

# “Restructuring Finance To Promote Productive Employment”

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Causes, Cures, Constraints", Berlin, 24-26 October 2013**

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Financial Support

## Many thanks to:

Institute for New Economic Thinking (INET) who funded this research:

And my co-authors and research assistants:

James Crotty, Arjun Jayadev, Iren Levina, Joao Paulo de Souza, Juan Montecino, Simon Sturn and Leila Davis. All of them have made important contributions to this research.

## Questions to be Addressed:

- How does finance affect the “real economy” in general, and employment in particular?
- How should finance be restructured to promote socially productive and sustainable employment in a globally warming world?

One simple Answer to the  
first question:



# Andrew Haldane of Bank Of England Estimates:

Cost of Current Crisis: \$60 – 200  
TRILLION

Andrew Haldane " The 100 Billion Dollar Question"  
March, 2010

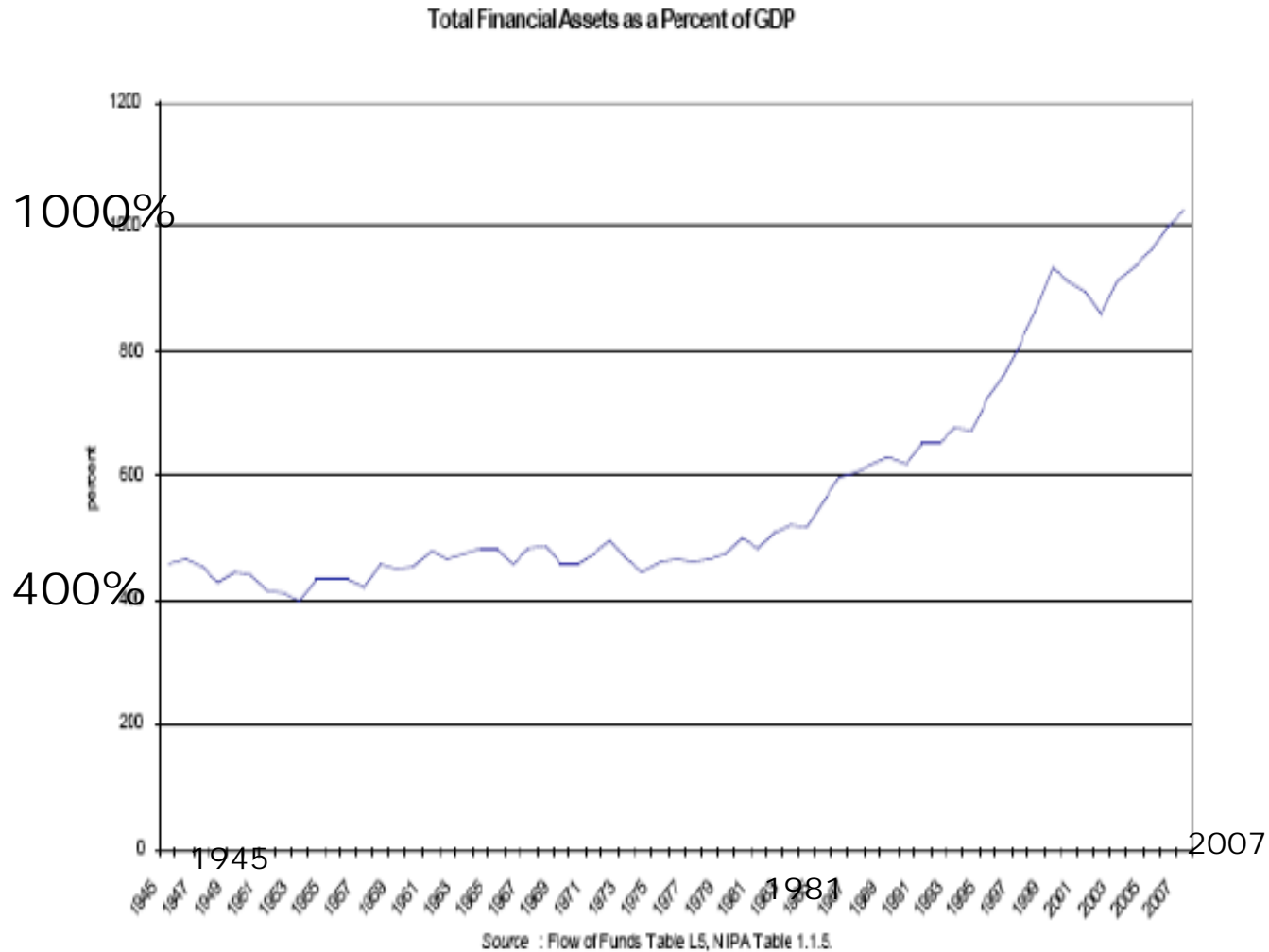
<http://www.bankofengland.co.uk/publications/speeches/2010/speech433.pdf>

## *Financialized Capitalism:*

Locked in A Devastating Dynamic of  
De-regulation, Financial Innovation,  
Explosion, and Bail-out

This cycle of de-regulation, boom, bust and bail-out has also lead to an enormous growth in the financial sector in the U.S., U.K., and, indeed in many parts of the world.

# US: TOTAL FINANCIAL ASSETS AS % OF GDP



1945

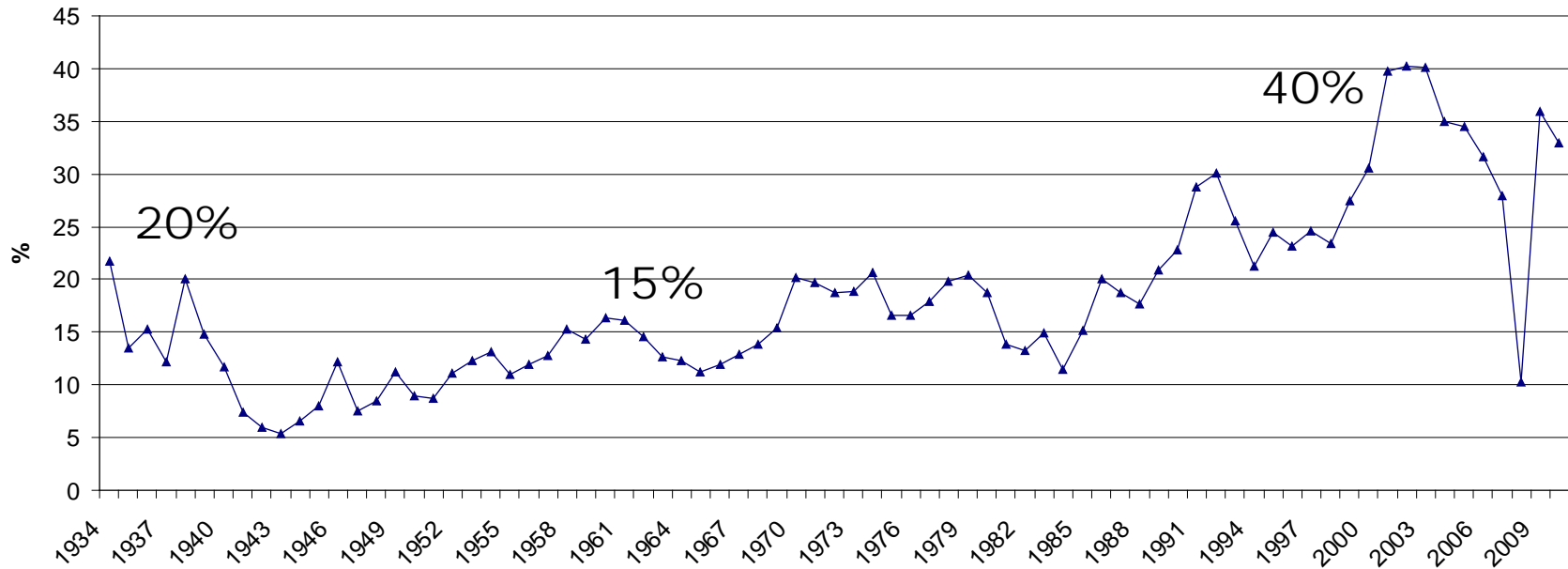
1981

2007



# Financial Sector Profits as Share of Total Profits, USA

Financial profit as a share of total domestic profit (USA, 1934-2010)



Source: calculated from NIPA, Table 6.16, Profits are with IVA and CCAdj

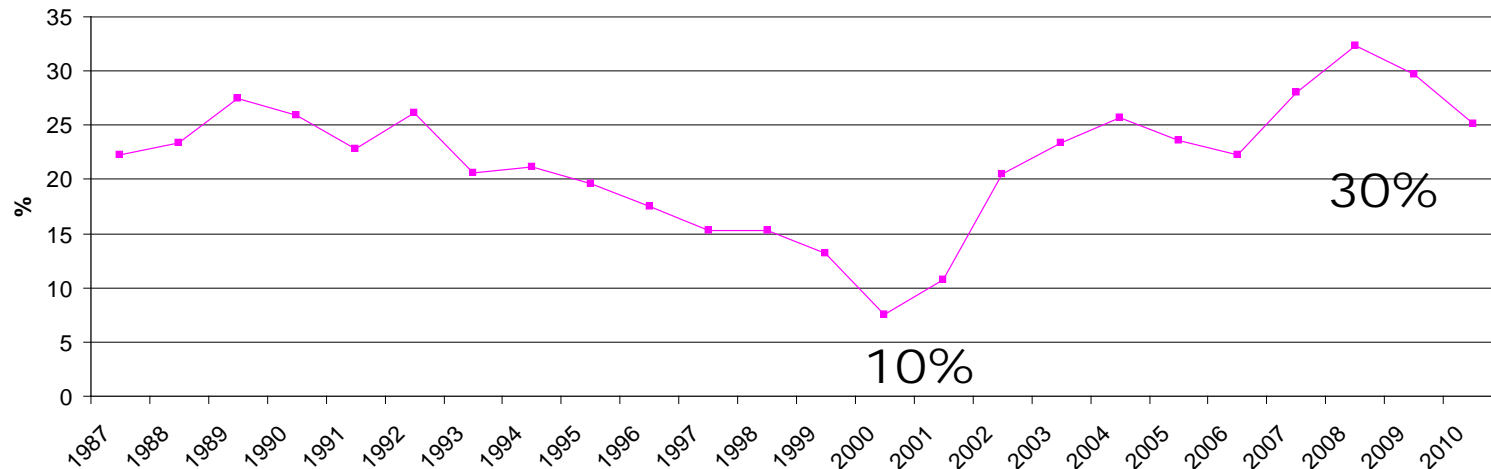
1934

1960

2009

# Financial Sector Profit Share in UK, 1987 - 2010

Pre-tax profits of financial corporations as a share of total domestic pre-tax profits: UK, 1987-2010



Source: ONS, UK Economic Accounts, Income and Capital Accounts. Pre-tax profits are calculated as a sum of gross disposable income and taxes on income. Domestic sectors include fin corporations, public corporations, non-fin private corporations.

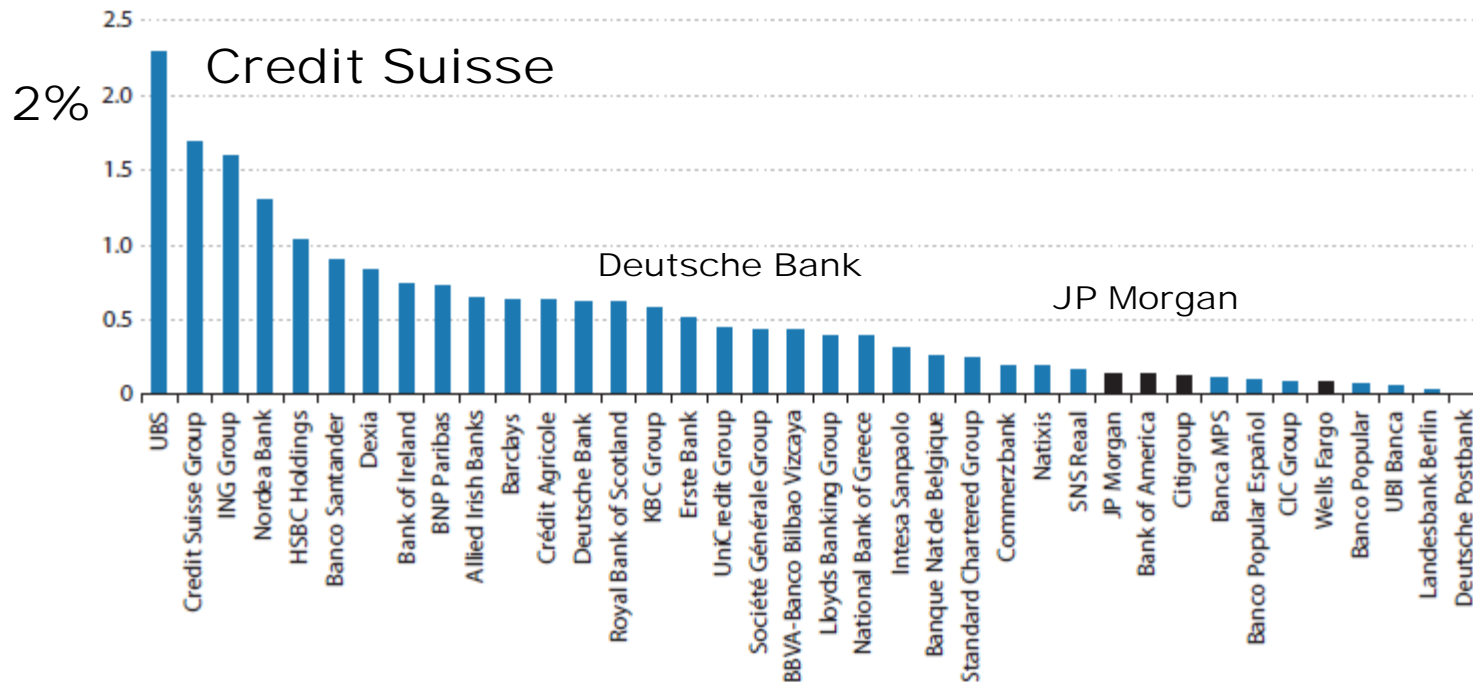
1987

2000

2009

# Some European Banks are very large relative to size of their Economies (BANK ASSETS TO GDP RATIO)

Bank Asset-to-GDP Ratio



NOTE: As-reported data. Differences arise from whether the company uses IFRS or GAAP. Several large Danish and Swedish banks omitted.

SOURCE: Bloomberg and IMF.

