FINANCE AND THE MACROECONOMICS OF ENVIRONMENTAL POLICIES

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The neoliberal trajectory, the great recession and sustainable development

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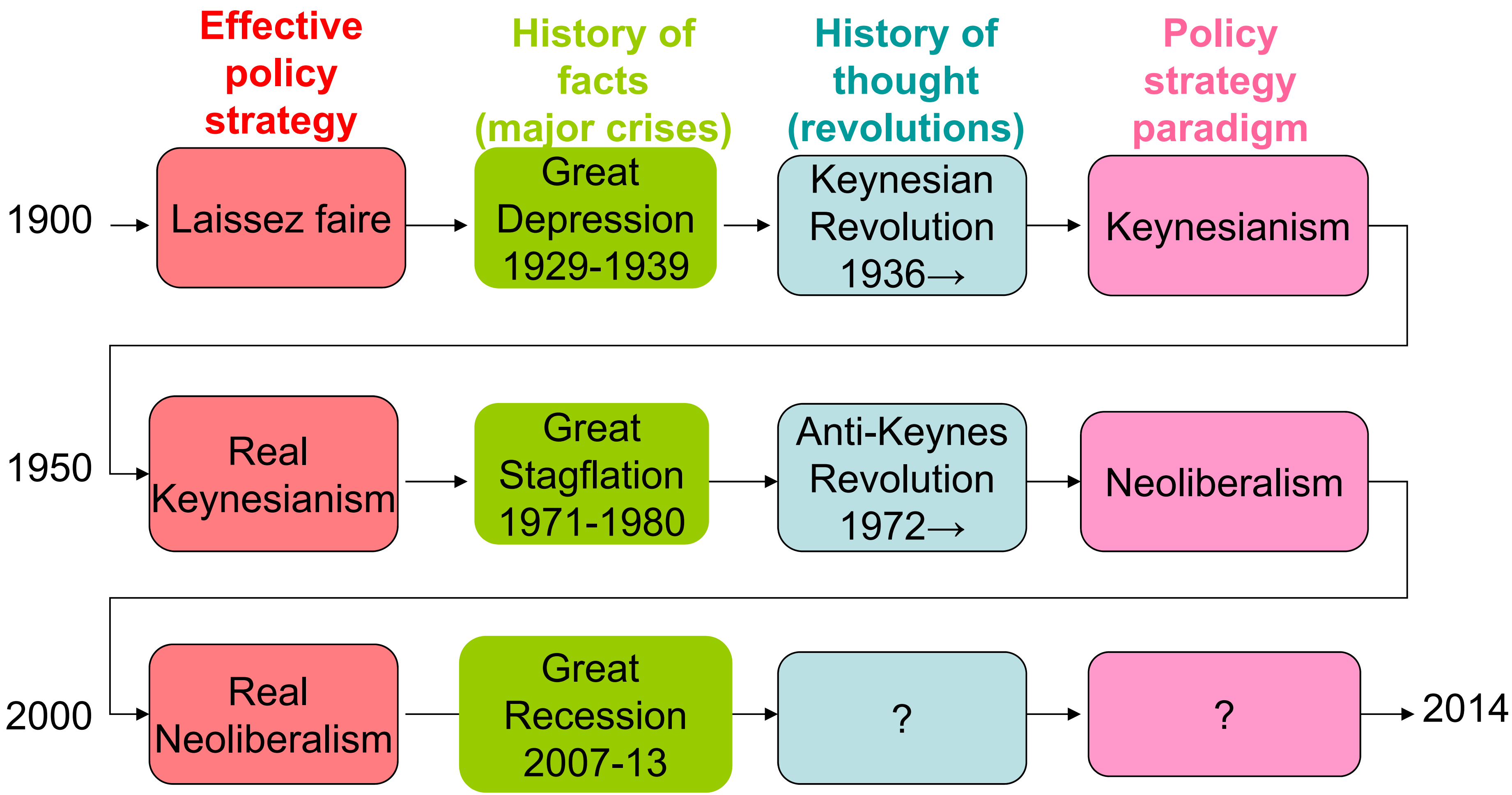
Development paradigms and trajectories



Source: Vercelli, 2011, Economy and Economics: The Twin Crises, in Brancaccio, E. and G. Fontana, eds., *The Global Economic Crisis. New perspectives on the critique of economic theory and policy*, Routledge

The emergence of the NL paradigm

Typically, the ruling policy strategy is blamed for a severe and persistent crisis

→new policy strategy to { remove the causes of the crisis / avoid new crises } emerges

This is what happened after the { Great Depression / Great Stagflation }

In the second case the NL paradigm based on NCEcs emerged as winner of a long struggle against the Keynesian policy strategy

The fight against Keynesianism

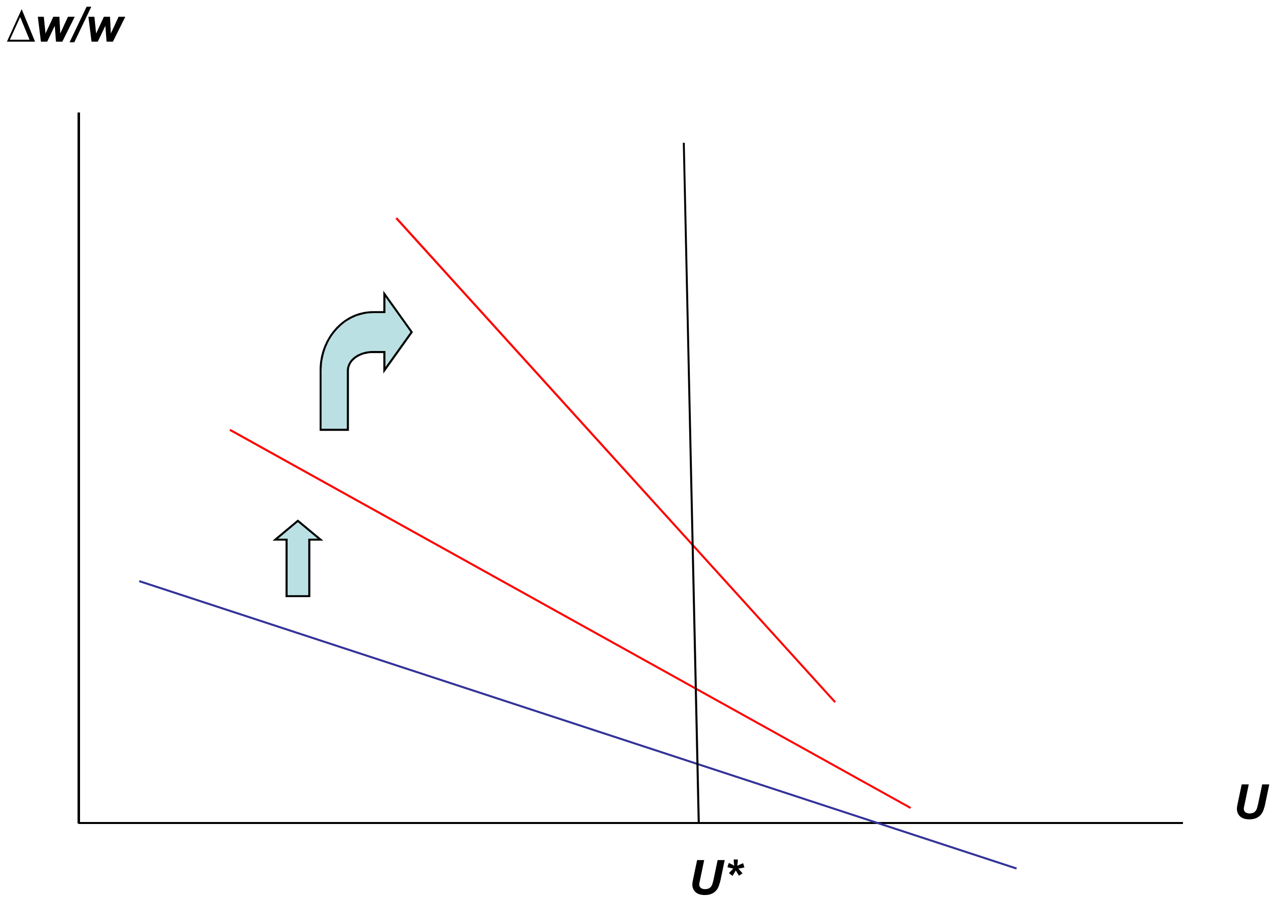
The Keynesian policy strategy considered as inconsistent with equilibrium and thus efficiency:

