What effects is EMU having on the euro area and its member countries?
16 – 17 June 2005, Frankfurt am Main

Session II:
Business cycles synchronisation, economic specialisation and risk sharing

Discussant:

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Discussion of: "Trends and Cycles in the Euro Area: How much heterogeneity and should we worry about it?" by Domenico Giannone and Lucrezia Reichlin (GR)

June 10, 2005

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Two Main Questions about the EMU countries:

Q1: Is Heterogeneity (differences in level of GDP) Increasing?

A1: Mainly unchanged

Q2: Should we worry about it?

A2: No, since Risk Sharing (RS) increasing.

Comment: Agree on the facts **but** I would have expected more of a focus on **asymmetry** of output shocks. (Shocks asymmetric when they are not correlated). Risk sharing doesn't help against differences in levels.

Other findings:

1) US regions similarly no convergence.

Comment:

1) Analysis for U.S. uses personal income (why?). Not necessarily valid to compare with GDP. (Details below). However, general agreement that convergence between U.S. states seems to have stopped.

2) US and Euro recessions synchronized "world shocks"

3) Shocks more persistent in Europe

4) Persistent differences generated by small country shocks

Comment
2) and 3): agree, although VAR method may be too simple.
Also 4) but not this may be a "small sample finding" (e.g., Ireland's performance may be a one-shot deal).

5) Risk Sharing (in consumption) has increased in the late 90s.

Comment: Agree (although I can't quite replicate it). Seems to be a function of increased international portfolio diversification (see below).

Re.: GDP versus income. Next figure is from Kalemli-Ozcan, Reshef, Sorensen, and Yosha (KSY) (2005).

Left pane illustrates that regions (New England) can be slow growers for decades and then revert back ("Massachusetts miracle") or not ("rust belt"). This is what is hard to capture by statistical models such as VARs.

Right pane shows the ratio of GDP to income for various regions. Large and systematic differences.

Comparing the two panes you can see what is going on (focus on New England): Slow growing regions will supply capital to other states => become recipients of capital income $\approx$ low ratio of output to income. New England changed from slow growing to fast growing and the ratio of output to income declined as predicted.

But this implies bias when using income for GDP. Income moves in the direction of GDP but less strongly.

Figure 2: Growth of Real GDP per capita by regions

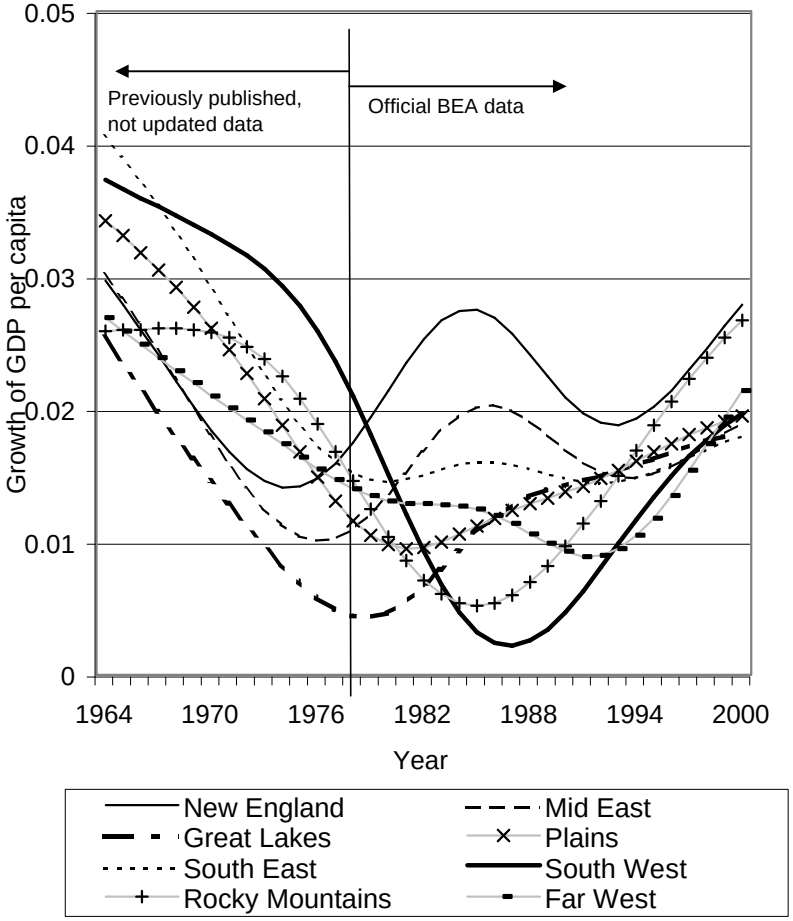
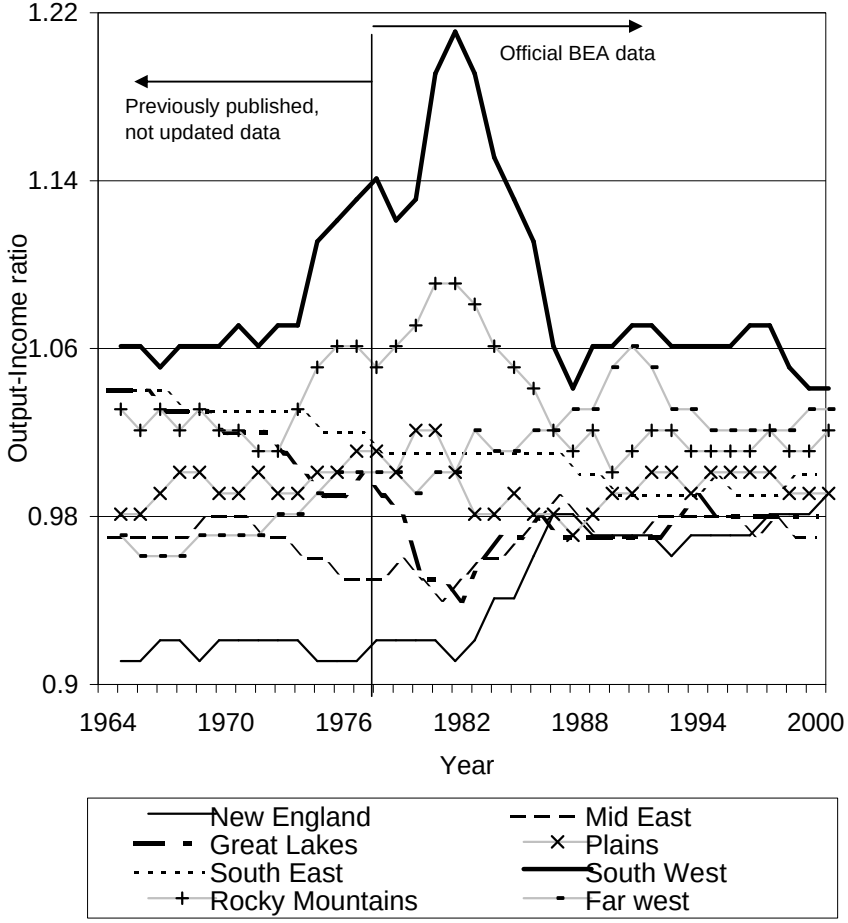