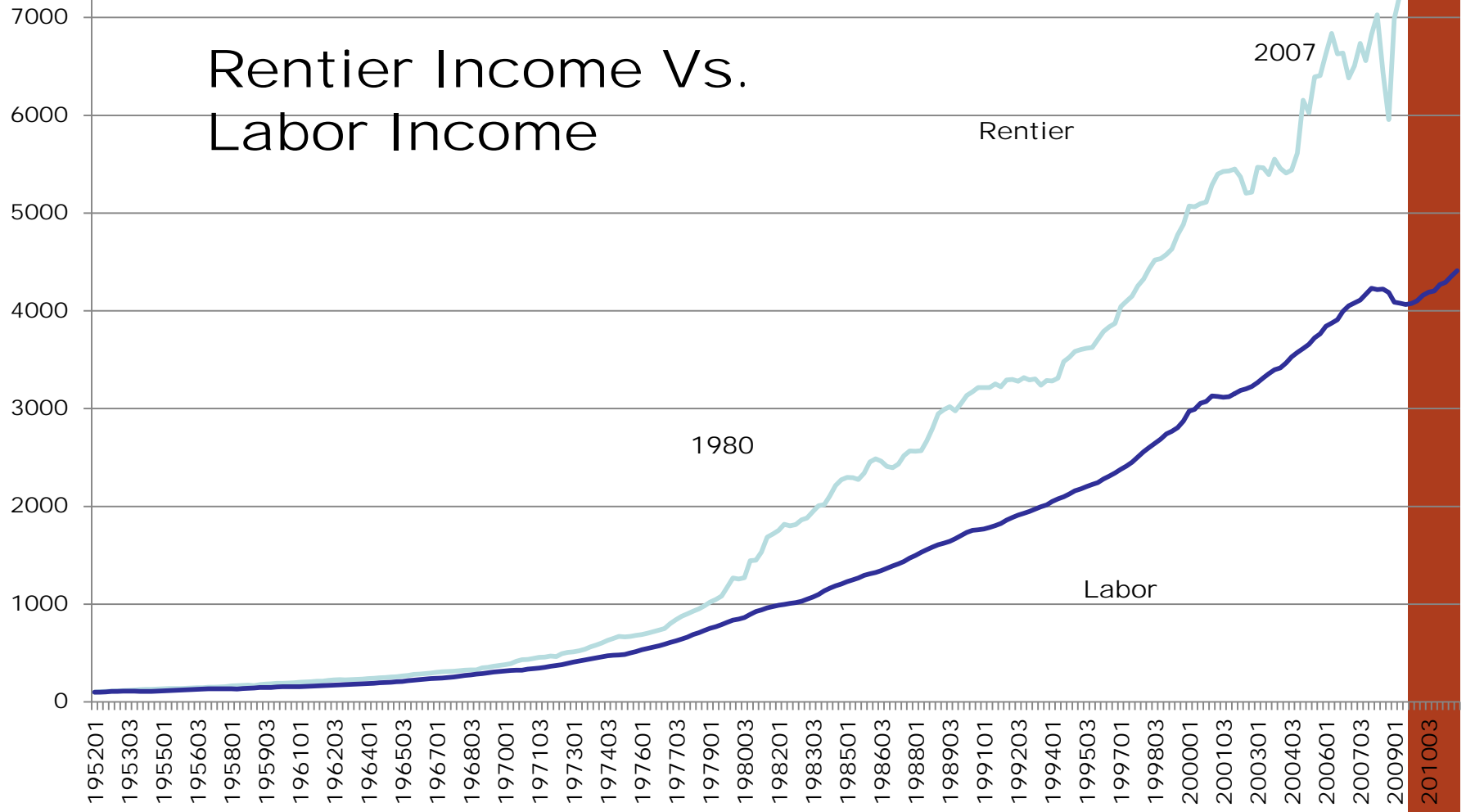
An Additional clear cost:

Massive growth in financial  
incomes contribute to  
inequality

Rentier Income Index    Labor Income Index

## The United States 1952 - 2010

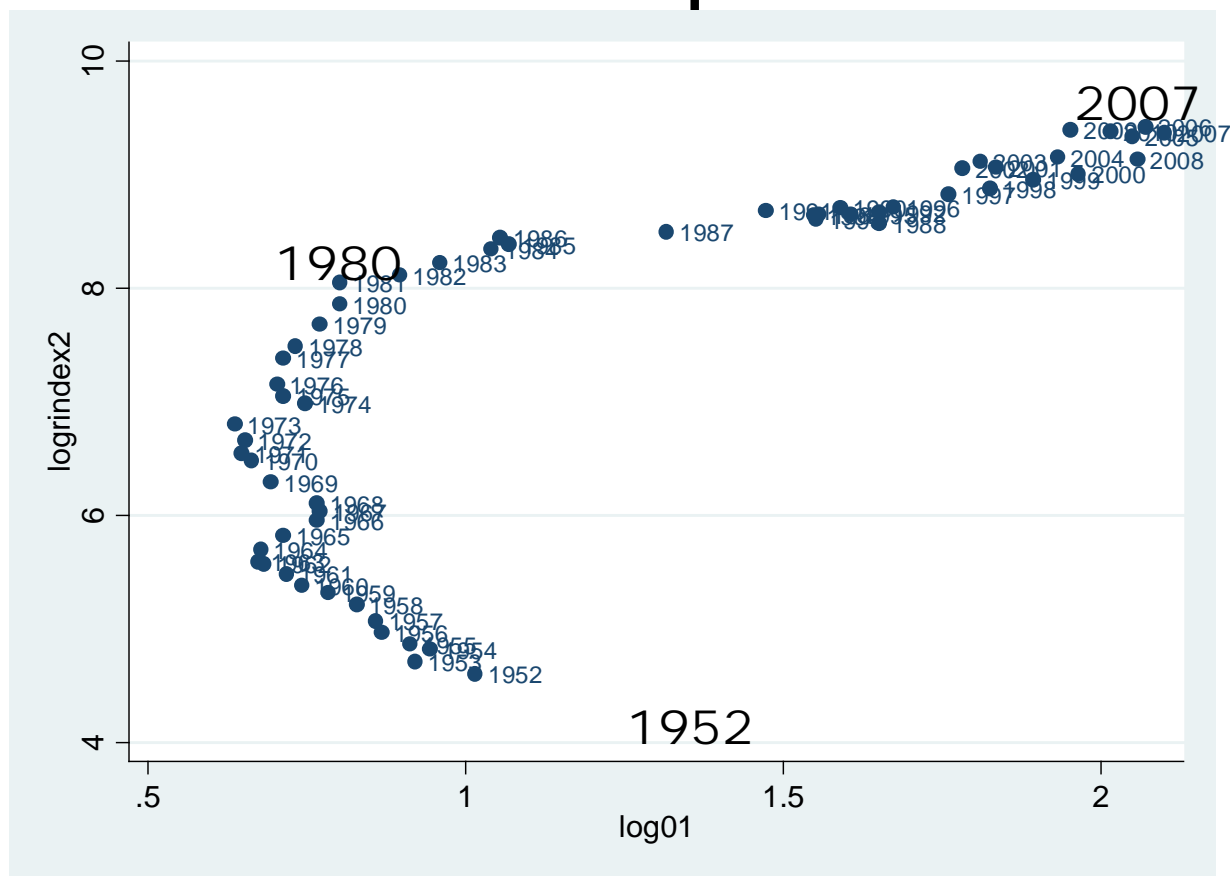
### Rentier Income Vs. Labor Income



Source: Jayadev and Epstein

# After 1980, positive relation between rentier share and income of top 1% in US

Share of  
Income  
to Top 1%



Source: Jayadev and  
Epstein

Rentier Share Index

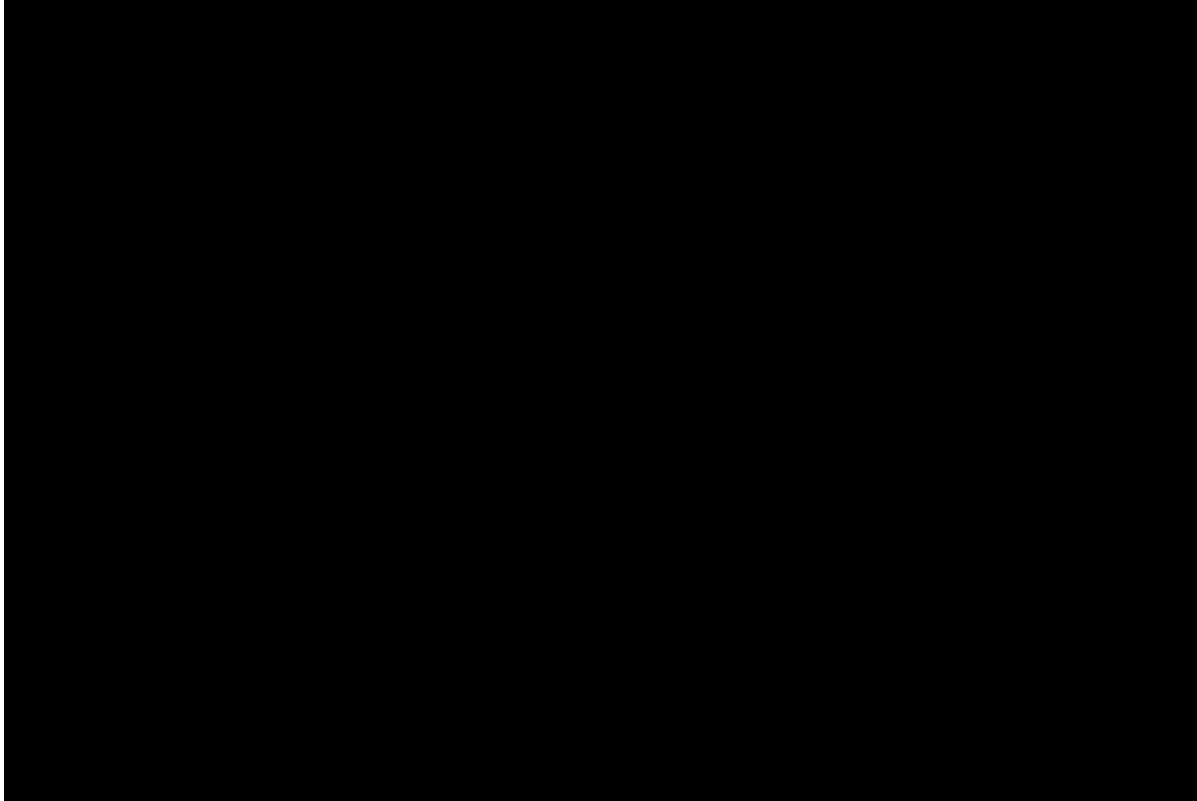
Regulators in US and Europe now “try” to regulate the financial sector ostensibly to reduce the likelihood of a crash and another tax payer bail-out

# Bankers and Politicians Fight Back

- Rules will harm banks and reduce their competitiveness
- Banks will move abroad
- Intermediation will become more expensive
- Banker Brain Drain
- Stifle Financial Innovation
- Jamie Diamon of JP Morgan: "We can manage our own risk just fine."



## Houston Law Firm Celebrates 1<sup>st</sup> Anniversary in its Brussels Office



Source: New York Times, October 18, 2013

But if Financial Sector Is Highly  
Bloated

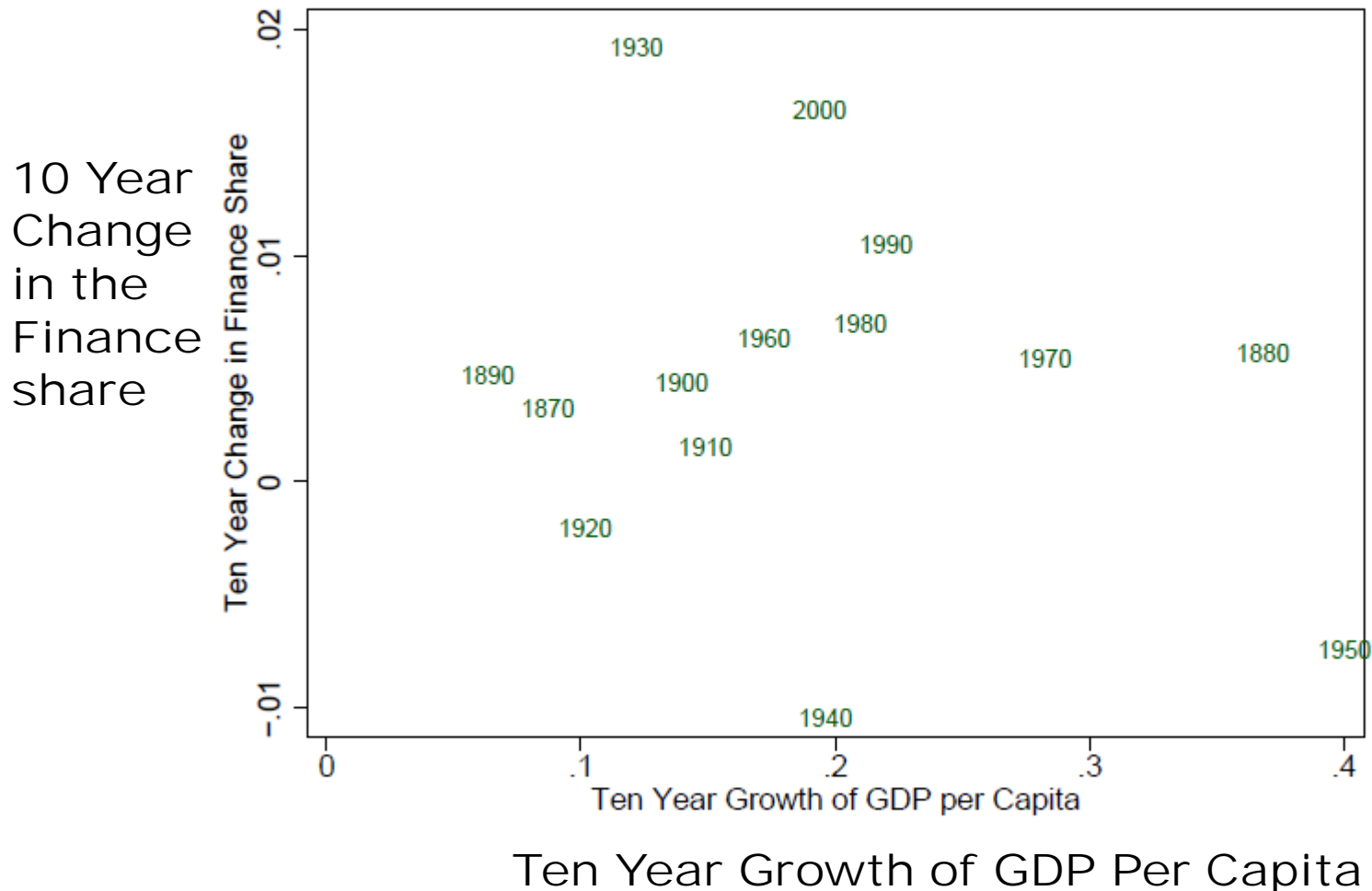
Good bye and Good  
Riddance?

**Has this growth in the financial sector contributed positively to the economy commensurate with its size?**

A simple picture gives an initial hint

In US: No Obvious relation between share of finance and Economic Growth, 1860 - 2010

Figure 4: Finance and Income



Notes: See notes to Figure 1 for definition of Income Share of Finance.

Source: Philippon

Increasing Evidence of U –  
shaped relationship between  
size of financial sector and  
economic growth

## Some References to this literature:

- Thomas Phillipon "Has the Financial Sector Become Less Efficient"?  
<http://www.voxeu.org/index.php?q=node/7376>
- Arcand, J-L, E Berkes, U Panizza (2011), "[Too much Finance?](http://www.voxeu.org/index.php?q=node/6328)", VoxEU.org, 7 April.  
<http://www.voxeu.org/index.php?q=node/6328>
- Haldane, AG and V Madouros (2011), "What is the Contribution of the Financial Sector, VoxEU.org, 22 November.  
<http://www.voxeu.org/index.php?q=node/7314>

New Paper to be presented  
here by Simon Sturn casting  
further doubt on finance  
growth relationship

This literature does not tell us what type of financial activities contribute to socially useful real sector outcomes like:



We need to learn more about to what extent finance promotes:

- job creation,
- risk reduction
- retirement protection
- financing of socially useful investment including those devoted to addressing climate change

## In literature what are the Roles of the Financial Sector?

- Channel finance to productive investment

# Roles of the Financial Sector

- Channel finance to productive investment
- Provide mechanisms for households to transfer income over time

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- Help households and businesses reduce risk (risk sharing)

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- Channel finance to productive investment
- Provide mechanisms for households to transfer income over time
- Help households and businesses reduce risk (risk sharing)
- Help provide stable and elastic LIQUIDITY
- Financial innovation

There are also important  
Private roles of finance:

- 1) Make profit for  
shareholders
- 2) Make incomes and  
bonuses for management  
and “rain-makers”.

## A Reasonable Claim:

*Finance has done much better at furthering private roles than social roles (greater private efficiency than social efficiency) (to put it mildly)*





# Estimates of the Contribution of the Financial Sector



# Channel Finance to Productive Investment?

High share of lending in US and UK go to households and property development, and to support trading in financial assets. True in other countries as well.

