

The Illusion of Control
Yale University Press

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The control problem

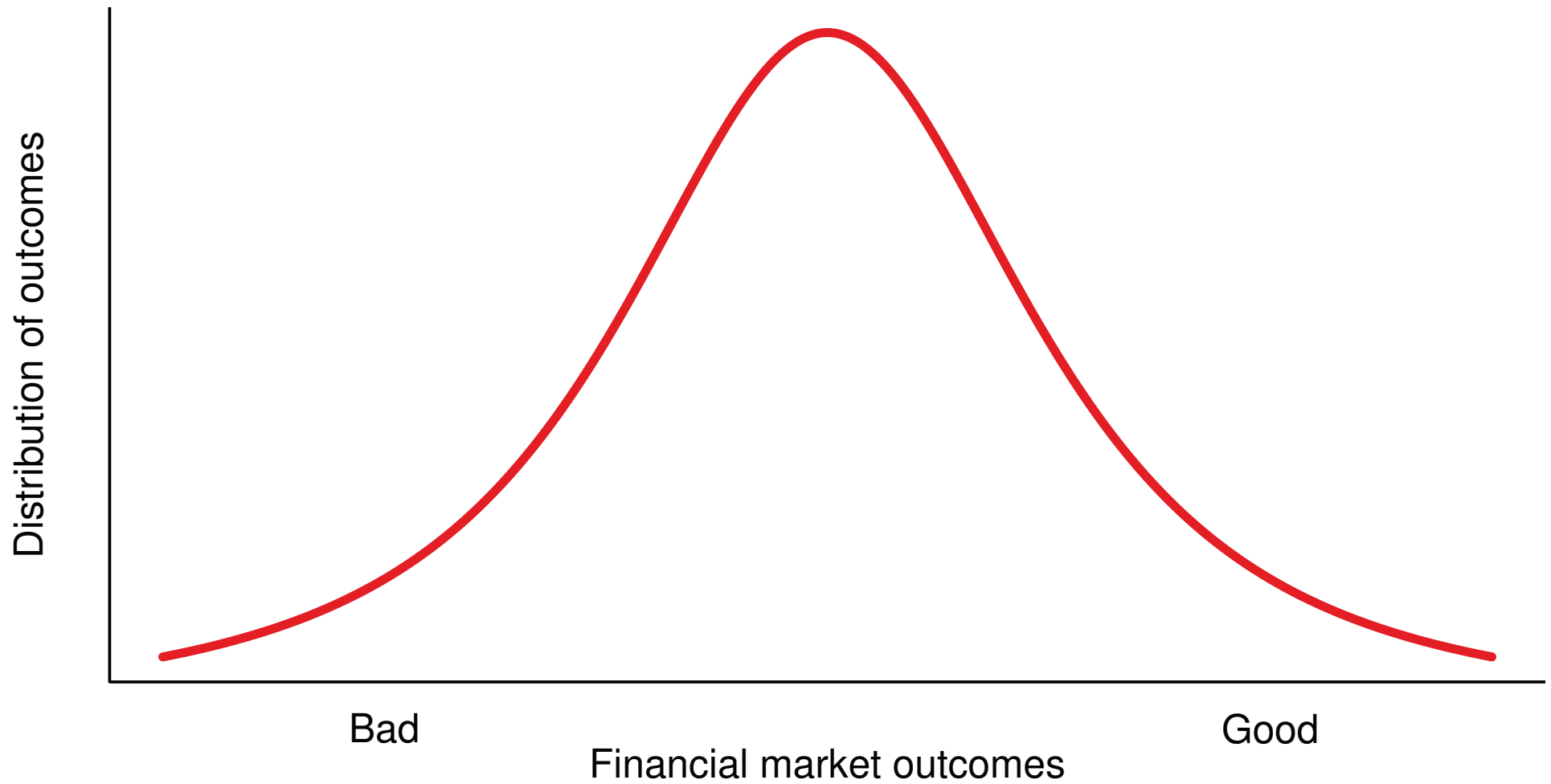
I will focus on the financial authorities' problem in this talk, not the private sectors' problem

- The objective of regulations should be to *maximize economic growth*
- Subject to
 - protecting the users of the system (*micropru*)
 - and not suffering too many costly financial crises (*macropru*)
 - and other social objectives like *equality, environment*
- Risk (in this talk refers to *systemic risk*) is key

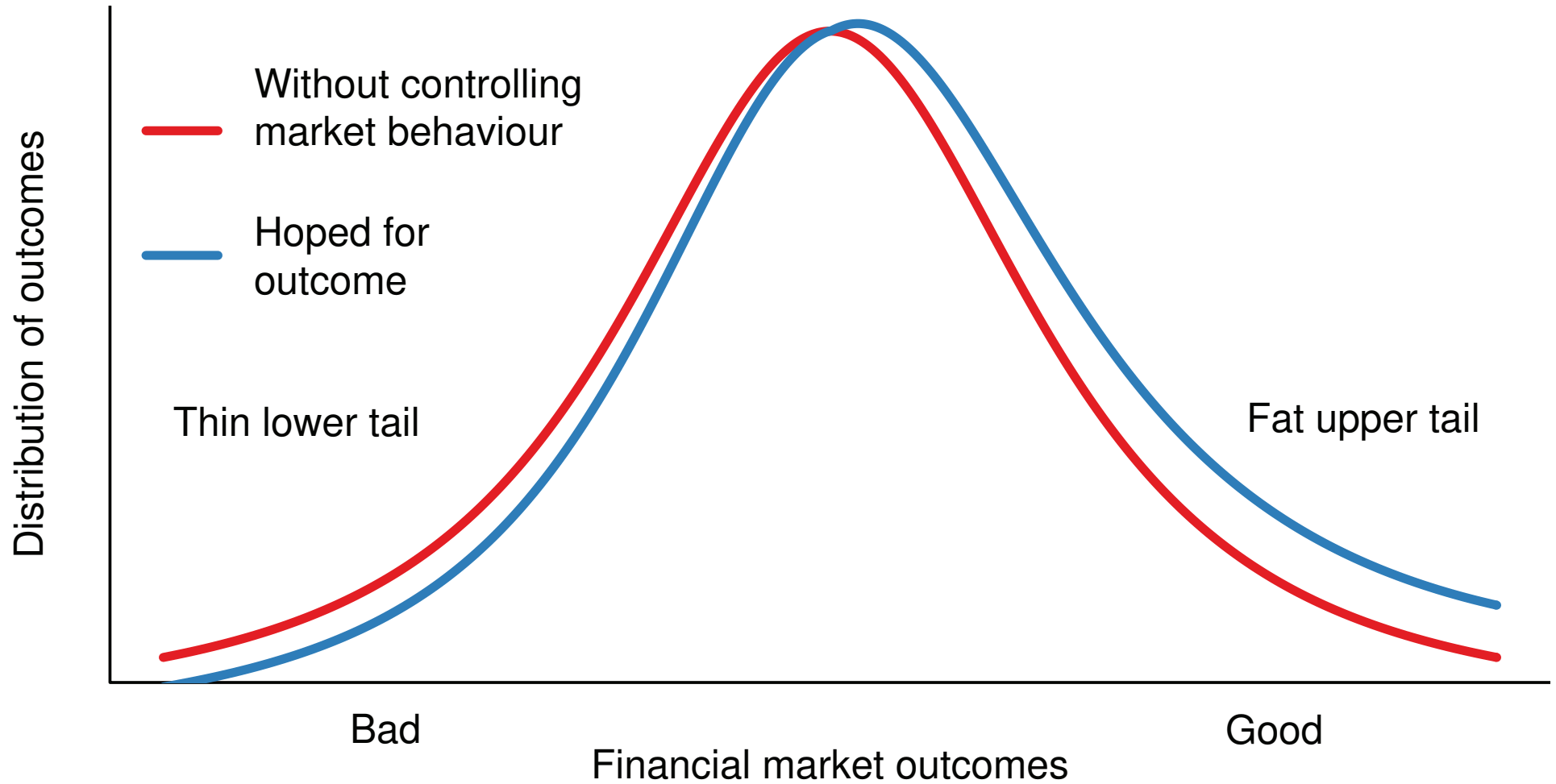
Risk appetite/perceptions of risk are important

