



Willem Buiter:

“The unfortunate uselessness of most ‘state of the art’ academic monetary economics”

Charles Goodhart :

“(on DSGE models) It excludes everything I am interested in”

“The Institutions”* and their modeling/policy framework: an unorthodox** critique + how to solve the main “puzzles”

Raimondas Kuodis
3CB meeting, May 2016, Latvia

* The IMF, the ECB, the European Commission, the World Bank, other major central banks etc.

**unorthodox = not mainstream

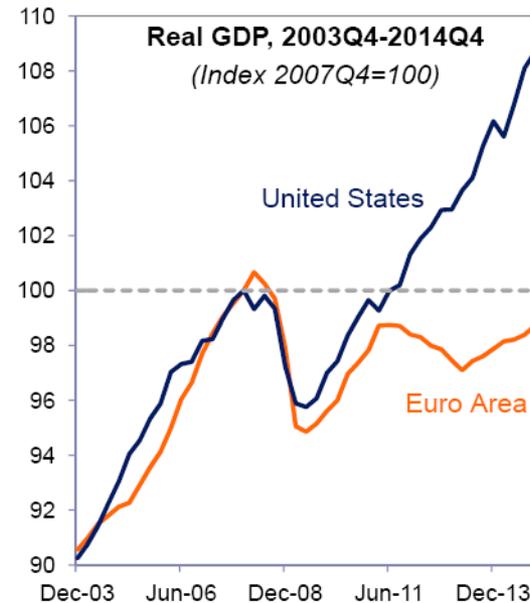
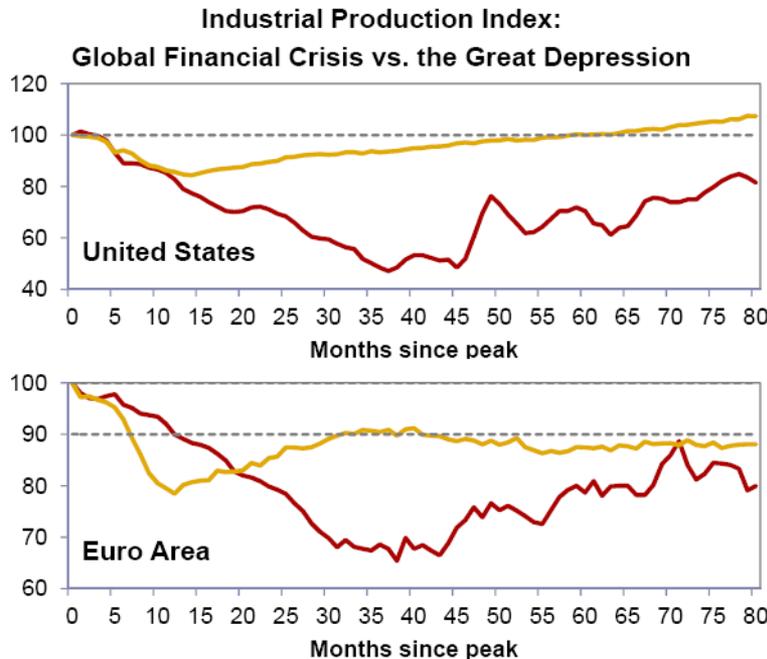
Contents

1. A need for the paradigm change?
2. Methodological foundations of the Institutions' modeling/policy framework
3. An alternative modeling framework
4. Why monetary policy is weak (not only at ZLB)
5. Fiscal policy is effective
6. Fiscal policy: an alternative paradigm
7. Demand, "NAIRU", "structural reforms"
8. Phillips curves, expectations, inflation
9. Unconventional monetary policy
10. Inequality, MonPol distributional effects
11. Towards a new policy mix
12. Additional issues

I. A NEED FOR THE PARADIGM CHANGE?

The lesser depression in the EA

Policy challenge: the recovery remains weak in Europe



— June 1929 to Feb 1936; June 1929=100 — Apr 2008 to Dec 2014; Apr 2008 = 100 Source: Haver Analytics and IMF staff estimates.

Note: For the Euro Area, the 1929 to 1936 series corresponds to the average across Germany, France, and Italy.

Source: Eichengreen, B. and K.H. O'Rourke (2010) "What do the new data tell us?" VoxEU.org, 08 March; League of Nations Statistical Yearbooks 1934-38 made digitally available by Northwestern University Library at <http://digital.library.northwestern.edu/league/stat.html>,⁴ Federal Reserve Bank of St. Louis; Haver Analytics and IMF staff estimates.

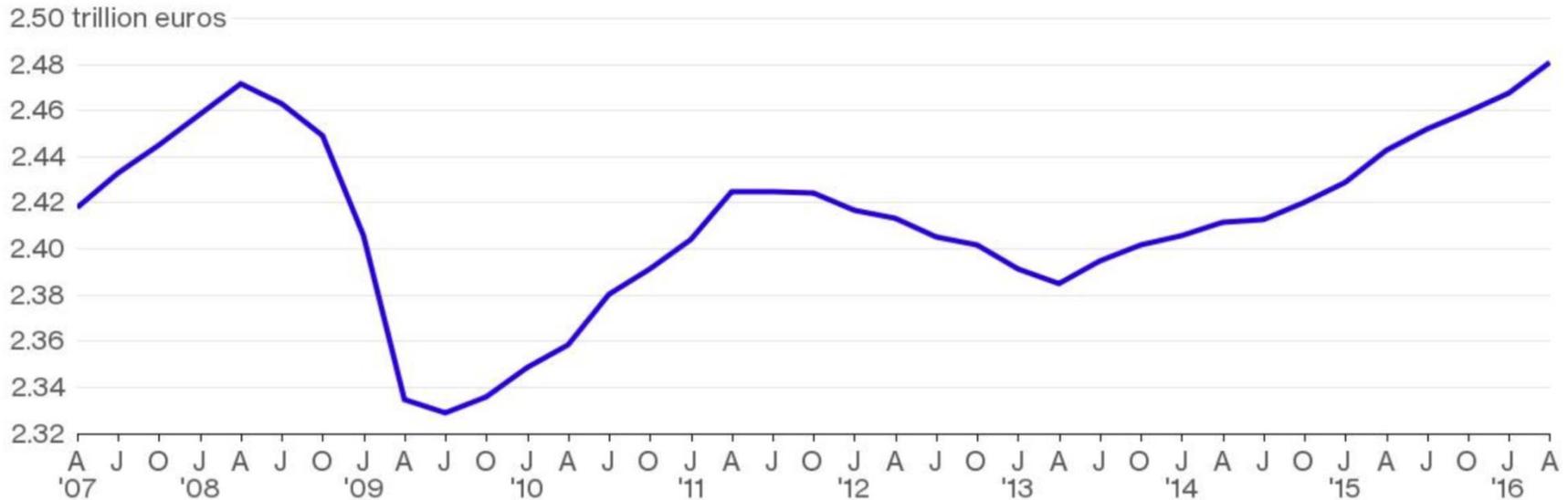
Source: Vitor Gaspar at the IMF Spring meetings, 2015.04.17

The lost decade in the EA

Back in Size

Euro-area GDP regained its pre-crisis output in the first quarter

■ Euro Area Quarterly Gross Domestic Product



Source: Eurostat

Bloomberg

Special thanks to oil prices for the recovery 😊

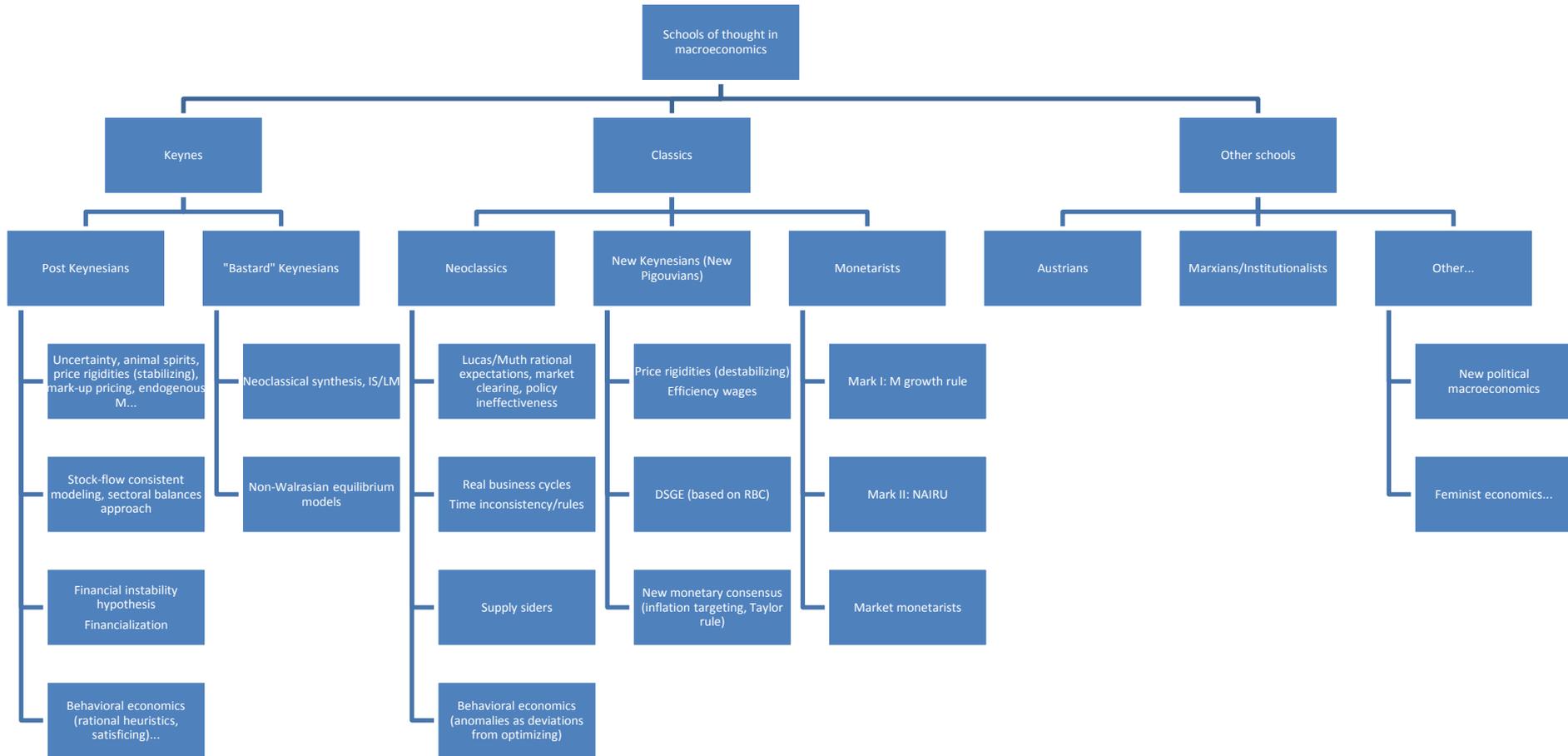
A need for the paradigm change

- **Two options** for the euro area (EA):
 - change the paradigm
 - double down on the old one
- The second option so far – more of the same
- The **old paradigm**:
 - neoclassical (mainstream) macroeconomics
 - but wait... we do New Keynesian (NK) economics!
- **What is the NK economics?**
 - it's a branch of neoclassical economics: RBC framework + some rigidities/frictions
 - it's a cuckoo economics (Thomas Palley, <http://www.thomaspalley.com/?p=425>)

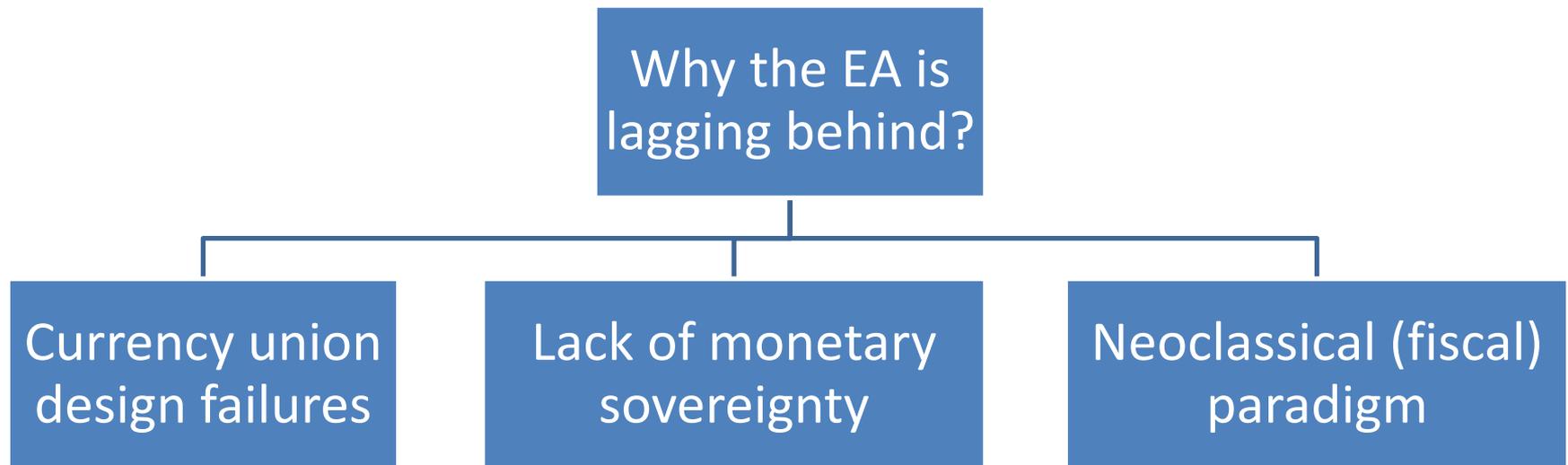
A need for the paradigm change

- Palley: “...the new Keynesian nomenclature is a **cuckoo tactic** because it **captures the Keynesian label** while having **nothing to do with Keynes**, in a manner similar to the cuckoo which lays its **eggs in other birds’ nests**.
- In my view, it is better labeled **new Pigovian economics** since it **relies on market imperfections and frictions**, which were the hallmarks of Pigou’s economic thinking.
- That makes for **bitter irony** as Pigou was Keynes’ greatly respected intellectual opponent in the 1930s and his thinking now passes under the Keynesian banner, displacing Keynes’ own ideas.”

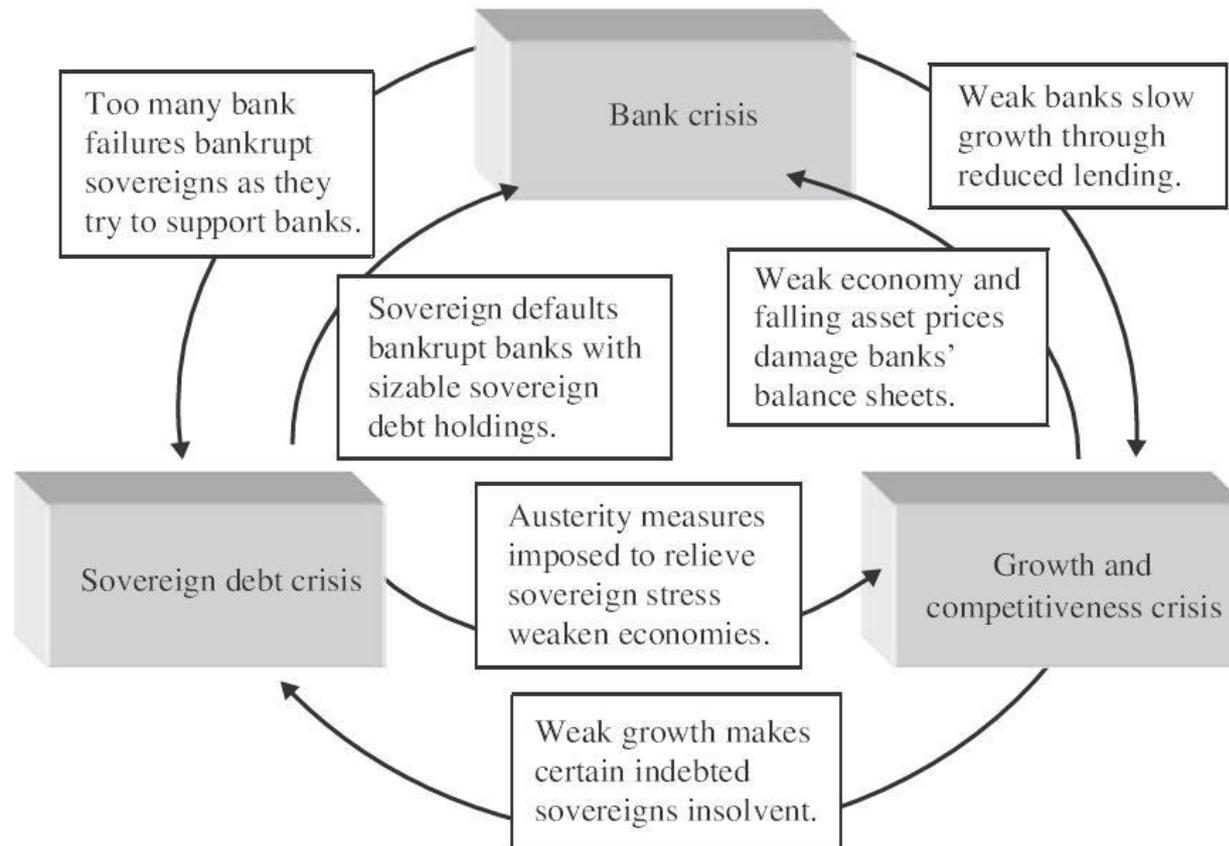
Schools of thought in macroeconomics



Why the EA is lagging behind



Why the EA is lagging behind



Source: Shambaugh (2012)

Neoliberalism is everywhere

- David Harvey:
 - ... the **advocates for the neoliberal way** now occupy positions of considerable influence in **education** (the universities and many 'think tanks'), in the **media**, in **corporate** boardrooms and **financial** institutions, in key **state institutions** (**treasury** departments, the **central banks**) and also in those **international institutions** such as the IMF and the WTO that regulate global finance and trade.
 - Neo-liberalism has, in short, become **hegemonic** as a **mode of discourse**, and has pervasive effects on ways of thought and political-economic practices to the point where it has become **incorporated into the common-sense way we interpret, live in and understand the world.**

Harvey, D. (2005) 'Neoliberalism as Creative Destruction',
Geografiska Annaler: Series B, Human Geography

II. METHODOLOGICAL FOUNDATIONS

Pillars of The Institutions' framework

- I. Milton Friedman's (1953) methodological approach
- II. (More and more) the “state-of-the-art” “DSGE” framework:
 - infinitely-lived representative agent (RA) with rational expectations (RE) = RARE☺ (John King (2012): *The Micro-Foundations Delusion: Metaphor and Dogma in the History of Macroeconomics*, EE)
 - utility maximizer/profit maximizer
 - loanable funds
 - markets clear, the economy returns to the steady state (rather quickly)...

Realism vs. Instrumentalism

- Marc **Lavoie** (2014), *Post-Keynesian Economics: New Foundations*, EE on Realism vs. Instrumentalism:
 - **Instrumentalism** is belief that **truth of theoretical statement is irrelevant**. An **assumption is sound when it allows precise predictions**, in particular when it can help to find and calculate value of an equilibrium position. **Whether the assumption is realistic or not is irrelevant**, and **Friedman** (1953, p. 14) even went so far as to argue that assumptions based on 'wildly inaccurate descriptive representations of reality' were more useful<...>.
 - The stance taken by Friedman, which Nathan Berg and Gerd Gigerenzer (2010) call '**Friedman's as if doctrine**', gave **neoclassical economists the freedom to start from wildly unrealistic foundations**. Robert **Lucas** (1981, p. 270), the founder of new classical economics, continued this tradition, claiming that 'insistence on the "realism" of economic model subverts its potential usefulness in thinking about reality', adding that **good models had to 'necessarily be artificial, abstract, patently unreal'**.
 - By contrast, for (most) **heterodox economists**, a **theory cannot be correct unless it starts from realist or realistic hypotheses**, although it is recognized that **assumptions are always abstractions and simplifications**, and hence means to avoid cluttering model with **insignificant details**. However, one **should not start from assumptions that are descriptively false**. The structure of a **model cannot be built on foundations describing an imaginary or idealized economy**. What is **needed is an abstraction, not a fiction**. Many heterodox economists would agree with Nicholas Georgescu-Roegen's (1971, p. 319) statement that '**when abstraction loses touch with reality, science becomes dogmatism**'.

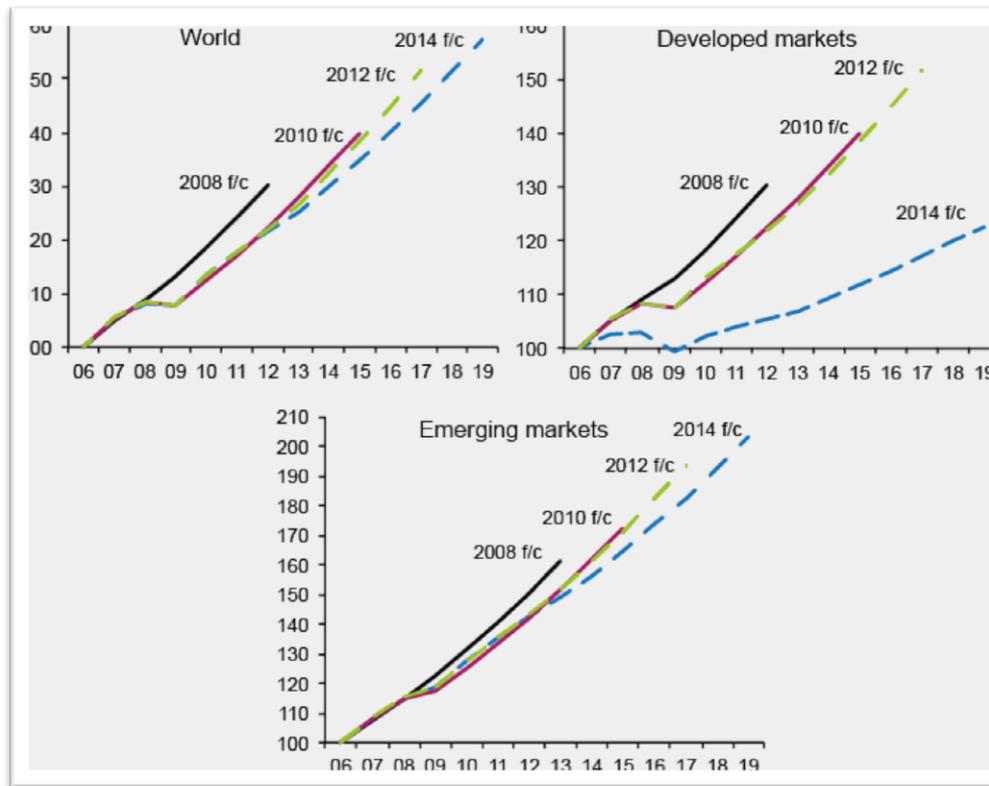
“DSGE”? It is not...

- “G” (general)? Not:
 - **lacks full accounting framework** (stock-flow consistent framework):
 - full accounting framework would significantly **reduce the number of degrees of freedom** in the economy
 - (until recently) **no money, no finance, no banks, no debt** → it's not a model of **monetary economy**
- “D” (dynamic)? Partly:
 - no evolution of stocks of financial assets/liabilities
- “E” (equilibrium)? Yes:
 - markets clear, steady state is reached in a few quarters
- “S” (stochastic)? Yes:
 - but we live in the world of fundamental uncertainty *a la* Keynes and Knight. If **future outcomes or possible choices are unknown** (in the case of fundamental uncertainty), **risk analysis or expected utility theory are not very helpful.**

DSGE models: solution + implications

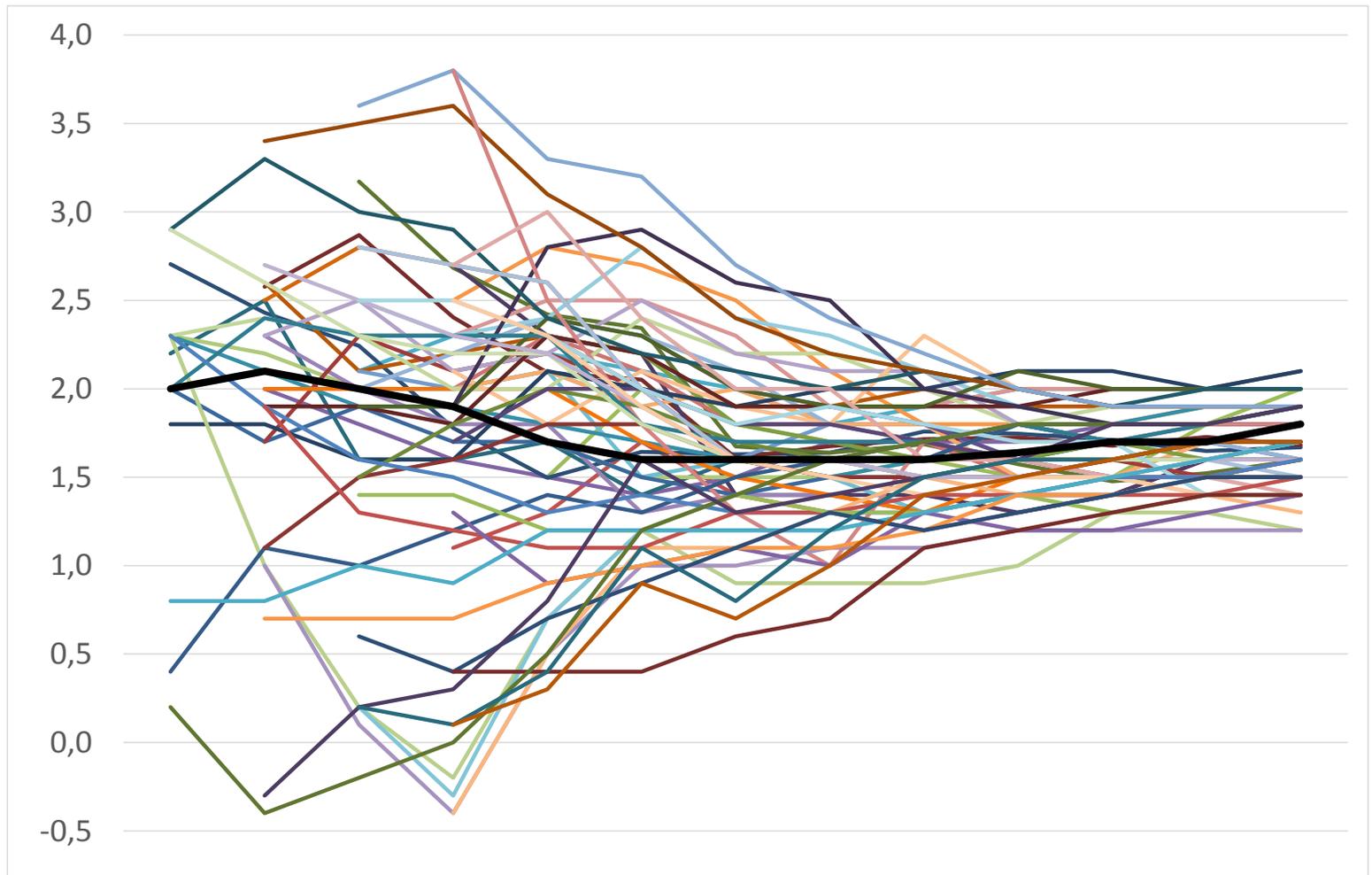
- Sims (https://www3.nd.edu/~esims1/log_linearization_sp12.pdf):
 - “The solutions to many discrete time dynamic economic problems take the form of a system of non-linear difference equations. There generally exists no closed-form solution for such problems.
 - As such, we must resort to numerical and/or approximation techniques.
 - One particularly easy and very common approximation technique is that of log linearization. We must take natural logs of the system of non-linear difference equations. We then linearize the logged difference equations about a particular point (usually a steady state), and simplify until we have a system of linear difference equations where the variables of interest are percentage deviations about a point (again, usually a steady state).
 - Linearization is nice because we know how to work with linear difference equations. Putting things in percentage terms (that's the “log” part) is nice because it provides natural interpretations of the units (i.e. everything is in percentage terms).
 - First consider some arbitrary univariate function, $f(x)$. Taylor's theorem tells us that this can be expressed as a power series about a particular point x^* ...