- Real equilibrium suboptimal: excessive interference of the state
- Monetary equilibrium: inflationary bias in the real economy

Final and decisive battle ground: meaning and policy implications of the Phillips curve and its observed upward shifts since the late 1060s:

rebuttal of the Phillips curve as a stable menu of policy choices

Phillips curve in the late 1960s and 1970s



Recipes to sustain the optimum equilibrium

Accept a vertical Phillips curve at the natural rate of unemployment *U*

Forsake {
- **full employment policies**
- **countercyclical policies**

Adopt fixed policy rules {
- **rigid monetary policy rule**
- **budget equilibrium**

Focus on structural policies to shift economic decision power from the state to the market: privatization, deregulation and dismantlement of the welfare state

4 Phases

The neoliberal policy strategy adopted since { 1979 Mrs Thatcher; 1980 Reagan administration

4 phases of the NL trajectory:

A) The Monetarist Disinflation: 1979-1987

B) The Roaring 1990s: 1990-2000 (Krueger and Solow, 2002; Stiglitz, 2003)

C) The Zero Years: 2000-2007 (Krugman, 2009: the big zero decade)

D) The Great recession: 2007-2014

A) The Monetarist Disinflation

A) The Monetarist Disinflation (inspired by monetarism mark 1 and mark 2) initiated and pursued by Volker (chairman of FED 1979-1987)

→ strict monetary policy → weakening of trade unions

→ deregulation of labor market and industrial relations

→ downward shift and flattening of the Phillips curve

inflationary tensions in real markets overcome

} "Great Moderation" (1987-2007):

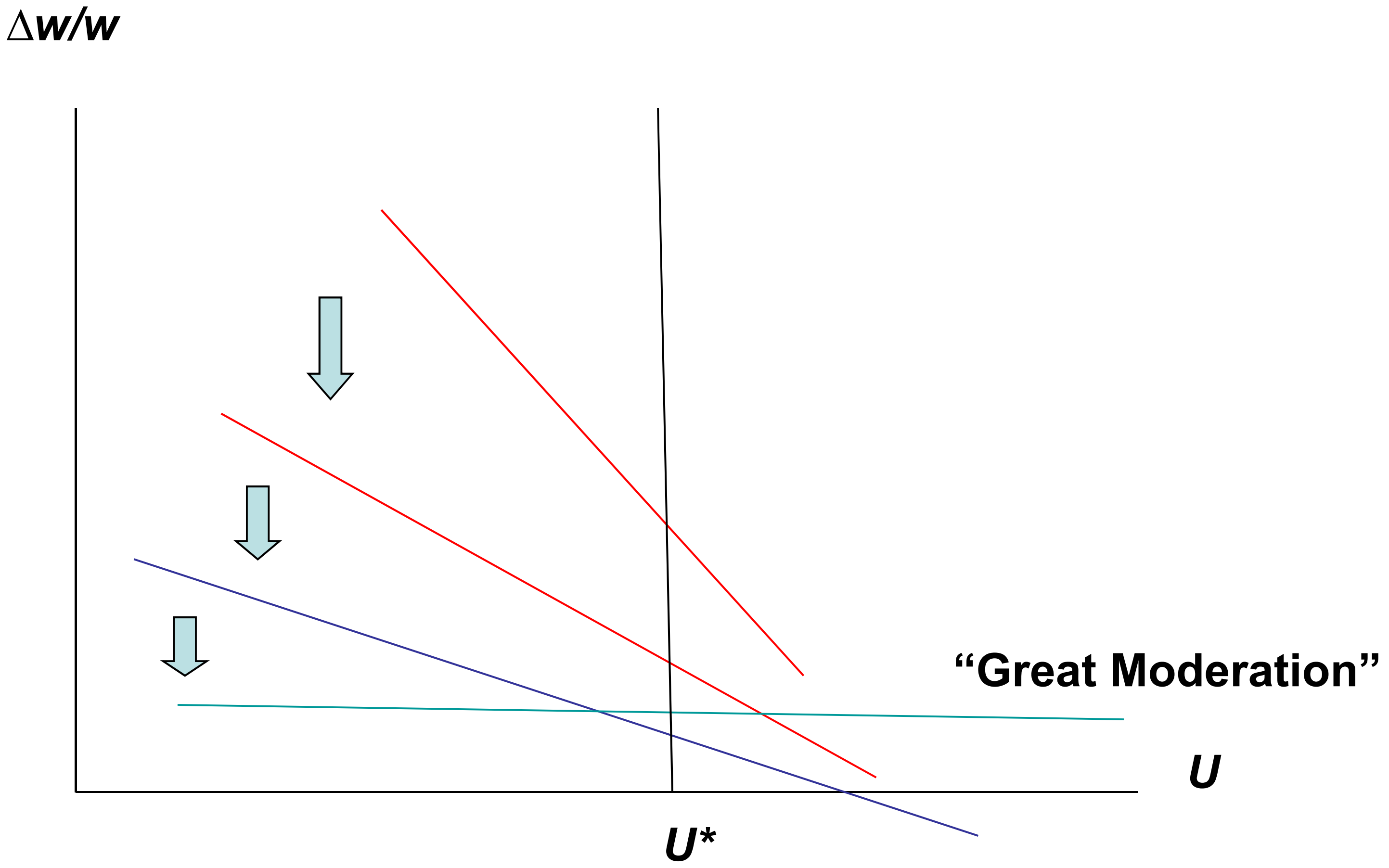
new monetary policy of Greenspan (1987-2006)

