



# DER WANDEL GEHT WEITER ...

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# 1. "Technological change"

- Netflix vs. Blockbusters
- Skype vs. phone
- Amazon and Walmart.com

## Disruptive technologies

- Creative destruction

## Smooth tech-progress

- "Tech-monopolists" acquire start-up innovators (US pharmaceutical model)

## FinTech

- End of cross-subsidization
- Unbundling (end of universal bank model?)
- Inclusion
  - Less trust/collateral need



# 1. "Technological change"

- Netflix vs. Blockbusters
- Skype vs. phone
- Amazon and Walmart.com

## Disruptive technologies

- Creative destruction



- Firm-specific risk is high
- Delay investment < savings (precautionary)
- **Cash hoarding**

## Smooth tech-progress

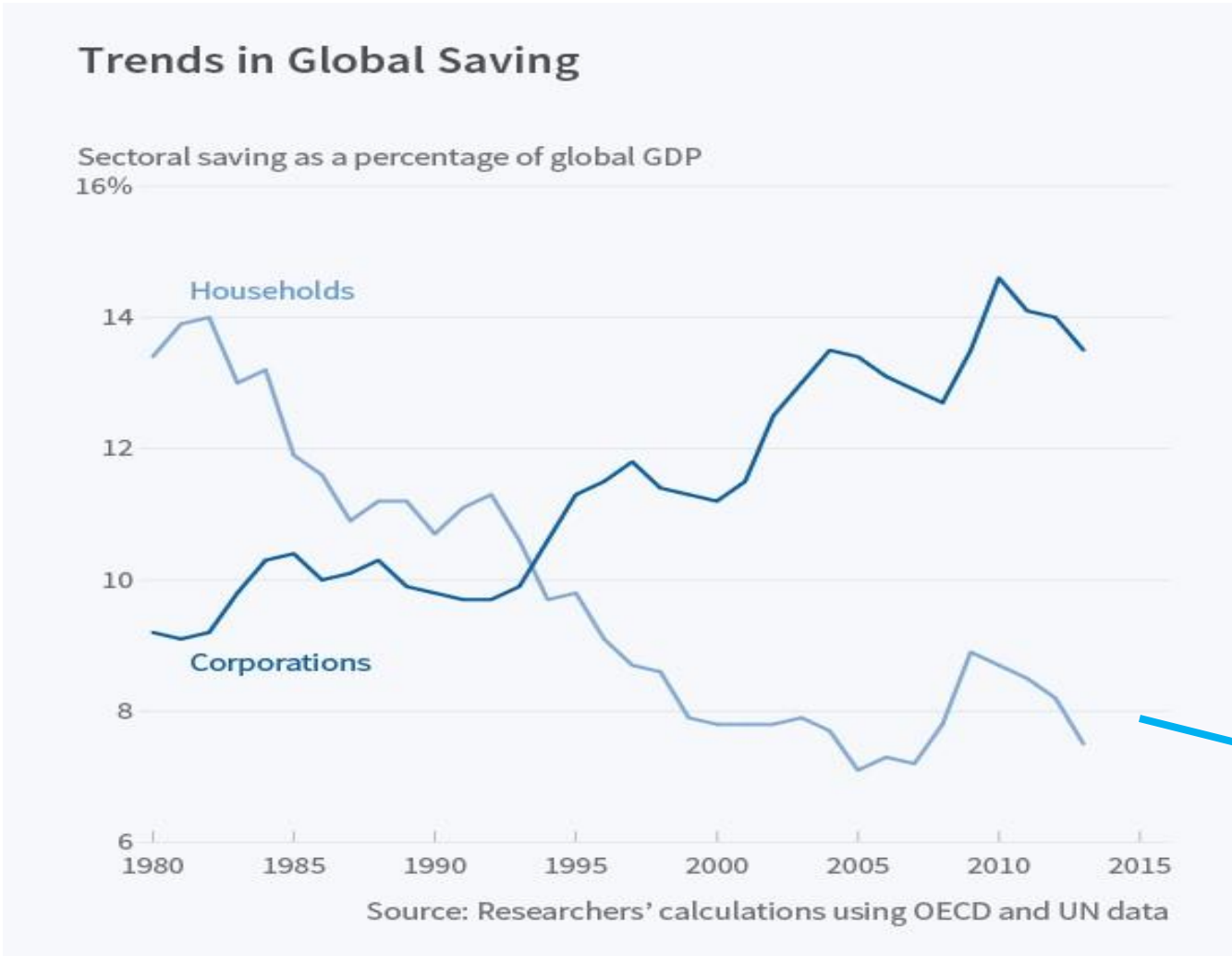
- "Tech-monopolists" acquire start-up innovators (US pharmaceutical model)