GDP projections: continual optimism



The **continual optimism about a 'return to normal' has been dashed again and again** since 2008. Another figure from the Geneva report shows the slowdown in growth forecasts for both advanced and emerging economies, as captured by the **progressive reduction in output projections in the different vintages** of the IMF's World Economic Outlook since 2008. **Global growth is now way off trend and well below where it was expected to be in 2008 and every year since.** Source: <https://thenextrecession.wordpress.com/2014/09/>

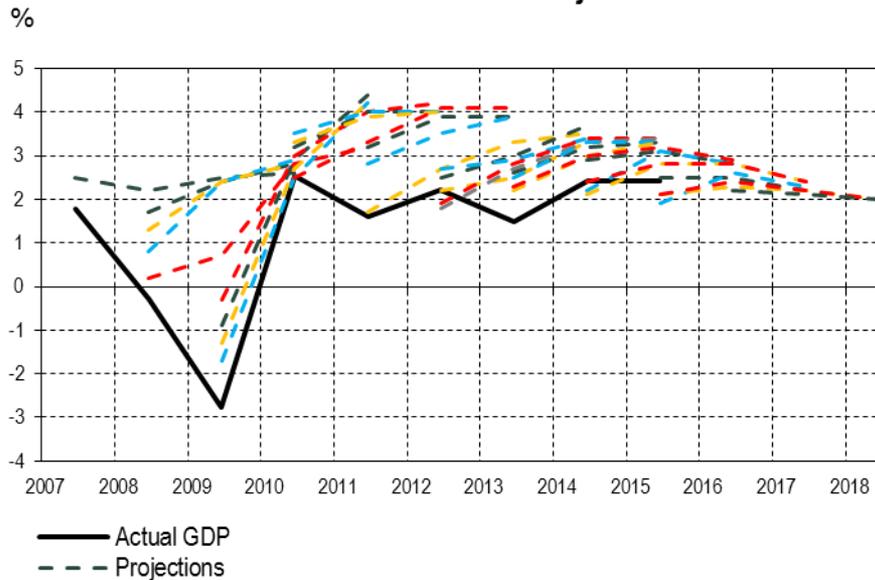
Convergence of HICP forecasts



Source: Bank of Finland

Fed projections: structural optimism

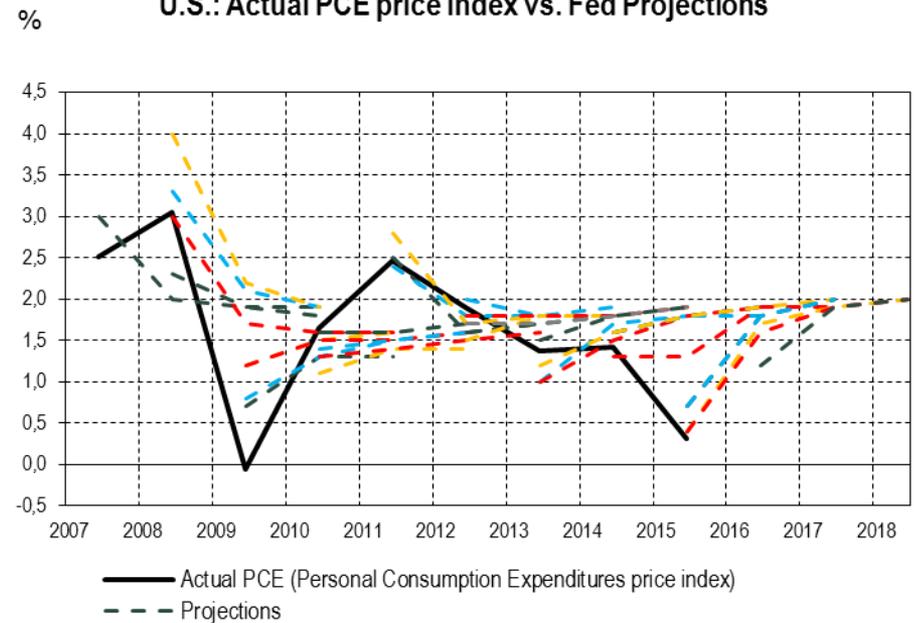
U.S.: Actual Real GDP vs. Fed Projections



Sources: Board of Governors of the FED and Bureau of Economic Analysis.

Note: Up to mid-2015 the projections of GDP are presented as average values of the projected range of central tendency published in the FED's projection reports. From September 2015 median forecasts from the FED's projection reports are presented.

U.S.: Actual PCE price index vs. Fed Projections

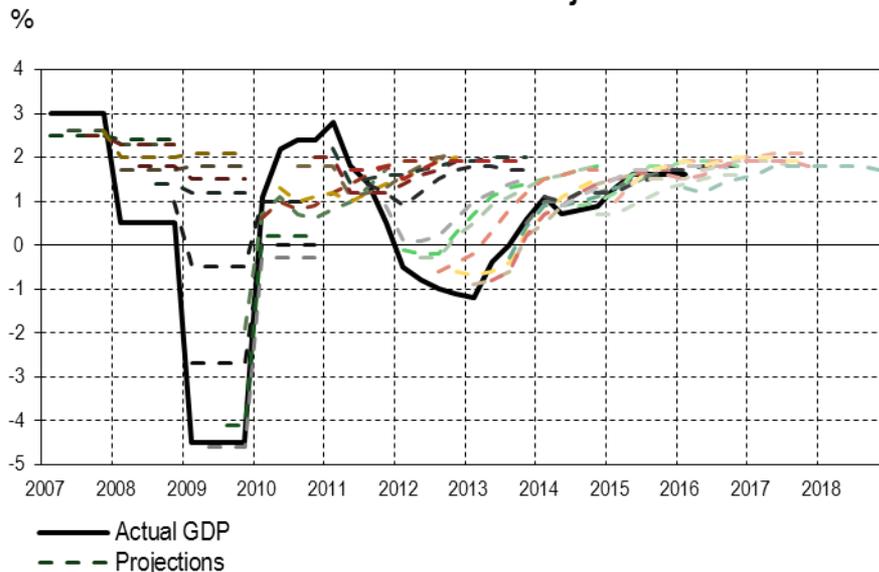


Sources: Board of Governors of the FED and Bureau of Economic Analysis.

Note: Up to mid-2015 the projections of PCE are presented as average values of the projected range of central tendency published in the FED's projection reports. From September 2015 median forecasts from the FED's projection reports are presented.

EA projections: structural optimism

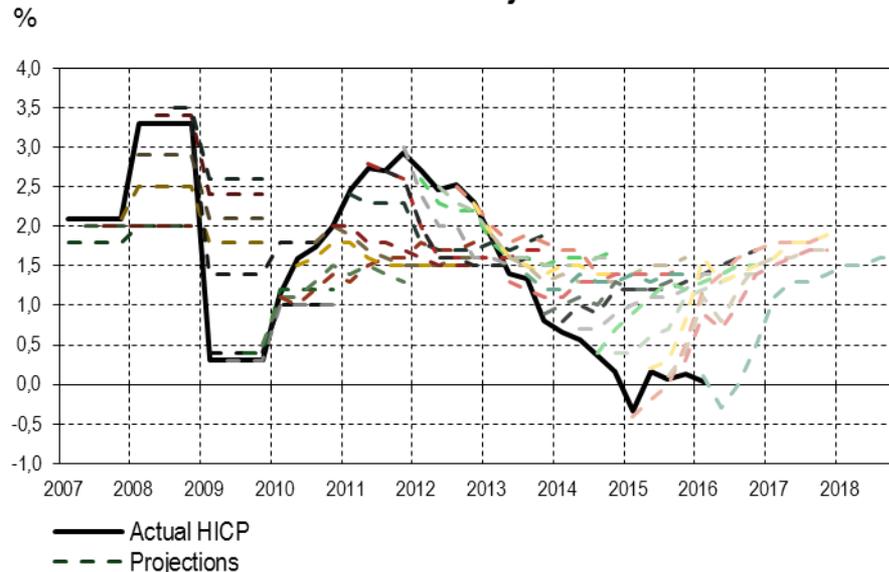
EA: Actual Real GDP vs. ECB Projections



Sources: ECB and Eurostat.

Note: in 2007-2009 data is annual, while from 2010 it is quarterly. In 2007-2009 the projections of GDP are presented as average values of the projected range published in the ECB's reports of macroeconomic projection exercise. From 2010 point forecasts from the statistical appendices of the macroeconomic projection exercise are presented.

EA: Actual HICP vs. ECB Projections



Sources: ECB and Eurostat.

Note: in 2007-2009 data is annual, while from 2010 it is quarterly. In 2007-2009 the projections of HICP are presented as average values of the projected range published in the ECB's reports of macroeconomic projection exercise. From 2010 point forecasts from the statistical appendices of the macroeconomic projection exercise are presented.

NK DSGE models: why a good fit

- “The next step in making this **model more empirically relevant** has consisted in **adding autocorrelation in the error terms**. This is now the **standard procedure in DSGE models** (see Smets and Wouters 2003).
- Thus, in order to mimic business cycle movements, the new Keynesian rational expectations (DSGE) model builders have had recourse to introducing **autocorrelation in the error terms (the shocks that hit the economy)**. This **trick has allowed DSGE models to closely fit observed data** (see Smets and Wouters 2003). This **success has been limited to the first and second moments** of the movements of output, but **not to the higher moments** (kurtosis, fat tails). The latter failure has the implication that **in order to explain a large movement in output** (e.g., a deep recession or a strong boom) **DSGE models have to rely on large unpredictable shocks**.
- There are two problems with this theory of the business cycle implicit in the DSGE models.
 - **First, business cycles are not the result of an endogenous dynamics**. They occur as a result of **exogenous shocks and slow transmission of these shocks** (because of **wage and price rigidities**). Put differently, the DSGE models picture a world populated by **rational agents who are fully informed**. **In such a world there would never be business cycles**. The latter arise because of **exogenous disturbances** and of **constraints on agents' ability to react instantaneously to these shocks**. Thus a given shock will produce ripple effects in the economy, i.e., cyclical movements.
 - Thus, the DSGE models explain the large booms and busts that are regularly observed in capitalist economies by large outside shocks. The **macroeconomy is a peaceful world in which agents continually optimize**. However, sometimes this peaceful world is hit by large exogenous disturbances that are then transmitted into the macroeconomy.
 - This is not a very satisfactory theory of the business cycle. It leads to the question of why the world outside the macroeconomy is characterized by nonnormally distributed shocks, while the **macroeconomy itself does not produce such shocks**. The **macroeconomist** in the mainstream world is **therefore condemned to ask other scientists why these large shocks occur**. He has **no theory capable of explaining these**.
 - A **second** problem is methodological. When the new Keynesian model is tested empirically, the researcher finds that there is **a lot of the output dynamics that is not predicted by the model**. This unexplained dynamics is then to be **found in the error term**. So far so good. The next step taken by DSGE modelers is to **conclude that these errors** (typically autocorrelated) should be considered **to be exogenous shocks**.

Source: Paul De Grauwe (2012), *Lectures on Behavioral Macroeconomics*, Princeton University Press, pp. 23-24.

DSGE models: “microfoundations”/RE

- The new Keynesian DSGE models embody the two central tenets of modern macroeconomics:
 - The first one is that a macroeconomic model should be based (“microfounded”) on **dynamic utility maximization of a representative agent**.
 - The second one is that **expectations should be model-consistent**, which implies that agents **make forecasts based on the information embedded in the model**. This idea in turn implies that agents have a **full understanding of the structure of the underlying model**.
- There can be no doubt that this approach to macroeconomics has important advantages compared with previous macroeconomic models. The main advantage is that it provides for a **coherent and self-contained framework of analysis**. This has great **intellectual appeal**. There is no need to invoke ad hoc assumptions about how agents behave and how they make forecasts. Rational expectations and utility maximization introduce discipline in modeling the behavior of agents.
- The **scientific validity of a model should not be based on its logical coherence** or on its **intellectual appeal**, however. It can be **judged only on its capacity to make empirical predictions that are not rejected by the data**. If it fails to do so, even coherent and intellectually appealing models should be discarded. Before turning our attention to the empirical validation of models based on dynamic utility maximization and rational expectations, of which the DSGE models are now the most prominent examples, we analyze the plausibility of the **underlying assumptions about human behavior** in these models.

DSGE models: cognitive problems

- There is a very large literature documenting **deviations from the paradigm of the utility-maximizing agent who understands the nature of the underlying economic model**. For surveys, see Kahneman and Thaler (2006) and Della Vigna (2007). This literature has followed two tracks. One was to question the idea of utility maximization as a description of agents' behavior <...>.
- <...> we focus on the plausibility of the rational expectations assumption and its logical implication, i.e. that agents understand the nature of the underlying model. It is no exaggeration to say that there is now **overwhelming evidence that individual agents suffer from deep cognitive problems limiting their capacity to understand and to process the complexity of the information they receive**.
- Many anomalies that challenge the rational expectations assumption were discovered (see Thaler (1994) <...>). We just mention anchoring effects here, whereby agents who do not fully understand the world in which they live are highly selective in the way they use information and concentrate on the information they understand or the information that is fresh in their minds. This anchoring effect explains why agents **often extrapolate recent movements in prices**.
- In general the cognitive problems which agents face leads them to use **simple rules (heuristics)** to guide their behavior (see Gabaix et al. 2006). They do this **not because they are irrational, but rather because the complexity of the world is overwhelming**. In a way it can be said that using **heuristics is a rational response** of agents who are aware of their limited capacity to understand the world. The challenge when we try to model heuristics is to introduce discipline in the **selection of rules** so as to **avoid that "everything becomes possible."**

DSGE models: no heterogeneity

- One **important implication of the assumption that agents know the underlying model's structure** is that all **agents are the same**. They all use the **same information set** including the information embedded in the underlying model. As a result, DSGE models routinely restrict the analysis to a **representative agent** to fully describe how all agents in the model process information. There is **no heterogeneity** in the use and the processing of information in these models. This **strips models** based on rational expectations **from much of their interest in analyzing short-term and medium-term macroeconomic problems** which is about the dynamics of **aggregating heterogeneous behavior and beliefs** (see Solow 2005; Colander et al. 2008).
- It is fair to conclude that the **accumulated scientific evidence casts doubts about the plausibility of the main assumption concerning the behavior of individual agents in DSGE models**, i.e., that they are capable of understanding the economic model in which they operate and of processing the complex information distilled from this model. Instead, the scientific evidence suggests that individual agents are not capable of doing so, and that they rely on rules that use only small parts of the available information.

Source: Paul De Grauwe (2012), *Lectures on Behavioral Macroeconomics*, Princeton University Press, pp. 41-43.

RE: why should the views converge

- Even if agents' expectations are "model-consistent", the question remains why should their views on how the economy operates converge to **one particular model**?
- An example: **inflationary effects of banks' excess reserves**:
 - "Through fractional banking and high excess reserves, banks can create sudden spikes in financial liquidity, and possibly inflation as well",
<https://www.minneapolisfed.org/publications/the-region/should-we-worry-about-excess-reserves>
 - Richard Koo: "When a central bank has created such an unprecedented degree of liquidity, particularly with the U.S. economy doing relatively well, inflation could accelerate much sooner than in the past once the private sector is ready to borrow money again."
<https://www.foreignaffairs.com/articles/united-states/2015-12-15/fed-mop-not-hike>
 - "Philadelphia Fed President Charles Plosser warned Friday that the central bank may have to be "aggressive" in lifting interest rates and may have to chase market rates higher, if banks were to quickly release reserves."
<http://economistsview.typepad.com/economistsview/2014/01/fed-watch-a-weekend-of-fedspeak.html>
- but **banks cannot loan out their reserves**, their use is restricted to interbank settlements, therefore there is **no money multiplier** (only the money divisor)...☺

DSGE: more on lack of heterogeneity

- Stiglitz, J. (2010), “*Rethinking Macroeconomics: What Went Wrong and How To Fix It*”, Adam Smith Lecture, Glasgow:
 - In representative agent models, there is **no scope for information asymmetries** (except with **acute schizophrenia**)
 - In representative agent models, there is **no scope for redistributive effects**
 - In representative agent models, there is **no scope for a financial sector**
 - **Who is lending to whom?** And what does bankruptcy mean?
- Philip Maymin (2013), “Schizophrenic Representative Investors”, *Complex Systems*, Vol. 22, No. 1:
 - **Representative investors** whose behavior is modeled by a deterministic finite automaton generate complexity both in the time series of each asset and in the cross-sectional correlation when the rule governing their behavior is schizophrenic, **meaning the investor holds multiple seemingly contradictory beliefs simultaneously**, either by switching between two different rules at each time step, or computing different responses to different assets.

DSGE: forecasting record

- <http://equitablegrowth.org/must-read-ray-fair-2010-convergence-macroeconomics-hoisted-ray-fairs-archives/>:
 - ...a DSGE model in Del Negro et al. (2007) is compared to the US model in Fair (2004)... The **four-quarter-ahead RMSE for real GDP for the DSGE model is 2.62%, which compares to 1.33% for the US model...** The **eight-quarter-ahead RMSE for the DSGE model is 6.05%, which compares to 1.84% for the US model.** The **DSGE model** is thus **not accurate**.

III. AN ALTERNATIVE MODELING FRAMEWORK

An alternative modeling framework (1)

- Michal Kalecki:
 - In fact, the long run trend is but a slowly changing component of a chain of short run situations; it has no independent entity...
- <http://bilbo.economicoutlook.net/blog/?p=25027> “Any discussion of the long-run in Kalecki’s work, unlike the mainstream (Say’s law) conception, contains no notion that the long-run is a steady-state attractor (that is, a (natural) point that the macroeconomy gravitates to **when imperfections are eliminated**).
- Kalecki’s notion of the long-run bore no insinuation of “equilibrium” (competitive equalisation of rates of profit; realised expectations; **full employment**).
- <...> Kalecki rejected the mainstream view that there was a state we might call the long-run, which was separable from the economic cycle.
- That is the long-run is just a sequence of short-runs. And that these short-runs are all linked by **path-determinancy** – so you are today where you have come from. Effective demand (with investment as a major variable component) drives output and employment, but, in turn, influences investment (through expectations and profit realisation), which determines the path of potential output.
- Investment today – by expanding productive capacity – requires a growth in effective demand tomorrow to absorb the output forthcoming from that extra productive capacity. This was a problem well understood by the likes of Roy Harrod and E.V. Domar (and Marx) – all who were largely **ignored by the mainstream growth theory that underpins <...> short-run and long-run division.**

An alternative modeling framework (2)

- A central feature of **Post Keynesian macroeconomics** – **recognition of heterogeneity**:
 - Kalecki (1942), Kaldor (1955/56) – the distinction between **wage and profit income** → the significance of income distribution for AD (due to different MPCs)
 - the distinction between **debtors and creditors** (Palley (1996)) etc.
- **Full accounting framework** reduces the number of degrees of freedom:
 - stock-flow consistent modelling (Wynne Godley, Cambridge(UK); Yale (Tobin’s school))
- **Financial sector**, and the **realistic one**:
 - realistic treatment of **banks as creators of purchasing power not financial intermediaries**
 - **money creation process** with institutional details
 - **inside/outside debt**
- **Satisficing, not optimizing agents**:
 - → have stock-flow norms (saving/income, debt/income, inventories/sales etc.)
- **Examples**: Wynn Godley, Marc Lavoie (2012), *Monetary Economics: An Integrated Approach to Credit, Money, Income, Production and Wealth*, Palgrave.

“She was asking me if these things are so large, how come everyone missed it?”

Luis Garicano on the Queen’s visit to LSE, November 2008

- **These models saw “it coming”**, see Dirk J Bezemer (2009), “No One Saw This Coming”: Understanding Financial Crisis Through Accounting Models, <http://voxeu.org/article/no-one-saw-coming-or-did-they>

An alternative modeling framework (3)

- Meanwhile in DSGE models 😊... Zoltan Jakab and Michael Kumhof (2015), Banks are not intermediaries of loanable funds — and why this matters, Bank of England:
 - In the **intermediation of loanable funds model of banking**, banks accept deposits of pre-existing real resources from savers and then **lend them to borrowers**.
 - In the real world, banks provide financing through money creation. That is **they create deposits of new money through lending**, and in doing so are mainly **constrained by profitability and solvency** considerations.
 - This paper contrasts simple intermediation and financing models of banking. Compared to otherwise identical intermediation models, and following identical shocks, financing models predict changes in bank lending that are far larger, happen much faster, and have much greater effects on the real economy.
- Yes, indeed **“the state of macro is good”** 😊 (Blanchard, 2008) “The State of Macro”, <http://www.nber.org/papers/w14259>

Mainstream treatment of debt

- **Bernanke** (2000), *Essays on the Great Depression*, p. 24, on Irving Fisher's (1933) debt deflation theory (Fisher, 1933):
 - Fisher's idea was less influential in academic circles, though, because of the **counterargument that debt-deflation represented no more than a redistribution from one group (debtors) to another (creditors)**. Absent implausibly large differences in marginal spending propensities among the groups, it was suggested, **pure redistributions should have no significant macro-economic effects...**
- Paul **Krugman**: “(Steve) **Keen** then goes on to assert that **lending** is, by definition (at least as I understand it), an **addition to aggregate demand**. I guess I **don't get that** at all. **If I decide to cut back on my spending and stash the funds in a bank, which lends them out to someone else, this doesn't have to represent a net increase in demand**. Yes, in some (many) cases lending is associated with higher demand, because **resources are being transferred to people with a higher propensity to spend**; but Keen seems to be saying something else, and I'm not sure what. I think it has something to do with the notion that **creating money = creating demand, but again that isn't right in any model I understand.**”
<http://krugman.blogs.nytimes.com/2012/03/27/minsky-and-methodology-wonkish/>

Mainstream treatment of debt

- **A conclusion: Neoclassical economists** do not understand:
 - **how money is created** by the private banking system – they see banks as mere intermediaries between savers and borrowers;
 - that **bank lending is fundamentally different from “peer-to-peer” lending** (of corn).