→ stability of *w* and *p* even during the booms {

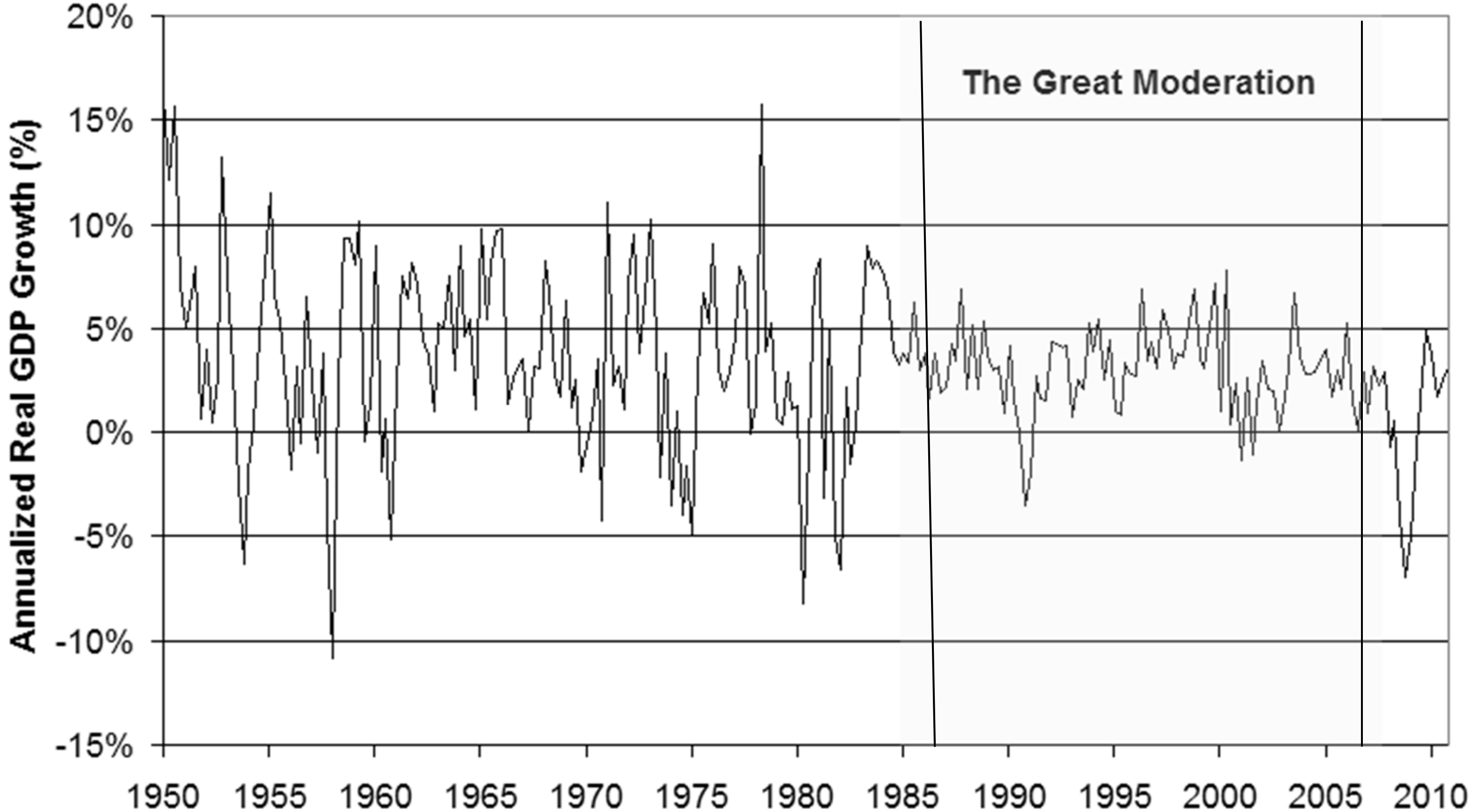
better monetary policy

↑ flexibility of labor market

Phillips curve in the late 1980s



US real GDP Growth: the Great Moderation (1987-2007)



Source: Wikipedia based on Economic Research at the St. Louis Fed

Collateral effects: increasing inequality

Praised as great success of NL policies (not by workers);

however these reforms immediately produced collateral effects:

1° collateral effect: ↑ inequality of income distribution within countries

→ inversion of a downward trend persisting since WW1

this occurred in all the OECD countries

while in many developing countries that deviated from NL precepts this did not occur (e.g. Brazil)

Inequality in the U.K., 1939-1996 (%)

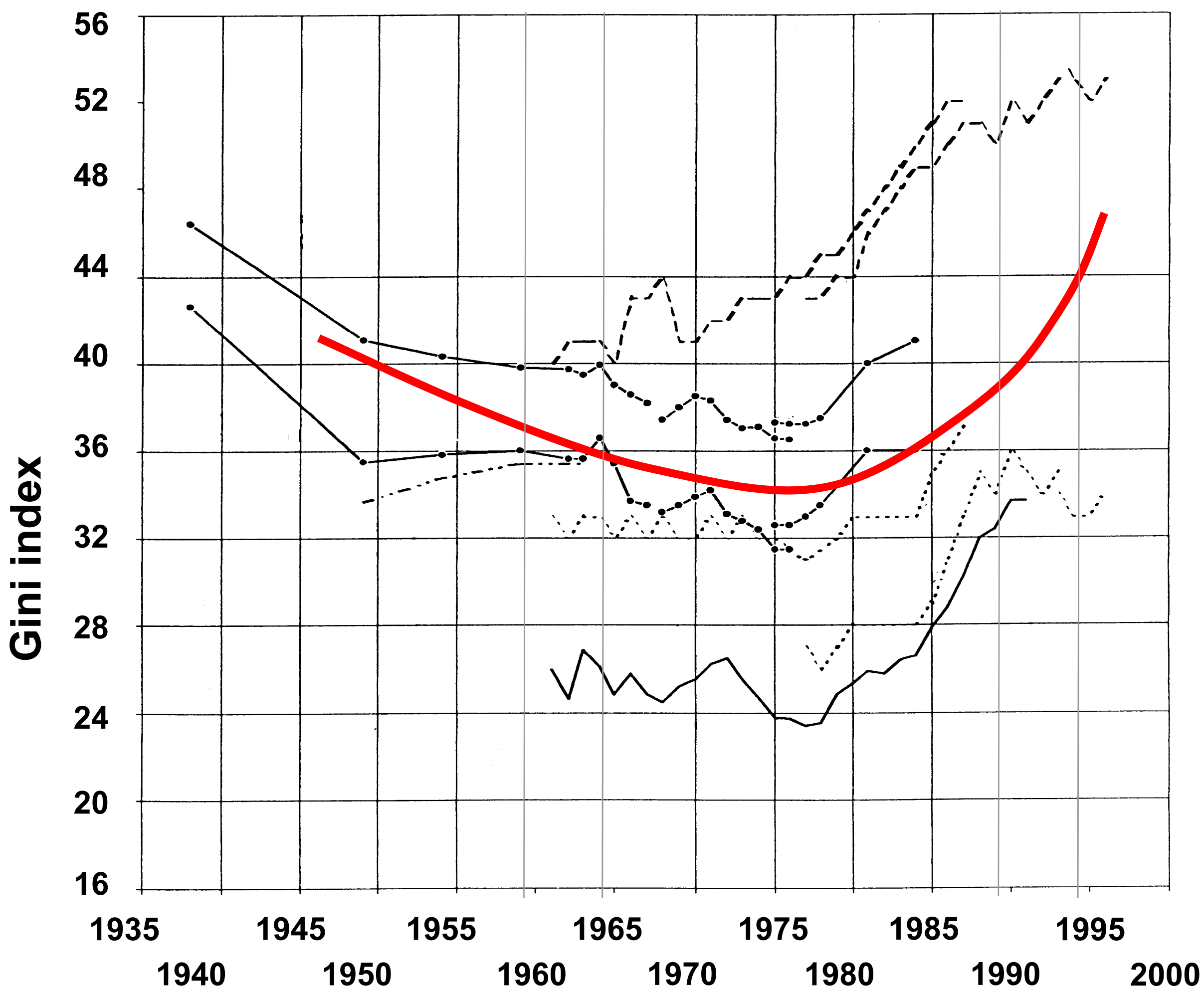


Fig. 5

Source: Borghesi and Vercelli (2008) based on Brandolini (2002)

