

Modern finance and Macroeconomics

Context, Issues and Challenges

ICTS Winter School on Modern Finance and Macroeconomics

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British Queen's concern...

- In November 2008 Her Majesty The Queen of England, Queen Elizabeth visited the London School of Economics and asked the assembled scientific community why the financial crisis had not been anticipated and the measures proposed and taken to fight it.

Fellows of the British Academy, Professors Tim Besley and Peter Hennessy, answered the Queen

- “Many people did foresee the crisis ... but the difficulty was seeing the risk to the *system as a whole* rather than to any specific financial instrument or loan. Risk calculations were most often confined to slices of financial activity, using some of the *best mathematical minds in our country and abroad*. But they frequently lost sight of the bigger picture.”

[Letter to Her Majesty The Queen, dated 22 July 2009]

Reply

- “So where was the problem? Everyone seemed to be doing their own job properly on its own merit. And according to standard measures of success, they were often doing it well. The failure was to see how **collectively** this added up to a series of interconnected imbalances over which no single authority had jurisdiction. This, combined with the **psychology of herding** and the **mantra of financial and policy gurus**, lead to a dangerous recipe. Individual risks may rightly have been viewed as small, but the risk to the ***system as a whole*** was vast.”

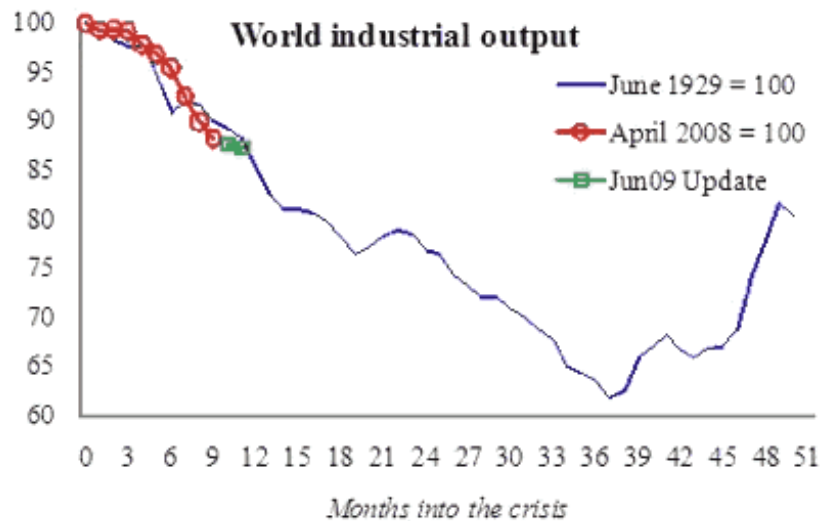
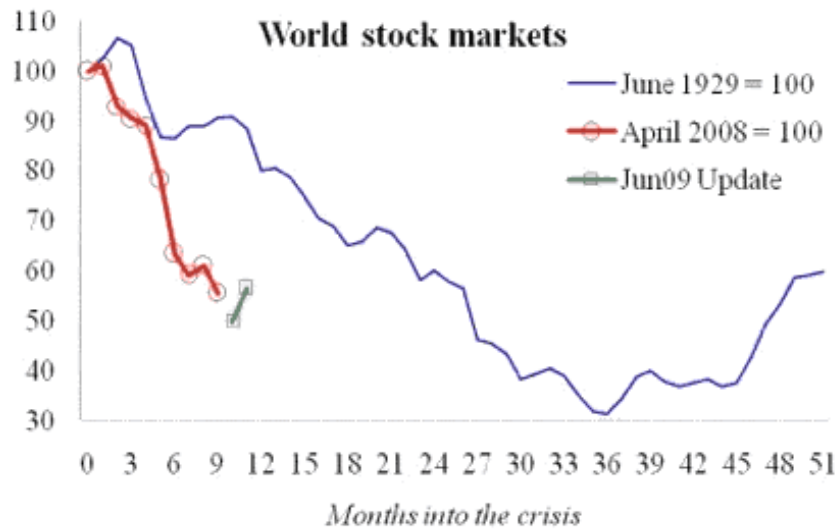
[Letter to Her Majesty The Queen, dated 22 July 2009]

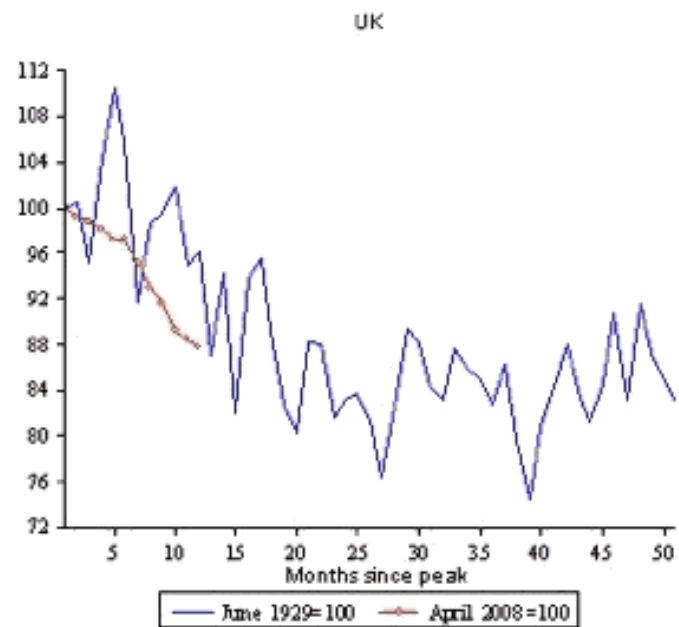
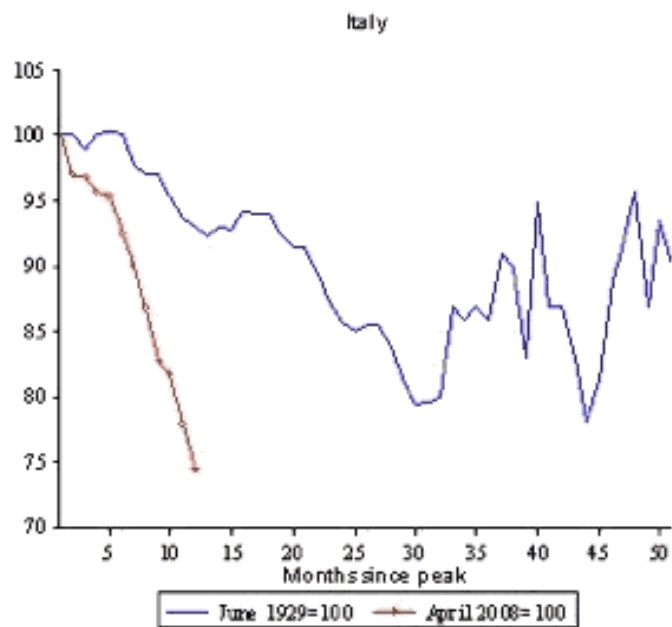
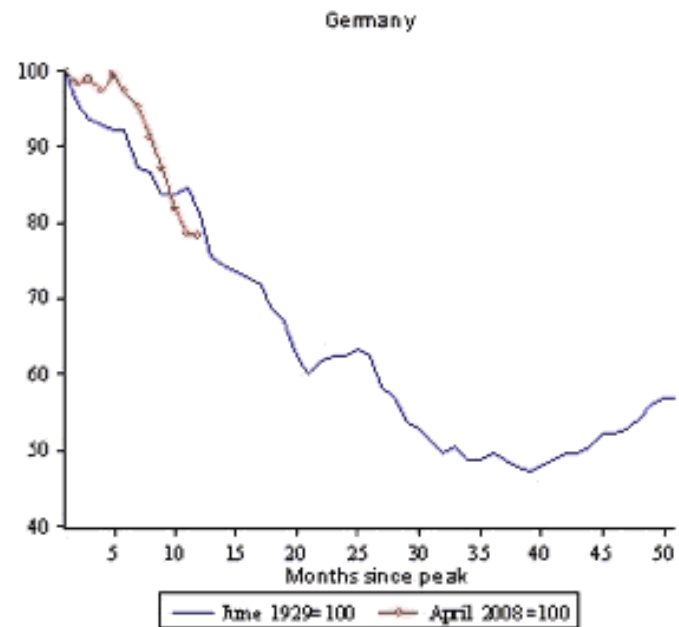
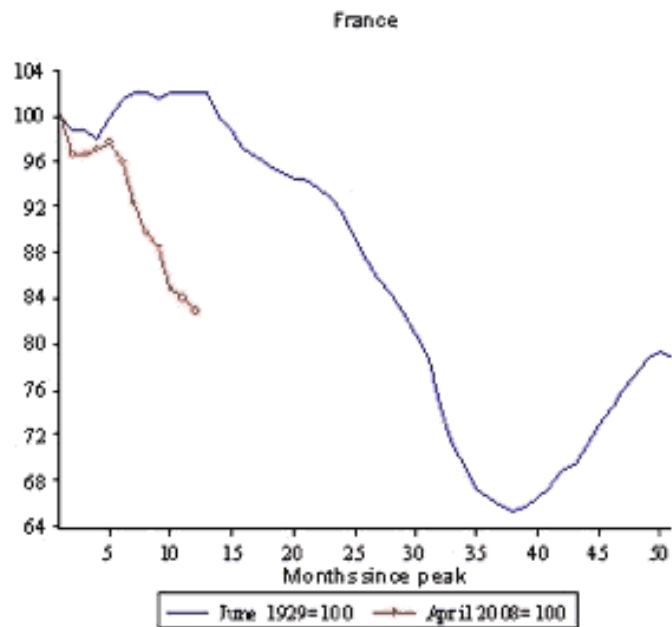
I. The Great Depression and the Current Crisis

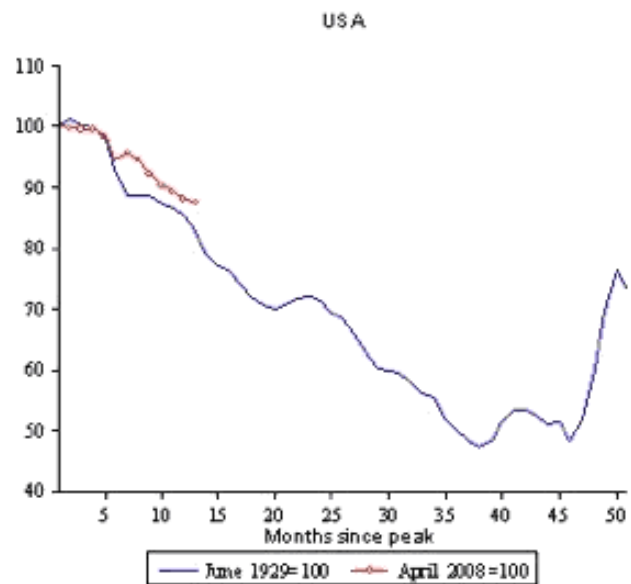
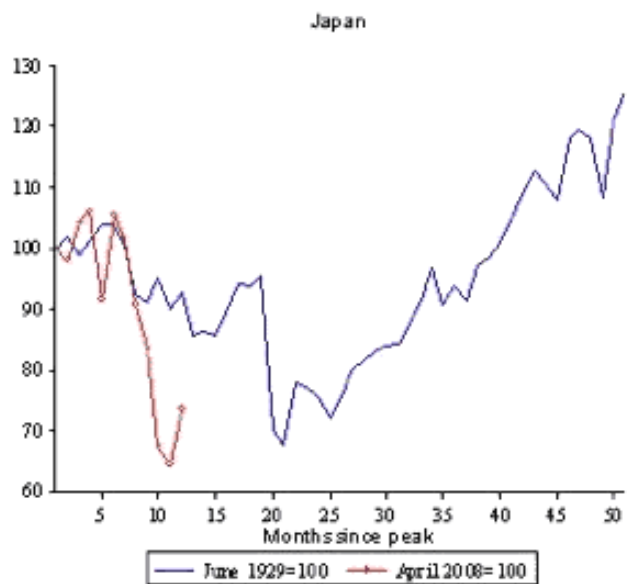
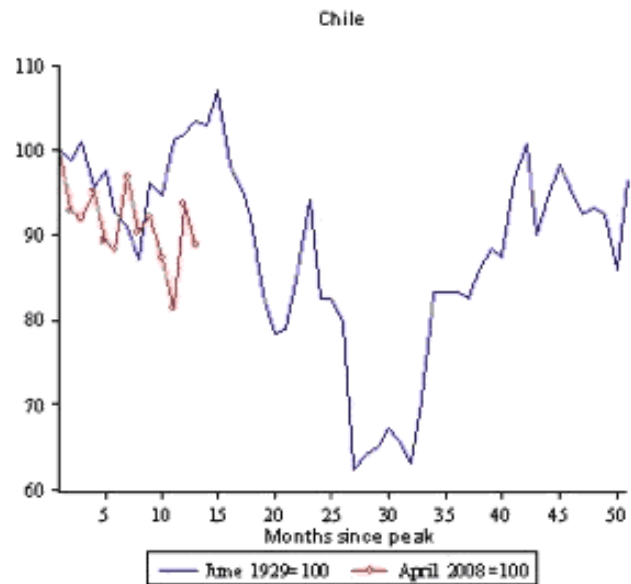
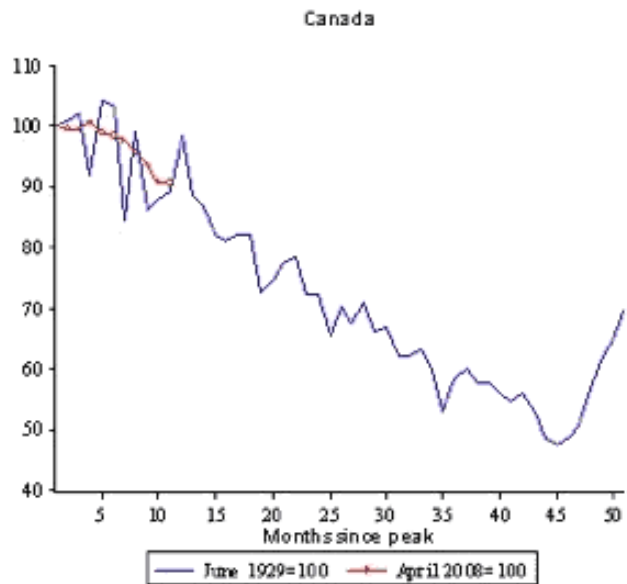
"The nation is marching along a permanently high plateau of prosperity." – Irving Fisher in 1929

"The fundamentals of America's economy are strong." – John McCain in April 2008

"The market is in the process of correcting itself." – George W. Bush in July 2008