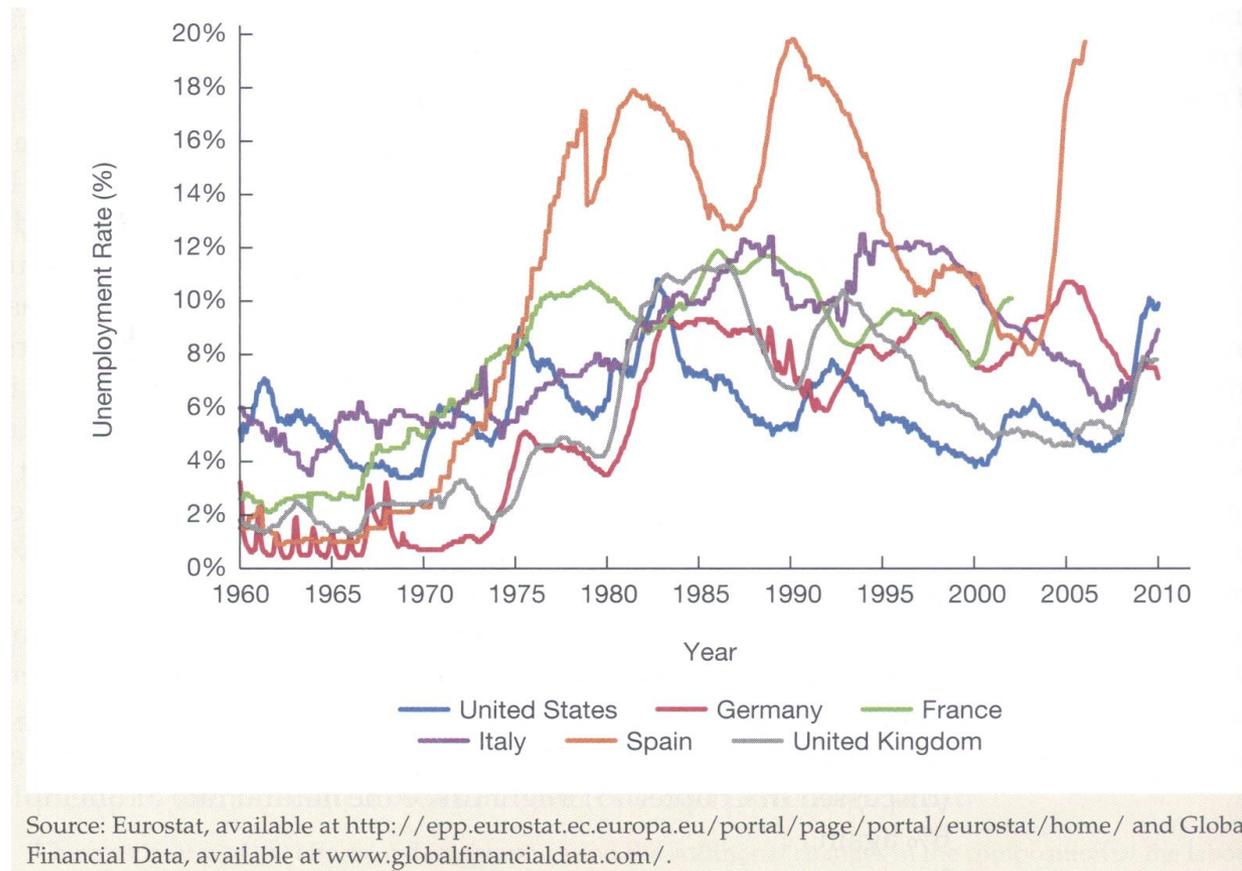
IV. WHY MONETARY POLICY IS WEAK (NOT ONLY AT ZLB)

Slips between the cup and the lip

- Keynes (1936): "If, however, we are tempted to assert that money is the drink which stimulates the system to activity, we must remind ourselves that there may be several slips between the cup and the lip."
- The title is a quote from Keynes where he talks about **why monetary policy may not work in recessions**. The problem is that there is a **long chain of events** that must occur **for monetary policy to be effective** - **interests rates must fall when policy is eased** (something that won't occur in a **liquidity trap**, for example), and **once interest rates fall people have to be induced to go out and buy new houses and cars** on the household side, and **new factories and equipment** on the business side (but in a recession people may be **hesitant to make large purchases**, and as Summers notes below **credit**, which is needed to buy these goods and services, **may dry up** in a recession, something that also makes it hard to use credit to replace lost income when GDP turns downward). For this reason fiscal policy, which operates directly on aggregate demand instead of merely creating incentives to purchase goods and services, can provide a **more certain means of stimulating** the economy than monetary policy.
<http://economistsview.typepad.com/economistsview/2008/01/theres-many-a-s.html>
- **The Institutions:** but (non-standard) MonPol works, it can **affect the yield curve...**
- Well, it's **not enough...** **Keynes on MonPol: pushing on the string**

New Keynesian (Monetary) Consensus

- “Inflation-first” Central banks’ objective: **Inflation targeting**
 - consumer prices
 - not financial assets or real estate prices + moping up after a bubble as crisis management
- **Full employment essentially abandoned** (or lip service)



New Keynesian (Monetary) Consensus

- Central bank's **loss function**:

$$L = (y - y_e)^2 + \beta(\pi - \pi^T)^2$$

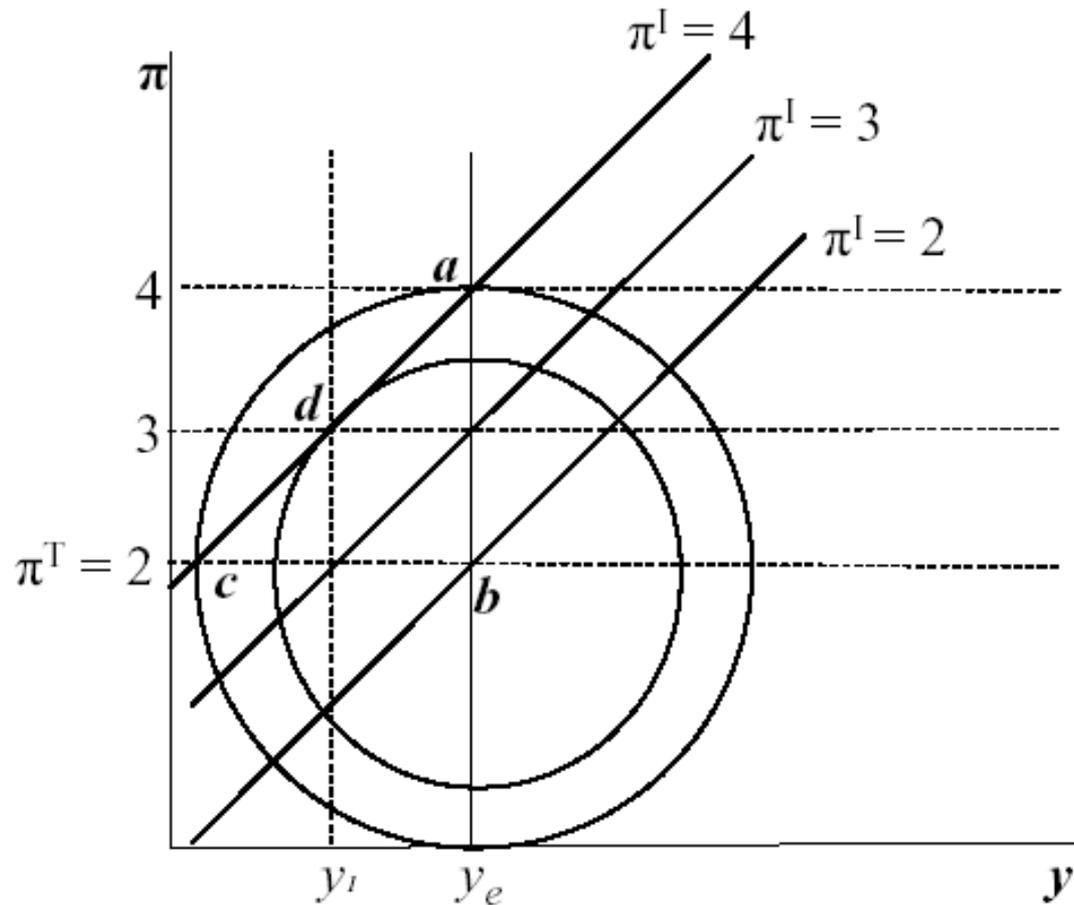
- Phillips curve **constraint**:

$$\pi = \pi_{-1} + \alpha(y - y_e)$$

- Taylor rule as the **reaction function**:

$$r_t - r_s = h_1(\pi_t - \pi^T) + h_2(y_t - y_e)$$

New Keynesian (Monetary) Consensus



Loanable funds fallacy

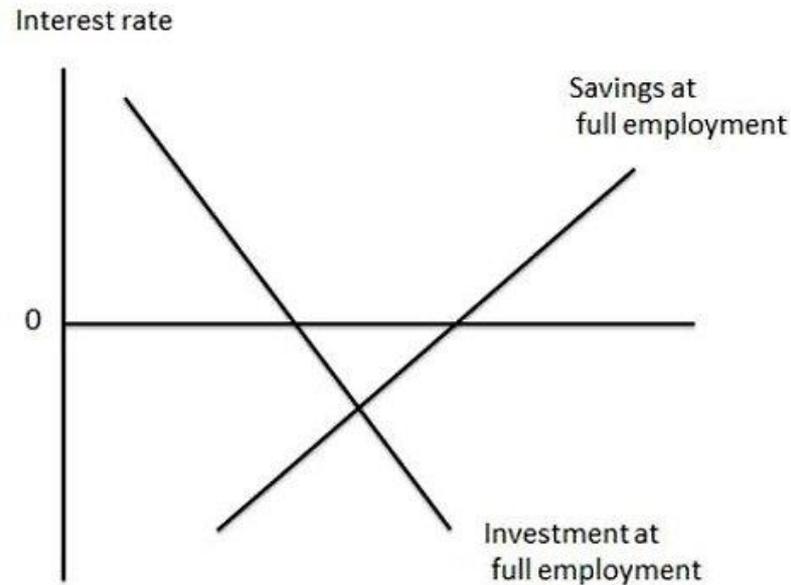
- Knut Wicksell (1898) „Interest and Prices“ on “natural interest rate”:
 - There is a **certain rate of interest on loans which is neutral in respect to commodity prices, and tend neither to raise nor to lower them.** This is necessarily the same as the rate of interest which would be **determined by supply and demand if no use were made of money** and **all lending were effected in the form of real capital goods.** It comes to much the same thing to describe it as the current value of the natural rate of interest on capital.
 - Now **if money is loaned at this same rate of interest, it serves as nothing more than a cloak to cover a procedure** which, from the purely formal point of view, could have been carried on **equally well without it.** The conditions of economic equilibrium are fulfilled in precisely the same manner.
- Thomas I. Palley (1996): the approach should be called “loanable commodities” approach → NOT A MODEL FOR MONETARY ECONOMIES!!!

Loanable funds fallacy

- **Neo-Wicksellian loanable funds framework is the basis of modern macroeconomics and monetary policy** (thanks to Michael Woodford et al.).
- Implications:
 - “Natural real interest rate equates S and I at full employment”
 - Fiscal policy: crowding out
- **Randall Wray** (2013) <http://neweconomicperspectives.org/2013/11/bow-bubble-larry-summerian-endorses-bubbleonian-madness-paul-krugman-embraces-hansenian-stagnation-thesis.html>:
 - **Wicksellian notion came back via the Expectations Fairy.** If the Chairman can send out a boatload of Fairies to **convince “markets” that inflation will rise**, then the Fed can control **both the nominal rate and expected inflation**. It can make the **“real” market rate equal to the Wicksellian “real” natural rate** that equates saving and investment in the Loanable Funds market.
 - **Keynes** had already dealt with this. He argued that the old Loanable Funds model is wrong, because it has investment demand and saving supply determining the interest rate, but we know that **investment equals saving regardless of the interest rate**. No, it is **adjustment of income that equates saving and investment**. He further argued, therefore, that any interest rate is a natural rate in the sense that it is consistent with saving and investment equilibrium.

Loanable funds and ZLB

http://krugman.blogs.nytimes.com/2012/02/06/zero-bounds-and-butter-mountains-wonkish/?_r=0



- Thomas Palley (2016):
 - for the New Keynesians **ZLB is just another rigidity**
 - but it **might be stabilizing**, negative interest rates can be destabilizing!

Loanable funds fallacy

- Randall Wray (2013) <http://neweconomicperspectives.org/2013/11/bow-bubble-larry-summerian-endorses-bubbleonian-madness-paul-krugman-embraces-hansenian-stagnation-thesis.html>:
 - Now this might all sound like a quibble, a **semantic difference** from the arguments of Summers and Krugman—they, too, argue that ex post saving always equals ex post investment, so the problem is that rates are currently too high to allow that equality to occur at full employment. True enough. However, **their argument is based in “real” terms while Keynes’s was in nominal terms.**
 - **Keynes clearly anticipated the problem that the hypothetical neutral rate might need to be negative** for the saving=investment equilibrium to be consistent with full employment. Where he **parted company with the Hicks-Hansen-Samuelson ISLM Keynesians** was over the **belief that this is a problem to be resolved with monetary policy.**
 - **Keynes argued that the cause of unemployment is not really that the interest rate is too high but that the “marginal efficiency of capital” (the return to investment) is too low.** The MEC can easily be negative: looking to the future, **if investment is expected to produce losses, the MEC is negative and there is no monetary policy that can induce firms to take those losses.** For Keynes, there was no reason to introduce a notion of “real”—the **problem is nominal.** Yes, the nominal rate cannot fall below zero, but the **nominal expected returns can be negative.** So, **no investment, no matter how loose monetary policy is.**

Loanable funds fallacy

- Randall Wray (2013) <http://neweconomicperspectives.org/2013/11/bow-bubble-larry-summerian-endorses-bubbleonian-madness-paul-krugman-embraces-hansenian-stagnation-thesis.html>:
 - Keynes did perceive some advantage of inflation, which can raise the future expected returns relative to today's cost of investing. That would raise the MEC relative to the (nominal) interest rate. This is not because some imaginary "real" rate becomes zero but rather because the MEC rises with higher expected returns. However, **in a slump with depressed expectations, even Fleets of Fairies will not do the trick.** You need some real evidence that things will get better. And it must be personalized: a higher general rate of inflation does not mean that your expected returns will be higher. **You want more demand. Even if monetary policy could cause inflation, you need higher expected sales to induce putting in place more capacity. Monetary policy cannot guarantee that.**
 - **You need fiscal policy.**

Macro adjustment: a summary

- **Mainstream: MonP works**, loanable funds, Wicksell's natural real interest rate, Taylor rule etc.

If (for some reason) private $S^{\text{desired}} > I^{\text{desired}}$:

$$(\downarrow)S^{\text{ex post}}(\downarrow r) - (\uparrow)I^{\text{ex post}}(\downarrow r) + (BD = 0) = 0$$

Note: BD – budget deficit

- **Keynes:**

a) MonP is weak, Y adjusts, if FiscPol doesn't react:

$$(\downarrow)S^{\text{ex post}}(\downarrow Y, r) - (\downarrow)I^{\text{ex post}}(\downarrow Y, r) + (BD = 0) = 0$$

b) if FiscPol reacts:

$$(=)S^{\text{ex post}}(Y, r) - (\uparrow)I^{\text{ex post}}(Y, r) + (\uparrow BD) = 0$$

Loanable funds fallacy: Keynes

- **Keynes** GT (14 ch.):
 - ... the **traditional analysis is faulty** because it has **failed to isolate correctly the independent variables** of the system. **Saving and Investment are the determinates of the system, not the determinants.** They are **the twin results of the system's determinants ... [aggregate demand]** ...
 - The **traditional analysis has been aware that saving depends on income** but it has **overlooked the fact that income depends on investment**, in such fashion that, **when investment changes, income must necessarily change in just that degree which is necessary to make the change in saving equal to the change in investment.**

Loanable funds: Bernanke's "savings glut"

- Randall Wray (2013) <http://neweconomicperspectives.org/2013/11/bow-bubble-larry-sumner-endorses-bubbleonion-madness-paul-krugman-embraces-hansenian-stagnation-thesis.html>:
 - Loanable funds approach is **resurrected in remarkable ways**.
 - But Wynne (Godley – R.K.) taught us that **balances balance**. **If there are external dollar savings in the world, they were created by US current account deficits**; they balance dollar for dollar. It makes **no sense to talk about an "excess"**—foreigners **exported to America** and they **got dollars** that are mostly used to buy US Treasuries. It makes **no sense to argue that the global exporters are "net suppliers of savings to the rest of the world"**—the **importers created those savings accumulated by exporters**. There are no "extra" savings anywhere—surpluses are the accounting record of deficits, and they match dollar for dollar, yen for yen, and euro for euro.
 - **You cannot have a "savings glut" and "investment dearth"**. Nay, as Keynes taught us, **investment creates saving**. Dollar for dollar. An **investment dearth would be matched by a savings dearth—not a glut!** There's no "excess saving" to finance a stock market bubble! (Martin – R.K.) Wolf **confuses a micro level statement** (a firm can finance its investment out of its "saving"—retained earnings) **with a macro statement** (business finances investment out of saving). The **first can be true**, the **second is a logical error**.

Loanable funds: Bernanke's "savings glut"

- Mario Draghi (2016), **Addressing the causes of low interest rates**
<http://www.bis.org/review/r160506b.htm>:
 - There is a temptation to conclude that since very low rates generate these challenges, they are the problem. But they are not the problem. They are the *symptom* of an underlying problem, which is **insufficient investment demand**, across the world, **to absorb all the savings available in the economy.**
 - if there is an **excess of saving**, then **savers are competing with each other to find somebody willing to borrow their funds.**
 - ...countries with such surplus positions (DE with CA surpluses) may have been able to easily **export excess savings towards countries willing to borrow them at higher rates.**
 - In the euro area, we need expansionary macroeconomic stabilisation policy to support demand, **starting of course with monetary policy.**

Loanable funds: other “puzzles”

- **R. Lucas (1990) paradox: why poor countries are sending capital to rich ones?**
<http://www.econ.nyu.edu/user/debraj/Courses/Readings/LucasParadox.pdf>
- **Feldstein-Horioka (1980) puzzle:** we should observe low correlation between domestic investment and savings
- **Some U.S. Congress members:** “What if China stops buying U.S. debt?”
- **Rebooting Consensus Authors:** German etc. banks were sending capital to the Southern Europe, created this mess... <http://voxeu.org/article/ez-crisis-consensus-narrative>

Loanable funds: other “puzzles”

- In the real world, those who understand banking/money creation, know that:
 - China doesn’t send capital to the U.S.:



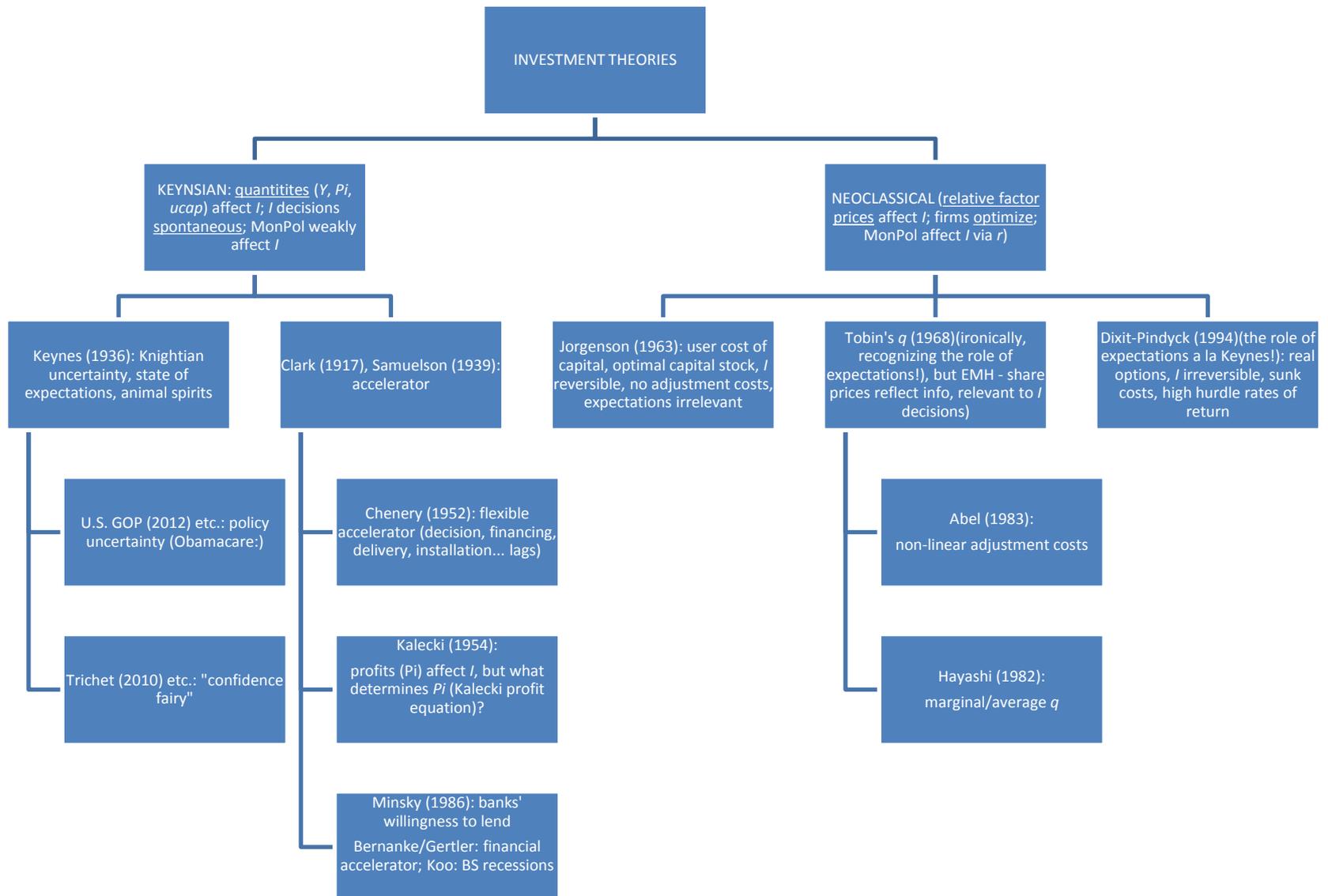
- If the Chinese exporters, who got the U.S. dollars, don’t want to buy interest-yielding U.S. debt (or other assets), they:
 - will keep the U.S. dollars
 - Should stop sending goods to the U.S.
- if people borrow mostly from local banks, and loans create deposits (a form of savings) Feldstein-Horioka states the obvious
- German banks don’t need to send “credit resources” to, say, Spain, because Spain banks only need to have a keyboard, if Pedro want to borrow to buy a BMW,
- therefore, German banks, at best, were sending liquidity to their branches in Spain, or capital to support loans portfolio, or were giving interbank loans to other banks in Spain etc.

CBs: how to assume your potency

- **CBs assume, that MonPol is potent** via their DSGE models, which are based on (intertemporal) optimization of households and firms:
 - Euler consumption equation: $C_{t+1}/C_t = b/(1 + R)$
 - in reality real interest rate R has a small effect on consumption/saving, see:
 - Rocher, S., and Stierle, M.H. (2015), „Household Saving Rates in the EU: Why Do They Differ So Much?, EC Discussion Paper 5, Sep 2015
 - Carroll, Christopher D. (2001) "Death to the Log-Linearized Consumption Euler Equation! (And Very Poor Health to the Second-Order Approximation)", *Advances in Macroeconomics*: Vol. 1: No. 1
 - But **omitted variable bias** may "attach" importance to R in DSGE models
 - **Modigliani-Brumberg** (1954) „**rule of thumb**“ consumers are more realistic: $C_t = \alpha(\text{age})Y_t + \eta(\text{age})W_{t-1}$
 - **Stone-Geary** consumption system with **minimum consumption levels**:

$$x_i = \gamma_i + \frac{\beta_i}{p_i} \left(Y - \sum_j \gamma_j p_j \right)$$

Investment theories



/ decision: neoclassical theory vs. reality

$$I_0 = \sum_{t=1}^T \frac{\Pi^e}{(1 + irr)^t}$$

$$irr > i?$$

- Lane, K., and Tom Rosewall (2015), "Firms' Investment Decisions and Interest Rates", Reserve Bank of Australia.
 - Australian firms tend to **require expected returns on capital expenditure to exceed high 'hurdle rates' of return** that are often **well above the cost of capital** and do **not change very often**.
 - In addition, many firms **require the investment outlay to be recouped within a few years**, requiring even greater implied rates of return. As a consequence, the **capital expenditure decisions** of many Australian firms are **not directly sensitive to changes in interest rates**. Furthermore, although both the **hurdle rate of return and the payback period offer an objective decision rule** on which to base expenditure decisions, the overall decision **process is often highly subjective**, so that **'animal spirits' can play a significant role**.
- Willis, J.L., and Cao G. (2015), "Has the U.S. Economy Become Less Interest Rate Sensitive?", Kansas Fed.
 - Charles A.E. Goodhart, Philipp Erfurth (2014), "Monetary policy and long-term trends", <http://www.voxeu.org/article/monetary-policy-and-long-term-trends> (...the empirical evidence shows **capital expenditure to be notably interest-insensitive**.)

Investment: empirics

Investment and the Cost of Capital New Evidence from the Corporate Bond Market

Simon Gilchrist¹ Egon Zakrajšek²

¹Department of Economics
Boston University and NBER

²Division of Monetary Affairs
Federal Reserve Board

European Central Bank
Frankfurt, November 29–30, 2007

Summary of Empirical Evidence

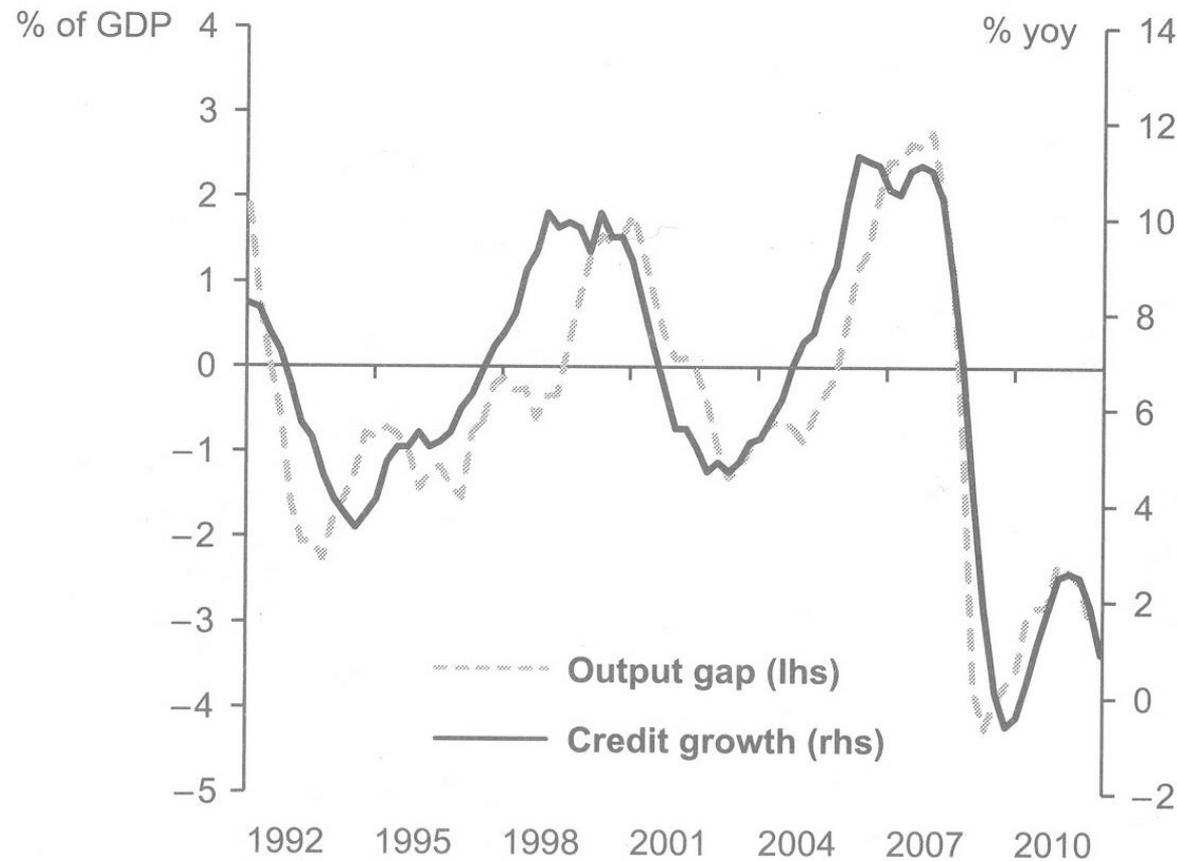
What is the elasticity of investment demand w.r.t. user cost?