# Epstein/Crotty/Levina

- Finance Gap measured as Investment minus saving so looks at how much finance is needed to finance investment.
- Source: Epstein and Crotty (with Levina) ["How Big is Too Big? On the Social Efficiency of the Financial Sector in the United States"](#)

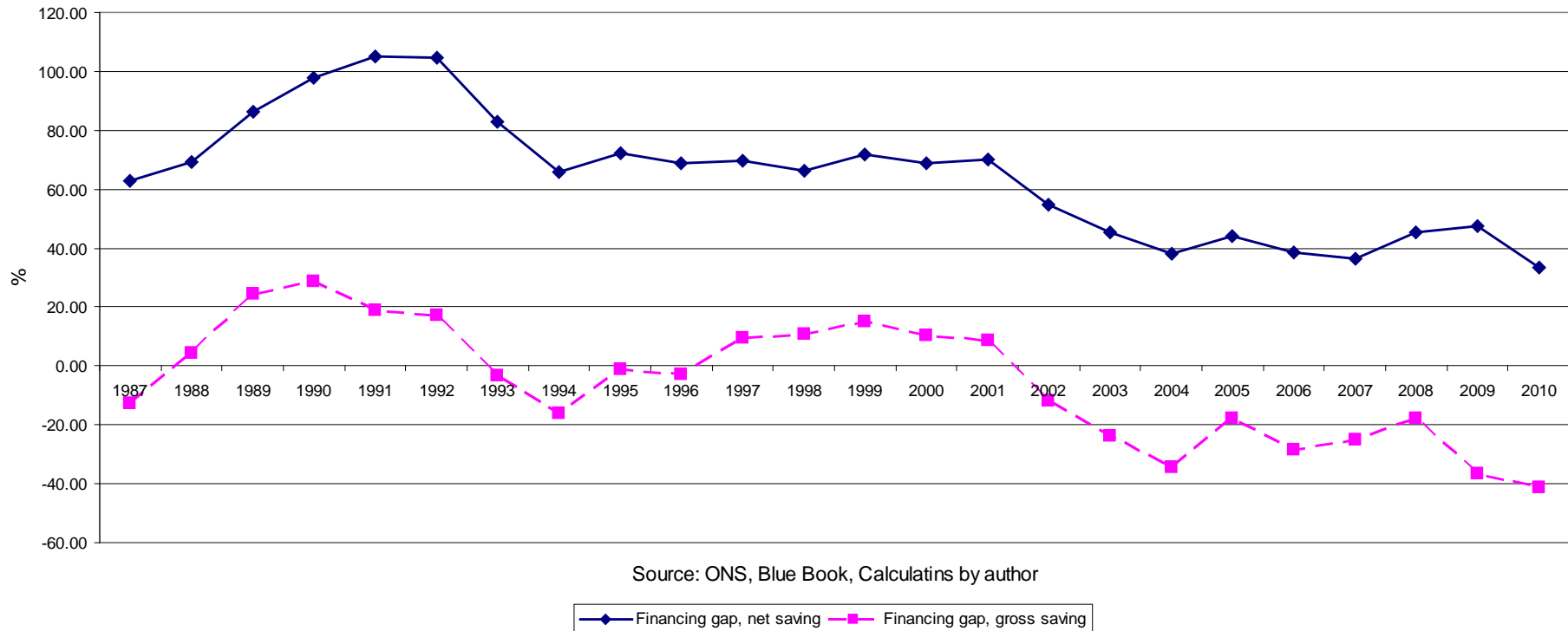
# Financing Gap Relative To capital expenditures: Non- financial Corporations, US

*Table 4: Financing gap relative to capital expenditures, descriptive statistics; nonfinancial business*

	<i>1950-1959</i>	<i>1960-1969</i>	<i>1970-1979</i>	<i>1980-1989</i>	<i>1990-1999</i>	<i>2000-2009</i>
<i>Average</i>	<b>11.5%</b>	<b>12.5%</b>	<b>21.0%</b>	<b>11.2%</b>	<b>5.0%</b>	<b>-0.2%</b>
<i>Minimum</i>	-4.0%	3.5%	-1.3%	-1.1%	-5.0%	-41.7%
<i>Maximum</i>	32.3%	26.0%	34.1%	26.6%	18.1%	25.7%

# Financing Gap, UK Non-Financial Corporations, 1987 - 2010

Financing gap as a share of capital expenditures, in percent (non-financial corporations, UK, 1987-2010)



Source: Epstein, Crotty and Levina, 2012



# Financialization of Non-Financial Corporations in Financialized Europe?

Non-Financial Corporations in UK, Netherlands, Austria become net lenders, rather than net borrowers (see next slide based on work with Joao Paulo de Souza).

# Europe: Change in Average Net Lending – Non-Financial Corporations

Change in Average Net Lending (% of GDP, annual averages)

Change Between 1995-1999 and 2000-2007			
Country	Net Lending (1)=(2)-(3)	Gross Saving (plus Net Capital Transfers) (2)	Capital Expenditures (3)
France	-1.28%	0.10%	1.38%
Italy	-1.01%	0.17%	1.18%
Portugal	-3.50%	-2.48%	1.02%
United Kingdom	1.97%	-0.53%	-1.44%
Netherlands	2.84%	1.15%	-1.69%
Austria	1.97%	2.36%	0.40%
Germany	-0.11%	-0.035%	0.074%
Change Between 2000-2003 and 2004-2007			
Spain	-3.64%	-2.18%	1.36%

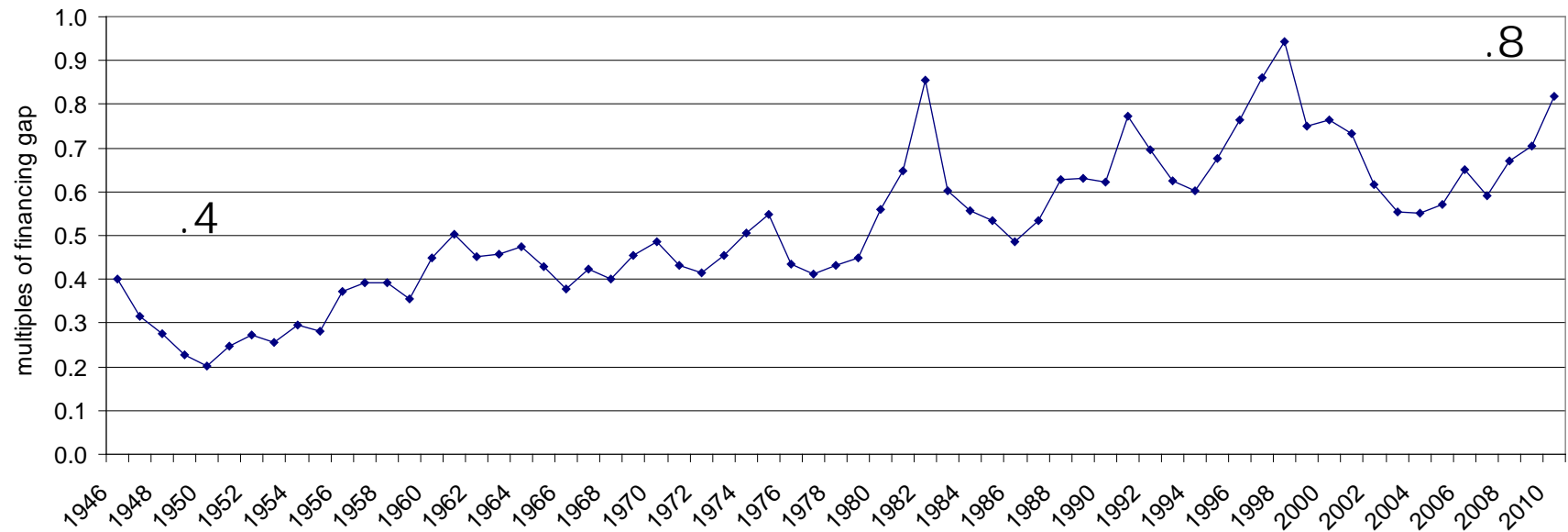


## Key Results from Epstein, Crotty, and Levina:

Income extraction by the financial sector relative to its filling the financing gaps has dramatically increased.

# Income of the Financial Sector Relative to The Financing Gap in The US, 1946 - 2010

Gross value added of the financial corporate business as a share of financing gap



Source: calculations based on the Flow of Funds and NIPA, Table 1.14

Source: Epstein, Crotty and Levina

**Income Extraction by the Financial Sector in The US Relative to Financing Gap**  
(Including the Federal Government Financing Gap)

**Financial Sector might be as much as two times too big**

	Simple average
1946-1959	0.31
1960s	0.44
1970s	0.46
1980s	0.60
1990s	0.73
2000-2010	0.66

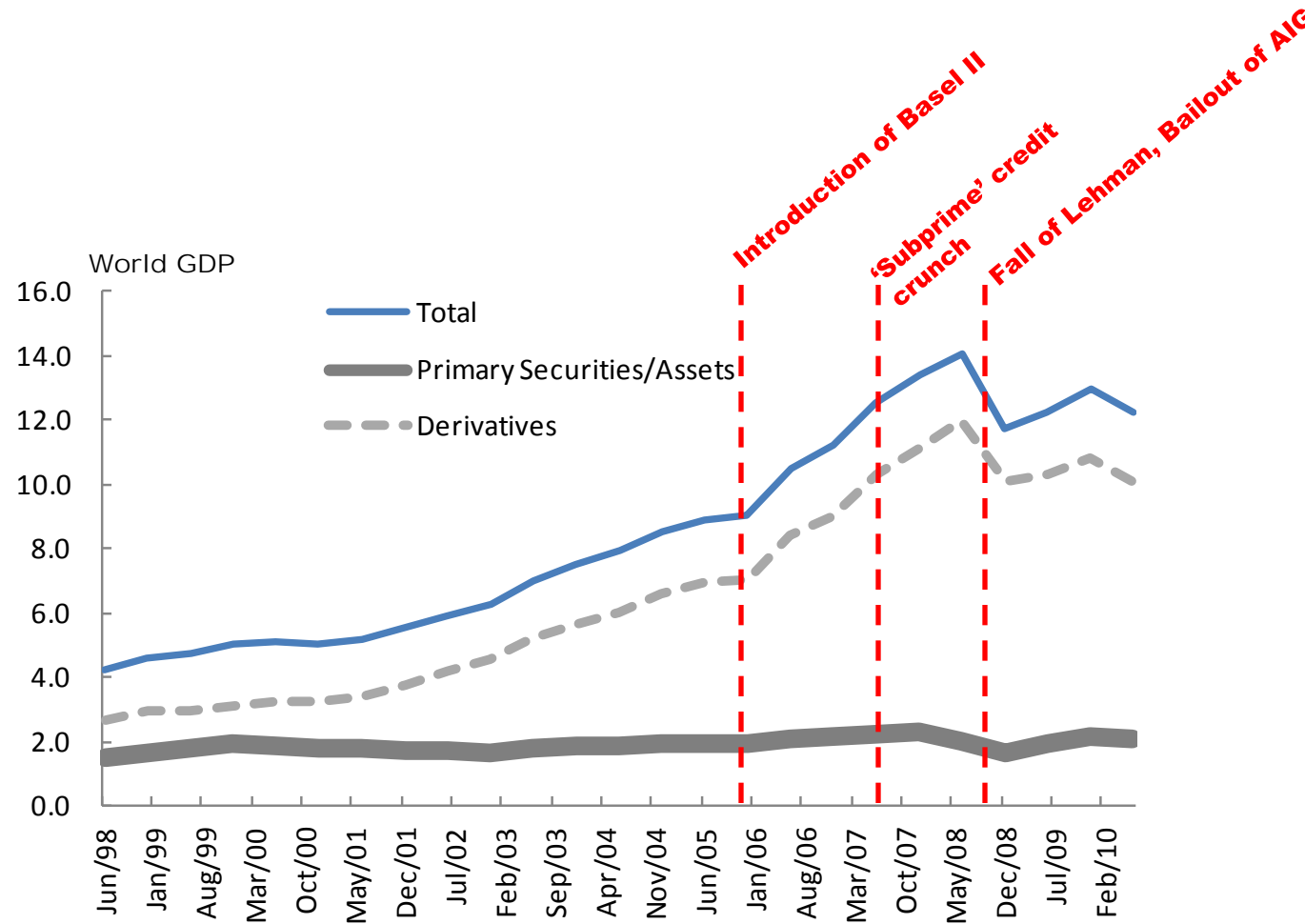
Indeed, there is an  
increasing disconnect  
between activity in financial  
sector and the financing of  
productive investment

# Notional value of derivatives & primary financial assets relative to GDP: A Growing Disconnect

## Relation of Derivatives Relative to Primary Securities

Source:  
Epstein and  
Habbard, 2012,  
from  
OECD

Blundell-Wignall & Atkinson 2011  
"Global SIFIs, Derivatives and  
Financial Stability", Adrian Blundell-  
Wignall & Paul Atkinson, OECD  
Journal - Financial Market Trends,  
Volume 2011 Issue 1, OECD, January  
2011  
<http://www.oecd.org/dataoecd/62/10/48299884.pdf>

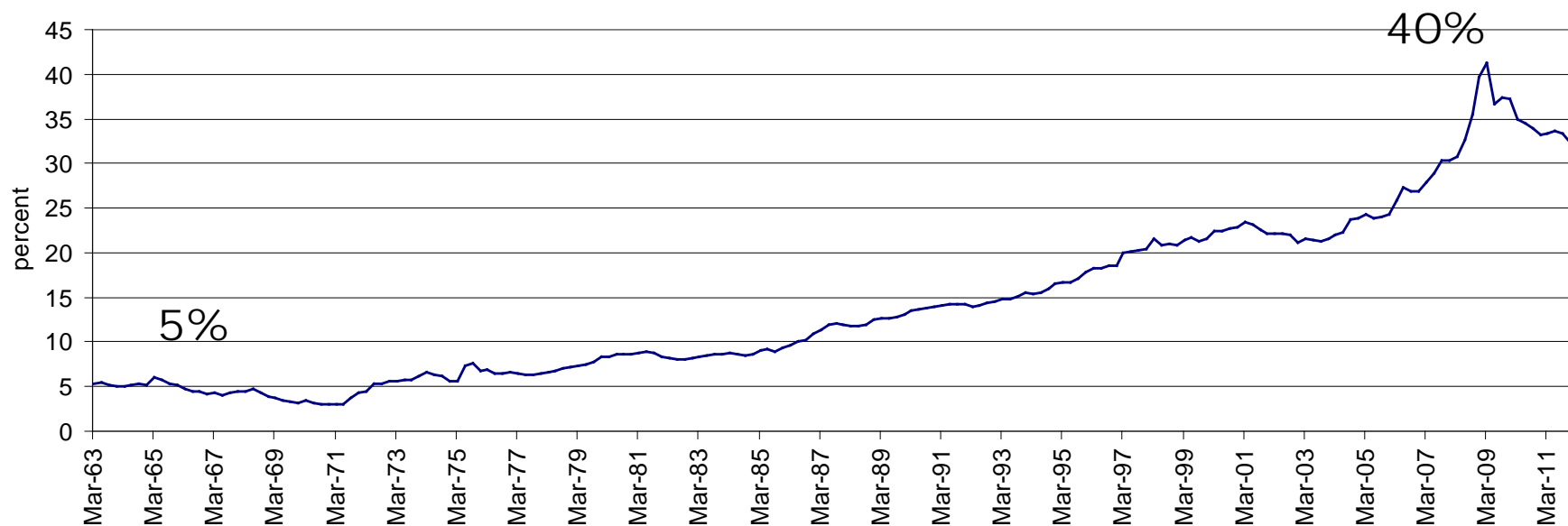


## **Raises Question:**

- So what has finance been doing?
- For one thing: lending to itself to finance proprietary trading.