Figure 3: Output/Income ratio by regions



A very simple measure of **asymmetry** of output shocks is

Variance of (GDP minus aggregate GDP)

Properly re-scaled this can be interpreted in utility terms [KSY (2001)].

This measure give different impression from GR's analysis. Interpretation: GR focus on propagation of a given size shock, but this "misses" whether the average shocks have become smaller. Which they have.

Table from KSY (2005) shows that average asymmetry as we measure it has fallen steeply in recent years!

Table 1: Asymmetry of GDP U.S. and EU.

Sample	1983–1991	1991–1999
U.S.	2.99	0.89
Sample	1983–1991	1991–2000
EU14	1.23	0.61

EU14: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.

Table 2: Update: Asymmetry of GDP in the EMU minus Greece.

Sample	1986–1991	1991–1996	1996- 2001
EMU	1.47	1.63	0.29
EMU minus Finland	0.38	0.52	0.20

Risk sharing

A) One measure of RS: How much does GNP follow GDP (controlling for aggregate). "Income Smoothing."

A1) Can measure income smoothing over time for individual country
A2) Can measure income smoothing for group of countries in a given year

B) How much does Consumption follow GDP when the aggregate is subtracted.

GR examines case B) and finds increasing RS.

- Consumption often noisy "taste shocks"

- Income smoothing may miss the boat (capital gains, future expectations)

See figures for consumption and income smoothing vs. holdings of international financial assets. Notice that we don't confirm the increase in consumption RS, although I do believe it is happening.