- Published estimates range from 0 to -2
- Interest rates play a minor role as determinants of investment spending
- “Accelerator” variables (e.g., output, cash flow) have a much larger economic impact on capital spending than the user cost of capital

Net exports: elasticity pessimism?

- http://krugman.blogs.nytimes.com/2016/04/16/the-return-of-elasticity-pessimism-wonkish/?_r=0
- Recent research suggests that there has been a **decline in the extent to which firms “pass through” changes in exchange rates to prices.**
<http://www.frbsf.org/economic-research/files/wp08-13bk.pdf>

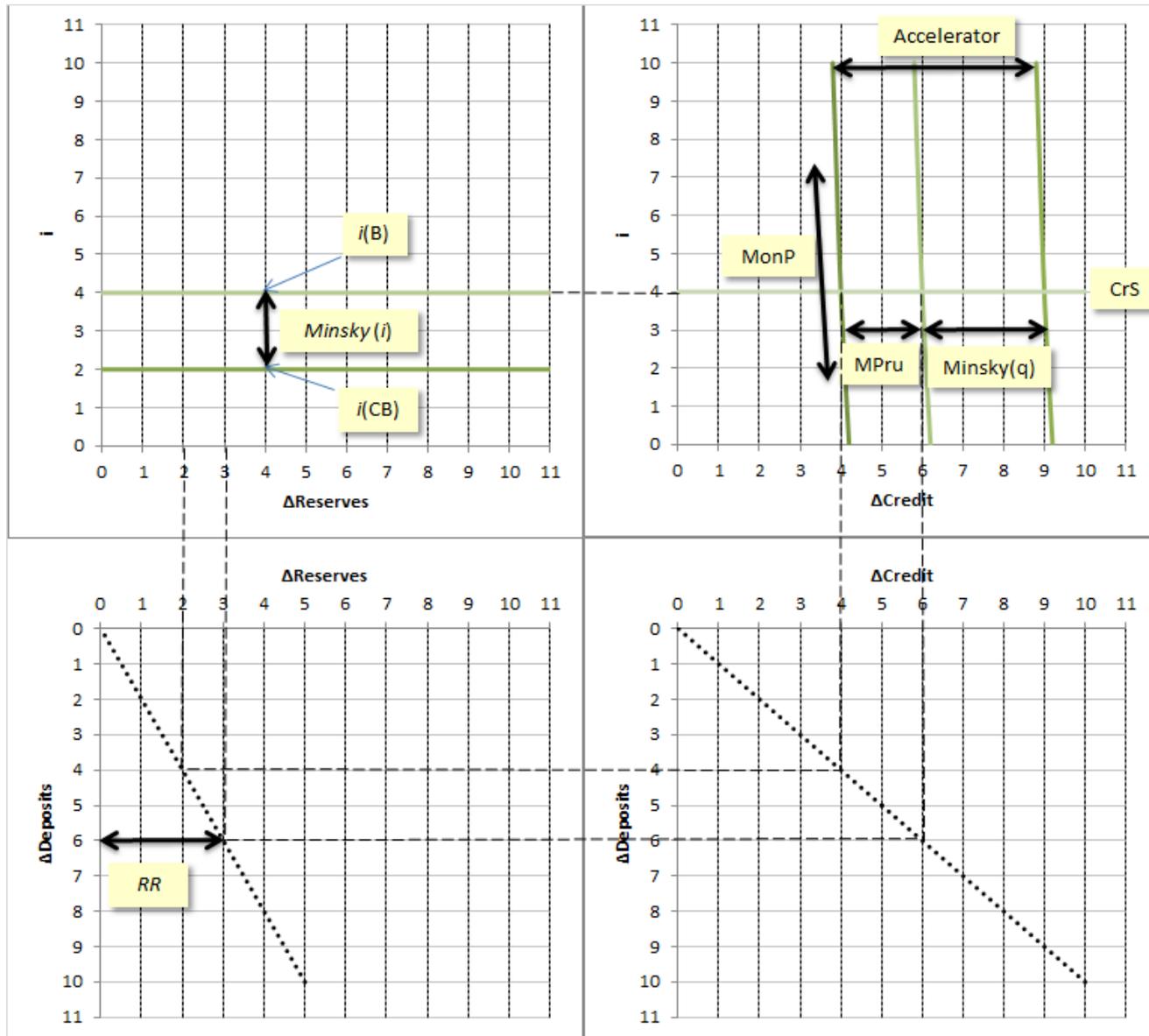
CBs just riding on the Minsky's credit cycle?



Source: OECD, ECB, Deutsche Bank Research

Source: Mayer, Thomas (2012), *Europe's Unfinished Currency*, Anthem Press, p. 92.

All macro policies/money creation process



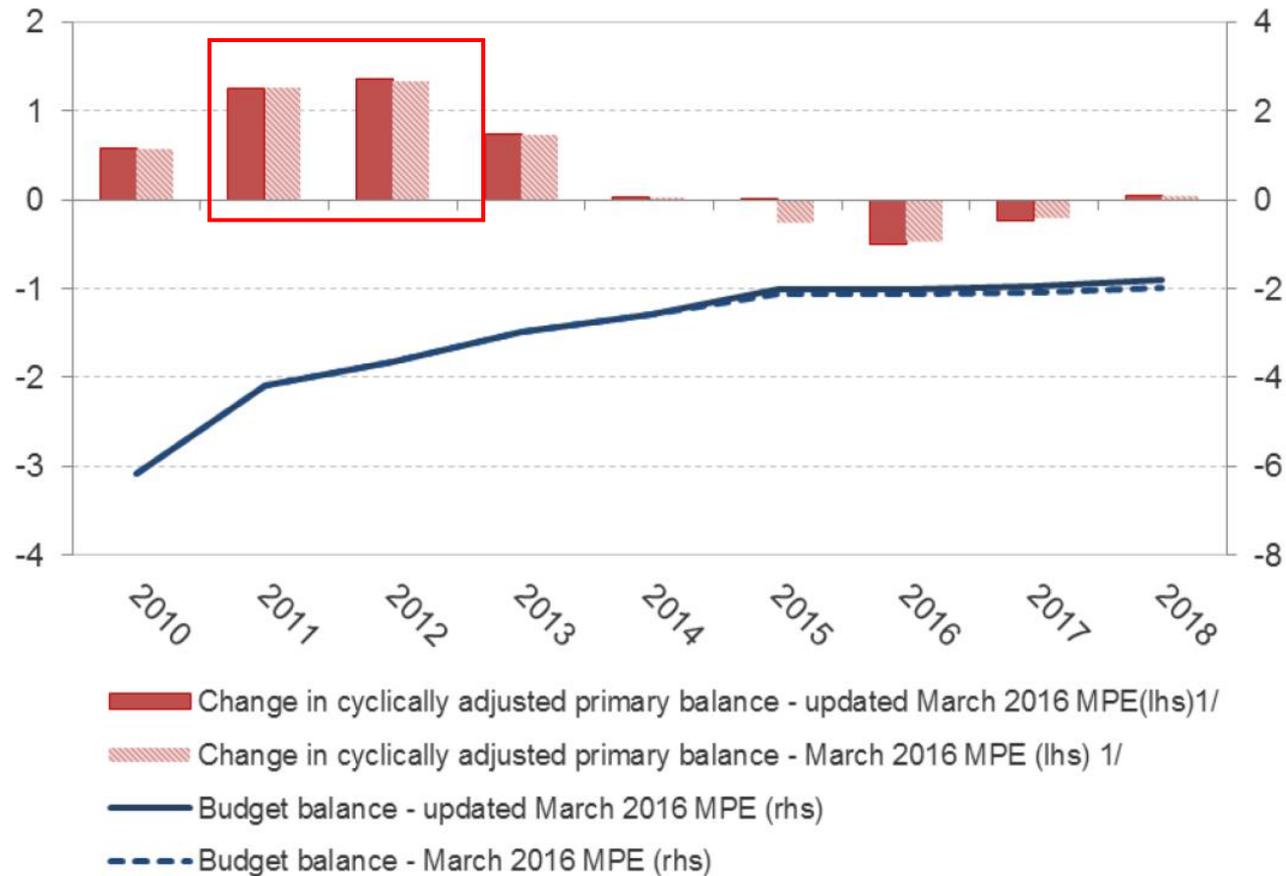
MacPru, not MonP is the main playground

- Kuodis (2015), “Policy trade-offs in CESEE and elsewhere”, in *The Challenge of Economic Rebalancing in Europe Perspectives for CESEE Countries* (edited by Ewald Nowotny, Doris Ritzberger-Grünwald and Helene Schuberth), Edward Elgar):
 - Unfortunately, most of the central banks have focused mainly on **moving along the credit demand curves** (by changing policy rates), but **failed to control the process of rapid shifting out** of these curves. Since more and more private credit had been flowing to the **real estate sector**, this **did not have the first-order impact on the central banks’ target** – consumer price indices, which, conveniently for central banks, exclude investment goods such as newly-built houses.
 - Therefore, in the future, **central banks should shift most of the burden from the monetary policy** (that is, moving along stationary credit demand curves), **to the much more important game in town – runaway shifting out of the credit demand curves**. And the policy which should be assigned this larger role is the macroprudential policy.

V. FISCAL POLICY IS EFFECTIVE

What works: FiscPol, the EA edition

Euro area fiscal stance and budget balance
(percentage points of GDP and % GDP)

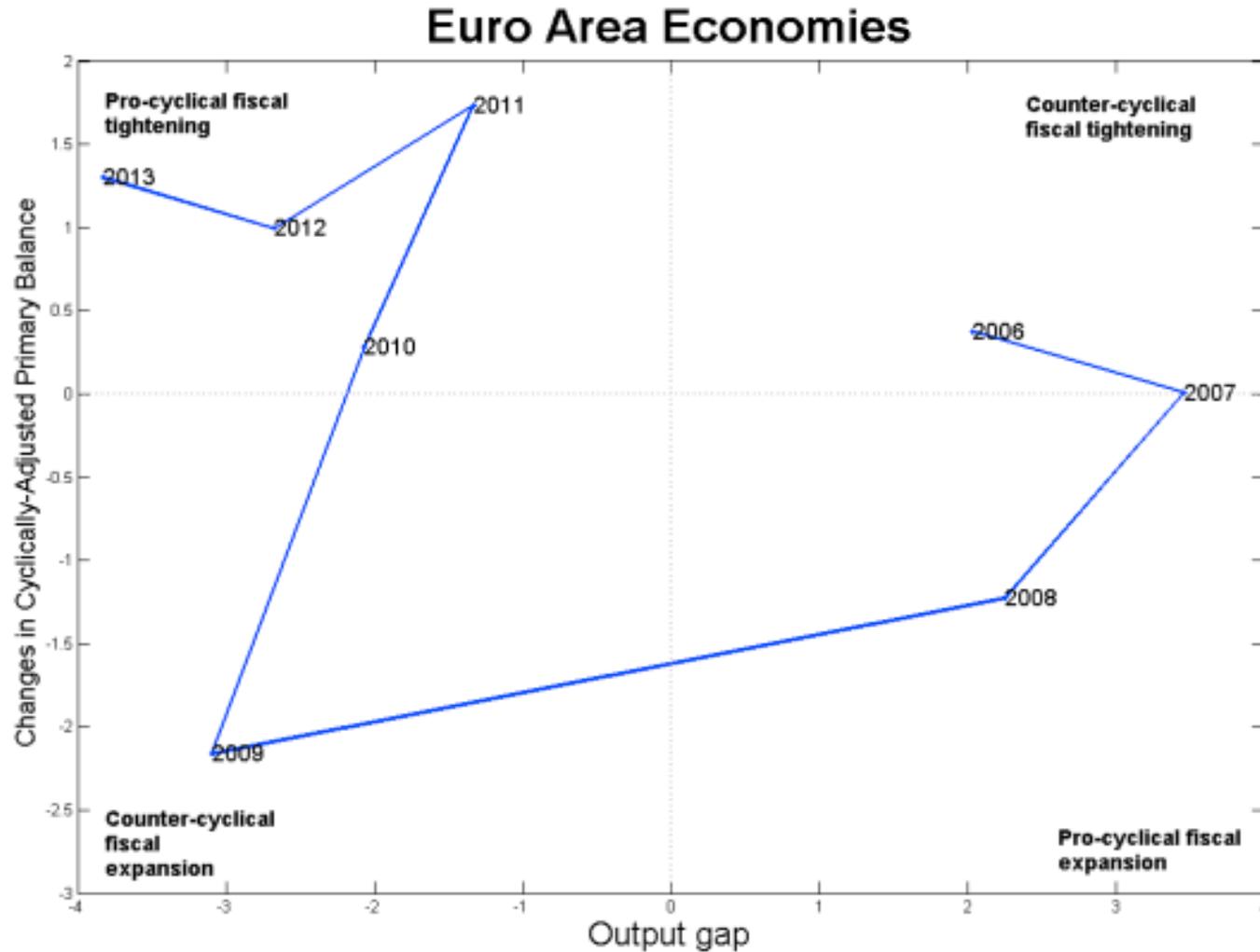


Source: ESCB.

1/: fiscal stance is change in cyclically adjusted primary balance net of the budgetary impact from government assistance to the financial sector.

What works: FiscPol, the EA edition (2)

Figure 2: Extent of Pro-cyclical policies in Advanced Economies during and after the financial crisis

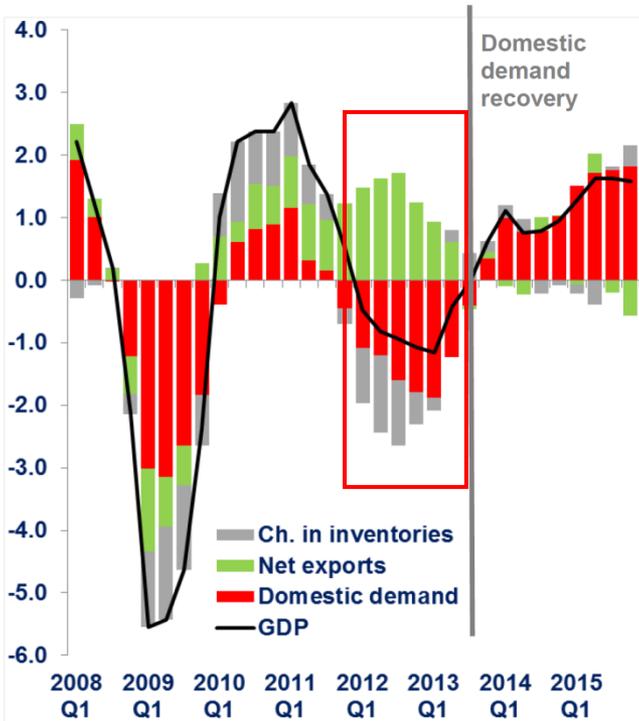


Source: Alesina et al. 2014

What works: FiscPol, the EA edition (3)

Real GDP growth

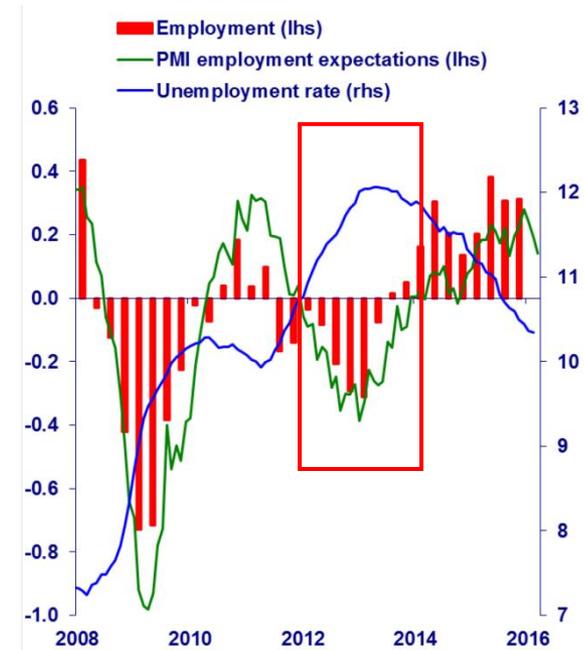
(y-o-y % growth; pp. contributions)



Sources: Eurostat and ECB calculations.
Latest data: 2015Q4

Employment, unemployment and the PMI

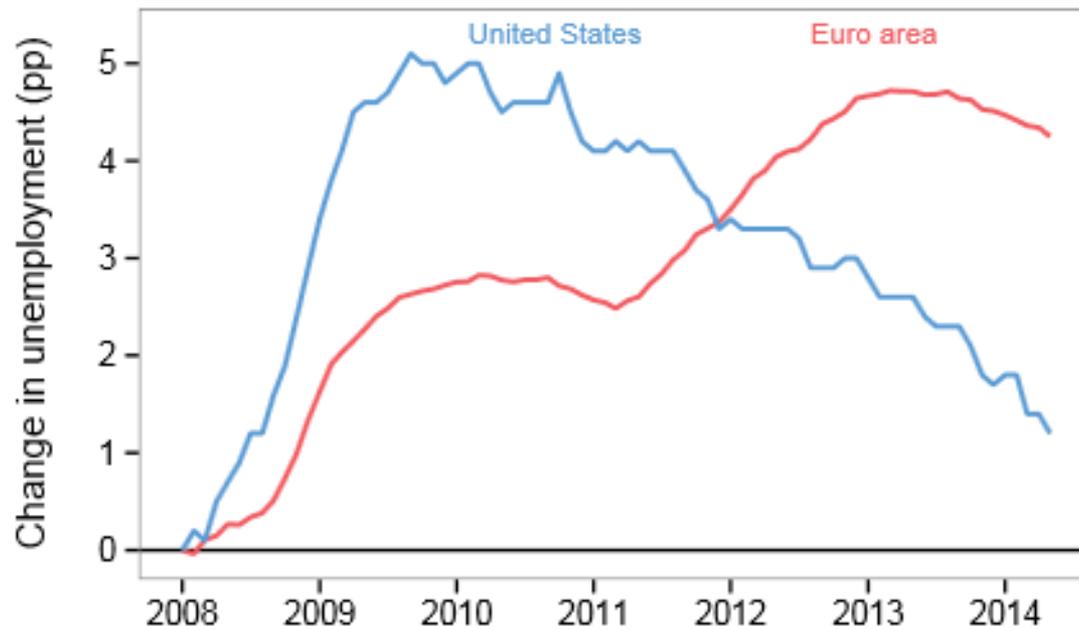
(q-o-q % growth; index; % of labour force)



Sources: Eurostat and Markit.

Note: The PMI is expressed as deviations from 50 divided by 10.
Latest data: 2015Q4 for employment, February 2016 for unemployment
and March 2016 for the PMI.

What works: FiscPol, the EA edition (3)



<https://www.ecb.europa.eu/press/key/date/2014/html/sp140822.en.html>

VI. FISCAL POLICY: AN ALTERNATIVE PARADIGM

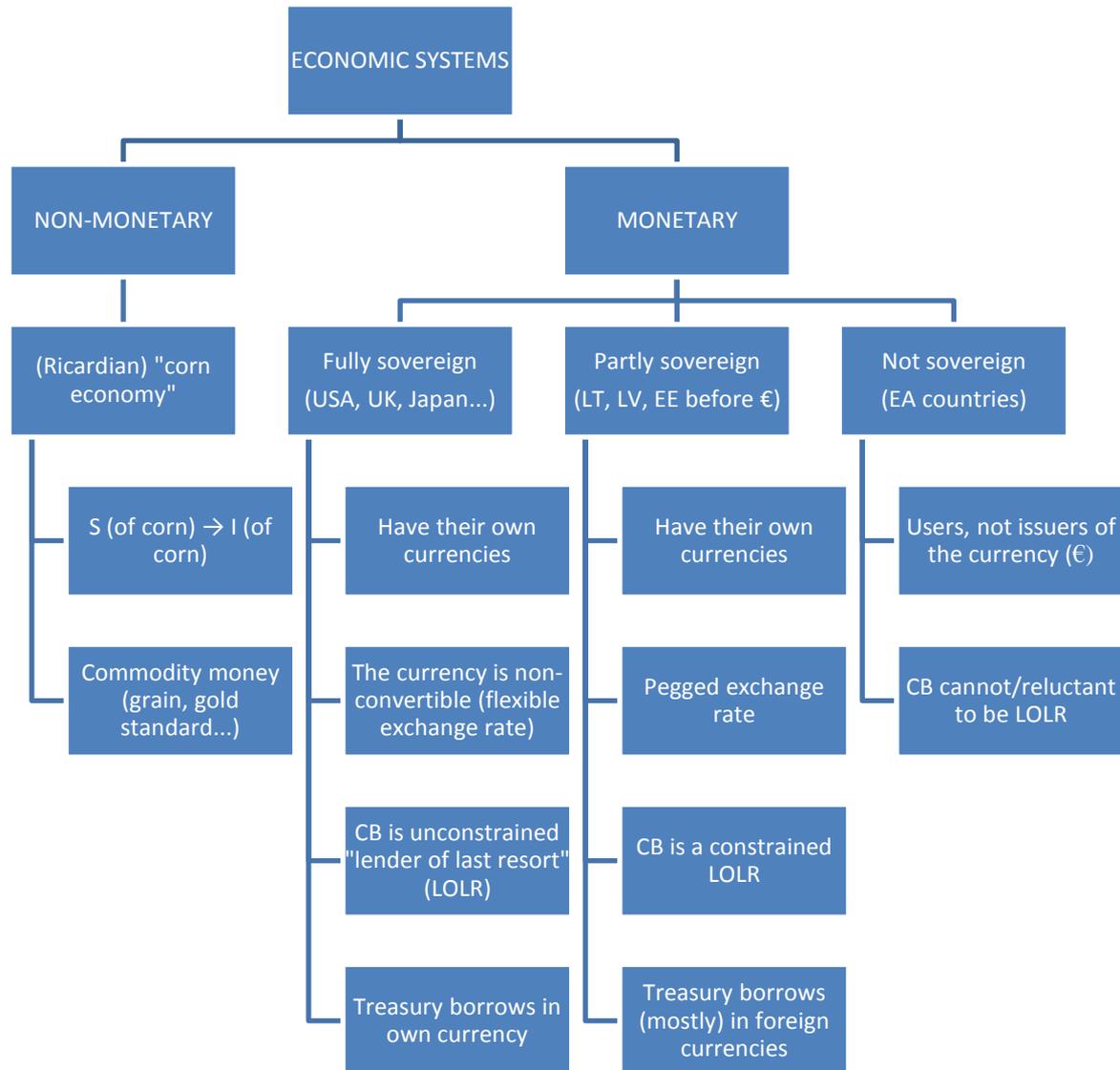
An alternative: functional finance

- The **main unorthodox fiscal policy doctrine** was outlined by **Abba Lerner** in 1943, and it is called **“Functional Finance”**.
- What is meant by “functional”, and what are the main principles of this doctrine? Let me quote the original paper here (Lerner, Abba (1943), "Functional Finance and the Federal Debt", *Social Research*):
 - “The central idea is that **government fiscal policy, its spending and taxing, its borrowing and repayment of loans, its issue of new money and its withdrawal of money**, shall be undertaken **with an eye only to the results of these actions** on the economy and not to any established **traditional doctrine about what is sound or unsound**.
 - Functional Finance... prescribes... the **adjustment of total spending...** to **eliminate both unemployment and inflation**... the adjustment of public holdings of money and of government bonds... to achieve the rate of interest which results in the most desirable level of investment... the **printing, hoarding, or destruction of money as needed**....
 - [The] **result might be a continually increasing national debt**.... [This] possibility presented **no danger**... so long as Functional Finance **maintained the proper level of total demand** for current output; and... there is an **automatic tendency for the budget to be balanced in the long run as a result of the application of Functional Finance**, even **if there is no place for the principle of balancing the budget**....

