The Effects of Globalisation on Labour Markets, Productivity and Inflation

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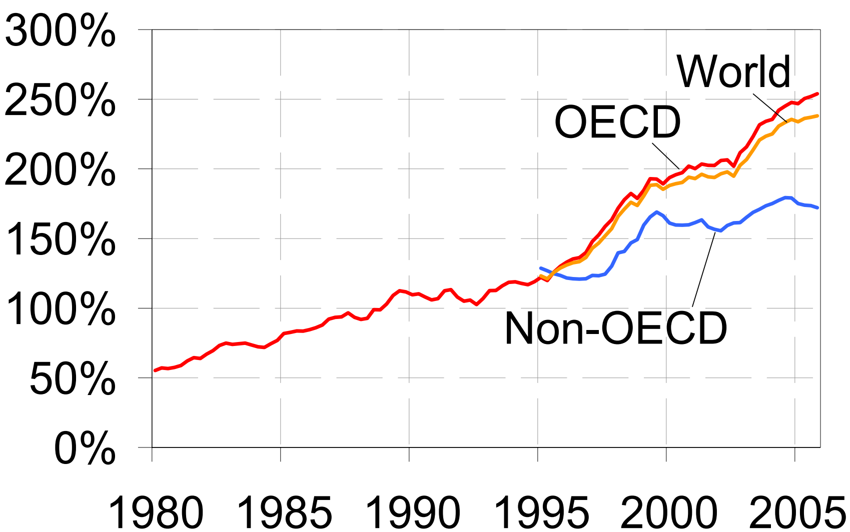
Over the past decades international economic integration has proceeded rapidly.

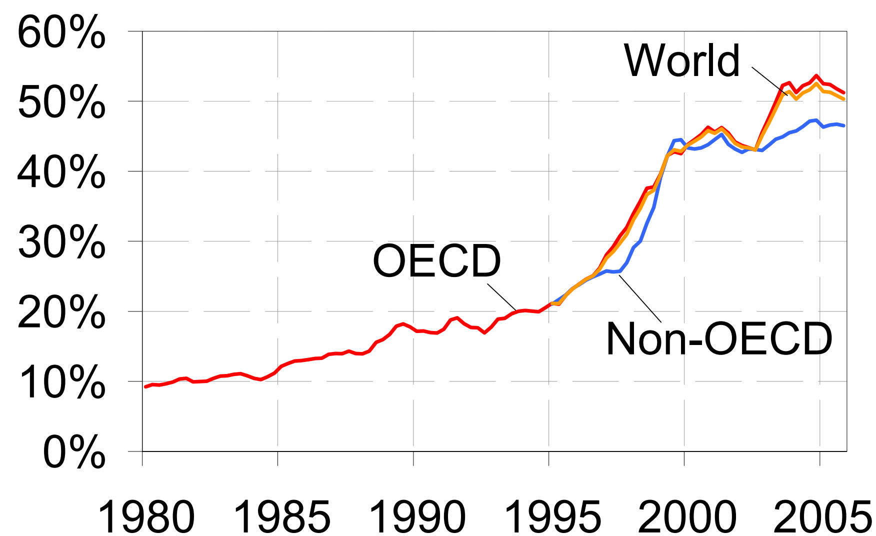
Trade in Goods and Services

Exports plus imports to GDP
(current US$)



Foreign Direct Investment

Assets plus liabilities to GDP
(current US$)



Globalisation has been proceeding for many years.

The pace of economic integration has been particularly marked since the mid-1990s – suggesting structural changes in the impact may have occurred.

New developments that may have affected the impact of globalisation on OECD economies

- The marked increase in the extent and pace of integration since the mid-1990s
- The integration of China and India into the global economy – significantly boosting global labour supply
- Development of international production networks:
  - the fragmentation of production across borders via international outsourcing and offshoring; international trade in tasks
- Foreign competition spreading into previously sheltered sectors and occupations via ICT-enabled offshoring and market entry.
- Financial globalisation
- Such developments, common to all OECD economies, have prompted a re-assessment of the impact of globalisation.
- Globalisation now affects particular tasks and occupations as well as firms/sectors.

The Globalisation and Structural Adjustment Project 2005-07

- This had three main components:
  - The macroeconomic effects of globalisation
    - labour markets, inflation, policy challenges from the future evolution of globalisation.
  - The sectoral impact of trade on labour markets
  - The effects of the outsourcing of business services
- The project examined the policy challenges from:
  - The spread of global trade & production networks and IT-enabled global sourcing.
  - The impact of non-OECD economies on commodity markets and competition pressures in the OECD.
  - Financial globalisation.
- A final report was provided to Ministers in May 2007

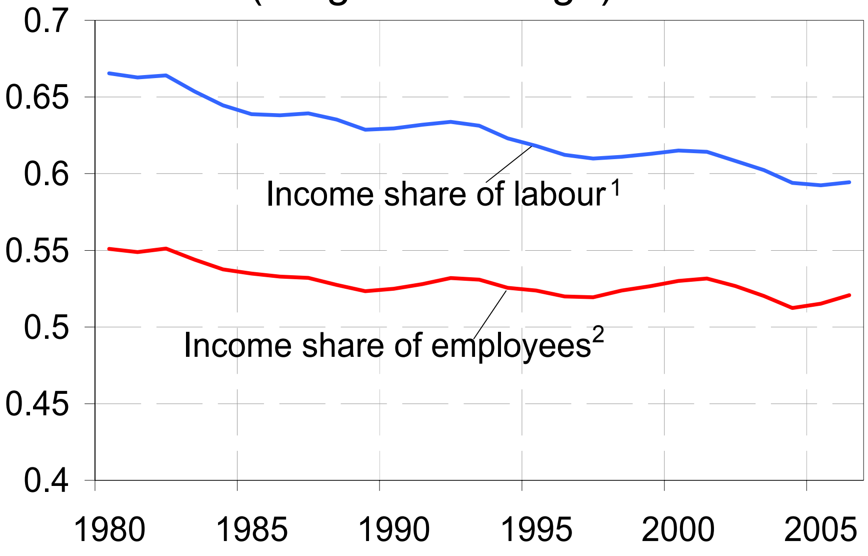
The current phase of globalisation has coincided with structural reforms in OECD labour markets

- The impact of globalisation is occurring against a background of widespread reforms to labour market institutions (see the *Restated OECD Jobs Strategy*) – for example:
  - Reductions in product market and labour market regulations
  - Activation of the unemployed
  - Increased responsiveness of wage setting to supply/demand pressures
  - Reductions in tax wedges
- **All these affect wage and employment outcomes**.
- Other things being equal, they should have acted to reduce structural unemployment.
- Attempts to quantify the impact of globalisation have to allow for other (potentially endogenous) sources of structural change.

