Remarks on Policy Priorities and Prospects for the EU

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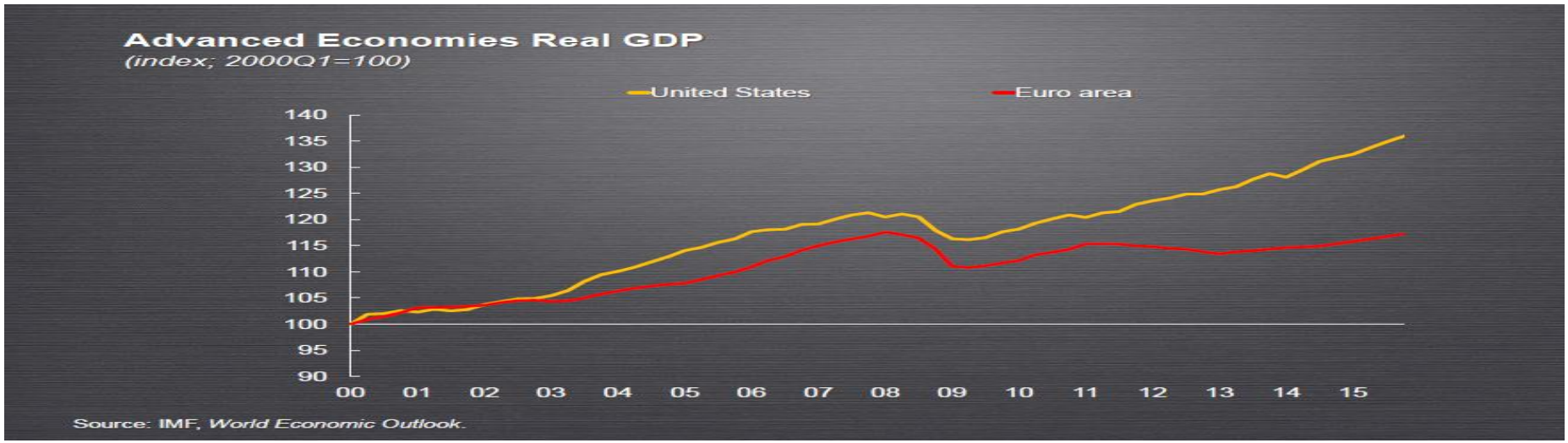
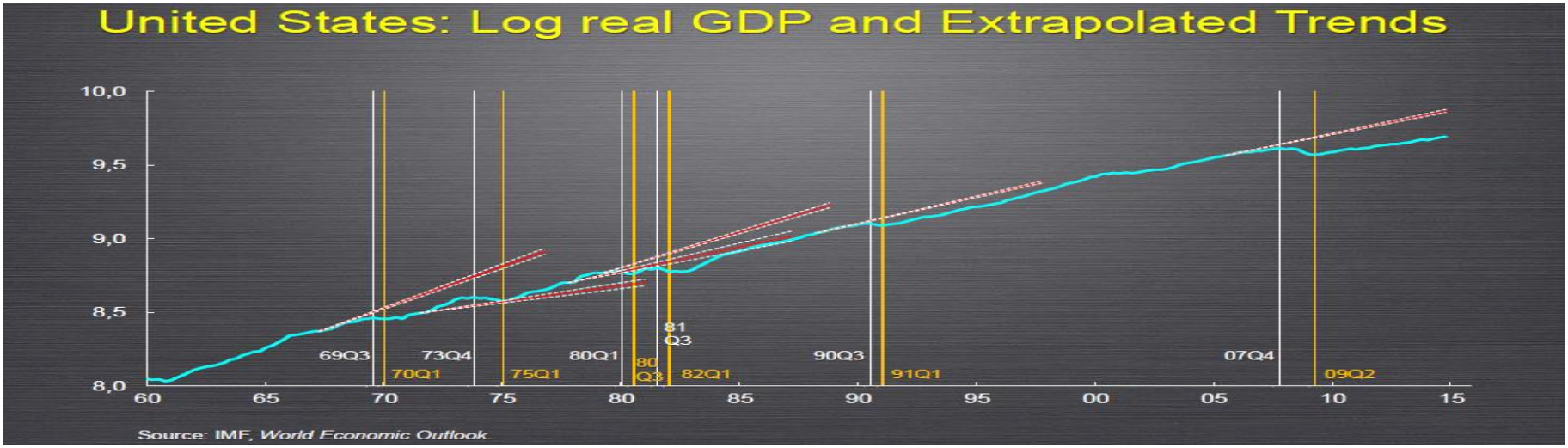
- J. Stiglitz: Institutional failures of the Euro… useful analysis about the perils, but there might be deeper reasons for current stagnation and low growth rates (but there are also important achievements as well)
- Discuss some more fundamental perils, as emerging from recent literature, in particular debt deflation interacting with financial market stress
- In this context I want to indicate policy priorities and prospects