Two fiscal doctrines compared

	FISCAL POLICY	
	Neoclassical	Unorthodox
FOUNDATION	"Sound finance"	"Functional finance" (FF)
CONSTRAINTS		
Economic system	non-sovereign monetary (EA)	sovereign monetary (JAV, Japonija, UK)
Taboos/concerns	a lot (fear of financial markets/self-inflicted)	none
examples	Maastricht treaty/SGP/ "fiscal rules" (US Congress) budget sequestration/debt limits monetary financing → hyperinflation!	judge FiscP by unemployment/inflation
OBJECTIVES		
Objectives	not of primary importance for society balanced budget (in business cycle/during "solar year") exchange rate stability: "Monetary Approach to the BoP"	of primary importance for society non-inflationary full employment
Implications	"debt cannot grow without limits" → constraints "austerity" to calm down financial markets ("confidence fairy") no "fiscal room" procyclical FiscP: if $S_d > I_d$, $\downarrow Y$, not \uparrow deficit	no constraints → "debt has no reasons to grow without limits in FF system" Gov't may overstimulate/political business cycles, but that's not FF "fiscal room" - what is that? if $S_d > I_d$, then $T < G$, not $\downarrow Y$

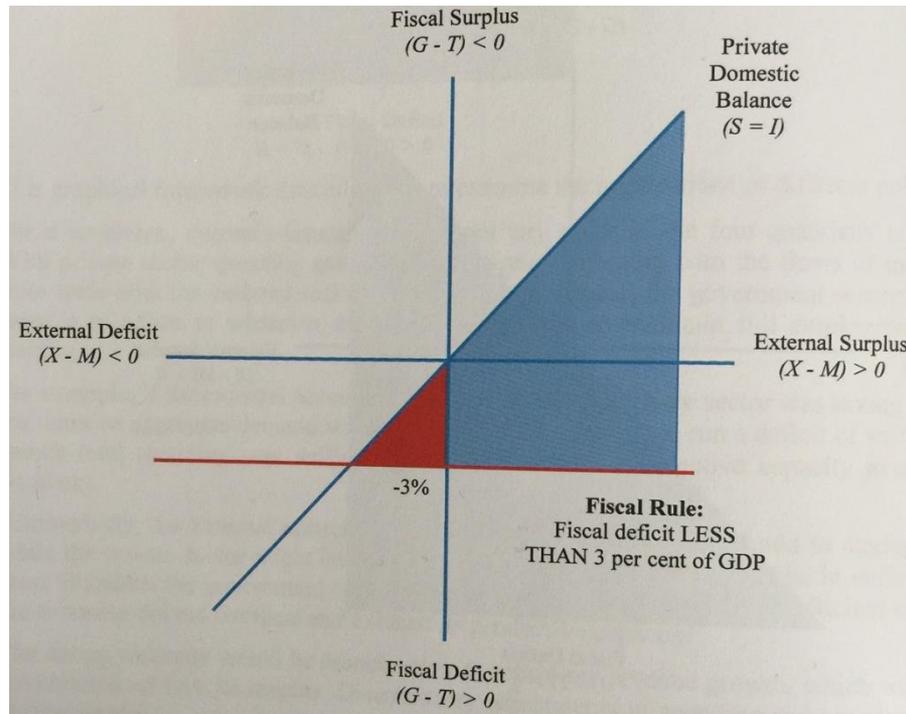
Economic systems: a taxonomy



Two fiscal doctrines compared

RELATED PROBLEMS	Neoclassical	Unorthodox
Gov't borrowing costs determined by pros/cons	financial markets... ...prone to multiple equilibria (self-fulfilling prophecies) larger real interest rates → inequality	by smart Treasury/CB duo one equilibrium, economy gets really risk-free instrument low real interest rates → (almost) "euthanasia of rentier" → lower inequality
When $G > T$	borrowing first, expenditures later	monetary spending from CB first, mop up excess reserves with bonds later, otherwise $i(CB) = 0$
Borrowing...	fiscal operation	monetary operation
Borrowing from...	usually from abroad	domestically
Payment of interest	problem of real resources	accounting/distributional issue
Debt...	serious problem	semantic problem
Sustainability	serious problem	Herbert Stein's "sustainability": "If something cannot go on forever, it will stop"
Gov't faces...	intertemporal budget constraint	<i>ex post</i> identity ($G - T - iD = dM + dB$)
fear	"financial markets may refuse to lend"	Gov't is always solvent, because issues own currency
trends	D/GDP ratio up if ($i > g$) or low s (primary surplus)	D/GDP ratio may be low if ($i < g$), but may be higher because of - s
automatic stabilizers	constrained	unconstrained
Form of borrowing	Important: "resources" are taken from private sector	"Resource"? - keyboards!
Macro policy efficiency	"Ricardo equivalence/policy inefficiency"	Gov't can buy everything, which is for sale for domestic currency (i.e. labor of unemployed) FiscP is efficient / Ricardo equivalence is fallacy
Effects on Investment	Crowding out	Crowding in (Kalecki profit equation)
Generational economics	Aging, sustainability of PAYG pension systems, pension "reforms" (financialization) "Generational accounting" - who will repay Gov't debt	Future generations "will eat as much bread as will be produced", focus on that instead Why Gov't debt should be repaid? Implications of that? It's outside asset for private sector!
Budget surpluses...	a good thing	imply higher private debt ($I > S$), financial crisis in the future, since: $(S - I) + (T - G) + (IM - EX) = 0$ less outside assets → asset accumulation only via private instruments, whose source is debt

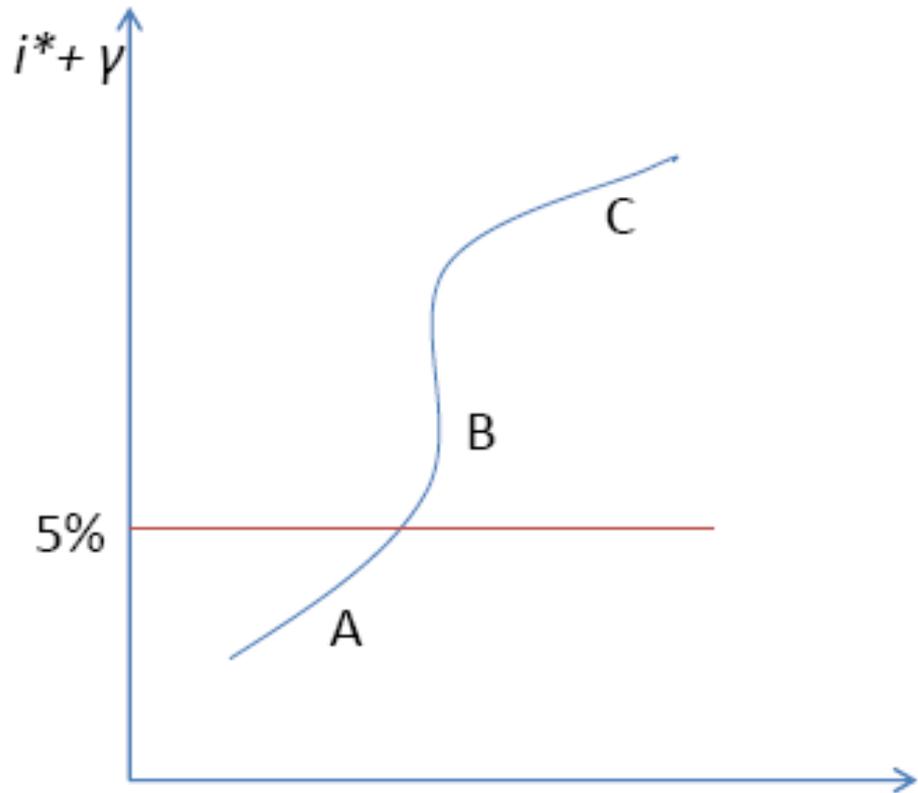
Self-imposed “fiscal room”



Source: Wray/Mitchell/Watts (2016)

Self-imposed monetary financing prohib.

- **Not a pragmatic policy**, based on “inflation is a monetary phenomenon” and “Weimar hyperinflation” fears
- Consequence: **governments at the mercy of financial markets**
- Financial markets are prone to **multiple equilibria**
- In the end, one needs “**whatever it takes**” – a cap on governments’ borrowing costs

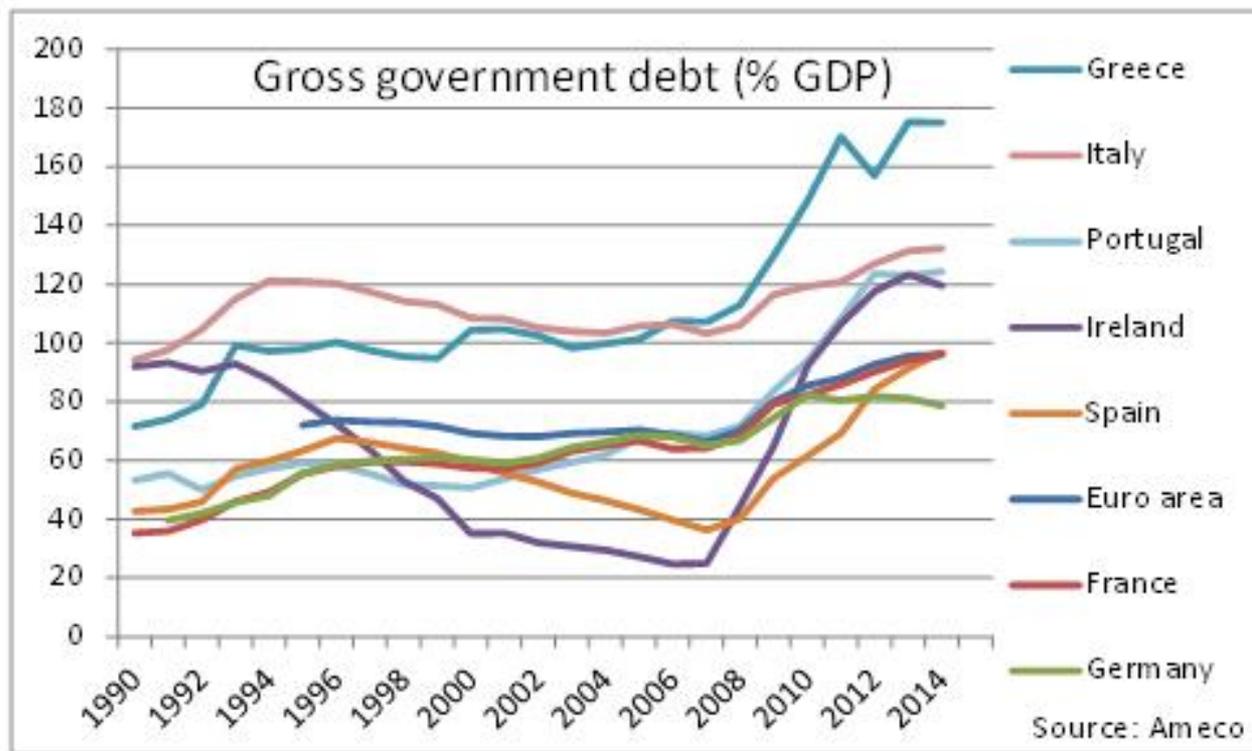


Good Economic “fundamentals” (as perceived by markets) Bad

Self-imposed monetary financing prohib.

- Isn't a QE a form of so feared “monetary financing”?
 - CB buys Gov't bonds
 - Gov't stops paying coupons to private sector...
 - ...and pays coupons to the CB, which is just another public sector institution
 - all this is equivalent to...?

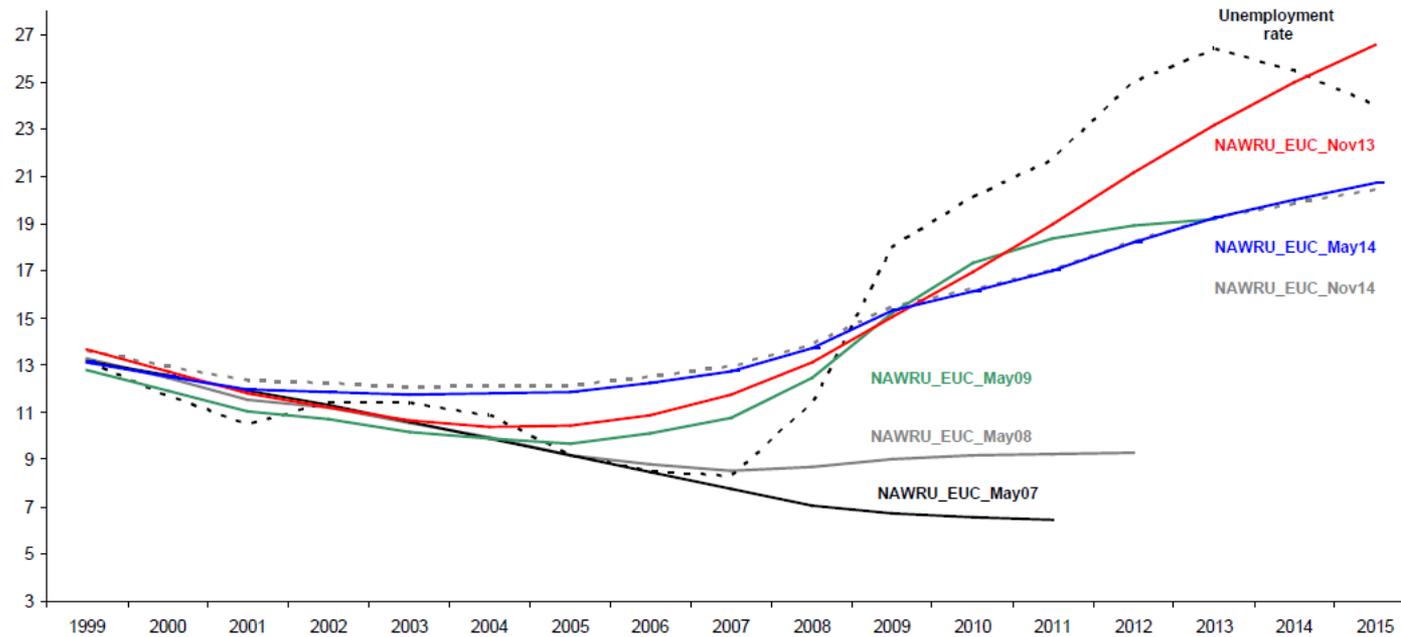
Austerity: a success?



VII. DEMAND, NAIRU, “STRUCTURAL REFORMS”

NAIRU fallacy

Figure 1: European Commission's NAIRU estimates for Spain at different publication dates

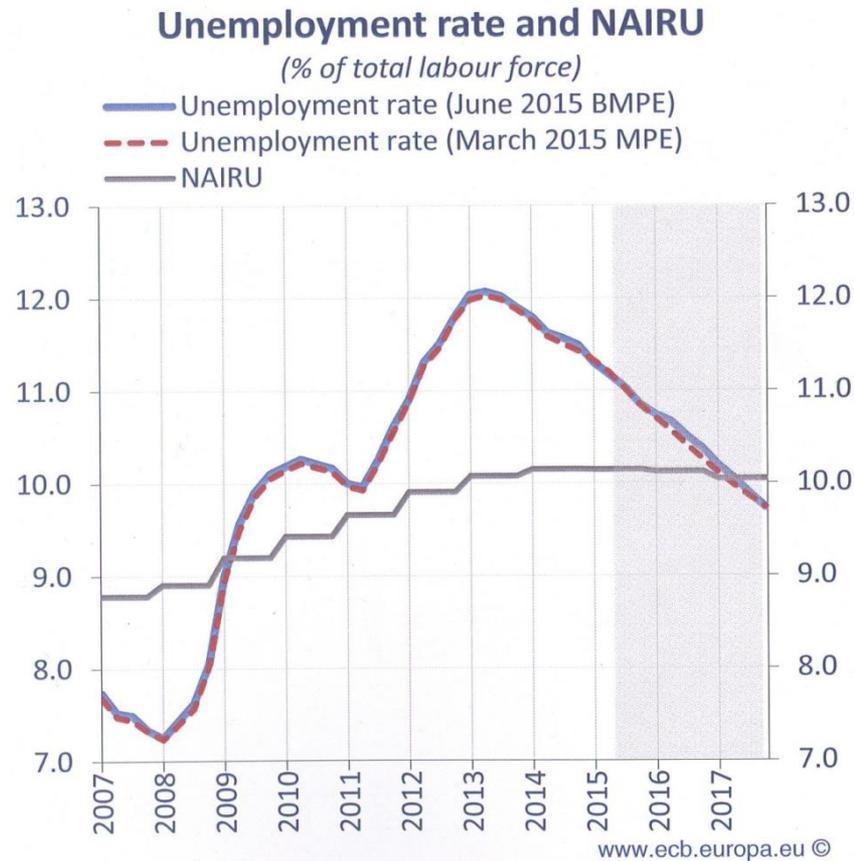


Source: European Commission, Economic Forecasts, European Economy and CIRCA website

“NAIRU in its new specification is still largely determined by actual unemployment”

Source: Sebastian Gechert, Katja Rietzler and Silke Tober (2015), The European Commission's New NAIRU: Does it Deliver?, IMK WP 124

NAIRU fallacy



William Mitchell (1987): “NAIRU” adjusts to the actual unemployment with a lag
$$U^*(t) - U^*(t-1) = \lambda [U(t-1) - U^*(t-1)]$$

NAIRU fallacy

Figure 1 The expectations-augmented Phillips curve

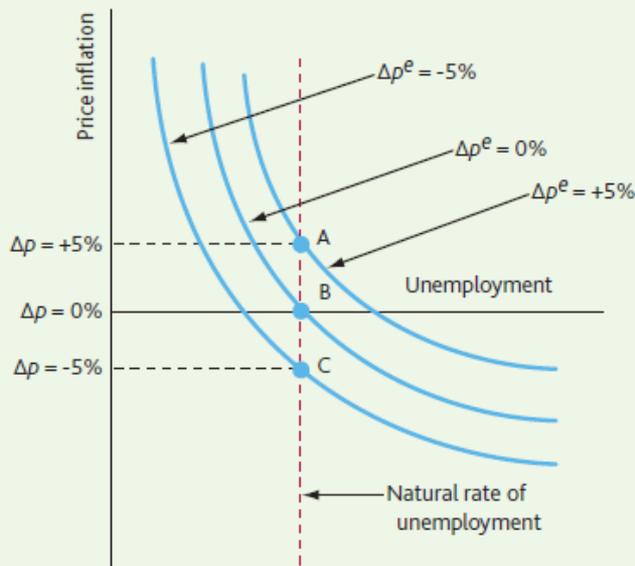
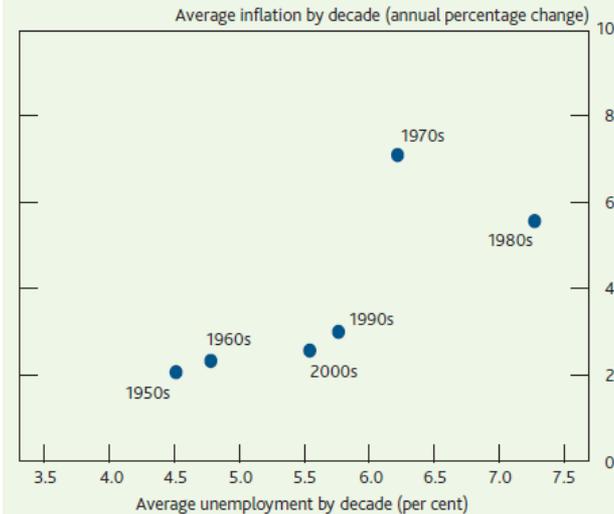


Chart 1 Average inflation and unemployment by decade for the United States



Sources: Bureau for Labor Statistics and author's calculations.

- “**Central banks** throughout the world **predict inflation with New Keynesian models** where, **after a shock, the unemployment rate returns to its so-called ‘natural rate’.**”
- Because a decade contains 40 quarters, the probability that average expected inflation over a decade will be different from average actual inflation should be small. **If the NRH and rational expectations are both true simultaneously, a plot of decade averages of inflation against unemployment should reveal a vertical line at the natural rate of unemployment.** In Chart 1, I show that this **prediction fails dramatically.** There is no tendency for the points to lie around a vertical line and, if anything, the **long-run Phillips curve revealed by this chart is upward sloping, and closer to being horizontal than vertical.** Since it is unlikely that expectations are systematically biased over decades, I conclude that the **NRH is false.**

Source: Roger Farmer (2013), “The Natural Rate Hypothesis: an idea past its sell-by date”

<http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/2013/qb130306.pdf>

“Structural reforms”: a typical narrative



What structural reforms: employability

- „In the **post-war period through to the mid 1970s**, most advanced Western nations maintained **very low levels of unemployment**. Governments were willing to manipulate levels of **aggregate demand** to ensure enough jobs were created to meet the preferences of the population. <...>
- The **first OPEC oil price** hike in 1974 caused an inflation spike and **provided the pretext for a resurgence of pre-Keynesian thinking**, which had categorically failed to resolve the mass unemployment of the 1930s. Most Western governments **reacted to the inflation surge with contractionary policies which led to stagflation**. The **paradigm shift** that occurred led to the **abandonment of the Keynesian notion of full employment and its replacement with the natural rate or NAIRU** (Non-Accelerating Inflation Rate of Unemployment) approach.
- **Full employment was redefined in terms of an unemployment rate (the NAIRU) at which inflation was stable**. The NAIRU was determined by **supply side forces and was invariant to Keynesian demand-side policies, which were considered to be ultimately self-defeating and inflationary**. **Unemployment was reconceptualised as a voluntary state** reflecting the optimising choices by individuals between work and leisure.
- Opposition to the use of budget deficits to maintain full employment solidified and the **inflation-first rhetoric became the dominant discourse in macroeconomics**. The paradigm shift meant that governments relinquished their commitment to full employment. The official unemployment rate increased and **rates of labour underutilisation never returned to the low levels that were the hallmark of the post-war period**, despite the decline in the official rate of unemployment in many countries over the last decade.
- According to the **NAIRU approach**, government could only achieve better macroeconomic outcomes (higher productivity, lower unemployment) **through microeconomic reforms** which implied a greater reliance on market-based outcomes with a diminished role for the public sector. In many countries successive governments **cut expenditure on public sector employment and social programs**; culled the public capacity to offer apprenticeships and training programs, and commenced **dismantling the alleged supply side impediments**.

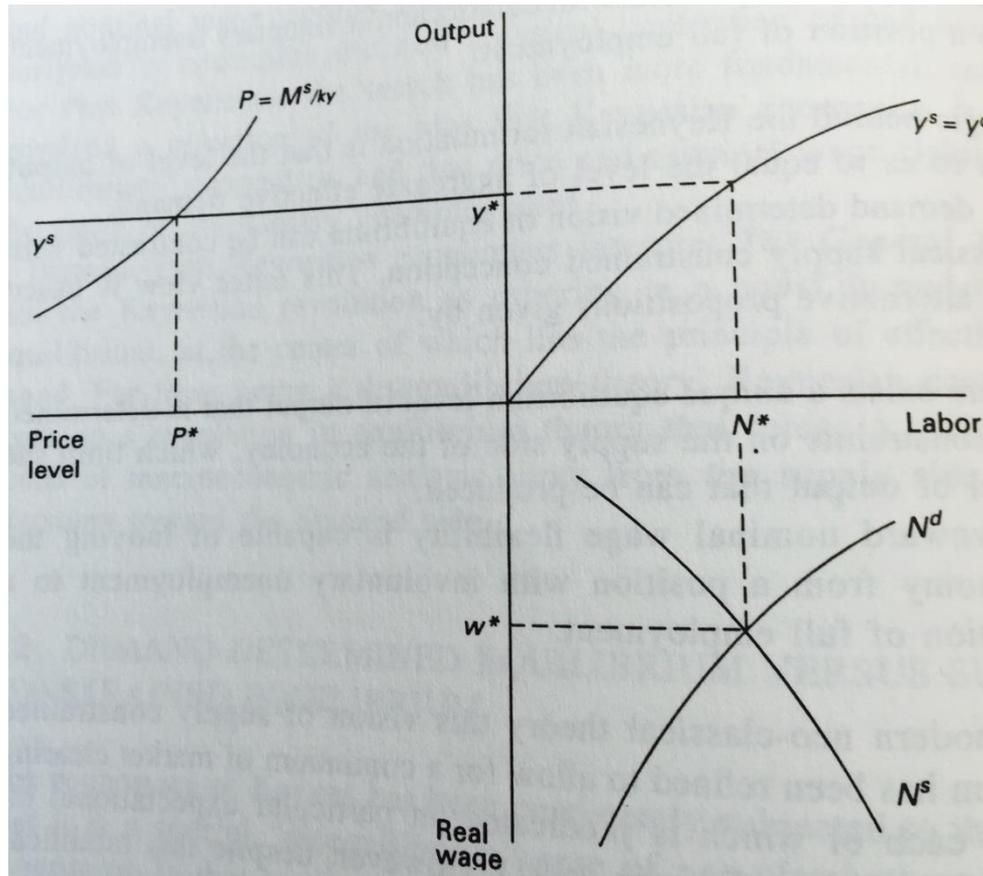
What structural reforms: employability

- Within this logic, governments adopted the **goal of full employability**, thereby relinquishing their responsibility for achieving the optimum use of their labour resources. Accordingly, labour market policy was limited to ensuring that individuals were “**ready for employment**”. This new objective was articulated in the **1994 OECD Jobs Study**.
- Consequently, governments in many countries began the relentless imposition of **active labour market programs** which were designed to **churn the unemployed through training programs** and/or force participation in workfare compliance programs. The dominance of the **NAIRU approach is incomprehensible** given the stark evidence since 1975 that there have **never been enough jobs available to match the willing labour supply**.“

Source: Emma Allen, Beth Cook, William Mitchell and Martin Watts (2007), “The failed full employability paradigm”, <http://e1.newcastle.edu.au/coffee/pubs/wp/2007/07-04.pdf>

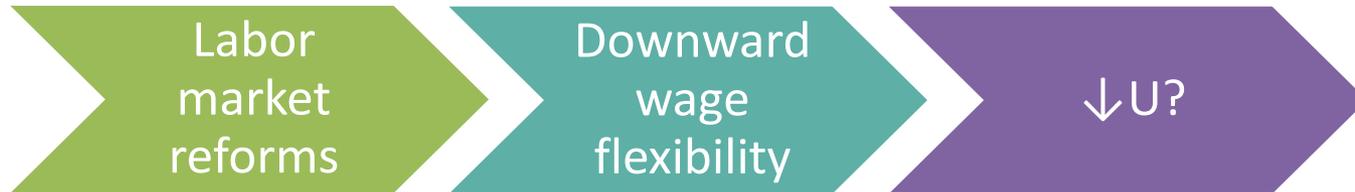
The classical model

“Output and employment are therefore determined in the labor market, and in this sense the equilibrium is supply constrained; the critical constraints are the availability of labor, and the production technology.” 😊



Source: Thomas I. Palley (1996), *Post Keynesian Economics: Debt, Distribution and the Economy*, Palgrave, p. 28.

What structural reforms: W flexibility?



