Structural and Cyclical Forces in the Great Recession: Cross-Country Evidence

by Luca Sala, Ulf Söderström and Antonella Trigari

Discussion by: Fabrizio Perri
Minnesota, Minneapolis Fed, IGIER & NBER

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- Ambitious and relevant project!

The methodology

- Write down a monetary business cycles model with frictional labor markets and a variety of shocks
- Use data prior to the GR to estimate parameter values of the model for three countries (US,UK, Sweden)
- Use data for the GR period, together with estimated parameter values, to back out the shocks series in the GR in these three countries
- Use the time series for shocks to assess contribution of each shock to the GR in GDP and labor markets

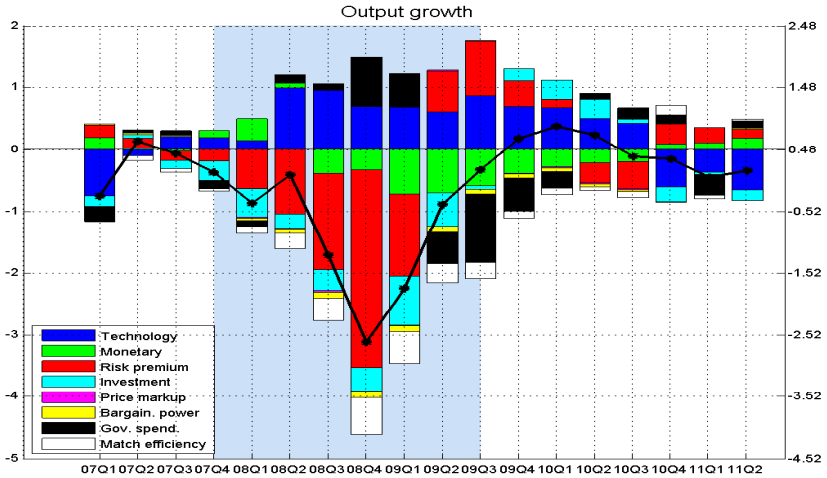
The contestants, i.e. shocks to..

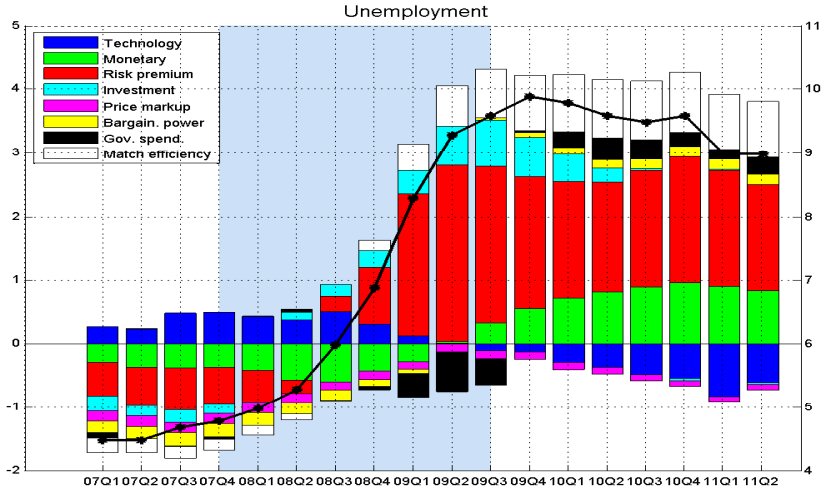
- Technology
- Production of new Investment
- Risk premium (Reduction of Household Wealth?)
- Matching efficiency
- Price markup
- Workers' bargaining power
- Government spending (and net exports)
- Monetary policy

And the winner is...