Inequality in the USA, 1929-1996

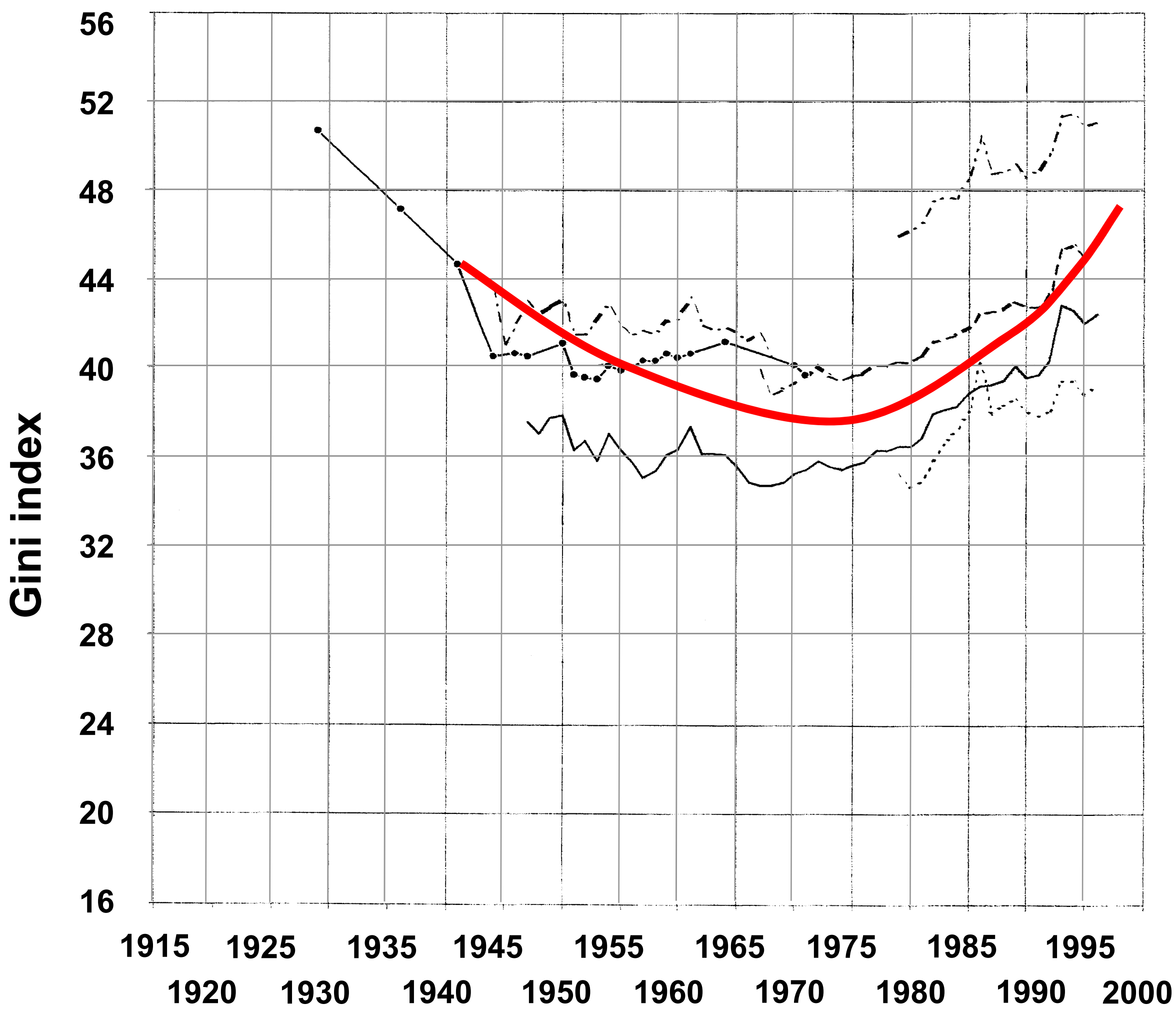


Fig. 6

Source: Source: Borghesi and Vercelli (2008) based on Brandolini (2002)

Collateral effects: increasing poverty

2° collateral effect: acceleration in the number of poor people

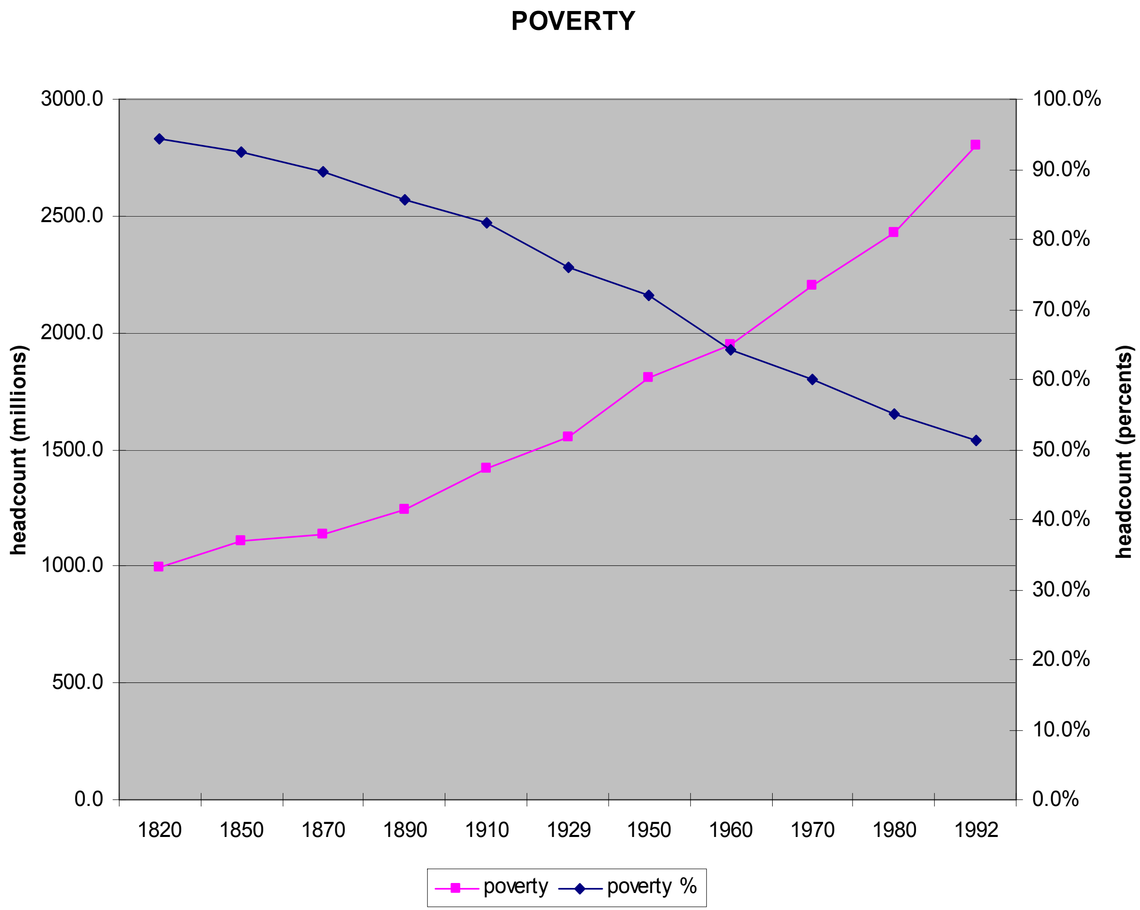
Contrary to the "Pareto law" and "Bhagwati hypothesis" the increase in inequality since the beginning of modernization played a crucial role in the increase of poverty

"had the world distribution of income remained unchanged since 1820, the number of poor people would be less than 1/4th than it is today and the number of extremely poor people would be less than 1/8th of what is today"

(Bourguignon and Morisson, 2002, p.733)

Further increase of the poor and malnutrition in consequence of the Great Recession

Poverty trends (< $2 per diem)



Source: Bourguignon and Morisson (2002)

Collateral effects: slowdown of growth

3d collateral effect: slowdown of the trend of GDP growth

- **↑ inequality and poverty →↓ of growth trend of aggregate demand and thus also of GDP**