Figure 1: Income Risk Sharing and Equity Asset Holdings in the EU

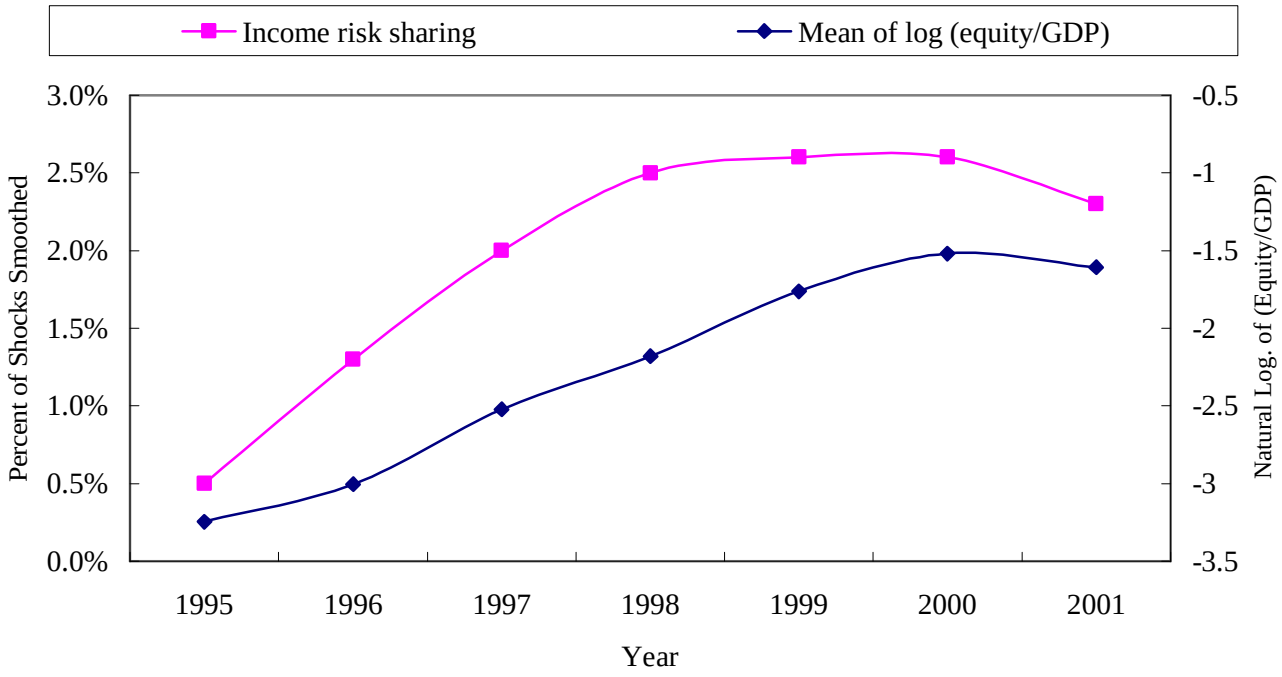
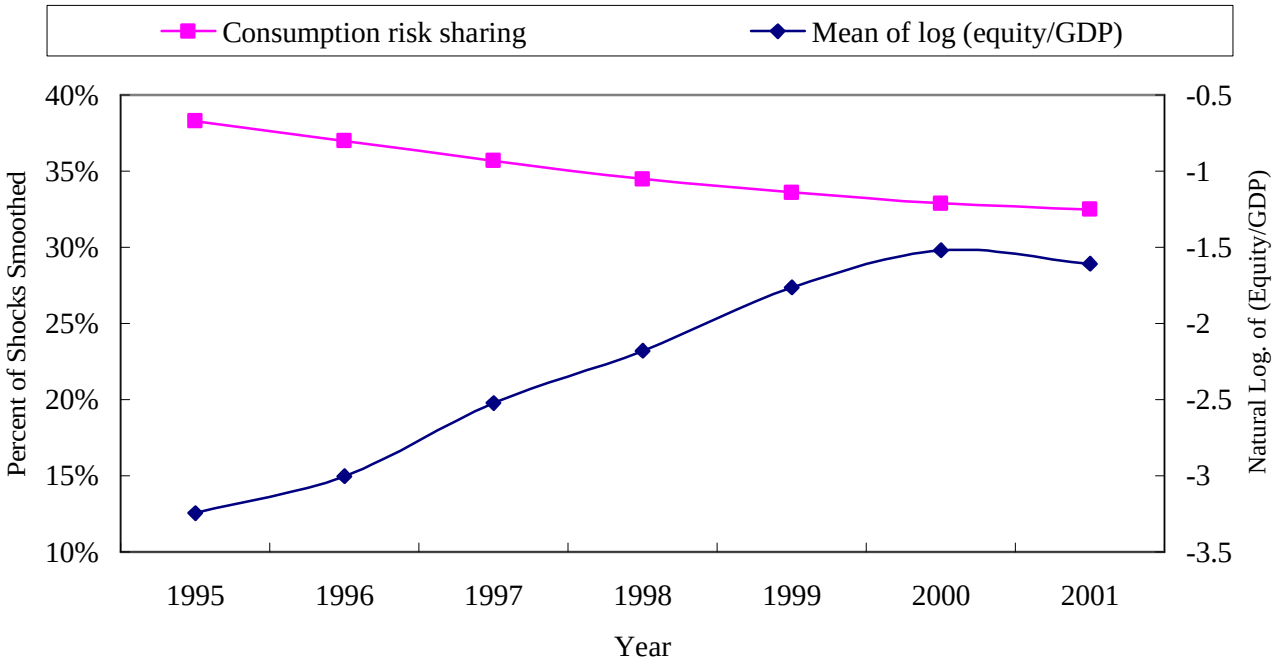


Figure 2: Consumption Risk Sharing and Equity Asset Holdings in the EU



Notes. Mean of log (equity/GDP) is the cross-sectional mean of foreign equity holdings normalized by GDP for 13 EU countries. The countries comprise the subset of EU for which data are available (see text). Risk sharing is estimated cross-sectionally year-by-year and is smoothed by using a Normal kernel with bandwidth (standard deviation) equal to 3.