- US: Risk premium, both for the initial drop and low subsequent employment growth
- Sweden, UK: Mostly productivity
- Caveat: qualitatively other shocks also play a role, risk premium and productivity have quantitatively bigger role

US


Output growth
Technology
Monetary
Risk premium
Investment
Price markup
Bargain. power
Gov. spend.
Match efficiency


Unemployment
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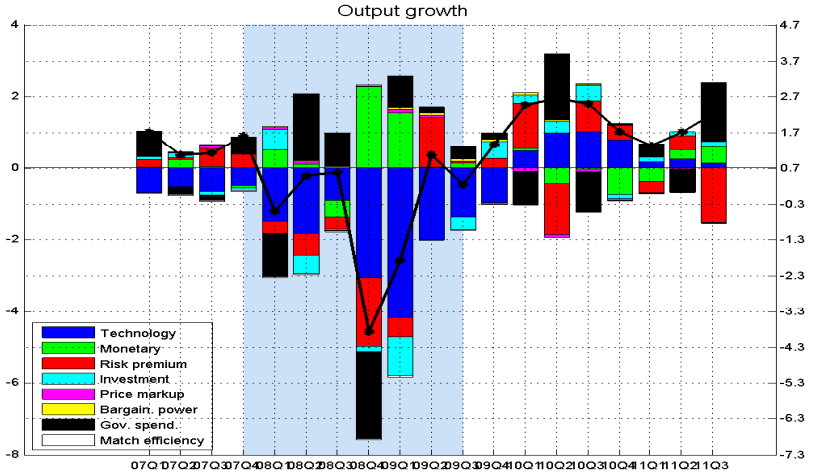
Sweden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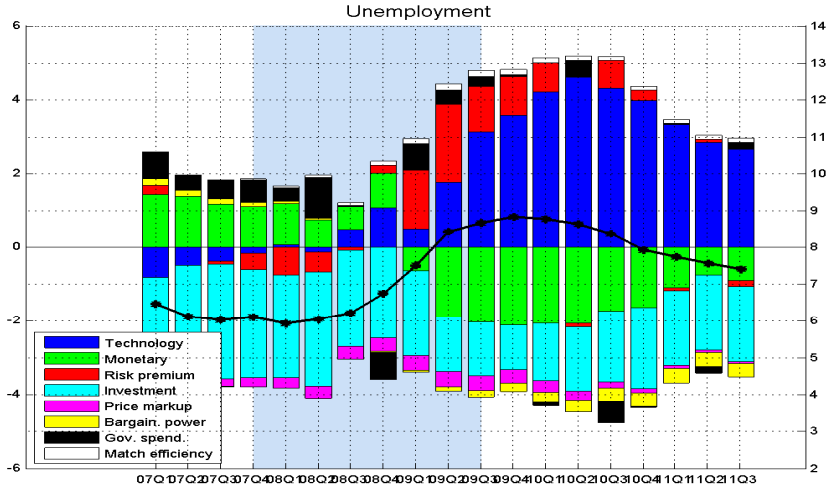
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Questions

- Which features of the data identify the shocks?
- What are these shocks?