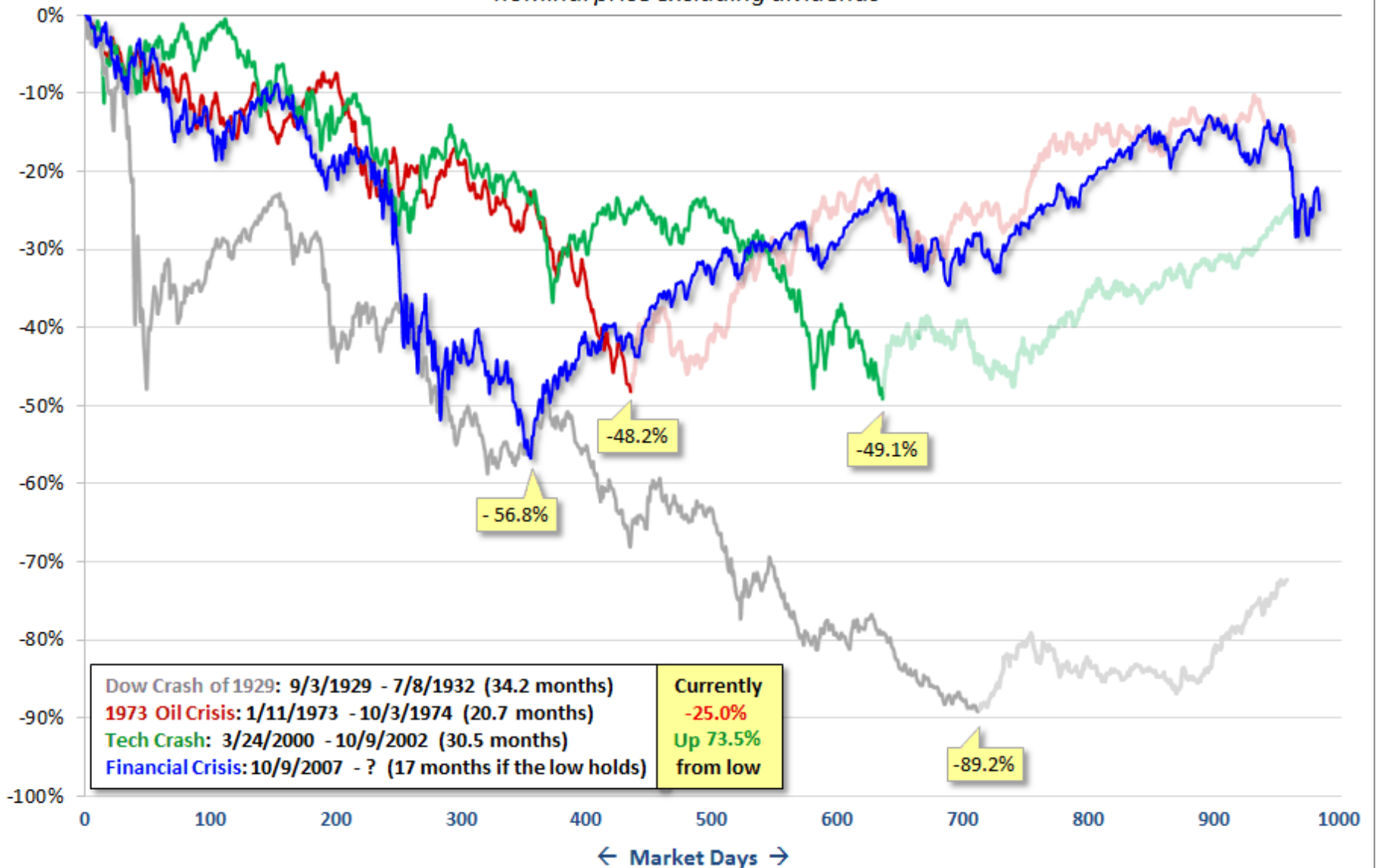
Four Bad Bear Markets

dshort.com

10/9/2011

Dow in 1929-1932; S&P 500 in 1973-74, 2000-02, 2007-09

nominal price excluding dividends



S&P 500 Index: Current Market Snapshot

dshort.com

3/7/2012

Daily closes from 10/9/2007 - Present

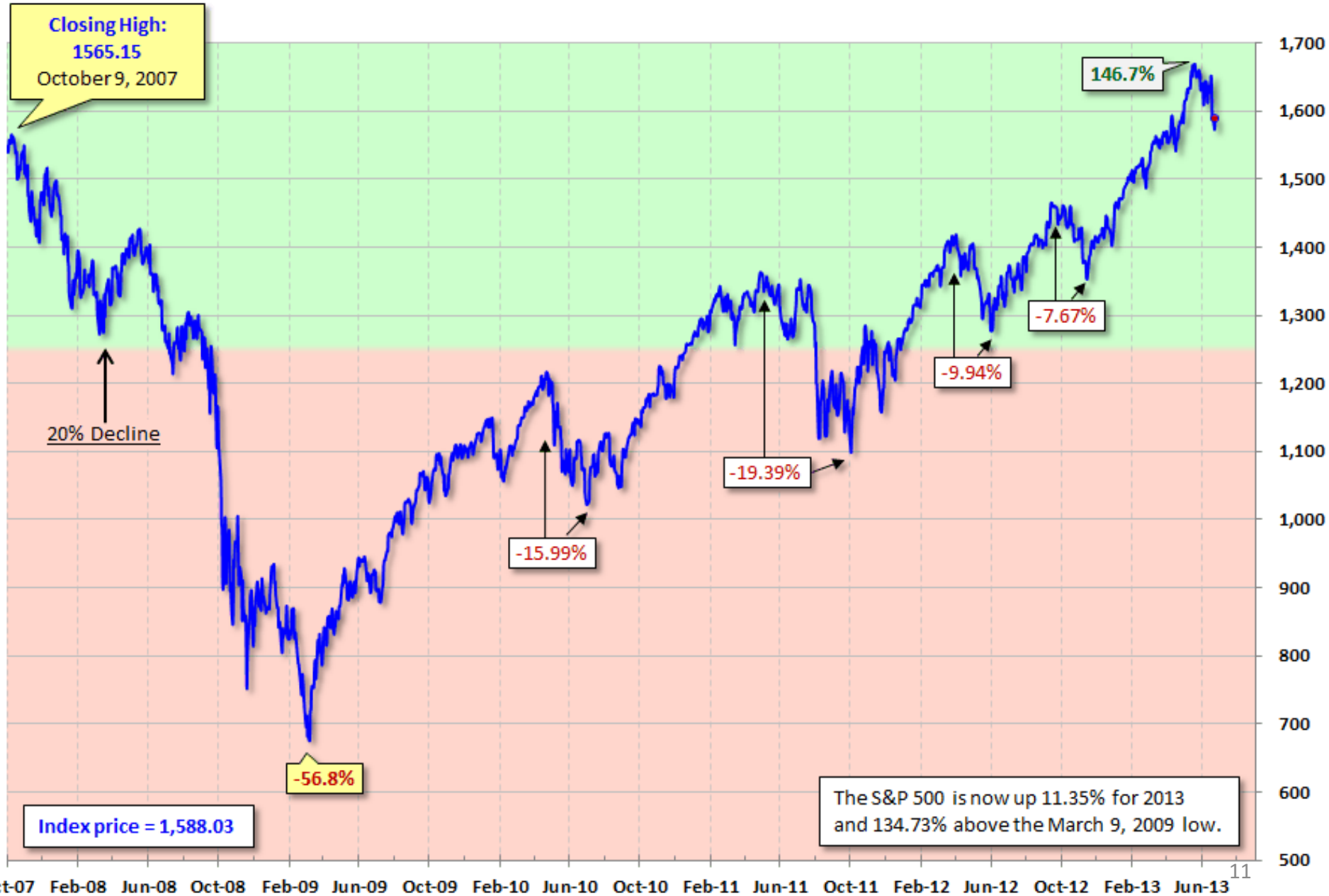
17 Months to low at -56.8%, 52.8 Months Elapsed to date



S&P 500 Index: Current Market Snapshot

Daily closes from 10/9/2007 - Present

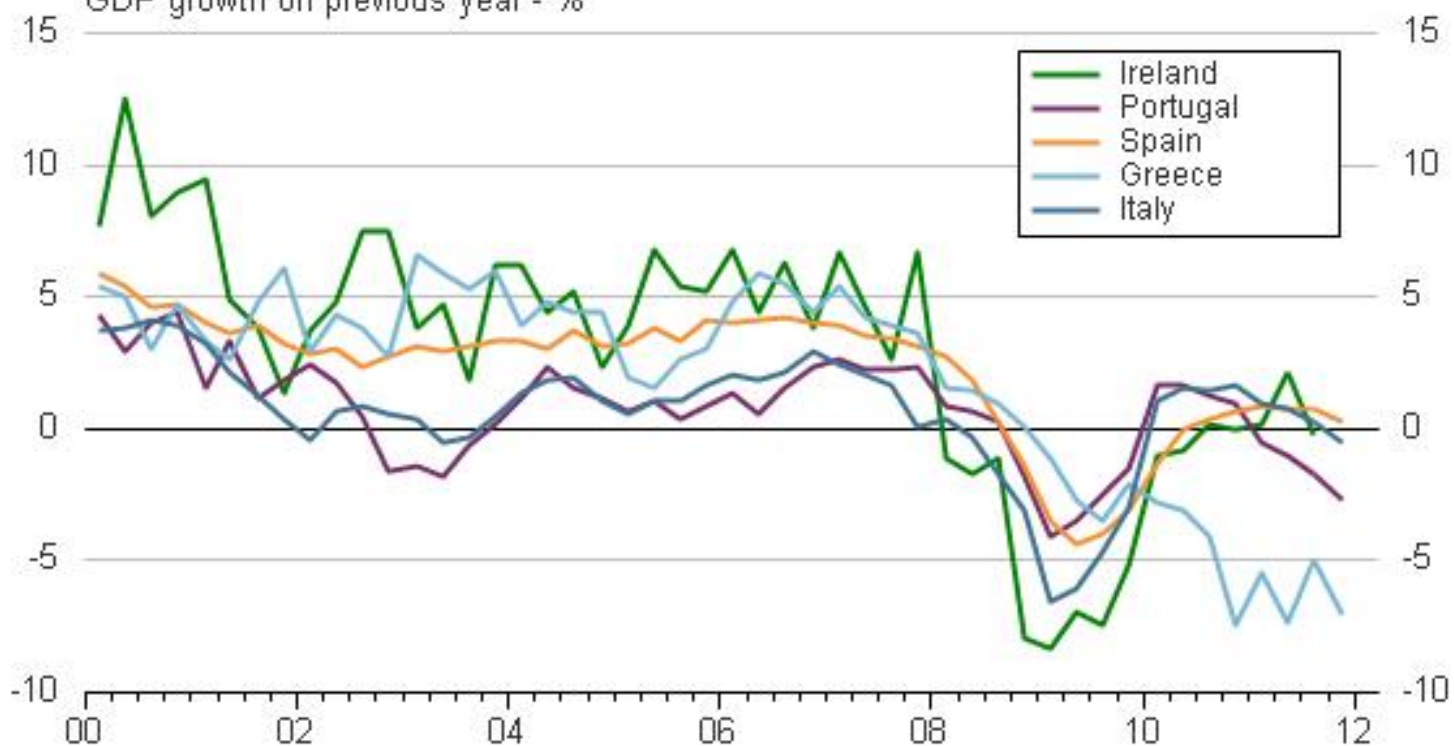
dshort.com
June 25, 2013



II. The European quagmire

Euro zone GDP growth

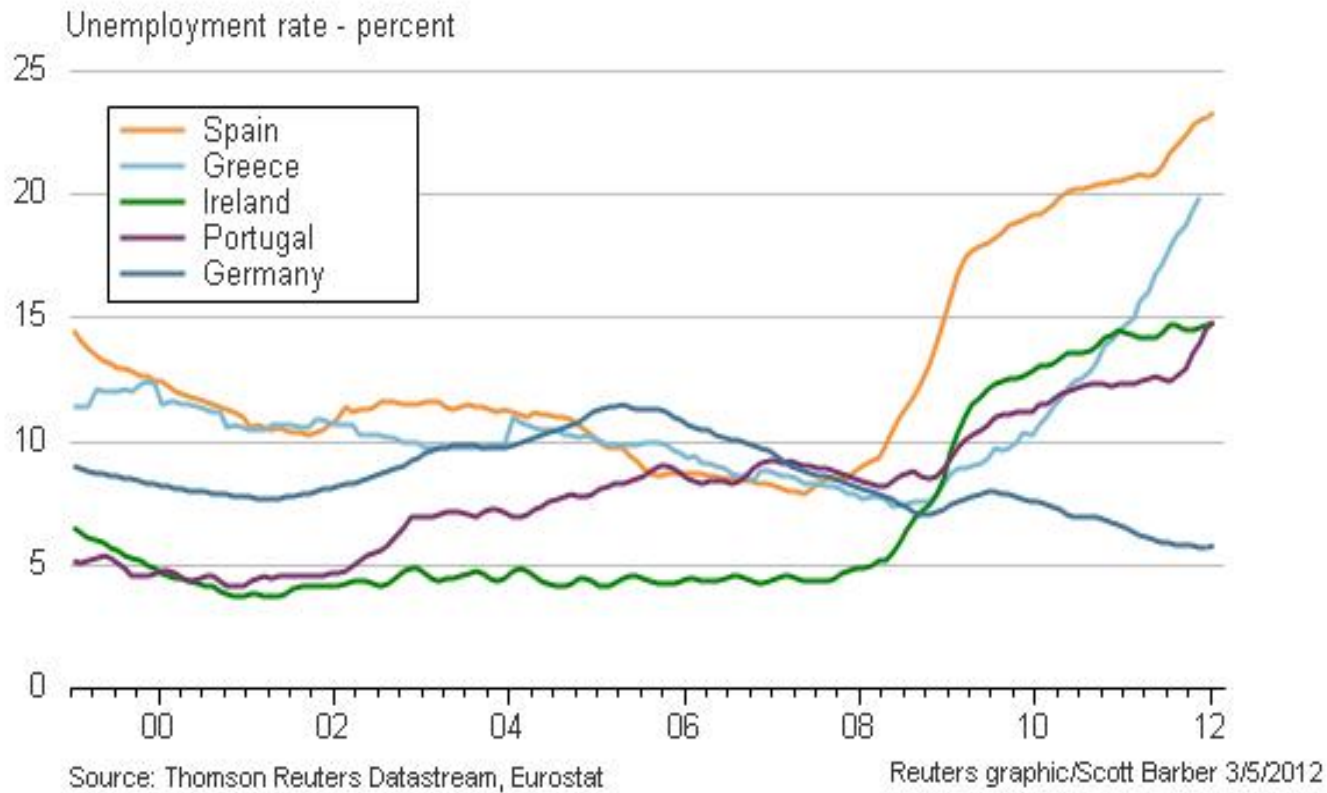
GDP growth on previous year - %



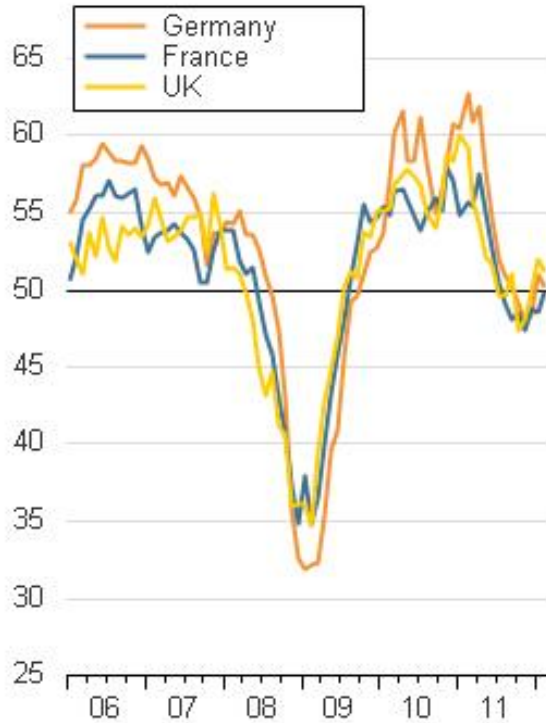
Reuters graphic/Scott Barber 3/5/2012

Source: Thomson Reuters Datastream

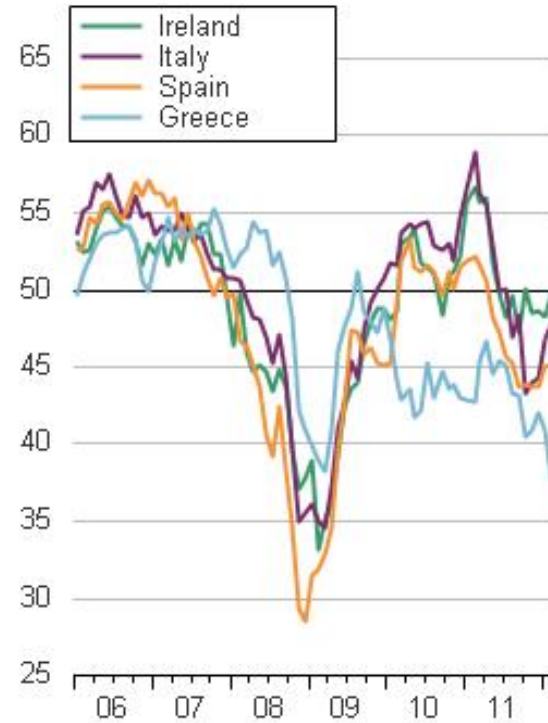
Euro zone unemployment



European manufacturing PMI



Source: Thomson Reuters Datastream

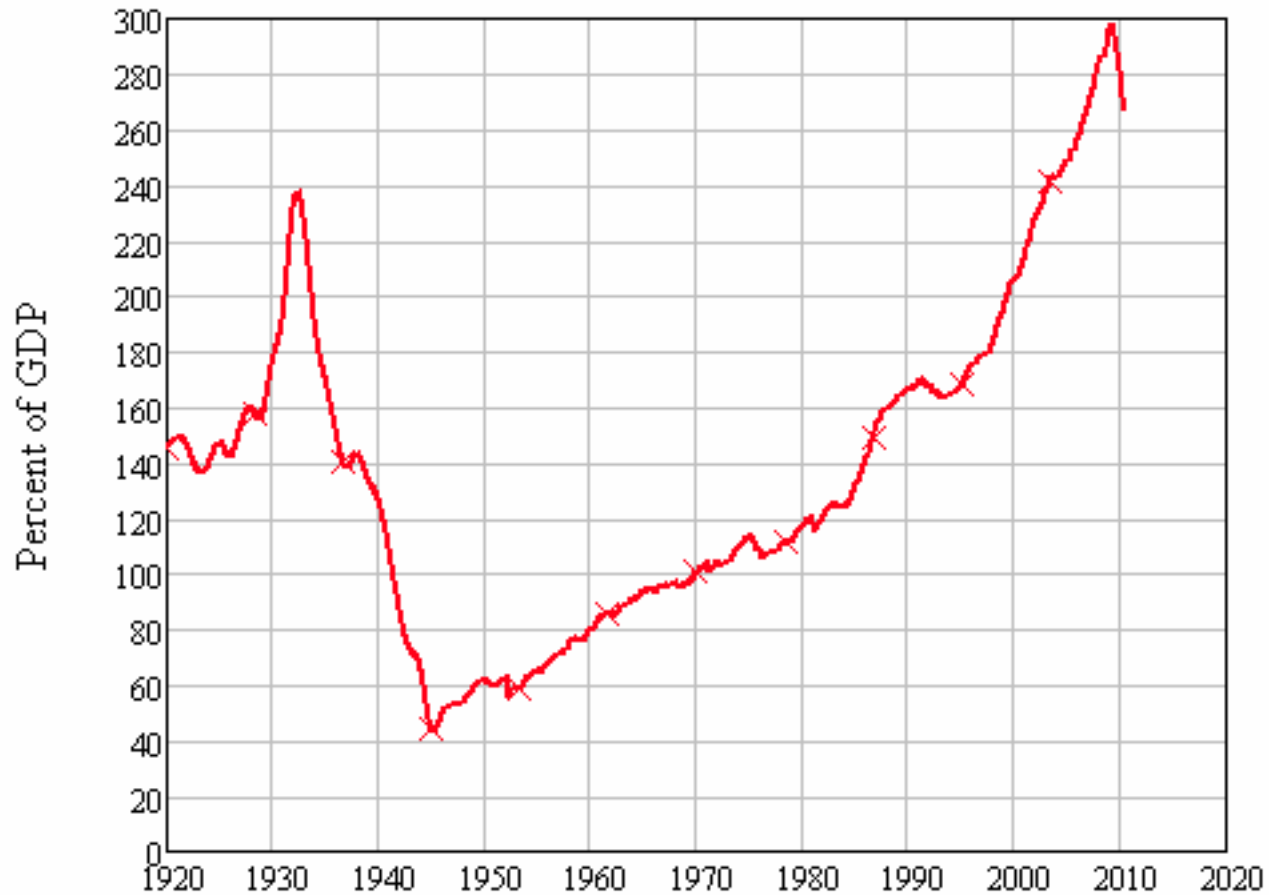


Reuters graphic/Scott Barber 3/5/2012

http://graphics.thomsonreuters.com/F/09/EUROZONE_REPORT2.html

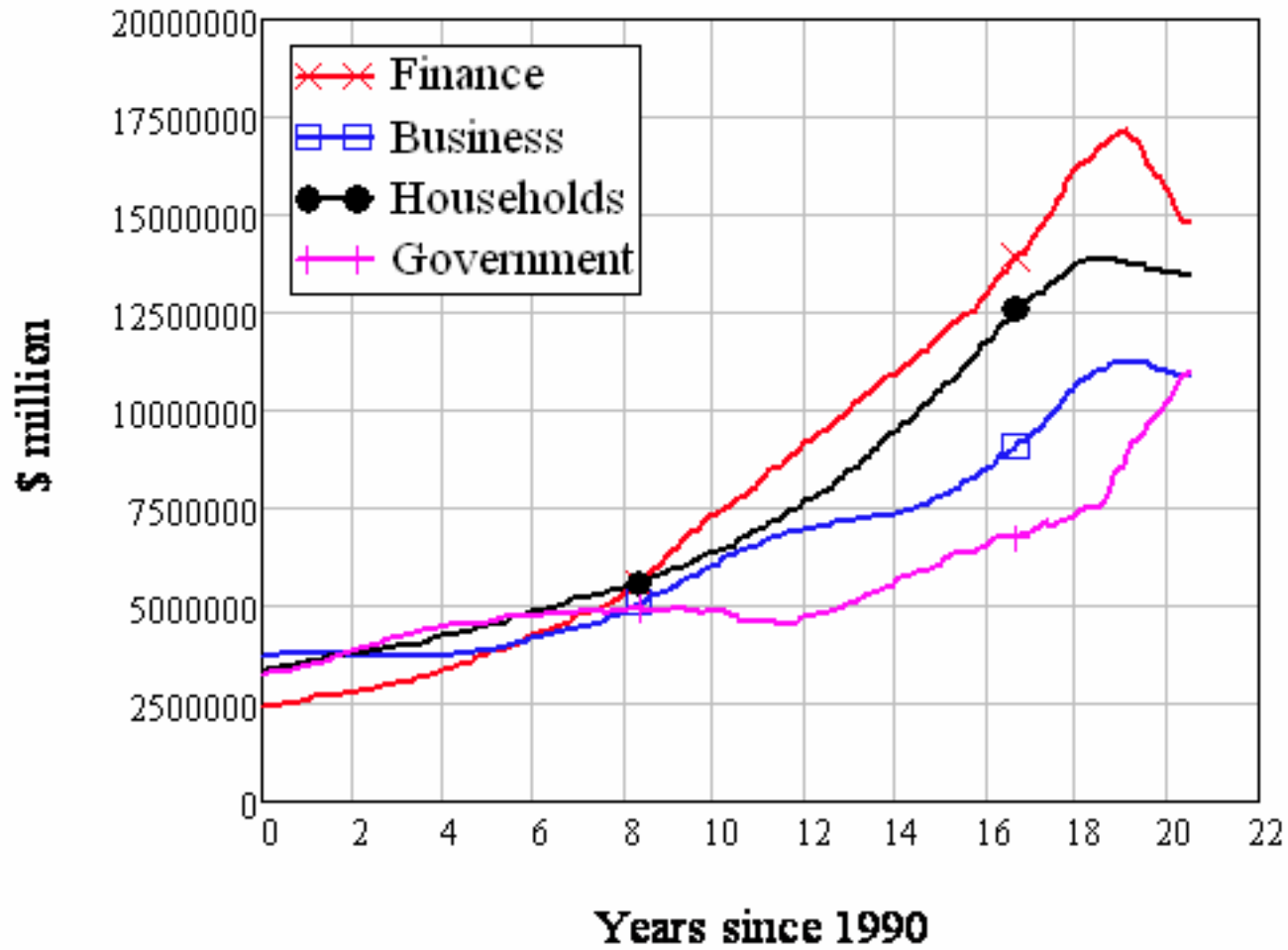
III.1. One major difference between the Great Depression and the Current Crisis

USA Private Debt to GDP



The USA's debt to GDP ratio was 275% of GDP at the beginning of 2007, versus 175% at the end of 1929.