The labour share of GDP has fallen, but real wages have grown robustly in most OECD countries.

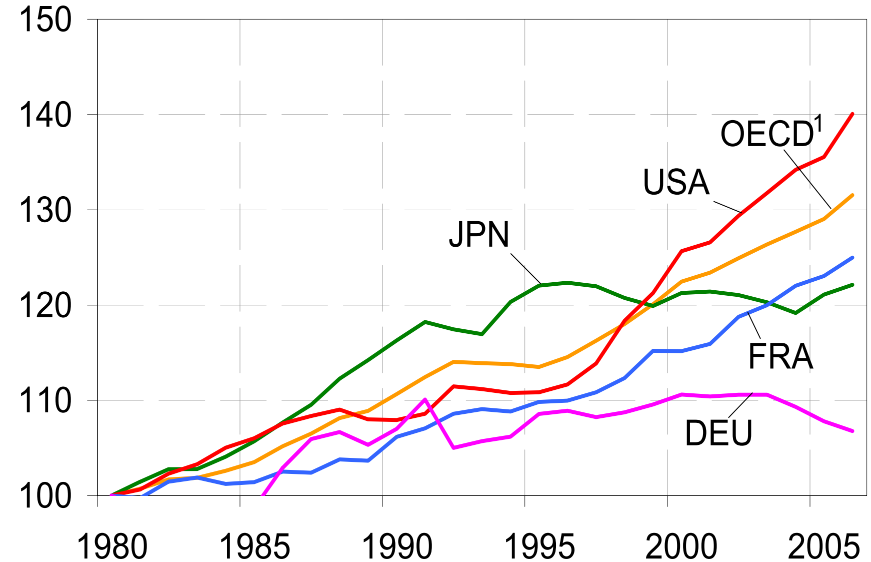
Labour Income Shares

OECD economies
(weighted average)



[1]Dependent employees and self-employed.
[2] Dependent employees (private and government sectors).

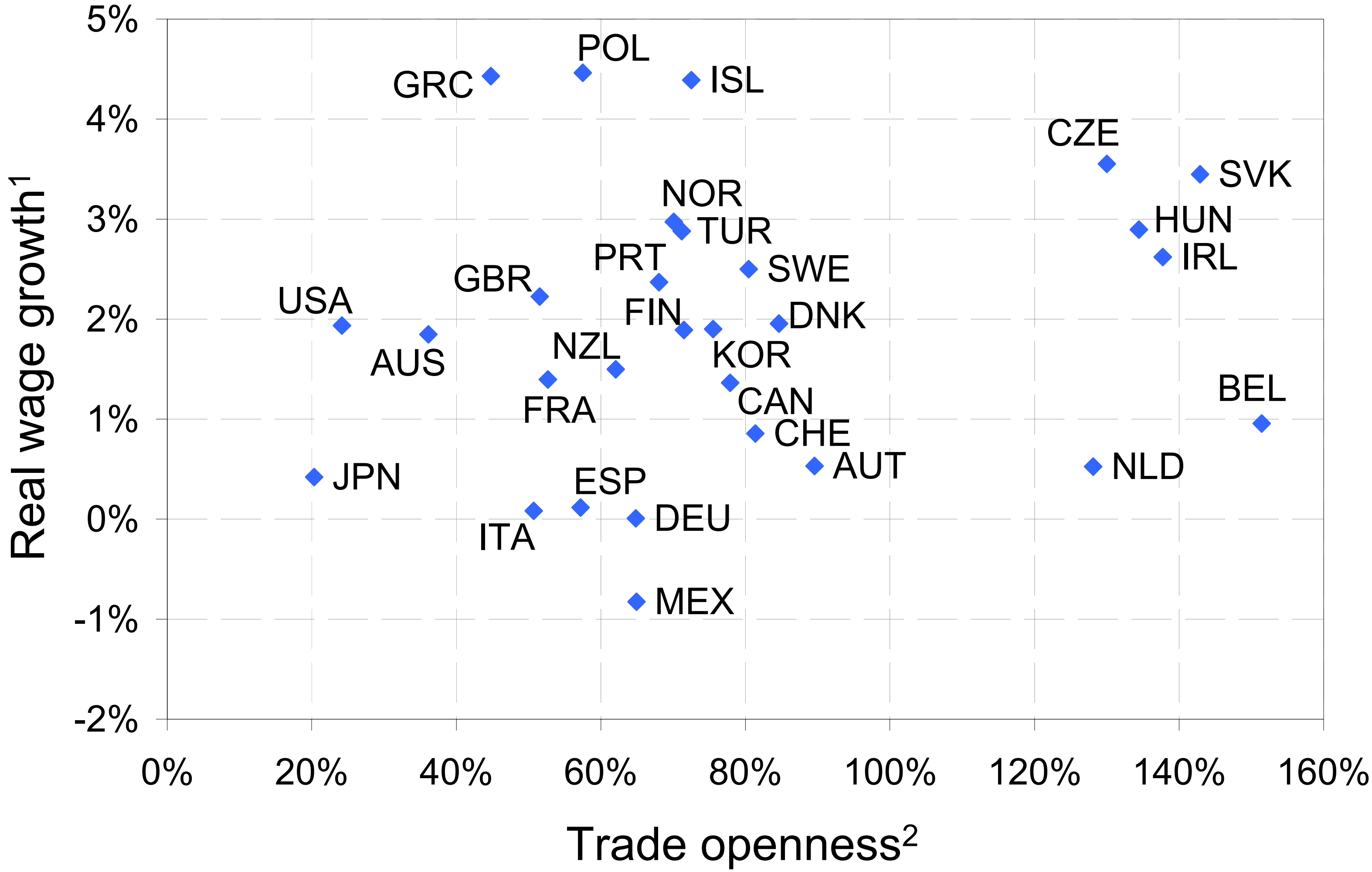
Real Compensation per Employee



[1]Weighted average; country coverage varies according to data availability.