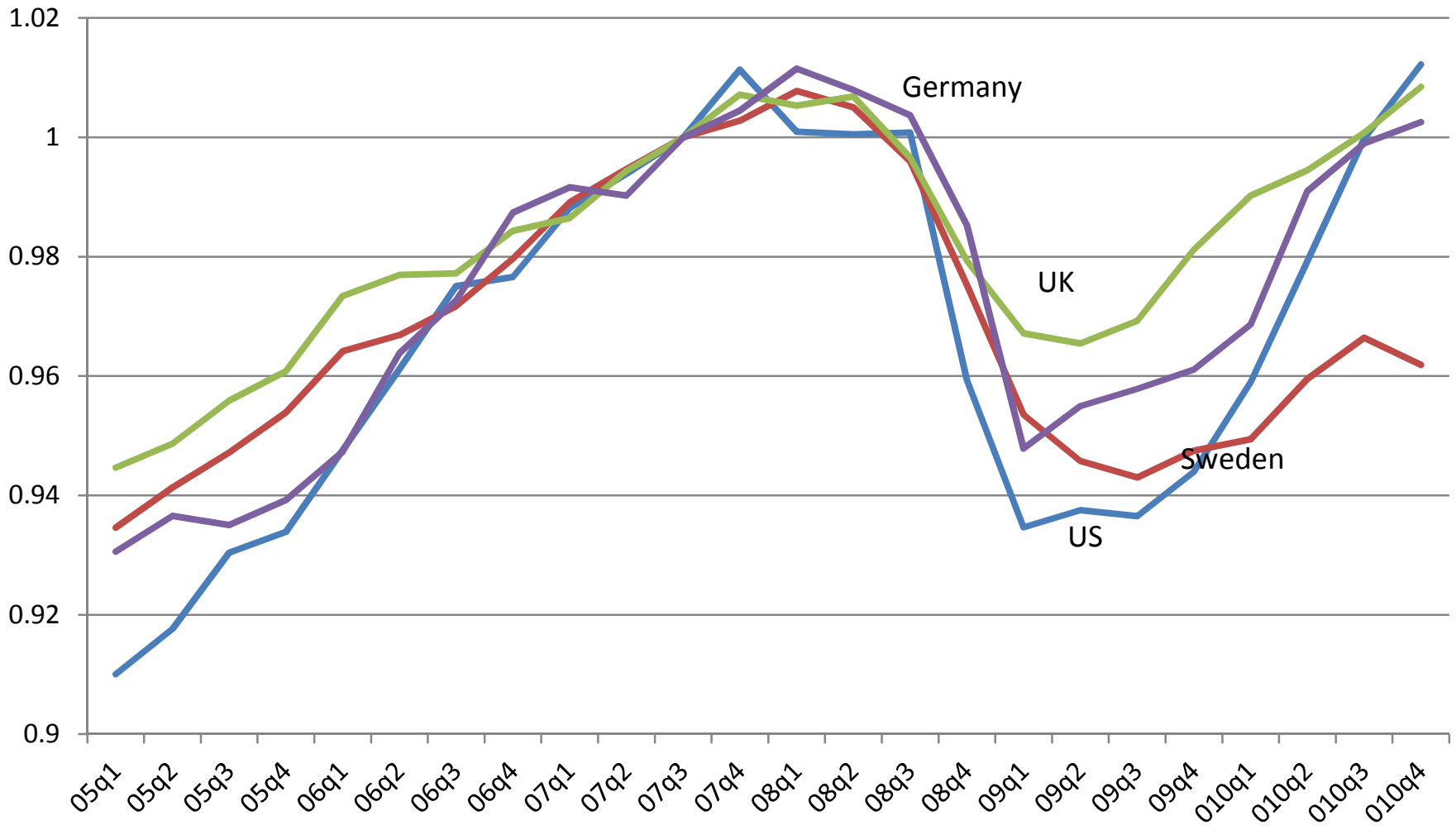
Plan

- Look at time series for GDP and Total Hours (Ohanian and Raffo, 2011) for US, Germany, Sweden, UK
- Focus on US/Germany
- Look at:
  - Initial drop in economic activity
  - Subsequent slow recovery