Figure 1: Income Risk Sharing and Equity Asset Holdings in the OECD

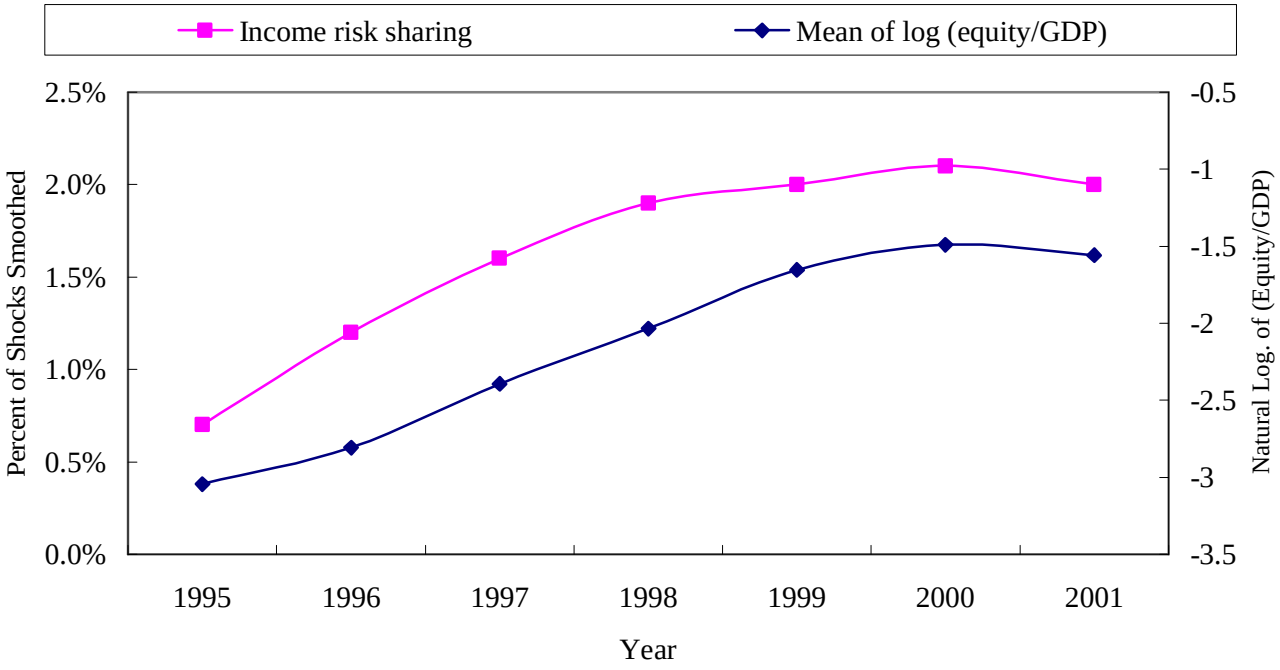
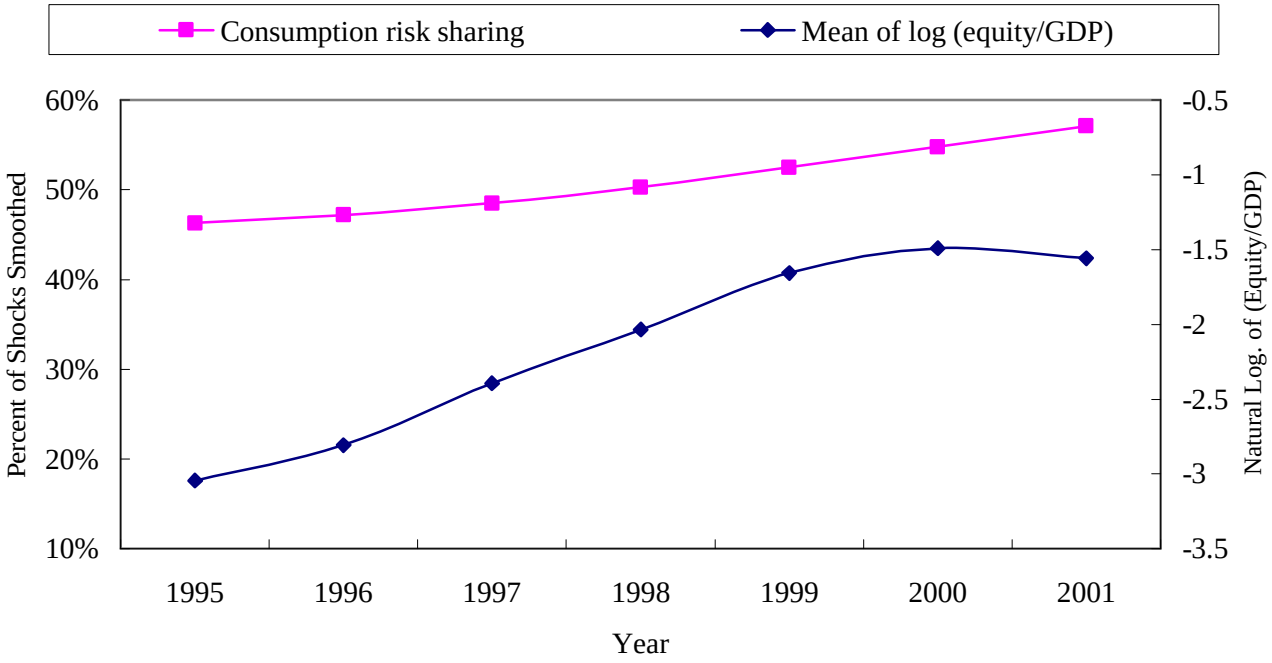


Figure 2: Consumption Risk Sharing and Equity Asset Holdings in the OECD



Notes. Mean of log (equity/GDP) is the cross-sectional mean of foreign equity holdings normalized by GDP for 20 OECD countries. The countries comprise the subset of OECD for which data are available (see text). Risk sharing is estimated cross-sectionally year-by-year and is smoothed by using a Normal kernel with bandwidth (standard deviation) equal to 3.

