith in government

Passive or active

- Should tools kept at fixed levels or adjusted dynamically
  - e.g. LTV always at 80% or varying
- If dynamic, how about procyclicality
- How to determine the right price level
- What if China had decided it was in a bubble in 1995?

Costs

- Easy to focus on the potential for real estate for causing crises
- There are benefits from high prices
  - Savings and insurance (including pensions and care)
  - Creates capital for SMEs
  - Taxes
  - Growth

Target the main cause?

- Very low interest rates
- Savings an unattractive alternative
- Prices rise in areas with a strong economy because they attract people who can pay more

Conclusion

- Real estate bubbles lead to financial crises
- And hence are a macropru concern
- Do tools like LTV/DSTI/LTI target the underlying cause?
- Or should we look at the underlying?
- Can the tools be procyclical?
- Politics and legitimacy
- Benefits of high prices