Fundamental perils…

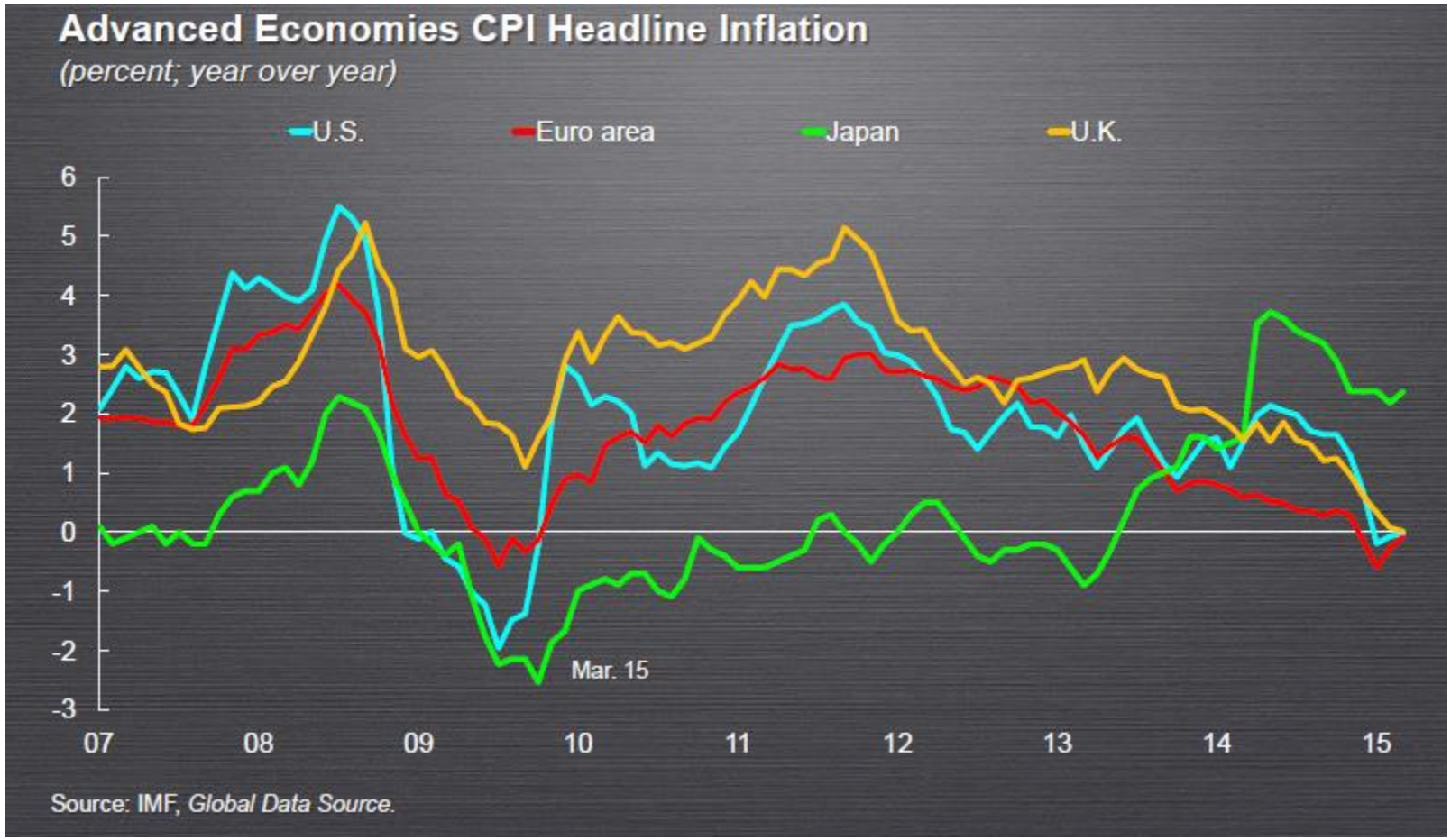
=> Output after great recession





Fundamental perils…

=> Inflation after great recession?