- **Cash savings** for acquisitions

*Macro Implications*

# Corporate cash savings



Not consistent with demographic reasoning

- Peter Chen, Loukas Karabarbounis, Brent Neiman, The Global Rise of Corporate Saving (2017), NBER WP# 23133

# Corporate cash savings

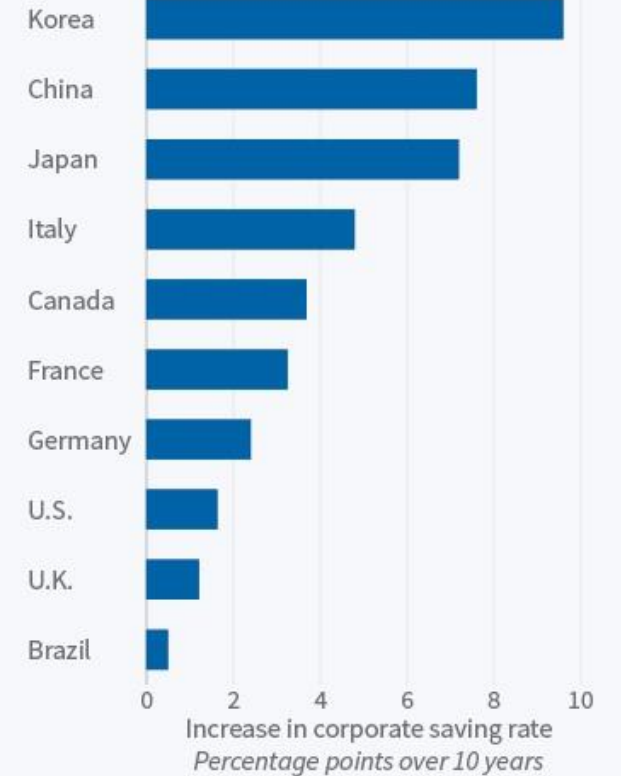
## Trends in Global Saving

Sectoral saving as a percentage of global GDP



Source: Researchers' calculations using OECD and UN data

## Growth of Corporate Saving



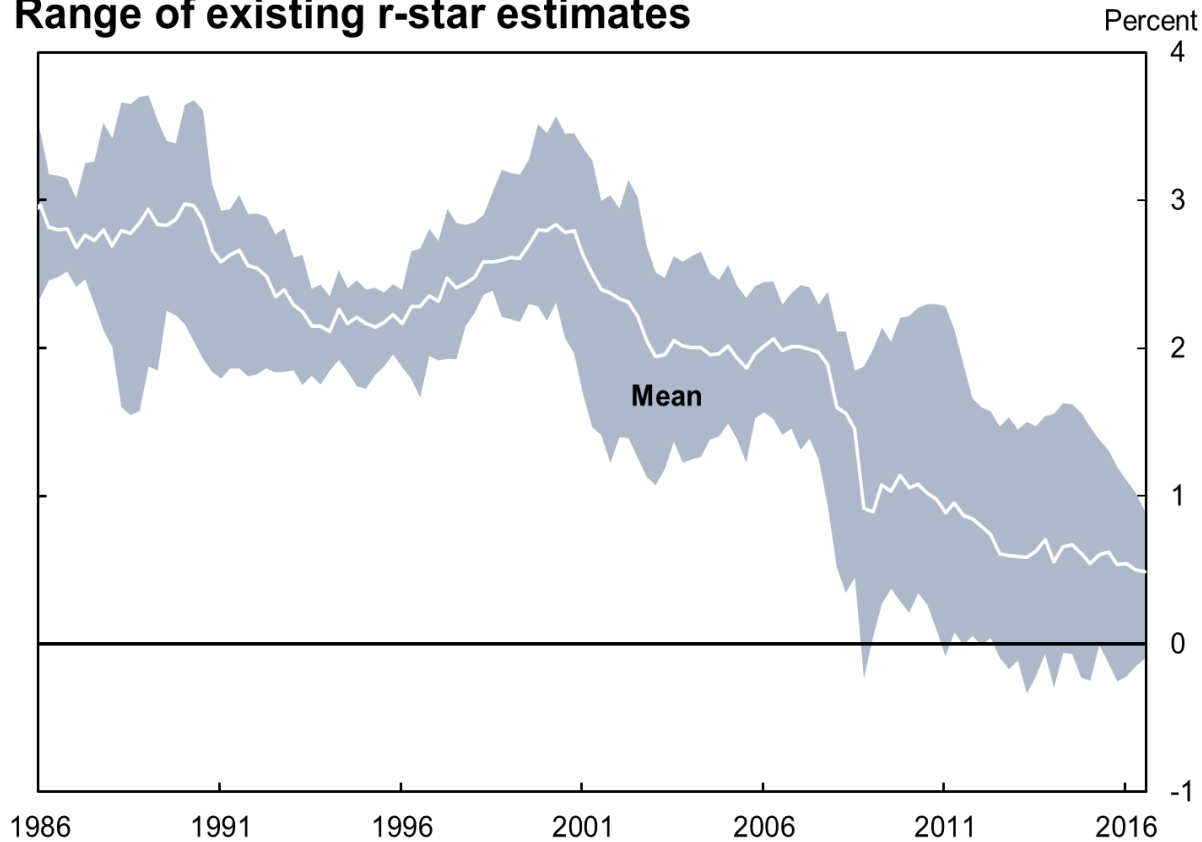
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# Return implications