The initial drop, 1

- Large, contemporaneous, GDP drop in all countries

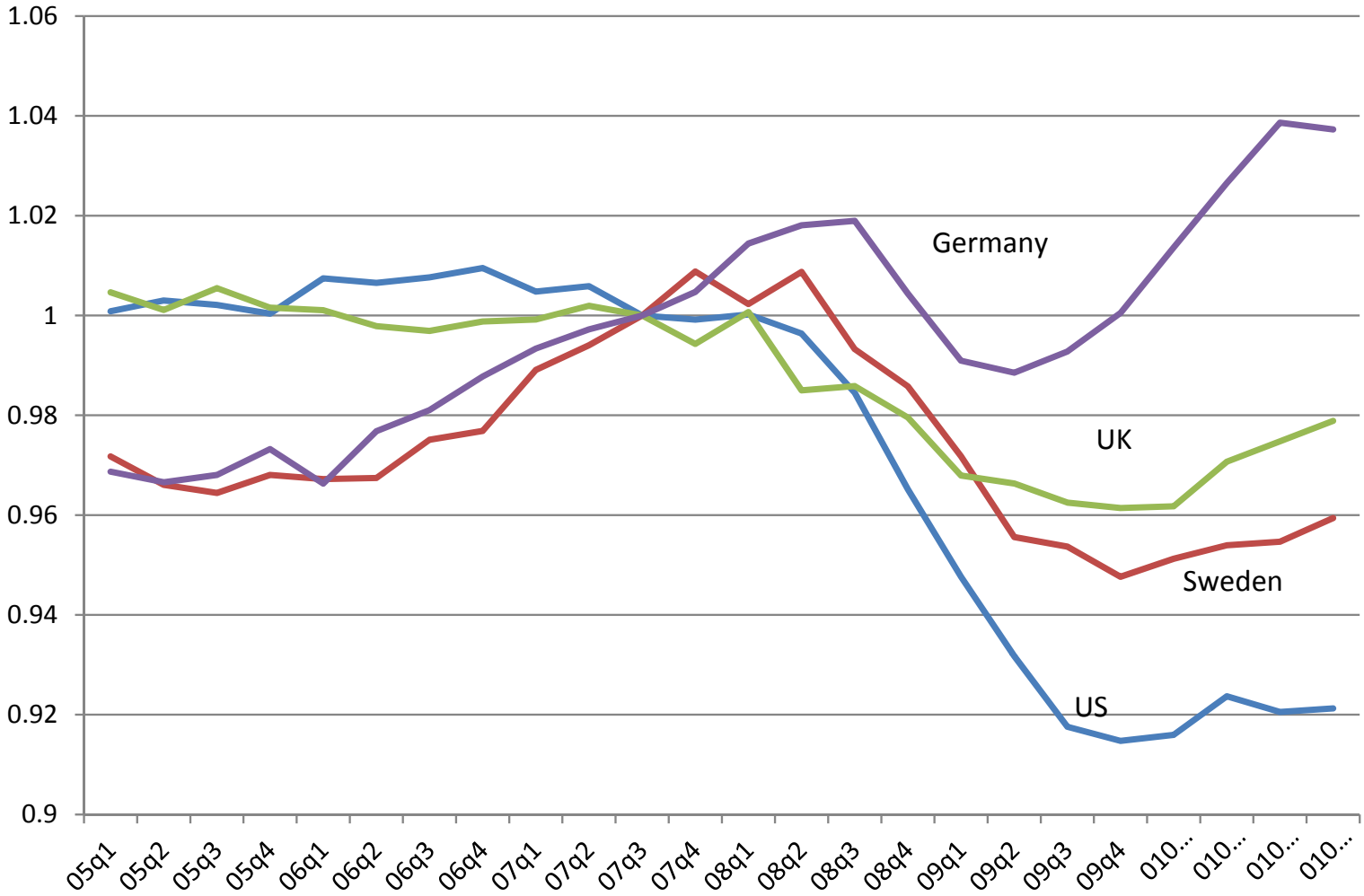
The initial drop, 2
GDP



The initial drop, 3

- Large, contemporaneous, GDP drop in all countries
- Total hours fall much more in US than in Germany