# Net Lending of the Financial Sector to Itself, UK, 1963 – 2012 (from 5% to 40% of lending)

**MFI net lending to other financial corporations as a share of total MFI net lending (UK, 1Q1963 - 1Q2012)**



Source: calculations based on data from Bank of England, Bankstats, Table A4.1. Data are not seasonally adjusted and include only sterling lending. Lending in foreign currencies is excluded

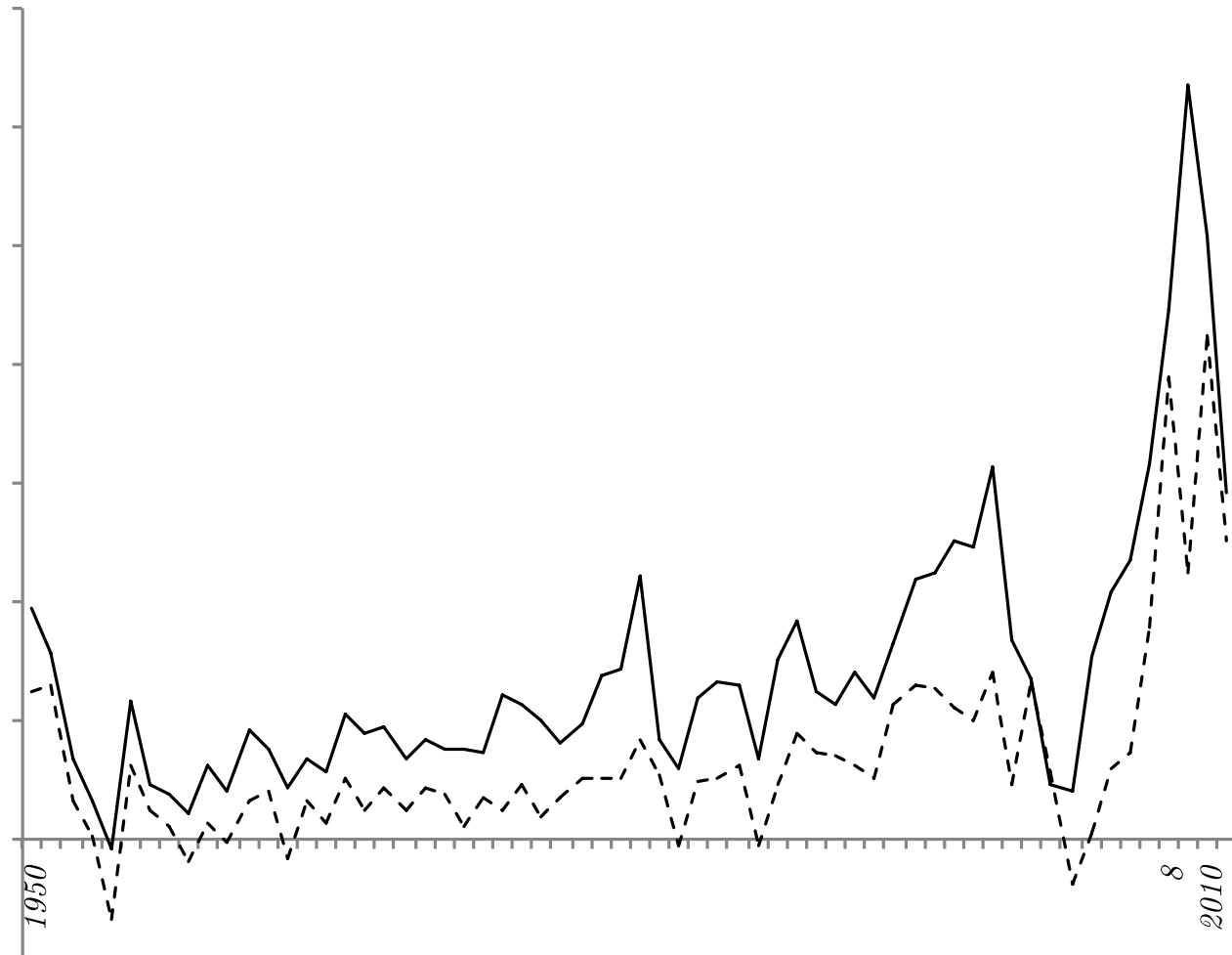
Source: Epstein and Levina, 2011

Decadal Average of UK financial  
sector lending to itself as share of total  
lending, 1960 - 2012

<b>1960s</b>	<b>4.64</b>
<b>1970s</b>	<b>5.84</b>
<b>1980s</b>	<b>9.85</b>
<b>1990s</b>	<b>17.13</b>
<b>2000s</b>	<b>26.48</b>
<b>2010s</b>	<b>33.38</b>

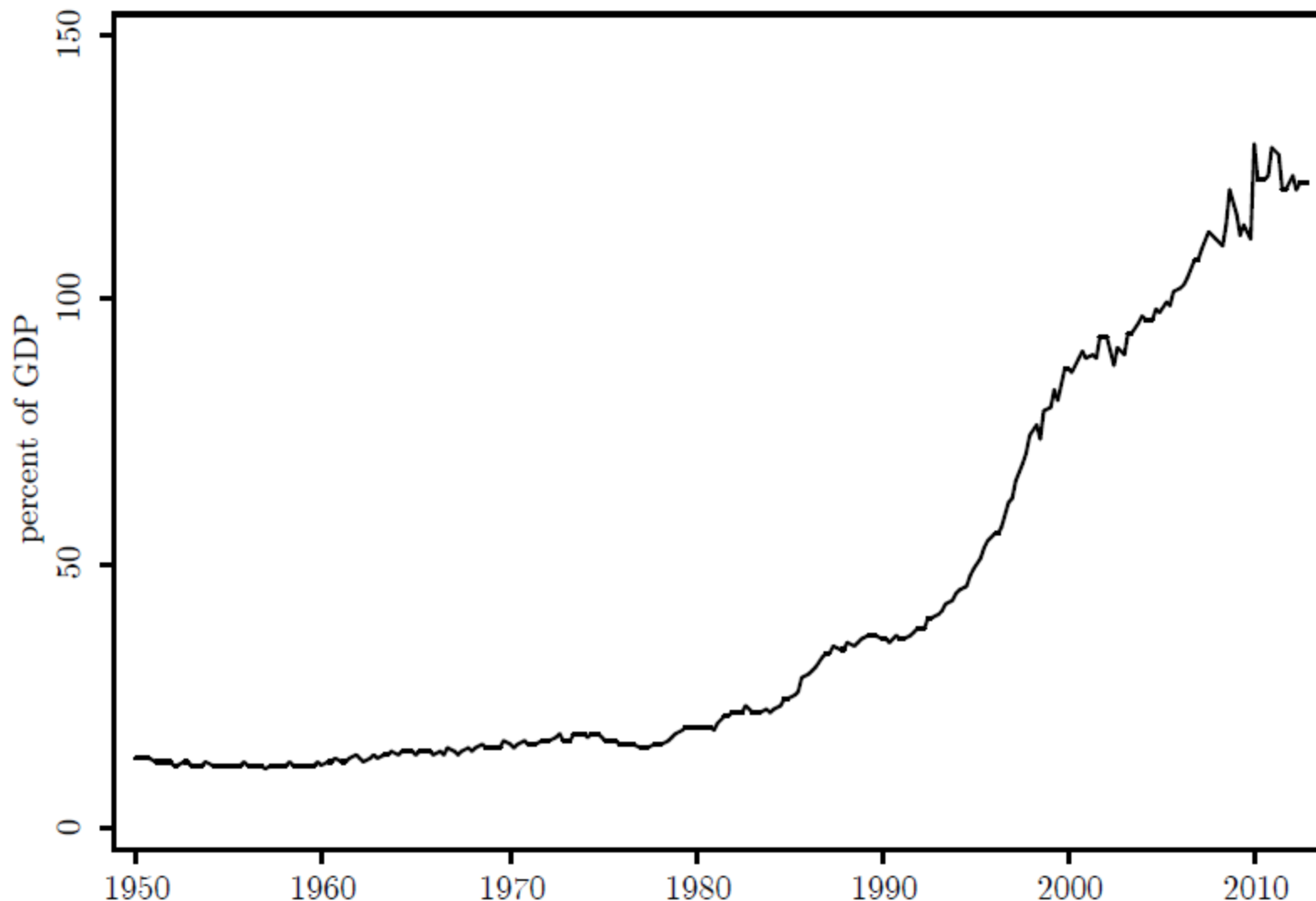


## US: Intra-Financial Lending: Narrow vs. extended measures in flows (percent of total lending)



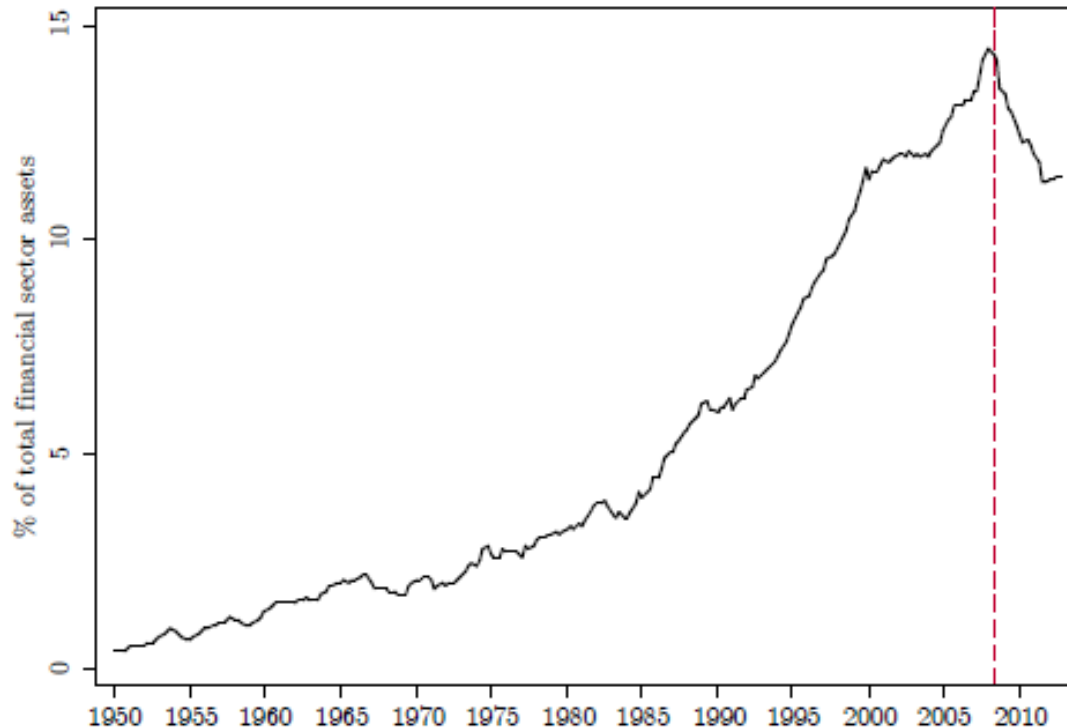
Source: Epstein and Montecino calculations based on the Flow of Funds.

# Intra-Financial Lending in relation to GDP (U.S.)



## Intra – Financial Lending with “Shadow Banking” Instruments (US) (Share of Financial Sector Assets) (stock measures)

Figure 1: Shadow banking instruments



Source: Montecino and Epstein, 2013

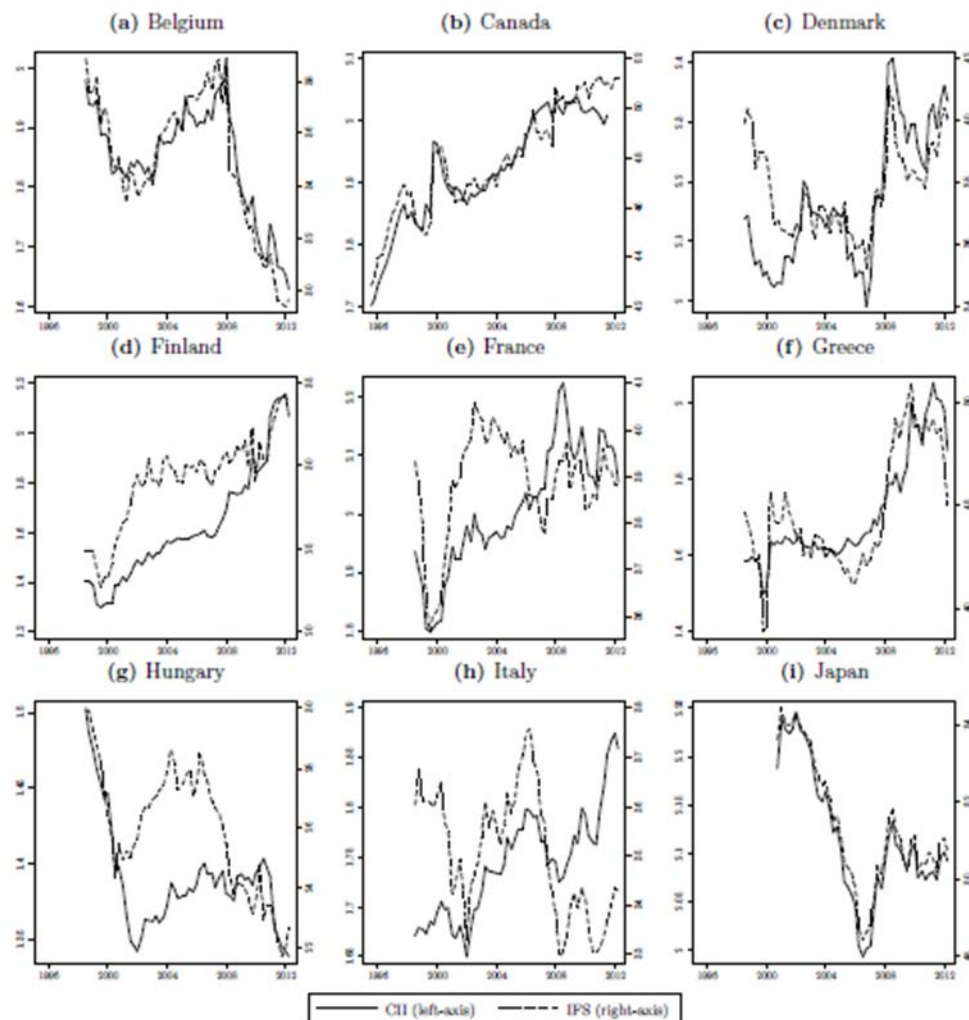


# Two Measures of Intra-Financial Lending In OECD Countries

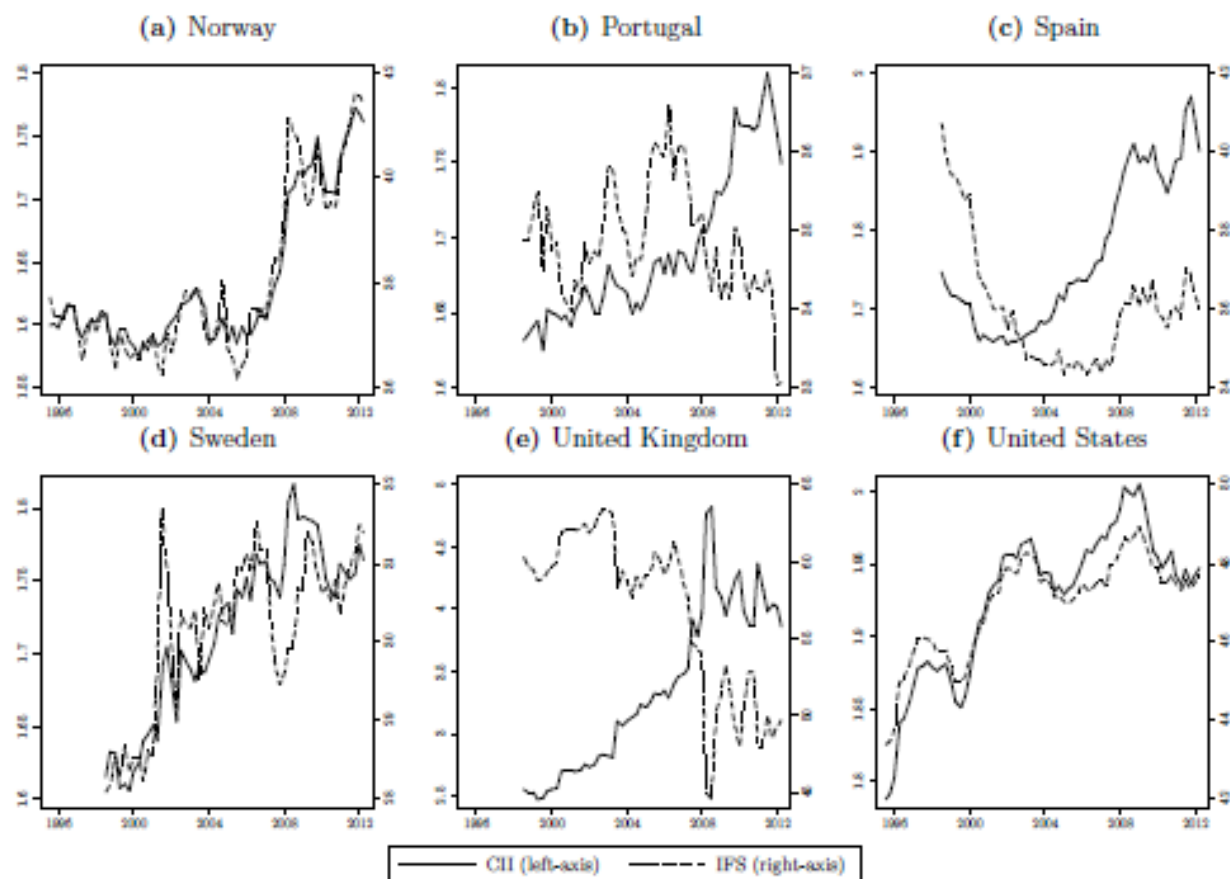
Bottom line: Went up substantially in most European Countries after 2000 ( with exceptions of Belgium and Hungary)