## Risk Free Rate (low)

### Range of existing r-star estimates

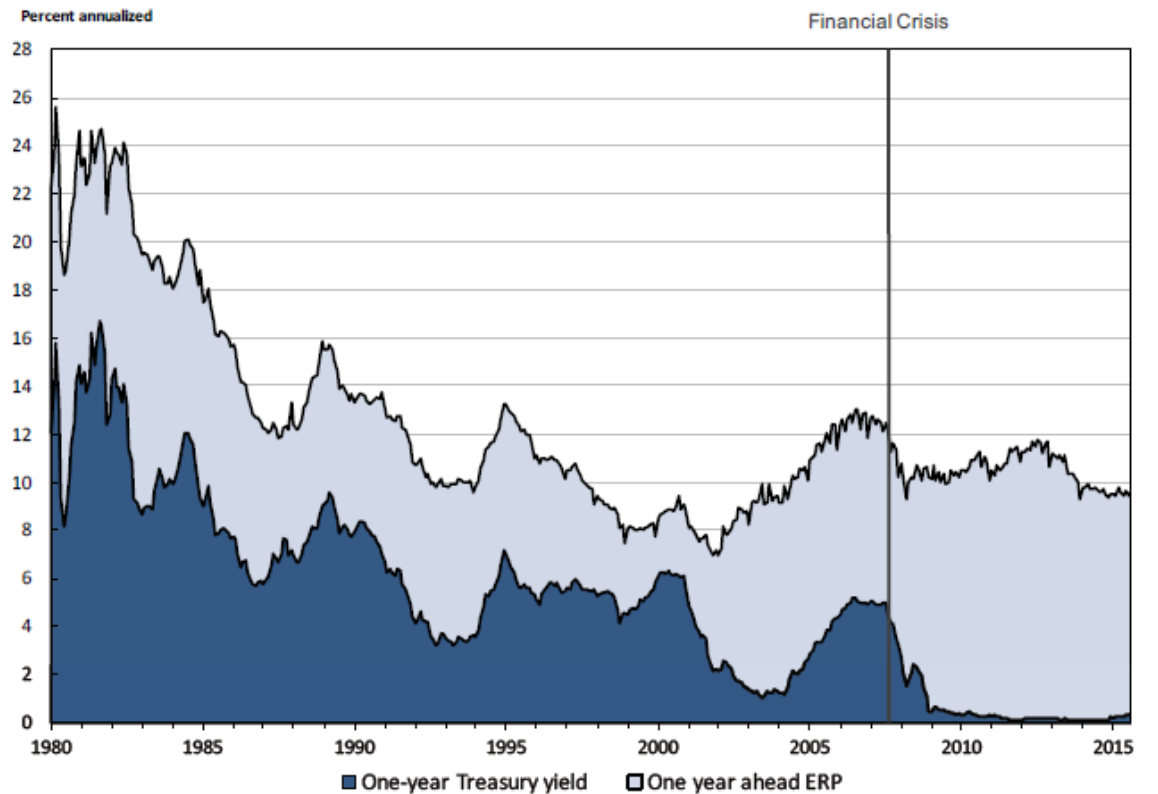


Estimates from Laubach and Williams (2003), Kiley (2016), Lubik and Matthes (2016), Johanssen and Mertens (2016), Holston, Laubach, and Williams (2016), Crump, Eusepi, and Moench (2016), and Christensen and Rudebusch (2017) [estimates begin 1998q2].