- Difficult to empirically establish a relationship between risk and the macroeconomy
- *“The Impact of Risk Cycles on Business Cycles: A Historical View”*, with Valenzuela and Zer
- Perceived *high risk* today hurt economic growth this year and next
- Perceived *low risk* today boost economic growth this year and next year, with a reversal two years hence — overall impact is positive
- Except when credit growth is excessive
- Works via capital flows, investment
- Global risk appetite much much more important than local risk appetite
- The US is about 1/3 of the overall global impact

What we want from risk



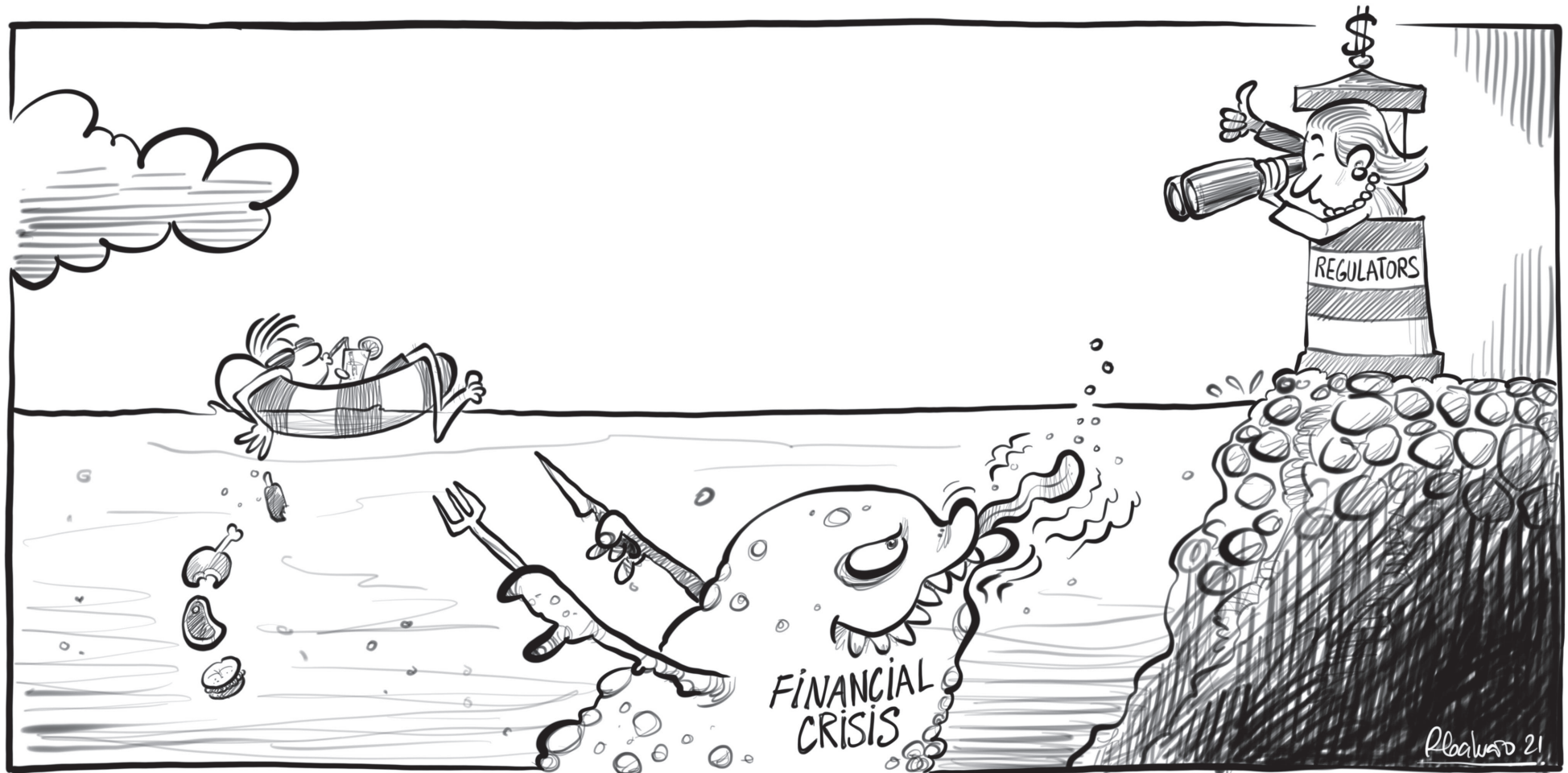
What we want from risk



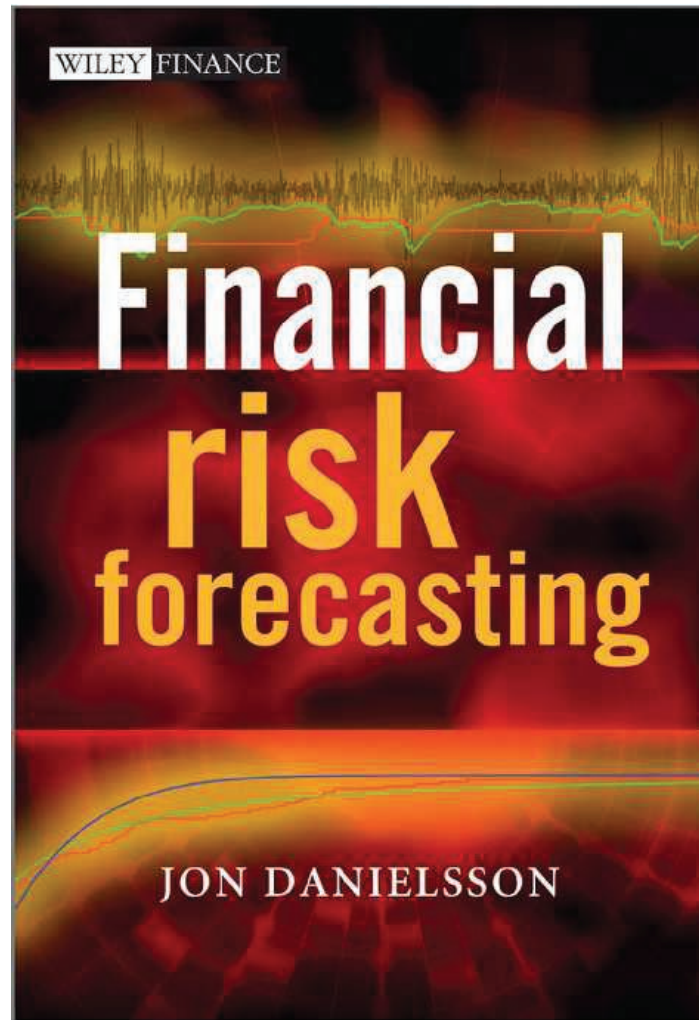
Is this the problem?



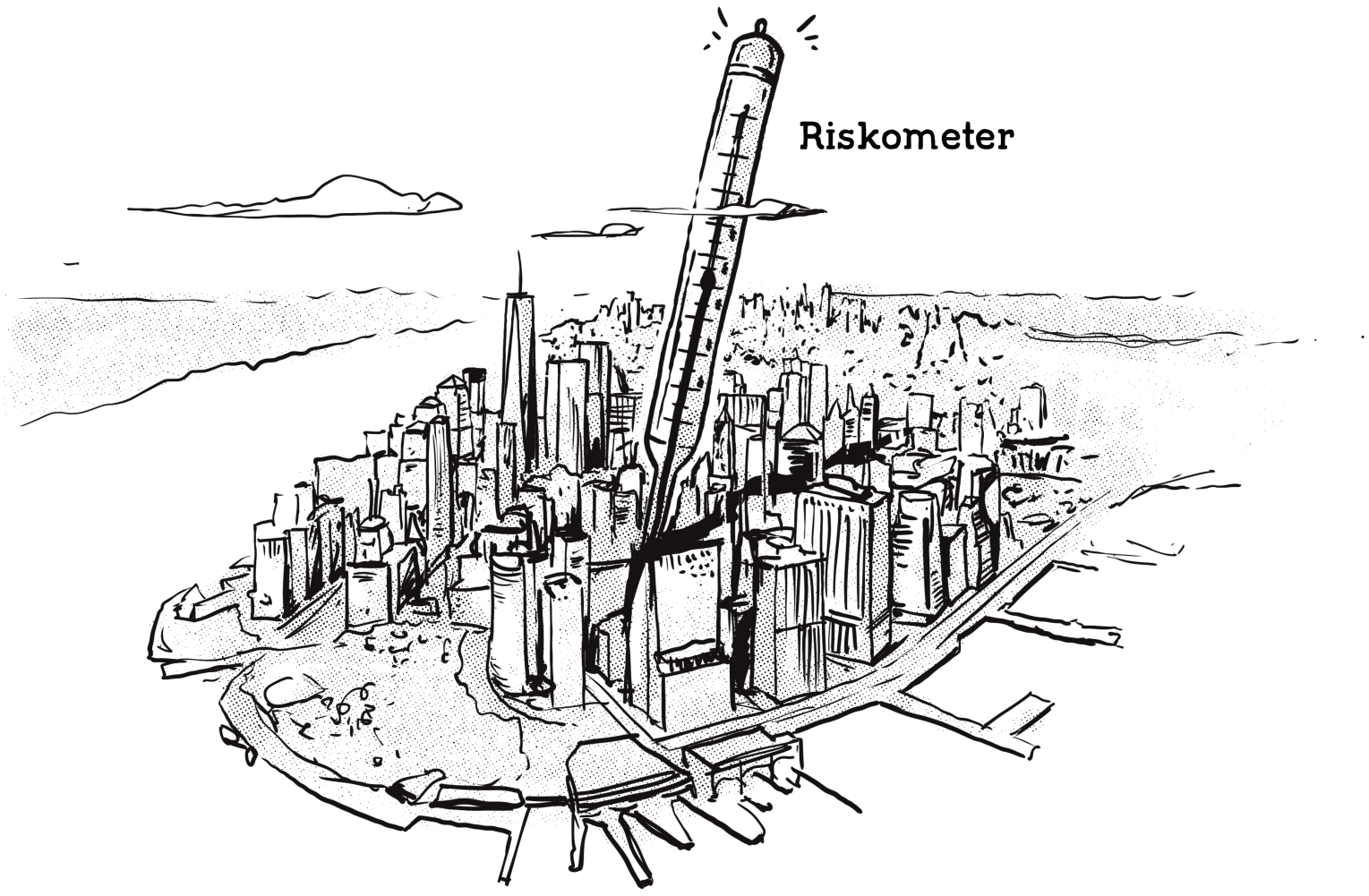
Or this?