What structural reforms: W flexibility

Origins

- Keynes GT (1936)(chapter 19): **reduction in money-wages** will have no lasting tendency to increase employment ($\downarrow W$, $\downarrow P$)
- Irving Fisher (1933): **debt-deflation theory** of great depressions

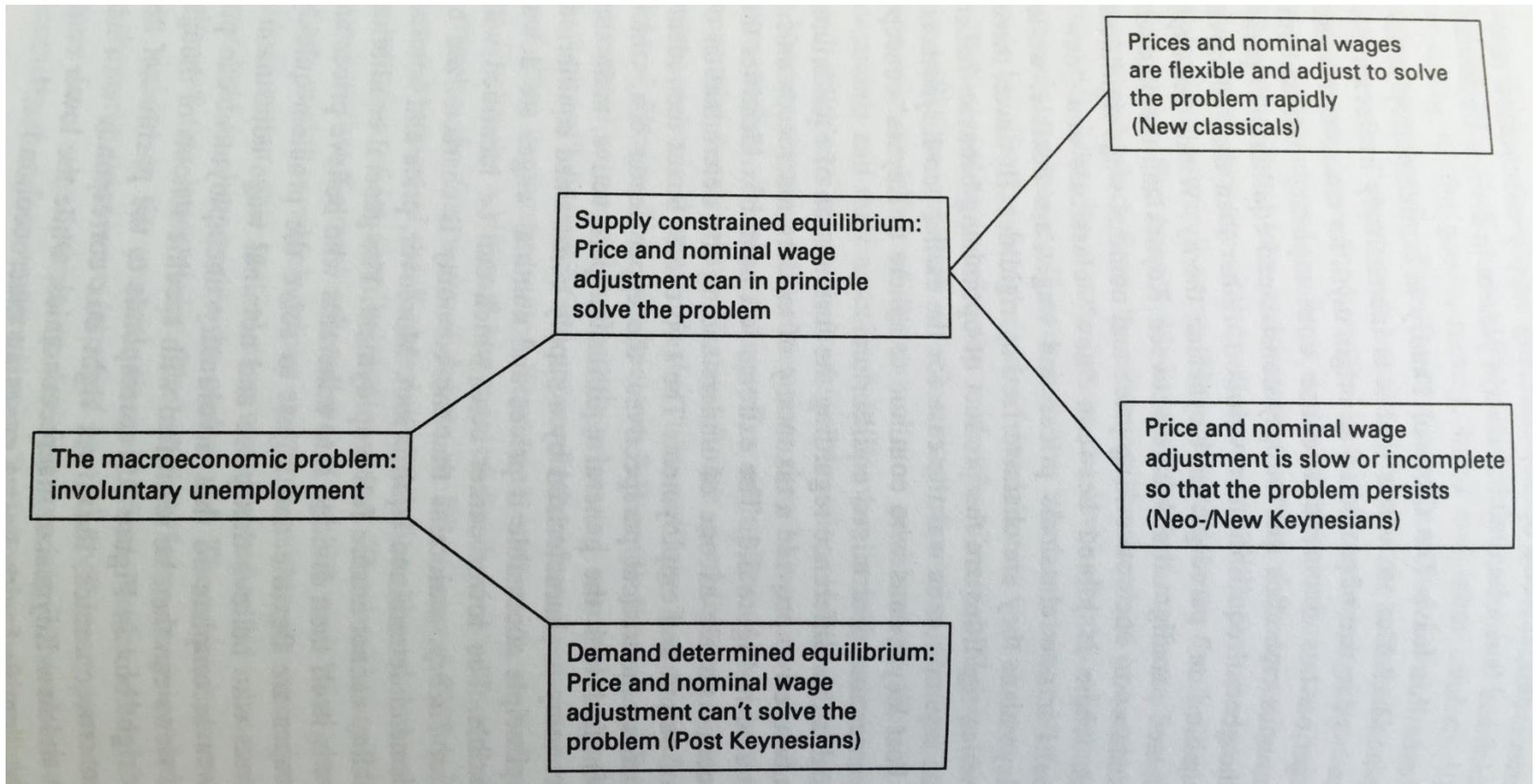
Critique

- Pigou (1943)/Patinkin (1948): **real balance effect** - deflation increases real value of M and other nominal wealth
- Woodford (2003): **equilibrium in sticky-prices New Keynesian DSGE model is achieved after all prices adjusted**

Replies

- Kalecki (1944): **inside wealth is matched by inside liability** (cancels out), **Pigou effect rests on outside wealth**
- Barro (1974): if **gov't debt is not net private wealth** (entails future tax obligations), gov't debt should be excluded from the Pigou effect - it can operate only on the stock of high-powered money (which is small)
- Barro/Grossman (1971): **negatively-sloped demand for labour curve is "notional"** demand for labour - takes **no account of effective demand**
- Card/Krueger (1995): higher **minimum wage** may increase employment

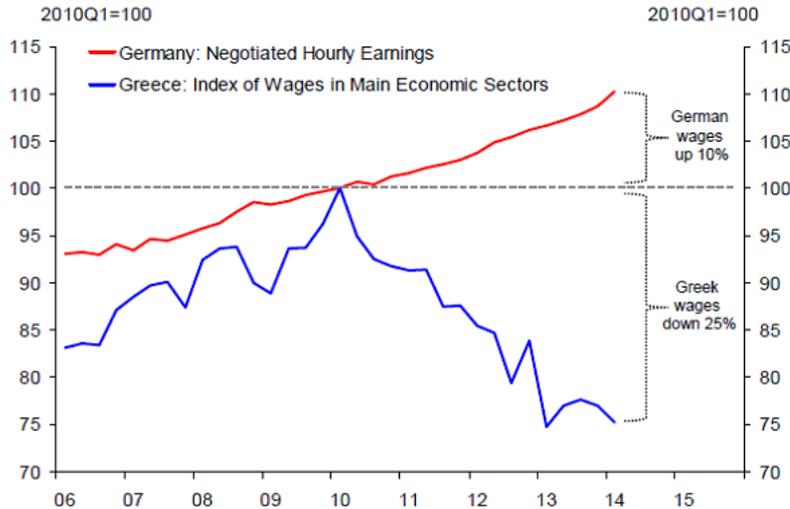
A taxonomy of modern macroeconomics



Source: Thomas I. Palley (1996), *Post Keynesian Economics: Debt, Distribution and the Economy*, Palgrave, p. 38.

What structural reforms: W flexibility?

Greek competitiveness has improved by 35% over the past four years



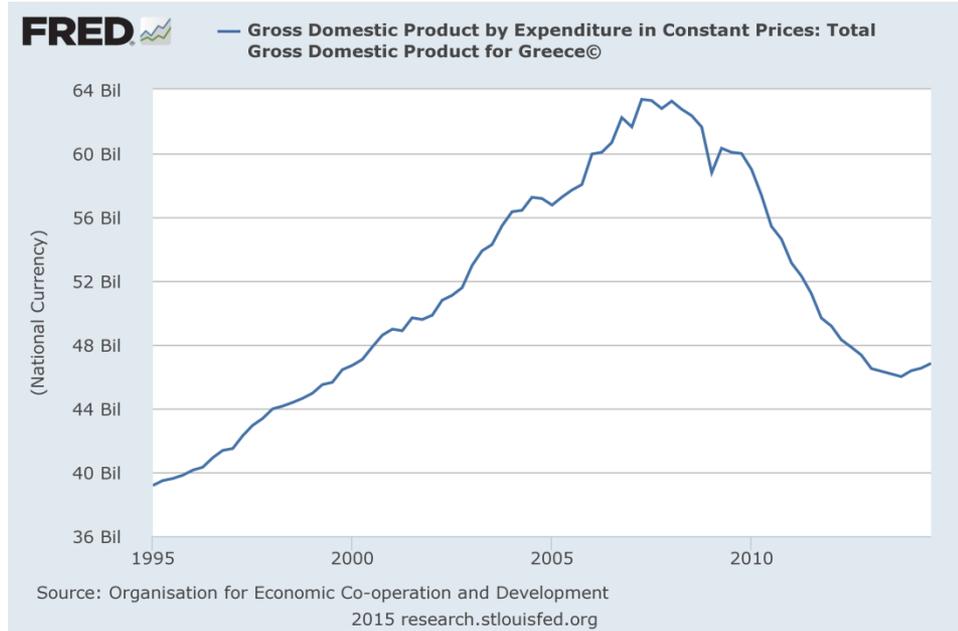
Source: Haver Analytics, DB Global Markets Research

Deutsche Bank Research

Torsten Slok, torsten.slok@db.com +1 212 250-2155

June 2014

52



Source: Organisation for Economic Co-operation and Development
2015 research.stlouisfed.org

Structural reforms: a radical view 😊

- Adair Turner: “**Vague references to “structural reform” should ideally be banned**, with everyone forced to **specify which particular reforms** they are talking about and the **timetable for any benefits** that are achieved. If the **core problem is inadequate global demand**, only monetary or fiscal policy can solve it.”

<https://www.project-syndicate.org/commentary/monetizing-fiscal-deficits-benign-by-adair-turner-2016-03?barrier=true>

VIII. PHILLIPS CURVES, EXPECTATIONS, INFLATION

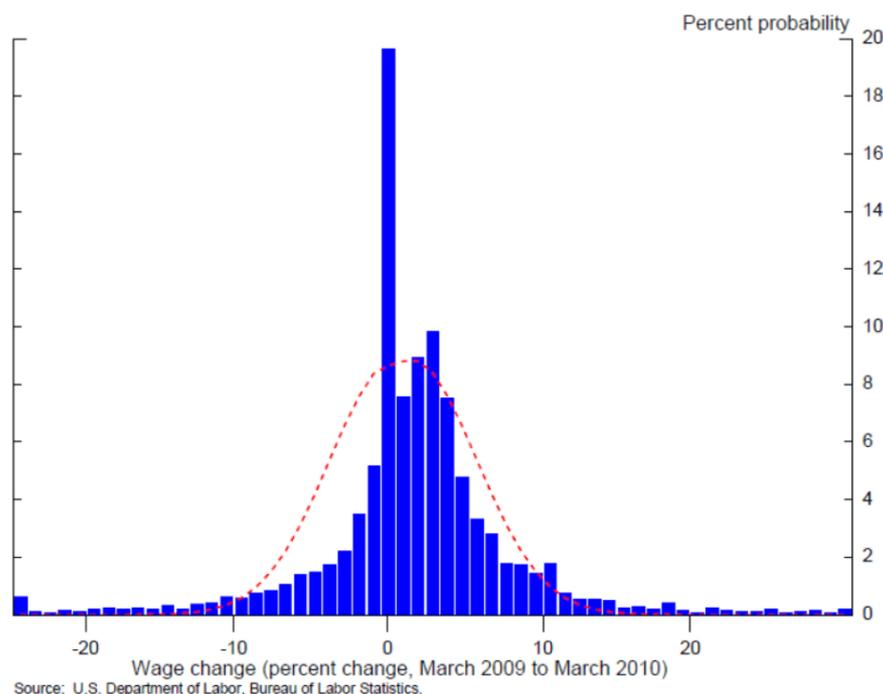
The nature of inflation

- Milton Friedman: “**Inflation is always and everywhere a monetary phenomenon.**” (Milton Friedman, *Inflation Causes and Consequences*, Asian Publishing House, 1963.)
- Uncritically, the **Institutions tend to agree**:
 - see **ECB’s monetary pillar**.
- Well, not so fast. 😊 **Money is endogenous**:
 - unless it falls from helicopters (usually not, private banks create M),
 - **households/firms go to banks not for the sake of borrowing money, but to finance C or I** (purchases of houses, machines etc.),
 - households/firms have to **borrow more and more if the authorities coordinate inflation expectations on some positive target** (2-3% per annum)
- Therefore one has to **explain those C and I decisions**, if really wants to get to the **core of the process**.

The nature of inflation: (labor) costs!

- $\text{Prices} = (1 + \text{markup}) * \text{ulc}$
- $\Delta \text{ulc} = \Delta \text{productivity} - \Delta \text{wages}$
- **Inflation $\approx \Delta \text{productivity} - \Delta \text{wages}$**
- Simple: **no Δwages , no inflation!**
- **QE cannot help...**

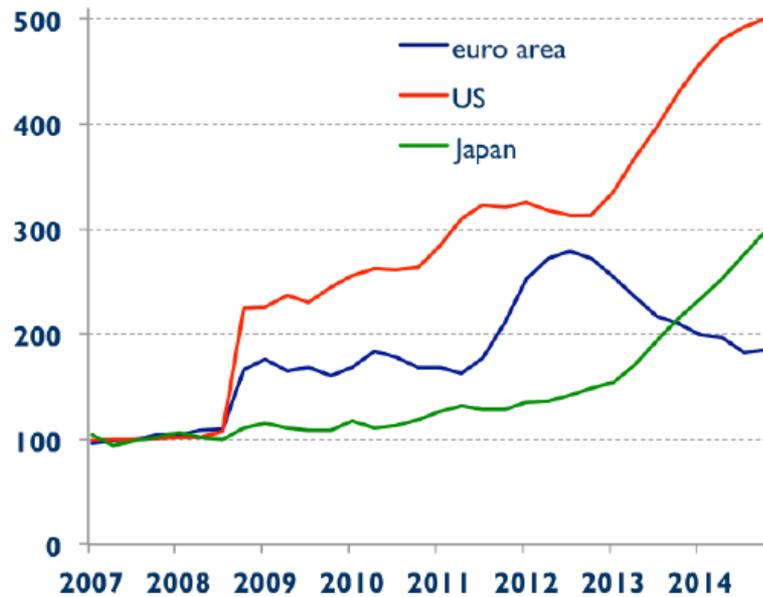
Figure 4. Distribution of Nominal Wage Changes



If inflation were a monetary phenomenon

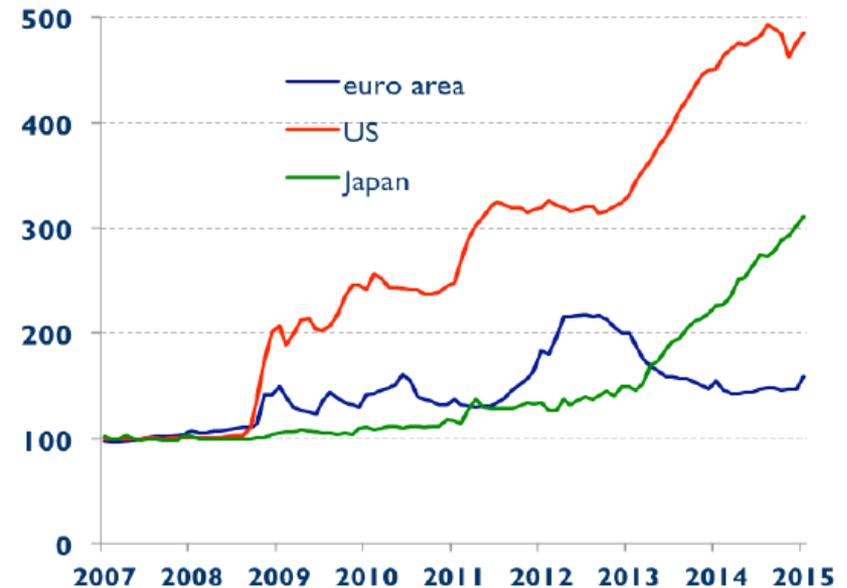
Central banks' balance sheets

(index 2007=100; quarterly data)



Monetary base

(index 2007=100; monthly data)

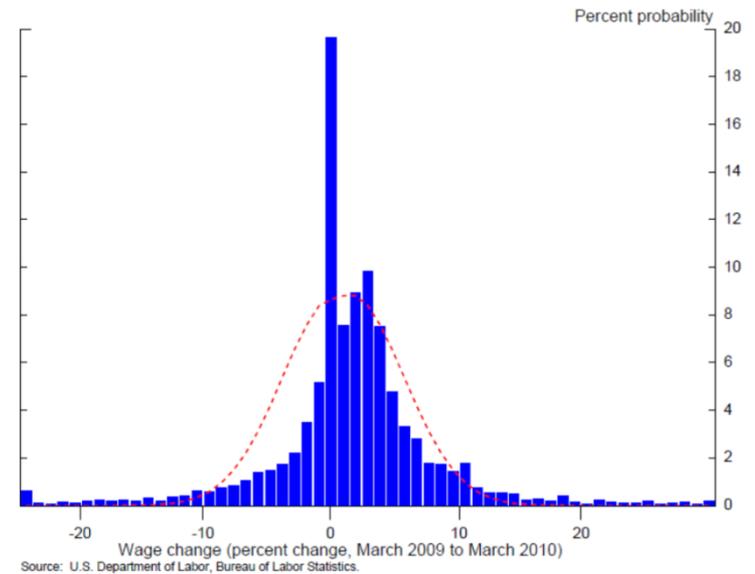


Sources: ECB, Federal Reserve Board, Bank of Japan and ECB staff calculations.

Note: Indices are based on quarterly averages of assets in national currencies. Data refer to the simplified balance sheet (methodology focusing on the monetary policy elements of the balance sheet). Last observation refers to December 2014.

The nature of inflation: (labor) costs!

Figure 4. Distribution of Nominal Wage Changes



Phillips curves

Origins

- Phillips (1958): $dW = f(U)$
- Lipsey (1960): first theoretical explanation of Phillips' empirical finding
- Samuelson/Solow (1960): $\pi = f(U)$

Critique

- Friedman (1968) (accelerationist PC, NAIRU, vertical long-run PC): $\pi_t = \pi_{t-1} - a(U_t - U^*)$
- Lucas (1972): replaced Friedman's adaptive expectations with rational expectations $\pi_t = E(\pi_t) - a(U - U^*)$, only "fooling" works
- Kydland/Prescott (1977): time inconsistency of policies → policy rules/credibility

Replies

- Tobin (1972), Palley (1996): sectoral approach to the PC (formation of expectations vs. incorporation): $\lambda E(\pi_t)$, negative slope of PC, permanent trade-off, no need to "fool" workers *a la* Lucas
- Forder (2014): M.Friedman's "straw man" - Samuelson/Solow (1960) did not suggest the π -U tradeoff
- Hargreaves-Heap (1980); Mitchell (1987): hysteresis
- Ball (1999): U asymmetries, short-term U affects π
- Akerlof, Dickens, Schultz (2000): backward-bending PC
- Blanchard, Cerutti, Summers (2015): "back to the 60s"

PC: NAIRU, asymmetries, hysteresis

- <http://e1.newcastle.edu.au/coffee/pubs/wp/2002/02-05.pdf>:
- Central Banks in most economies now **manipulate short-term interest rates** (and hence the slope of the yield curve) to keep the rate of inflation within some target range. The consequences of this “inflation-first” monetary policy has manifested in the form of **persistently high unemployment in most OECD economies since 1975** (Modigliani, 2000). The policy has been expressed by economists in terms of the **need to stabilise the economy at the natural rate of unemployment**, or in more modern parlance, at the NAIRU. Despite its centrality in the policy debate, the **NAIRU has evaded accurate estimation** (Staiger, Stock and Watson, 1997) and several authors have cast serious **doubt on its usefulness as a policy tool** (Chang, 1997; Fair, 2000; Mitchell, 1987, 2001a). If the economy fails to generate a unique NAIRU then **serious questions** have to be asked about the **efficacy of monetary policy which uses high unemployment rates to control inflation**.
- It is well-established that **persistent demand shocks change the equilibrium unemployment rate**. This is consistent with the major findings of the **hysteresis literature** (see Hargreaves-Heap, 1980; Cross, 1986; Mitchell, 1987; for early contributions). It is also well documented that **unemployment behaves asymmetrically** with respect to the business cycle and **sharp increases are followed by very slow declines** (see Rothman, 1998; Skalin and Teräsvirta, 2002; Mitchell, 2002). **Recession**, therefore, has a **disproportionately negative impact on long-term unemployment**.

PC: NAIRU, asymmetries, hysteresis

- It is less recognised that a **temporary change in aggregate demand** can cause an adverse **permanent change in the relationship between long-term unemployment and inflation** and this **change is asymmetric with respect to a symmetric shock in demand**.
- This point is elaborated on by **Ball** (1999), who uses the **short-term rate of unemployment as the proxy for excess demand** in an otherwise standard Expectations-augmented Phillips curve. Ball (1999: 227) says that his “model **allows for hysteresis** by modifying the textbook Phillips curve. The modification builds on ... the distinction between short- and long-term unemployment... the **long-term unemployed do not affect inflation**: the Phillips curve includes only short-term unemployment. Under this assumption there is a **unique level of short-term unemployment consistent with stable inflation, but total unemployment can settle at any level.**”
- In Ball’s model an economy always converges to a constant equilibrium rate of short-term unemployment after employment is disturbed by an aggregate demand shock. From a policy perspective, if the dynamics implied by Ball (1999) are empirically robust, then **aggregate demand stimulation by government during a recession can prevent a permanent rise in unemployment without a major cost in inflation.** <...>

PC: NAIRU, asymmetries, hysteresis

- Ball (1999: 240) says “**hysteresis is reversible: a demand expansion can reduce the NAIRU**” because “they ... [employers] ... would **rather pay the training costs than leave the jobs vacant**” (Ball, 1999: 230).
- A similar observation underpins the hysteresis models in Mitchell (1987, 1993). In a high pressure economy, firms lower hiring standards and address the skill deficiencies of the long-term unemployment by offering on-the-job training. However, it is not commonly accepted that long-term unemployment is amenable to cyclical factors. Indeed, the whole thrust of **active labour market policy is predicated on the belief that the long-term unemployed represent a structural bottleneck that can only be addressed by supply initiatives like training and welfare reform** (OECD, 1994, 2001).
- Layard (1998: 27) argues that “in the very bad old days, people thought that unemployment could be permanently reduced by stimulating aggregate demand ... This belief has died everywhere ... these ideas did not address the fundamental problem: **to ensure that inflationary pressures do not develop while there are still massive pockets of unemployed people** ... The only way to address this problem is to make all the unemployed attractive to employers ... Nothing else will do the trick.”

“A PUZZLE”: WHERE IS DEFLATION?

PC: Blanchard, Cerutti, Summers (2015)

- We explore **two empirical issues** triggered by the **Great Financial Crisis**. **First**, in most advanced countries, **output remains far below the pre-recession trend**, leading researchers to revisit the issue of **hysteresis**, and, more generally, the effect of recessions on output. **Second**, while **inflation has decreased, it has decreased less than was anticipated** (an outcome referred to as the “missing disinflation”), leading researchers to revisit the relation between inflation and activity.
- Clearly, if confirmed, either the presence of hysteresis or the deterioration of the relation between inflation and activity would have **major implications for monetary policy** and for **stabilisation policy more generally**:
 - In the **first case**, it would imply that the **cost of output shortfalls is much higher than typically assumed**.
 - In the **second case**, the **lack of a reliable relation between inflation and activity**, be it **output or unemployment gaps**, would require a major **rethinking of the inflation targeting architecture**.
- With these motivations in mind, we have a broad look at the evidence. First, **we revisit the hysteresis hypothesis**, defined as the hypothesis that recessions may have permanent effects on the level of output relative to trend. Second, **we revisit the evidence on the strength of the relation between the unemployment gap and inflation**, the Phillips curve.
- We do this by looking at output, unemployment and inflation over the course of roughly 50 years for 23 advanced economies and draw the conclusions set out below.

PC: Blanchard, Cerutti, Summers (2015)

- We find that a **high proportion of recessions**, about **two-thirds**, are **followed by lower output relative to the pre-recession trend even after the economy has recovered**. Perhaps more surprisingly, in about one-half of those cases, the recession is followed **not just by lower output, but by lower output growth relative to the pre-recession output trend**. That is, as time passes following recessions, the gap between output and projected output on the basis of the pre-recession trend increases.
- If these correlations are causal, they suggest important hysteresis effects and **even “superhysteresis” effects** (the term used by Laurence Ball (2014) for the **impact of a recession on the growth rate rather than just the level of output**). Correlation however does not imply causality. The causality may indeed run from the recession to lower output later, and hysteresis or super-hysteresis may be at work. However, the correlation may instead reflect **common third factors**. Supply shocks, such as an increase in **oil prices**, or a **financial crisis**, may be behind both the initial recession and lower output later. Alternatively, the correlation may reflect reverse causality: the **anticipation of lower output or lower growth in the future may lead to a decrease in consumption and investment spending**, and, as a result, to a recession today.
- This leads us to look at **recessions associated with different shocks**.:
 - We find that, indeed, **recessions associated with either oil price increases or with financial crises are more likely to be followed by lower output later**.
 - But we find that recessions plausibly **triggered by demand shocks are also often followed by lower output or even lower output growth**.
 - Even in the case of recessions associated with **intentional disinflations**, which probably represent the purest case of demand shocks we can identify in the sample, we find that still nearly two-thirds are associated with lower output later and that a significant fraction of those are associated with lower output growth.

PC: Blanchard, Cerutti, Summers (2015)

- We draw two tentative conclusions. It is likely that, in many cases, the correlation between recessions and subsequent poor economic performance reflects reverse causality: the realization that growth prospects are lower than was previously assumed naturally leads to both a recession and subsequent poor performance. But the finding that recessions plausibly triggered by intentional disinflations are also often followed later by lower output, or even, in some cases, lower output growth, suggests that hysteresis, and perhaps even super-hysteresis may indeed also be at work. Both conclusions have radically different, but important, implications for monetary policy, to which we shall come back below.
- Turning to the **Phillips curve relation**, we start by estimating, for each country, a relation between inflation, expected and lagged inflation, and a measure of the unemployment gap. The specification allows for both the **natural rate and the coefficients to evolve over time**. We confirm that the **coefficient on long-term expected inflation** (as opposed to the coefficient on lagged inflation) has **steadily increased over time**. This explains in large part **why we have not observed a deflation spiral**, despite the presence of sustained large unemployment gaps.
- But we also find clear evidence that the **effect of the unemployment gap on inflation has substantially decreased since the 1970s**. Most of the decrease, however, took place before the early 1990s. Since then, the coefficient appears to have been stable, and, in most cases, significant; indeed it does not appear to have decreased during the crisis.
- Finally, in the last section, we explore the implications of our findings for monetary policy. The findings of the first section have opposite implications for monetary policy depending on their interpretation. To the extent that recessions are due to the perception or anticipation of lower underlying growth, this implies that **estimates of potential output, based on the assumption of an unchanged underlying trend, may be too optimistic**, and lead to too strong a policy response to movements in output.

