



# The impact of EMU on business cycle synchronization and labour market reform

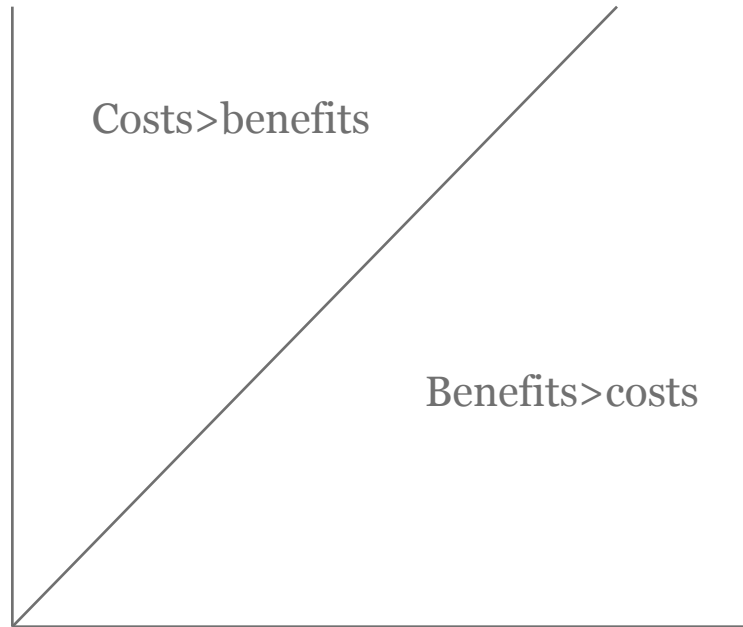
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# A very simple summary of the OCA criteria

Asymmetric shocks



Factor market flexibility



# The endogeneity of optimum currency area criteria

- › Frankel and Rose (1998): asymmetric shocks and trade might be related
- › Their empirical analysis focuses on the net-effect of trade, which is found to be large, positive and significant!
- › Our results (paper with Robert Inklaar and Richard Jong-A-Pin published in EER 2008) are somewhat different.



## Our data set

- › 21 OECD countries
- › Each country has 20 trade partners
- › Time period: 1970-2003, divided in 3 periods of 11 years
- › 630 observations:  $(3 * 21 * 20) * 0.5$



## Which other variables?

- › Robustness analysis on 22 variables suggested in the literature
- › Method: extreme bounds analysis (Sala-i-Martin, 1997)
- › Intuition: test whether the sign and significance of an explanatory variable is robust to changes in conditioning set of other explanatory variables



# Variables that do not pass the test

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Capital account restrictions

Average openness

Import similarity

Human capital difference

Physical capital difference

Arable land difference

EMS-dummy

Average oil import share

Difference in external asset position

Correlation of inflation rates

Variability in inflation rate difference

Current account restrictions

human capital (tertiary education)

Relative labour productivity level

Relative financial structure  
(credit/stock)

Difference in national savings ratio



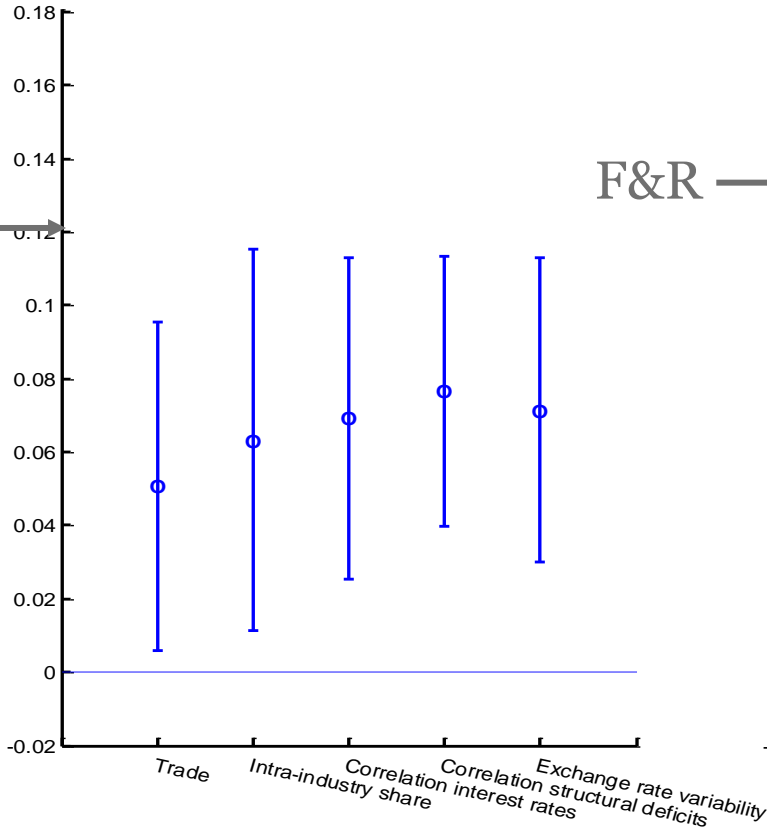
## Variables that pass the test

- › Trade intensity
- › Trade specialization (e.g. share of intra-industry trade)
- › Correlation of short-term interest rates
- › Correlation of cyclically adjusted budget deficits
- › Exchange rate variability