(Source: Montecino and Epstein, 2013)

**Figure 2:** Credit intermediation index (CII) vs. Intra-financial assets share (IFS)



**Figure 3:** Credit intermediation index (CII) vs. Intra-financial assets share (IFS)





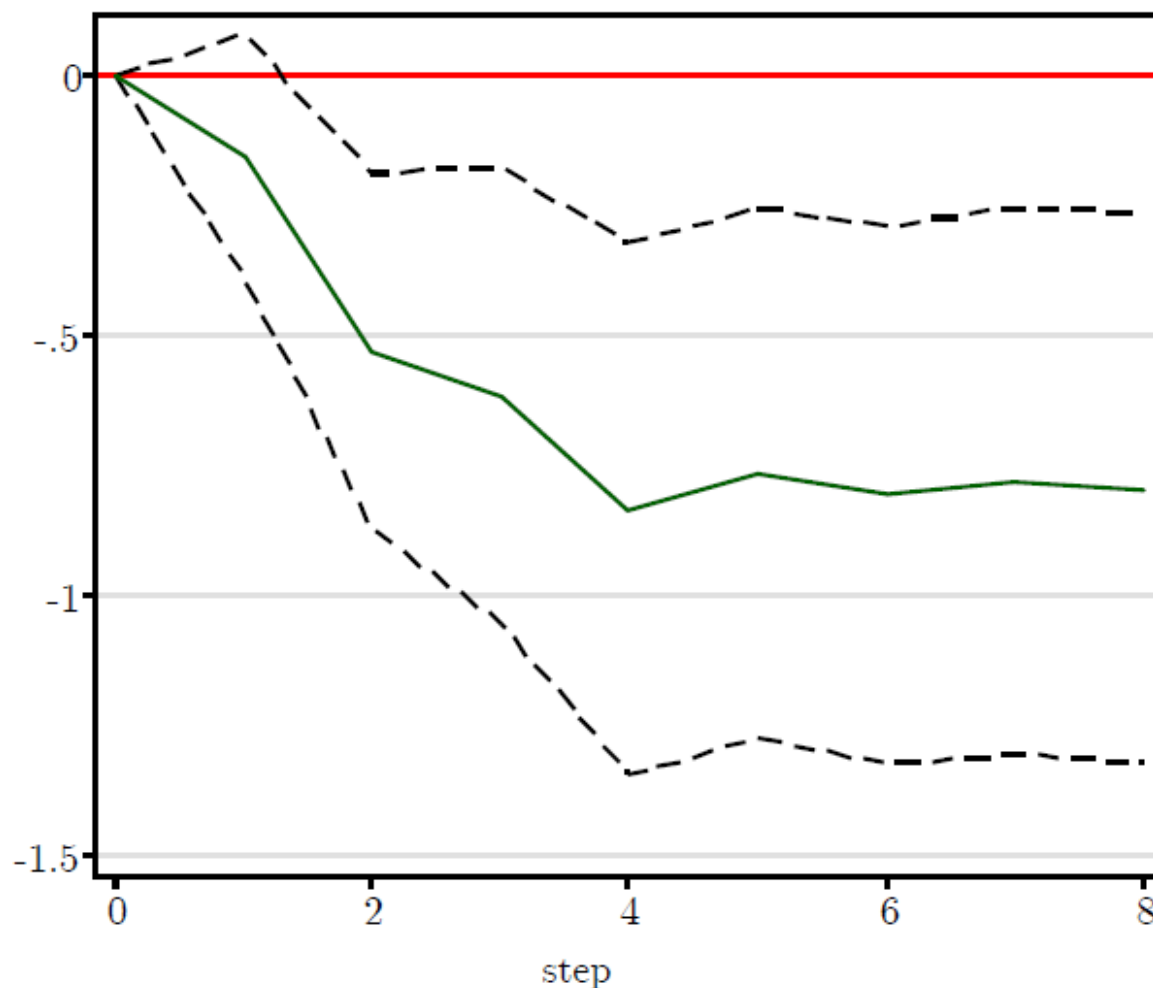
# What is the impact of intra-financial lending on credit growth and investment?

Juan Montecino and I studied a VAR model of intra-financial lending, credit growth and investment in the US, 1950 – 2011.

Answer: Intra-Financial  
lending appears to be  
associated with lower  
investment in the US



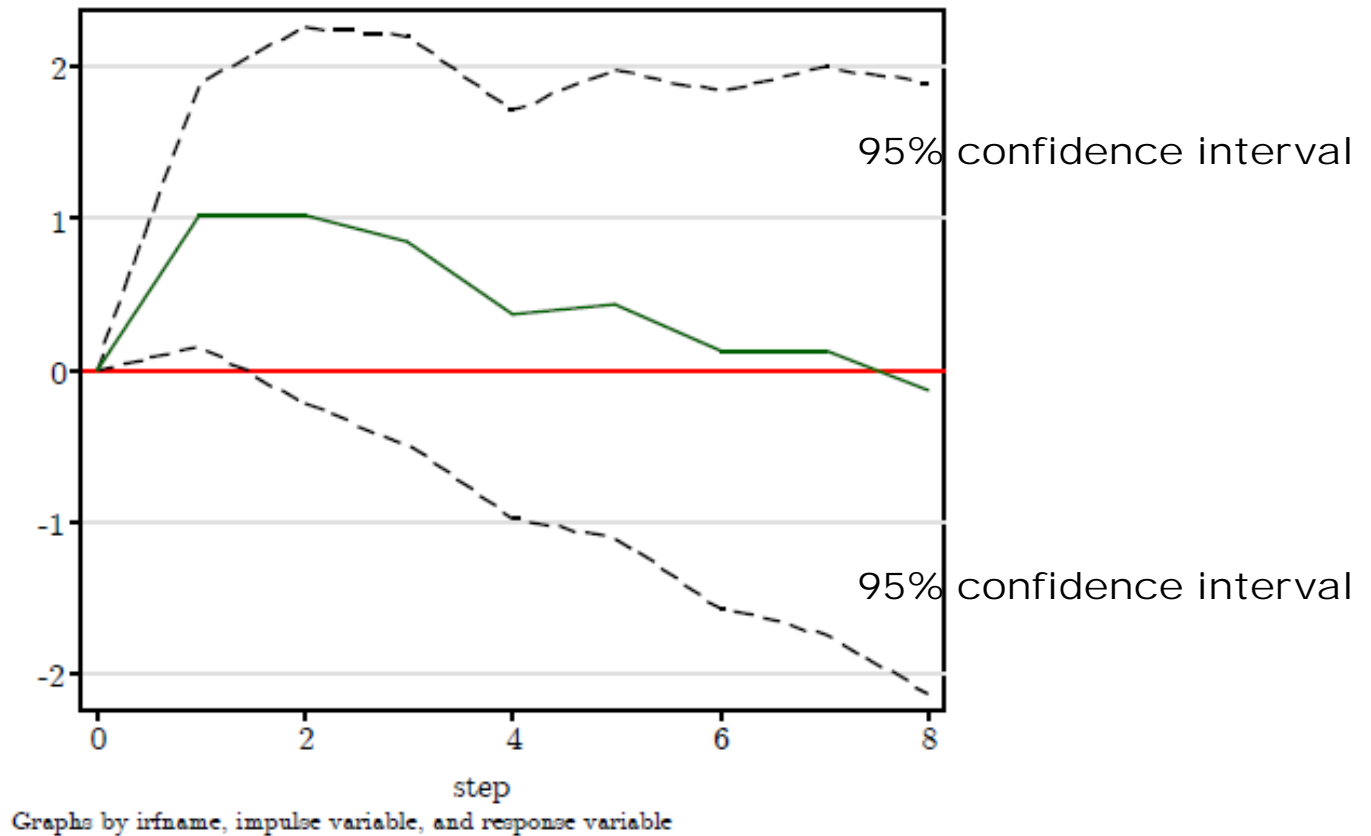
## Cumulative Impulse Response: effect of intra-financial assets on investment (US)



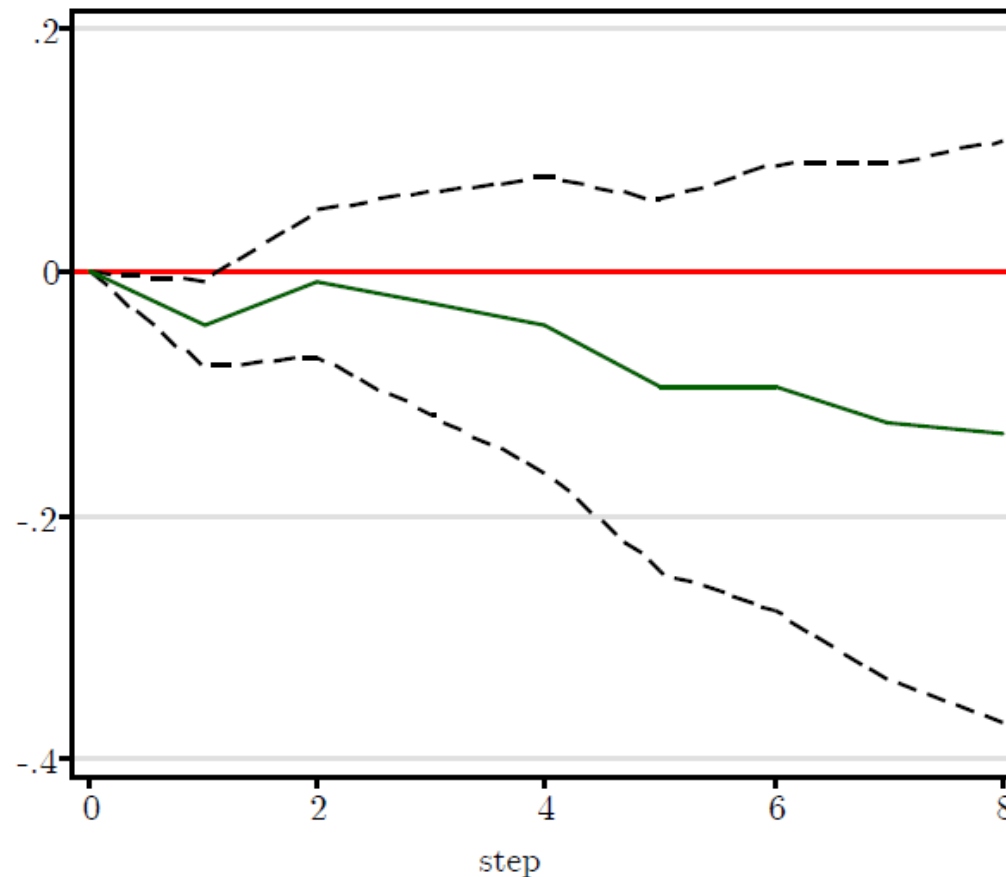
Graphs by irfname, impulse variable, and response variable

Not Sure of the Channels.  
Does Intra Financial Lending  
Reduce Credit Flows to  
Investment?

# Cumulative Impulse Response: effect of credit on investment (US)



# Cumulative Impulse Response: effect of intra-financial assets on credit (US)



Graphs by irfname, impulse variable, and response variable

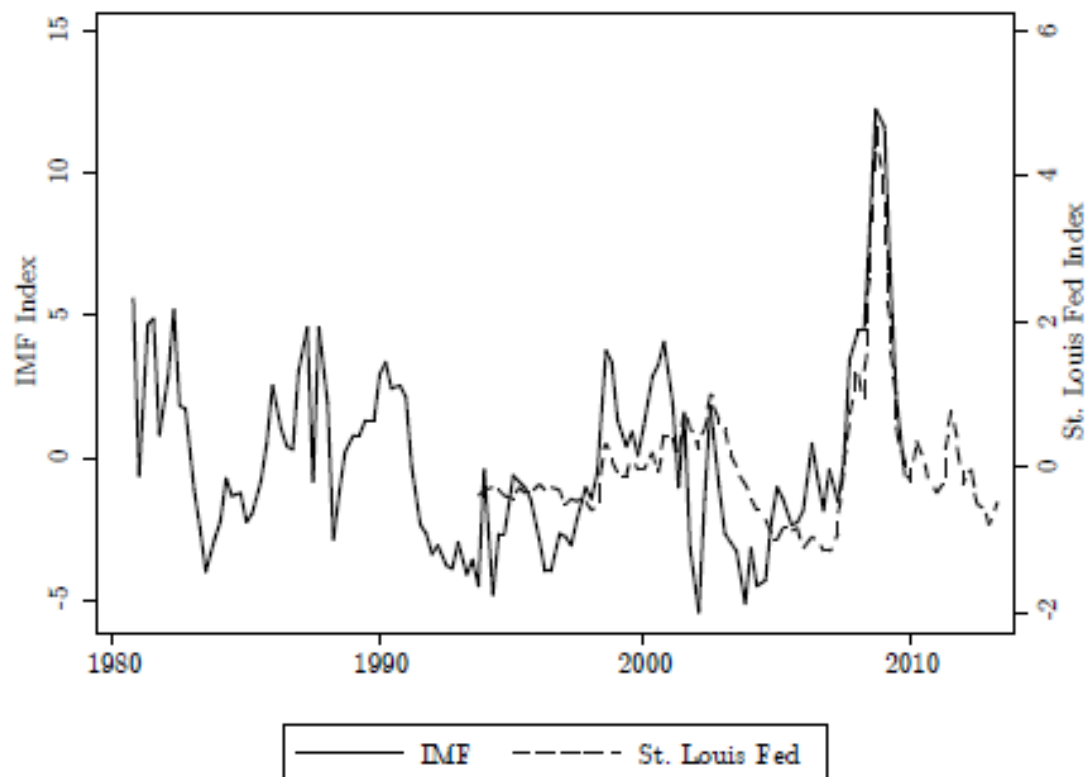


# What is the impact of intra-financial lending on Financial Crises?

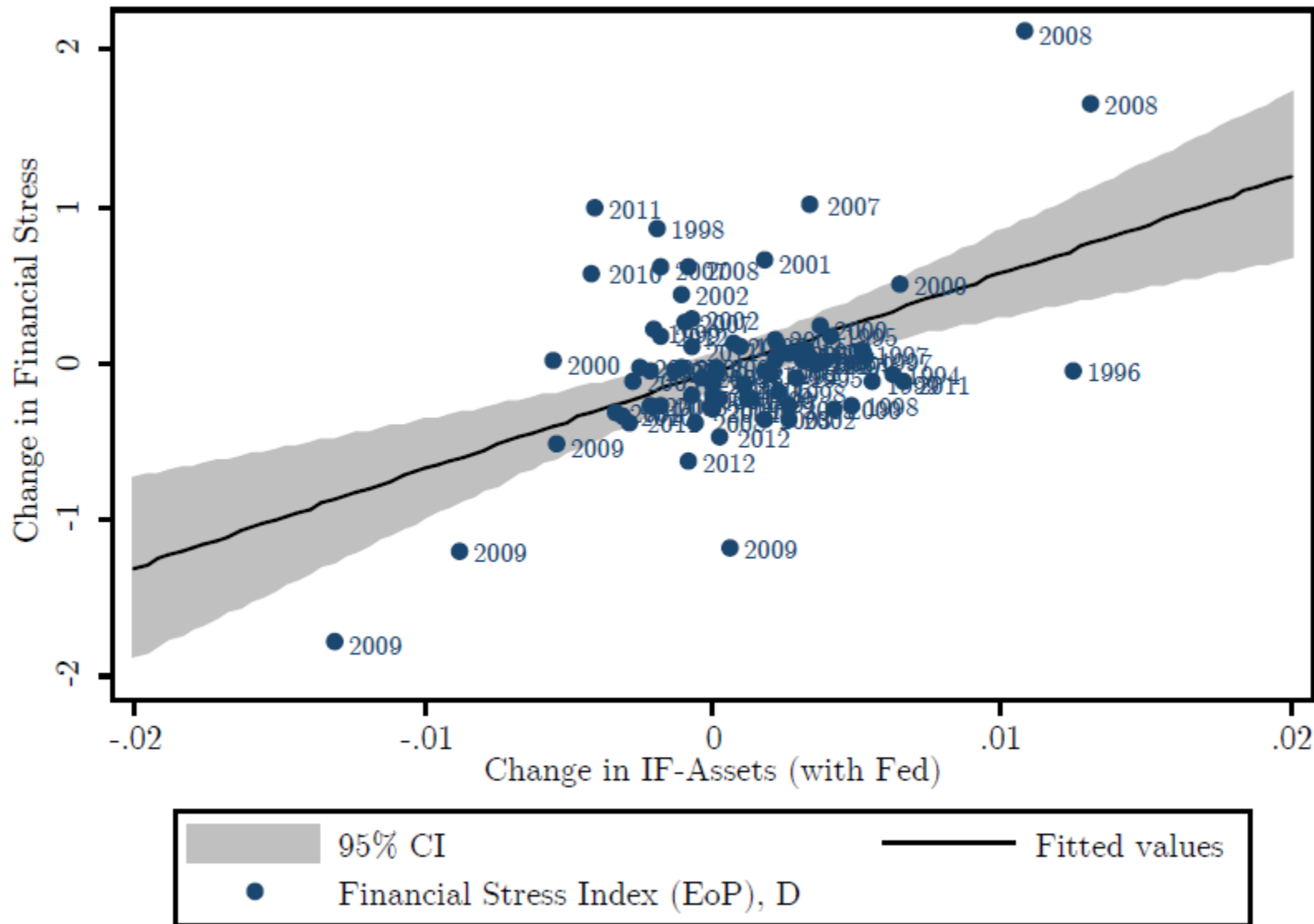


# Two “Financial Stress” Indices (US)

Figure 1: Comparison of financial stress indexes



# Impact of Intra-Financial Lending on Financial Stress Index (US): positive relation



# Impact of Intra-Financial Share on Financial Stress

VARIABLES	(1) $\Delta$ FSI	(2) $\Delta$ FSI	(3) $\Delta$ FSI	(4) $\Delta$ FSI	(5) $\Delta$ FSI
$\Delta$ Log Intra-financial assets share	0.39*** (0.10)	0.36*** (0.10)	0.32*** (0.10)	0.34*** (0.10)	0.23** (0.10)
$\Delta$ 3-month T-Bill		0.41* (0.23)			0.51** (0.23)
Output Gap			29.90** (11.64)		26.38** (11.68)
$\Delta$ Log Leverage				8.13* (4.26)	10.08** (4.22)
Constant	-0.28 (0.18)	-0.21 (0.18)	-0.22 (0.17)	-0.23 (0.18)	-0.07 (0.18)
Observations	116	116	116	116	116
R-squared	0.12	0.14	0.17	0.14	0.22
Serially Correlated Erros?	yes	yes	yes	yes	yes