Figure 3: Country-level Income Risk Sharing vs. Mean of 1997 & 2001 log (Equity/GDP)

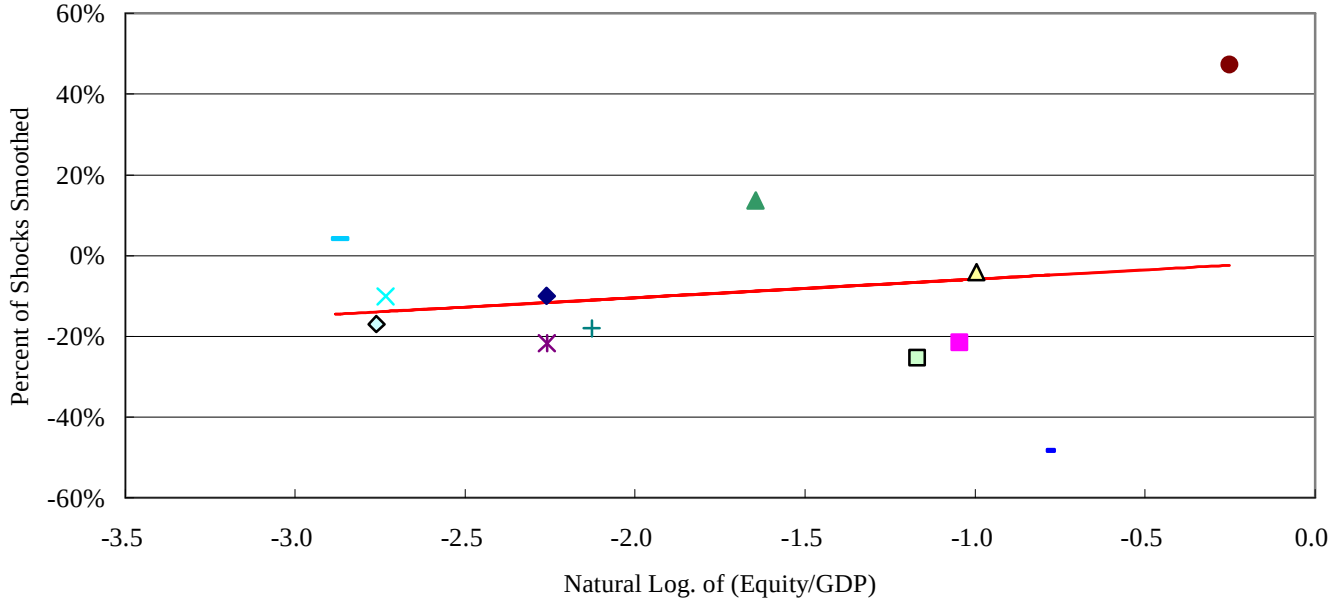


Figure 4: Country-level Consumption Risk Sharing vs. Mean of 1997 & 2001 log (Equity/GDP)

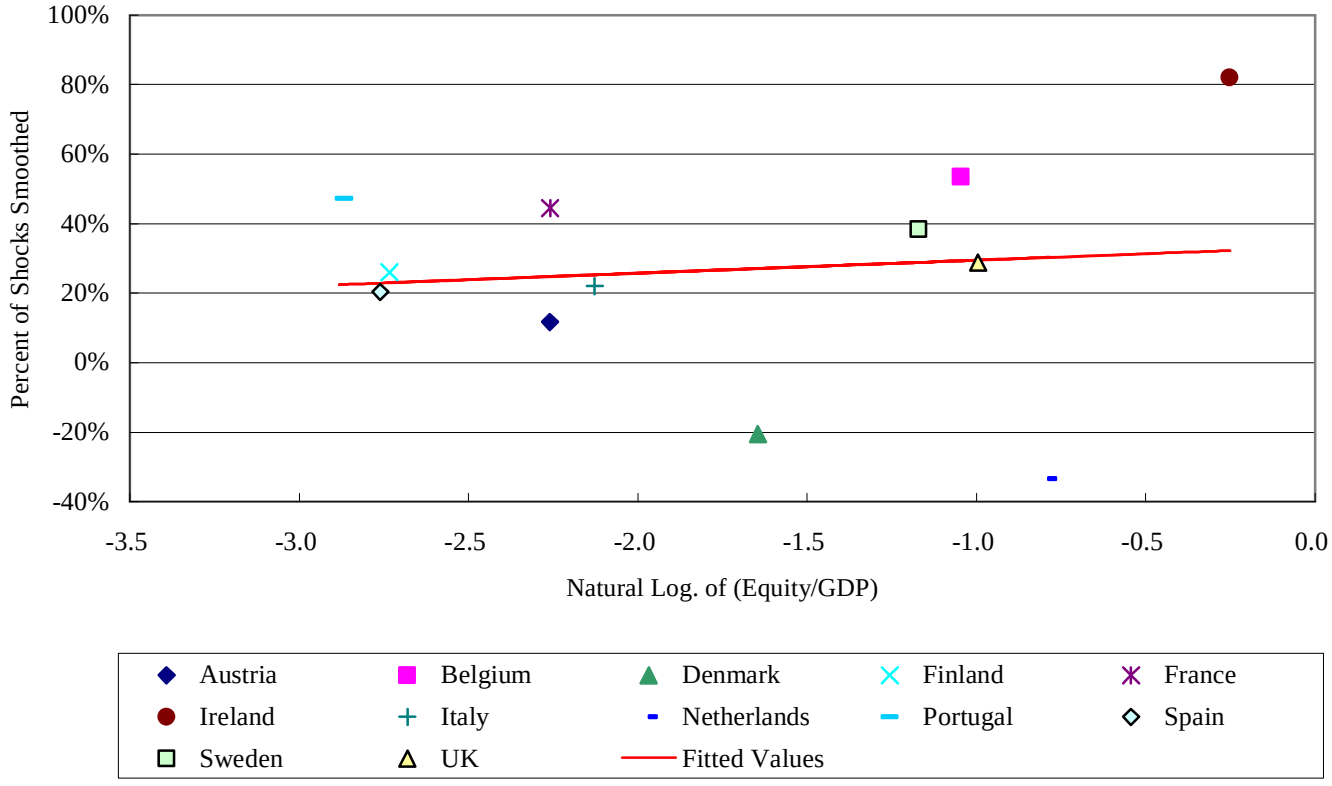


Figure 5: Country-level Income Risk Sharing vs. Mean of 1997 & 2001 log (Bonds/GDP)