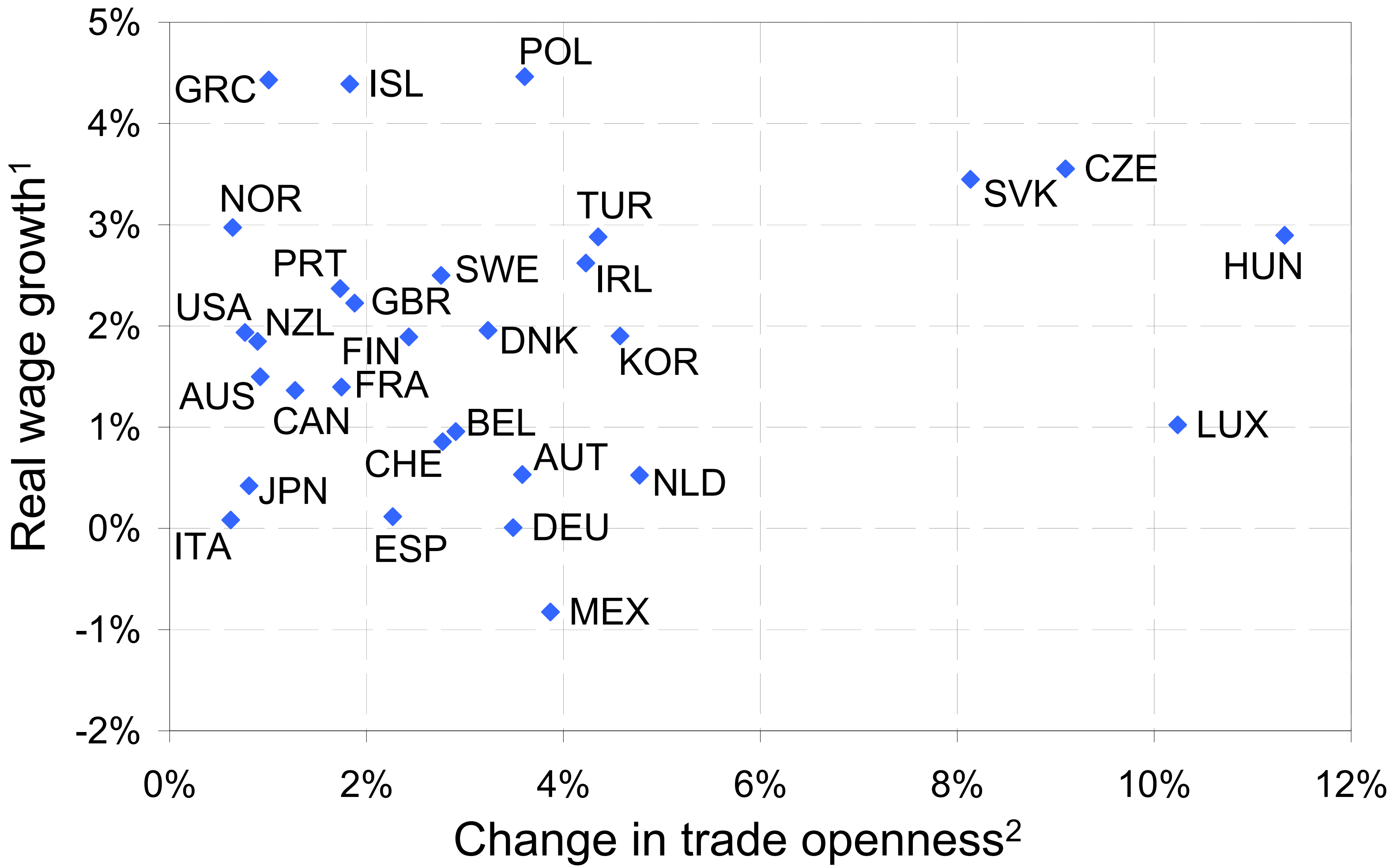
- The decline in the labour share began before the mid-1990s.
- In accounting terms, the labour share decline is due to labour productivity rising faster than real wages.

Real wage growth over the past decade is not correlated with trade openness.



[1]Annual averages, 1995 to most recent observation.
[2]Exports plus imports to GDP, average 1995 – 2006.

Real wage growth was somewhat stronger in countries where openness rose the fastest.