PC: Blanchard, Cerutti, Summers (2015)

- However, to the extent that recessions have **hysteresis** or super-hysteresis effects, then the **cost of allowing downward movements in output in response to shifts in demand increases implies that a stronger response to output gaps is desirable.**
- The findings of the second section yield less dramatic conclusions. To the extent that the coefficient on the unemployment gap, while small, remains significant, the implication is that, within an inflation targeting framework, the **interest rate rule should put more weight on the output gap relative to inflation.**
- A more general conclusion is that this small coefficient reinforces the **case for a dual mandate: stabilizing inflation may require very large changes in the unemployment gap, and lead to large welfare losses.**

"A PUZZLE": WHERE IS INFLATION?

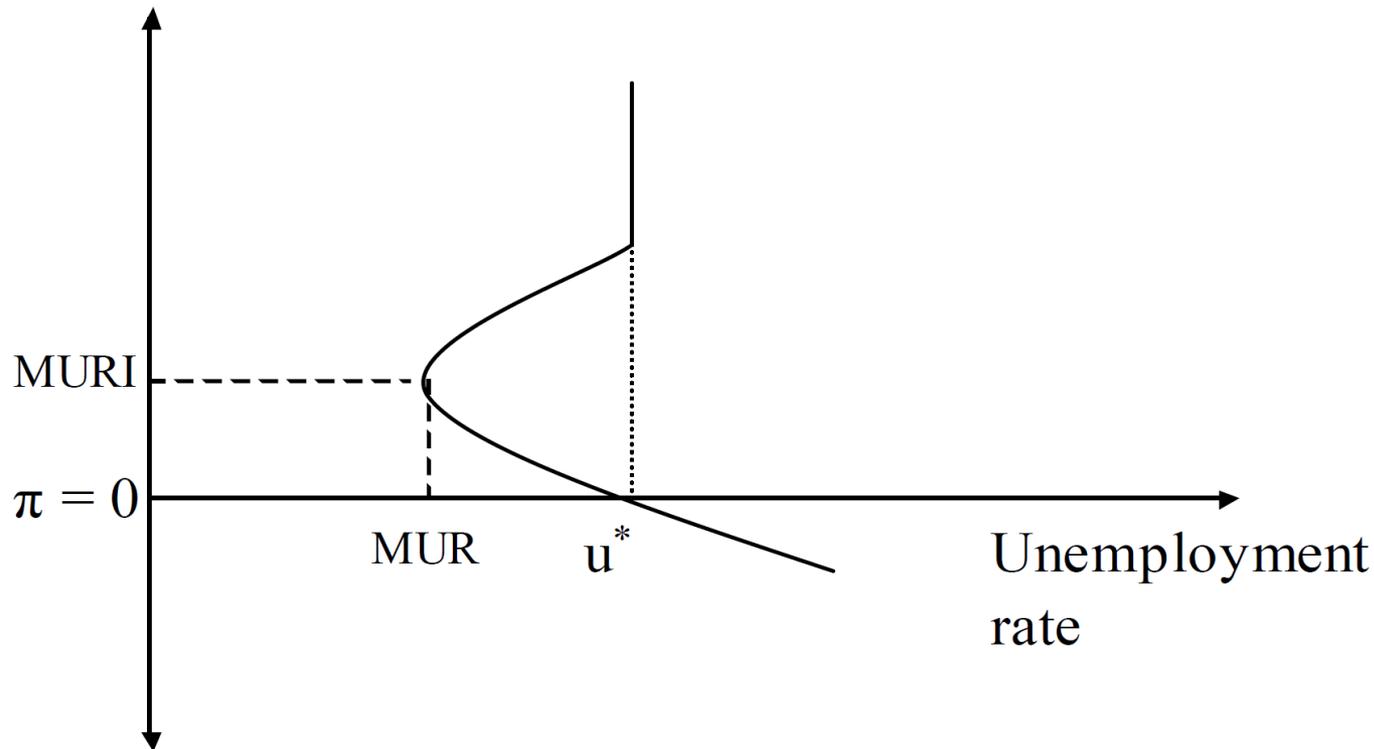
Tobin's PC: incorporation of expectations

- <http://www.econ.jku.at/members/Department/files/ResearchSeminar/WS09/Palley.pdf>
- The clue to solving the **puzzle why empirical estimates of the Phillips curve show less than full incorporation of inflation expectations** was suggested by **Tobin** who argued the Phillips curve is the product of a **multi-sector phenomenon**.
- For Tobin, the **Phillips curve is a disequilibrium phenomenon**, the product of the combination of **downward nominal wage rigidity plus persistent recurring disequilibria at the sector level**. Disequilibria are always arising at the sector level and **some sectors have unemployment because of downward nominal wage rigidity**. Greater aggregate **demand pressure reduces unemployment by reducing the proportion of sectors with unemployment**, but it raises **inflation in sectors at full employment**.
- Labor exchange is characterized by **conflict and moral hazard**, which causes **workers to resist wage reductions imposed from within the employment relationship** for fear that firms are trying to **cheat them**. However, **workers are willing to accept some real wage reduction imposed from outside the employment relationship via adjustment of the general price level** since this is beyond the control of individual firms.
- Palley (1994, 1997) provides a formal multi-sector model that incorporates such wage setting behavior, and the result is an economy with a **negatively sloped long-run Phillips curve in which there is a permanent trade-off between inflation and unemployment**. Where the economy settles on that Phillips curve is determined by the rate of aggregate nominal demand growth that determines the equilibrium rate of inflation.

Tobin's PC: incorporation of expectations

$$dW_i = \begin{cases} f(U_i - U^*) + \lambda \pi^e, & U_i > U^*, 0 < \lambda < 1 \\ f(U_i - U^*) + \pi^e, & U_i < U^* \end{cases}$$

Inflation (%)



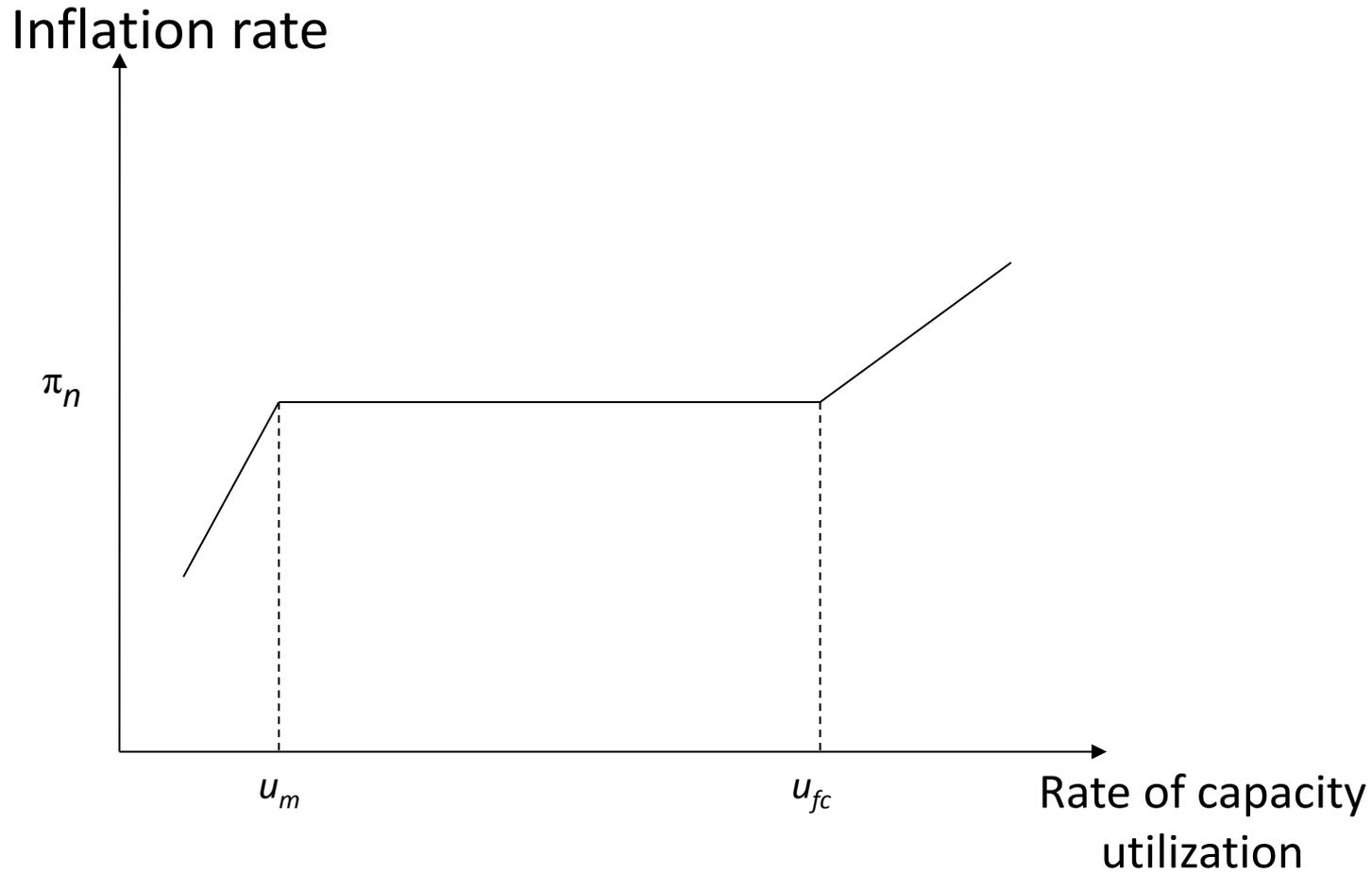
Tobin's PC: incorporation of expectations

- <...> workers in sectors with unemployment are **resistant to excessively fast reductions in the general purchasing power of their wages**. They therefore **respond to increased inflation by increasing the extent of incorporation of inflation expectations**. Such a mechanism was suggested by **Rowthorn** (1977), albeit in the context of a single sector economy.
- The economic logic is that **when inflation is low sectors with unemployment do not fully incorporate aggregate inflation in their wage demands**, enabling an increase in real demand that lowers unemployment in those sectors and in aggregate.
- However, **as inflation increases, workers in these sectors start to increasingly resist too rapid real wage erosion**. That **diminishes the beneficial effect of inflation**, causing the Phillips curve to steepen.
- As inflation increases further the Phillips curve **bends back because workers start to ratchet up their incorporation of inflation expectations faster than the increase in inflation**.

New neoliberal labor market set-up

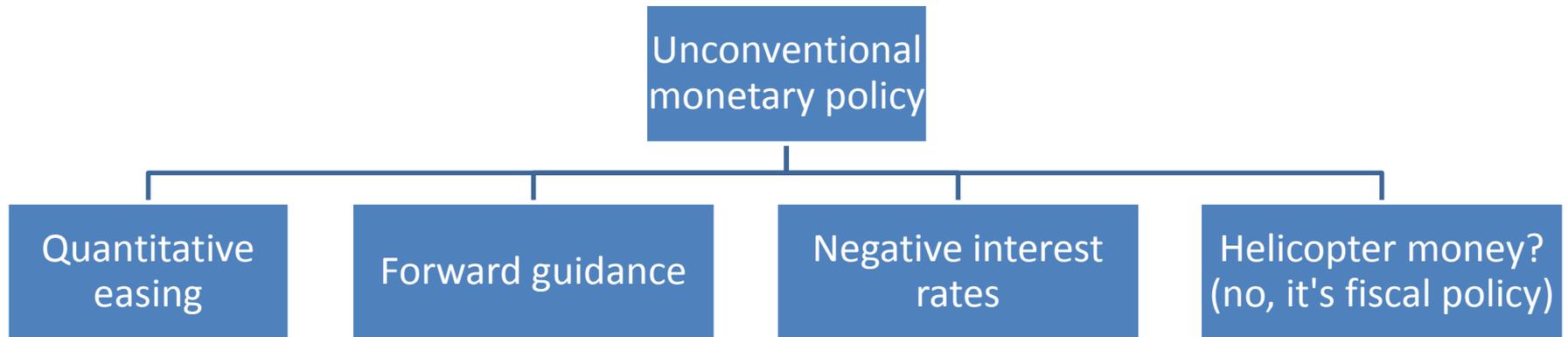
- <http://robertreich.org/post/109894095095>
- How would you like to live in an economy where robots do everything that can be predictably programmed in advance, and almost all profits go to the robots' owners?
- Meanwhile, human beings do the work that's *unpredictable* – odd jobs, on-call projects, fetching and fixing, driving and delivering, tiny tasks needed at any and all hours – and patch together barely enough to live on.
- Brace yourself. This is the economy we're now barreling toward.
- They're [Uber](#) drivers, [Instacart](#) shoppers, and [Airbnb](#) hosts. They include [Taskrabbit](#) jobbers, [Upcounsel](#)'s on-demand attorneys, and [Healthtap](#)'s on-line doctors. They're [Mechanical Turks](#).
- The euphemism is the [“share” economy](#). A more accurate term would be the “share-the-scrap” economy.

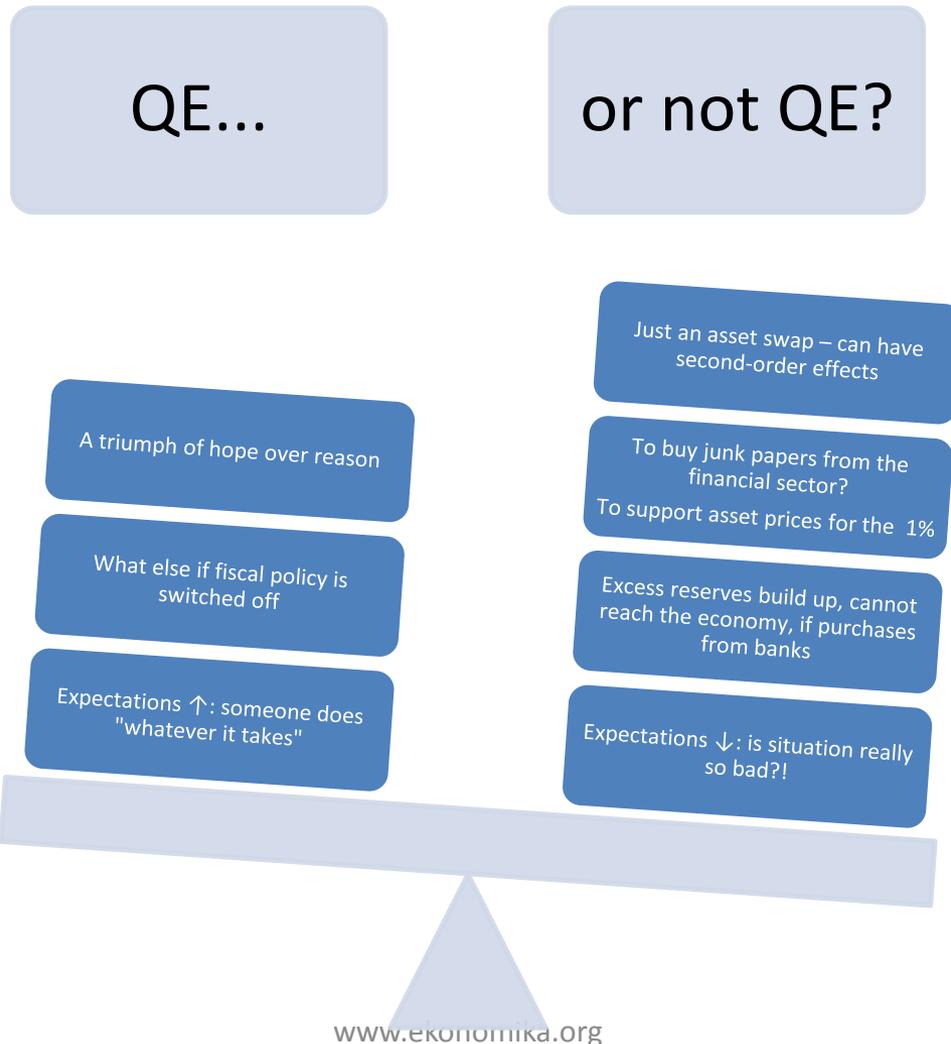
A Post-Keynesian Phillips curve



IX. UNCONVENTIONAL MONETARY POLICY

Unconventional monetary policy





Negative interest rates

NIR...

...or not
NIR?

Lowers financial fragmentation: interbank
loans from core to periphery?

↓ EUR exchange rate?

Temporary measure?

Loanable funds framework: not helpful

A tax on banks: reduces capital, might
restrict lending

↓ banks' margins?; search for yield,
gambling for resurrection?
Pension funds/insurance companies?

May decrease consumption (Germany?)
Legal/IT problems?

Helicopter money

- **It's a fiscal operation!** CBs don't even have households' account numbers to transfer the money...
- ...**unless CBs literally** plan to distribute cash with the help of helicopters 😊
- But some understand it exactly that way:
 - Jen **Weidmann** (BuBa): “Helicopter money isn't manna falling from heaven, but would **rip huge holes in central bank balance sheets**. The euro area states and taxpayers would pay the bill in the end.”

X. INEQUALITY, MONPOL DISTRIBUTIONAL EFFECTS

Incomes policies

- Kuodis (2015), “Policy trade-offs in CESEE and elsewhere”, in *The Challenge of Economic Rebalancing in Europe Perspectives for CESEE Countries* (edited by Ewald Nowotny, Doris Ritzberger-Grünwald and Helene Schuberth), Edward Elgar):
 - In addition, central banks, in their pursuit of consumer price stability, could reconsider the place of the long-forgotten **incomes policy** in the overall policy mix. Since **excessive inflation or deflation is frequently the outcome of the conflict between labor and capital**, it should be dealt with using the **instrument which directly moderates the conflicting claims on income**.
 - This approach would also take some **pressure off the monetary policy or help in the environment of lowflation/deflation**. For example, recently **Bundesbank** welcomed **above-inflation wage increases** in some sectors in Germany, despite the fact that BuBa historically has been a strong advocate of wage restraint.
<http://uk.reuters.com/article/2014/07/30/uk-germany-wages-weidmann-idUKKBN0FZ03U20140730>

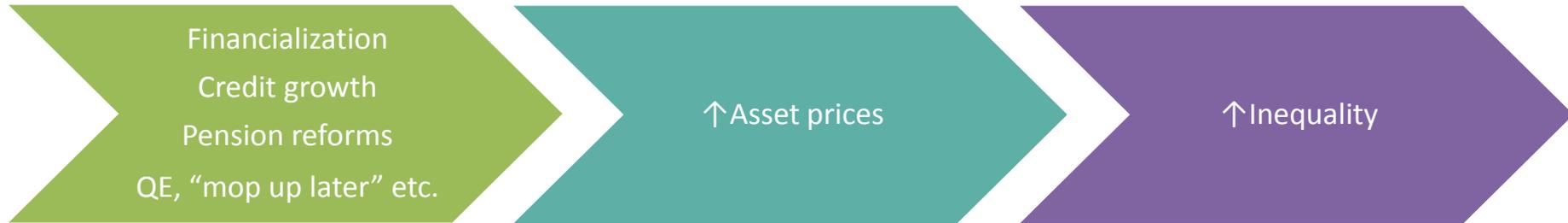
Financialization: debt, inequality

- Kuodis (2015), “Policy trade-offs in CESEE and elsewhere”, in *The Challenge of Economic Rebalancing in Europe Perspectives for CESEE Countries* (edited by Ewald Nowotny, Doris Ritzberger-Grünwald and Helene Schuberth), Edward Elgar):
 - **Real wage stagnation** and **financial industry’s incentives** have led to an **unprecedented increase of private debt** in many developed economies – instead of consuming from earned income, households were allowed, as Raghuram Rajan put it, **“to eat credit”**, and **banks gladly filled that structural demand gap**, with the gains from that process going mostly to the so-called **“1%”**, which includes most of the **financiers**.
 - Paraphrasing Robert E. Lucas, who said about the U.S. fiscal stimulus that [quote] “there's nothing to apply a multiplier to” [end of quote], **most of poor people do not have savings “to apply a compound interest rate to”** – indeed, relatively **high real interest rates in the past have been one of the channels of growing income disparities**.
 - In the context of growing inequality, the **unfortunate representative-agent setup**, used by many central banks, has allowed them to disregard an **important socio-economic cost that higher real interest rates bring upon the societies, if the monetary policy alone is used to deal with the excesses of the financial cycle**.
- **Major CBs turned a blind eye to the explosion of private debt, which was engineered by private banks** (mostly via real estate lending)

Towards the macro theory of asset prices

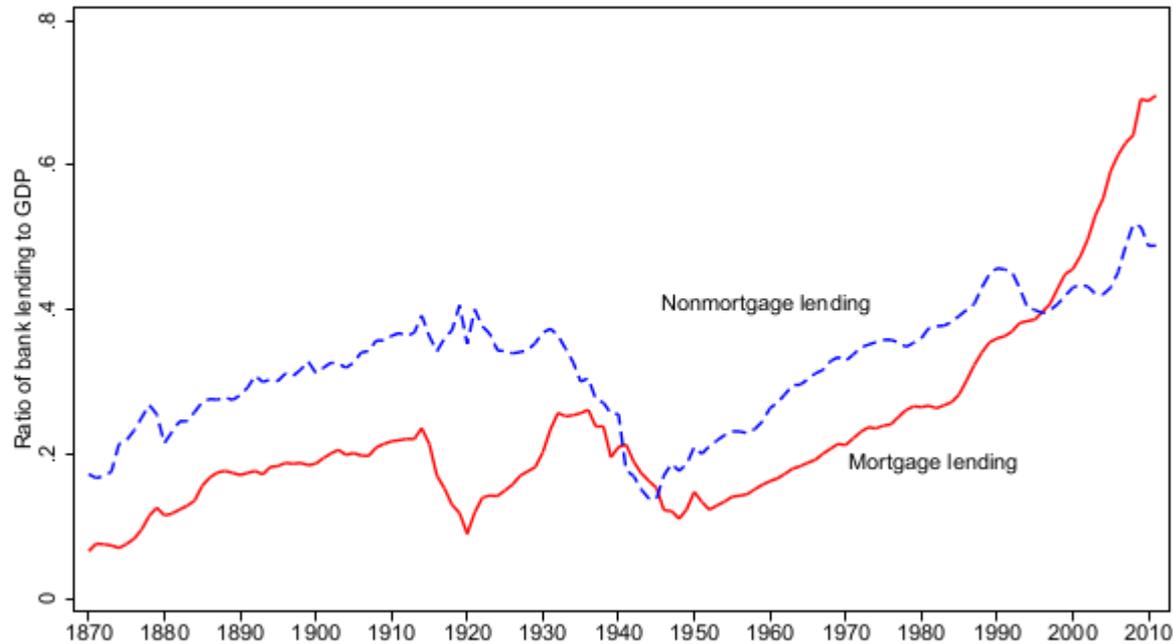
- Larry Summers on finance theorists: they are **“ketchup economists”**, who demonstrated **market efficiency by showing that two-quart bottles of ketchup always sell for twice the price of one-quart bottles.**
- But whether the **overall level** of, say, **equity/house prices makes sense?** Neoclassical finance theorists seem to have **no idea or dismiss the whole concept of bubbles** (Eugene Fama)...
- T. Piketty **didn't get to the core of the problem** (but sincere thanks for the data)
- **Unorthodox** economists showed that the overall level depends on:
 - **credit growth** (especially **accelerations** of credit growth)
 - **QE** and other **policies to put a floor to asset prices (Greenspan: “mop up later”)**
 - the pace of **“pension reforms”**, which increase the **flow of funds to equity markets** (see Toporowski (1999), *The End of Finance: Capital Market Inflation, Financial Derivatives and Pension Fund Capitalism*, Routledge)
 - **aging**, which makes “pension reforms” (in aggregate) just a **source of rents to financiers** (John Eatwell etc.), because they cannot solve the “aging problem”