- Williams (2017) BEAP discussion

## Risk-premium (high)

### Equity risk premium

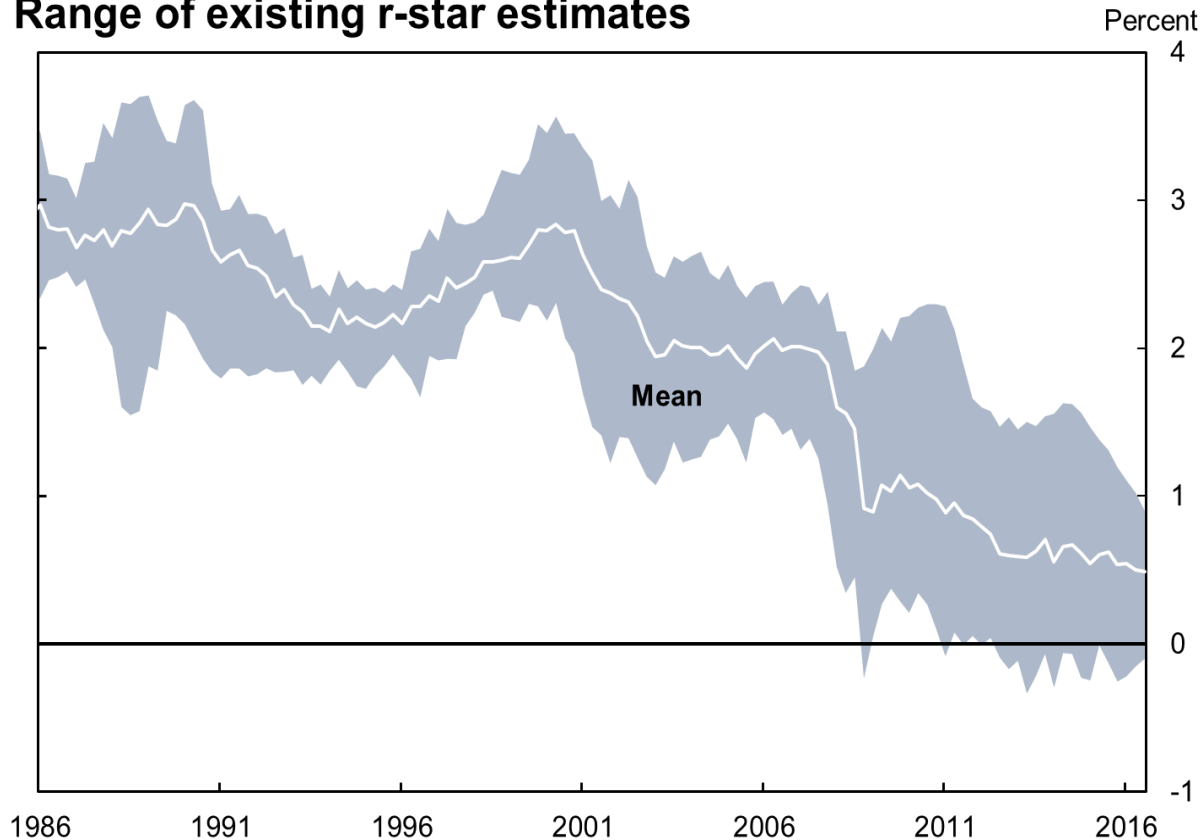


- Caballero et al. (2017)

# Return implications

## Risk Free Rate (low)

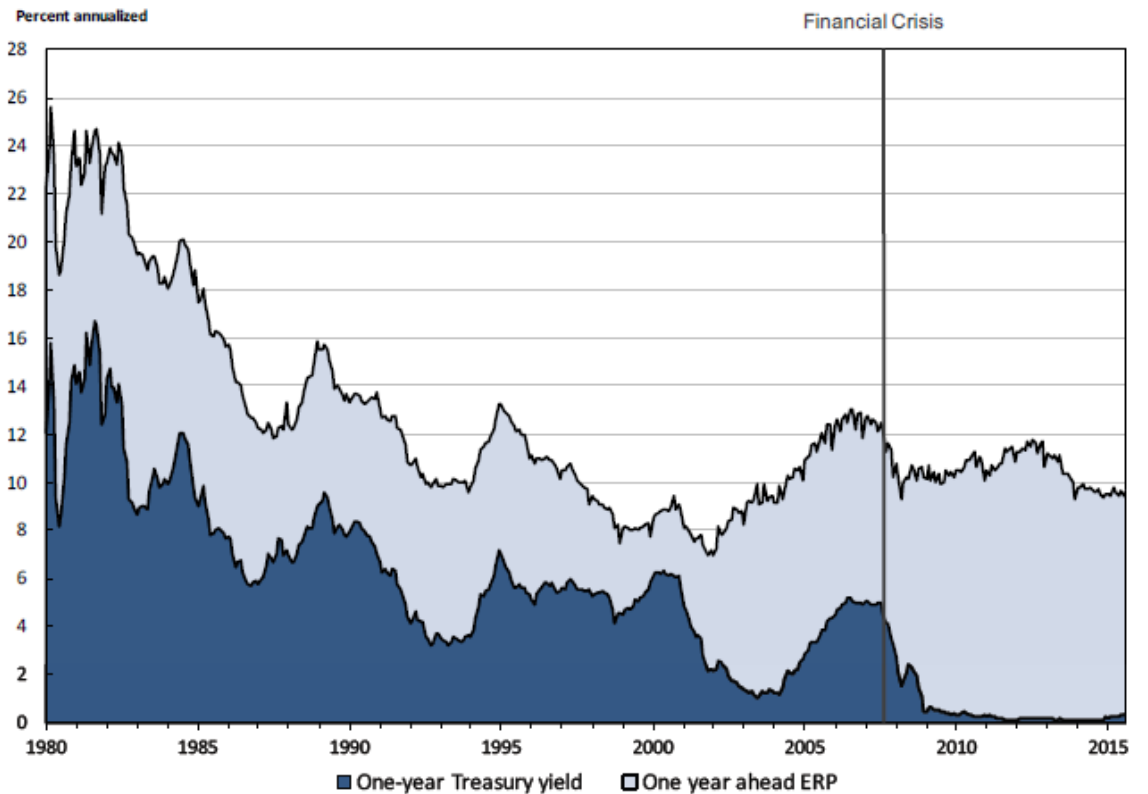
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## Risk-premium (high)