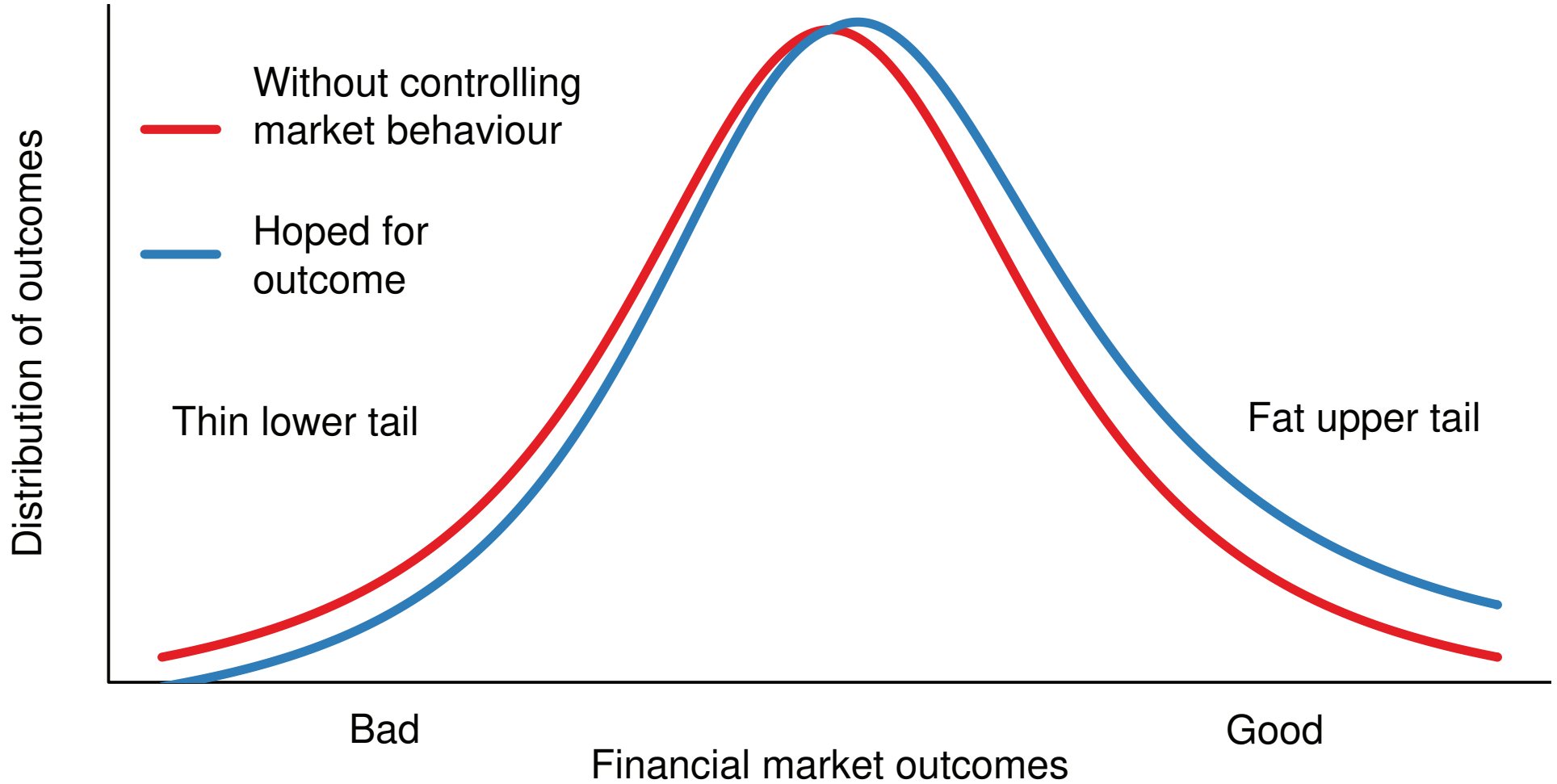
Can risk be measured?



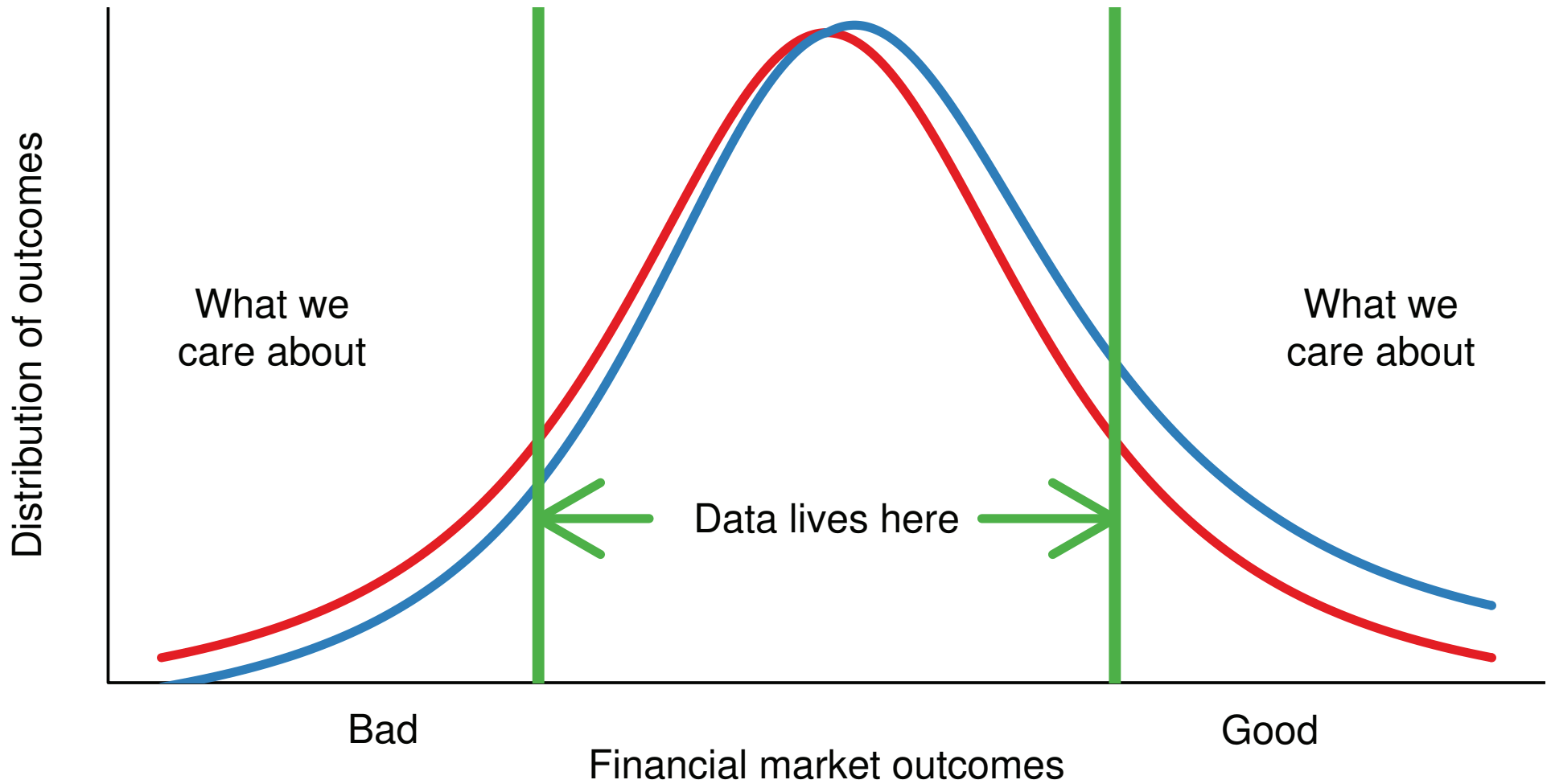
Does the riskometer exist?