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



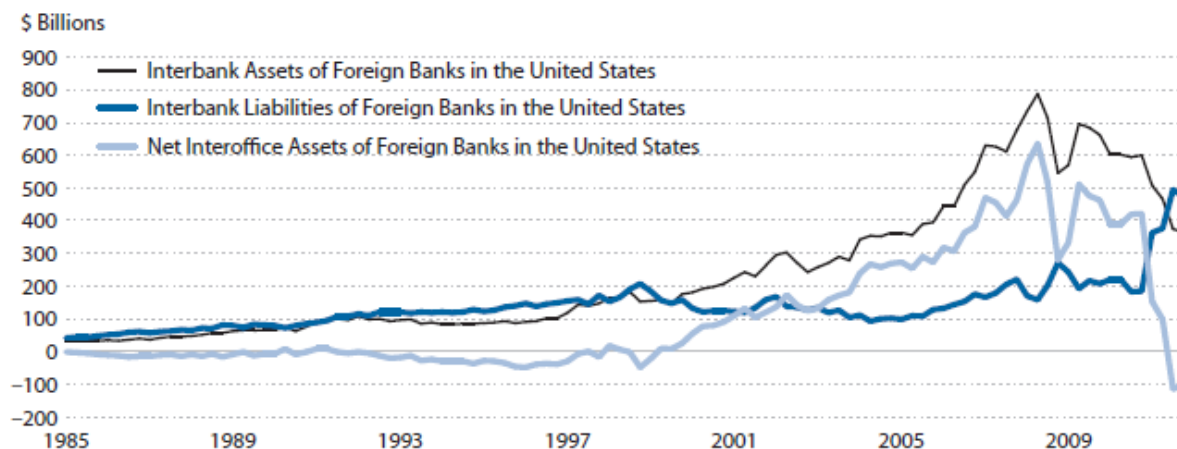
# What About European Banks?

# European Banks: Up to Their Eyeballs in US Sub- Prime Crisis

# Massive increase by European Banks of lending To US In Lead up to Crisis

Source:  
Shin

Interoffice Assets of Foreign Banks in the United States



NOTE: Interbank assets and liabilities represent claims and liabilities of branches of foreign banks in the United States on the head office of the banks.

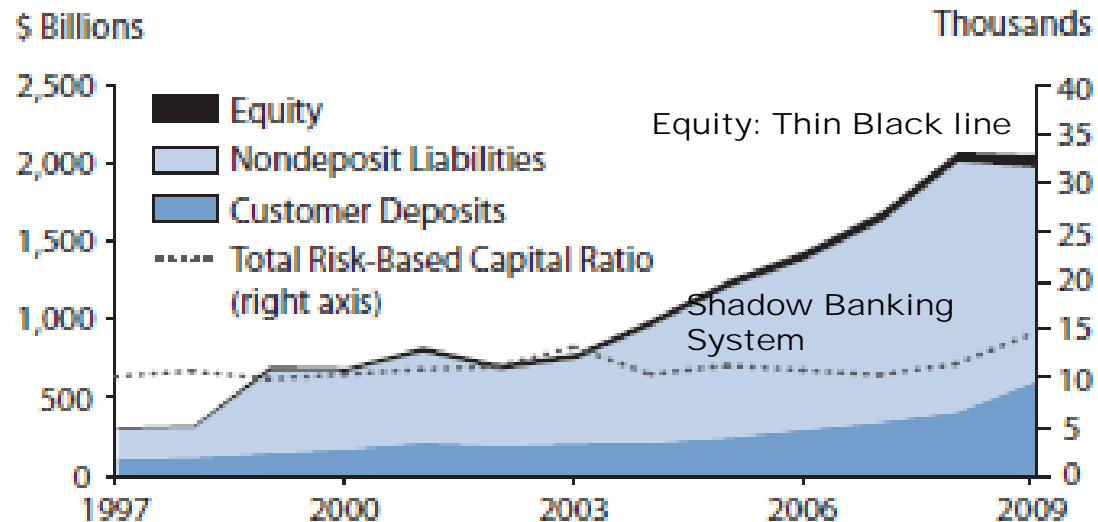
SOURCE: Federal Reserve, series on "Assets and Liabilities of U.S. Branches and Agencies of Foreign Banks" via Shin (2012).

# **SELECTED EUROPEAN BANK BALANCE SHEETS**

## **MASSIVE INCREASE IN LEVERAGE**

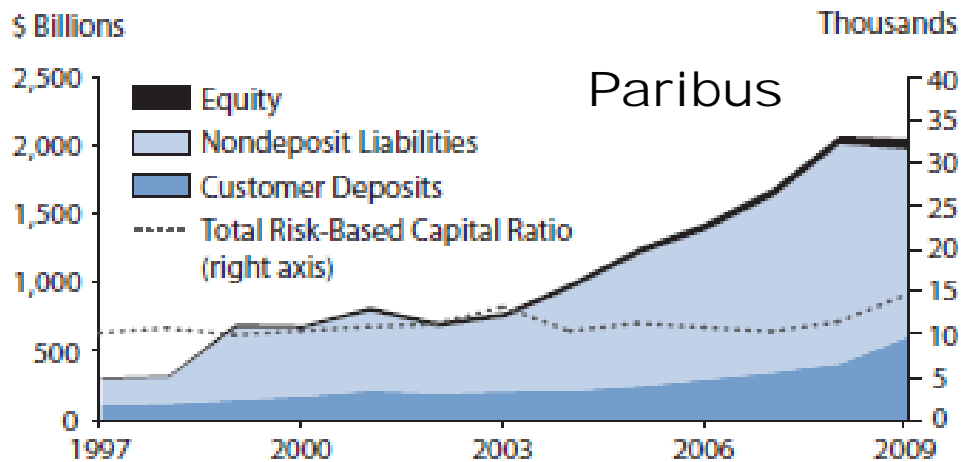
# BNP Paribas, 1997 - 2009

## BNP Paribas



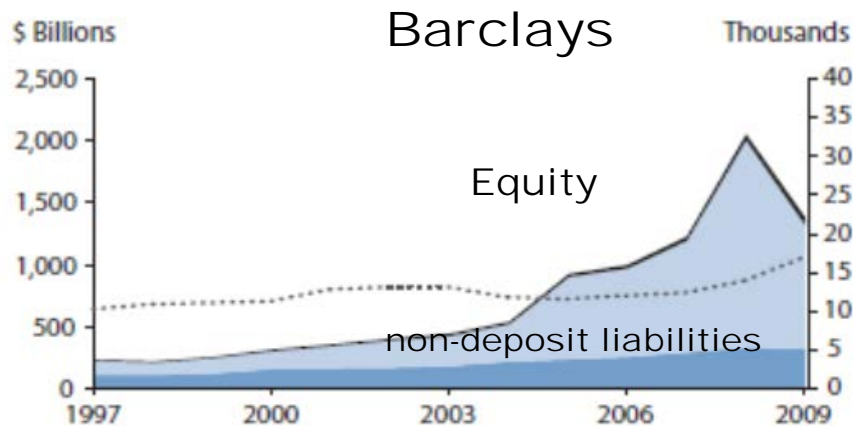
# BNP and Barclays 1997 – 2009, Thin Equity

## BNP Paribas



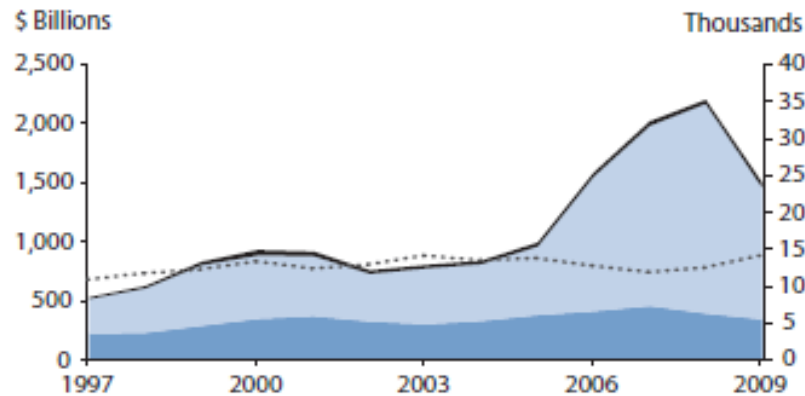
Risk based capital  
Ratio (looks pretty good!)

## Barclays

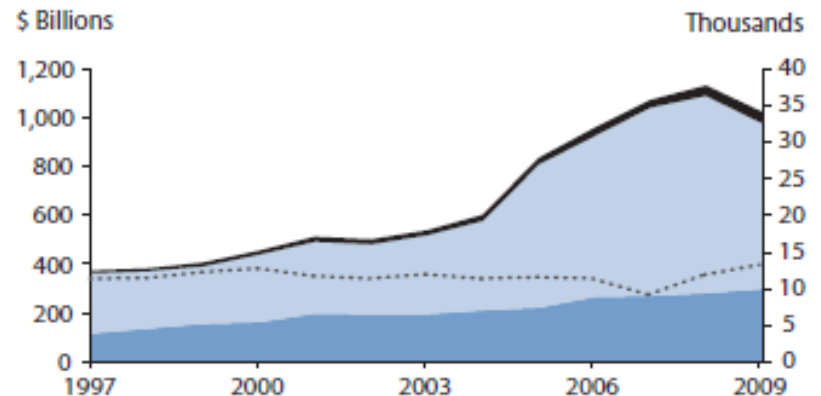


# Deutsche Bank and Societe Generale, 1997 - 2009

Deutsche Bank



Société Générale Group



Source: Noeth and Sengupta, *Federal Reserve Bank of St. Louis*, Nov./Dec. 2012



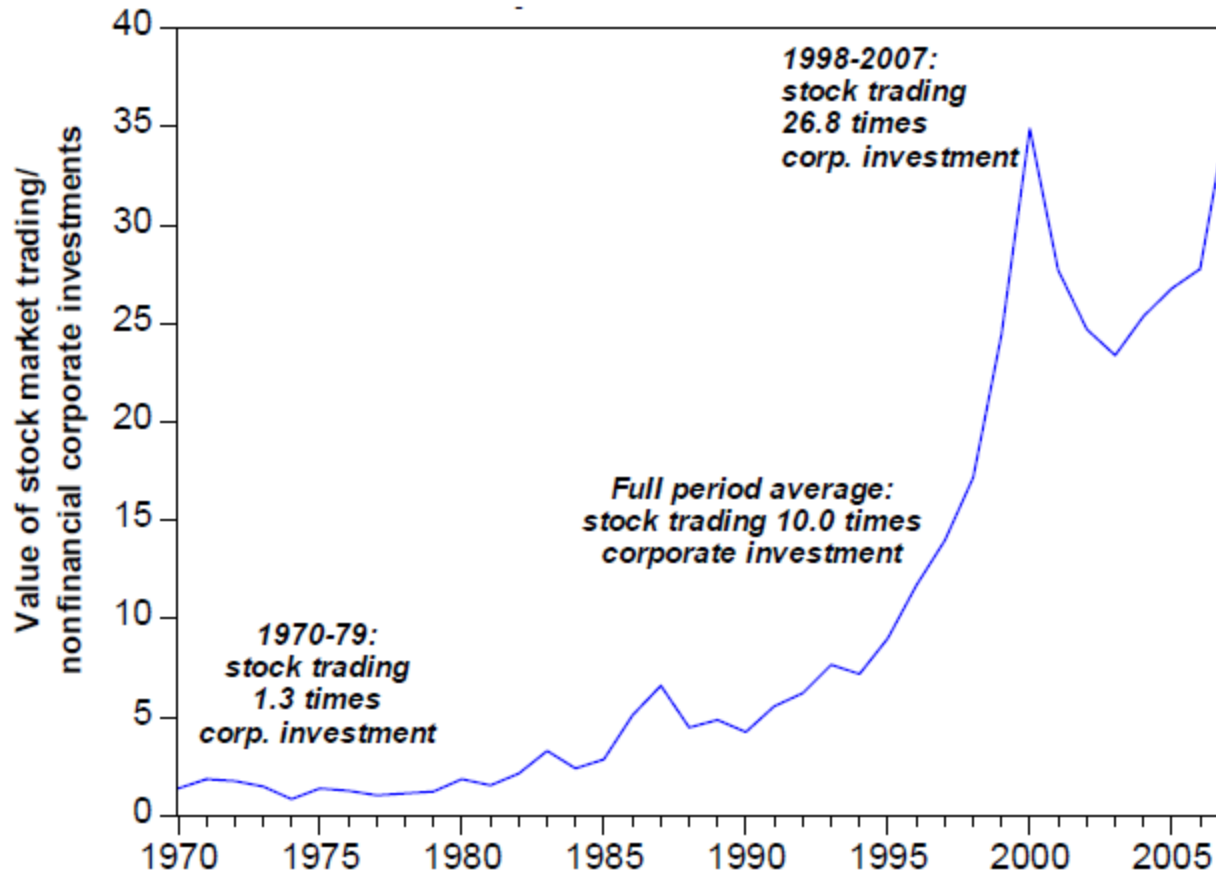
# Trading





# Trading: US Stock Market Trading Relative To Corporate Investment

FIGURE 3: U.S. STOCK MARKET TRADING RELATIVE TO CORPORATE INVESTMENT



Sources: Securities Industry and Financial Markets Association Fact Sheet 2008;  
Flow-of-Funds Accounts of U.S. Federal Reserve

Source: Pollin, 2011

# Excess Reserves Are Massively Piling Up on Balance Sheets of US Corporations

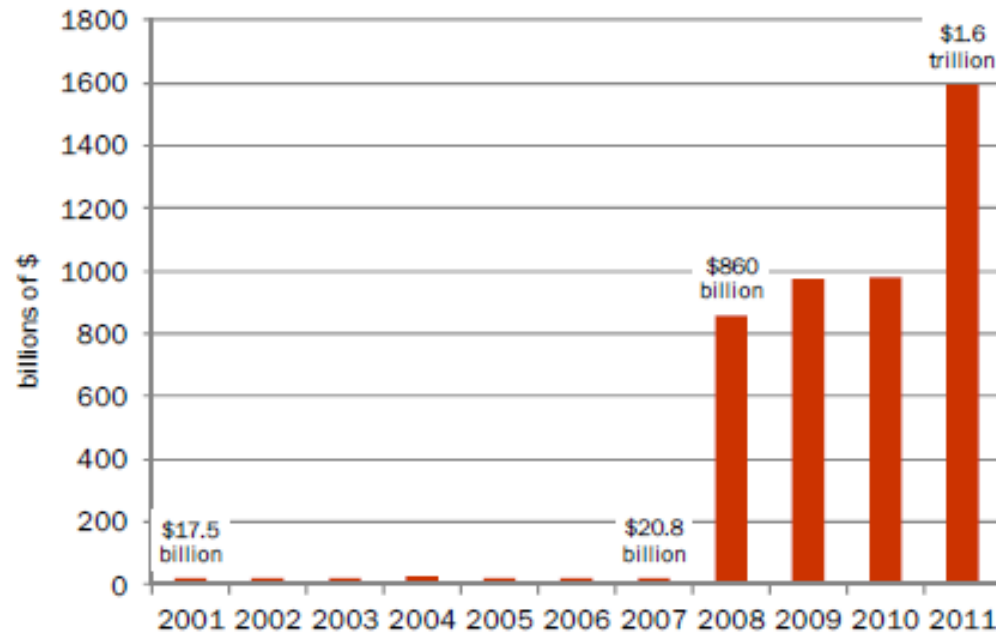
- Are these simply idle balances (Pushing on a string?)
- Or are they the foundation for massive speculation and trading by US (and presumably other) financial institutions?

