

Systemic Risk

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Background

- Most of the slides come from the book “Global Financial Systems”, and all the slides and the 3 latest chapters can be downloaded from www.globalfinancialsystems.org
- Many of the policy issues come from blogs, see www.voxeu.org/person/jon-danielsson
- The video is here www.systemicrisk.ac.uk/news/new-src-video-channel

About the Systemic Risk Centre at LSE

- I am one of two directors of the Centre
- £4 million from the ESRC, £1 million from LSE
- Five years, now half way through
- Formal connections to major government institutions like Bank of England, ECB
- Sit between the private sector and the public sector

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What is systemic risk?

IMF, BIS and FSB (2009)

“the disruption to the flow of financial services that is (i) caused by an impairment of all or parts of the financial system; and (ii) has the potential to have serious negative consequences for the real economy.”

My definition: Video

The video is here

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Differing views on systemic risk

- Some look at extreme events, those that never happen
- Others call bad crises systemic events
- Policy response depends on one's notion of systemic risk

Worries about systemic risk

- Depends on size of financial system
 - It is a developed countries' problem
- And how well a country is insulated from the world
- And how heterogeneous the financial system is

Why the US has less systemic risk than Europe

- The entire banking system of the US is 86% of GDP, in Europe about 250%
- The largest bank in the US is 16% of GDP, about 100% or more in several European countries
- In the US less than 40% of SME loans happen via banks, in Europe 85%
- The European financial system is homogeneous and bank oriented
- The American financial system is very diverse
- That is why the US is more resilient with less systemic risk

Should we eliminate systemic risk?

Should we eliminate systemic risk?

No

- Needs extreme and costly measures
- We want banks to take risk
- With risk comes failure
- So only way to eliminate systemic risk is to eliminate the financial system
- And that will severely hold back growth
- Instead, it is better to try to develop policies that mitigate the frequency and severity of systemic crises

Systemic risk is created both by the government and the market

- Excessive risk taking by market
- Systemic risk can be greatly increased by some government policies adopted in the name of preventing such systemic risk

Where and where not to look for systemic risk

or tail risk

- The obvious place to look for systemic risk is in market prices
- But that is exactly the wrong place
- Market prices only react *after* an event has started
- Instead, the place to look is in hidden data and market practices

Nature of risk

When systemic risk is created

Former head of the BIS, Andrew Crockett in 2000:

“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.”

“Stability is destabilizing”

- Hyman Minsky argued that economies have either stable or unstable financial regimes
- Even if the economy starts out stable, continued prosperity paves the way for an unstable system
- *Stability is destabilizing* because financial institutions have a tendency to extrapolate stability into infinity, investing in ever more risky debt structures, followed by an abrupt correction
- Like the Crisis from 2007, where all were blind to the hidden risk during the “great moderation”

LSE classification of the nature of risk

- 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

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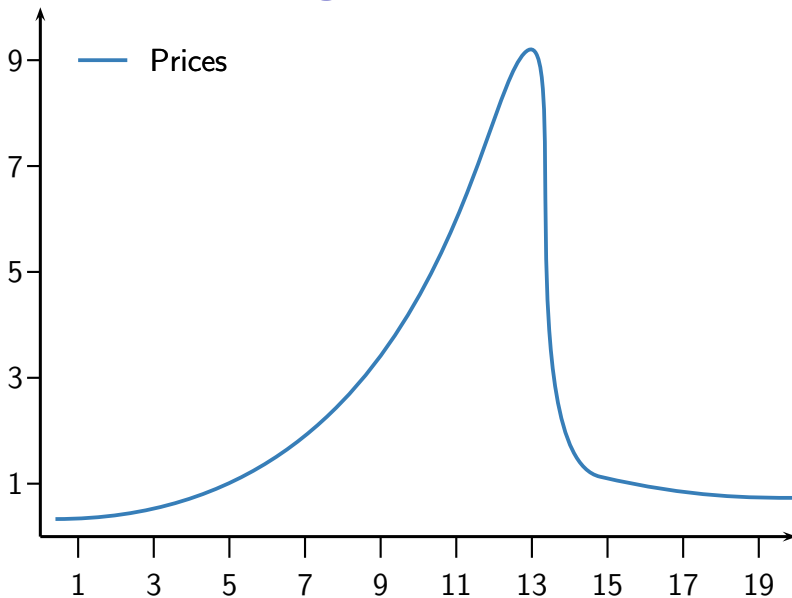
Almost all financial risk is endogenous