What we want



And the problem



Accuracy of risk measures

- Risk is *latent* and can not be measured, only inferred
- We model the distribution of market outcomes with day-to-day data and *project* to the extremes — But have no idea how to do that correctly
- Measures of financial risk are almost never more accurate than to the first digit
 - On a scale from *1-10*, all we need is *2*, not *2.3* and certainly not *2.368452*
- In the words of Warren Buffett
“We don’t like things you have to carry out to three decimal places. If someone weighed somewhere between 300-350 pounds, I wouldn’t need precision — I would know they were fat.”
- And risk forecasts should always come with confidence bounds

All tail/systemic events are at the core political

- 2008, Italy, Brexit, Trump, Ukraine, Hong Kong, Venezuela, Chinese real estate, inflation, ...
- Because politics allows the risk to emerge and prevents timely solutions
- The inability to deal with environmental risk is entirely political
- As is the demographic challenge
- Addressing these tail risks requires the political leadership to act

The main driver of systemic risk is politics, not private sector excessive risk raking

The dilemma of political risk

VoxEU.org (2016) Jon Danielsson and Robert Macrae

- Can a nonpolitical entity legitimately implement macroprudential policies that affect democratic outcomes?
- Recall the Bank of England and Brexit and the increasing threats to the Banks' independence (it seems paralysed when it comes to inflation)
- Does the mandate given by the political leadership to the regulator extend to the behaviour of the political leadership?
- If the authorities cannot incorporate political risk in their analytic frameworks, how effective can they be?
- And how legitimate?

How riskometers see risk



What drives risk?

Time between decisions and tail losses/crises is many years

- 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)

Risk comes in many forms

- The US stock market goes down by \$200 billion in one day, and nobody cares
- Potential subprime losses of less than \$200 billion, and a global crisis happens
- The risk we know we prepare for — *known-unknowns*
- The *unknown-unknown risk* is the most damaging
- But the risk we measure is the known-unknown risk

Risk is endogenous

Danielsson–Shin (2002)

- Risk is *exogenous* or *endogenous*

exogenous risk Shocks to the financial system arrive from outside the system, like an asteroid hitting the earth 65 million years ago

endogenous risk Risk that is created by the interaction of the human beings that are the 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

