#### The Illusion of Control

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 ${\tt models and risk.org}$ 

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### 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

# CONTROL

Why Financial Crises
Happen, and What We Can
(and Can't) Do About It

JÓN DANÍELSSON

#### The philosophy of modern regulations

- All important risk is identified and measured
- To be used by 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
- $\bullet$  Like the thermostat in the risk managers office keeps the temperature at steady  $21^\circ$
- Accurate measurements of risk play a key role in that because the amount of capital is a direct function of the riskiness of a bank

#### The objectives and trilemma of financial policy

Trilemma — noun— "a situation in which a difficult choice has to be made between three alternatives". See cakeism

- 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 appeared high
- That was an illusion

#### The illusion

- Lax monetary policy, designed to help the economy grow, made the financial system dependent on low interest rates
- A necessary condition for that monetary policy to be sensible is that inflation would never rise
- A bet on low inflation and low interest rates lasting forever
- The longer monetary policy stayed lax, the more systemic financial risk increased
- That was not supposed to be a problem because regulations would contain that systemic risk

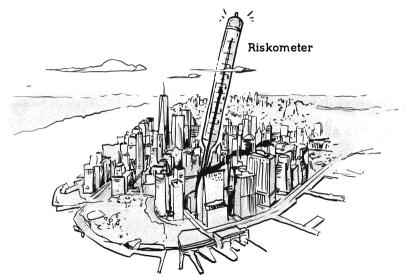
#### Why the financial policy cakeism doesn't work

- A policy of growth/no recessions is inflationary and erodes financial stability
- Inflation at target is recessionary and increases systemic risk
- High financial stability needs a lot of capital, hurting growth
- Foreseeable and avoidable benefit of housing regulators and monetary policy 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 an 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

#### The illusion of control — Part II We need a riskometer



#### Why the riskometer is a myth

- It is not possible to measure most financial risk
- It can only be inferred by the imprint it leaves in the world such as price fluctuations
- That requires a model, there are infinite candidate models, and hence infinite risk measurements, where it is impossible to find the best, ex-ante
- Furthermore, what risk is important is very dependent on particular circumstances, a one size fits all riskometer is not fit for purpose

Day-to-day risk — the type of risk that is relatively easy to measure — is not important to the vast majority of human beings

What matters is extreme risk

#### 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

#### What drives risk?

#### Time between decisions and big losses is many years

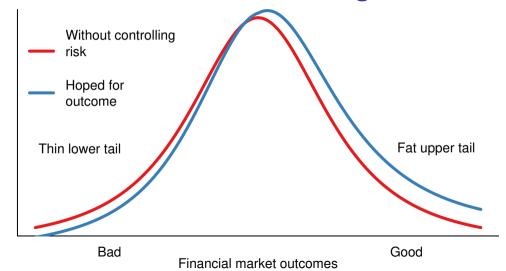
- 2008 happened because of decisions made years earlier
- In 2003, all the signs pointed to risk being low
- The riskometers flashed green (super low volatility, CDS, expected shortfall)
- The authorities and the private sector thought we were safe
- Telling us it was perfectly OK to take extra risk
- But
- "Stability is destabilizing" (Minsky)
- "When the music is playing you have to get up and dance"

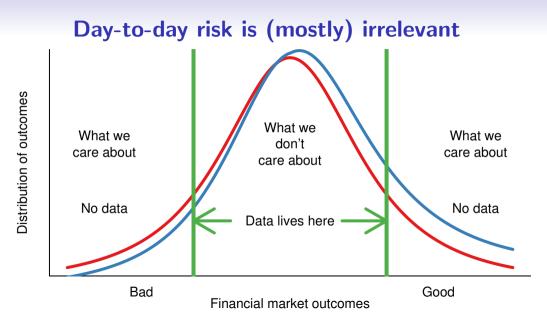
#### Risk comes in many forms

- 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

### Let's measure risk and do some risk management

#### What we want from risk management





#### What should we do?

- The most likely response today is tightening up of current regulations, which will be recessionary and increase systemic risk
- We could leave finance to the market, but that will hit political reality when the next crisis happens
- Or have 100% research for deposits and maturity mats assets to liabilities very expensive and recessionary
- Turn to technology, CBDCs, DeFi, Web3 promising but will take decades

#### **Buffers or shock absorption**

- Current regulations aim for buffers calculated by risk measurements
- That is very costly and no buffer can protect against large shocks
- Instead, work with the inherent shock absorption capacity of the system

#### Aim instead for diversity not uniformity

The more diverse our 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

Win-win-win. More growth, better deal for clients and more stability

#### How can the authorities do this?

- Tailor regulations to the types of financial institutions instead of one-size-fits-all
- 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

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