US Debt by Sector



What makes up the Private debt...

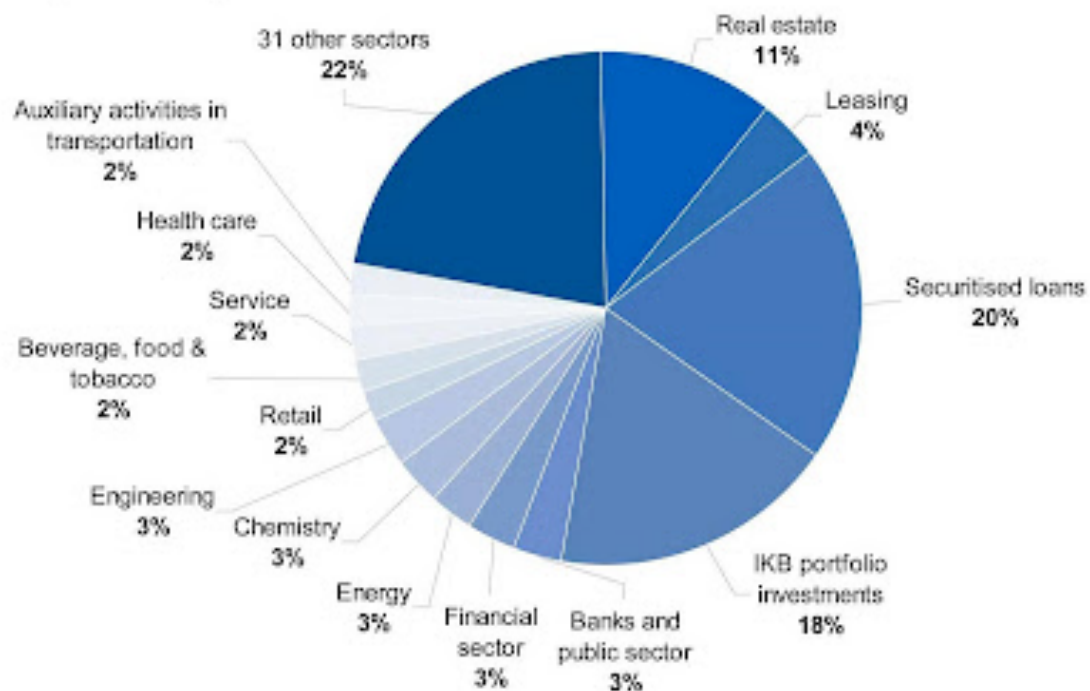
- A kitchen soup of **derivative instruments** (ABMs) with a gross value of **US\$683 trillion** as at June 2008, and a net value that is an **unknowable factor of how many counterparties go bankrupt**.
- Loans with '**Adjustable Rate Mortgages**', where a low 'teaser' rate on a fixed rate mortgage applies for a short period (up to five years), after which the rate resets to a higher commercial rate, AND the gap between the two rates is capitalised onto the outstanding debt during the teaser period.
- The crisis was triggered by **2.8 million subprime loans** with an average value of **\$183,000, 62% of which were ARMs**, and 70% of which have already reset; in the wings await another 2.2 million Alt-A loans with an average value of \$321,000, 53% of which are ARMs and 54% of which still await resetting
- The unquantifiable **off-balance sheet activities** of financial institutions; and
- **The junk bond** activities of private equity firms.

III.2. The dominant diagnosis has been...



"I THOUGHT WE WERE JUST BUYING A HOUSE!"

➤ High diversity of IKB loan book



William Banzai's Subprime Inferno

China

Main Street USA

Europe

FORCLOSURE HELL

REAL ESTATE &
MORTGAGE BROKERS

Lawyers & Call Girls

Media Psychopaths &
Economists

Wall Street
Lobbyists

Rating
Agencies

Feckless
Regulators

SEC/Finra

All Politicians

Central Bankers (Excluding Volcker)

Wall Street

Financial press commentary – now and then...

“The unique, endemic and pernicious role played by the financial...”

“Weapons of Mass Destruction” (Warren Buffet)

“Bank robbers...time to outlaw naked CDS”,

closely matches the sentiments echoed by Daniel Defoe in his **‘The Anatomy of Exchange-Alley’**, published in 1719 a year before the great stock market crash in England and France –

“tis [the stock exchange] a complete System of Knavery; that ‘tis a Trade founded in Fraud, born in Deceit, and nourished by Trick, Cheat, Wheedle, Forgeries, Falsehoods and all sorts of Delusions; Coining False News, this way good, that way bad; whispering imaginary Terrors, Fights, Hopes, Expectations, and they preying on the Weakness of those Imaginations they have wrought upon, whom they have either elevated or depress’d.”

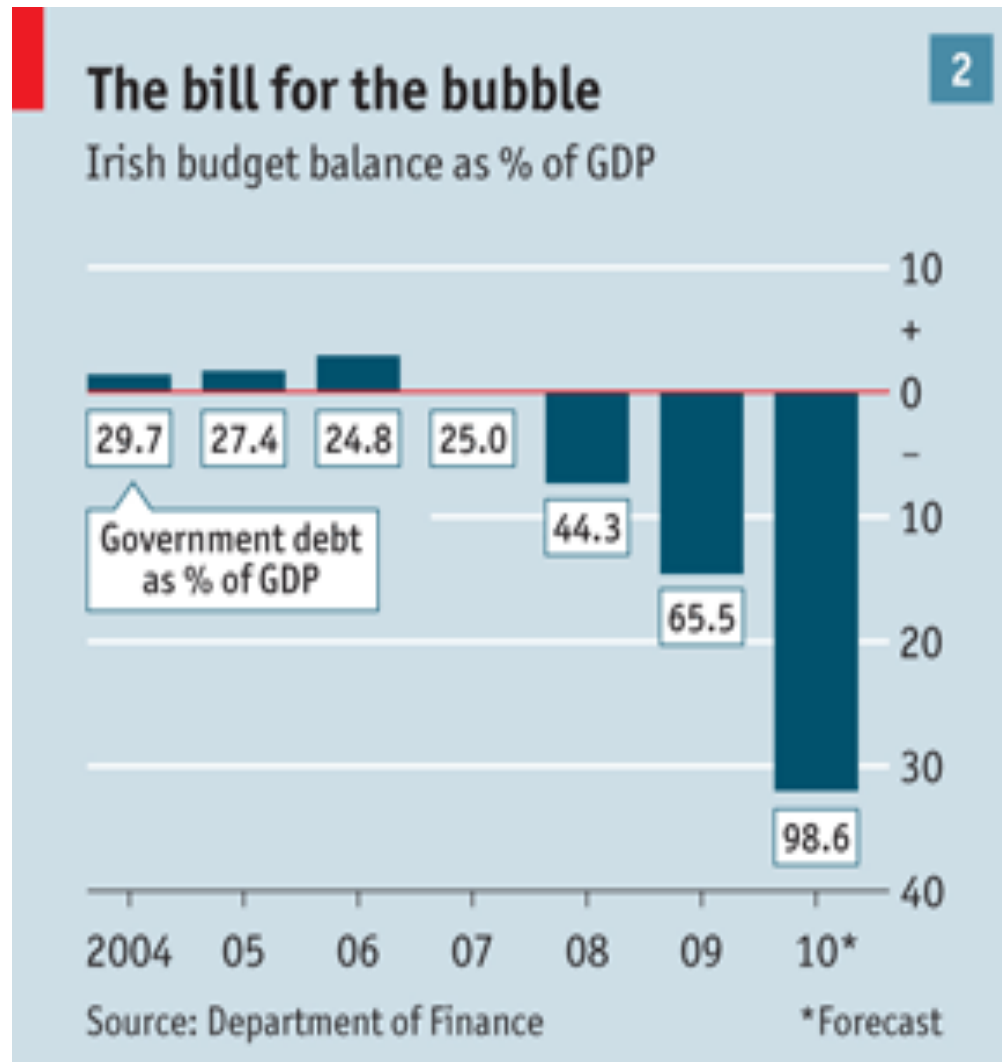
- And in fact, Daniel Defoe remains an inspiration as he was in 1929! (see [The Times](#), April 28, 2007)

Then came the 'Blanket guarantees' - private debt was taken over by the Governments

- because **market sentiments** would go against the country if "Too Big To Fail" and "Too interconnected to Fail" banks were allowed to sink

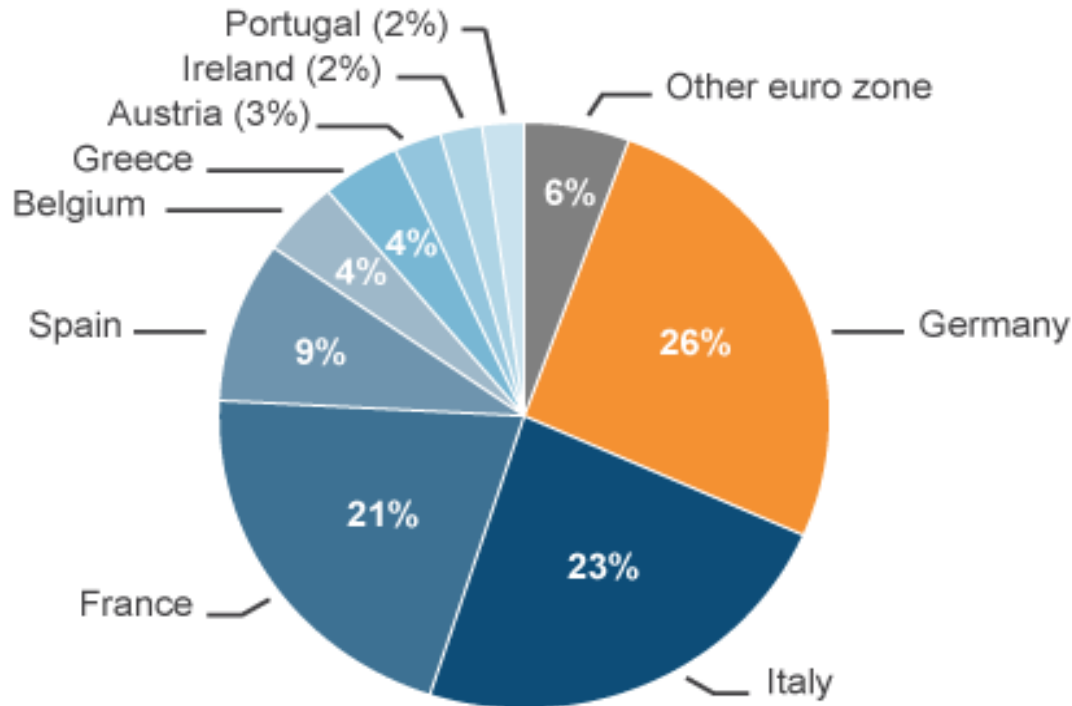
Not saving **Lehman Brothers** is still seen as a reason for this protracted recession

Irish Fiscal deficit – from Celtic tiger to now



Euro zone government debt

2011 share of Euro zone gross government debt



15/11/11

Sources: Thomson Reuters, European Commission



Reuters graphic/Scott Barber

IV. Economic policies – then and now

Bretton Woods and the Counter-cyclical policies

- When Articles of Agreement for the IMF were adopted at Bretton Woods in 1944 J. M. Keynes and H. Dexter White, the chief drafter of the IMF charter, specified that one purpose of the institution was “to avoid competitive exchange depreciation”.
- After the roaring 20s – the stock crash of 1929 led Great depression saw the abandonment of the Gold Standard led to competitive devaluation leading to ‘beggar-thy-neighbor’ policies
- It is important to note that for both Keynes and White, the motivating principle for creating the IMF was to engender postwar economic growth by establishing an institution that would prevent a **relapse into autarky and protectionism**, not just to avoid a recurrence of the Depression.

Articles of Agreement

- **Article I** of the ‘Articles of Agreement’, which sets out the purposes of the Fund, includes the objective of using IMF lending to provide member countries “with opportunity to **correct maladjustments** in their balance of payments without resorting to measure destructive of national or international prosperity”
- **Article IV** sets out a system for achieving that purpose by establishing a system of **fixed but adjustable exchange rates** through agreements to be reached under the auspices of the Fund.
- **Counter-cyclical stabilization** (fiscal and monetary) policies to avoid the ‘maladjustments’ induced by the ‘competitive’ exchange rate depreciation by the member countries.

Harry Dexter White's Memorandum

Memorandum prepared by L. B. Currie, E.T. Ellsworth and H. D. White in January 1932 explains the road to recovery via three policies:

- Banking policy
- Government expenditure policy
- Tariff policy

- Both L.B. Curry and H.D White - first at the Federal Reserve Board, and later at the Treasury and the White House, Currie would become a highly visible and leading advocate of expansionary fiscal policy,

- In the late 1940s H. D White fell victim to anti-communist witch hunt – died of heart attack few days after a strenuous hearing before the ‘House Committee for Un-American Activities’.

John Maynard Keynes

- Treatise on Money (1930)
- Tract on Monetary Reform (1932)
- How to Pay for the War (1934)
- General Theory of Employment, Interest and Money (1936)
- King's College, Cambridge University, UK

Now in this recession, the policy prescription has turned *pro-cyclical* -

Fiscal austerity in the time of recession

According to conventional wisdom, any policy of consolidation is likely to contract real aggregate demand in the shorter run. This is Keynesian conclusion.

However, this is misleading as it neglects the role of **expectations.**

A more adequate analysis differentiates between the direct demand effect of cutting the growth of Government expenditure and the indirect effect of an induced change in expectations.

The direct demand impact of slower public expenditure growth is clearly negative . . .

The indirect positive effect on aggregate demand of the initial reduction in expenditure growth occurs through an improvement in expectations if the measures taken are **understood to be part of a **credible** medium-run program of consolidation, designed to permanently reduce the share of government in GDP . . . [and thus] taxation in the future.**

Hellwig and Neumann (1987)

German fiscal consolidation view by Fels and Froehlich (1986)

Fiscal consolidation had a benign impact on expectations . . . [An] important explanation is the way fiscal consolidation was actually brought about. Rather than raising taxes, the deficit was reduced by keeping a lid on expenditure growth . . . By absorbing a smaller share of GNP, the public sector made room for the private sector to expand.

Expansionary fiscal austerity

“By raising the **expected** future disposable income for households and thereby increasing **confidence of investors**, the **fiscal consolidation** can thus stimulate private consumption and investment even in the short term.”

- Olivier Jean Blanchard (1990)

“Without **confidence**, we have no investment. And without investment there is no **growth**”
- Jose Manuel Barroso (2011)

This policy stance also called as ‘**expansionary fiscal austerity**’.

What informs the Austerity policy?

Dynamic Stochastic General Equilibrium models (DSGE)

- European Central Bank - http://www.ecb.int/home/html/researcher_swm.en.html (Smets-Wouters model)
- US Federal Reserve Bank
- Bank of Canada
- Bank of England
- Bank of Spain
- IMF (GIMF model)
- Bank of Finland
- Central Bank of Brazil
-

Not just in the Central Banks...

- Read the report of the **Advisory Panel on Tax Reform for President Bush** in November 2005

“the Treasury Department used variants of three standard economic growth models to estimate the dynamic response associated with the Panel’s reform options ... a **neoclassical growth model (DSGE)**, an **overlapping generations (OLG) life-cycle model**, and a **Ramsey growth model**”

- **Report of the President’s Advisory Panel**, 2005, pp. 224

Outline of DSGE models

- Building block is the General Equilibrium model
- Metaphor – the ‘rocking horse’
- Improve GE models by adding some dynamics and stochastic ‘shocks’ – Dynamic Stochastic General Equilibrium model (DSGE)
(Ragner Frisch’s impulse propagation framework)
- Classic example of DSGE model is the ‘Real-Business Cycle’ model

Assumptions at the micro level

- For the rocking horse to rock, the GE models required the assumptions of rationality and optimization - most important being the 'optimal trade-off between labor and leisure' at the individual level
- In the second generation DSGE models, to make it dynamic this trade-off was slightly modified
 - the 'inter-temporal trade off between present consumption and future consumption'
- This individual level behavioral trade-off is fundamental to the DSGE models and economists working with these models recommend economic policies that would not 'distort' these trade-offs – i.e. Fiscal/Monetary/Structural policies must minimize inter-temporal distortions
- In a way, the metaphor was turned into reality, and in that process it has become a *belief system*!

Minimizing the inter-temporal distortion

- This objective within the DSGE models, in terms of practical policy, translates into three simple requirements:
 - (i) Tax rates on labor and consumption should be roughly constant over time
 - (i) Capital income taxes should be roughly zero
 - (i) Returns on government expenditure and the operational cost of assets should fluctuate so as to **balance the government's budget in a present value sense**
- Present value of government's budget deficit be balanced at each point in time - Inter-temporal optimization of government's budget

Effective U.S. Marginal Tax rates on Capital Income: 1953-2003

- 1953 – 59 **47.3**
- 1960s 35.8
- 1970s 41.3
- 1980s 35.3
- 1990s 30.5
- 2000-03 **28.3**

Source: Gravelle (2004) “Historical Effective Marginal Tax Rates on Capital Income”, Congressional Research Service Report for Congress.

V. From Expansionary Stimulus to Expansionary Austerity...

1930s to 2000 – Political economy of Macroeconomic theory

An evolutionary story

- Roaring Twenties – *Laissez fair*
- 1929 crash – Great Depression
- J. M Keynes - Keynesian revolution – ‘Golden Age of Capitalism’ (1940s to 1960s)
- Milton Friedman – Monetarist Counter revolution (1970s)
- Robert Lucas – Rational Expectations and Efficient financial market theory (1980s – onwards)
- Roaring Nineties - *Laissez fair*
- 2008 crash - Great Recession

Crises and Paradigm shifts in Macroeconomics

- The Great Depression replaced the existing economic orthodoxy by **Keynesian economics**.
- The Stagflation of the 1970s replaced the Keynesian orthodoxy with **Monetarist economics**
- But we don't see any paradigmatic shifts in this crisis – on the contrary, the incumbent **Monetarist orthodoxy** has consolidated its position

Evolution of Macroeconomic Theory, Methods...