Fundamental perils…Alternative explanations

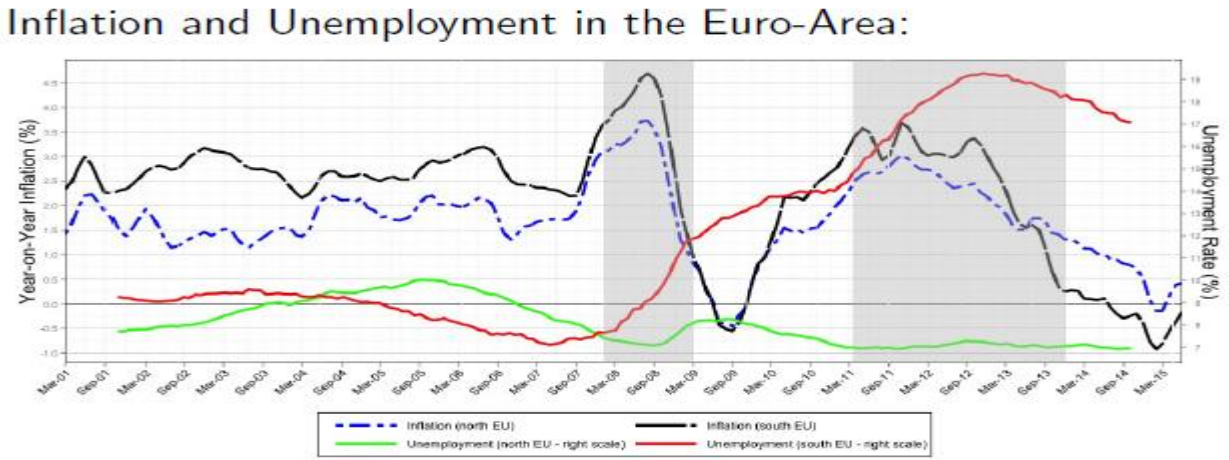
⟹ **Alternative theories/models on EU perils and head winds:**

- **Overlapping generations** model of overaged population, less saving, less investment (Eggertsson et al 2014, Eggertsson/Krugman 2012, Greenspan), but very slow process
- **Secular stagnation** due to **over savings**, lack of investment (Hansen 1930s, Summers, 2013, 2015), zero or below zero natural rate
- **Hysterisis**, potential output decline (Blanchard/Cerutti/Summers 2015): many recessions followed by lower output, lower growth rates=>hysterisis: through changes in behavior, skills, less reallocation, less R&D investment
- Chronic **lack of demand**, greater financial fragility with low growth, lack of investment, lack of R&D and innovations, lack of productivity increase => lower investment because lower returns from investment, and natural rate of return is declining
- On **Productivity decline** since roughly 2000, see Roventini/ Semmler 2016). This hold for direct and total factor productivity, Fernand eta al. (2015): seems to the results of lack of investment, lack of R&D spending, lack of demand, lack of new innovations? (Gordon 2015:supply side view)
- Given the still large output gap, one can observe a **convex Phillips** curve, Gross et al (2016)

Fundamental perils…….My favorite explanation:

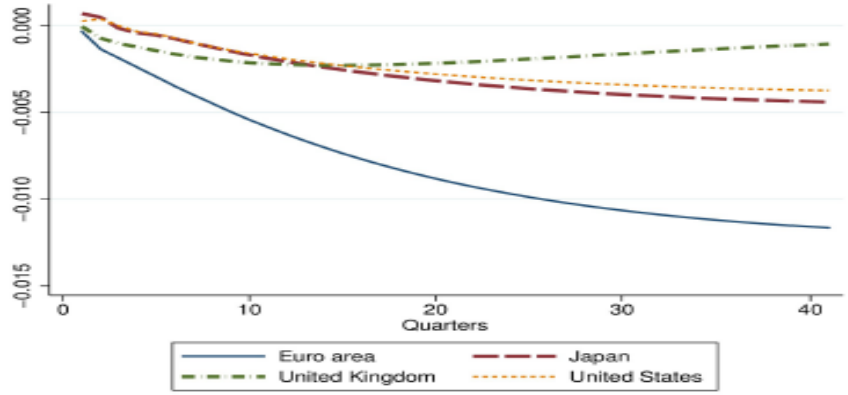
Debt deflation coupled with rise of financial stress