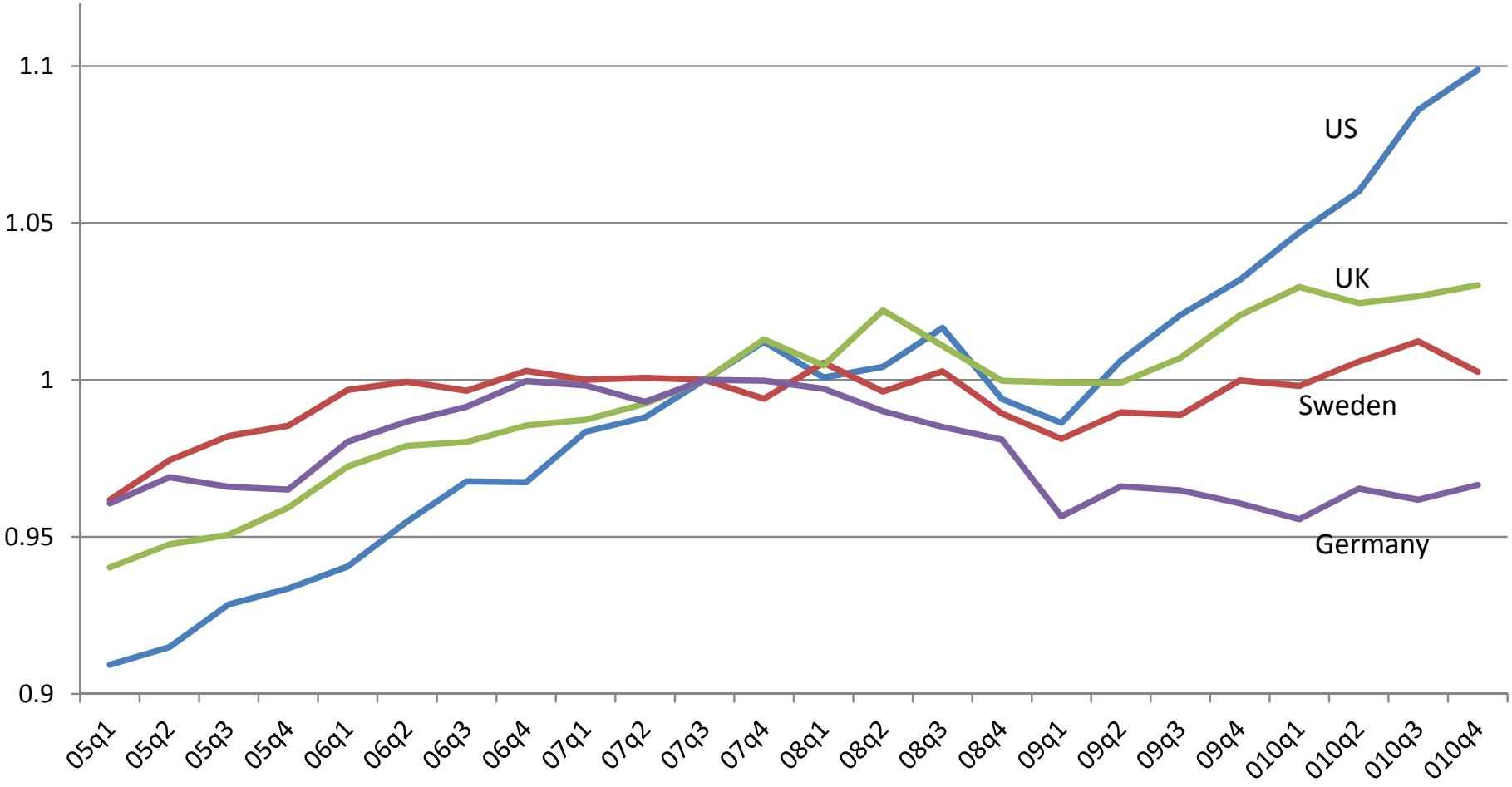
The initial drop, 4
Total Hours



The initial drop, 5

- Large, contemporaneous, GDP drop in all countries
- Total hours fall much more in US than in Germany
- Labor productivity on impact drops in Germany, not so much in US

The initial drop, 6
Labor Productivity



The initial drop, 7

- Large, contemporaneous, GDP drop in all countries
- Total hours fall much more in US than in Germany
- Labor productivity on impact drops in Germany, not so much in US
- Procedure identifies:
  - Productivity as the shock driving GDP in Germany
  - Risk premium (demand reduction) as the shock driving GDP in US
- Risk premium leads to a reduction in demand (consumption and investment) and hence labor demand (because of sticky prices)

Is this plausible?

- Is the 2008 world recession being caused by two separate shocks in US and Germany/Europe?