- Post-depression economic theory – *General Theory*, Hick's re-interpretation of General Theory via IS/LM model
- The IS/LM model not only became the pedagogic device for teaching the Keynesian revolution, it also influenced economic policy making
- IS/LM modeling framework for stabilization policies
- **Fine tuning** fiscal and monetary policies – *cold turkey* versus *gradualism* debate – elasticity estimation studies on current versus permanent income hypothesis

The impact of Keynesian macro theory on the exchange rate policy...

- A long standing building block of IMF policy advice is the version of the monetary approach to balance of payments by Jacques Polak, deputy director of the IMF research department in the 1950s.
- Polak's model emphasized the effects of fiscal policies and credit creation on the Balance of payments (BOP), working primarily through a Keynesian multiplier process.
- In the classic situation, a country with fixed or managed exchange rate and an external payments deficit can resolve the imbalance by reducing domestic credit of their banking system by either fiscal or monetary means.

Monetarism Mark I

- Closing of Keynesian model with the 'Philips' curve'
- Stagflation and the 'counter revolution'
- Milton Friedman (1969) American Economic association Presidential address
- Adaptive Expectations and **long-term ineffectiveness** of monetary and fiscal policies – **Natural Rate of Unemployment**
- Expectation-Augmented Phillips curve (Friedman and Phelps)

Monetarism mark II: Rational Expectations

- Why only 'adaptive', why not 'rational' agents?
- **Policy ineffectiveness** – not even short-run impact of policies, because agents know the impact of the policy as soon as it is announced (even if there are errors there won't be systematic correlation errors over time – normal distribution of errors)
- Robert Lucas further argued 'How should policy be set today?' was an ill-posed question because **people's current decisions depend on their expectations of what future policies will be and these expectations depend**, in part, on **how people expect policy makers to behave**.

Rational Expectations and policy ineffectiveness

- On the other hand, the monetary authority cannot predict how economy will respond to policy decision today unless it can also predict how people's expectations of future monetary policy will change as a result of its current decision
- Moreover, the monetary authority also needs to predict how its own behavior will change in the future as a result of its current action
- With these concerns on the impact of **expectations** on the economy, Lucas argued, for a coherent framework for the design of economic policy must consist, in the minimum,
 - (i) A model to predict how people will behave under alternative policies
 - (ii) A welfare criterion to rank outcomes of alternative policies
 - (iii) A description of how policies will be set in future (to avoid time-inconsistency problem)

The policy implications of Monetarist theory

- Rational Expectations and the Policy ineffectiveness arguments led to the Central Bank Independence
- **Rule-based** policy making (Taylor's rule) – Inflation and interest rate targeting
- Starting from Central Bank of New Zealand, Australia, ECB, Bank of England etc
- And **delinked political interference** from the conduct of **Monetary policy**.

- Not just that – Since the 1990s academic research under the influence of Monetarist orthodoxy articulated and reshaped institutions that govern decisions over public finances.
- All that effort come to fruition in this crisis – limits to monetary policy as nominal interest rate hits zero bound
- Some of the institutional reforms prescribed were:
 - ① *Ex ante* rules, such as constitutional limits on deficits
 - ② Procedural rules for the budget process
 - ③ **Rule-based fiscal policy to minimize political discretions**

The recent experience shows that the expansionary fiscal austerity, i.e.

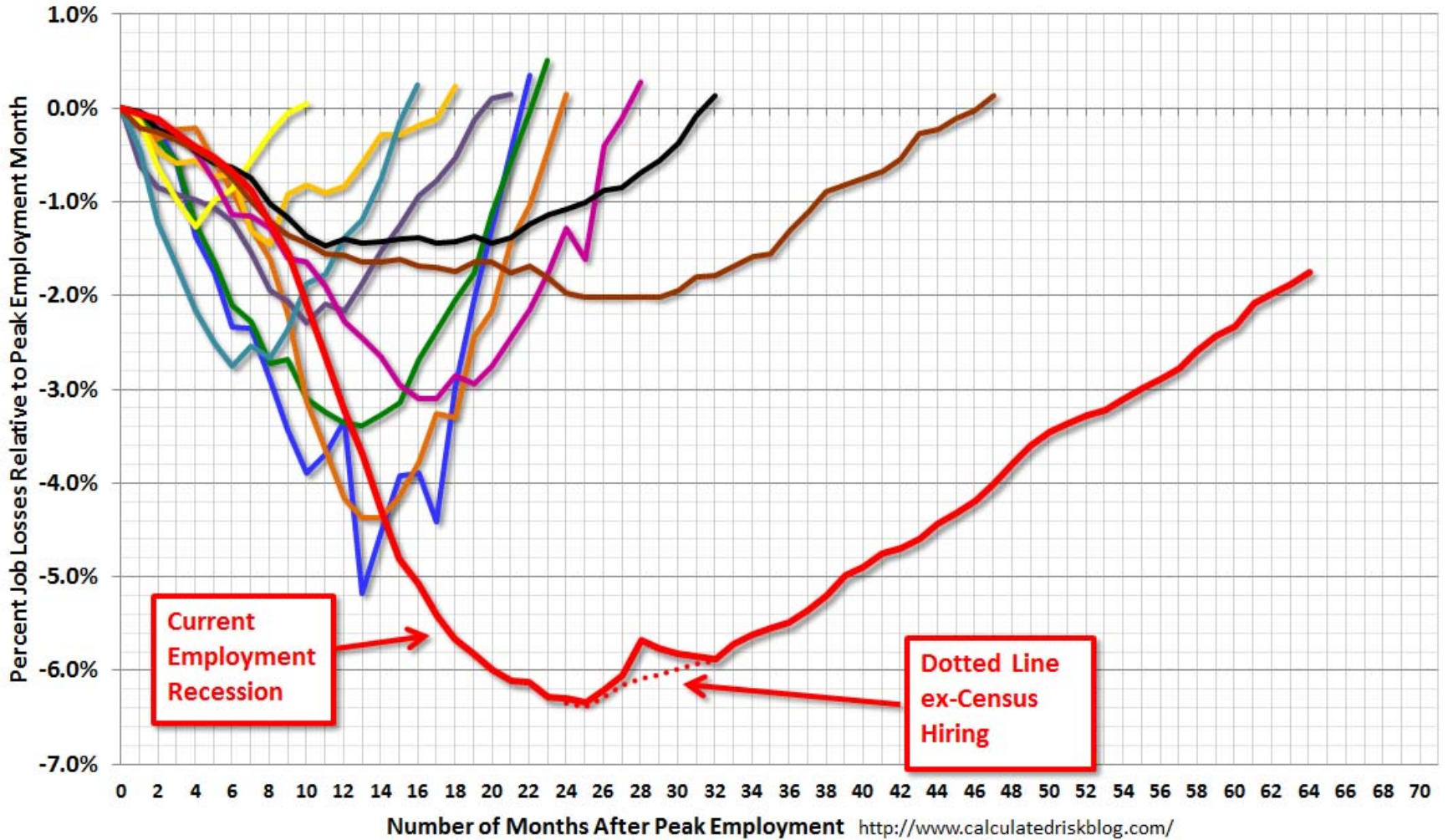
“By raising the **expected** future disposable income for households and thereby increasing **confidence of investors**, **fiscal consolidation** can thus stimulate private consumption and investment even in the short term.”

has clearly failed to deliver growth in the developed economies.

The unreasonable *ineffectiveness* of such austerity policies on the real economy can be clearly seen in the case of US and Europe in terms of its impact on employment in the economy...

Percent Job Losses in Post WWII Recessions

— 1948 — 1953 — 1957 — 1960 — 1969 — 1974 — 1980 — 1981 — 1990 — 2001 — 2007

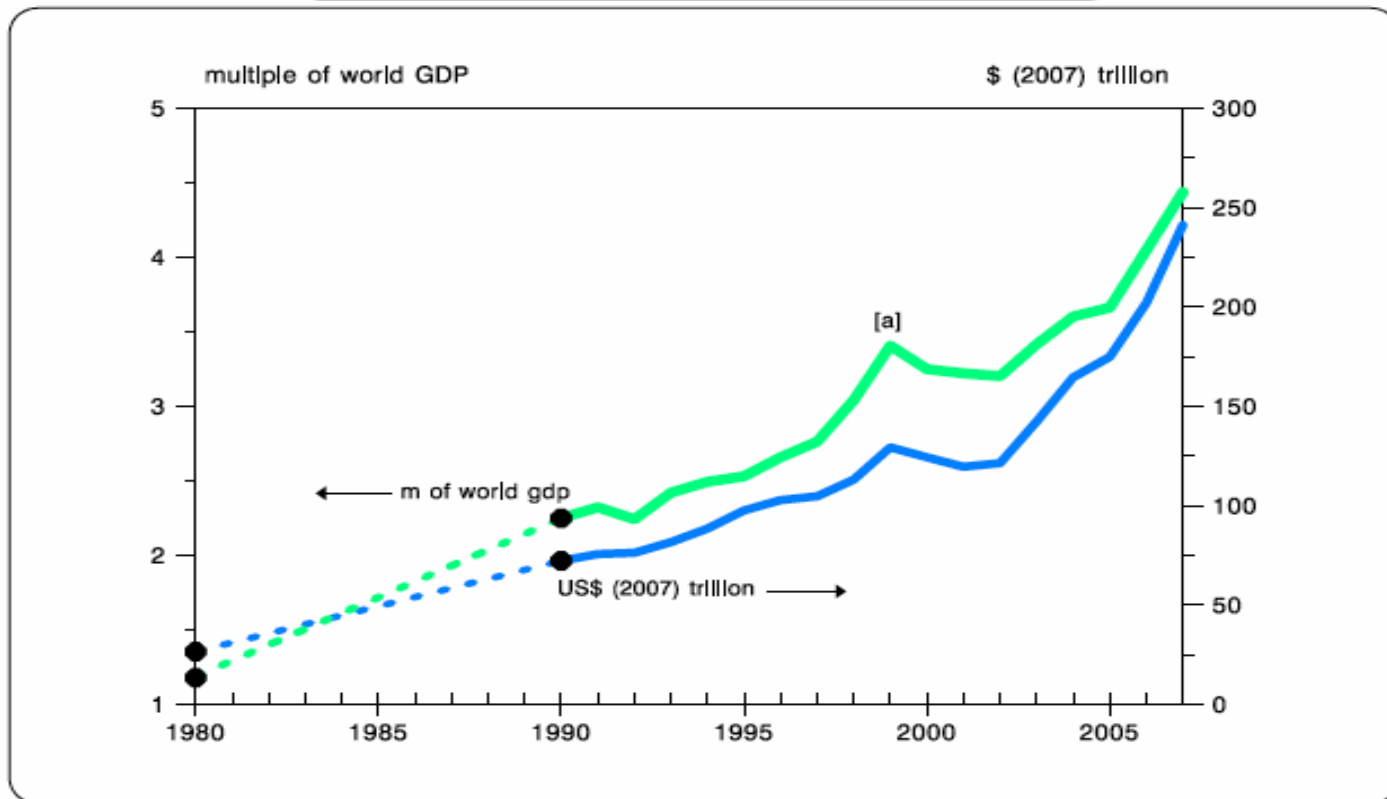


The severity of the austerity policies in the aftermath of the current crisis has clearly pushed the advanced economies in to a long term recession, or what is called as the phenomenon of “secular stagnation”.

One of the fundamental reasons for the failure is the **flawed description** of the crisis, which comes from the **lack of historical and institutional context and details** in the models such as the DSGE models used by the policy makers

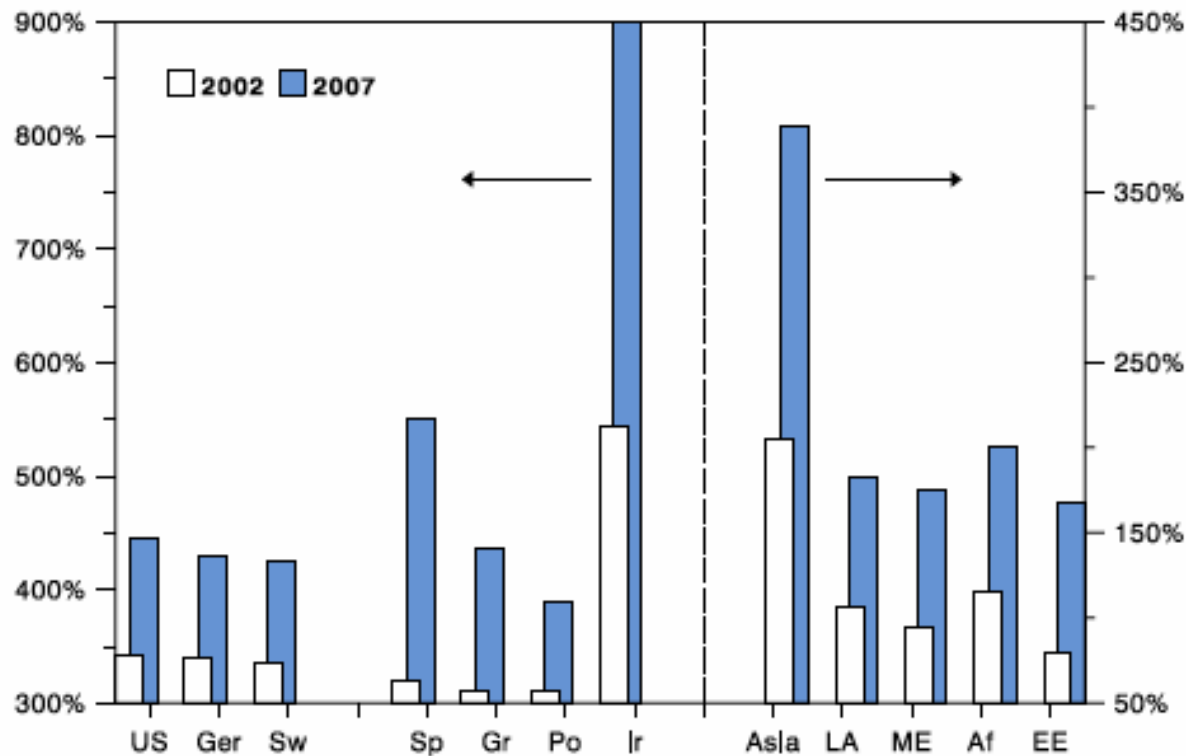
V.1. The economic context since the 1980s

Stock of Global Financial Assets, 1980-2007



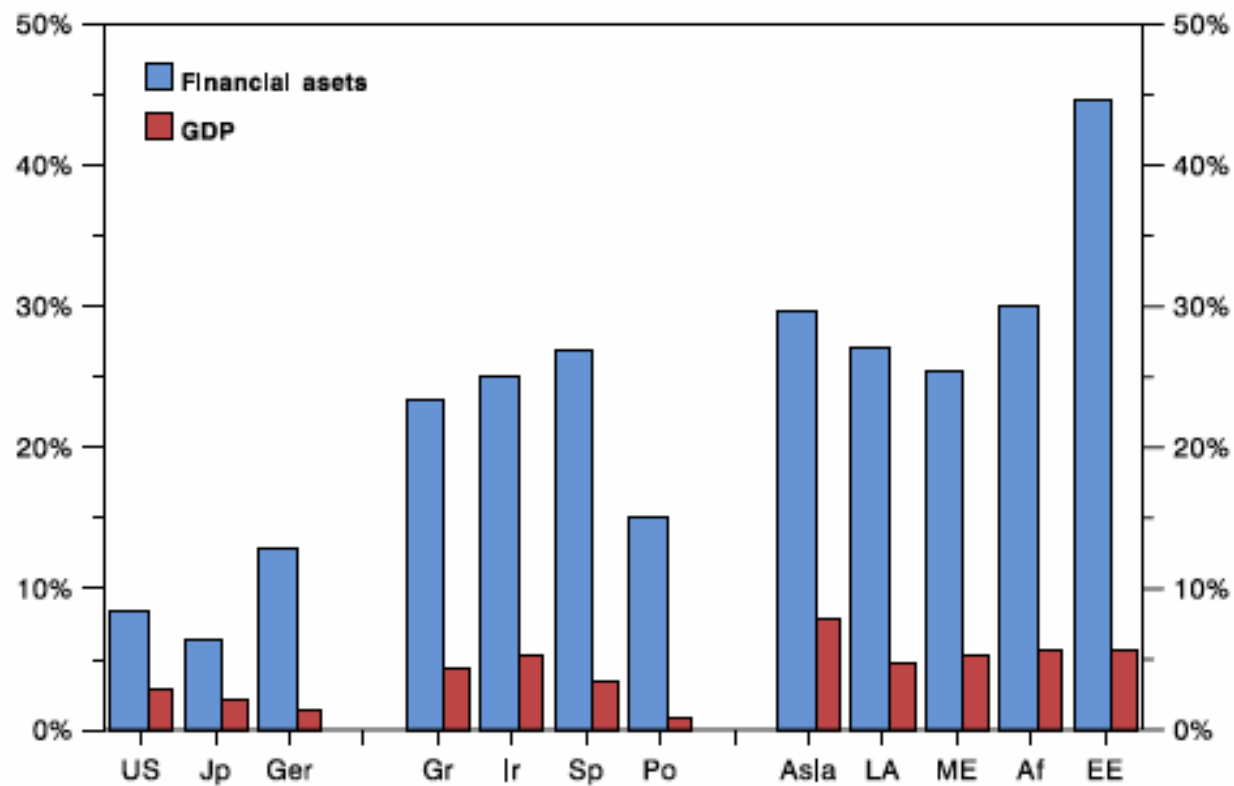
- [a] = collapse of the 'dotcom' bubble. **Source:** for 1990-2007, IMF (2009), and for 1980, McKinsey (2009; data available only for 1980; McKinsey's data are based on IMF statistics, but include bank deposits rather than bank assets).