# Excess Reserves Held By US Banks

**FIGURE 1. CASH RESERVE HOLDINGS BY U.S.**

**COMMERCIAL BANKS, 2001 - 2011.2**

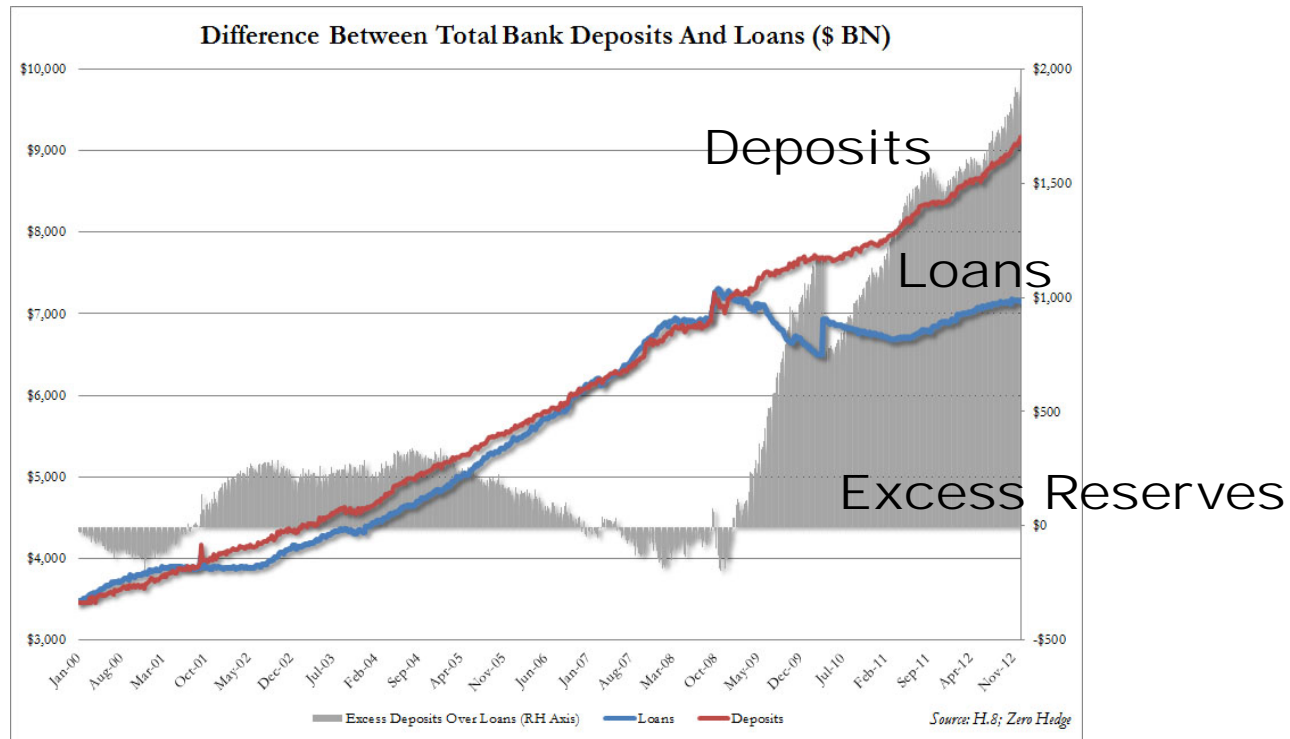
BILLIONS OF DOLLARS



Sources: Flow of Funds Accounts of U.S. Federal Reserve System.

Source: Pollin, et. al. 2011

# The accumulation of Bank excess Reserves Since the Crisis



Source: Zerohedge

# Excess Reserves

Pushing on a string?

Or

Collateral for profitable speculation and trading?

# Reserves being posted as collateral:

- In Repo market
- funds are borrowed and then used to buy equities and other assets (in a sort of off-balance sheet set of activities)

# Roles of the Financial Sector

- Channel finance to productive investment
- Provide mechanisms for households to transfer income over time
- Help households and businesses reduce risk (risk sharing)
- Help provide stable and elastic LIQUIDITY
- Financial Innovation

# Roles of the Financial Sector

- Provide mechanisms for households to transfer income over time
- Help households and businesses reduce risk (risk sharing)???

Simple Answer:

Haldane Estimates of Cost of Crisis: \$60 – 200 Trillion;

Bailouts: Privatize Benefits  
Socialize Costs



# Roles of the Financial Sector

- *Help provide stable and elastic LIQUIDITY*

# Roles of the Financial Sector

- *Help provide stable and elastic LIQUIDITY*

Liquidity Defense: Last refuge of scoundrels: Bankers claim:  
“Financial regulation will reduce liquidity and raise transactions costs and reduce price discovery”

# Roles of the Financial Sector

- *Help provide stable and elastic LIQUIDITY*

But: Financial Sector has generated liquidity cycles: excess liquidity driving asset bubbles, and private liquidity drying up in Crisis.

# Liquidity Defense

## Price Discovery?

In Keynesian world of fundamental uncertainty, there is NO price discovery; only price creation. And, unlike what Fama assumed, that prices are pre-determined, the bears and bulls sometimes drive asset prices in massively large directions up and down.

# Financial Innovation

Surveys of financial innovation  
cannot find any link between  
“financial innovation” and  
economic growth

(White and Fame 2004 JEL survey article)

# Fin. Innovation: Tax and Regulatory Arbitrage (Epstein and Crotty)

Study	Total Number of Security Innovations (1)	Number motivated at least partly by tax or regulatory reasons (2)	<b>Percentage of total innovations motivated by tax or regulatory reasons <math>(2)/(1) \times 100</math> (%)</b>
Finnerty, 1988	103	45	<b>44</b>
Finnerty, 1992	65	21	<b>34</b>
Finnerty and Emery, 2002	80	25	<b>31</b>

Source:  
 Epstein and  
 Crotty

# Liquidity Safe Assets, Business Model of Banking

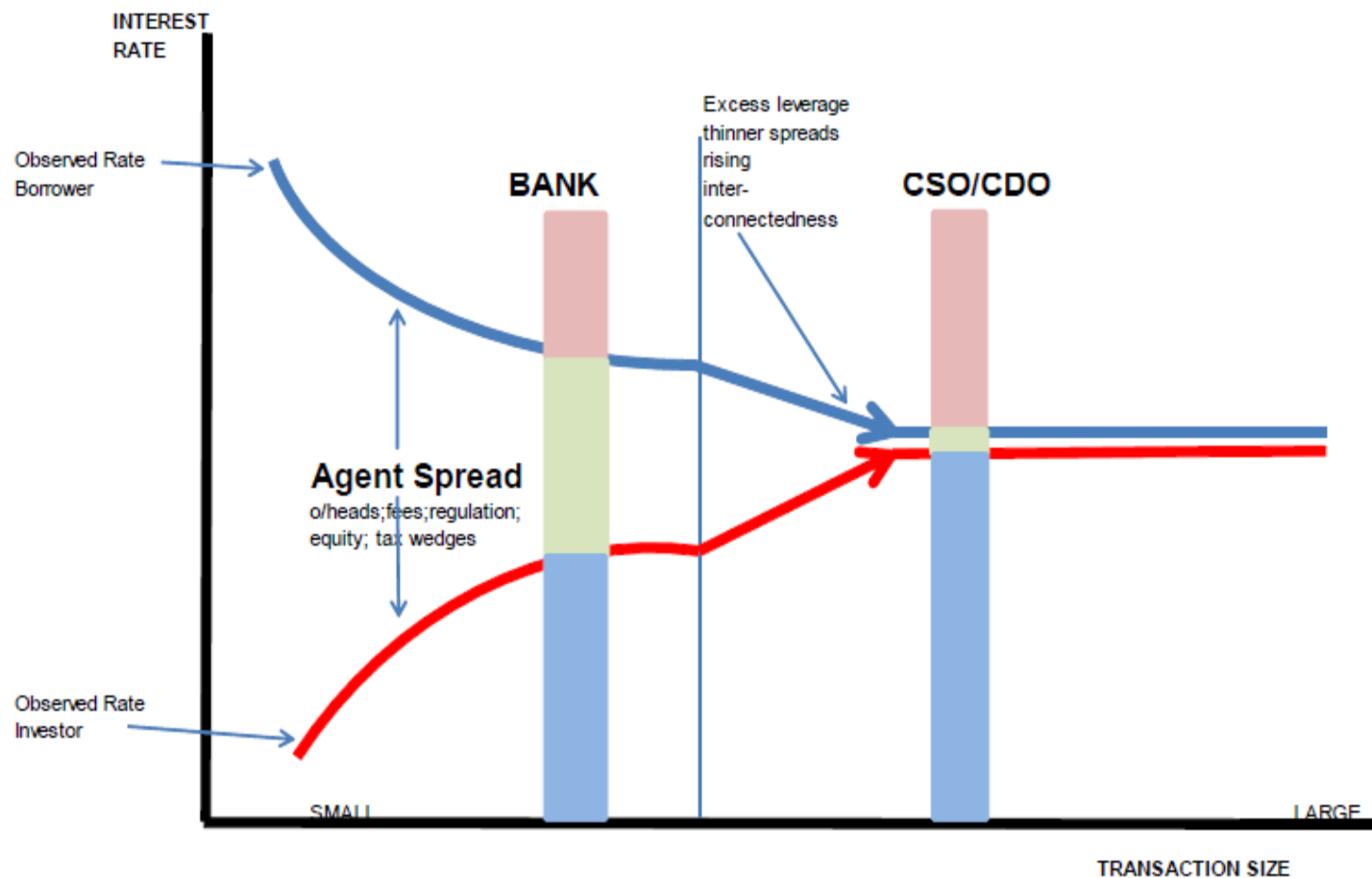
- business of banking (blundell, wignall)
- european banks and the global financial crisis (shin, etc.)

dollar based system, fisures, etc.

Led to a Change in The  
Banking/Finance Business  
Model: Some have said that  
banks became hedge funds  
with government guarantees



Figure 0.1. Spreads in the Transition from Traditional to Capital Market Banking



Source: Ironbridge Capital/OECD

Source: Blundell/Wignall

# Modern capital market banking

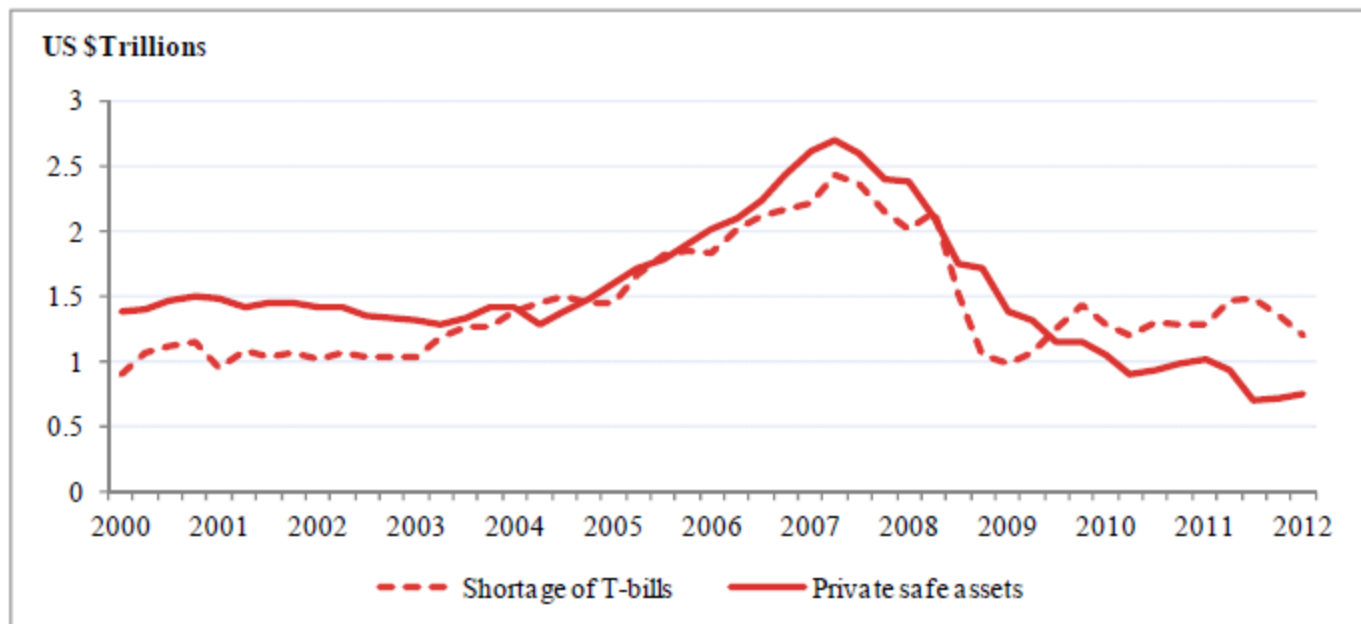
- Looks like a highly leveraged (i.e., in debt) hedge fund
- Financed with very short term borrowing (money markets, repos)
- Invested in obscure and illiquid investments
- complicated by complex derivatives bets

# When US Threatened a Default:

- Great Fears of a melt-down Lehman Style because the \$ and US Treasury Securities are foundation of massive super-structure of bets and counter-bets in global financial markets.
- US Treasuries are “safe assets”
- Some claim there is a shortage of such “safe assets”

# Shortage of “Safe Assets”

Figure 8. Filling the Vacuum of Short-term Government Guaranteed Debt



Sources: CapitalIQ; Risk Management Association; Investment Company Institute; *The Economist*; U.S. Treasury, Treasury International Capital (TIC) System; and U.S. *Flow of Funds*.

Source: IMF

# Demand for “Safe Assets”

- Demand is NOT for investment in socially productive and Useful Activities
- Demand fueled by the global financial “casino” and should not be accommodated by more government guarantees of financial assets and financial institutions

# **What is to be Done?**

**Restructuring Finance to  
Better Serve Society and  
generate socially useful  
and adequate employment**

# Reduce Size of Financial Sector

Current Policy:

- Capital Requirements
- leverage requirements

Useful: but problems with evasion; capital can be pro-cyclical

# Reduce the Size of Financial Sector

- Financial Transactions Tax
- Bank Profit Tax
- Tax Surcharge or Clawbacks on Financial Salaries and Bonuses



But reducing size of financial sector will reduce employment in that sector; this is especially a problem for some financial centers: London, New York, others.

# Make Sure Financial Innovation is Safe and Effective

- A Financial Products Safety Commission  
(Financial Precautionary Principle)

Source: [Epstein and Crotty, Controlling Dangerous Financial Products through a Financial Precautionary Principle](#)

# Limit destructive risk taking by large financial firms

Splitting large financial conglomerates through mandatory separation of commercial and investment banking activities

Limit destructive risk taking by large financial firms

Phase out crisis-driven government guarantees and limit bailouts

# Limit destructive risk taking by large financial firms

Reform rating agencies, reducing reliance and shifting their business model back to an investor-pay model

Re-orientate financial institutions and markets and reverse the balance of power between democratically governments and the financial markets

FINANCE WITHOUT FINANCIERS

Diversifying the financial sector through a larger array of public and cooperative financial institutions



# Reducing Size and profitability of financial sector

Likely to be useful for overall economy.