EU experience: Disinflation/deflation



Evidence from large GVAR: EU vulnerable to debt deflation

- large scale econometric model with cross-countries interdependencies,
- broad set of economic variables (inflation rates, output, equity, short and long rates),
- stronger deflationary trends in Euro-Area compared with US, UK, and Japan.



Fundamental perils….

Literature on debt deflation coupled with rise of financial stress

Fisher debt deflation:

EU: Debt deflation/secular stagnation? Eggertsson and Krugman 2012 (Fisher-Minsky-Koo theory):

- Minsky moment: fall in asset prices, borrowing constraints, deleveraging
- Minsky: financial instability

Low growth rates, non-performing loans; financial market stress

Financial-real feedback mechanisms:

- Tobin: falling expected prices decrease demand,
- Fisher: deflation, real debt rise
- Kindleberger: Instability of credit

Fundamental perils….

Debt deflation; not as serious as in 1930s;

Great Depression and Great Recession

	The Great Depression 1929-33	The Great Recession 2011-12
Debt-to-Income Ratio	$\sim 300\%$	Germany: 188%, Italy: 259%, France: 280%, Spain: 313%
Change in Price Level	-22% (Non-Agriculture Economy)	Euro-Area: 2009 : -0.5%,
Change in Output	-30% (Non-Agriculture Economy)	Euro-Area: 2009 : -4.6%,

Fundamental perils…

=> Role of financial market stress, FCI (and low growth rates)

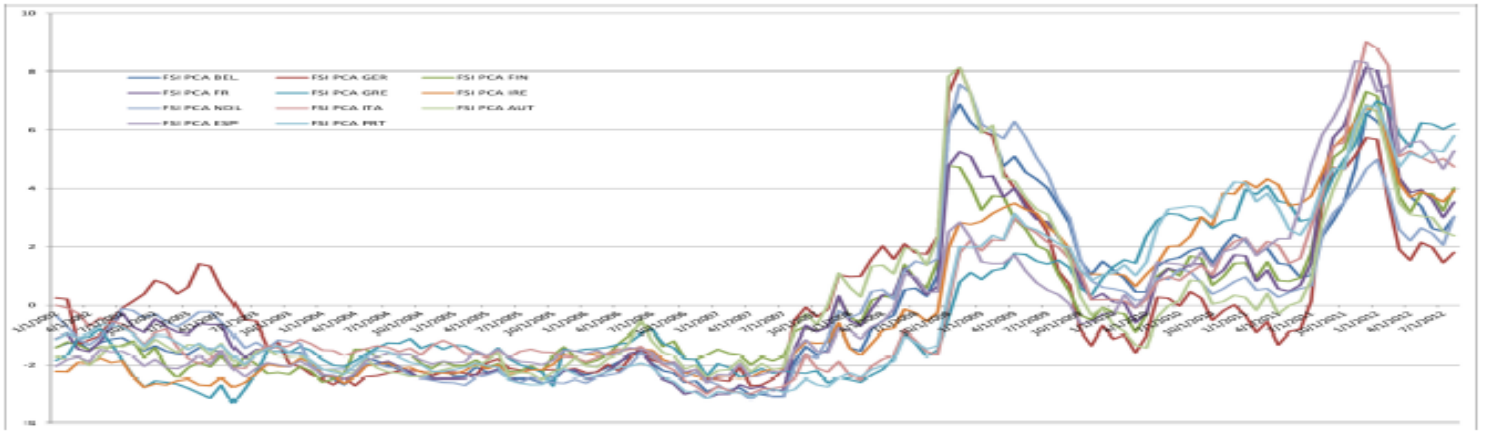


Figure: ZEW Financial Condition Index. FCI: Schleer/Semmler. JME.