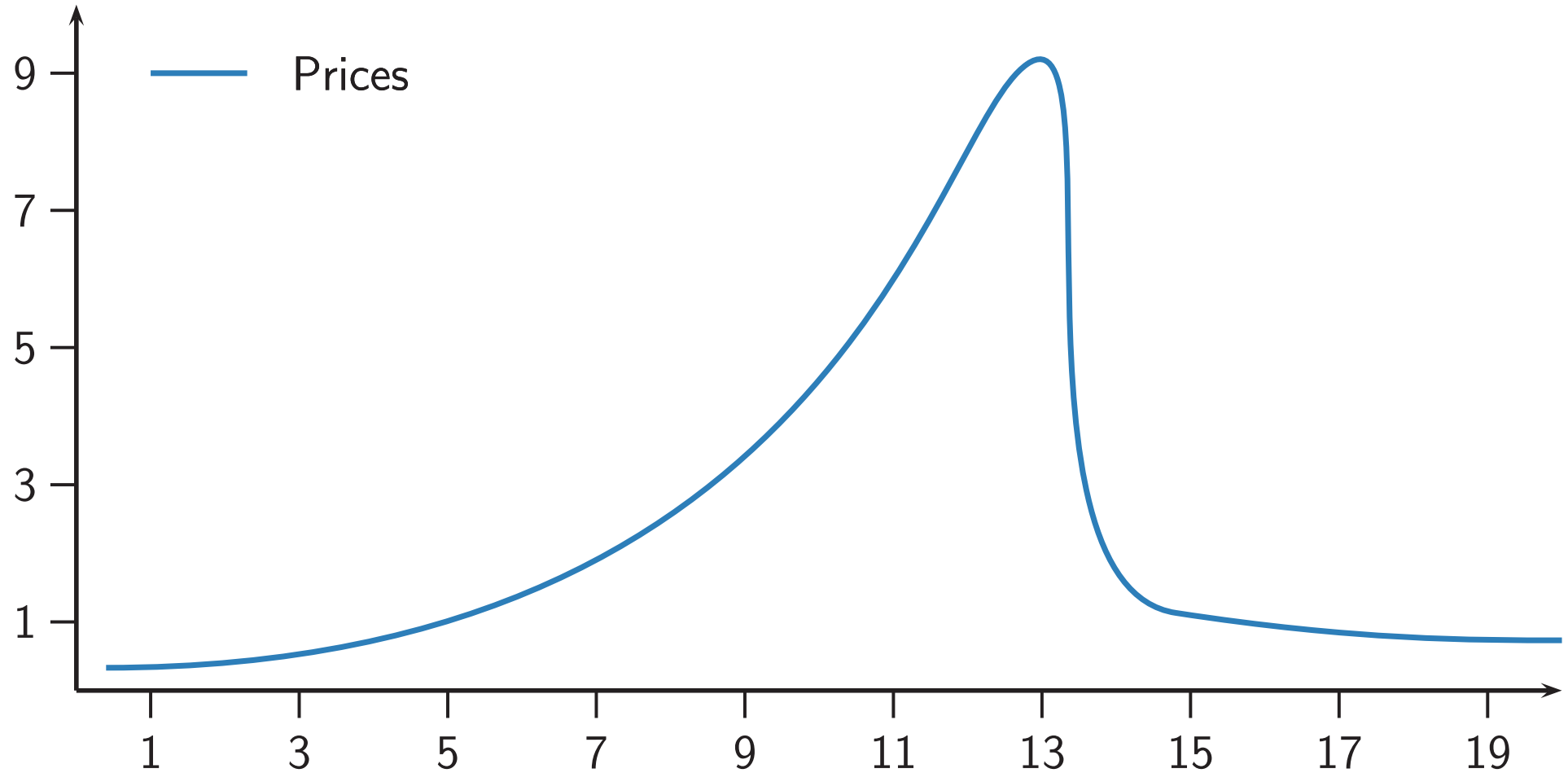
The role of rules

- Market participants are guided by a myriad of models and rules. Many dictate myopia
 - Capital, mark-to-market, margins, leverage constraints, etc.
- Prices don't follow random walks in adverse states of nature
- Because that is when the constraints bind
- So, these well meaning rules make us short-term in times of extreme turmoil
- The interaction of human beings creates endogenous risk
- All with their own objectives, abilities, resources, biases
- And the prudent self-preservation instinct is what drives crisis dynamics
- *All large market outcomes are endogenous*

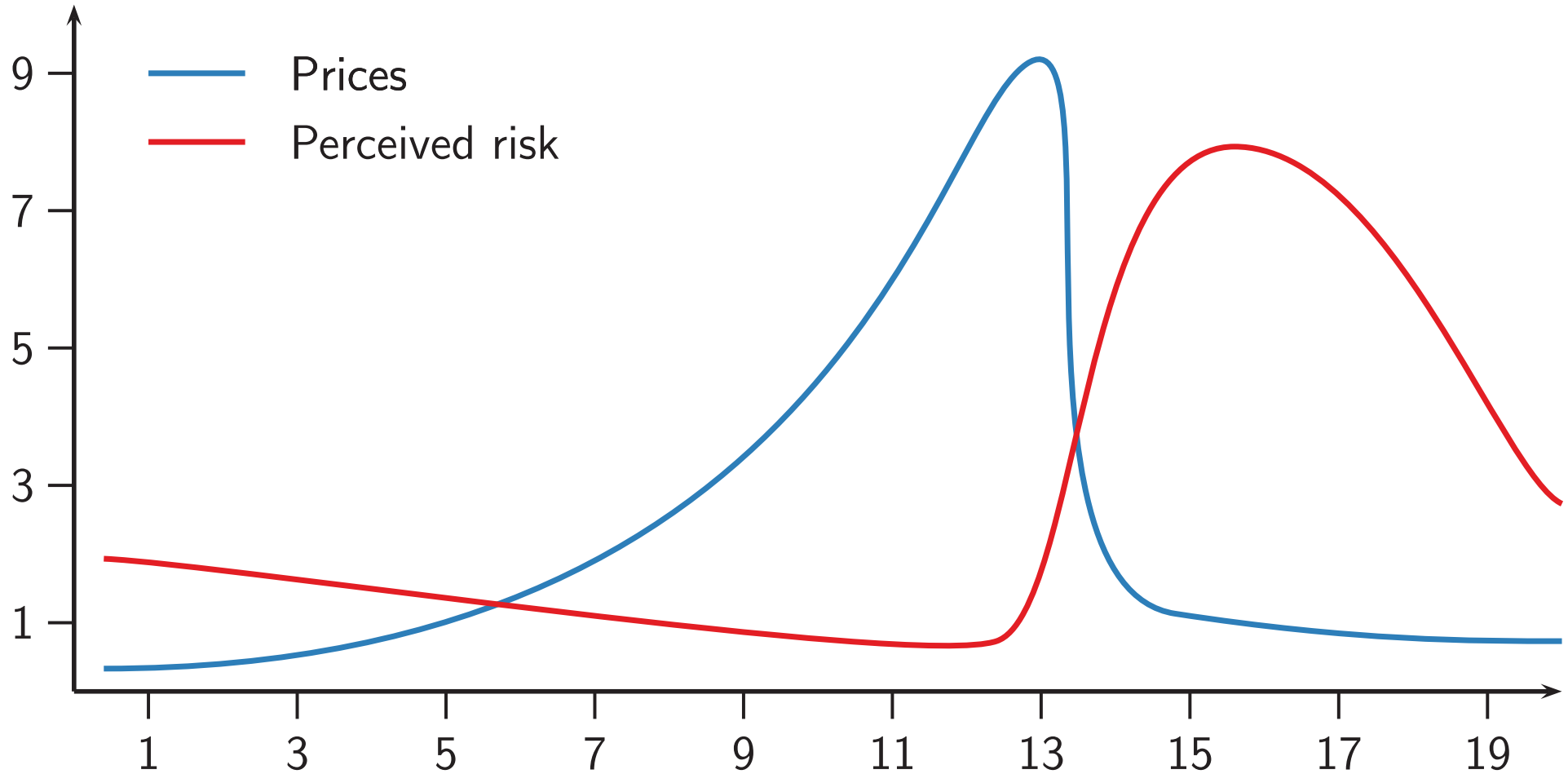
Empirical evidence

- Danielsson, Valenzuela, Zer (2018). “*Learning from history: Volatility and financial crises*”. *Review of Financial Studies*
- An observation of low risk *predicts crises* years into the future
- An observation of high risk is the contemporaneous consequence of stress, not the cause
- High risk measurements, VIX, CDS spreads, and the like are useless as indicators

