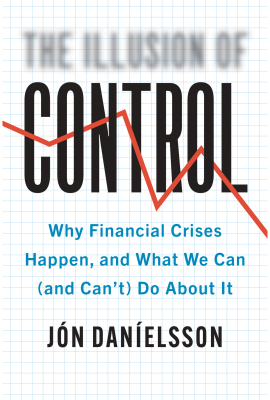
Central banks as risk managers:
Long term side effects, risks and limitations



illusionofcontrol.org

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modelsandrisk.org

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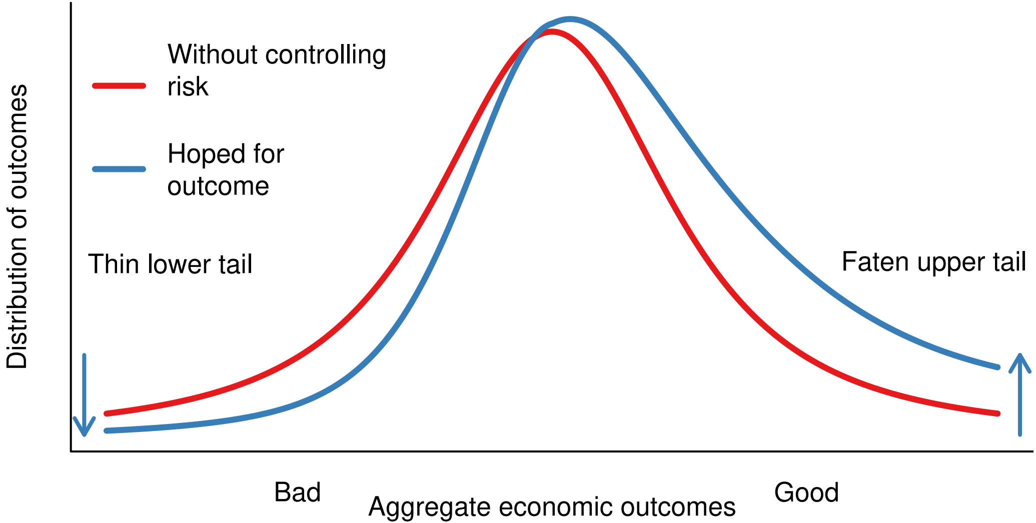
Monetary policy in uncertain times:
Towards robustness and resilience

What risk managers do

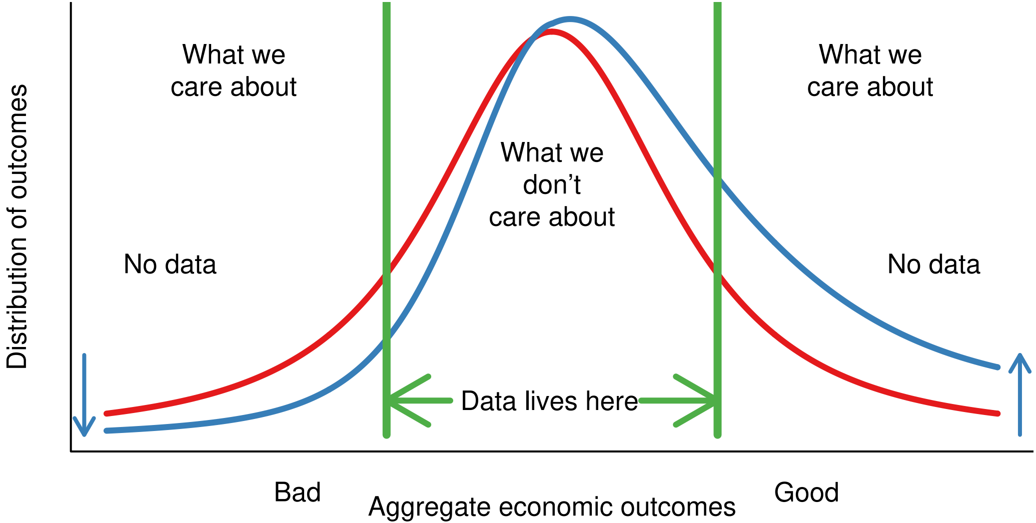
Safeguarding by identifying, measuring, and managing risks effectively to ensure stability, compliance and long term success