"Financial deepening": ratio of financial assets to GDP, 2002-2007

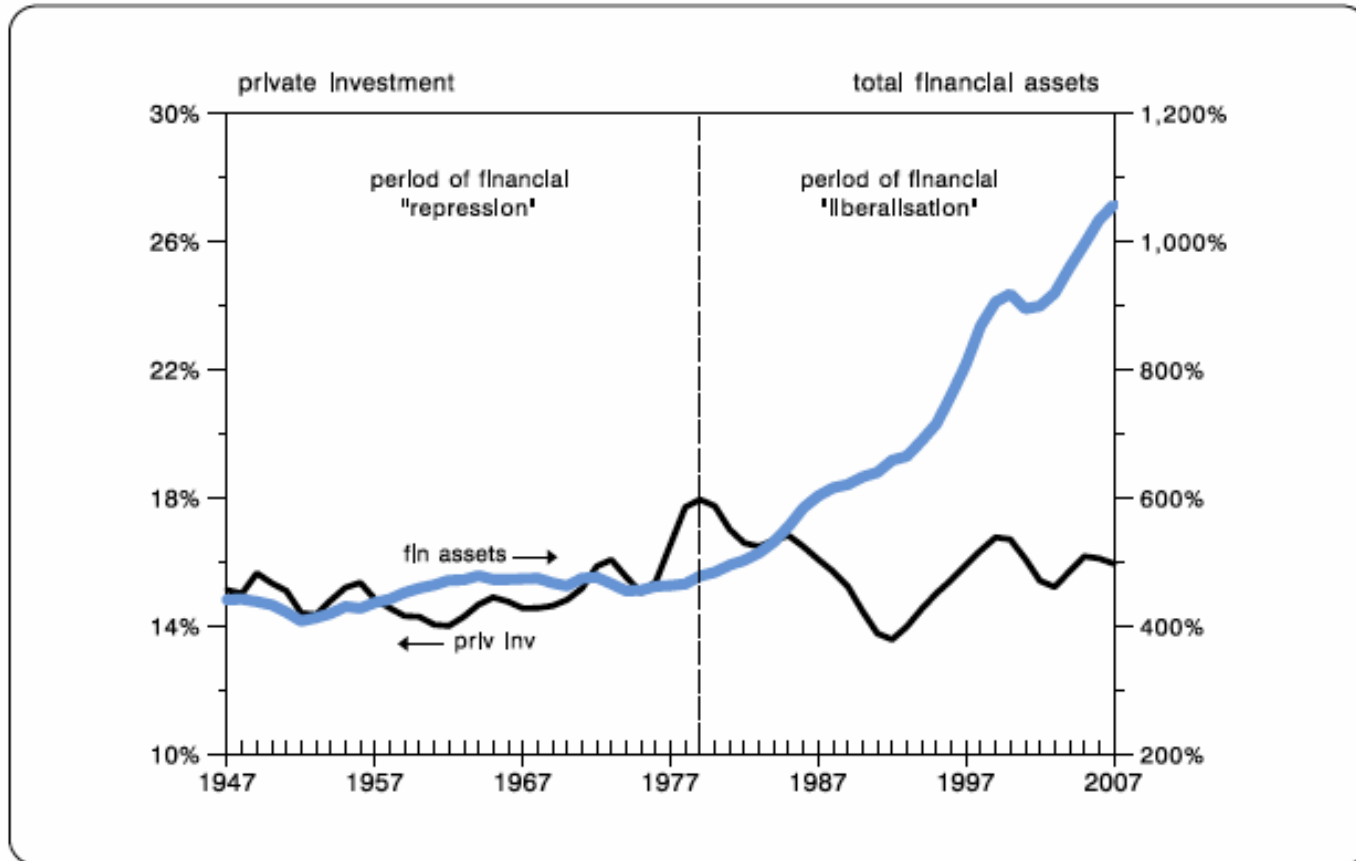


- **US** = United States; **Ger** = Germany; **Sw** = Sweden; **Sp** = Spain; **Sp** = Spain; **Gr** = Greece; **Po** = Portugal; **Ir** = Ireland; **LA** = Latin America; **ME** = Middle East; **Af** = Africa; **EE** = Eastern Europe. **Source**: IMF (2009).

Annual real rate of growth of the stock of financial assets and GDP, 2002-07

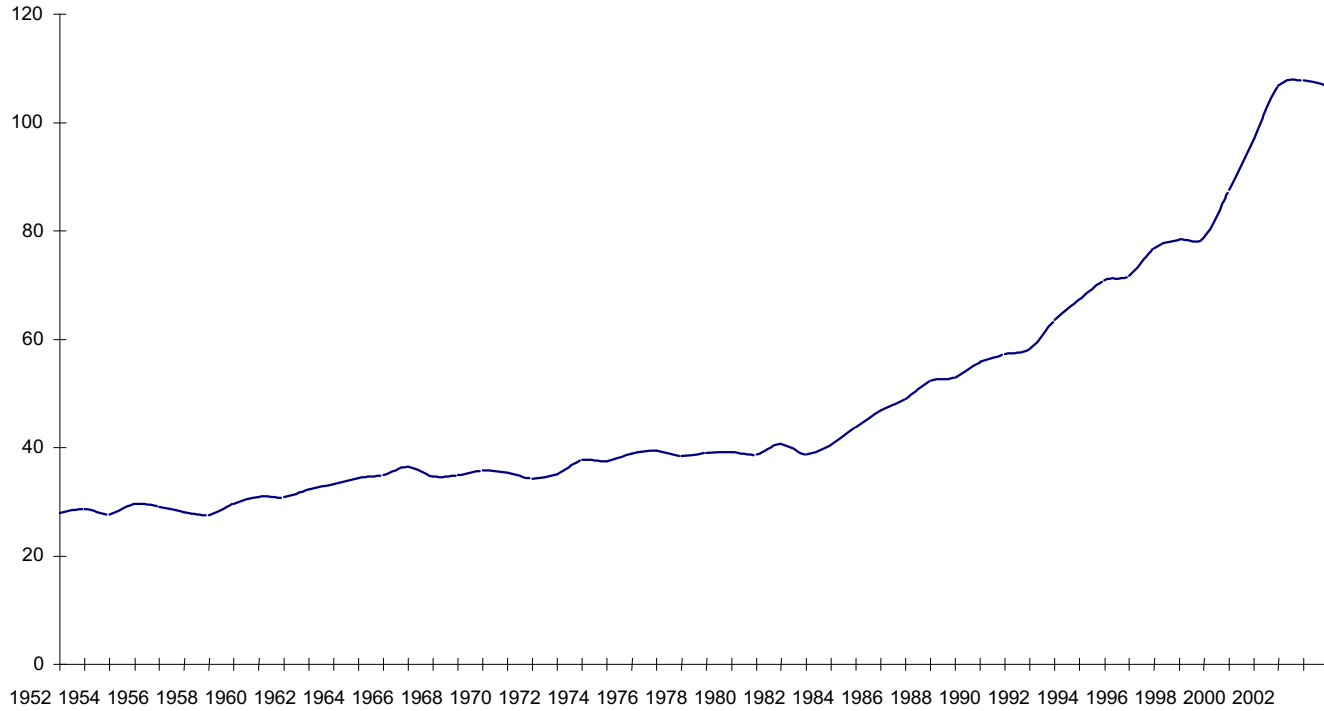


US: total financial assets (all sectors) and private investment as % of GDP, 1947-2007



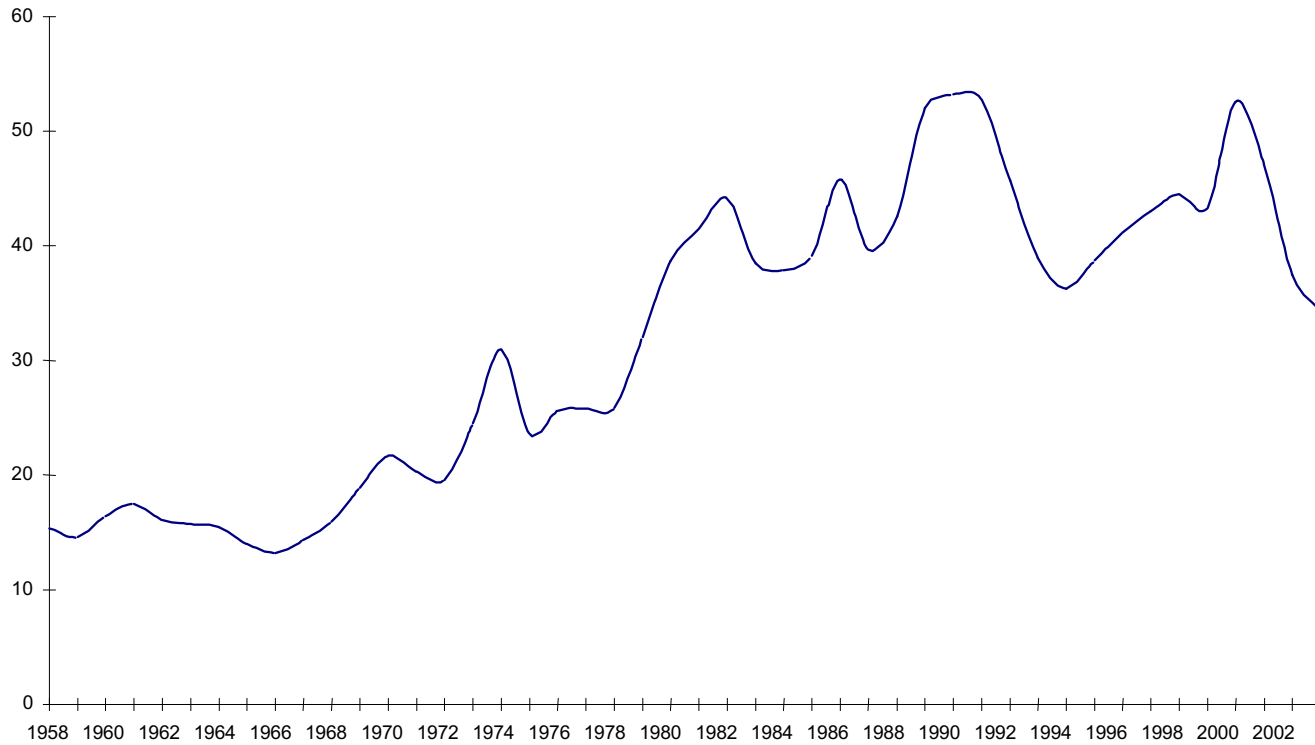
- **fin assets** = total financial assets (all sectors); and **priv inv** = private investment (excludes private inventories). Both series are expressed as percentage of GDP. 3-year moving averages. **Sources:** US Census Bureau (2008), and US Federal Reserve (2009).

**Figure 1: Financial Assets as a Percentage of Tangible Assets
Non-financial Corporations, 1952-2003**



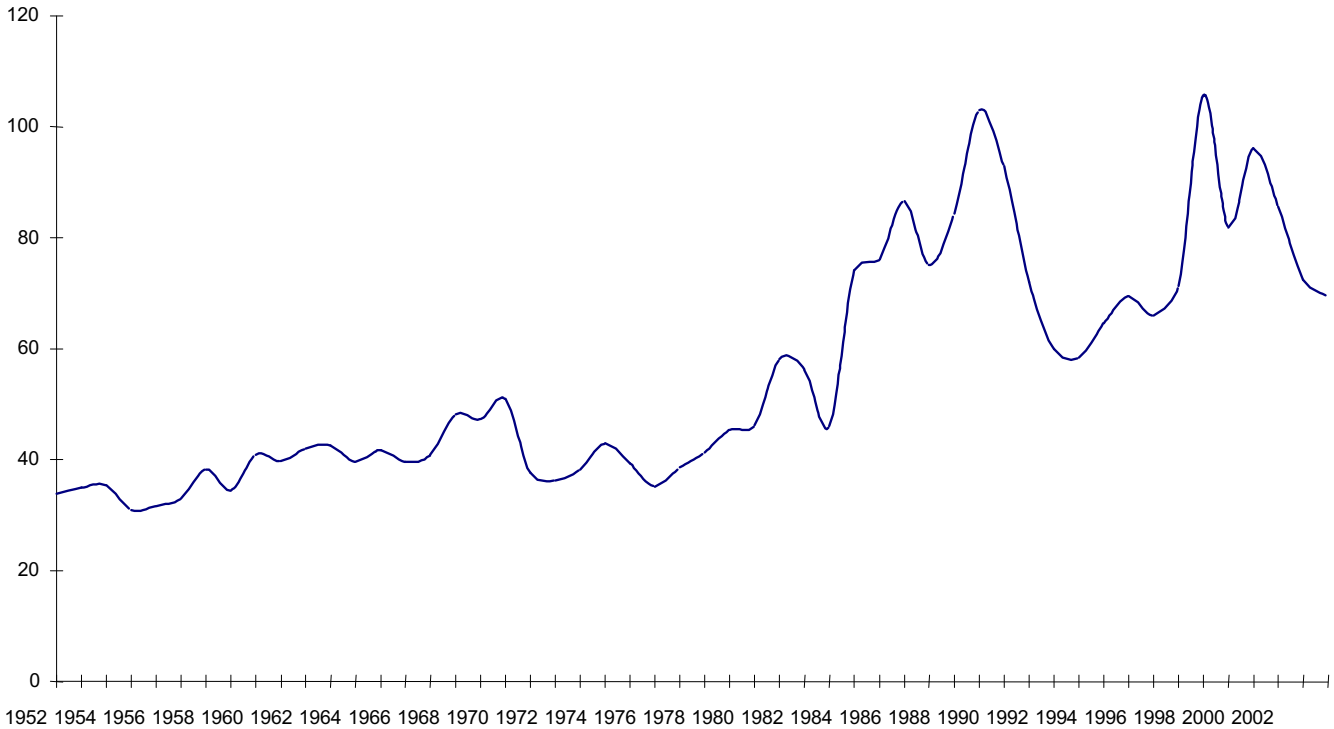
Source: Flow of Funds Table B. 102

**Figure 2: Interest and dividend income as a percentage of internal funds
Non-financial Corporations, 1952-2003**

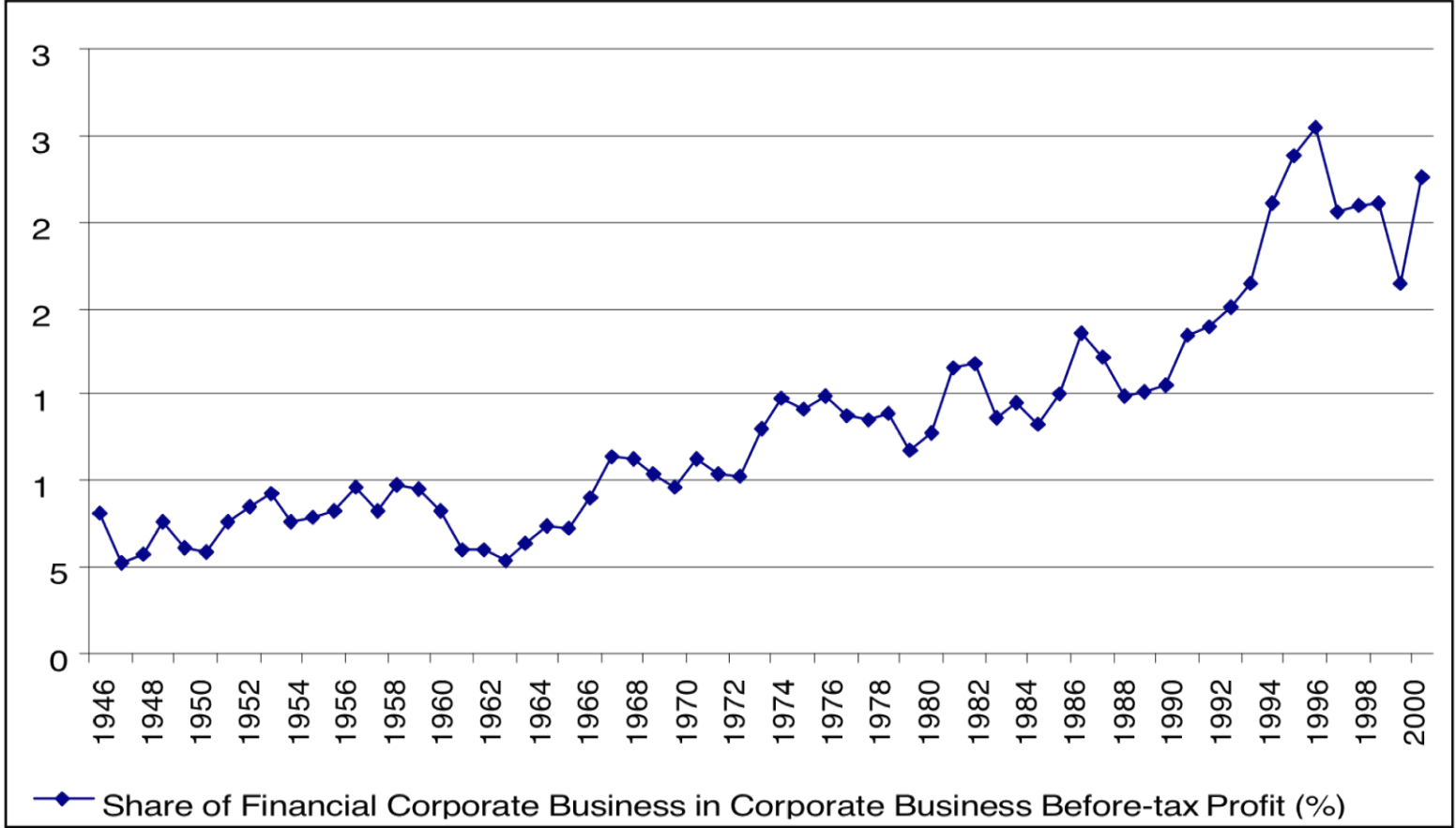


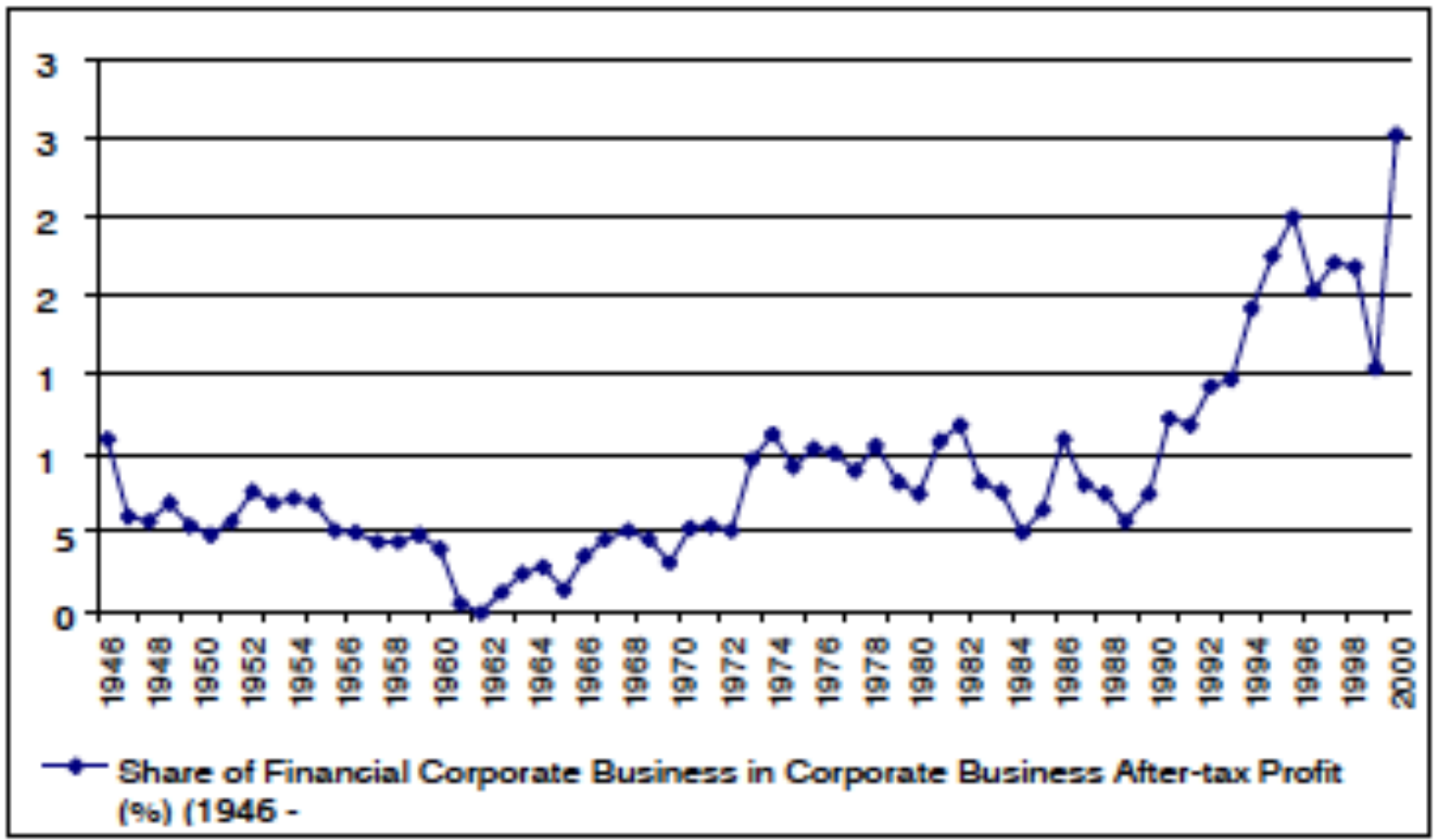
Sources: Flow of Funds Table F.102 and BEA NIPA Table 7