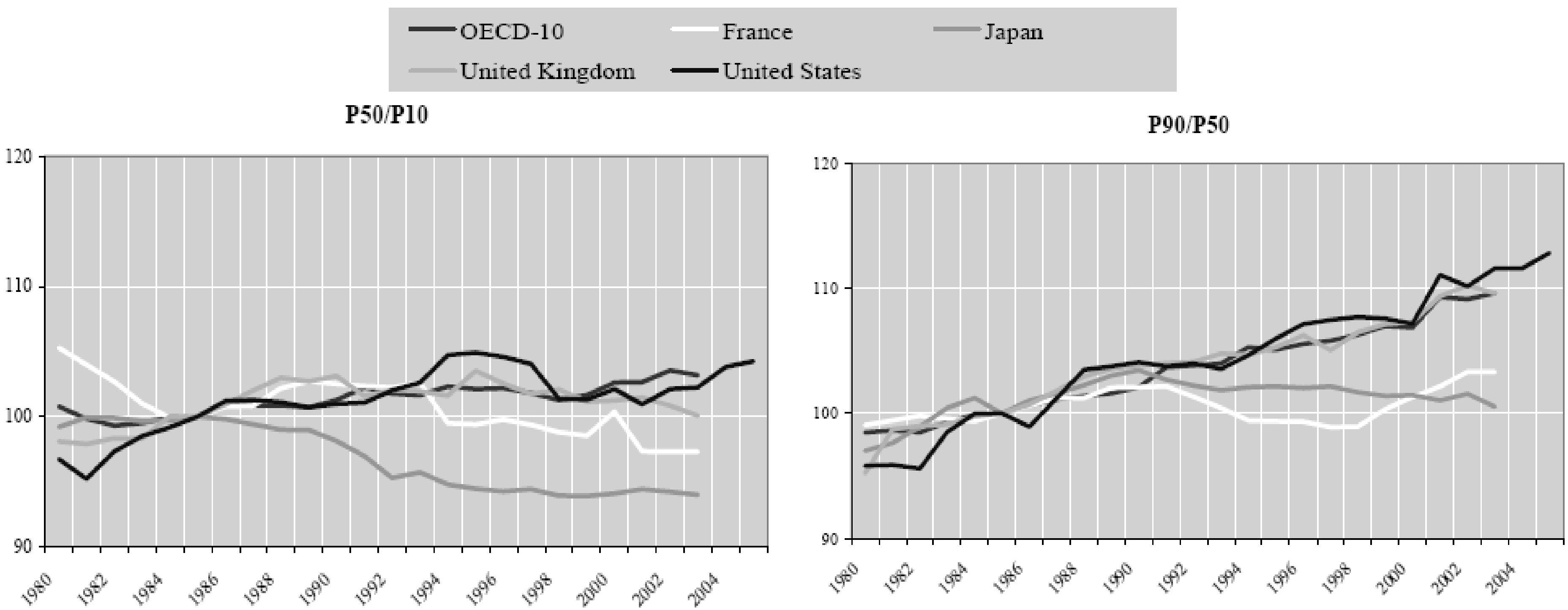


[1]Annual averages, 1995 to most recent observation.
[2]Percentage point change in the ratio of exports plus imports to GDP, average 1995 – 2006.

Despite real wage growth, earnings inequality has risen, especially in the top half of the distribution.

Earnings inequality in OECD countries

Index, 1985=100



P90, P50, and P10 denote the 90th, 50th, and 10th percentiles of the distribution of earnings for full-time employees.
Source: OECD Employment Outlook (2007), forthcoming.

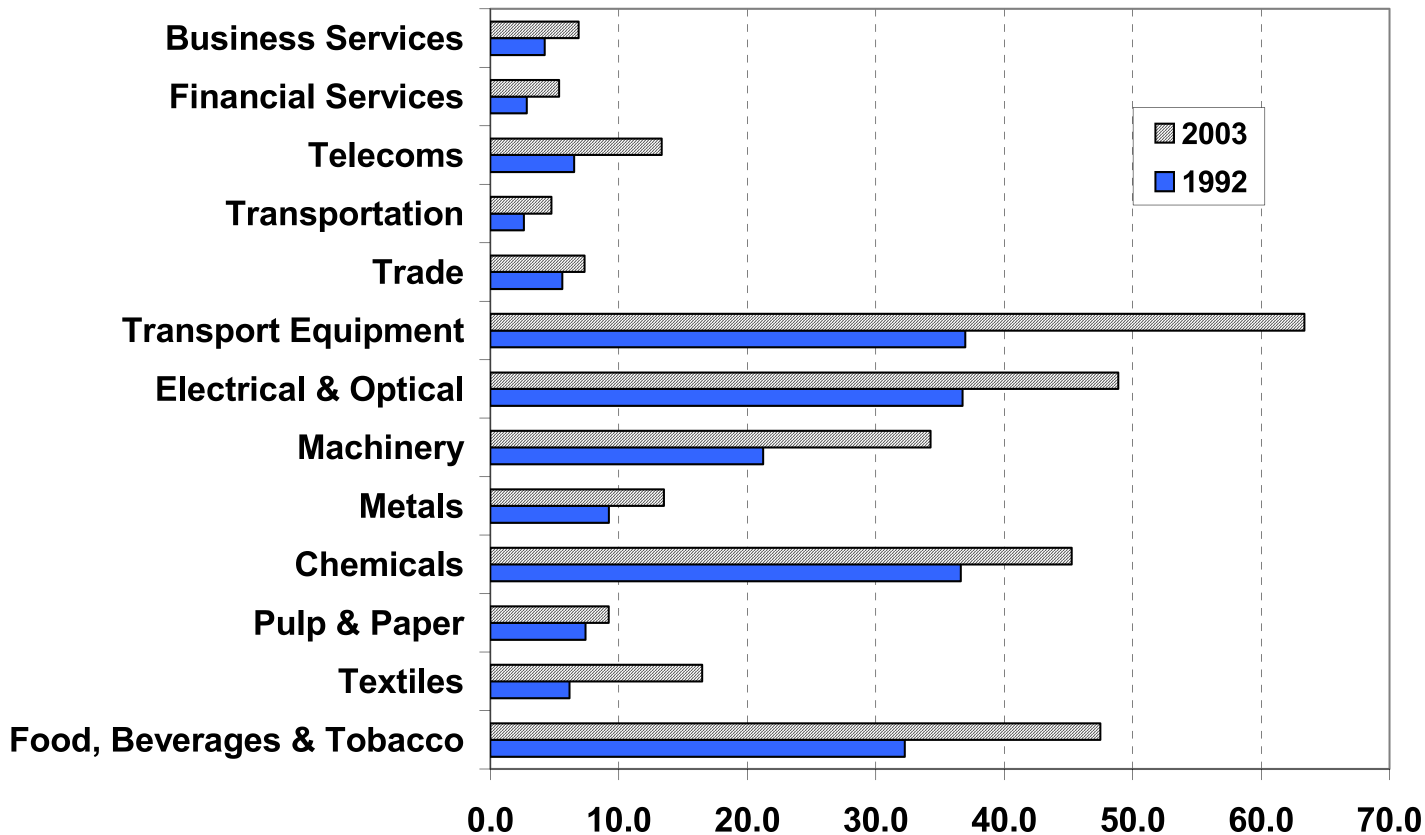
Wages of more skilled workers have risen relative to those of less skilled workers, though not in all countries.
This is one source of political concerns about globalisation.

Possible labour market impacts of trade and international production networks

- Lower-skilled tasks can be moved to lower (unit) cost locations
  - potential productivity gains for domestic industries
  - rising trade will coincide with rising skill-related premia
- Substitution of employment between home and host locations is more likely for cost-saving investments and the larger the host relative to the home country.
- Possible implications include:
  - Domestic labour demand is more sensitive to domestic wages
  - Employment adjusts more rapidly to changes in desired labour demand (via output, real labour costs, technical change etc.)
  - Firms have an exit option which, even if not exercised, raises the relative bargaining power of employers.
  - Impact on wage bargains will depend on the preferences of those involved & the level at which bargaining takes place.