- Risk identification
- Risk assessment and measurement
- Risk monitoring and reporting
- Risk mitigation strategies
- Compliance and regulatory requirements
- Stress testing and scenario analysis
- Risk culture and education

What we want from central bank as risk manager



Day-to-day risk is (mostly) irrelevant



Risk is endogenous

Danielsson–Shin (2002)

- Risk is *exogenous* or *endogenous*

Exogenous Shocks to the financial system arrive from outside the system, like an asteroid
— day-to-day risk, what we usually measure

Endogenous Financial risk is created by the interaction of market participants
— large, rare events, very hard to measure

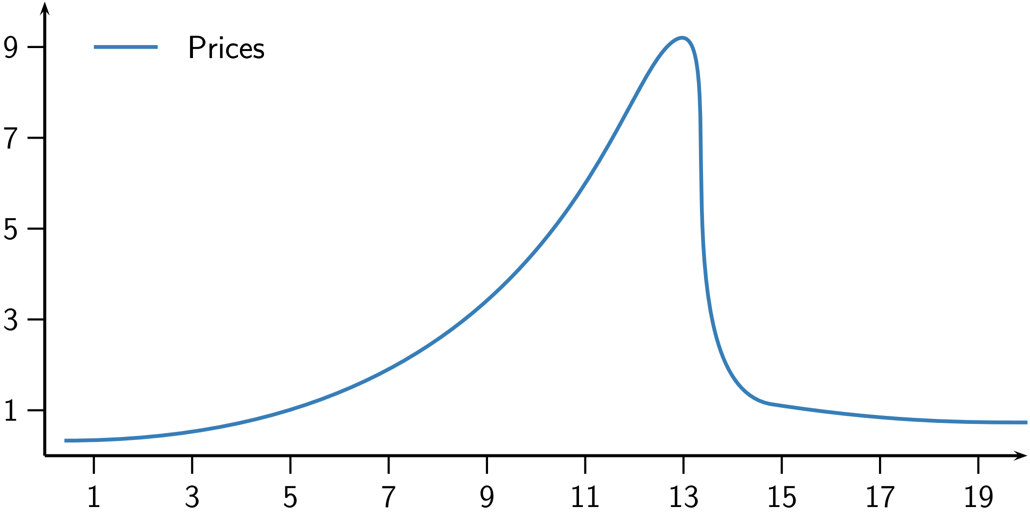
What drives endogenous risk?

Time between decisions and crises is many years

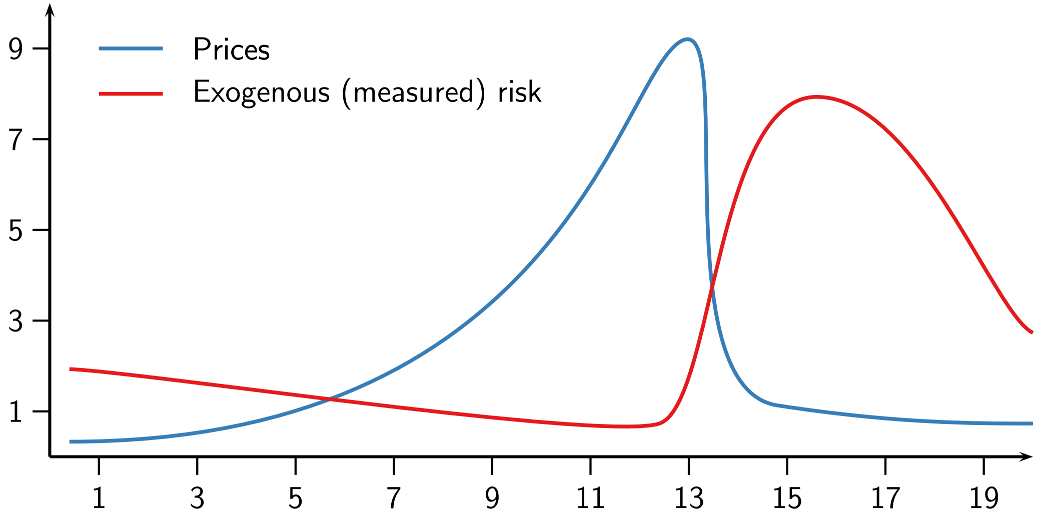
- 2008 happened because of decisions made years earlier
- In 2003 all the signs pointed to risk being low
- The authorities and the private sector thought we were safe
- And so it was perfectly OK to take extra risk
- But
- "*Stability is destabilizing*" (Minsky)