Most models used by banks and the authorities assume risk is endogenous

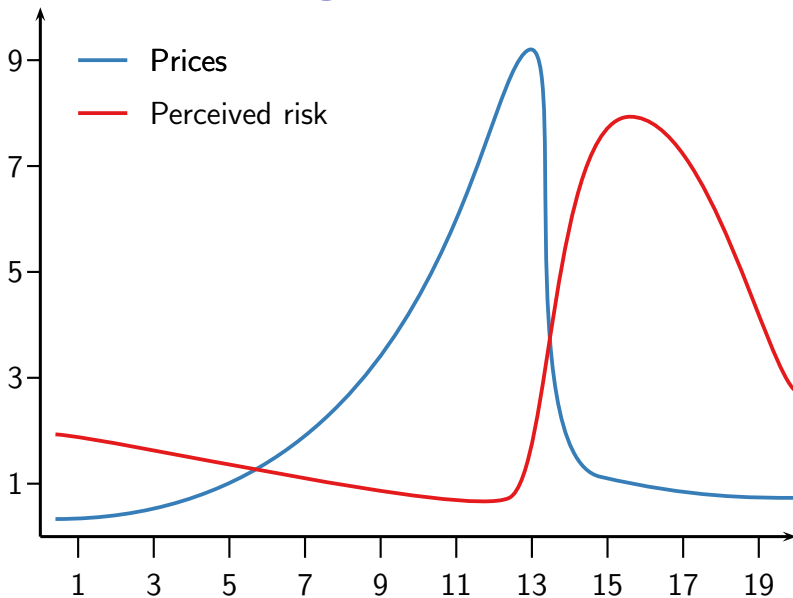
Two faces of risk

- Financial system is not invariant under observation
- And that means we can distinguish between
 - risk reported by most risk forecast models — *perceived risk*
 - *actual risk* that is hidden but ever present

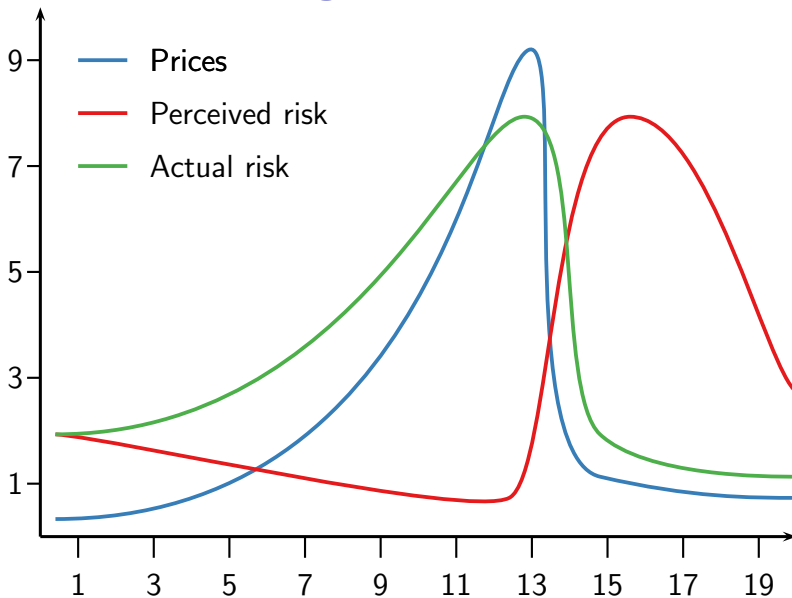
Endogenous bubble



Endogenous bubble



Endogenous bubble



Forest fires used to be small



Policy traded them for big ones



Leaving the firemen at a loss



Impact on regulations

- Regulations tend to focus on what is *visible* — and exogenous risk (the wrong type)
- But systemic and tail risk is *hidden*
- Regulations focus on what is politically expedient and what the biggest banks can lobby for
- Regulations try to prevent all bad behavior
 1. Basel I was 30 pages
 2. Basel II was 600 pages
 3. Basel III is at least 3,000 pages
- Regulators can never match the complexity of the financial system
- Bankers read regulations as *a manual for where to take risk*

Systemic Risk today

The biggest global vulnerabilities

The biggest global vulnerabilities

1. The reliance on central banks providing liquidity to solve every problem

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2. The failure of financial regulations to curtail risk-taking in a cost-effective way

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1. The reliance on central banks providing liquidity to solve every problem
2. The failure of financial regulations to curtail risk-taking in a cost-effective way
3. Globalization

Liquidity and the immediate crisis response

2007 and 2008

- The main historical example is the Great Depression
 - a major cause was refusal by the Fed provide liquidity
- The received wisdom maintains this was the right policy response

And after that

- The creation of liquidity has continued
- US/UK slowing down (no QE but low rates)
- Eurozone and Japan continuing with aggressive liquidity creation
- Primary motivation has shifted
 1. deflation
 2. implicit bailout of the sovereign
 3. stimulation of the economy

The importance of the US

- The dollar is the world's reserve currency
- Very difficult for other countries maintain an independent monetary policy
- If their interest rates differ, they will suffer sharp exchange rate realignments
- So after US moves most others will follow quickly
- But the US monetary policy is done for its domestic objectives only
- Causes considerable difficulties for other countries

Is the liquidity creation wise?

- Most crises see rapid growth of credit and excessive debt
 - pre-crisis too much credit, post crisis too little credit
 - growth of credit is a good crisis predictor
- Liquidity programs stimulate by adding credit
 - credit continues to grow, 160% of NI 2001, 200% 2009, 215% 2013
- If debt before 2007 was unsustainable in a much more positive growth environment, how can even higher debt levels in the current environment be sustainable
- The most vulnerable economies are those with high debt and slowing growth — regardless of the level of growth

What about structural reforms?