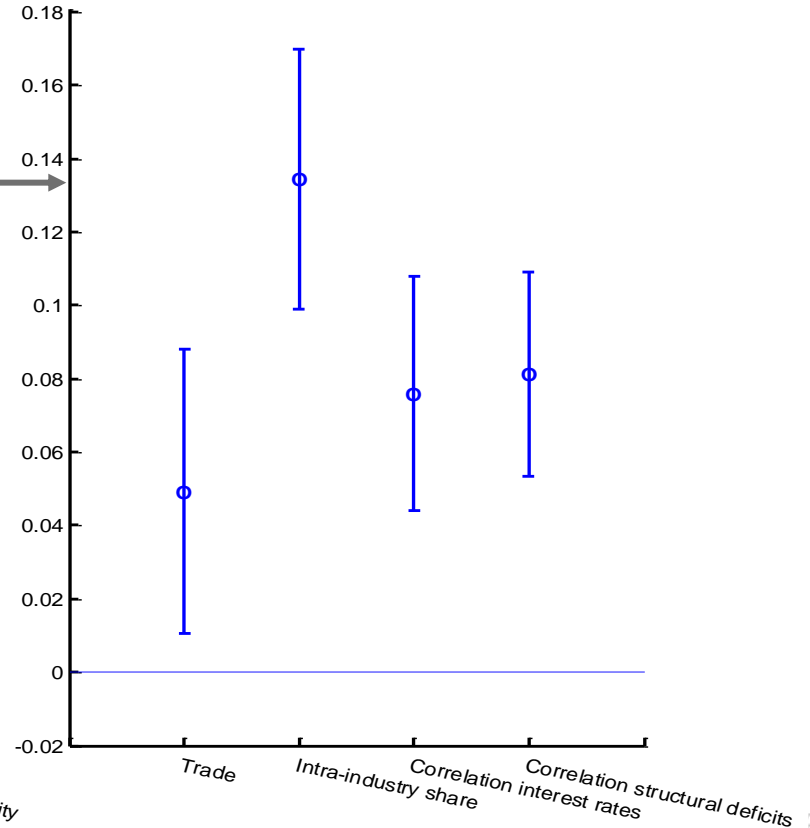


# The relative importance of bilateral trade

Standardized coefficients, GDP



Standardized coefficients, IIP







## Results:

- › We confirm the importance of bilateral trade in explaining business cycle synchronization.
- › However, the impact is much smaller than previously reported
- › Other variables such as trade specialization and the similarity of economic policies have a similar impact as trade intensity



# What about labour market flexibility?

- › New work together with Elżbieta Bednarek and Richard Jong-A-Pin
- › Has EMU led to more labour market flexibility? Since in a currency union monetary policy is no longer available to individual countries to respond to asymmetric shocks, incentives to undertake structural reform may become stronger (Bean, 1998).



## But....

- › Labour market reform is politically very costly, notably in the short run.
- › There may be less incentives for reform due to reduction of inflation bias after monetary policy was delegated to ECB
- › Scant available evidence does not suggest that EMU has led to labour market reform (cf. Duval and Elmeskov, 2006).



## Our paper

- › We use data by Brandt et al. (2005) on:
- › (1) active labour market policies;
- › (2) taxes and social security contributions;
- › (3) employment protection legislation (EPL);
- › (4) unemployment benefit systems;
- › (5) wage formation and industrial relations;
- › (6) working-time flexibility and part-time work; and
- › (7) old-age pension systems and early retirement schemes.



## The data

- › Score assigned is positive or negative, depending on whether or not the policy measure implemented is in line with OECD recommendations
- › Data are available for 2 periods: 1994-98 and 1999-2004
- › For most OECD countries
- › We distinguish between reform that enhances the adjustment capacity and reforms that affect natural rate using factor analysis.



## Results

- › Clear differences between both types of reform.
- › Significant negative effect of EMU on reform that enhances the adjustment capacity of the economy.
- › No relationship between reform that enhances the adjustment capacity of the economy and synchronisation of business cycle of country concerned with business cycle of Germany.



## Conclusions

- › EMU has a positive effect on business cycle synchronisation, not only via trade channel, but also via coordination of monetary and fiscal policy.
- › EMU has a negative effect on labour market reform that enhances the capacity of the economy to adjust to shocks.



Thank you for your attention