Foreign affiliate employment rose relative to domestic employment between 1992-2003 in all sectors in the G3

Ratio of U.S. Foreign Affiliate Employment to Employment in the U.S. (%)



- There are marked differences across sectors.
- The data for Japan and Germany show a similar pattern to the US.

Empirical evidence from the GSA project (and IMF work) suggests globalisation is affecting the labour market.

- No evidence of aggregate impact on employment levels or growth.
- Globalisation is one factor contributing to the decline in the labour income share and the rising returns for skilled workers.
  - But it only accounts for a small part of these trends. Technological change and changes in labour market institutions are more important.
- Evidence for some industries, especially in manufacturing, that globalisation raises the wage elasticity of labour demand:
  - Outward FDI raises the long-run wage elasticity of labour demand (0.8%→1.0%)
  - Trade raises the short-run wage elasticity of labour demand (0.2% in mid-1980s → 0.5% early 2000s)
- For the US, employment growth in US-owned foreign affiliates has positive correlation with employment at home; for Japan, the correlation is negative (controlling for sales and costs).

Globalisation also has positive effects on productivity levels and growth in OECD economies.

- Greater specialisation in areas of comparative advantage.
- Better access to foreign knowledge (inward and outward FDI).
- Using intermediate inputs produced offshore may boost home productivity growth (Grossman and Rossi-Hansberg, 2006)
- Benefits of enhanced competitive pressure in product markets.

- The OECD Growth Project found that a 10% pt increase in trade openness was associated with a 4% rise in income per capita.
- Work for GSA (for 9 global regions) found that enhanced openness raises the rate of convergence of GDP per capita to US levels.
- Labour market work for GSA found evidence that outward FDI and the international outsourcing of intermediate inputs can raise productivity in home economies.

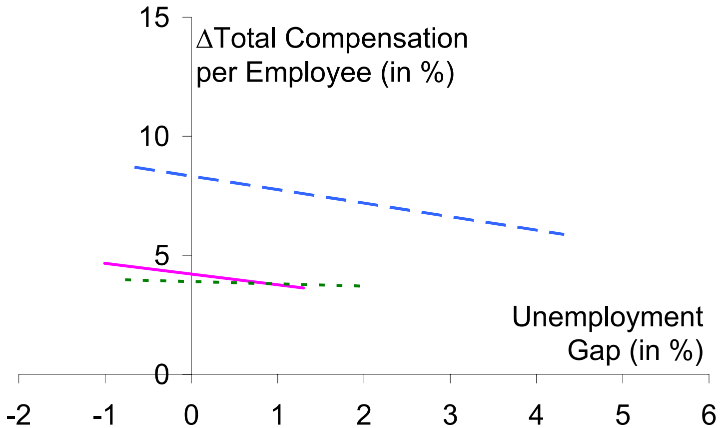
Summary of labour market impacts of globalisation (from trade and FDI – migration will add to these)

- Globalisation is associated with rising living standards
  - The benefits are not shared automatically by all workers
- Globalisation is one factor generating structural change
- The ongoing globalisation process is one factor helping to dampen wage inflation and reduce the labour income share.
  - These may be one-time changes, albeit prolonged.
- The higher wage elasticity of labour demand raises potential gains in employment from labour-market reforms, but also raises the potential volatility of workers labour market outcomes.
- Labour market developments are becoming more closely linked with those in other countries.
  - One channel for global factors to influence domestic cost growth.
- Increasingly important to put policies in place to help labour market adjustment in OECD economies.

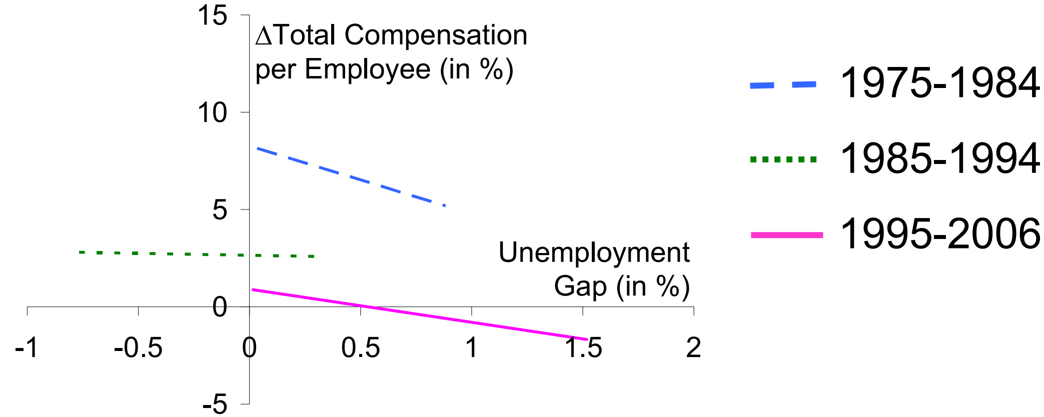
There are reasons to believe that the labour market challenges could increase further.

- Vertical multinationals & production fragmentation become more likely as trade and communication costs fall and as location becomes possible in countries with different factor endowments.
- China & India have significant reserves of underemployed labour.
- OECD estimates suggest that up to 20% of occupations in the major economies are potentially offshorable (high ICT content).

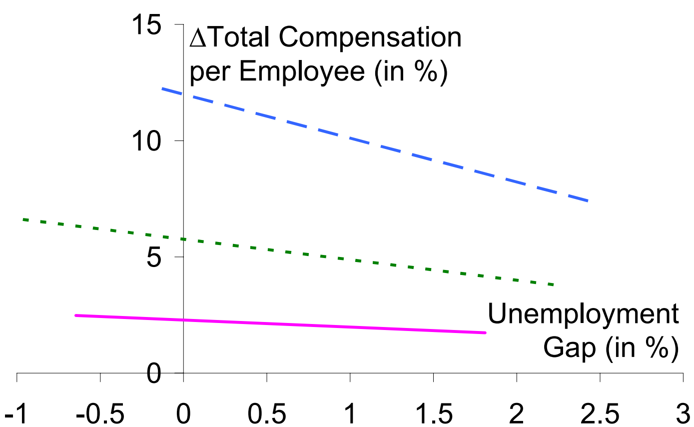
Globalisation has coincided with changes in the short-run association between labour market pressures & wage growth.