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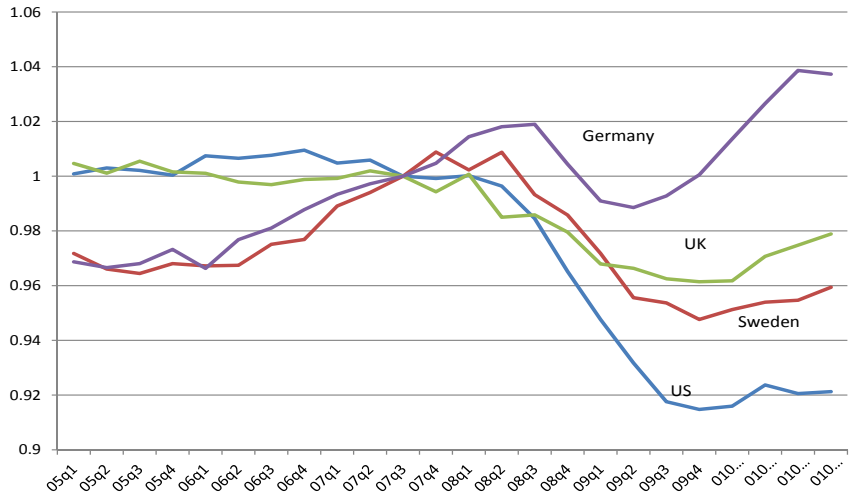
- Is the 2008 world recession being caused by two separate shocks in US and Germany/Europe?
- Alternative explanation
- Global shock to labor demand (e.g. Global financial shock, Perri and Quadrini, 2011)
- Differential labor market rigidity could explain different responses of Employment and Productivity
- Production in both countries falls: in US this is done by laying-off workers, in Germany by keeping them around but not having them produce.

The sluggish recovery, 1

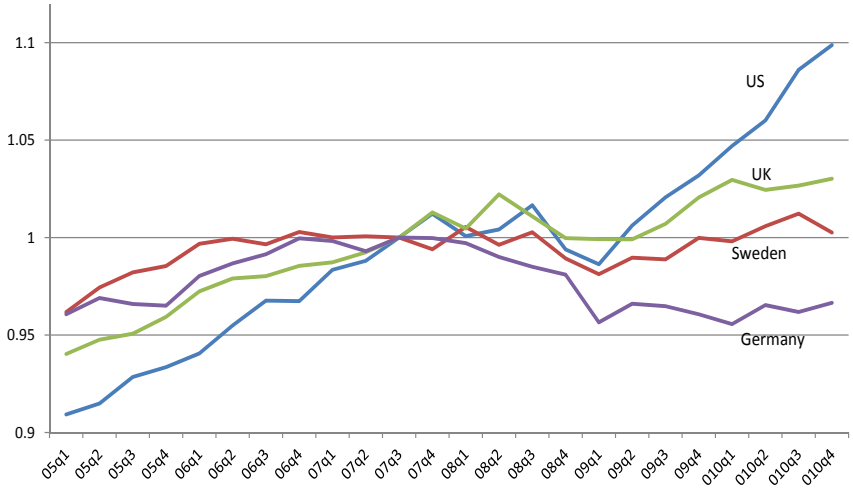
- US: GDP moderate/slow growth. Employment stagnates
- Germany: GDP moderate/slow growth. Employment recovers fast
- US: recovery in productivity, depressed employment: Risk premium explains slow recovery
- Germany: recovery in employment, depressed productivity: Productivity explains slow recovery

The sluggish recovery, 2
Different drivers

Employment



Productivity



Is this plausible?

- Again an alternative explanation is a slow global factor (Uncertainty?), coupled with differential labor markets
- Note that difference in labor markets not necessarily only due to country-wide institutional factors (e.g. labor protection laws) but also possibly due to different sectoral dynamics
- US most hit sector is construction, which is very flexible
- Germany most hit sector is Auto, highly unionized
- Spain support this as even though it has rather inflexible labor markets, look more like US

Conclusions

- Very interesting exercise!
- A first analysis suggests that there are are large differences in the causes of the GR in US v/s Germany
- Possibly estimating a two country model (which allow for global factor) would allow to assess this result against alternative explanations (based on a common global shock) for GR
- What really is this risk premium shock?