=> Role of banking overleveraging

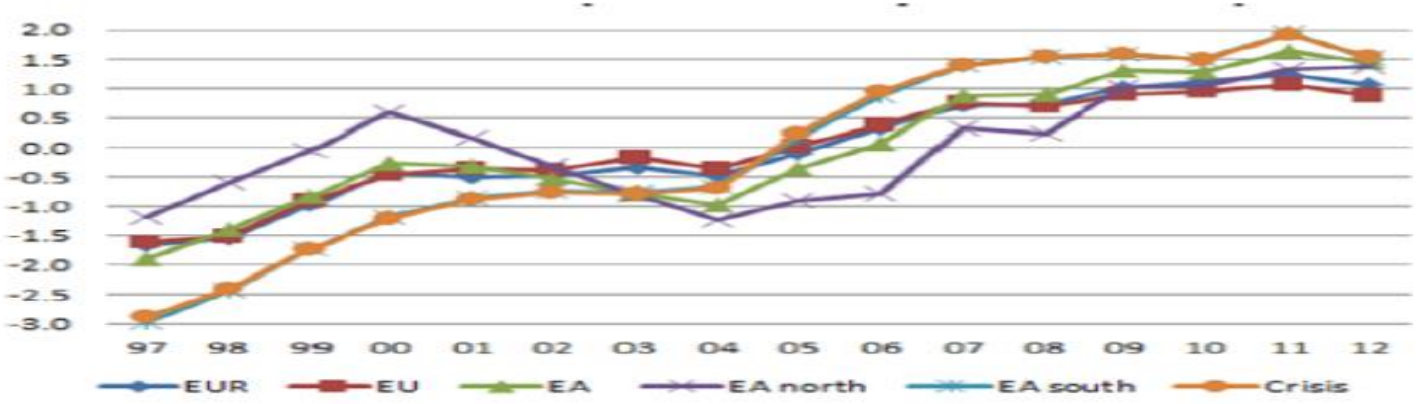


Figure: Actual-sustainable debt, Schleer et al. (2014), Henry et al.

Fundamental perils…… Large Scale Model

A Model (Ernst/Semmler/Haider, 2016)

Core model: Five dynamic state equations

$$\dot{N}_t = m^L\left(s_t \cdot \mathcal{U}_t, \mathcal{V}_t\right) - \sigma_t N_t \tag{1}$$

$$\dot{K}_t = m^B\left(\mathcal{I}_t/P_t, \mathcal{B}_t/P_t\right) - \delta K_t \tag{2}$$

$$\dot{d}_t = rd_t - \frac{1}{P_t}\left(\upsilon[P_t Y_t\left(K_t, AN_t\right) - P_t C_t - P_t I_t - \Phi\left(s_t\right)\left(1 - N_t\right) - \zeta \cdot \mathcal{V}_t - \varphi(g_t K_t)]\right) - \pi_t d_t \tag{3}$$

$$\dot{\pi}_t = \beta\left(\frac{Y_t}{Y^*} - 1\right) + \eta^c{}_t \tag{4}$$

$$\dot{P}_t = \pi_t \tag{5}$$

Model with endogenous financial stress and credit spreads

$$\dot{N}_t = m^L(sU_t, \mathcal{V}_t) - \sigma N_t \tag{6}$$

$$\dot{K}_t = m^B\left(\mathcal{I}_t, \mathcal{B}_t\right) - \delta K_t \tag{7}$$

$$\dot{D}_t = r(fs_t|\gamma,)D_t - \upsilon[Y_t - C_t - I_t - \Phi\left(s_t\right)\left(1 - N_t\right) - \zeta \cdot \mathcal{V}_t - \varphi(g_t K_t)] \tag{8}$$