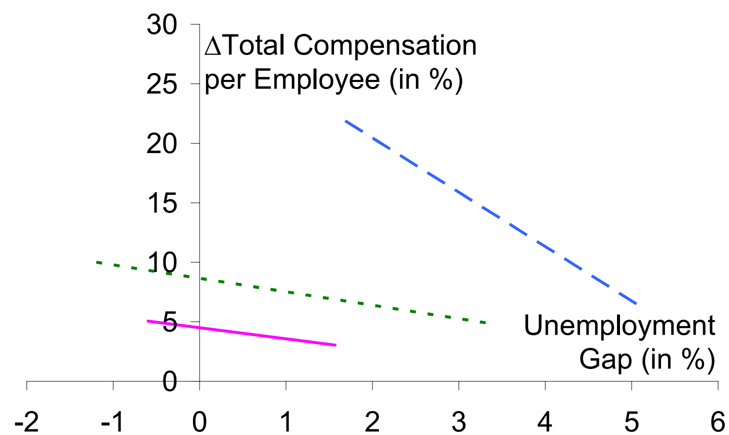
United States



Japan



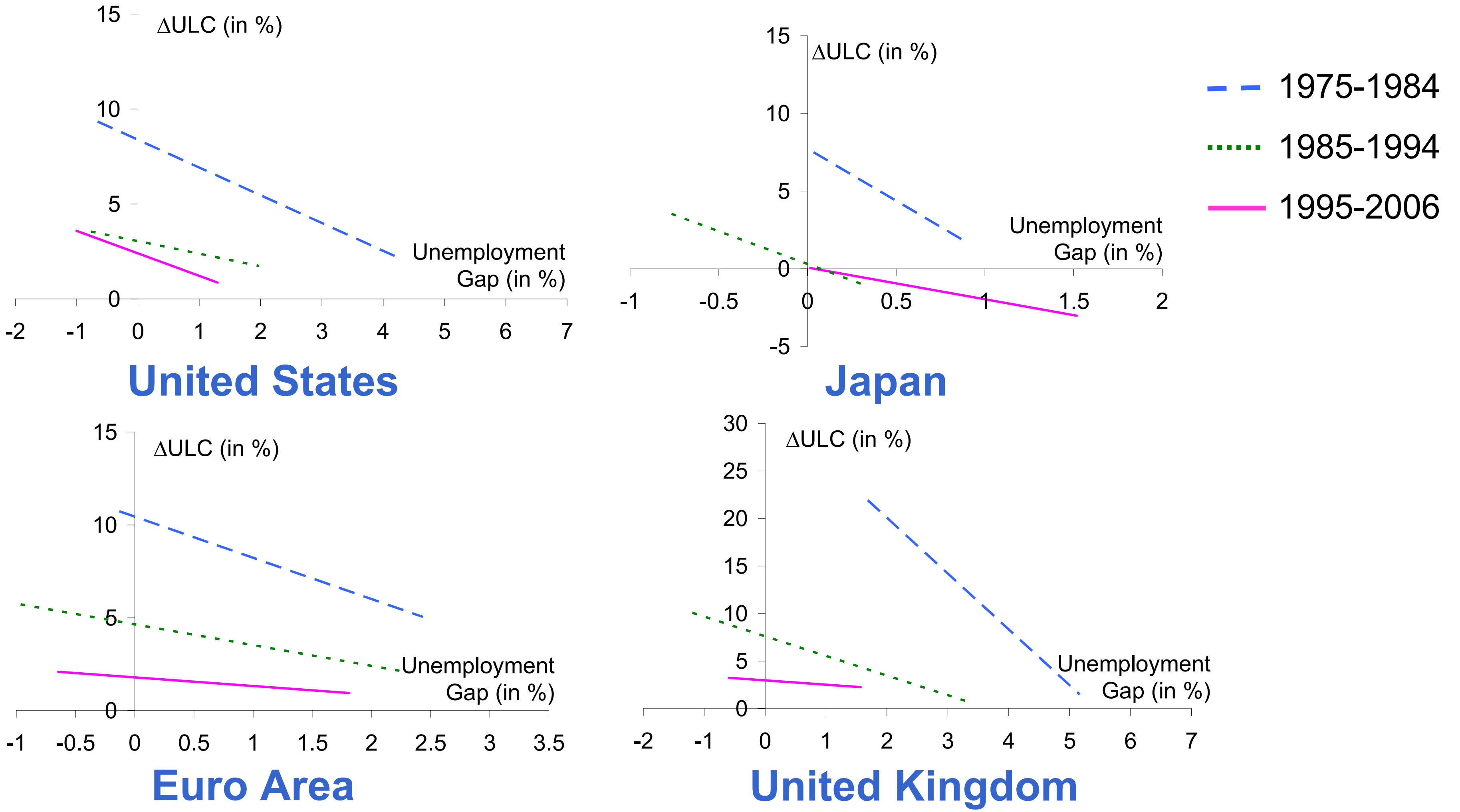
Euro Area



United Kingdom

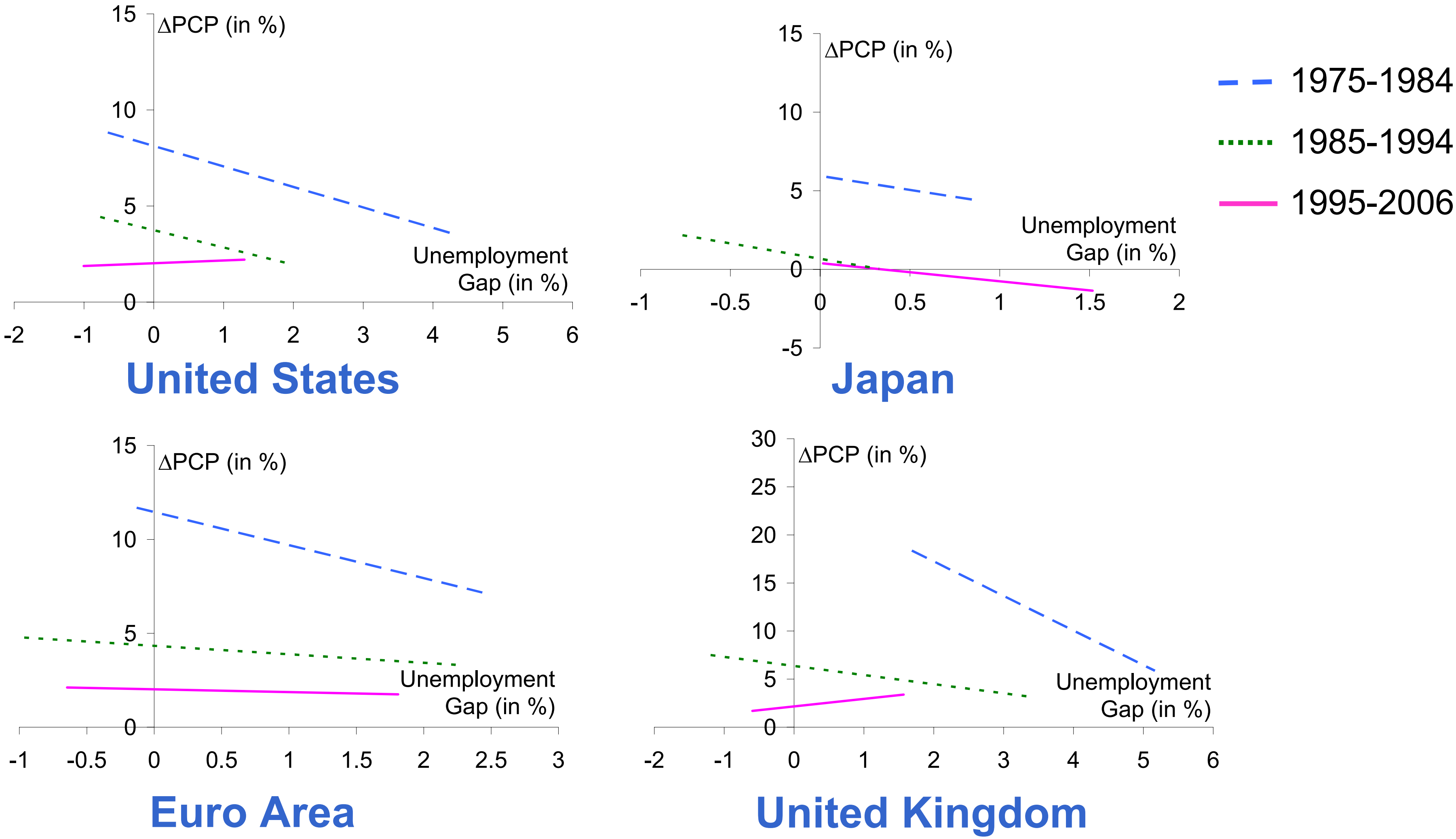
The lines are fitted regression lines through the actual quarterly data for the period.

Globalisation has coincided with changes in the short-run association between labour market pressures & unit cost growth.



The lines are fitted regression lines through the actual quarterly data for the period.

Globalisation has coincided with changes in the short-run association between labour market pressures & inflation.



The lines are fitted regression lines through the actual quarterly data for the period.

Globalisation has coincided with changes in the relationship between labour market pressures & inflation.

- The short-run Phillips curve has become more horizontal over time, both for labour costs and for price inflation.
  - Also apparent using the change rather than the level of inflation.
- Movements in the unemployment (and output) gap have smaller effects on inflation than before.
- This can reflect many factors – globalisation, other structural labour market changes, better anchored inflation expectations and changes in monetary policy frameworks.
- The flattening of the Phillips curve began before globalisation accelerated in the mid-1990s:
  - Better anchored inflation expectations may be more important.
- The role of globalisation is an empirical matter. Competition could even make prices more responsive to activity.

The impact of globalisation on price inflation is examined in Pain, Koske and Sollie (2006).

- The analysis has three steps:
  - Calculation of the direct impact of rising lower-cost imports from emerging economies on inflation rates in selected OECD economies using a simple accounting framework.
  - Analysis of the impact of global economic conditions on oil and non-oil commodity prices.
  - Empirical analysis of the wider impact of globalisation on consumer prices in 21 OECD economies, over 1980-2005
    - Test whether inflation dynamics changed in the mid-1990s.
    - Quantification of the impact of globalisation on prices and inflation through a scenario analysis that distinguishes the impact of non-commodity and commodity import prices.

[1] Main findings of the accounting analysis:

- The combined impact effect of lower-cost imports from China and other dynamic Asian economies has reduced domestic inflation
  - by 0.1 percentage points per annum in the United States (from 1996 to 2005);
  - by 0.3 percentage points per annum in the euro area (from 2000 to 2005).
- Calculations from a number of studies (Federal Reserve, ECB) suggest that imports from lower cost producers have pushed down non-commodity import price inflation by between 1 and 2 percentage points per annum over the last decade.

[2] Globalisation and commodity prices: empirical results.

- Strong GDP growth in the non-OECD economies since 2000 has been an important factor behind the recent growth of real oil prices and real metals prices.
- A scenario analysis of setting the growth rate of non-OECD economies equal to the (lower) growth rate of the OECD economies from 2000 onwards reveals that
  - oil prices would have been 20-40% lower than the baseline in the fourth quarter of 2005;
  - real metals prices would have been 10% lower than the baseline.
- This removes some, but not all of the strong growth in oil and metals prices over recent years.