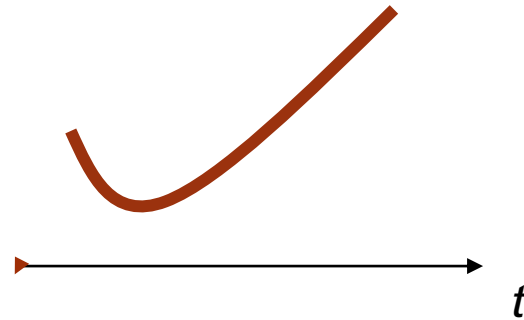
Equity risk premium



*Implications* for monetary policy, safe asset supply & investment advice

# Productivity J-curve effect

- Why is productivity so low, despite of all this innovation?
  - It first has to go down before it goes up



- Example:  
Investments in  
driverless car technology  
no productivity increase YET!







## 2. Political uncertainty

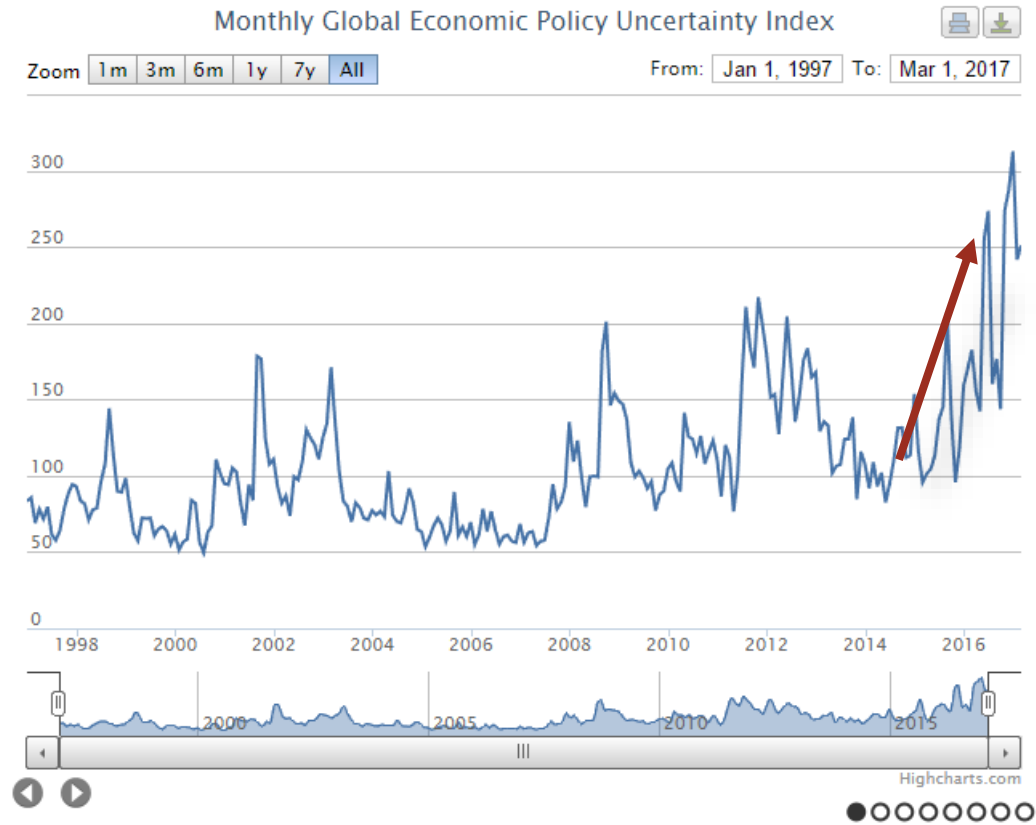
- Global financial architecture:  
IMF/Worldbank was “designed/led” by US & UK
  - US: Trump, UK: Brexit
  - US/UK step back on global leadership
  - Who will step in?
- China:
  - Capital account and exchange rate regime
  - Increasing debt level
- Europe:





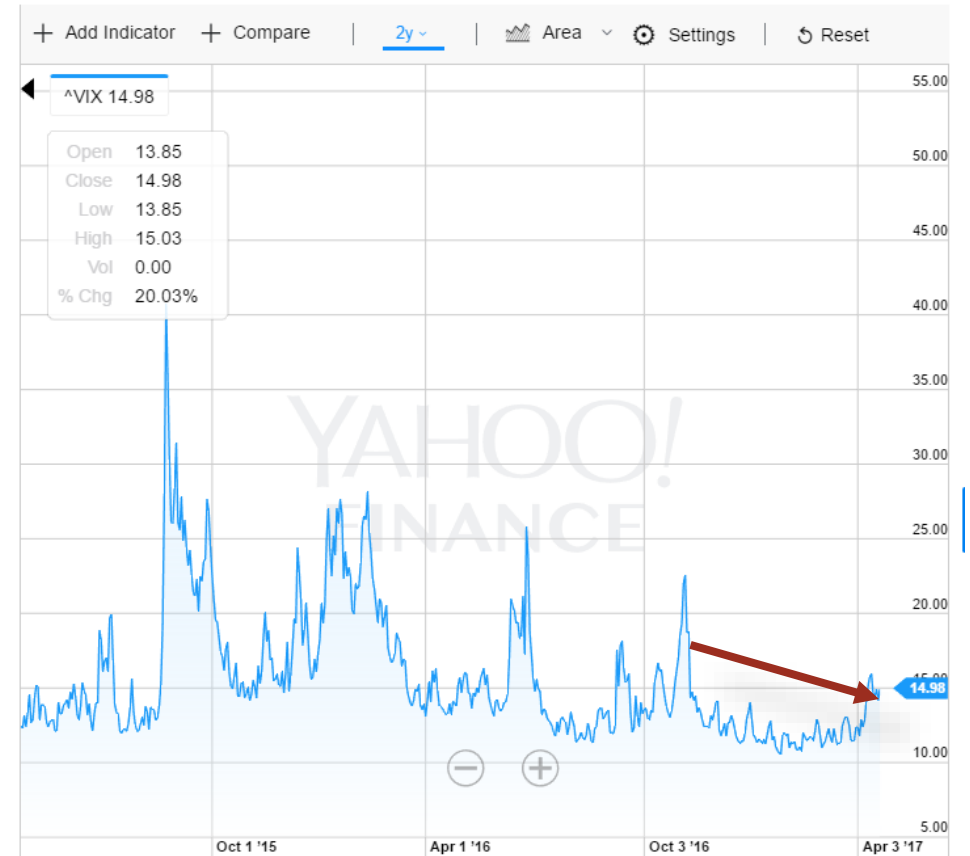
# 2. US Political Uncertainty

## Political Uncertainty (high)



## VIX (low)

VOLATILITY S&P 500 (^VIX) 14.98 0.83 (5.87%)  
As of 12:31PM EDT. Chicago Options Delayed Price. Market open.





## 2. Europe – risks now more contained

- Redenomination risk (exit risk) + “Reformstau” will be removed
    - France                      E. Macron
  - Financial/banking risk
    - Italy                              individual banks  
   equity issuance by Unit Credit
  - Geopolitical risk
    - Ukraine/Russia
    - Syria/Turkey
    - North Africa (population explosion)
- } migration





## 2. Europe: Different economic philosophies

"French"

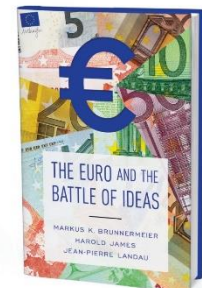


*"actively manage current crisis"*

"German"



*"creates precedence/future crisis"*





## 2. Europe: Different economic philosophies

“French”