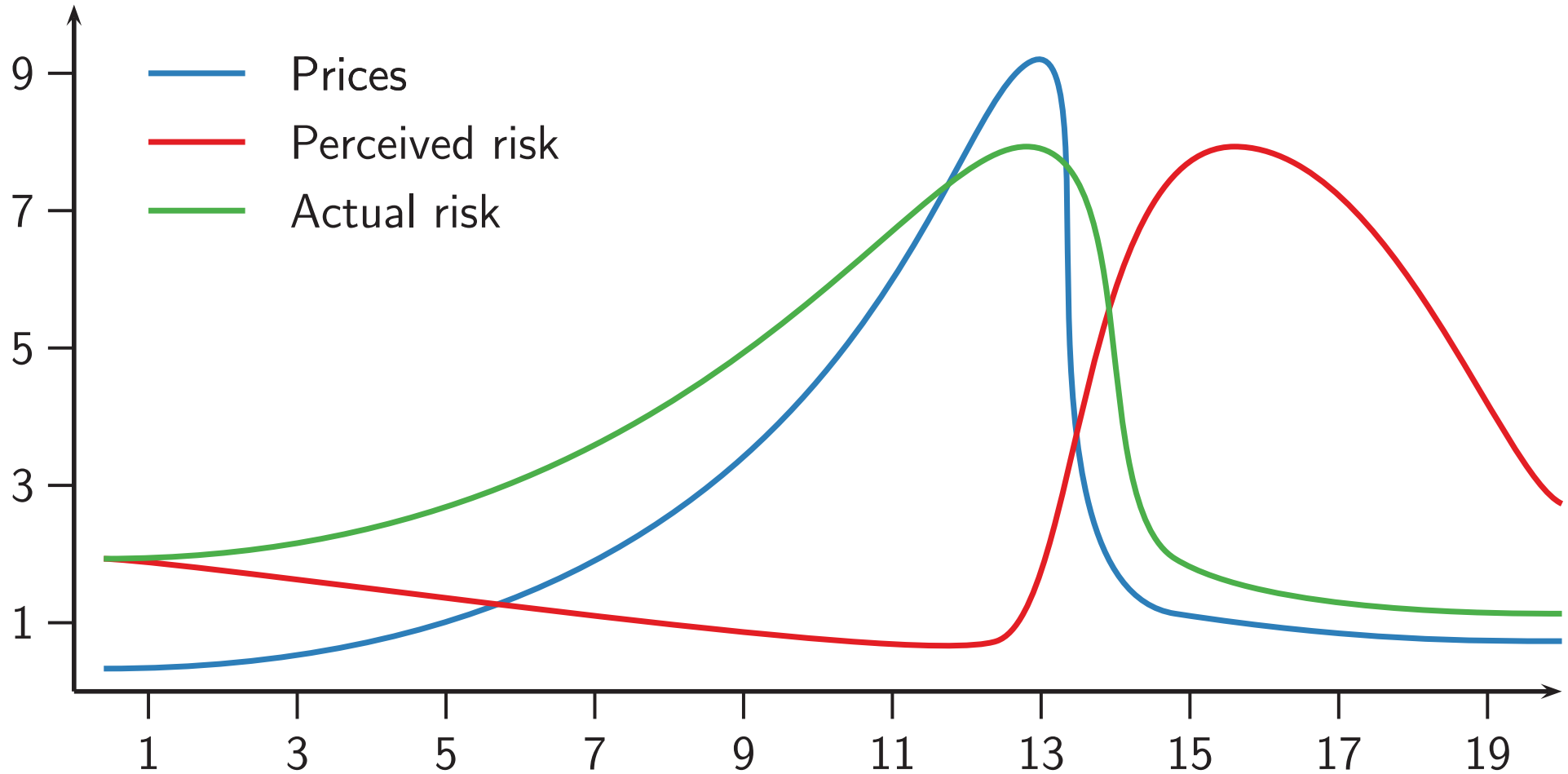
Endogenous bubble — Money for nothing



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The problem
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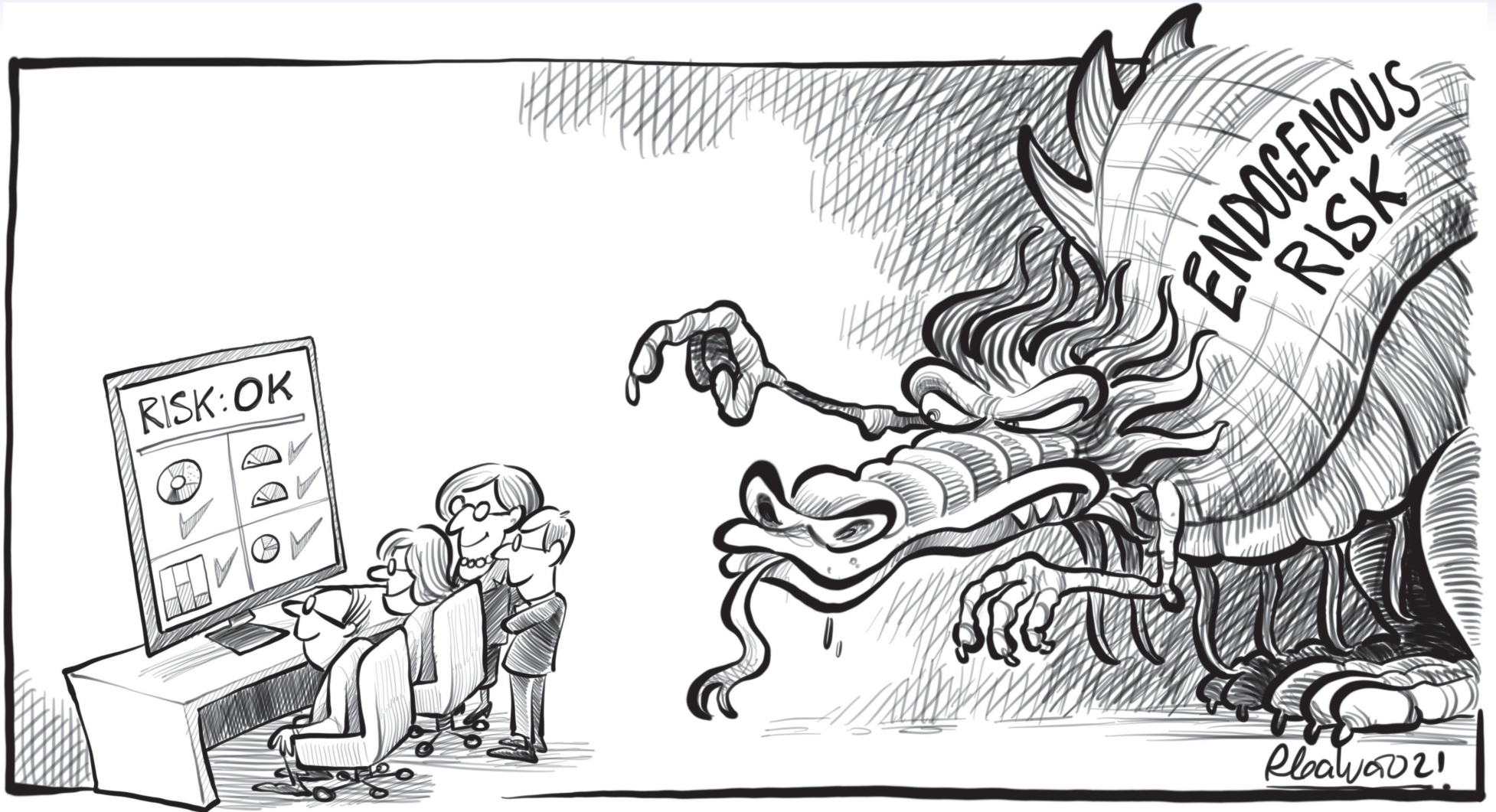
Measuring risk
○○○○○