- Liquidity *takes away the short-term pain*
- Undermines the support for necessary structural reforms
- Becomes the only tool
- *Kicking the can down the road*
- Over time the economy weakens and the structural problems become bigger
- Harder and harder to do reforms
- And we need liquidity more and more

Market distortions

- BIS 2014: *euphoric markets falling under the spell of the central bankers*
- Borrow to buy — *Bubble*
 - amount of margin debt at NYSE was \$463 billion in August 2014, while the August 2007 peak was \$381, and the crisis low was \$173 billion in the first part of 2009
- Markets don't react appropriately to good or bad economic news
- Recent *negative* macro-economic news in Europe led to a market *rally* rather than drop!
 - deteriorating economic conditions increased the likelihood of the ECB adopting QE

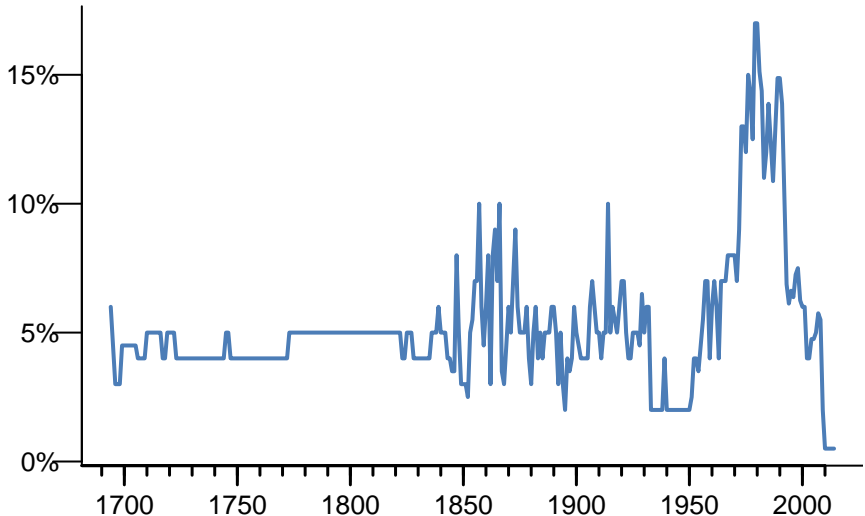
Deflation (lowflation)

- Empirically there is no link between deflation and economic growth, outside of the GD
- BIS 2014 notes that both Sweden and Switzerland have recently experienced deflation yet were also among the fastest growing economies in Europe
- It notes that long-term European inflation expectations point towards inflation remaining positive in the long-term

Long-term inflation and interest rates

- The post crisis liquidity programs would have been highly inflationary before 2007
- Strong deflationary forces pushing in the other direction
- Two large forces precariously balanced
- Possibility of a sudden acceleration in one direction or the other
- Takes very little to significantly shift expectations
- Empirical research in interest rates suggests that they are mean reverting, (next slide)

Bank of England rates



Three European lessons

1. Don't allow excessive intra-region imbalances

- Europe has a single monetary union but highly independent regions (countries)
- Some regions (countries) have sensible economic policies and grow rapidly
- While others are less intelligent and fall behind
- That will create a crisis that may not be solvable under the existing arrangement

2. Don't disconnect banking regulations from overall economic policy

- Europe aggressively increased bank capital from 2009 — and the banks are safe
- It disregarded the impact on bank lending
 - recall 85% of European SME lending comes from banks
- Increasing capital means less bank lending — that was anticipated by the authorities
- But the impacts are highly uneven — large corporates have no problem borrowing, and plenty of money is available for mortgages
- However, SMEs suffer most
- And that was not anticipated by authorities

CMU and SME programs

- To solve this, the ECB has a special QE program targeted at SMEs
- And the EU raided research funds to subsidize SME lending
- Meanwhile it is working on the capital markets union (CMU) to reduce the restrictions investments between countries
 - There is no shortage of investable funds while investors get dismal returns
 - But SME borrowers are unable to find loans or equity capital
 - The CMU is meant to solve that — But I'm not holding my breath

3. Non-performance and bank failures

- Some European address company nonperformance and failed banks — like the UK
- Other European countries prefer not to realize company losses and therefore bank failures
- Meaning resources flow to the worst performing not those who generate economic growth

Conclusion

Systemic risk

- Systemic risk is an inevitable part of any capitalist economy
- Eliminating it is undesirable
- Reducing the likelihood of systemic events is sensible
- But many policies are counterproductive

- Future systemic risks
 - Inability to properly reform financial regulations
 - Reliance on liquidity keep the economy going
 - Globalization
- European lessons for rest of the world
 - Don't allow excessive intra-region imbalances
 - Don't disconnect banking regulations from overall economic policy
 - Address non-performance and bank failures