Fundamental Perils....Model and MRVAR

=> Results of a model with financial stress

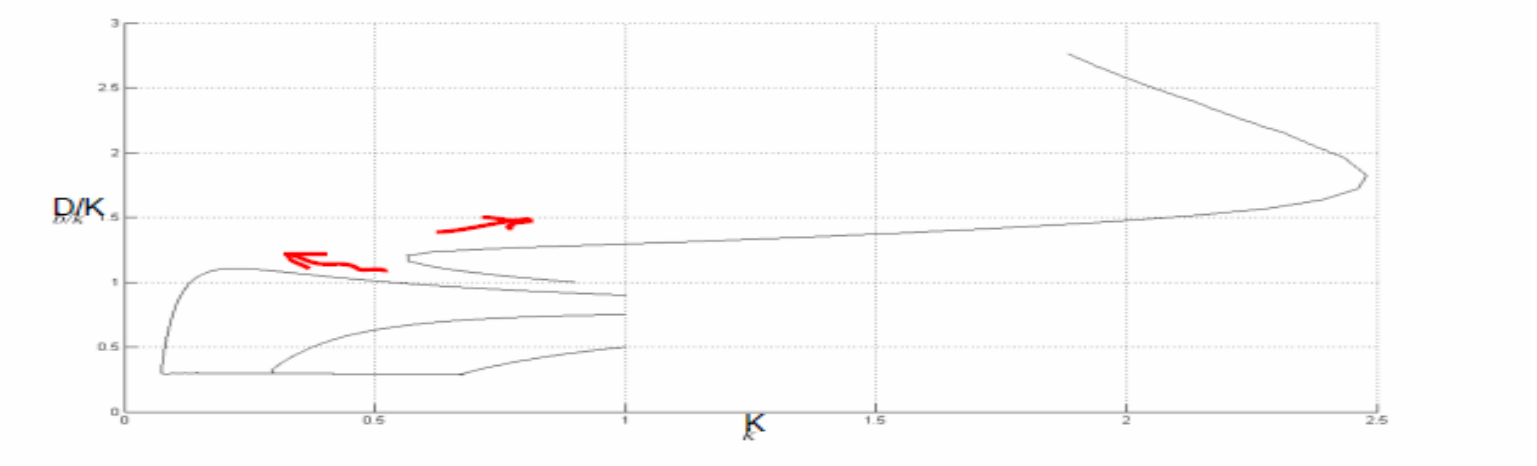


Figure: Change from stable to unstable region

=> Empirical estimation with Regime change model

- Theoretical model emphasizes regime switching ⇒ multi-regime VAR (MRVAR),
- Generalized Impulse Responses (Koop et al 1996),
- Variables:
  - change in GDP/industrial production
  - change in inflation rate
  - credit cost/long-term interest rate
  - Financial stress index; ZEW FCI (endogenous threshold variable)

MRVAR: 4 dim IRs

(left: no fin stress, right: fin stress regime)

MRVAR Results: Italy

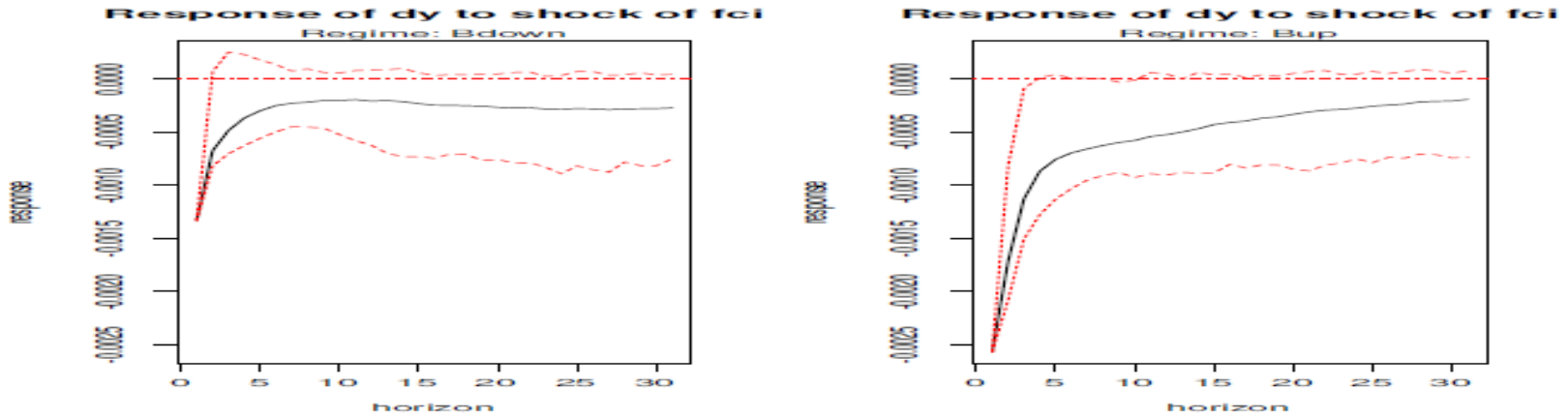


Figure: Response of change in output to a FCI shock of 1 s.d.