"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

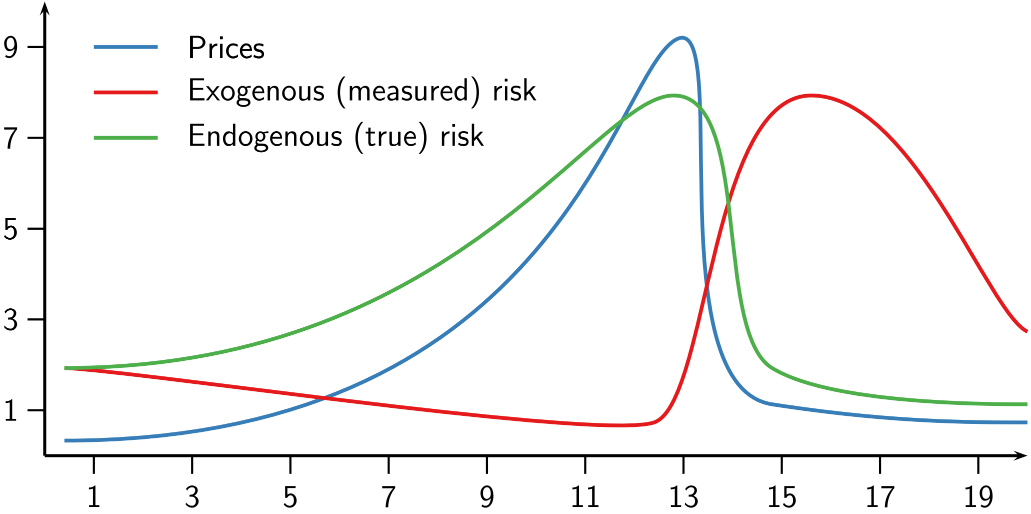
Endogenous bubble



Endogenous bubble — Money for nothing



Endogenous bubble — Money for nothing



Risk comes in many forms

- The US stock market goes down by $200 billion in one day, and almost nobody cares
- Potential subprime losses of less than $200 billion in 2008, and a global crisis ensues
- 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
- Is that all the central bank risk manager will measure?

The driver of extreme risk is politics

- 2008, Italy, Brexit, Trump, Ukraine, Taiwan, Venezuela, 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
- Politics works against those who want to prevent a crisis
- The boom delivers short term tangible benefits

The dilemma of political risk

Jon Danielsson and Robert Macrae (2016)

- 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 CB can not able to incorporate political risk in its analytic framework, how effective can it be?
- And how legitimate?

Silicon Valley Bank and Credit Suisse should have not have failed

"Over the past decade, G20 financial reforms have fixed the fault lines that caused the global financial crisis"

Mark Carney (2017)

Governor of the Bank of England
Head of the Financial Stability Board

The philosophy of modern regulations

Danielsson–Goodhart (2023)

- All important risk is identified and measured
- And used by the banks and the financial authorities to determine the appropriate level of risk
  - Need more growth/prevent recession, reduce capital requirements
  - Demand more capital if risk is too high
- Like the thermostat in the risk managers office keeps the temperature at steady 21°
- Accurate measurements of risk are essential

The fallacy of composition in financial regulations

Definition— fallacy of composition is inferring that something must be true if all or even some parts of it are true— Hydrogen (H) is not wet. Oxygen (O) is not wet. Therefore, water (H_2O) is not wet.

- If all the banks are prudent, keeping all their individual micro risks under control, the entire financial system is safe

The trilemma of financial policy

Danielsson–Goodhart (2023)

Trilemma — noun— “A situation in which a difficult choice has to be made between three alternatives”. See cakeism and Boris Johnson

1. The economy should grow, or at least recessions must be avoided
2. Inflation needs to be close to its 2% target
3. Financial stability is to be high

“No trade off between price stability and financial stability“
Christine Lagarde 16 March 2023

The years after 2008

- All three objectives — growth, inflation, financial stability — appeared to be in sync
- Easy money helped growth, inflation was close to target and financial stability high