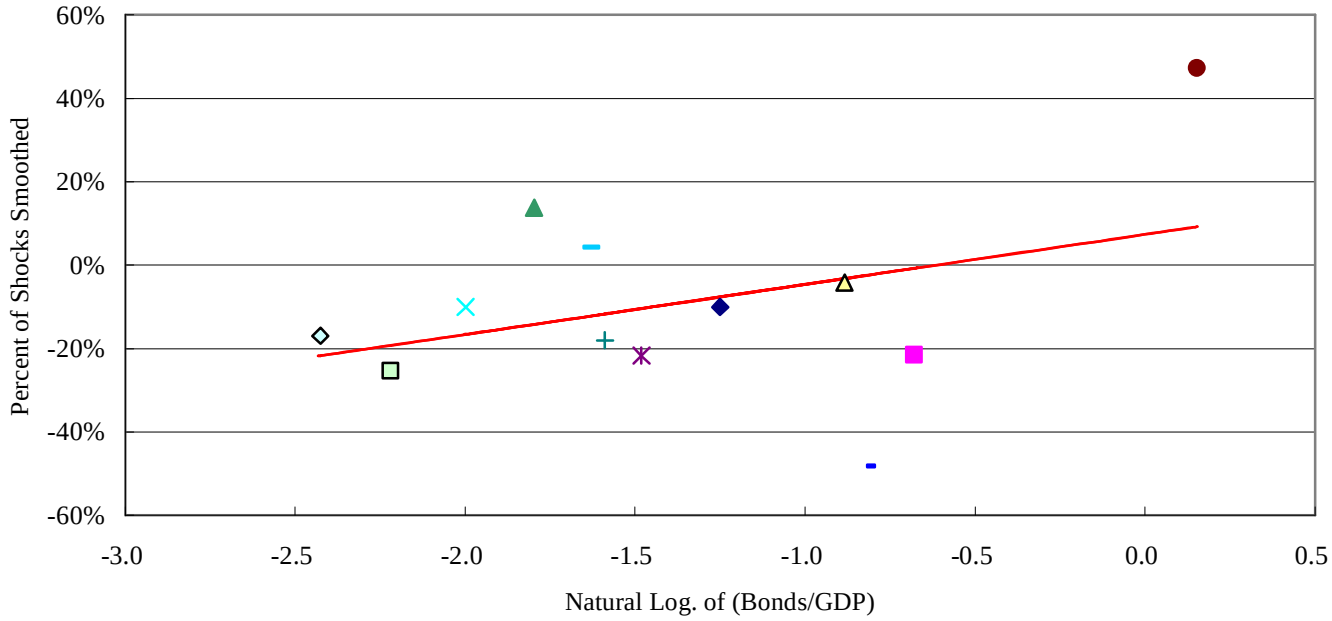
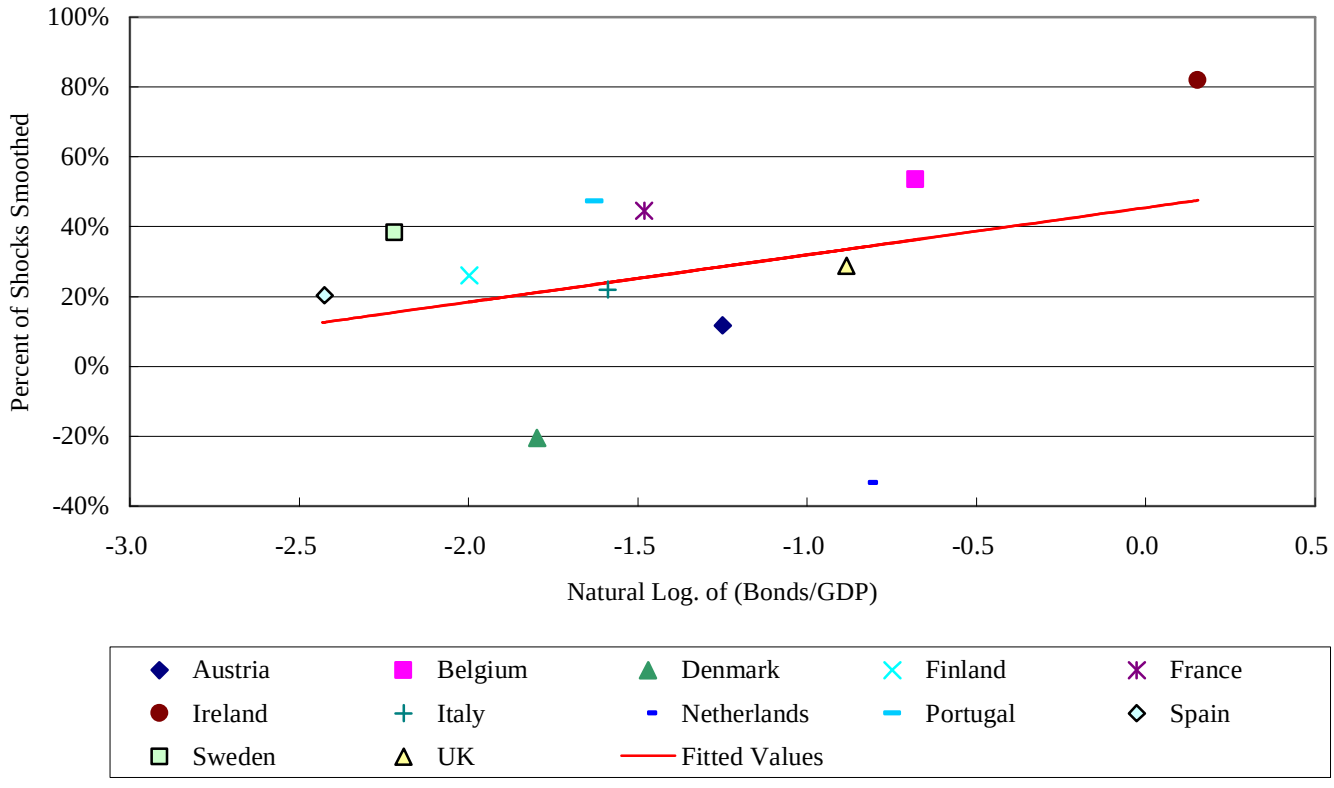