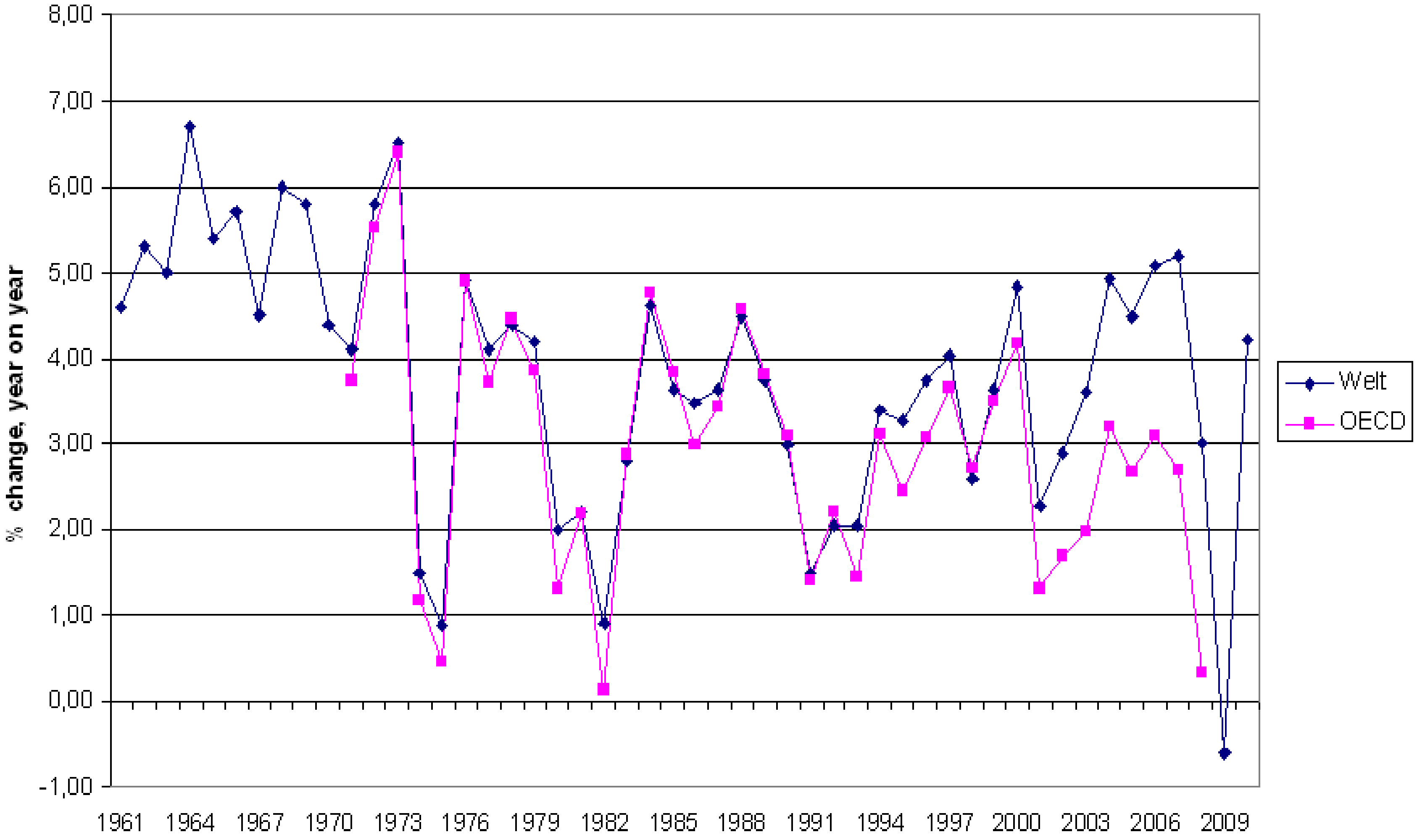
↓ growth trend

Consequences{

↓growth in OECD countries more than in developing countries less intoxicated by the NLPS

therefore both the change in trend and the worse trend of OECD countries may be explained as a consequence of the NL policies

Gross domestic product, constant prices
- World and OECD, total -



B) The roaring 1990s (1)

Since 1987 change in monetary policy (Greenspan, 1987-2006)

preceded by a change in theory: from the monetary equilibrium business cycle of Lucas to the real business cycle of Kydland and Prescott (1982)

“Greenspan put”: floor to the price of financial assets without a ceiling

→ the real inflationary bias replaced by a financial inflationary bias

→ alters relative prices, risk and expectations of financial/real investment:
↓ real investment →↓ growth →↑ *U*

Consequence 1) doping of growth:

↑ indebtedness of households to sustain aggregate demand

↑ deficit spending by the Reagan, Bush1 and 2 Administration

B) The roaring 1990s (2)

→ ↓ risk perception

Consequence 2) { →↑ financial instability

→ ↑ financial fragility

of the 18 main financial crises identified by Kaminsky and Reinhart (1999) in the second half of the past century (all post-deregulation):

3 occurred in the 2° half of the 1970s, 7 in the 1980s, 8 in the 1990s

not global: circumscribed to a particular

institution (LTCM, 1998)
sector (US saving and loan associations, 1984)
country (Italy 1990, UK 1991, Japan 1992 …)

All these episodes happened after specific acts of deregulation (Kaminsky-Reinhart, 1999)

C) The Zero Years

The process of increasing financial stability culminates in the zero decade:
two major global crises originated within the core of the system:

- ***new economy* crisis 2001: serious warning of a major disaster approaching but its structural causes were neglected → BAU**

  also in this case monetary policy succeeded in thwarting the crisis strengthening the confidence in the invisible hand (helped by Greenspan's visible hand)

  speculation shifted from immaterial ICT goods to brick-and-mortar goods:

- **first wave of the 2° global crisis:**

subprime mortgage crisis { **detonator** / **propagation of implosion**

The Great Recession: the detonator of the first wave

Detonator {

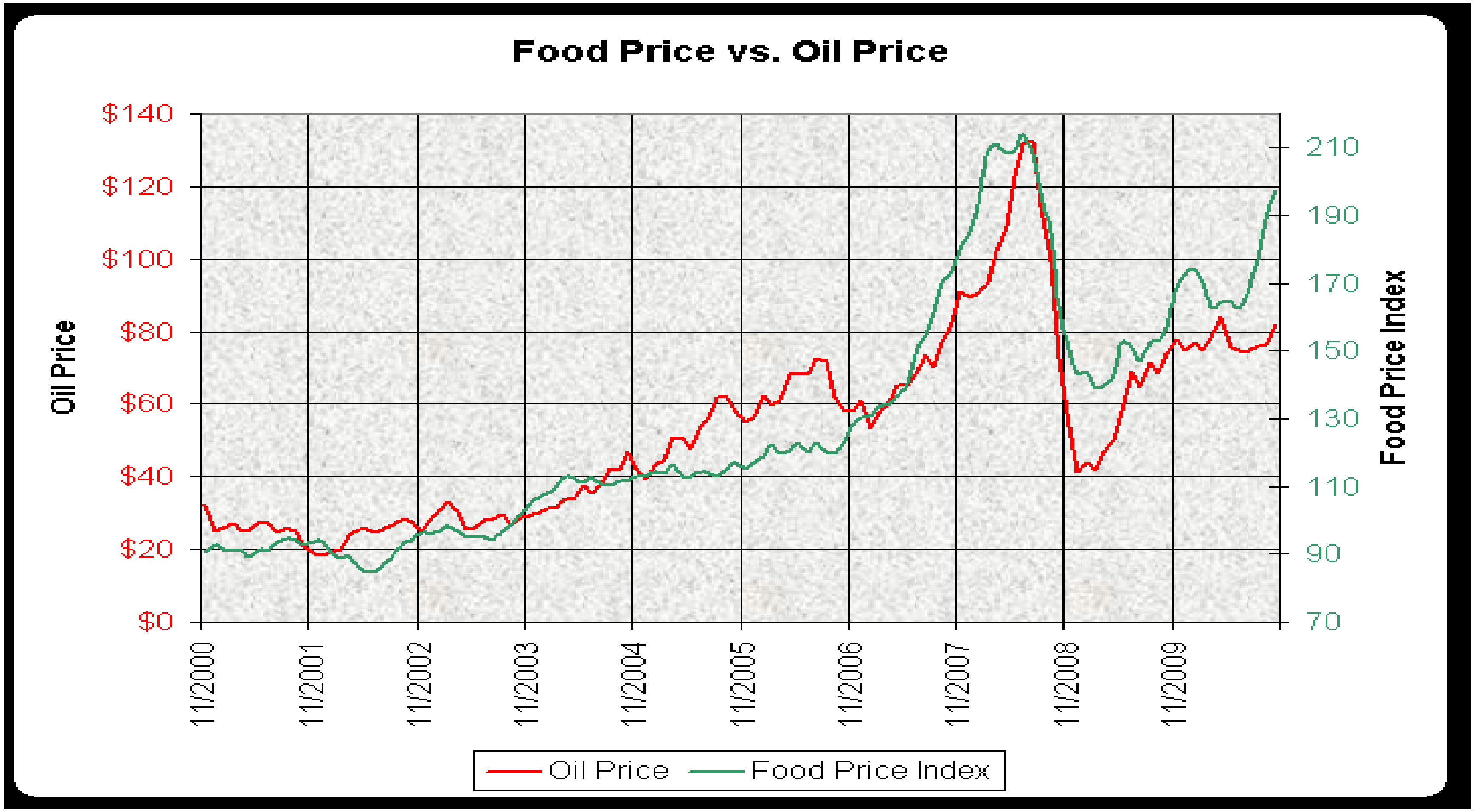
-housing crisis: decline of prices in the 2nd half of 2006
→ soft landing expected