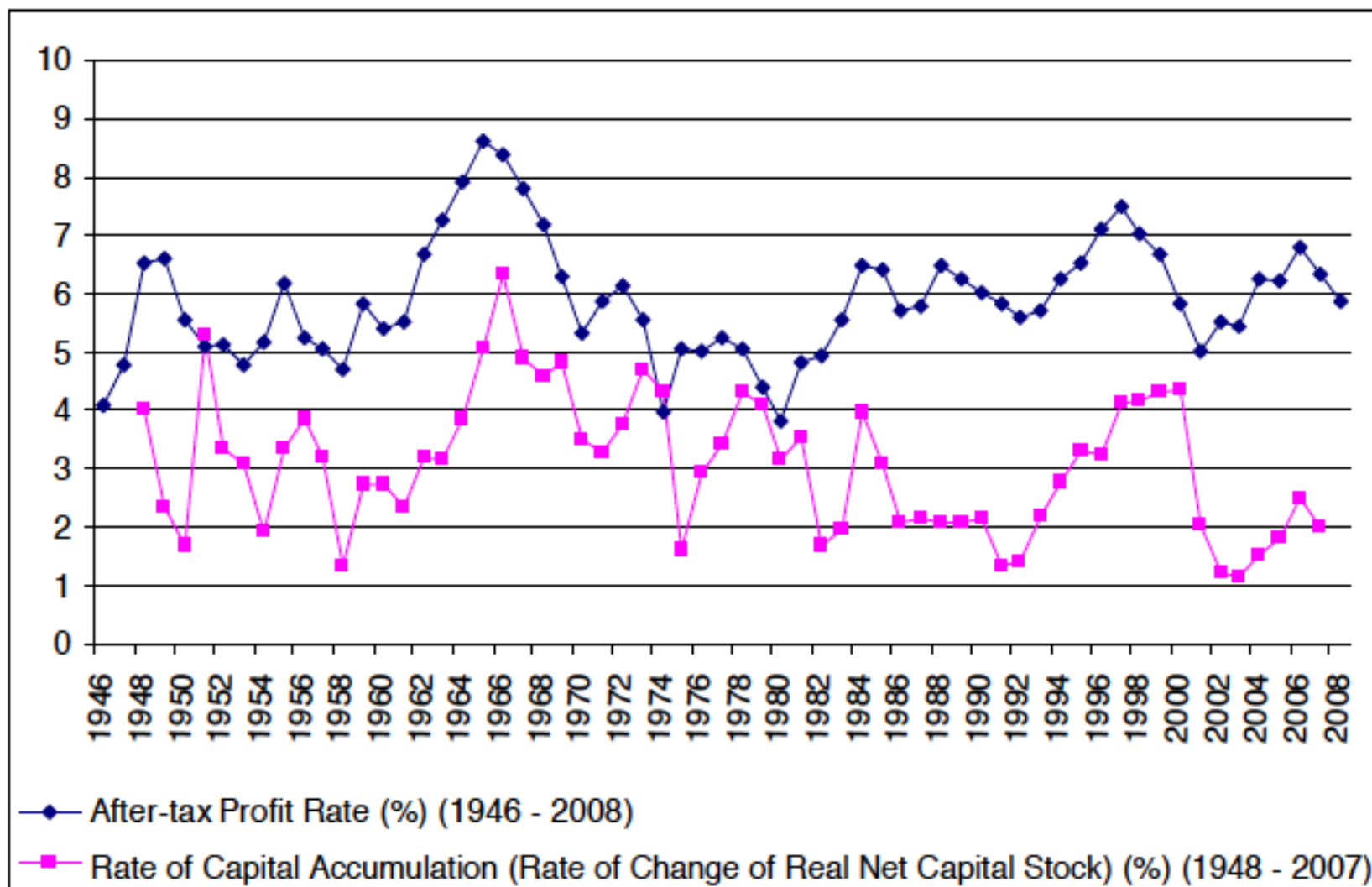
**Figure 3: Total Financial Payments as a Percentage of Profits Before Tax
Non-financial Corporations, 1952-2003**



Total financial payments include interest expenses, dividend payments and stock buybacks.
Sources: Flow of Funds Table F.102 and BEA NIPA Table 7

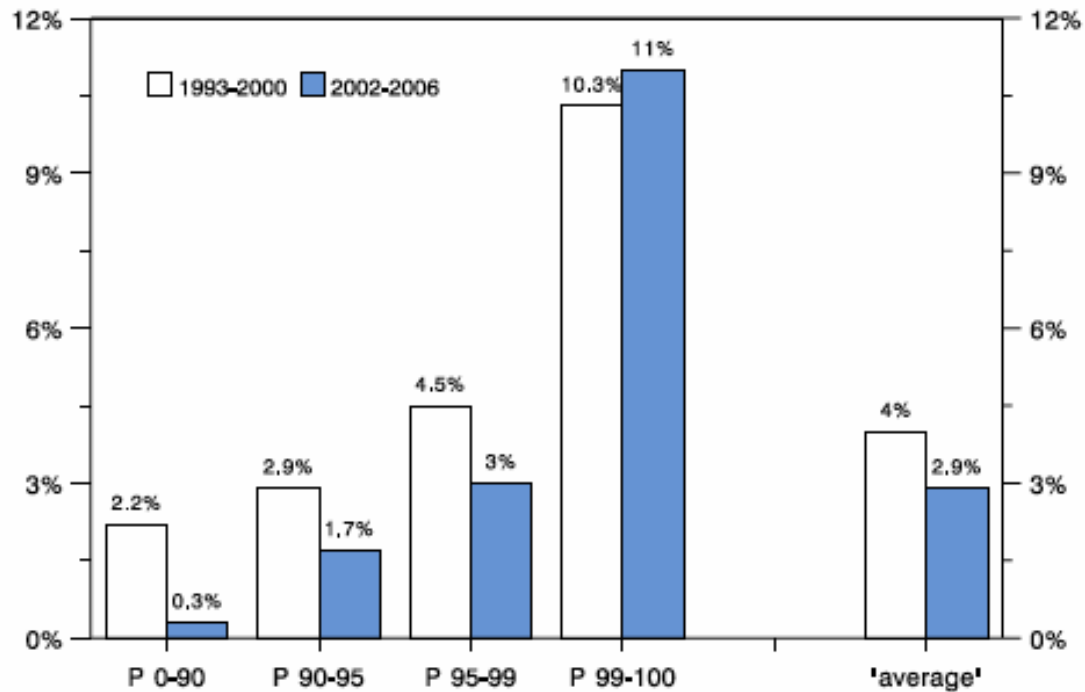






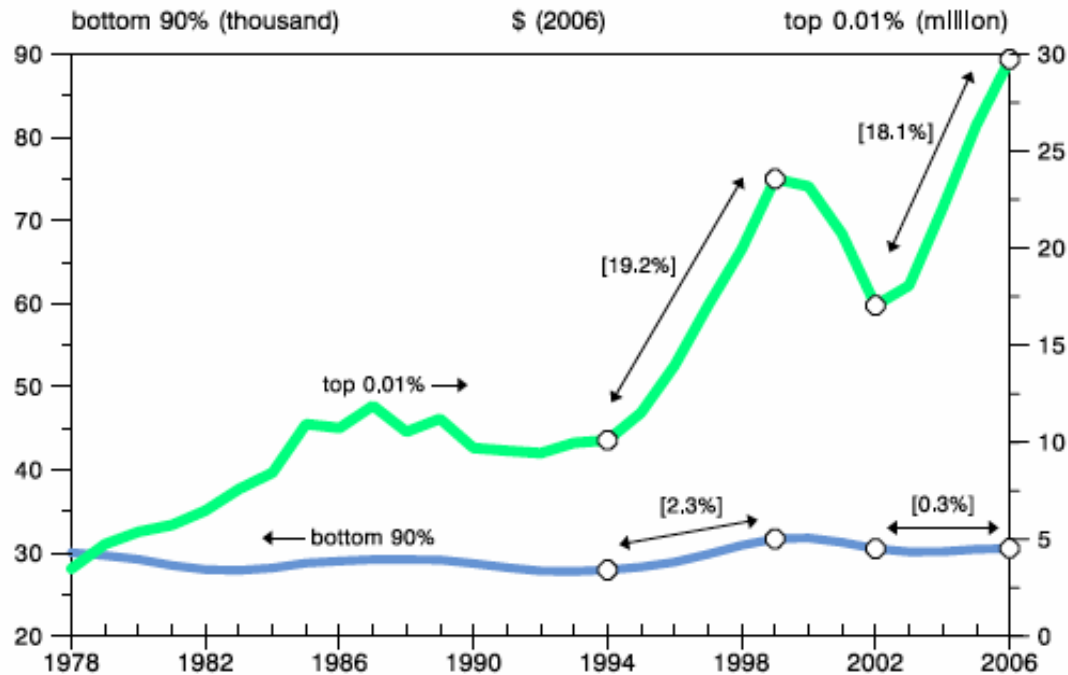
The After-tax Profit Rate and the Rate of Capital Accumulation

US: average income growth by income groups, 1993-2000 and 2002-2006



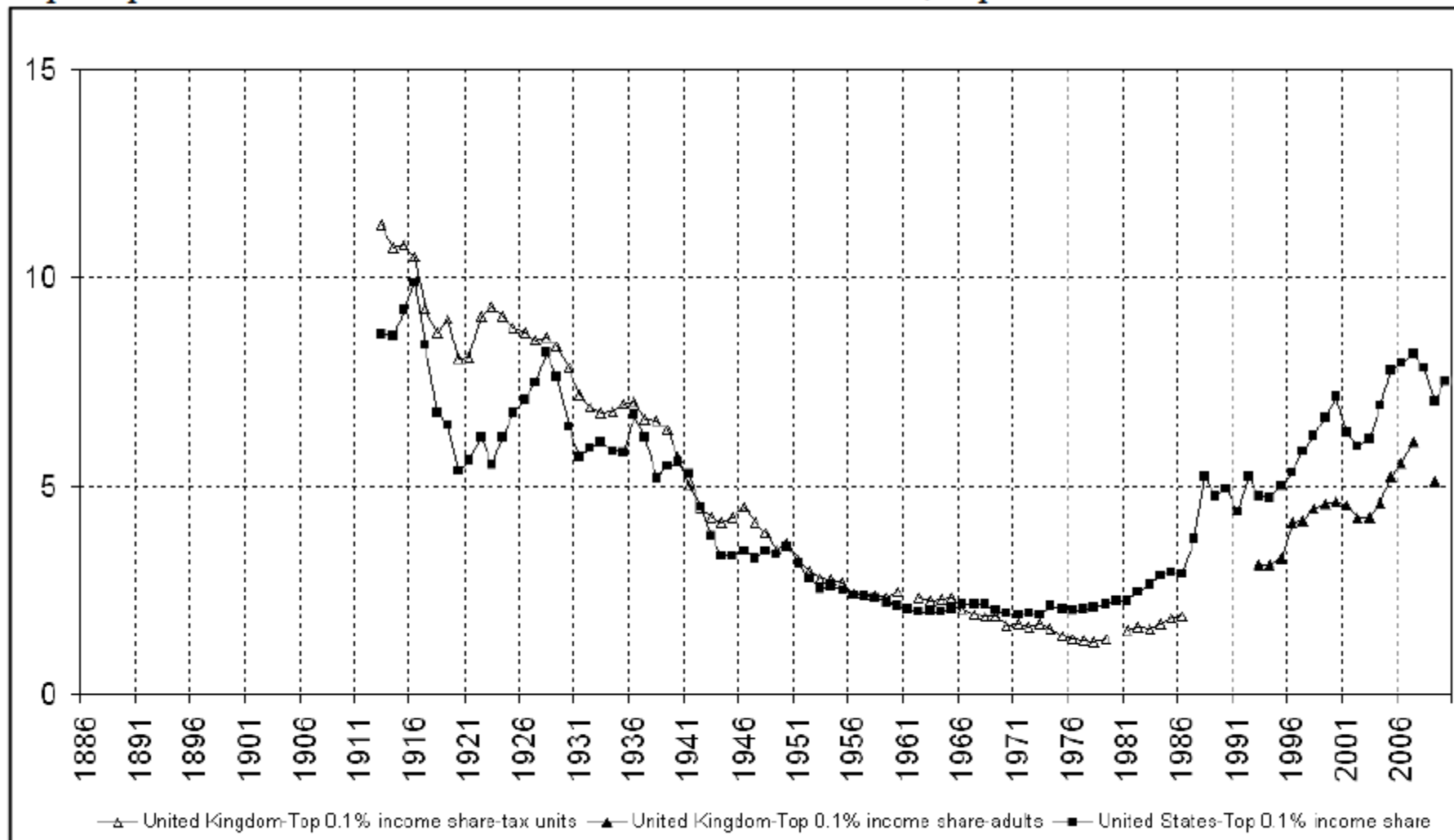
- P = percentiles. **Source:** Piketty and Sáez (2003).

US: average income of the top 0.01% and of the bottom 90%, 1978-2006



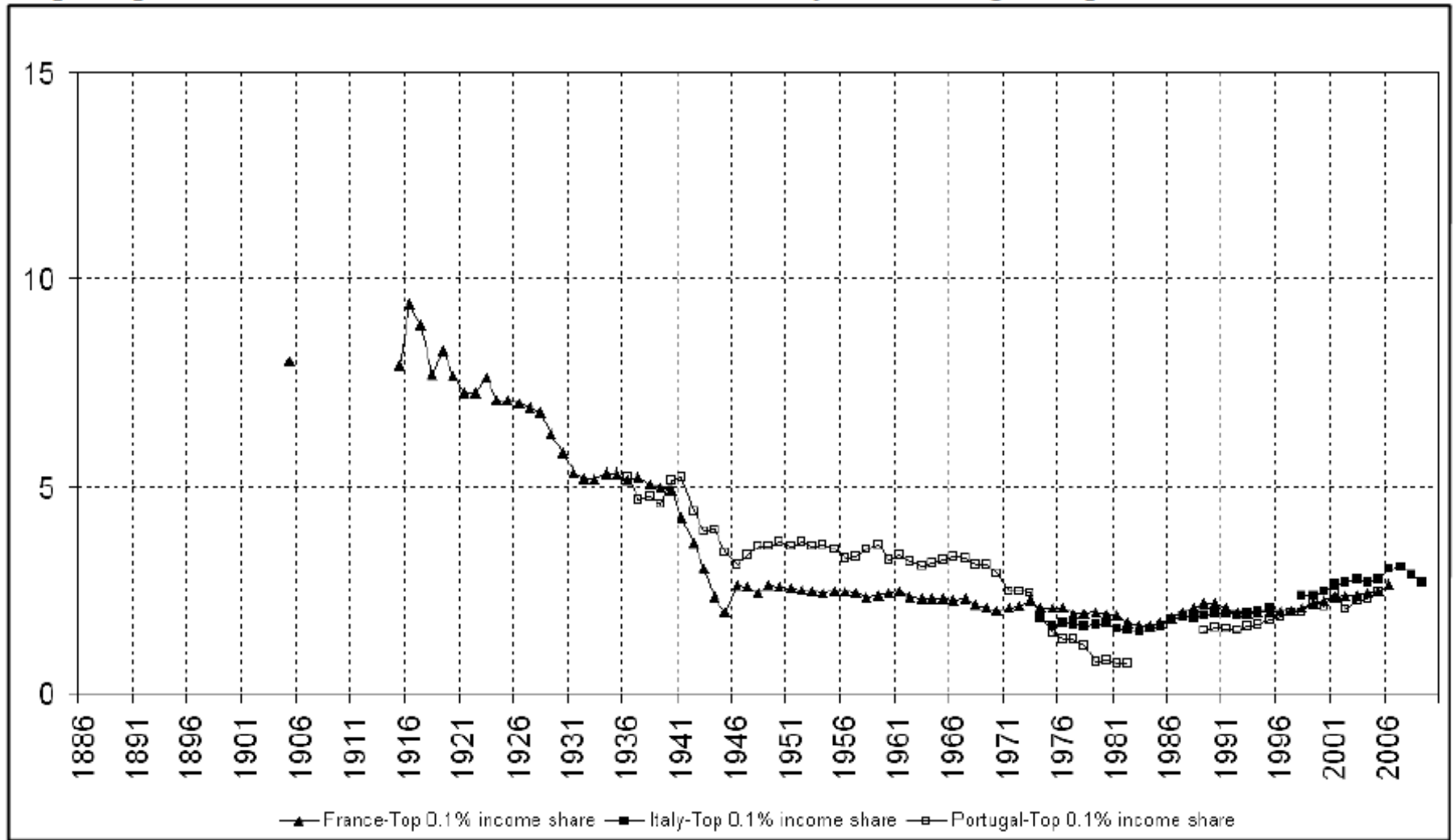
- Percentages are average annual real rates of growth in respective periods (1994-2000 and 2002-2006). Includes capital gains. 3-year moving averages. **Source:** Piketty and Sáez (2003).