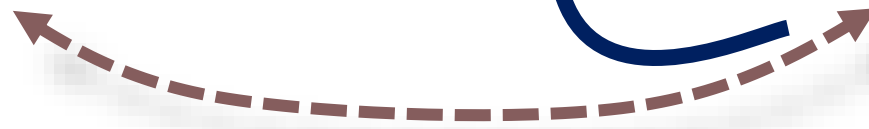


1. Discretion & straitjacket commitment  
*“manage current crisis”*
2. Solidarity  
Risk sharing  
Eurobonds/safe asset
3. Liquidity
4. Keynesian Stimulus

“German”



- Rules & safety valves  
*“creates precedence/future crisis”*
- Liability Principle  
No transfer union/bailouts  
No joint liability
- Solvency
- Austerity/Reform



switched sides after WWII





## 2. Europe: Different economic philosophies

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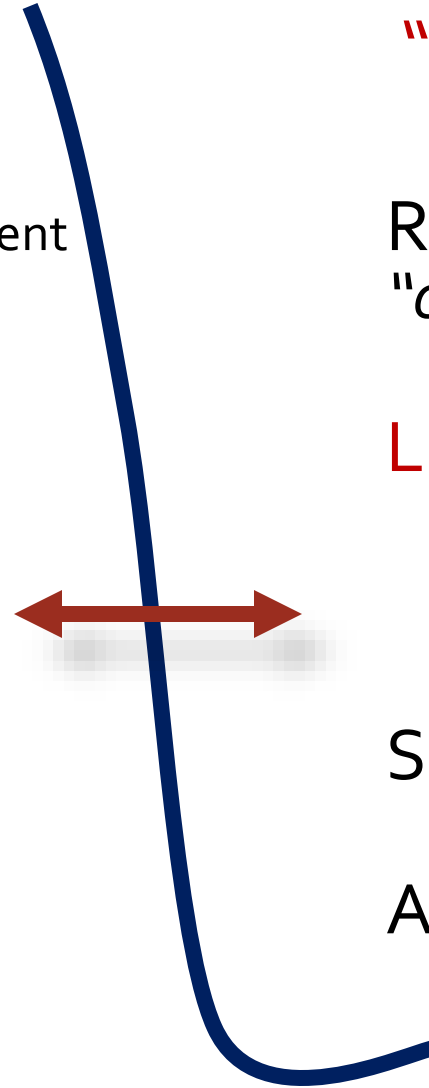


Rules & safety valves  
*“creates precedence/future crisis”*

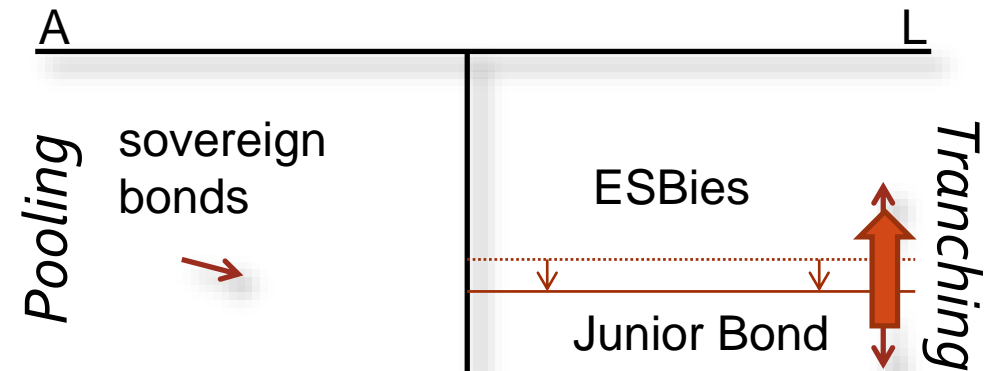
Liability Principle  
No transfer union/bailouts  
No joint liability