MRVAR Results: France

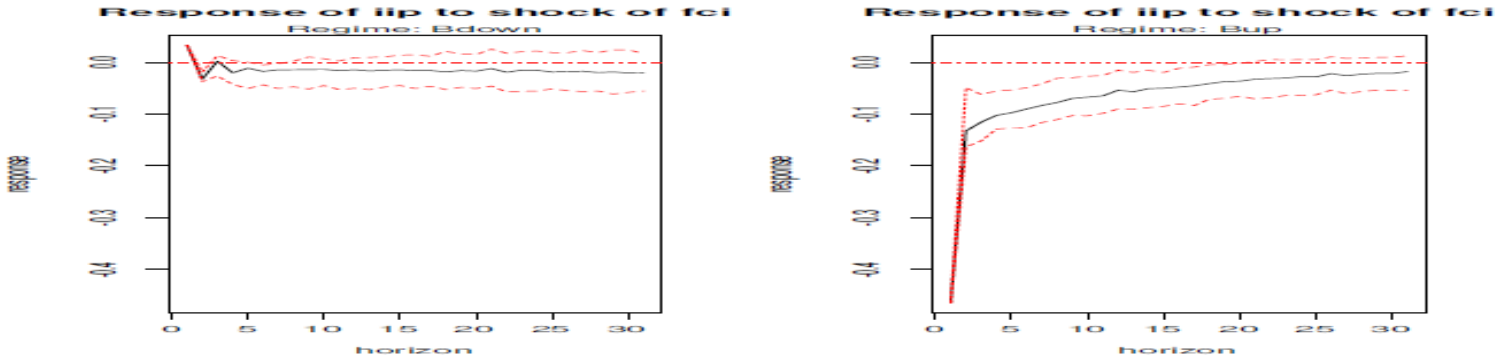


Figure: Response of change in output to a FCI shock of 1 s.d.

Fundamental perils…… Challenges to economic policies in the long run

Given the threat of debt deflation, low growth prospective, and financial market stress: what are the policy challenges?

⇒ **Structural reform** programs: Proper timing, see IMF warning: not in a regime of a recession or low growth: policy effects are regime dependent, (see my papers with Mittnik, Ernst, Gross, Schleer…)

⇒ **QE policies**: but not too early "leaning against the wind" (against financial instability), see Svensson (2016)

⇒ **Other monetary policy**: Negative interest rates and helicopter money (to by-pass the clocked banking system)?

⇒ **Fiscal policy**: Creation of EU Treasury (is a challenge in a lose monetary union)

⇒ **Fiscal Policy**: Infrastructure spending, large scale bond issuing for infrastructure

=> **Fiscal policy**: Long maturity bonds (Climate bonds and green jobs)

⇒ **Policies against imbalances and inequality** (income and wealth inequality): Participation of labor and middle class in economic growth and compensation for the losers of globalization (see Kaldor)

⇒ **EU safety net**, revival of the welfare state (EU–wide)? Social Market economy as in Germany after WWII