The hope

- Lax monetary policy, designed to help the economy grow, made the financial system dependent on low interest rates
- A bet on low inflation and low interest rates lasting forever, because else those firms and countries dependent on low rates were in for a shock
- The longer monetary policy stayed lax, the more systemic financial risk increased
- Not supposed to be a problem because regulations would contain that systemic risk

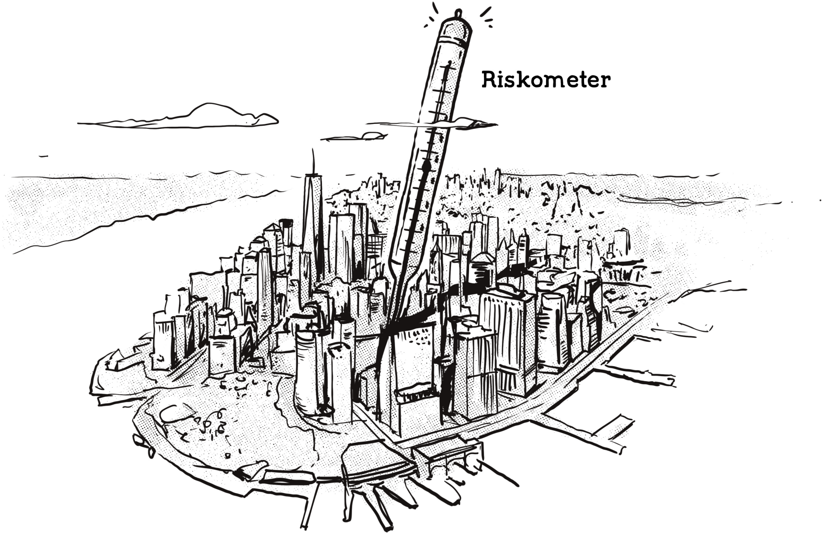
Challenges

- A policy of growth/no recessions (cheap money and loans) is inflationary and erodes financial stability
- Reducing inflation to target is hence recessionary and increases systemic risk
- High financial stability needs a lot of capital, in turn reducing SME lending, hurting growth
- Foreseeable and avoidable — benefit of housing the regulators and monetary policy makers in the same institution

The illusion of control — Part I — Complexity

- The financial system is infinitely complex
- Even if the authorities can find a lot of risk to control, there is infinite scope for risk to emerge elsewhere
- You can only patrol small part of an infinitely complex system
- Trying to identify and manage all of that risk would make financial regulations so onerous that the banks would cease functioning
- Why we only spot the Silicone Valley Bank after the fact

The illusion of control — Part II — Need a riskometer



Robustness with buffers or resilience with shock absorption?

- We now aim for buffers calculated by risk measurements
- That is very costly
- No buffer can protect against large shocks
- And increases systemic risk since it drives towards harmonisation of beliefs and action
- Instead, work with the inherent shock absorption capacity of the system

Diversification not uniformity

The more diversified our portfolio of financial institutions is:

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

Win-win-win. More growth, better deal for savers/investors and more stability

How can the authorities do this?

- Tailor regulations to the types of financial institutions instead of one-size-fits-all (with very high fixed cost and hence increasing returns to scale)
- Eliminate barriers to new entrants, especially for those with new business models
- Embrace FinTech and DeFi (perhaps via CBDCs)
- Accept shadow banking is usually a friend not enemy

And why does it not happen?

- Conservatism — prefer what we know instead of the new
- Risk aversion — regulators are not rewarded for success but blamed for failure
- Local maximisation — collective failure covers individual failure
- Lobbying — the incumbents prefer what we have

- Often stated like "Will somebody please think of the children" — because since anything new can harm, it needs to be banned

“Central banks as risk managers”

“Long term side effects, risks and limitations”

- We will demand more of the central banker when a risk manager than the private sector risk manager
- For them to be effective they need to aggregate all private risk into a measurement they have the tools to control
- They also will become much more involved in political decisions
- If one can not make that case, it is not a good idea to make “Central banks risk managers”
- Moral hazard

Friedrich August von Hayek (1945)

"Use of knowledge in society", American Economic Review

Writing about central planning but could just as easily have been discussing the central banker as a risk manager.

"*If* we possess all the relevant information, *if* we can start out from a given system of preferences, and *if* we command complete knowledge of available means, the problem which remains is purely one of logic... This, however, is emphatically *not* the economic problem which society faces."