Figure 6: Country-level Consumption Risk Sharing vs. Mean of 1997 & 2001 log (Bonds/GDP)



Final issue (not in GR): Does financial integration (RS) lead to more specialization and asymmetry?

KSY (2003) find: more RS => more specialization.
KSY (2001) find: more specialization => more asymmetry.

But: long run trend towards less Specialization (KIM 1995 QJE U.S. states).

KSY (2005): specialization (1-digit) falling in the U.S. not in the EU. Likely, financial integration counteracts long run trend.

Figure 3a: Average Specialization in the EU: 1-Digit ISIC Level

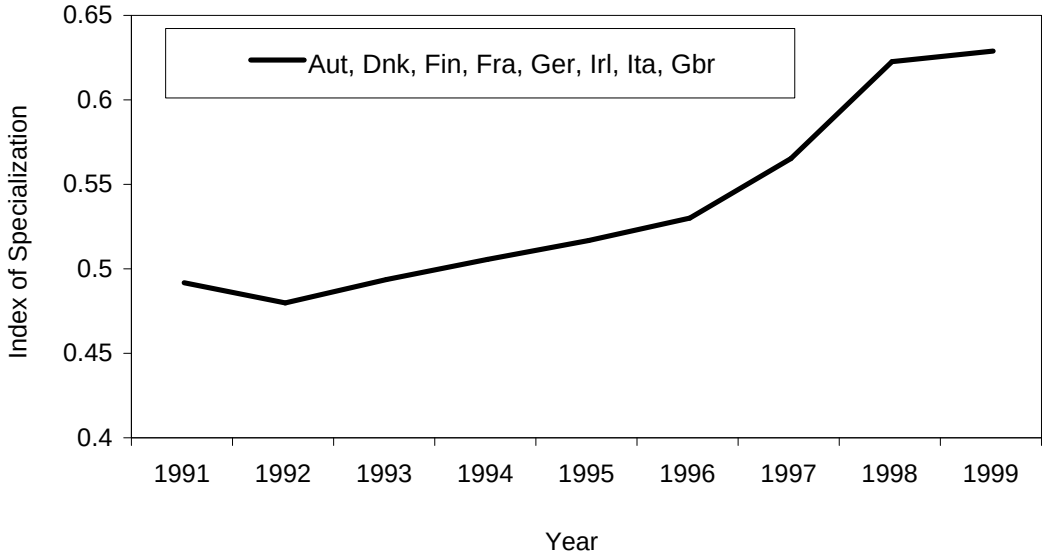
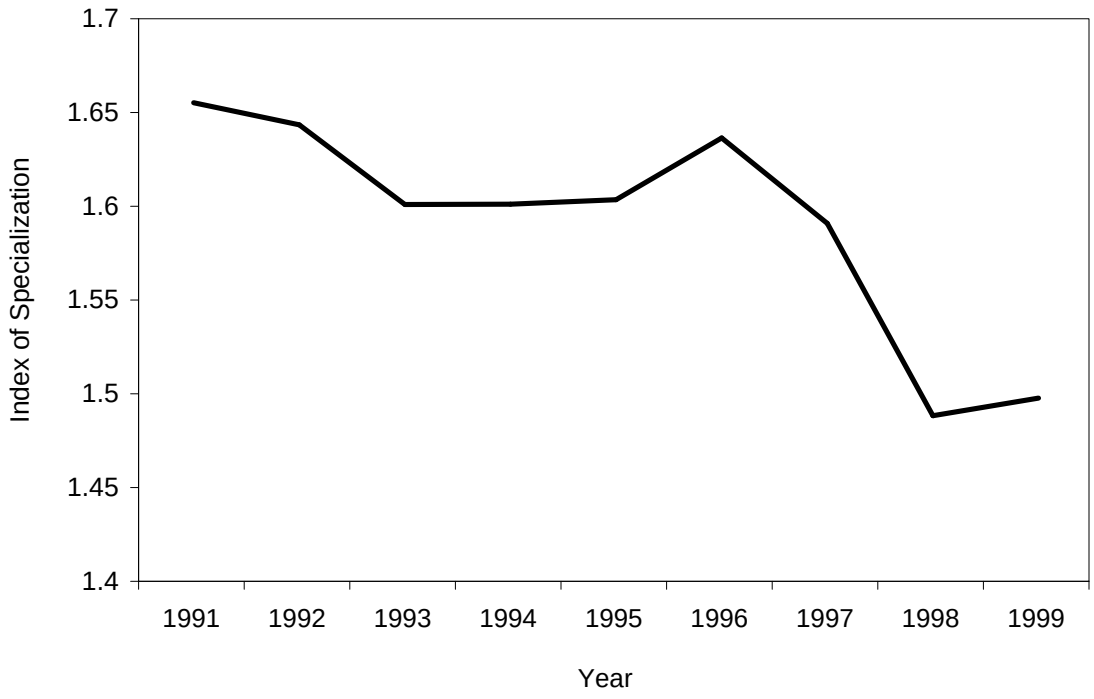