Top 0.1 percent share in national income in the UK and the US, in percent



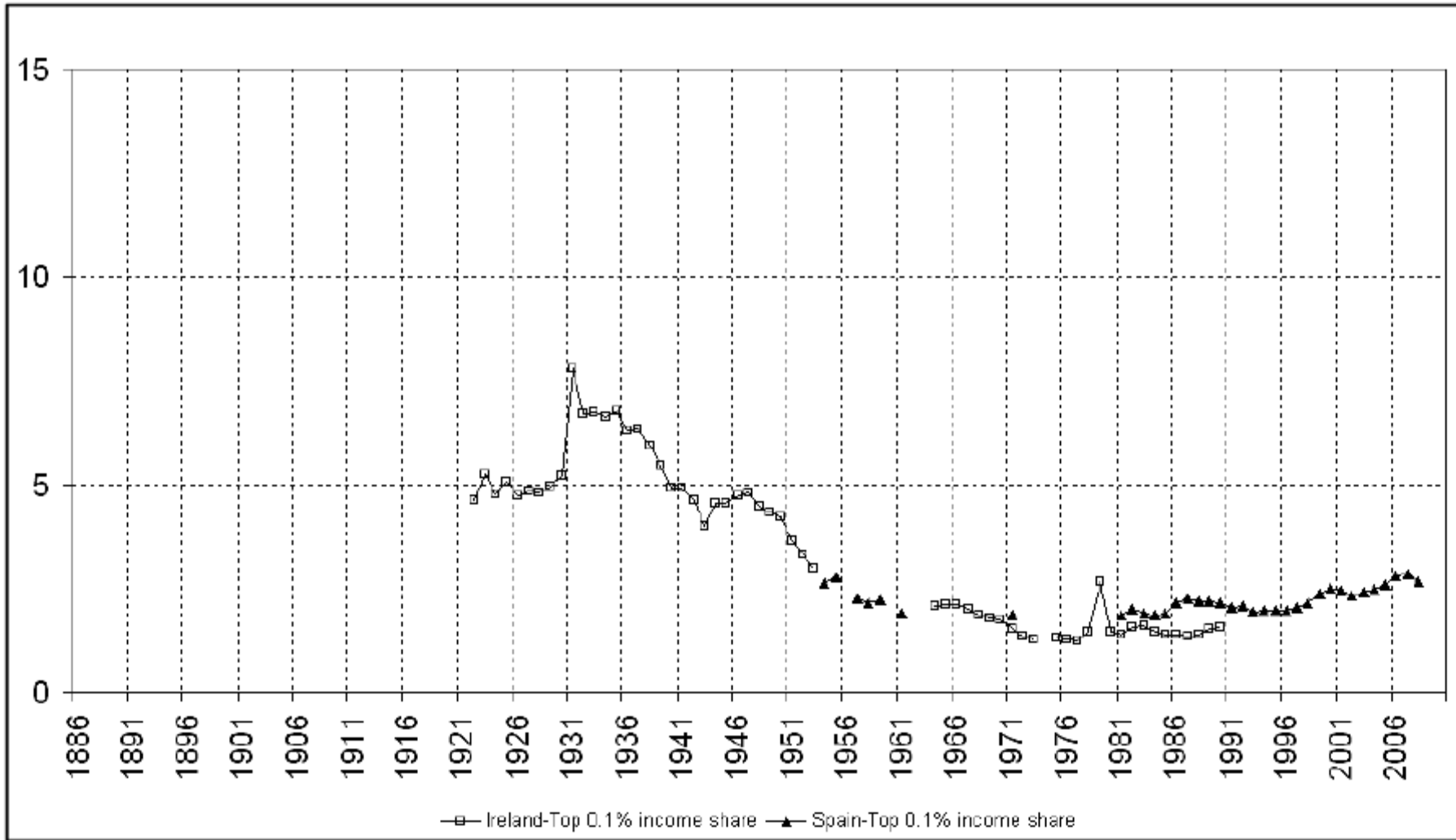
Source: Alvaredo et al. (2012)

Top 0.1 percent share in national income in France, Italy, and Portugal, in percent



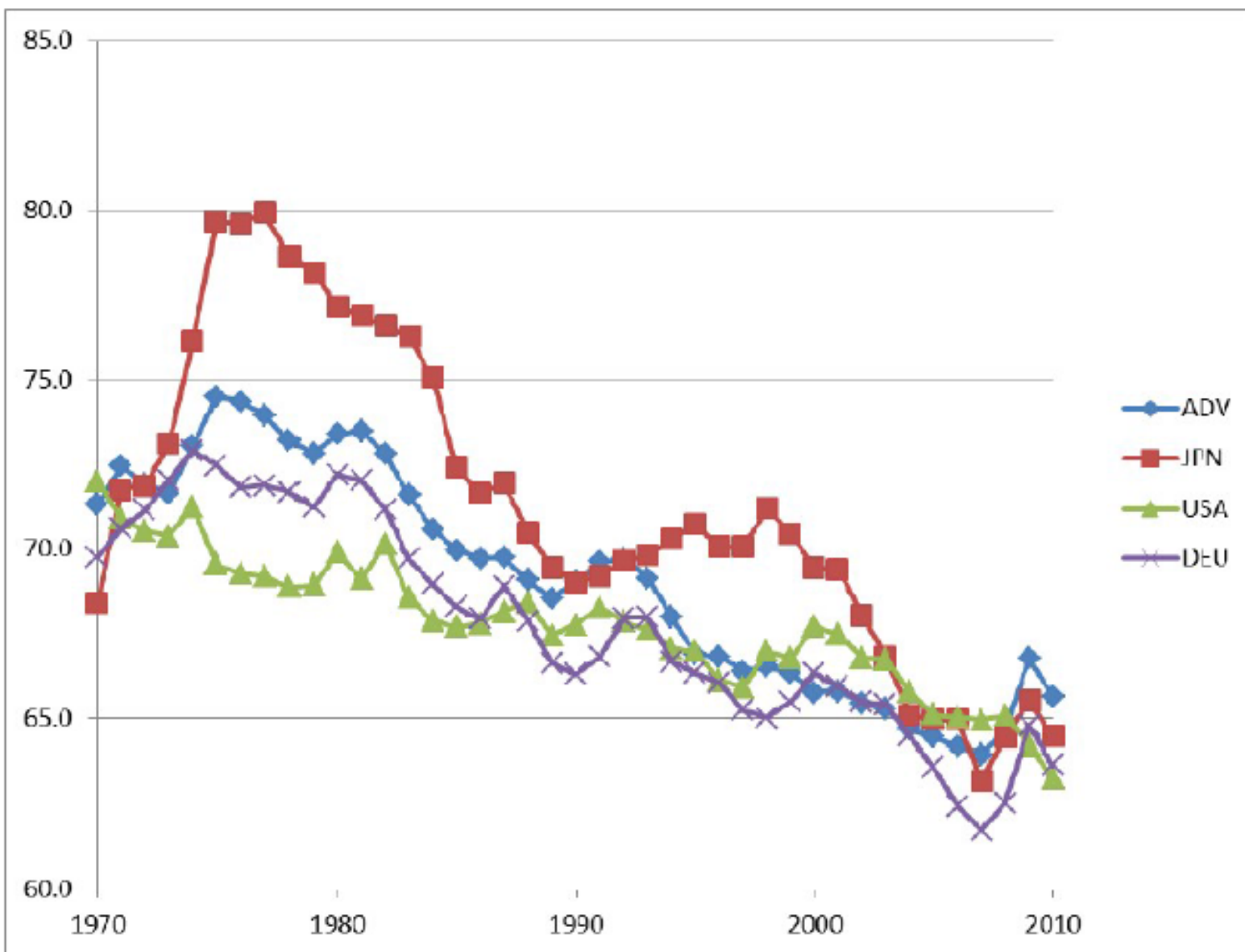
Source: Alvaredo et al. (2012)

Top 0.1 percent share in national income in Ireland and Spain, in percent



Source: Alvaredo et al. (2012)

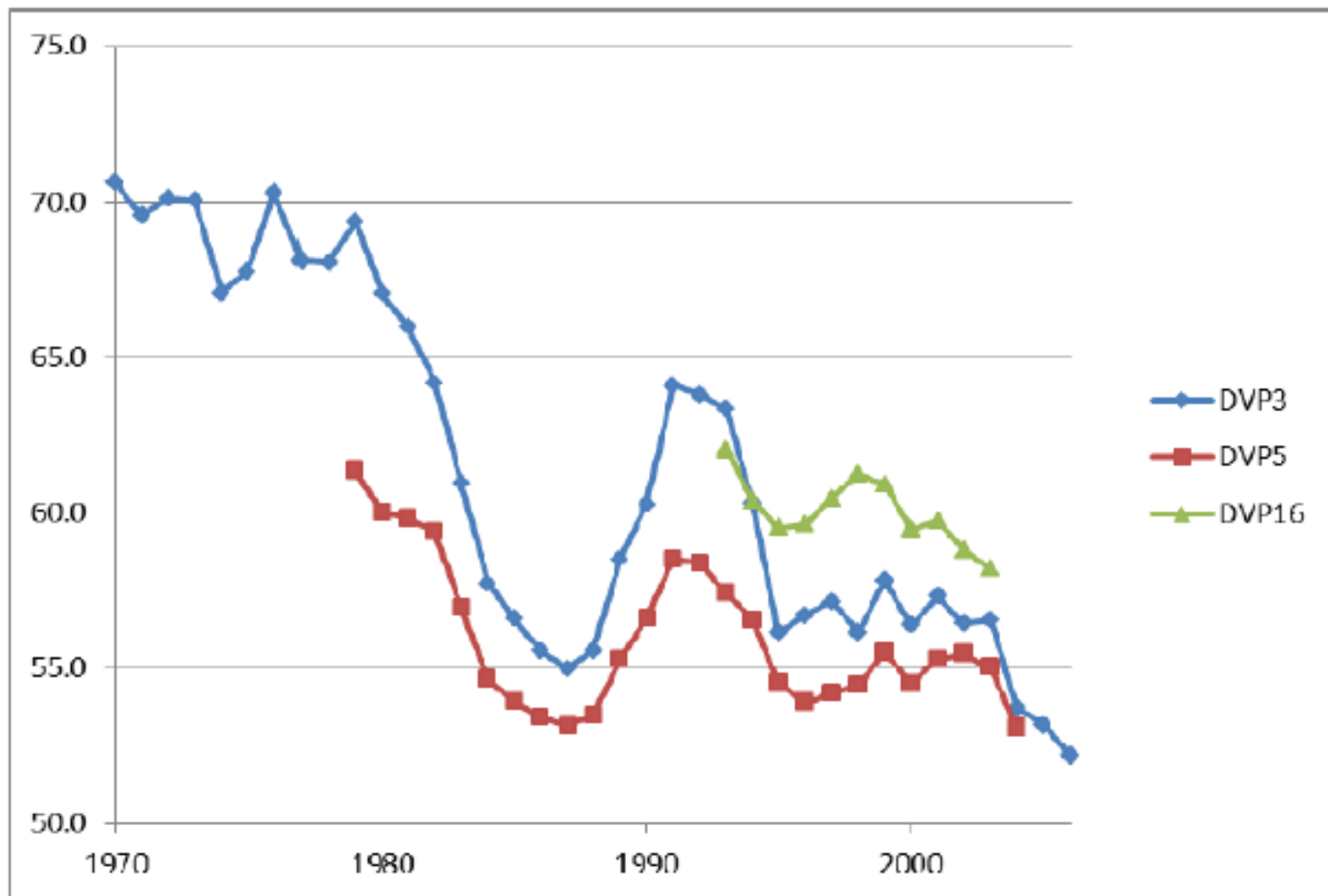
Adjusted wage shares in advanced countries, Germany, the USA and Japan, 1970-2010



Note: ADV stands for unweighted average of high income OECD countries (without South Korea)²

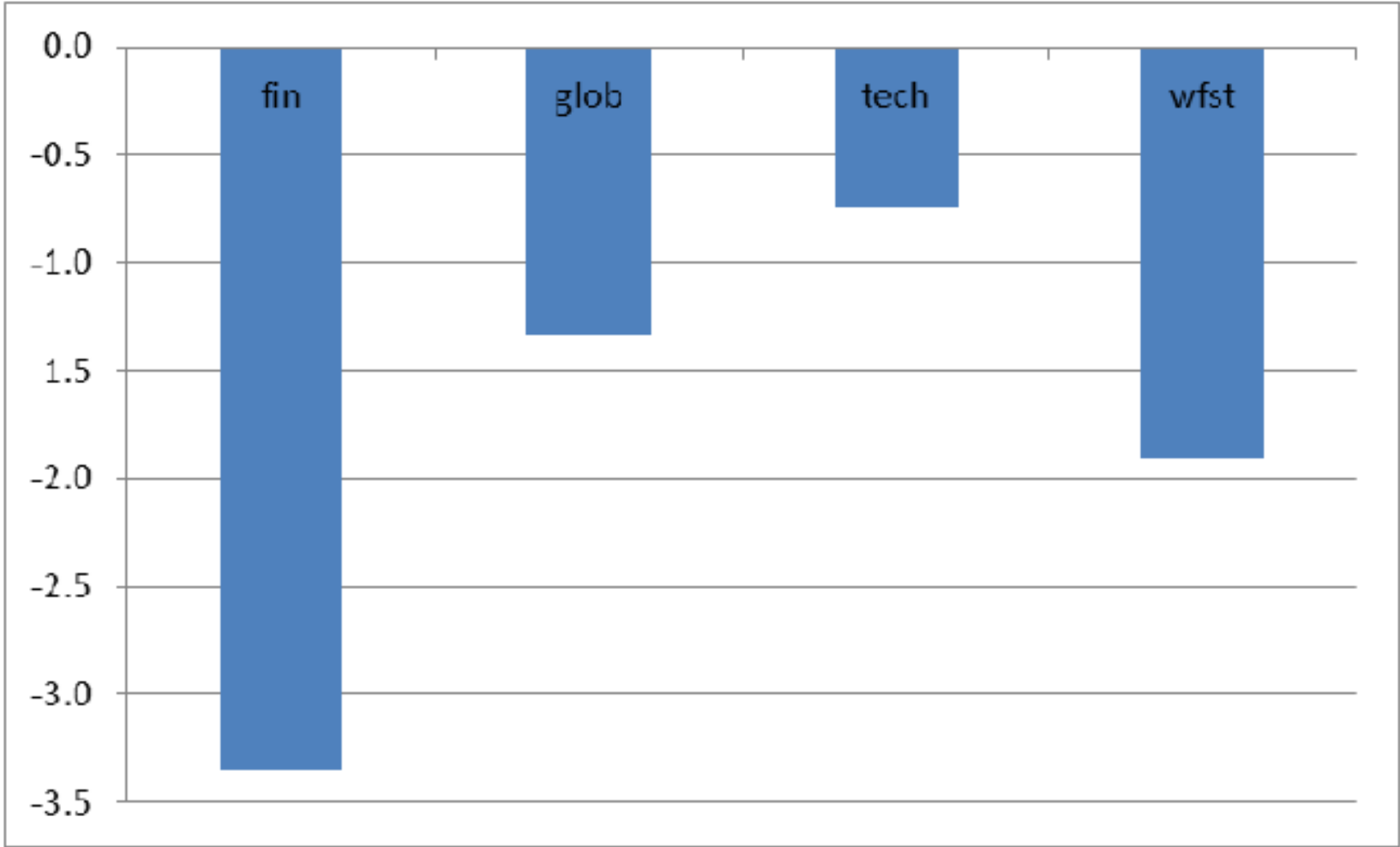
Source: AMECO

Adjusted wage share in developing countries

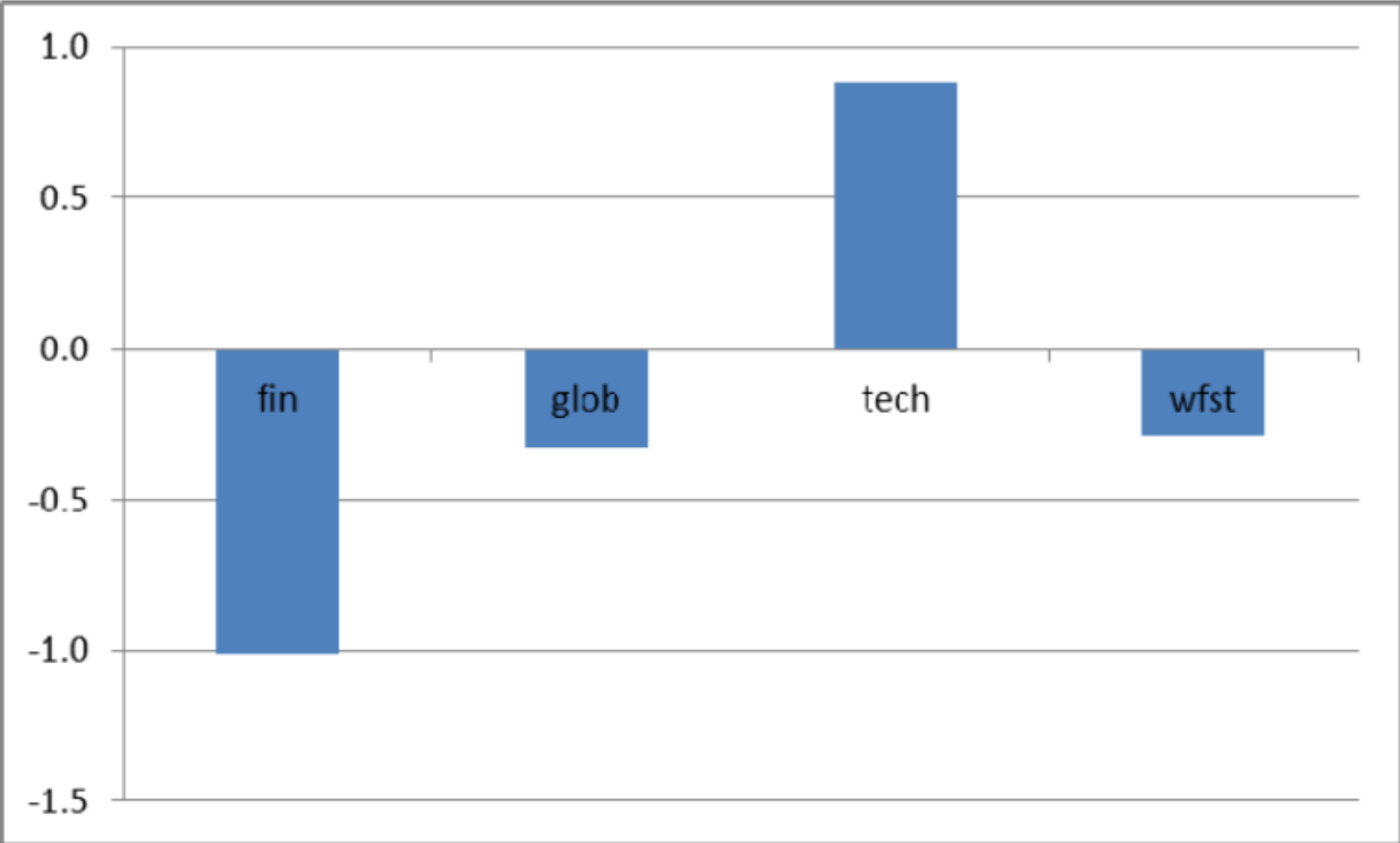


Note: DVP3: unweighted average of Mexico, South Korea, and Turkey; DVP5: unweighted average of China, Kenya, Mexico, South Korea, and Turkey; DVP16: unweighted average of Argentina, Brazil, Chile, China, Costa Rica, Kenya, Mexico, Namibia, Oman, Panama, Peru, Russia, South Africa, South Korea, Thailand, and Turkey