What impact will it have on the jobs problem?

Will it make the transition to green employment easier?

# Reducing speculation, promotes green transition?

Will reduce the profitability of financial speculation and trading: and therefore reduce the required return on financing other activities, such as green technology which will help make the environmental transition and trade with green jobs. (Keynes, Chapter 17; Orghanzi; Stockhammer).



# But cannot rely on Market alone

There are a number of policy tools that can be used by governments and central banks to promote and help allocate credit to green technology and renewable energy. Some of these are already being done and more should be done.

# Tools to use for directing credit:

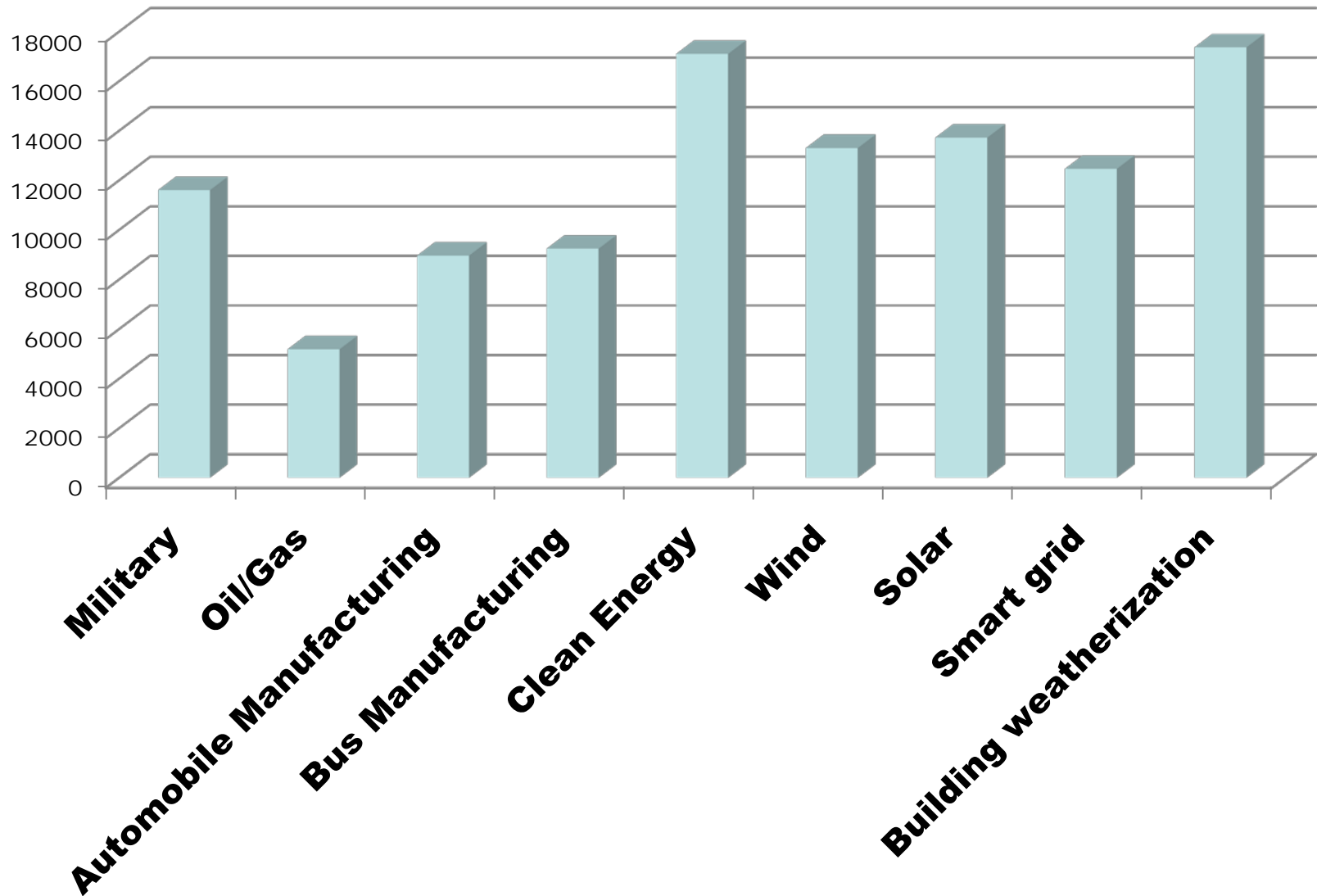
1. Asset Backed Reserve Requirements (Palley, Pollin)
2. Loan Guarantees
3. Directed, Subsidized Credit
4. Sustainable Development Banks
5. Assisted by sustainable development oriented central banks



# Making Transition will generate jobs:

Much work has been done by my  
colleagues Bob Pollin, Heidi  
Garrett-Peltier and James Heintz  
at PERI.

## Jobs per \$1 Billion



Source: Political Economy Research Institute and IMPLAN

# **Employment Multiplier Effects**

## **Jobs per \$1 billion direct spending**

Military: 11,600

Oil/Gas: 5,180

Automobile Manufacturing: 8,960

Bus Manufacturing: 9,240

Clean Energy: 17,100

- wind: 13,300

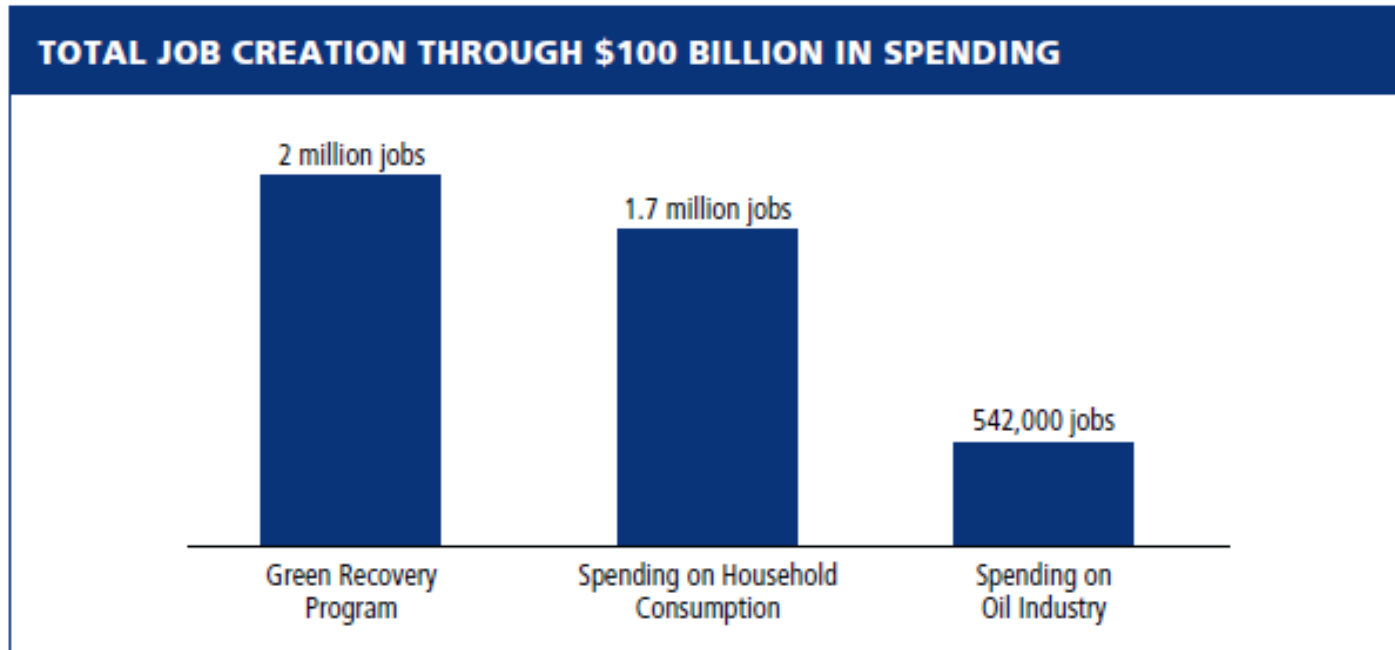
- solar: 13,720

- smart grid: 12,460

- building weatherization: 17,360

Source: Pollin and Garrett-Peltier, 2011

# Green Job creation vs. Fossil Fuels

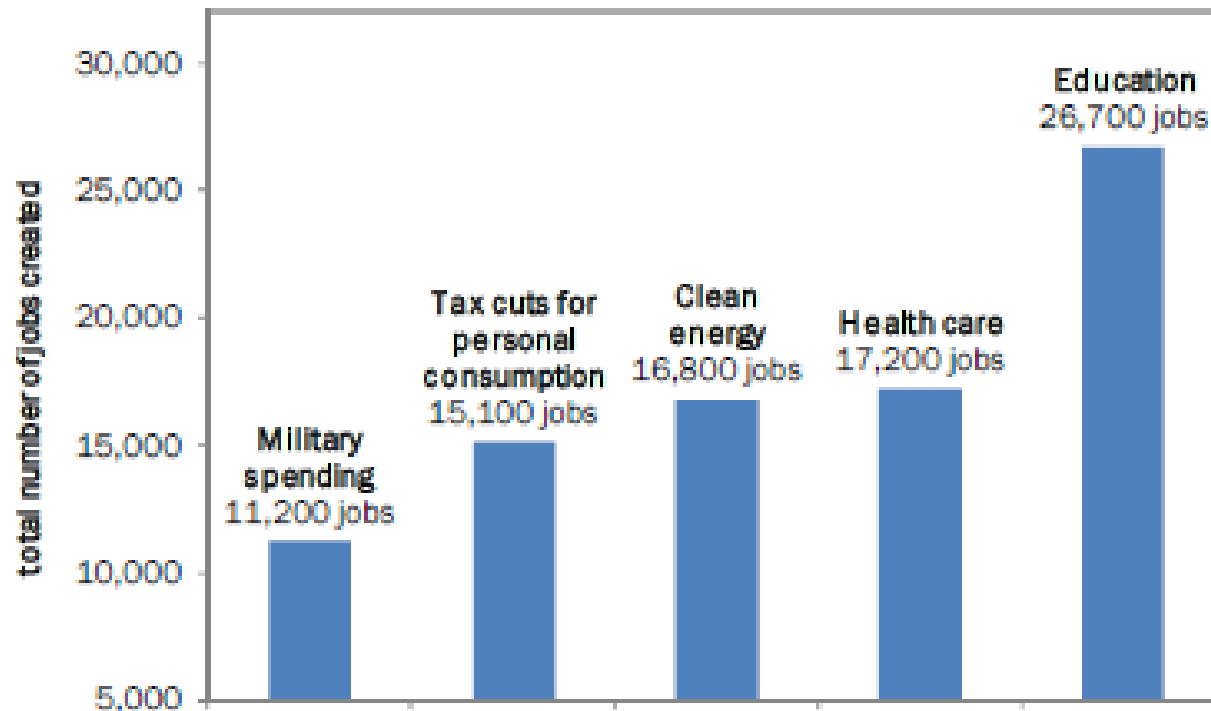


Source: U.S. Bureau of Economic Analysis and authors' calculations. See Appendix 1 for details.

Source: Pollin, Heintz, Garrett-Peltier, 2009

# Job Creation in Various Sectors (US)

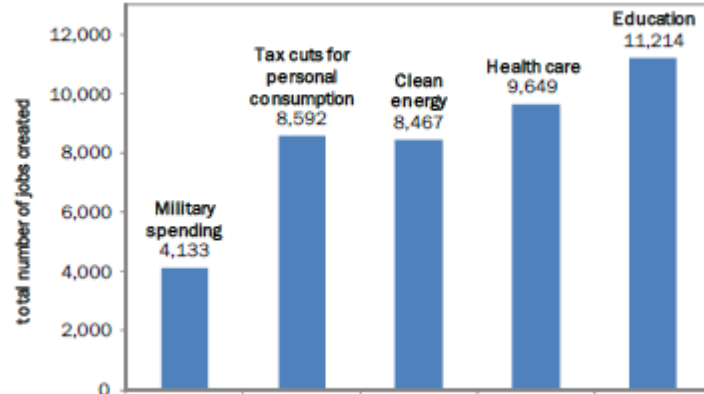
FIGURE 1. JOB CREATION IN THE U.S. THROUGH \$1 BILLION IN SPENDING



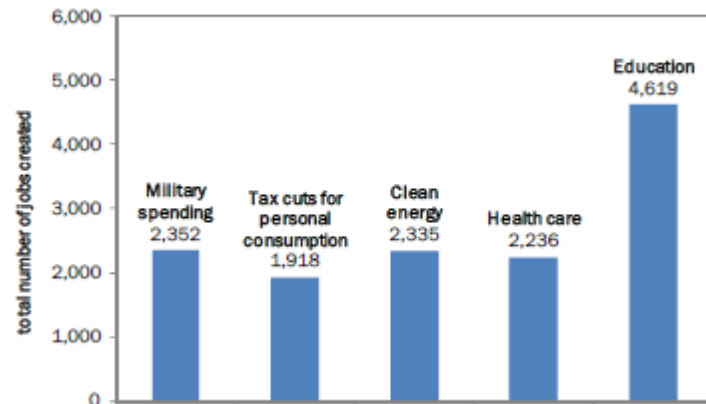
Source: Pollin and Garrett-Peltier, 2011

# Wage Distribution of Jobs: distributed across categories

a) Number of jobs with wages below \$32,000/year



c) Number of jobs with wages above \$64,000/year



Source: Pollin and Garrett-Peltier, 2011





# What NOT to DO: Cap and Trade Solution: a boon for financial speculation

Trade generates a casino for financial speculation.

Already Commodity markets are a massive arena for speculation.



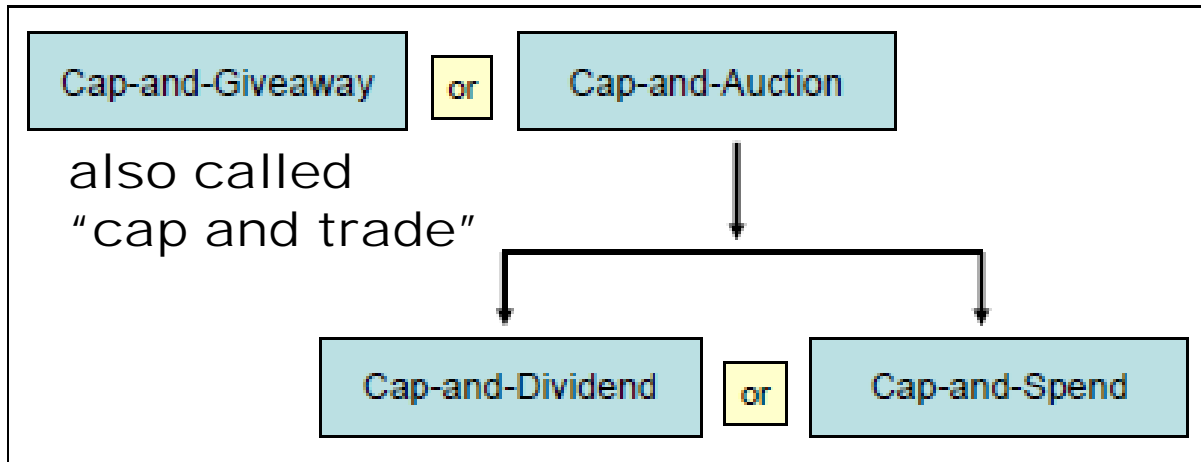
# Better Solution to cut out Speculative Finance

1. Carbon Tax

and/or

2. Cap and Dividend (James Boyce, colleague at PERI)

# Options to Control Climate Change



Source: Boyce and Riddle, 2007

In the end, We need to:

Help re-orient economics to a reality based economics based on evidence based understanding of financial markets and the macroeconomy.

Reverse the balance of power between democratically elected governments and the financial markets

Protecting financial reforms processes from regulatory capture by bankers, including through stronger regulation of political parties' financing



# Bankers are Now Blocking Reform on Both Sides of Atlantic

We need to continue trans-Atlantic Cooperation on Financial Reform to fight back.

And to fight for addressing climate change by using tools to quicken the pace of transition and in the process generate many more sustainable jobs.





THANK YOU