Towards the macro theory of asset prices

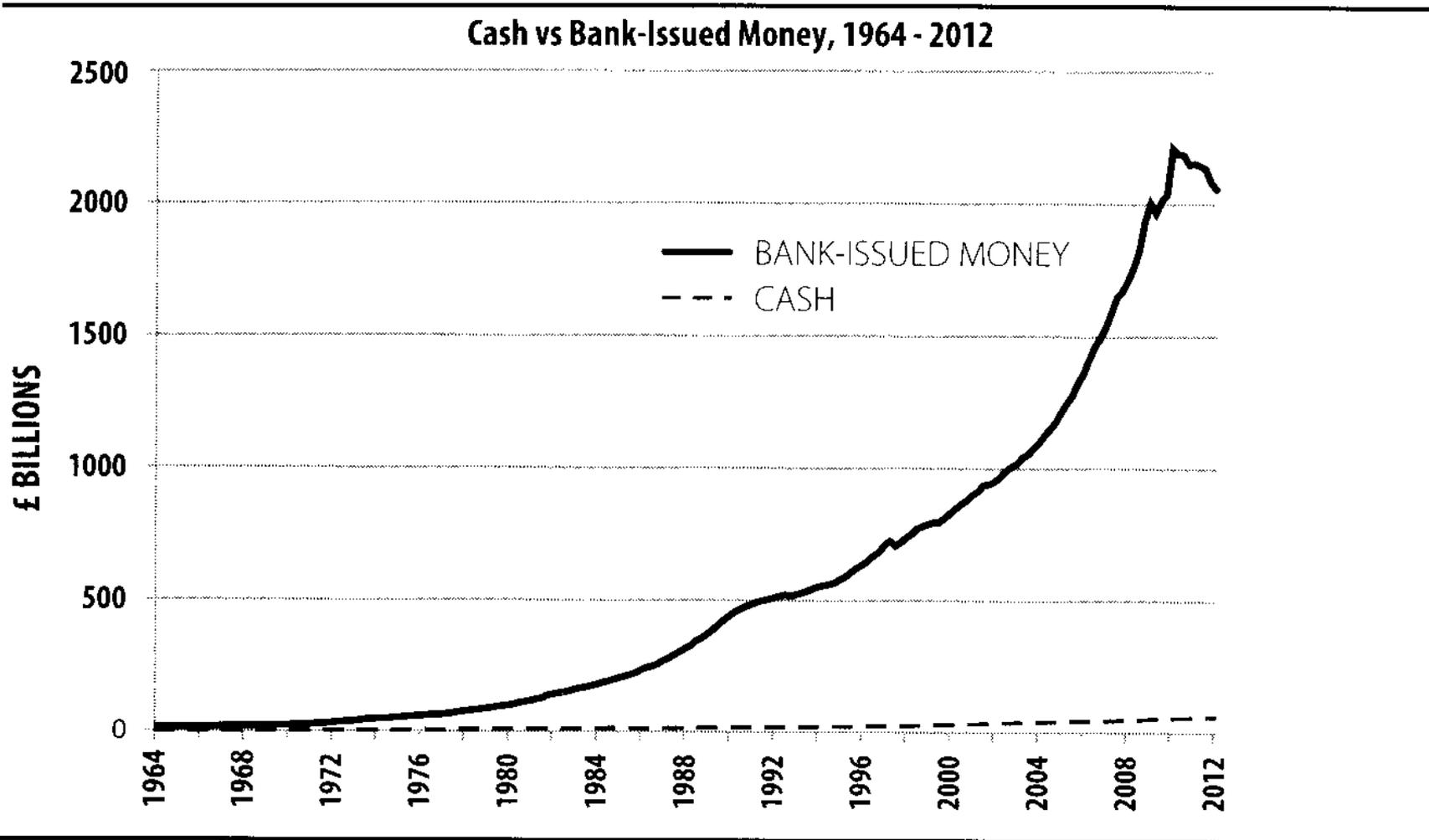


The great mortgaging

- <http://voxeu.org/article/great-mortgaging>

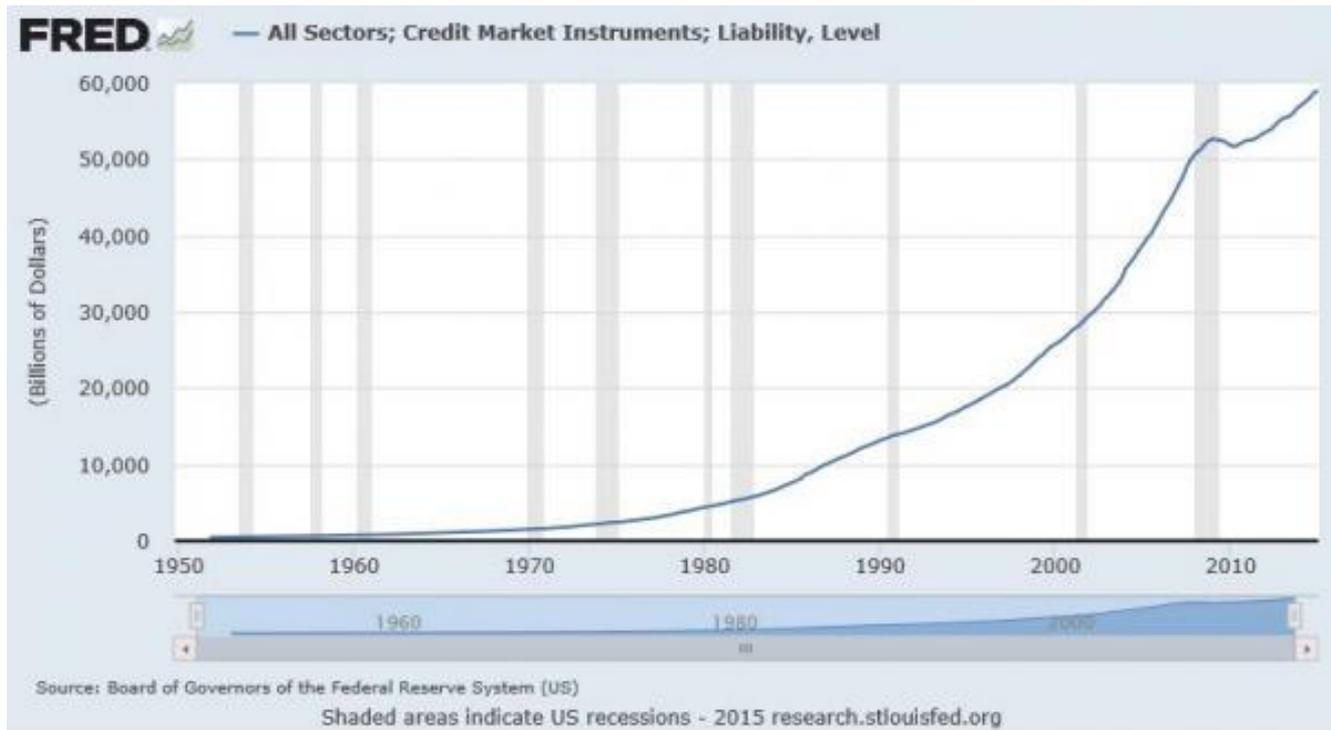


Private money creation (UK)



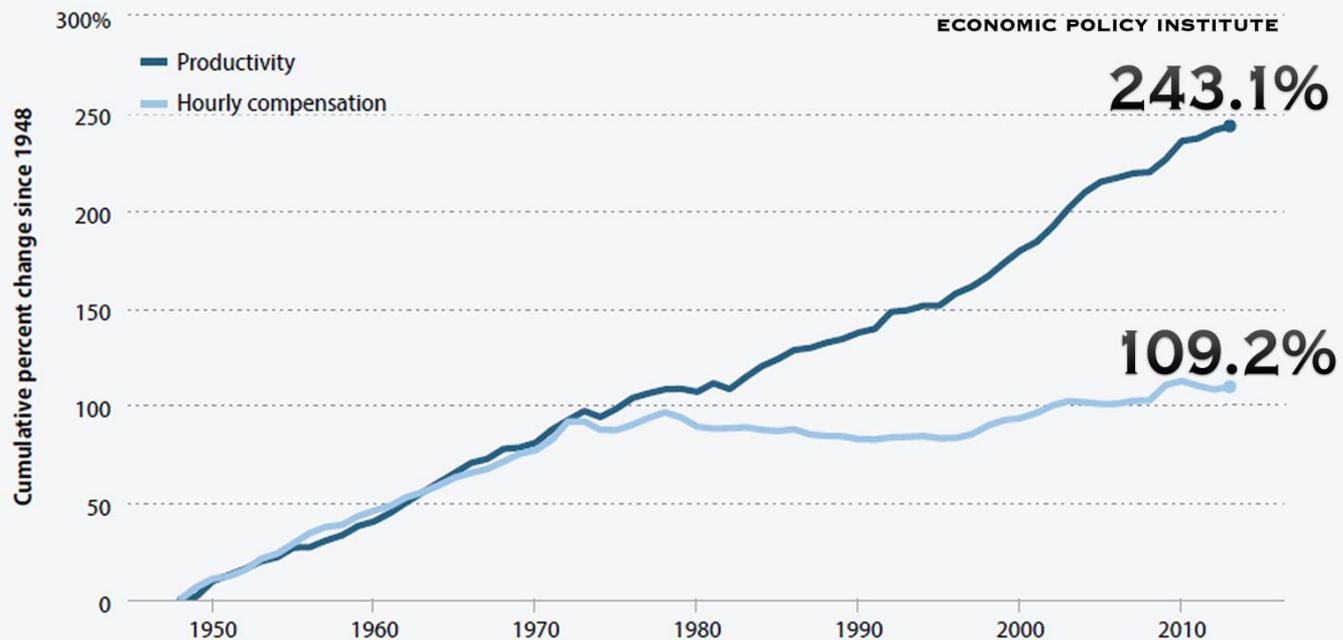
Source: Josh Ryan-Collins, Tony Greenham, Richard Werner (2014)

Exploding debt (USA)

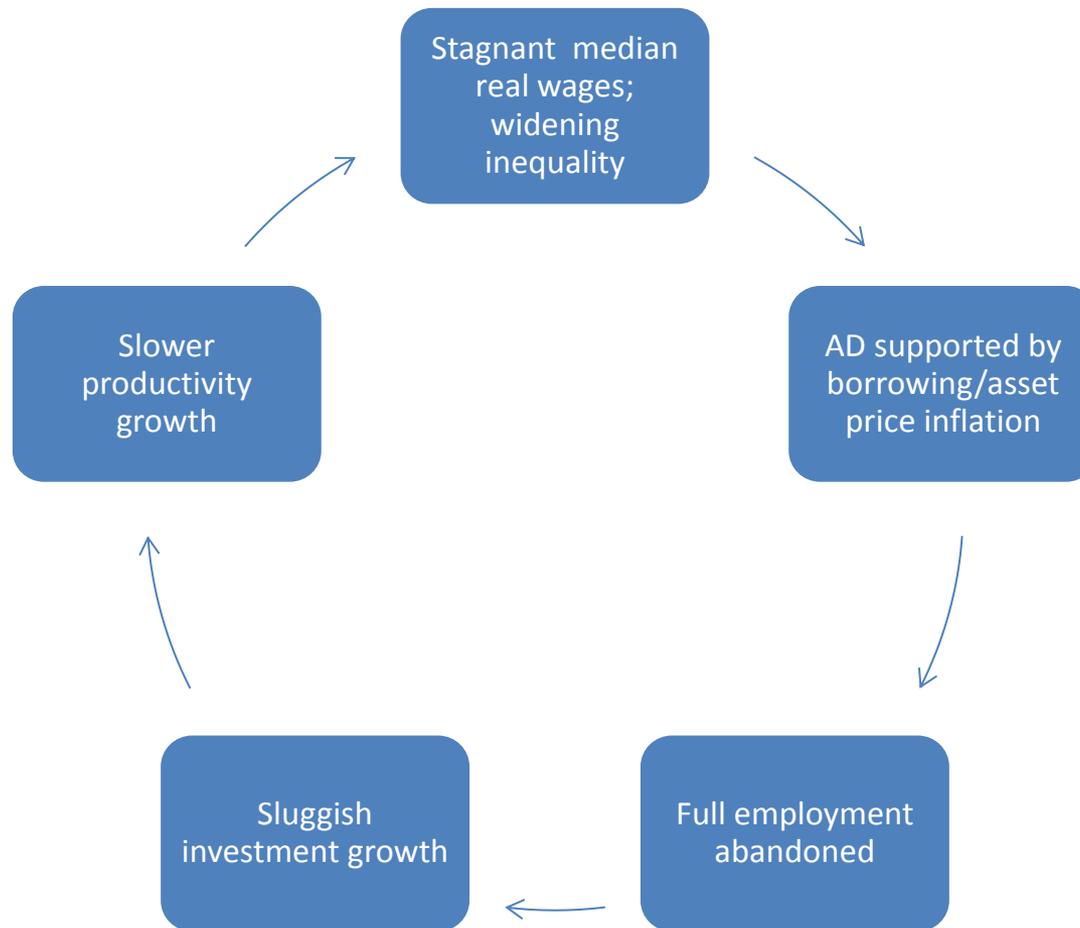


Financialization: productivity/wages gap

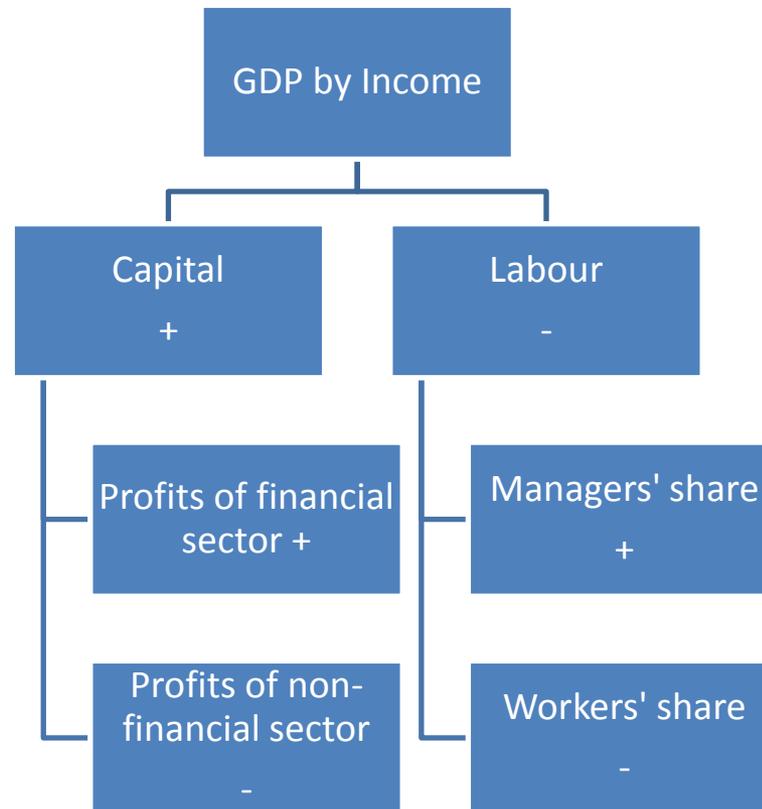
Disconnect between productivity and typical worker compensation,* 1948–2013



The new, unsustainable cycle



Financialization: redistribution of income



Source: Palley, T. (2013), *Financialization*, Palgrave.

Distributional effects of monetary policy

- Kuodis (2015), “Policy trade-offs in CESEE and elsewhere”, in *The Challenge of Economic Rebalancing in Europe Perspectives for CESEE Countries* (edited by Ewald Nowotny, Doris Ritzberger-Grünwald and Helene Schuberth), Edward Elgar):
 - Let me now turn to the issue, which, regrettably, has received relatively little attention in the mainstream economic theory – the **distributional effects of monetary policy**. This topic is clearly related to the **policies’-burden-sharing problem** discussed above.
 - The argument that the **official interest rate should be downgraded as the main tool** for dealing with the financial cycle can also be supported by the distributional dimension, which has finally got the deserved public attention with the publication of Thomas Piketty’s *Capital in the Twenty-First Century*.

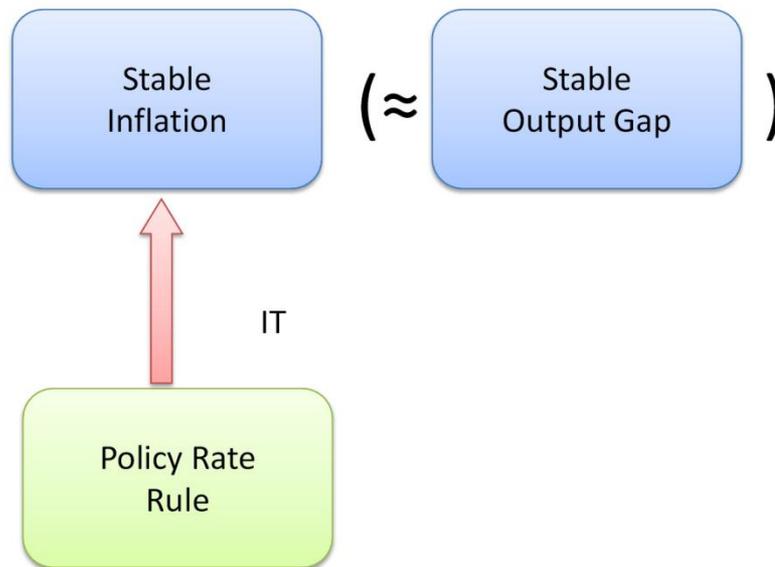
Fair interest rate

- Kuodis (2014): **What level of real interest rates is fair?** Post Keynesians argue, that slightly above 0%, mainly because **“profit, not interest, is the reward for enterprise”**. John Smithin ("The theory of interest rates", an entry by John Smithin, in Philip Arestis, Malcolm Sawyer (eds.) (2006), *A Handbook of Alternative Monetary Economics*, Edward Elgar):
 - the **real value of existing sums of money**, representing past effort in the form of work and enterprise, would be preserved, but there would be **no increase in their value arising from the mere possession of money**. Further accumulation would only be possible **by contributing further work or enterprise, or assuming further risk**. This state of affairs **would not, however, really constitute the ‘euthanasia of the rentier’** (Keynes, 1936), as it is **not the nominal interest rate that is set at zero but the real** rate. Accumulated financial capital at least retains its original real value.
- **Real interest rate is mostly a distributional parameter!!!**

XI. TOWARDS A NEW POLICY MIX

Blanchard, Olivier (2011), “Monetary Policy in the Wake of the Crisis”

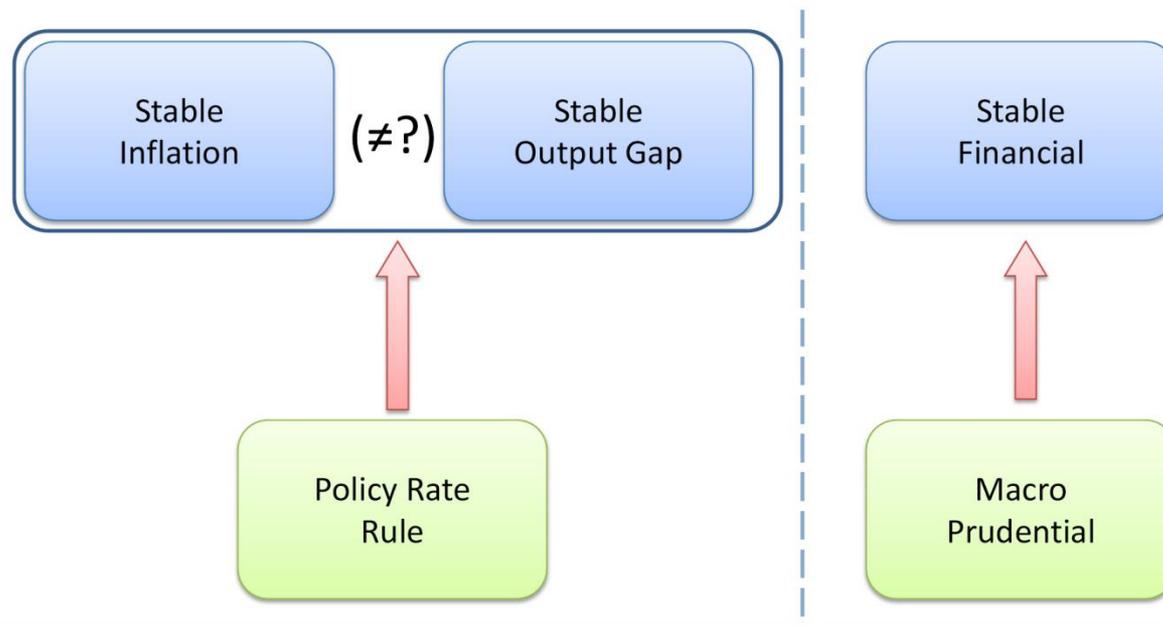
Pre-Crisis Orthodoxy: Inflation Targeting (IT)



- One target, one instrument
- Divine coincidence, or close enough. Flexible inflation targeting.

Blanchard, Olivier (2011), “Monetary Policy in the Wake of the Crisis”

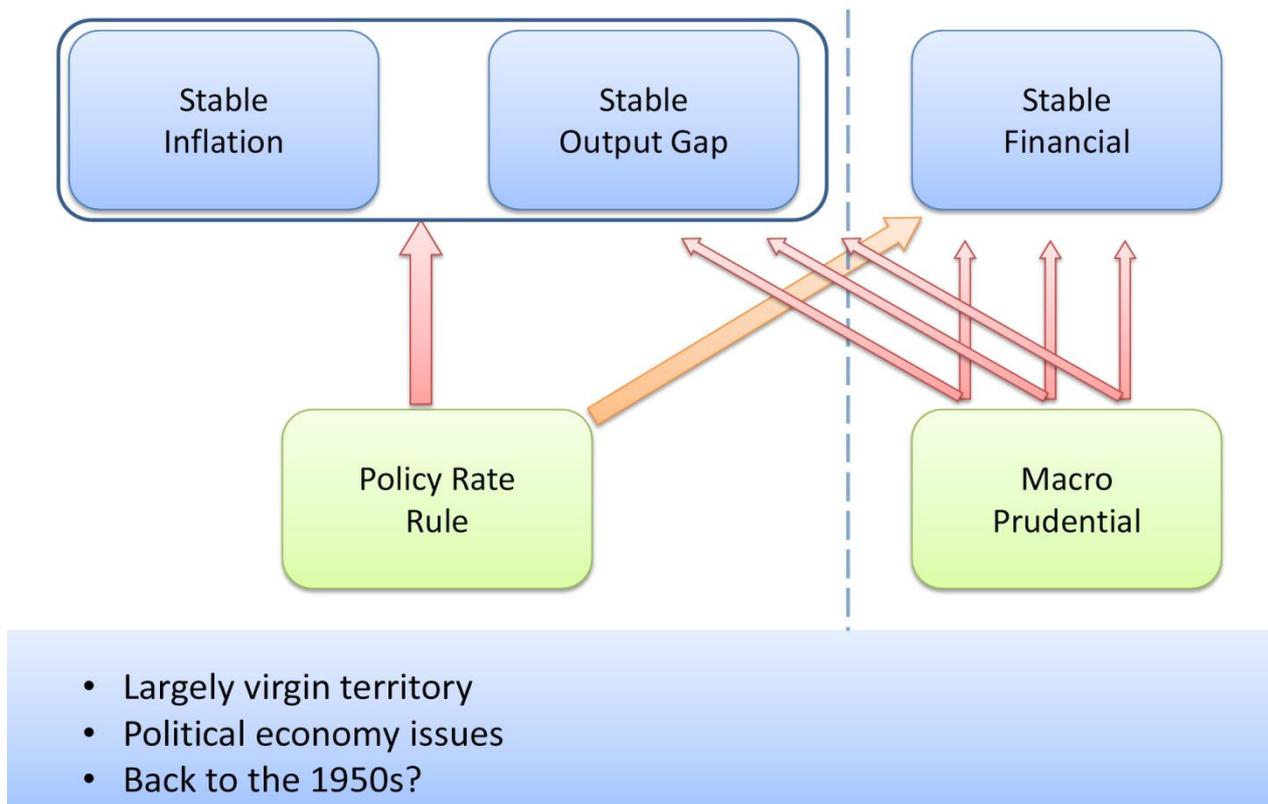
Post-Crisis: This Way ?



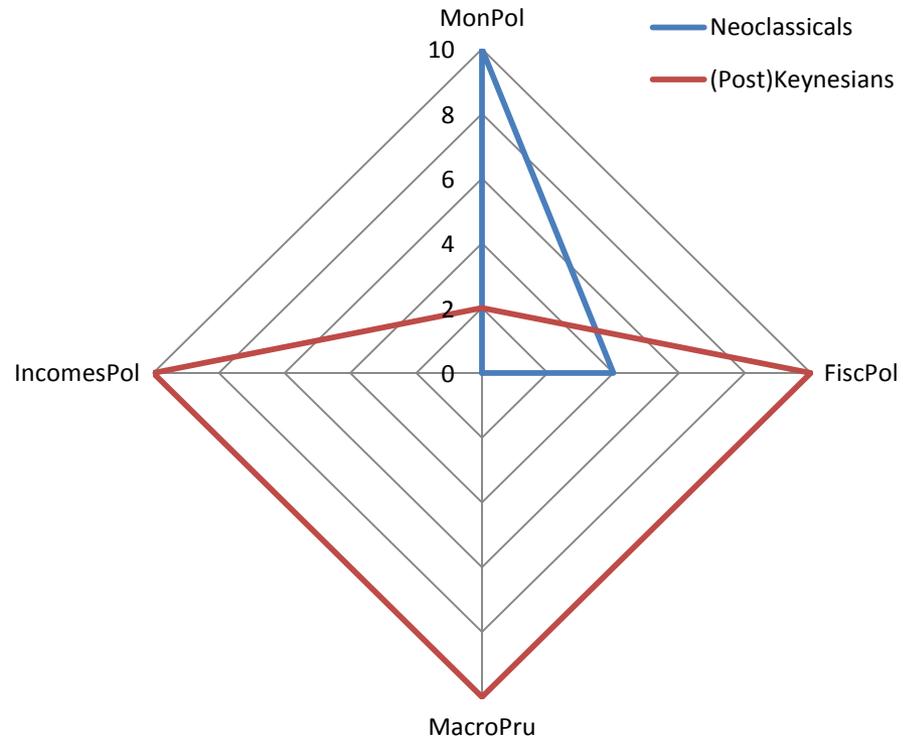
- Divine coincidence? Poor relation inflation output gap
- Two targets. Macroeconomic as well as financial stability

Blanchard, Olivier (2011), “Monetary Policy in the Wake of the Crisis”

Or That Way?



Policy mix: past and future?



XII. ADDITIONAL ISSUES

More...

- **Microfoundations delusion**
 - John **King** (2012): *The Micro-Foundations Delusion: Metaphor and Dogma in the History of Macroeconomics*, EE
- **The use of “aggregate production function”**
 - see **Felipe/McCombie** (2014), *The Aggregate Production Function and the Measurement of Technical Change: ‘Not Even Wrong’*, Edgar Elgar.
 - see **Cambridge capital controversies**
https://en.wikipedia.org/wiki/Cambridge_capital_controversy
 - TFP changes usually reflects demand shocks, not supply shocks
- **Marginal product view of income distribution**
 - see **Kalecki profit equation**
 - see **Goodwin model** [https://en.wikipedia.org/wiki/Goodwin_model_\(economics\)](https://en.wikipedia.org/wiki/Goodwin_model_(economics))
- **Solow-Swan growth model**
 - I creates S, not vice versa in monetary economies
 - see Setterfield, M. (ed.) (2010), *Handbook of Alternative Theories of Economic Growth*, EE.
- **Demand and productivity, wage-led growth**
 - see http://www.ekonomika.org/Econlib/rk_wages_2015.pdf

More...

- Full employment abandoned, “structural reforms”, employability, JG (job guarantee) etc.
 - William Mitchell and Joan Muysken (2008), *Full Employment Abandoned: Shifting Sands and Policy Failures*, Edward Elgar.
 - **Financialization**
 - Palley, I. Thomas (2013), *Financialization: the Economics of Finance Capital Domination*, Palgrave;
 - Epstein, Gerald A. (2006), *Financialization and the World Economy*, Edward Elgar;
 - Hein, Eckhard (2013), *The Macroeconomics of Finance-Dominated Capitalism - and Its Crisis*, Edward Elgar.