-price of oil: from $63 in Dec. 2006 to $147 in July 2008
→ cost inflation

→ notwithstanding the emerging crisis, central banks reacted as usual:

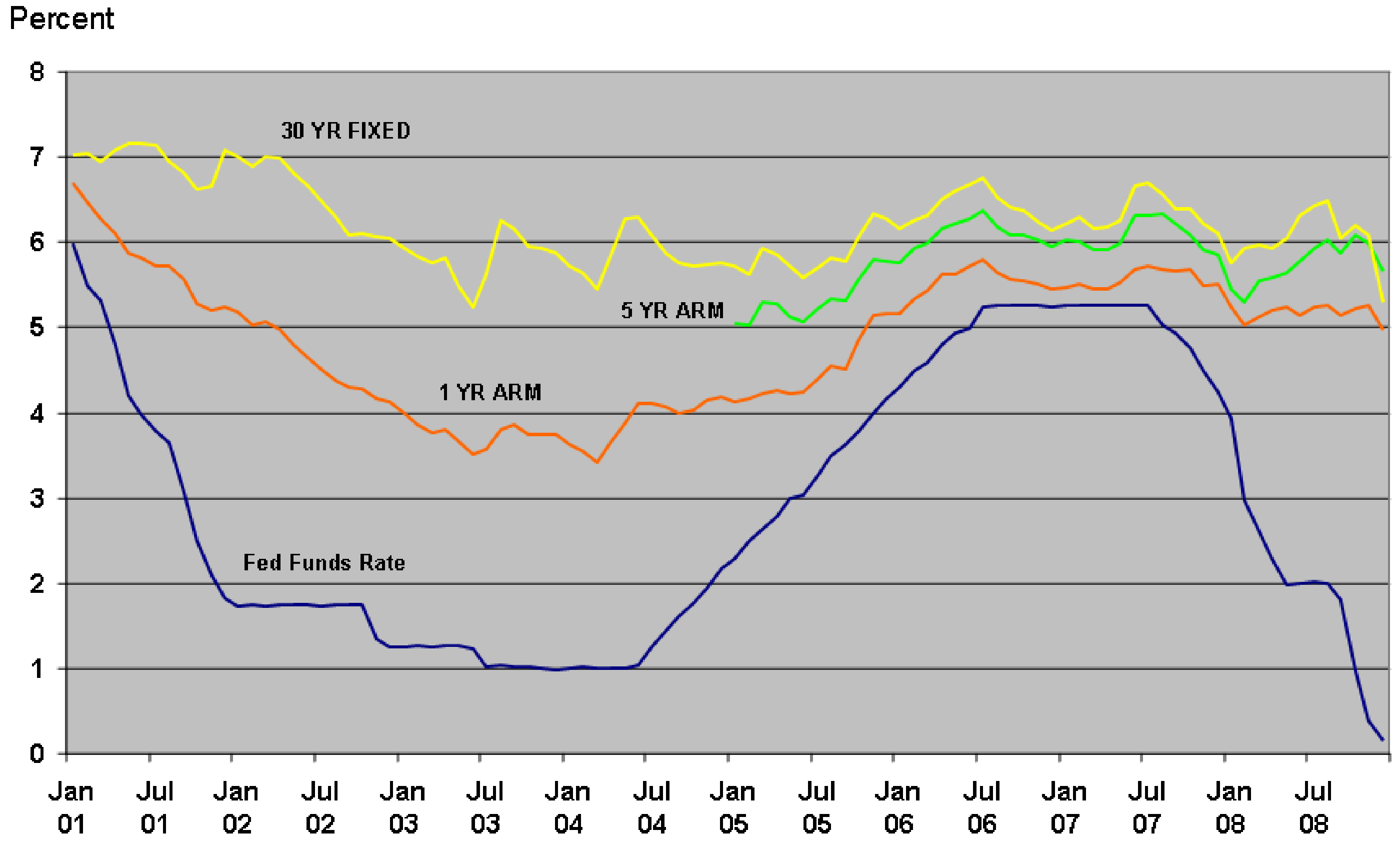
by increasing the discount rate: Fed {
from 2% in May 2004
to 6.25% in August 2008

Food price and oil price (2000-2010)



Source: UN Food and Agriculture Organization and the US Energy Information Agency

Fed Funds Rate & Mortgage Rates 2001 - 2008



Source Data: U.S. Federal Reserve, Freddie Mac

The end of the "great moderation"

Perverse interaction between financial, economic and environmental problems that makes clear the unsustainability of the NL regime

→ this brought to an end the era of "great moderation":

dual inflationary bias {
- **in the financial sector**
- **in the real sector:**

not ↑ wages (as in the Bretton Woods Era) but ↑ p resources

partly masked by the ongoing recession but cost-inflation will accelerate immediately with recovery jeopardizing its viability:

the price of food and resources started to increase again in the second semester of 2009

Second wave

2nd wave {
- **-shock:** **speculation on sovereign debt in the Eurozone**
- **-policy response:** **severe austerity measure**

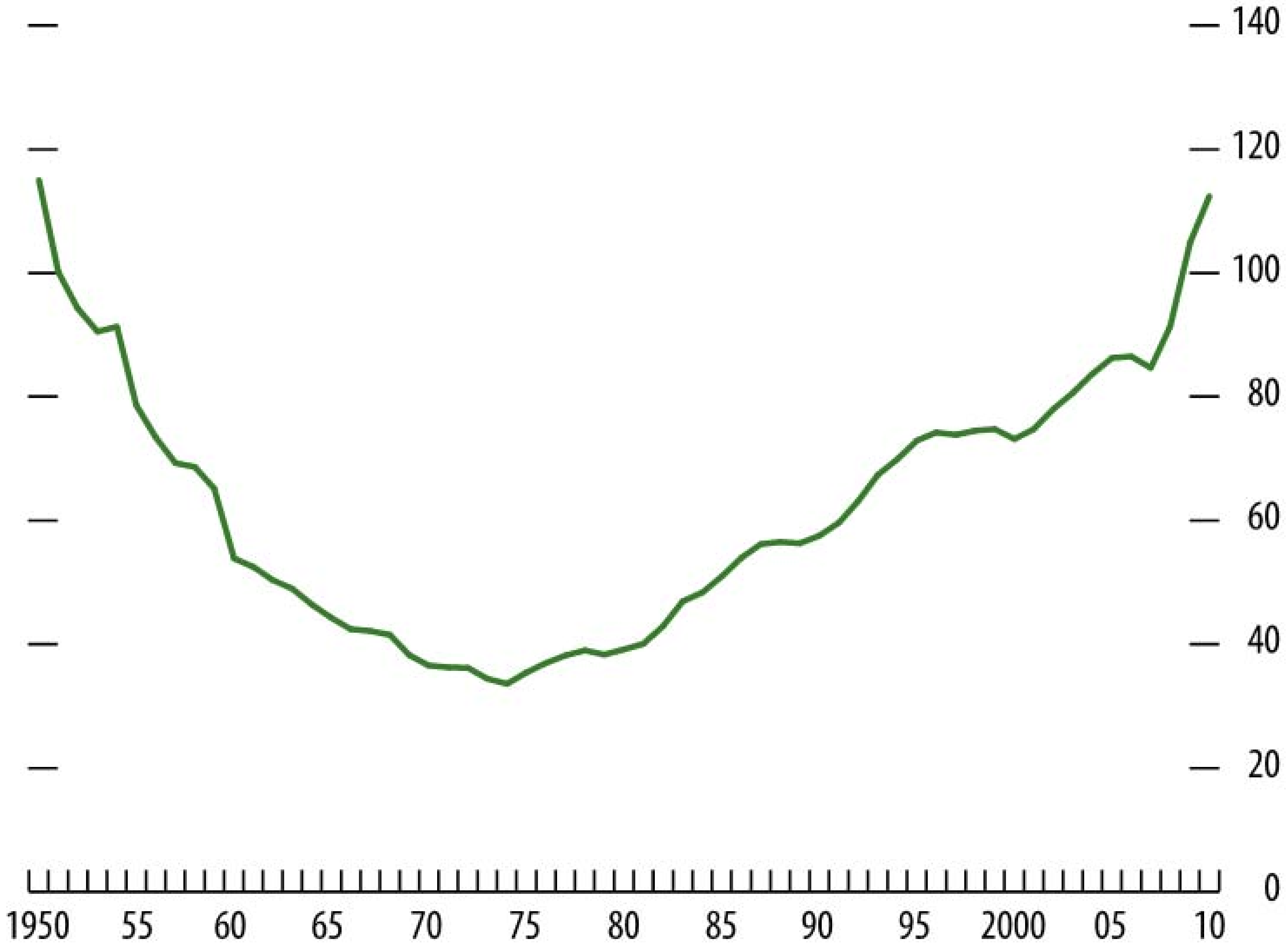
the shock triggering the 2nd wave has been produced by the policy response to the first wave: 2nd stage of the same Great Crisis:

"…finance was rescued, only to turn and bite its rescuer" (RMF 1, p.2)

Blame on Keynesian policies of deficit spending but the historical record suggests the opposite

Figure 1.4. Sovereign Debt to GDP in the G-7

(In percent) Source: IMF, GFSR, Apr. 2010



Sovereign debt and NL policies

Governments inspired by the NL paradigm:

- significant reduction of the taxes paid by rich people and enterprises
- growing independence of Central Banks from treasury goals
- bail out of the financial institutions believed to be "too big to fail"
- there is no evidence in the "Years Zero" of a significant increase of deficit and debt ratio in the Eurozone (Lapavitsas, 2012):

  the high level of debt ratio cannot thus be considered as the immediate cause (triggering factor) of the crisis

  it has been rather a factor in the propagation of the crisis in the Eurozone

  but only in consequence of the unwise adoption of austerity policies

Concluding remarks

What seemed in 2008 the twilight of NL looks now a night full of nightmares:

we remain locked into a model of growth without development that proved to be unsustainable from all points of view:

Economic: deterioration of quantity and quality of growth and employment
Financial: ↑ instability
Social: ↑ inequality and poverty

What about environmental sustainability?

At first sight puzzling synchronization:

systematic environmental policies have been inaugurated in the 1970s and have gathered momentum in the 1980s and in the early 1990s

NL policies and environmental sustainability

these policies were just tolerated by NL policy makers under the pressure of public opinion but they never approved their interference with market mechanisms

since the late 1990s the growing hostility of NL ideology succeeded to weaken environmental policies

A case in point is the Framework Convention on Climate Change (UNFCCC) agreed in 1992 in Rio de Janeiro

only in 2002 was reached the ratification threshold that brought the treaty into effect on 2005

but the US that is responsible for more than 1/3 of the world GHGs emissions and signed the protocol in 1997 did not ratify it while other countries such as Canada later withdrew from it

the second period of commitment (2013-2020) has not started yet in absence of a sufficient convergence towards a new agreement and will not start before 2015

Ecological footprint and ecological debt

The ecological footprint has rapidly increased since WWII (Wackernagel and Galli, 2007)

standardized measure in global hectares of the amount of biologically productive land and sea necessary to supply the resources consumed and to assimilate waste

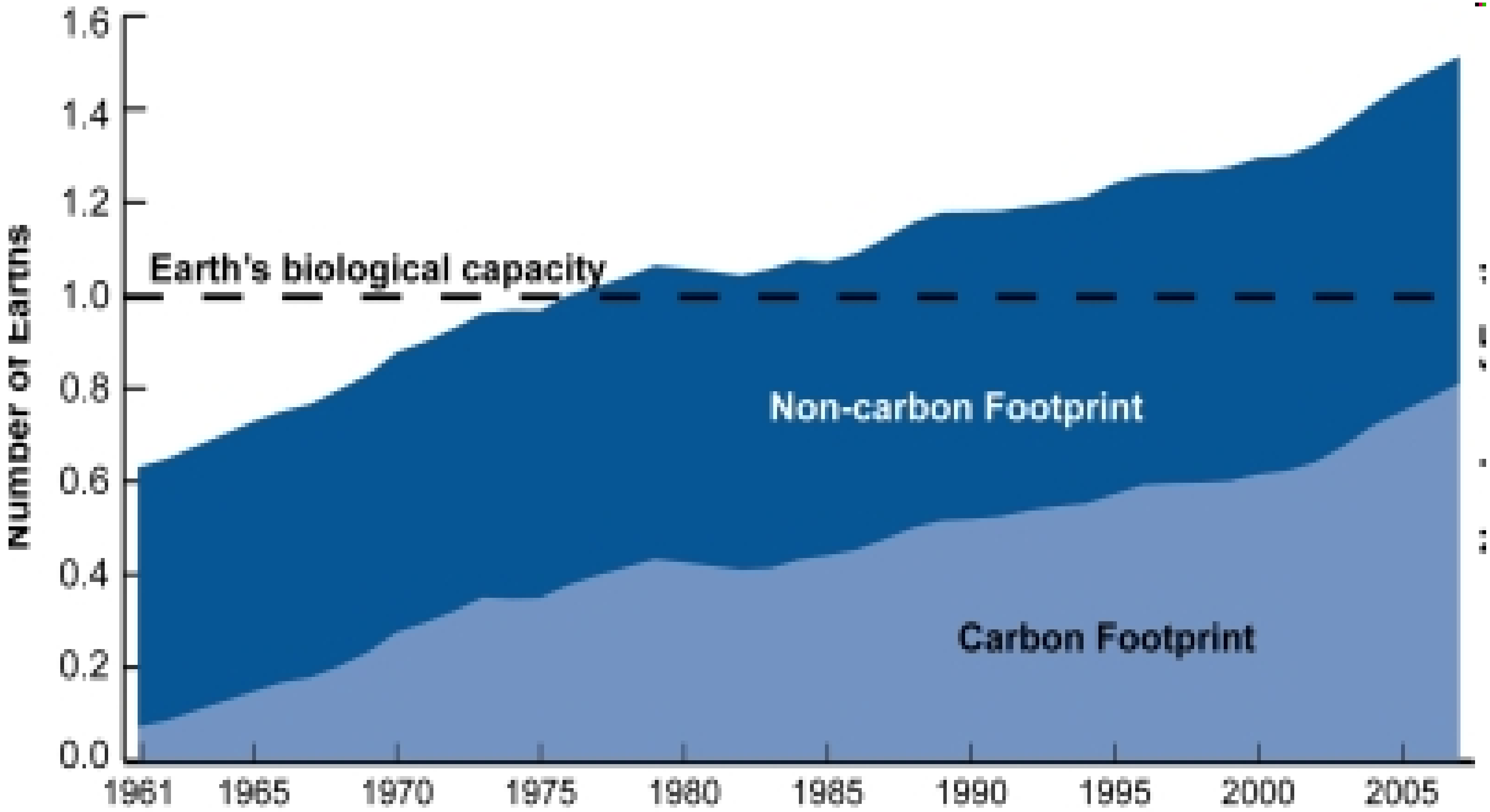
since the early 1980s we notice a slowdown due to the systematic adoption of environmental policies

this was insufficient to avoid that since the late 1970s our planet drifted in a situation of ecological debt that tended to increase progressively

growing ecological debt has interacted and interacts with the growing economic debt of states and households that has characterized the neoliberal development cycle

the deep impact of this interaction has become evident in the origination of the crisis