Figure 3b: Average Specialization in the U.S.: 1-Digit ISIC Level



Notes: In the upper panel the solid line represents the average level of specialization of Austria, Denmark, Finland, France, Germany, Ireland, Italy, and the United Kingdom.
In the bottom panel it represents the average level of specialization of U.S. states.

Finally, an interpretative figure. Likely most of the action is in the part we don't know much about.

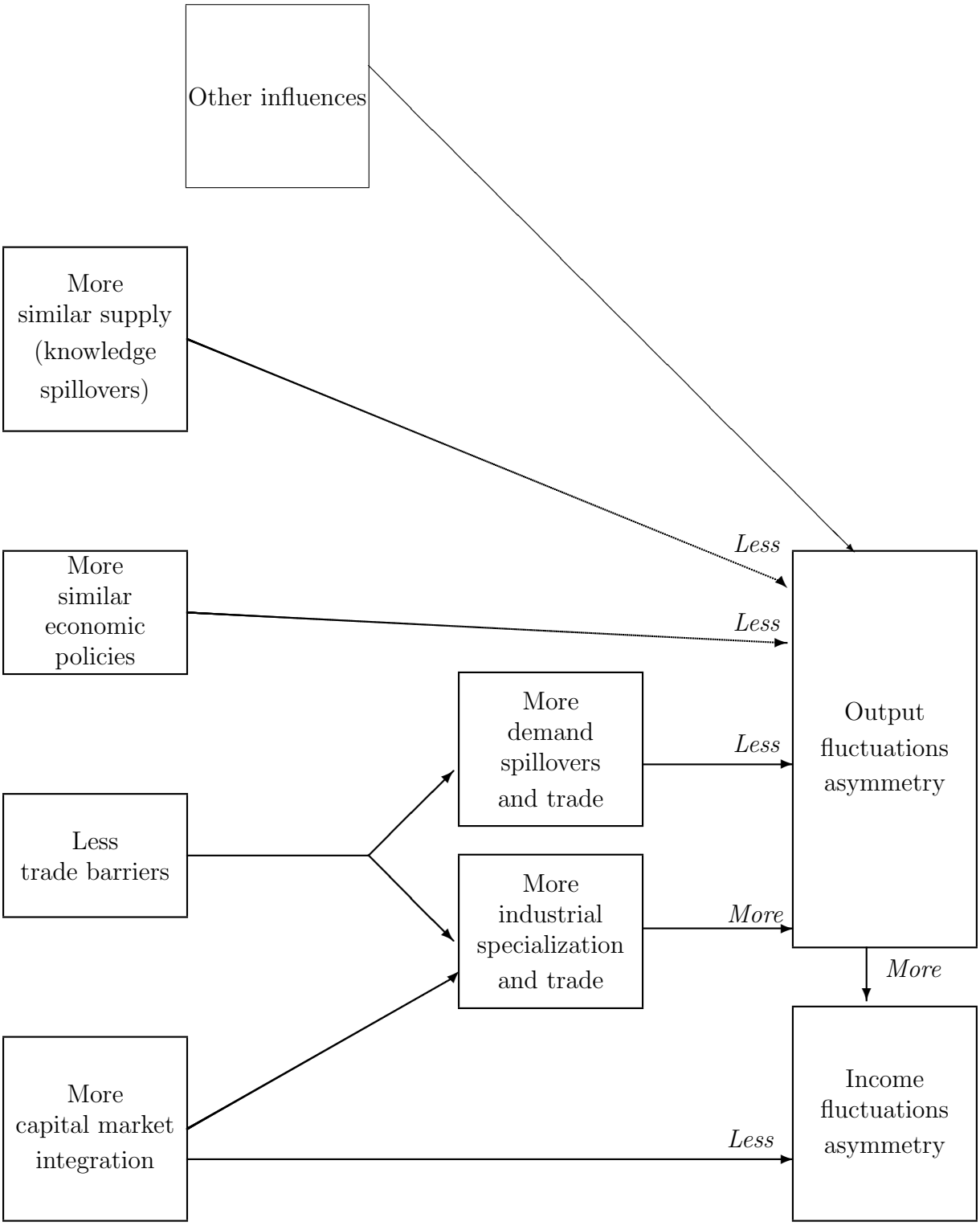


Figure 1: The Effects of Economic Integration on Fluctuations Asymmetry (A stylized picture)