Appendix 1: Okun's law in a high dim macro model

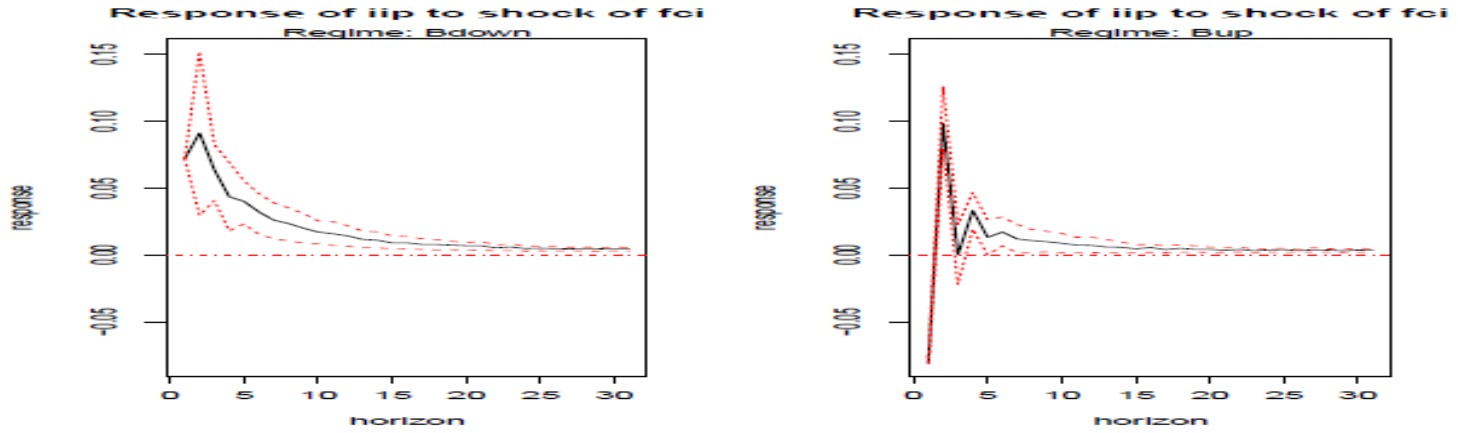


Figure 4: GIRF for Spain; shock of -1 s.d. to FCI, effect on change in iip; left graph: regime with ipp growth rates smaller than -0.4, right graph: regime with ipp growth rates larger than -0.4; red-dashed line signal the 75% percentile interval.

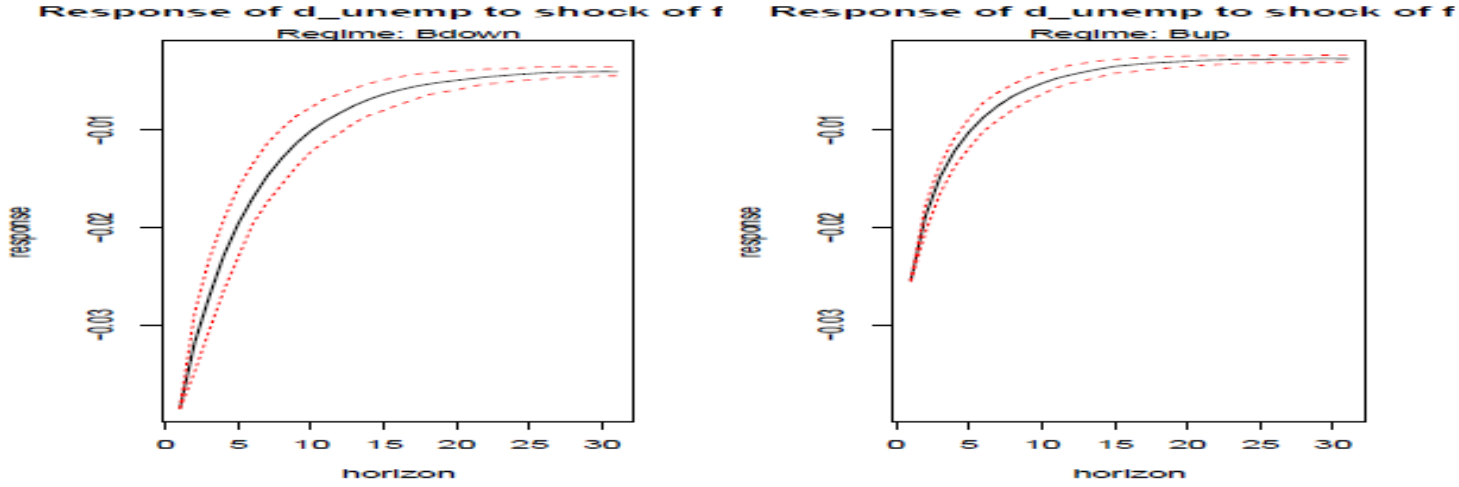


Figure 5: GIRF for Spain; shock of -1 s.d. to FCI, effect on change in unemployment; left graph: regime with ipp growth rates smaller than -0.4, right graph: regime with ipp growth rates larger than -0.4; red-dashed line shows the 75% percentile interval.