Solvency

Austerity/Reform



# Safe Asset: ESBies/SBBS (sovereign bond backed securities)

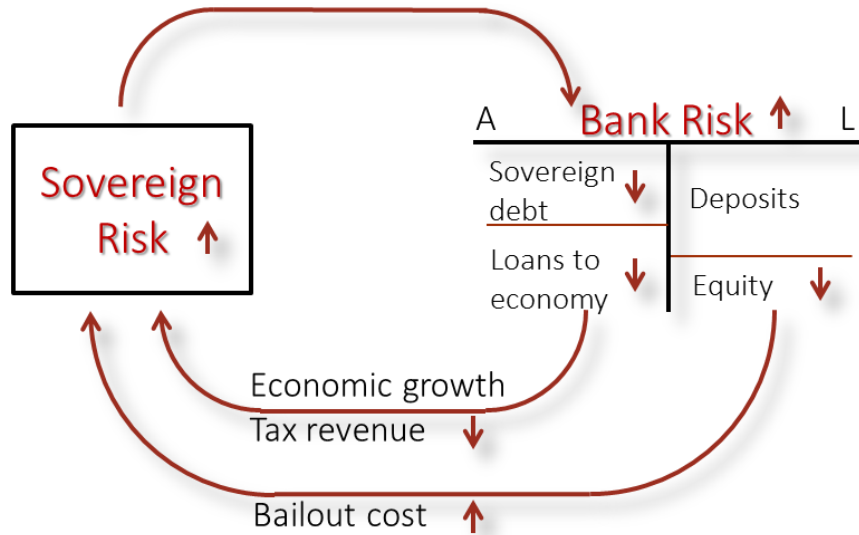


**No Joint liability**  
**No Eurobond!**

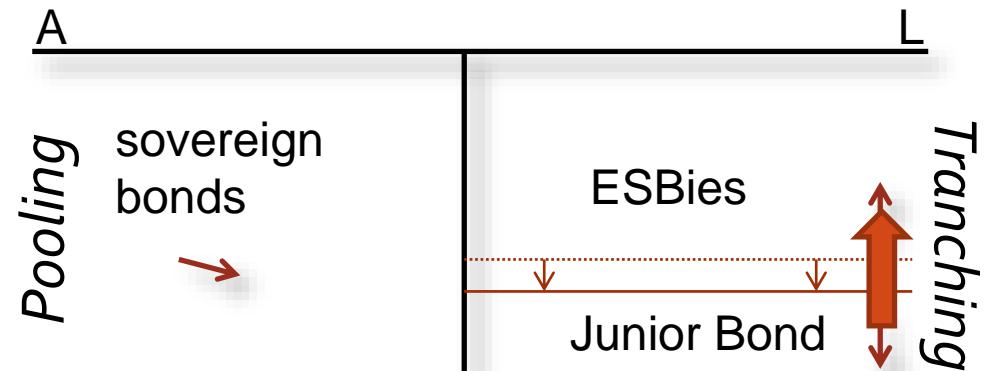
- Euro-nomics Group (2011)

# Safe Asset: ESBies/SBBS (sovereign bond backed securities)

- Diabolic loop
  - Sovereign-Banking Nexus



- Eliminated



- Euro-nomics Group (2011)

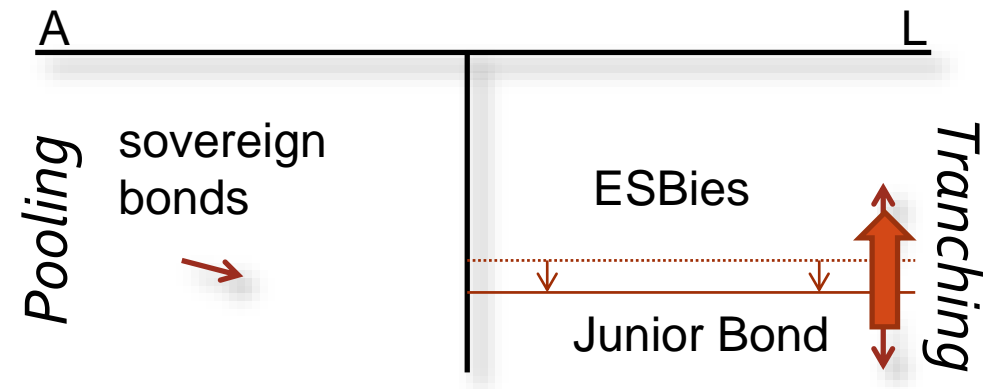


# ➔ Safe Asset: ESBies/SBBS (sovereign bond backed securities)

- Diabolic loop
  - Sovereign-Banking Nexus
- Flight to safety



- Eliminated
- Re-channeled across two European bonds



**No Joint liability**  
**No Eurobond!**

- Euro-nomics Group (2011)

# Overall European Stability Framework

Spread	Friction	Instrument	
Flight to safety Diabolic loop	Safety risk premium	ESBies/SBBS	Self-stabilizing
Liquidity problem due to (self-fulfilling) multiplicity	Default risk premium	ECB Lender of last resort	
Liquidity problem due to lack of commitment		ESM conditionality + ECB's OMT	Interventionistic
Solvency problem		Restructuring	
	Expected default		
Exit risk	Redenomination risk premium		

- Risk premium for endogenous (self-generated) risks are **socially wasteful**
  - Total risk can be reduces



# Conclusion

- Technological change/uncertainty (disruptive vs. smooth progress)
  - Cash hoarding                      low risk-free rate                      Monetary policy implications
  - Investment < savings              high risk premia                      Investment advice
- Political uncertainty
  - Global
  - US: political uncertainty... but low VIX
- Europe: Different economic philosophies
  - Challenge: Finding “good compromises” – ESBies/SBBS