[3] The price equation estimated jointly (SUR) for 21 OECD countries using quarterly data for 1980-2005 is:

$$\Delta \ln P_{i,t} = \alpha_{0i} + \alpha_{1i}\left(\ln P_{i,t-1} - \beta_{1i} M^{SH}_{i,t-1} \ln P^{M}_{i,t-1} - [1-\beta_{1i} M^{SH}_{i,t-1}] \ln C_{i,t-1} \right)$$

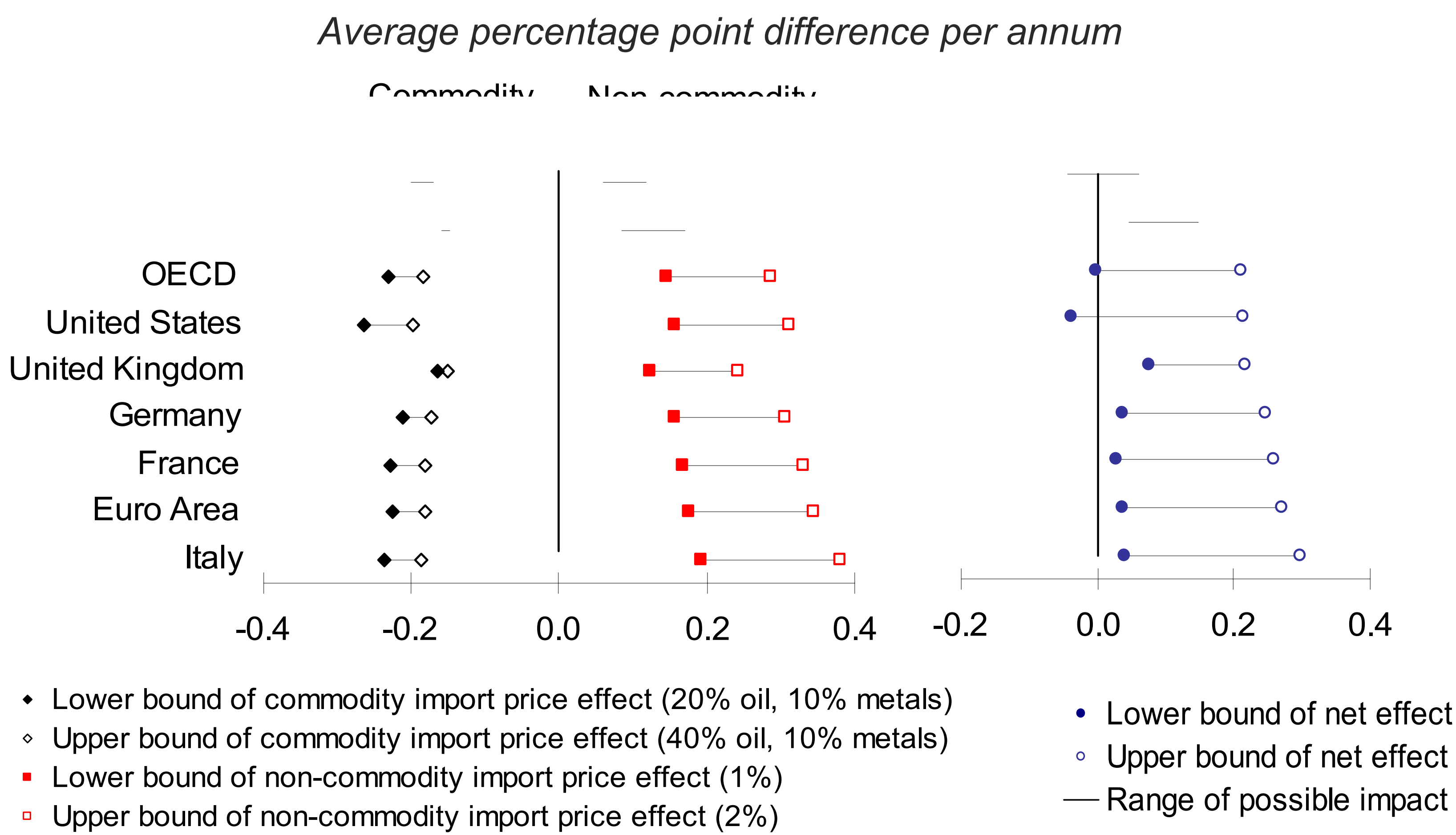
$$+ \sum_{j=1}^{4} \lambda_{ji} \Delta \ln P_{i,t-j} + \sum_{j=0}^{4} \gamma_{ji} \Delta \ln P^{M}_{i,t-j} + \sum_{j=0}^{4} \delta_{ji} \Delta \ln P^{C}_{i,t-j} + \alpha_{3i} GAP_{i,t-1} + \varepsilon_{it}$$

- P, P^M and C denote consumer prices (CED), import prices of goods plus services and domestic unit labour costs
- M^{SH} denotes the import share of domestic demand (rolling regressions without this term showed a rise in $ß_1$ over time)
- GAP is the domestic output gap
- Cross-equation parameter restrictions imposed if data permits
- $ß_1$ found to be significantly larger from 1995Q1 onwards

[3] The impact of globalisation on price inflation

- The long-run influence of import prices on domestic consumer prices has risen since the mid-1990s. This reflects two factors:
  - a rise in import penetration in OECD economies;
  - the impact of import competition on competitors' prices.
- The impact of import prices on domestic consumer prices is larger in small open economies.
- The cyclical sensitivity of inflation to domestic economic conditions declined between 1981-1994 and 1995-2005.
- No robust significant additional impact from the global output gap. (Global conditions are already reflected in import prices).
- The separate commodity and consumer price findings are combined in a set of scenario analyses. These show that ex-ante inflationary pressures in most OECD economies would have been moderately higher in the absence of globalisation

Impact on consumer price inflation from removing globalisation effects 2000-05.



These estimates are for given labour costs. To the extent that globalisation also affected labour cost growth, the net implicit disinflationary impact of globalisation may be even higher.

Concluding comments and issues for discussion [1]

- Globalisation is clearly affecting labour market outcomes in the OECD, and also domestic price inflation.
  - Can the various impacts can be expected to persist for some time?
  - The existing impact appears modest – will it rise in the future?
- Estimating underlying inflationary pressures is more complicated:
  - Globalisation affects commodity and non-commodity prices
  - The flatter Phillips curve raises the difficulties of identifying where the economy is relative to potential.
  - Does this have implications for the conduct of monetary policy?

Concluding comments and issues for discussion [2]

- Globalisation raises the need for labour market flexibility (job reallocation) but also raises fears about job insecurity and widening earnings inequality.
- What are the appropriate policies to deal with these concerns?
  - Enhancing potential job creation and labour market adjustment:
    - greater product market competition
    - reduced employment protection legislation
    - Education/training policies to equip workers with general skills
  - Direct adjustment assistance to displaced workers:
    - Transitional income support (and health coverage)
    - Full occupational pension portability
    - Active labour market programmes for updating skills and improving job search.