The leading cause of systemic risk
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The nature of risk
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What to do — Diversity
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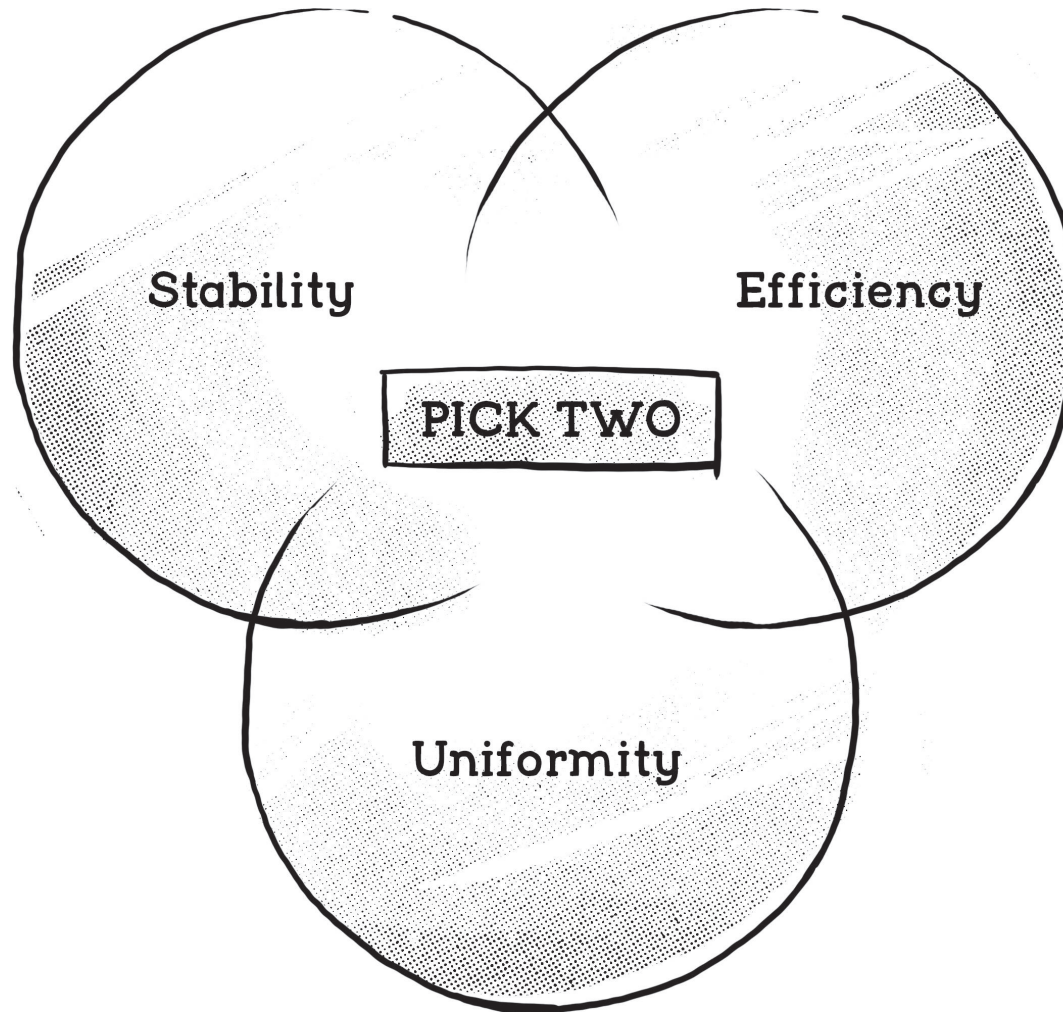
The illusion of Control
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The policy objective again

- The objective of financial regulations should be to maximise economic growth
- Subject to
 - protecting the users of the system (micropru)
 - and not have many costly financial crises (macropru)
 - and other social objectives like equality, environment
- It is not
 - de-risk, financial stability, compliance, reporting, ...
 - these are only instruments to meet the objective

The regulation trilemma



What goes against the objective?

- Anything that makes financial institutions more similar in outlook and action
- Regulations now, by and large, do that by harmonising beliefs and action
- Level playing fields increase the fixed cost of complying → increasing returns to scale
- The thrust of financial regulations since 2008 has been to control the measurable, not what matters
- After all, the financial system is effectively infinitely complex, so any control put on it only affects a small part of the action space
- And hence increase systemic risk

There will be another crisis, and it will happen where nobody is looking.

Better to give up uniformity

- The more heterogeneous financial institutions are:
 - a. the higher the shock absorption capacity of the system
 - b. the better financial services are tailored to the user
 - c. the lower the cost of regulating
- Ultimately, the way to address *The Illusion of Control* is diversity in the type of financial institutions we have

How can the authorities do this?

- Actively encourage financial institutions to be as different from each other as possible
- And regulate them differently
- Eliminate barriers to new entrants, especially for those with new business models
- Embrace FinTech and DeFi (via CBDCs)
- Shadow banking is not the enemy

And why don't we?

- Conservatism — prefer what we know instead of the new
- Risk aversion — collective failure covers individual failure
- Lobbying — the incumbents prefer the existing set up

Are we there?

“Over the past decade, G20 financial reforms have fixed the faultlines that caused the global financial crisis.”

Mark Carney
Chairman of the Financial Stability Board
Governor of the Bank of England
2018

Challenges

- What we want to control — risk — is not easily measurable
- Especially since what matters is endogenous risk, not the measured exogenous risk
- We only have a vague idea of the relationship between risk and the macroeconomy
- Very difficult to verify ex-post that bad outcomes are the result of too much risk rather than a bad draw from an acceptable distribution
- The main driver of financial instability — politics — is beyond the control of the authorities



The Illusion of Control

- The belief that the system we have set up
- Helps us to meet our objectives (growth with no/few costly crises)
- So there is no need to worry
- And we can go about our business feeling protected