Ecological footprint and the environmental debt



Source: http://www.footprintnetwork.org/en/index.php/gfn/page/carbon_footprint/

The unsustainable energy system

The growing environmental unsustainability of the last decades crucially depends on the current energy system based on fossil fuels altering the climate:

the energy intensity is diminishing at a rate of about 2% per year but the world population is still growing at about 1% per year (Borghesi and Vercelli, 2009), so any rate of growth of the world GDP exceeding 1% is increasing the rate of growth of GHGs emissions

since the current emissions are 8 times what may be absorbed by the biosphere, GDP growth should be severely negative for many decades

This is unimaginable within the current model of development

Development and technological trajectories

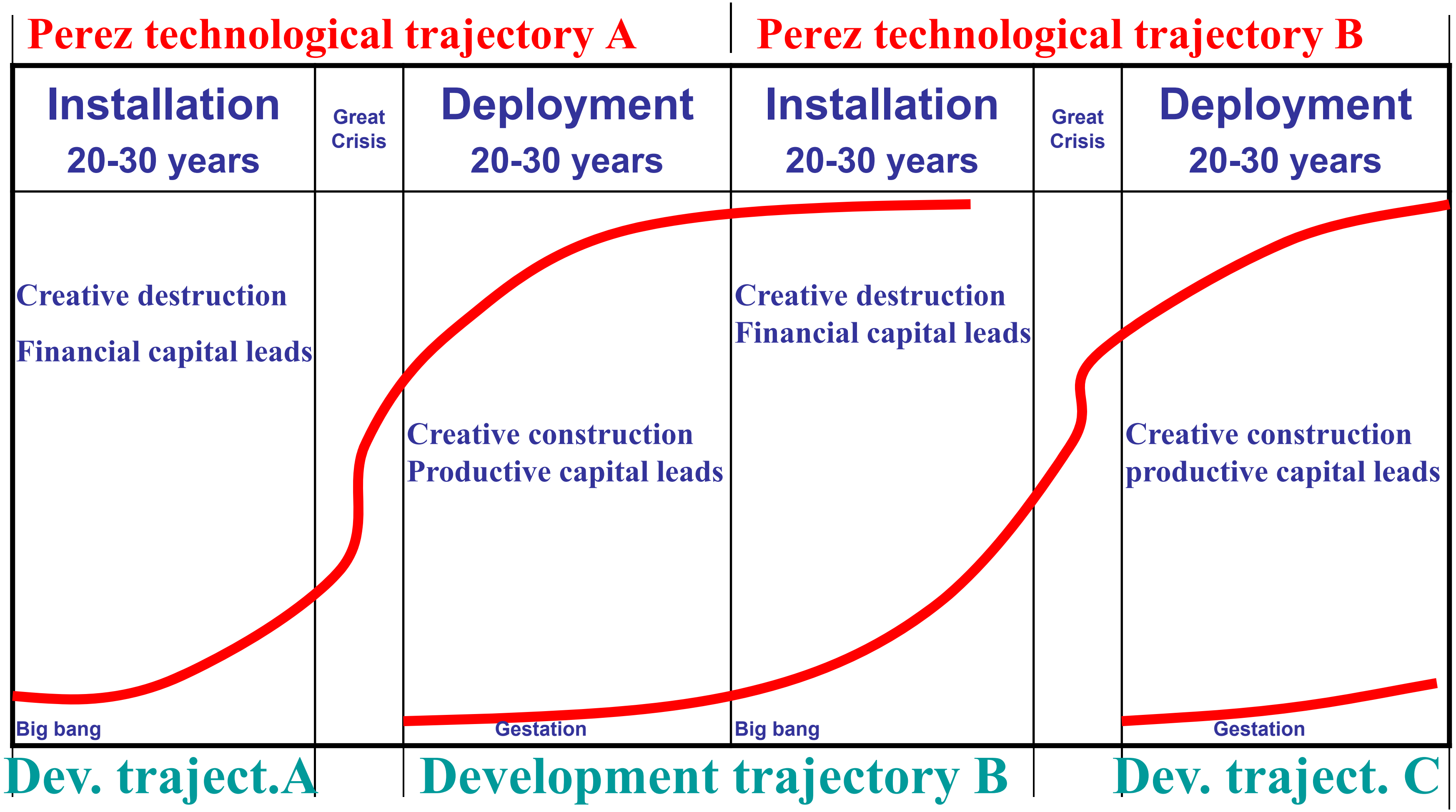
To be realizable the new development trajectory must be coordinated with the ongoing technological trajectory

Sustainable development requires sustainable investment that requires a robust technological support

The deployment of a new technological paradigm requires a new development trajectory based on a policy strategy and institutional framework able to mitigate the contradictions between development of productive forces and social relations of production

On the other side a new development trajectory requires the support of an harmonic deployment of the techno-economic paradigm

Perez technological trajectories and development trajectories



The ICT is part of the problem and part of the solution

In the installation period (1971-2007) the new ICT techno-economic paradigm has been exploited by finance to realize a global market open 24 hours per day:

high-frequency trade made possible by computers and Internet greatly increased the scope of speculation and its negative impact on the world economy

It is today the most rapidly growing contributor to waste generation because of the range and short lifespan of digital devices:

- **current arrangements for the disposal of electronic waste (partly toxic) are wanting**
- **the GHGs emissions of the ICT sector are increasing at a rate of 6% p.a.**

This may be the result of a beneficial use of ICTs not only to elaborate information:

- **to enable social sustainability: individual, community and business relations**
- **to improve environmental sustainability:**

  -big companies, particularly utilities, have begun to use ICT to manage energy production and distribution, transport and other large-scale systems

  -management of electric appliances in houses (domotics)

Towards a sustainable techno-economic trajectory

It is now urgent to exploit the great potential of ICT in the direction of a sustainable development trajectory

- **the vicious circle between ICT and financialisation should be interrupted by incentivizing ICT investment in the real economy to improve job contents, full employment, dematerialization**

- **this presupposes a severe repression of speculative and self-indulgent finance to shift investment towards sustainable and productive uses**

What is needed is a new policy strategy restoring the primacy of social and environmental goals over GDP growth and an apt institutional framework

as in all previous techno-economic paradigms, its harmonious deployment requires the crucial support of public institutions providing a long-sighted vision, coordination, insurance and financial support to risky investment (Mazzucato, 2013)

Financial repression (1)

We have to regulate finance in such a way to reduce its weight in the economy (Rogoff: about the same size of the '1970s)

-Dimensional cap to private FI: small enough and not too interconnected to be allowed to fail

-Cap to leverage to stabilize financial fluctuations

-Tax on financial transactions: proceedings to support employment and the real economy along the lines of sustainable development

-Segmentation: Glass-Steagall act (1933); Orléan… to stop contagion and to avoid conflicts of interests

Financial repression (2)

To reach the goal we need a much improved regulation…

-New {
- **regulation philosophy for existing regulating institutions**
- **International institutions to regulate financial markets**

-Financial innovations {
- to be authorized as medical drugs
- performance bond

… and sheer repression:

-Prohibition of shadow finance {
- -offshore financial centers
- -OTC derivatives
- -off-balance sheet operations

Financial repression (3)

I am aware that these recipes may look utopian

However a process of de-financialization already happened in history as a reaction to the Great Depression: and this initiated a long period of growth and financial stability

Main objection: negative impact on growth

This is true only within the current model of growth in which financial investment (often mere speculation) crowds out productive investment

In a sustainable model of growth the reduction of expected financial profits would shift investment away from the financial sector and back towards the real sector

Financial repression (4)

In the absence of drastic measures of this kind we may experience soon other major waves before the Great Recession comes to an end

or we may precipitate soon in a new Great Crisis

In any case the austerity measures are now not the solution

but an aggravating factor

I think that we have to find the courage of implementing the drastic reforms mentioned above before it is too late:

before the “big one” happens…