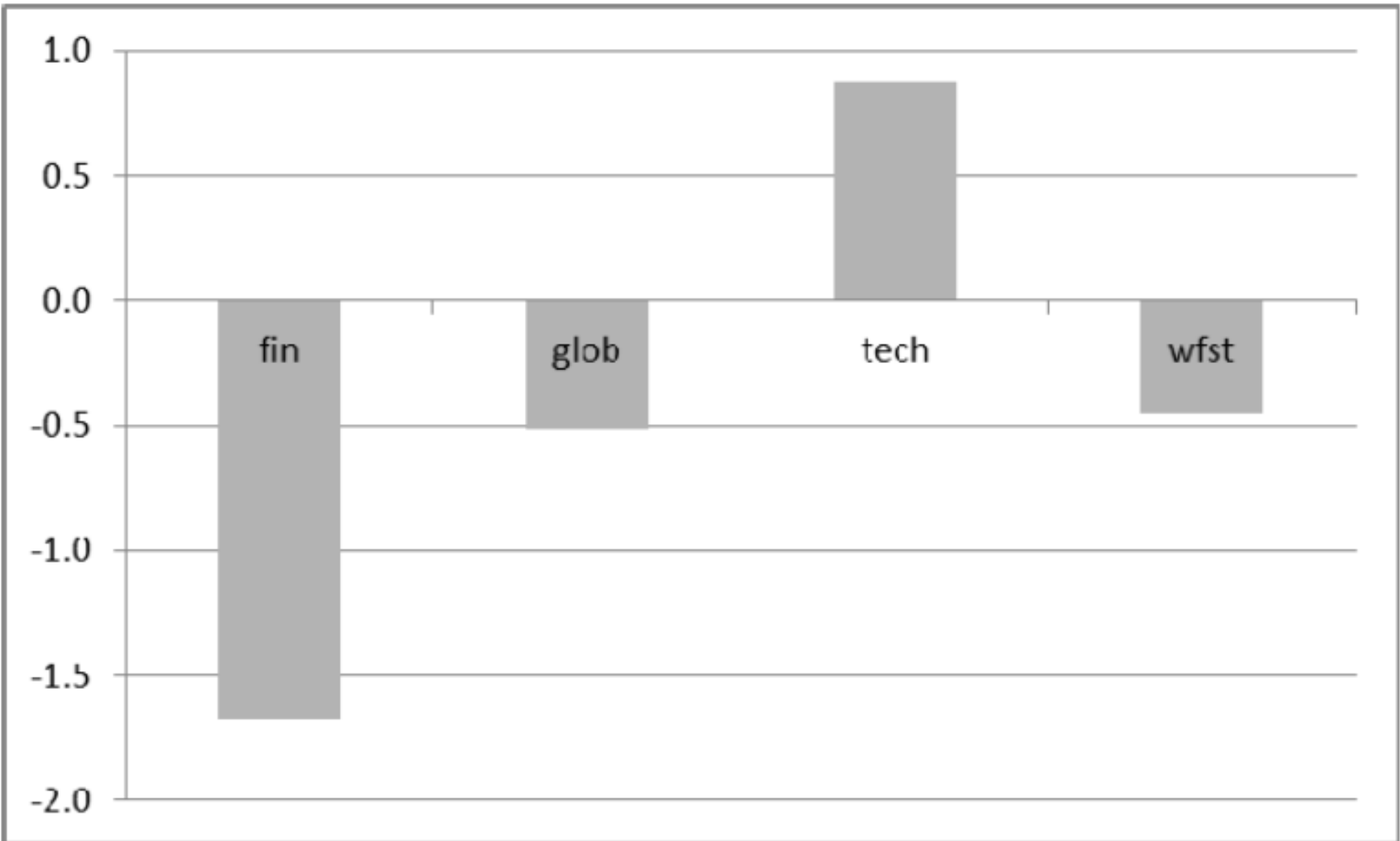
Contributions to the change in the wage share for advanced countries, 1980/84 -2000/4



Contribution to change in the wage share for developing countries, 1990/94 to 2000/04



Contributions to the change in the wage share for all countries, 1990/94 to 2000/04



Summarizing the empirical facts of the financialisation period
from the literature

- The share of profits was shown to be increasing with most of the increase accounted by rising dividend and interest payments, or rentier income, while the proportion of retained profits was declining (Dünhaupt, 2012 for the case of US and Germany)
- Onaran et al. (2011) show that the increase in profit share is driven by the increase in the rentier income at the expense of non-rentier profit income
- Moreover, the divergence between rate of profit and (real) capital accumulation since the early 1990s has been well documented in the literature (Stockhammer, 2004, Duménil and Lévy 2004, Bakir and Campbell, 2010)
- Increasing share of the non-financial corporations' income is contributed by financial assets rather than from real tangible assets (Orhangazi, 2008 using firm level data for the US).

- The share of wages is decreasing in the advanced economies including the OECD countries from the mid 1980s until the Great Recession (Stockhammer, 2009 and 2013, Dünhaupt, 2013).
- Within the wage share component widening disparity between the top management earnings and the rest of the workers (Hein, 2012, Buchele and Christiansen, 2007, Glyn, 2007 and Dünhaupt, 2011)
- Top management executives earnings from equity stakes in the company include various kinds of stock options in addition to their wage income (Hein, 2012)
- Moreover, Hein (2012) points out that the top management salaries has dampened the fall in the wage share component since the early 1980s.

- The empirical evidence in the literature is quite unequivocal in establishing, not just the direction of movement in the share of profits and share of wages, but also unravelling the widening disparities within these income categories.
- In the profit share, disparity is between the rentier income arising from dividends and interest payments vis-à-vis profit income earned in commodity production (“rentiers” amongst capitalists)
- In terms of wage share, a widening gap between the top management workers’ income that includes earnings from their stakes on various financial options and the rest of the wage income earned in commodity production is noted (“working rich” amongst the workers)

- Empirical research on the period since 1980s, referred to as “financialisation” period, has clearly established that earnings from financial assets play a key additional source of income accrue to both the categories of wage income and profit income.
- Given that the top managerial workers’ income is accounted as part of compensation to employees, or as part of the wage income category, the impact of an increase in earnings from financial assets accruing to the wage income triggers an apparent increase in the share of wages.
- Thus at any given level of share of profits, the increase in the share of wages arising from financial gains creates *an illusion of redistribution* across the income categories, even as the intra-category disparity in wage share is actually deteriorating

- However, in the general case when the financial gains are considered to be accruing to both the income categories both the inter distributional disparity and intra distribution disparity change in different ways.
- In the particular case of the illusion of redistribution discussed above, while the increase in profit share leads to the equal decrease in wage share, in actual fact it gives rise to a deterioration in the intra-income distribution in the latter, i.e. in the wage share between wages and financial income.
- Thus, in the general case where both the inter and intra distributional disparity change, the resultant impact on aggregate demand is not obvious.

At the backdrop of the unfettered economic expansion in the era of financialisation since the 1980s was guided by

The Monetarist/Efficient Markets economic theory whose main objective

was to minimize distortions and frictions in the inter temporal trade-off at the micro level and thus facilitate the smooth functioning of the **rocking horse, i.e. the market.**

The Monetarist theory guided the process of Financialization, and thus the primacy of *markets* and *market sentiments*

...

thus facilitating the deepening of financial markets equities, debt markets (short-term, long-term), insurance products, financial innovation in the securities and other WMDs...

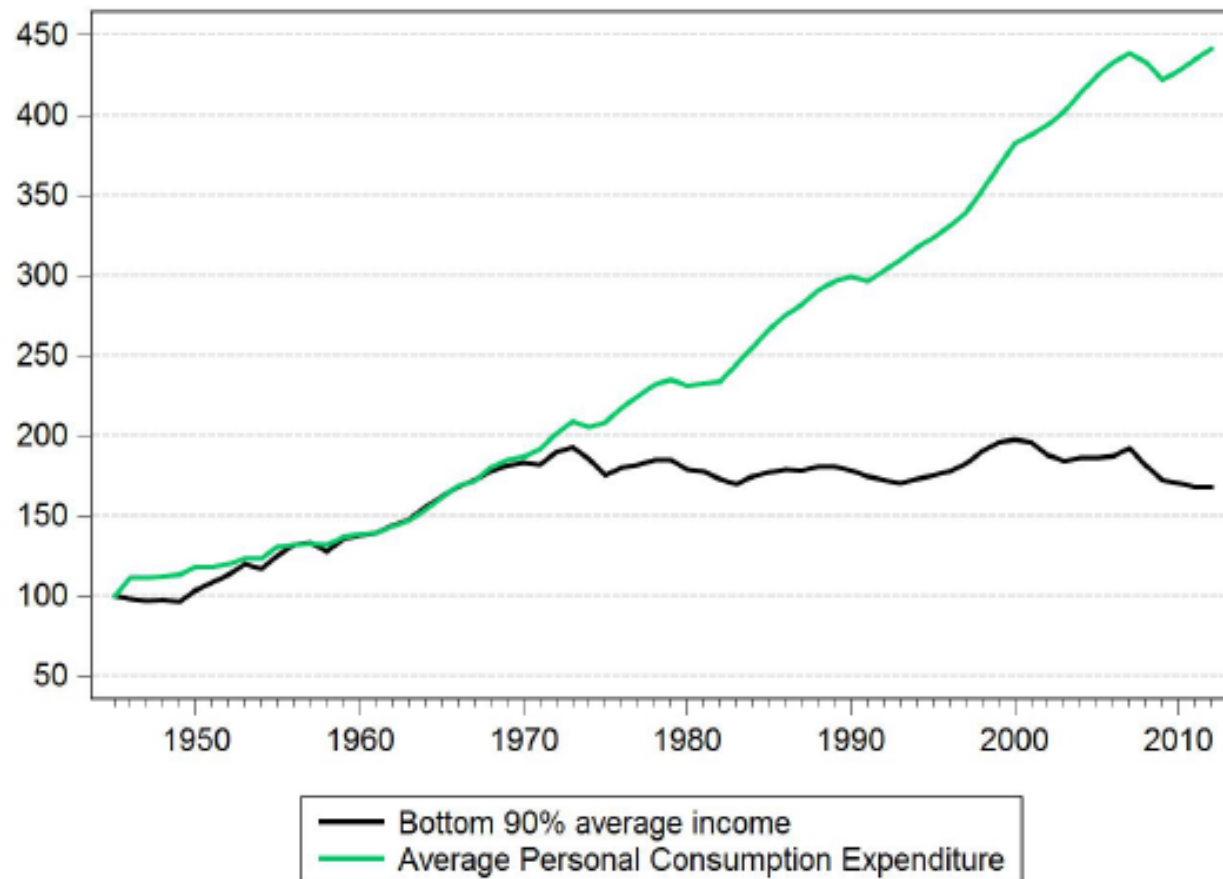
“Without *confidence*, we have no investment. And without investment there is no *growth*”

- Jose Manuel Barroso

Thus, the financialisation period gave rise to the biggest economic expansion of the century also drove the economy fragile because of the widening inter and intra distributional disparities.

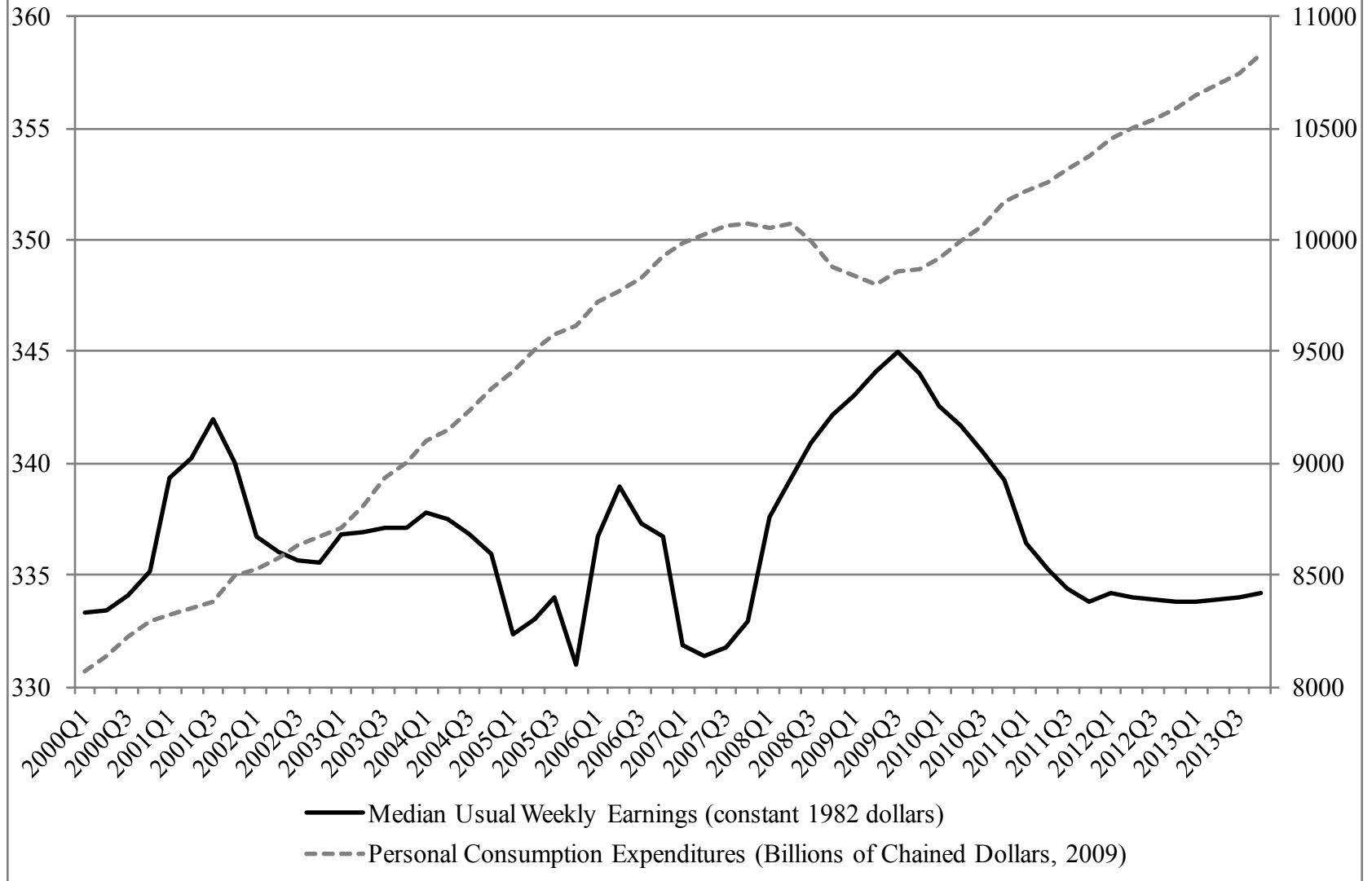
These inter and intra income disparities created the preconditions for the systemic instability via defaults and lack of demand in the economy

Index of Personal Consumption Expenditure per Capita and Average Income of the Bottom 90 Percent, 1945–2012 (1945=100)



Sources: BEA, Alvaredo et al. (2014), US census, author's calculations

Consumption growth in the US despite stagnant real wages, 2000-2013



Towards an alternative theory of the crisis

- The financialization process masked the negative impact of growing income inequality and helped to sustain income inequality by way of apparently ever expanding credit.
- Such expansion of credit became possible via “financial innovation”, not because China and India stored a huge amounts of foreign exchange reserves.
- Financial innovation created the myth of infinite source of money supply in the system, which reinforced the expansion of credit and thus the increased the total level of debt in the system.
- At the same time, economic growth driven by the financial markets helped to sustain income inequality, **at politically a feasible level**, which in turn reinforced the dominance of Monetarist orthodoxy.

VI. Challenges

Substantive and Methodological

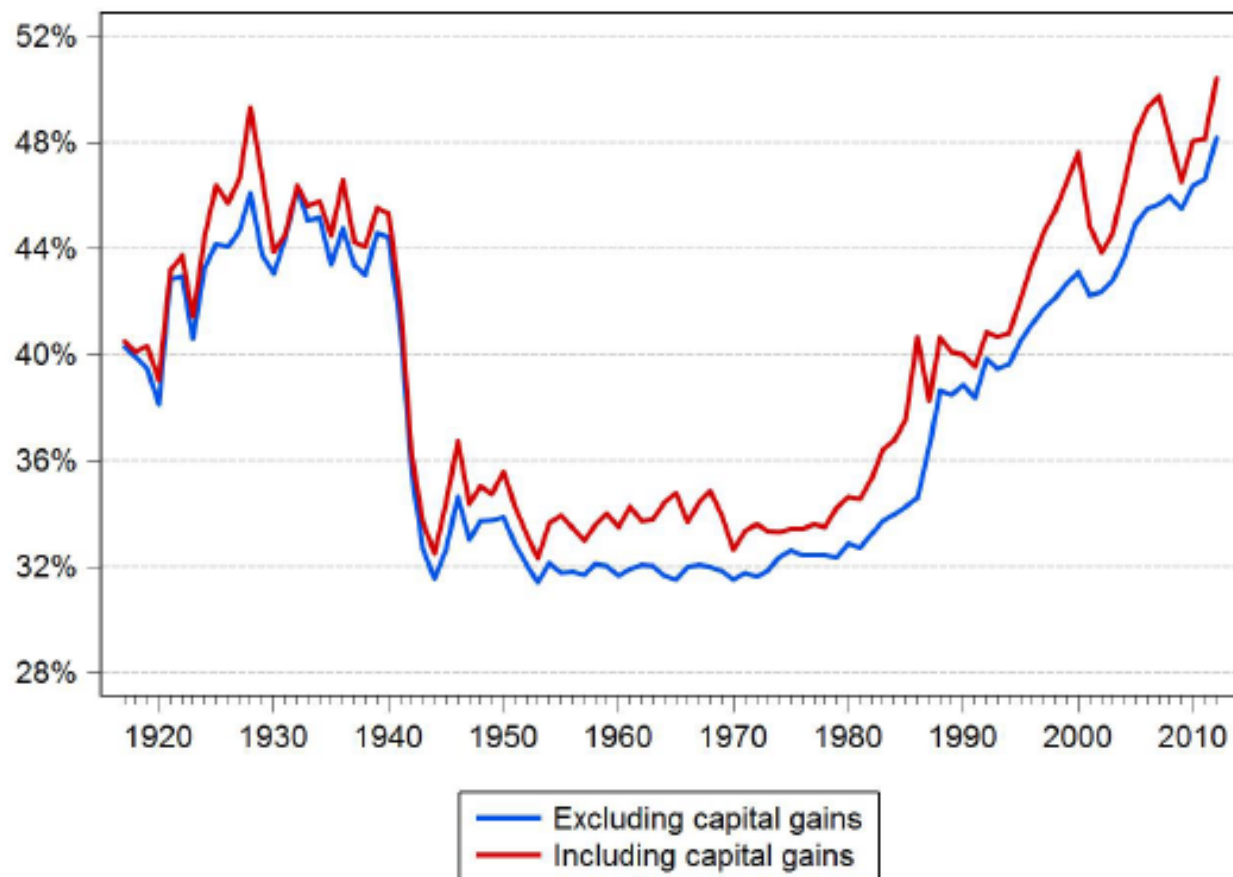
The role of money in the determination of output, employment and distribution

Reminded of Wynn Godley, one of the greatest proponents of the stock flow consistent macro models, who laid out seven unsustainable processes

The eighth unsustainable process that has emerged is income inequality - a careful examination of the increasing income inequality is necessary to understand the roots of the crisis of 2007-2009 and the feeble recovery that has followed.

Remember ...

Top 10% Income Share, 1917–2012 (% of total income)



Source: Alvaredo et al. (2014)

- Revisiting the classical problem of dynamics between distribution of income and the level of income, and growth, through modeling the interaction between the financial and the real economy.

i.e. deriving a monetary theory of production and distribution

- That provides insights into the mechanism that underlies the growing inequality during growth phases as highlighted by empirical facts
- Analysis must be based on a consistent accounting framework and takes into account the empirical and institutional details, which is also amenable for policy calibrations

- Steady build-up to the peak and sudden collapse, i.e. abrupt transition from one state to the other (boom state to recessionary state of the financial markets)
- The economy lingers in recession for a period of time
- The time duration between the collapse and the recovery is uneven - even if one supposes the economy goes back to its original boom state
- The salient **institutional** characteristics of the modern financial sector
- The influence of asset price and debt in both consumption and investment expenditure
- The capacity of the financial sector to create various forms of money **endogenously** - the role of financial innovation and the process of securitization

Themes in this School

- Macroeconomics under financial capitalism
- The evolutionary and institutional analysis of financial capitalism
- Price mechanism – the General Equilibrium theory
- Uncertainty, risk and pricing financial products
- Introducing the basic framework of the Post-Keynesian Stock Flow consistent macroeconomic models
- Interconnectedness and systemic risk
- Modeling abrupt transitions and dynamic instabilities

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