## **Regulatory Heterogeneity**

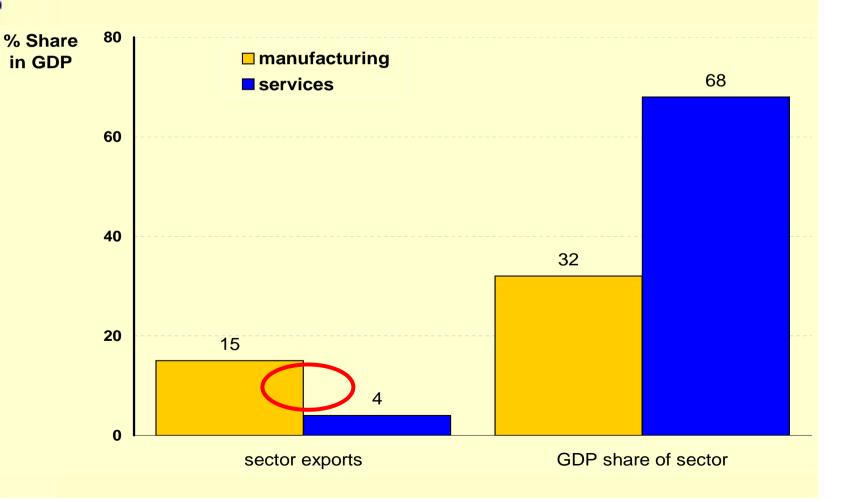
as Obstacle to

**International Services Trade** 

Arjan Lejour, Henk Kox

# Contribution of trade to GDP, by sector, OECD average, 2001





# cpb §

### Why so little trade in services?

- Technical reasons:
  - most service products cannot be shipped in boxes
  - physical proximity of service producer and consumer often required
- Alternative international supply form: setting up a local subsidiary (FDI)
- Regulation-based trade barriers
  - Directly trade barriers (non tariff)
  - Non-tariff barriers caused by regulation of service markets

# Regulation-based barriers for services

### Many different types

- additional diplomas, certificates, licenses, requirements on input use, marketing, local professional insurance, membership of professional association, juridical form, etc. (EC, 2002)
- common element: qualification costs

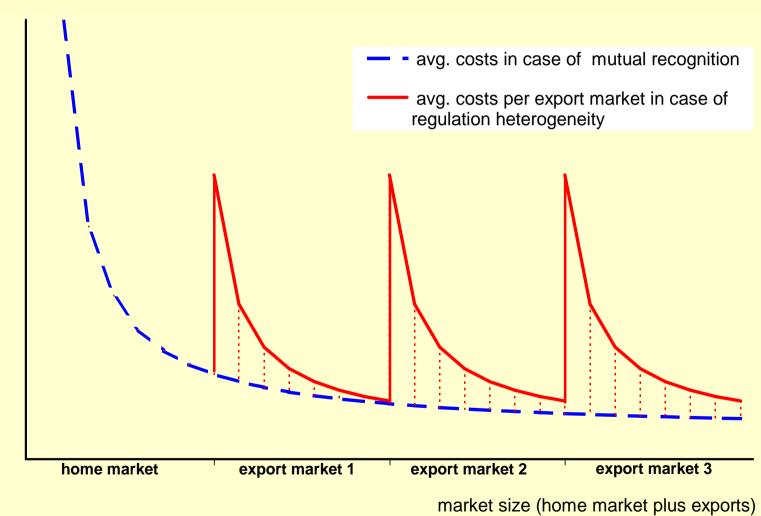
### Different motives for regulations:

- ensure quality of the service or
- reliability of the service provider
- protect incumbent firms
- satisfy special domestic interest groups

### Nature of regulatory barrier

- Qualification costs for service providers: mainly fixed costs
- Regulation-caused costs could be a source of scale economies..... if borders were open!
- Foreign service regulation comes on top of regulation in home market
  - Every country regulates it its own way
- Compliance costs are independent of firm size
  - ▶ → press hardest on SME

Average cost of service product



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Impediments in Services Trade

### Bilateral policy heterogeneity

- For explaining bilateral trade we need a quantitative measure for bilateral policy heterogeneity
- Use OECD International Regulation database
  - ► Database: 1100 regulation items
  - ► Selection of 200 items in product market regulation
- For each regulation item pair-wise comparison of countries
  - yields a matrix of bilateral indicators for policy heterogeneity

### Refinements

- Heterogeneity indicator:
  - ► an indicator for regulation-caused NTBs
  - increases in the level of policy heterogeneity between countries
  - specific for each country pair
- Decomposable for separate regulation domains:
  - ► Barriers to competition
  - ► Administrative burdens on startups
  - ► State control
  - Regulatory and administrative opacity
  - ► Explicit barriers to trade / investment

### **Empirical model**

### To be explained:

- bilateral trade in commercial services (excl. transport) of 14 EU countries, 1999-2001
- Model:
  - gravity model augmented with policy variables
- Explanatory variables:
  - ► GDP origin, GDP destination
  - distance factors (physical distance, language distance)
  - regulation heterogeneity indicators (5 sub-domains)
  - indicator for level of product market regulation in origin and destination country
  - ► fixed effects for origin and destination countries (country dummies), year dummies

mpediments in Services Trade

# Bilateral commercial services exports (In), 1999-2001, 480 obs

| TLS/SUR                | Country of origin | Of Destination |
|------------------------|-------------------|----------------|
| GDP origin             | 0.83***           |                |
| GDP destination        |                   | 0.88***        |
| Distance               | -0.85***          | -0.85***       |
| Language               | -0.70***          | -0.70***       |
| PM Regulation origin   | -0.34***          |                |
| Barrier entrepre. dest |                   | -0.03          |
| Hetero. Start ups      | 0.35              | 0.35           |
| Hetero. Competition    | -3.10***          | -3.10***       |
| Hetero. EBT            | -0.86***          | -0.86***       |
| Hetero. reg & adm.     | -0.23             | -0.23          |
| Hetero, state control  | 0.74              | 0.74           |

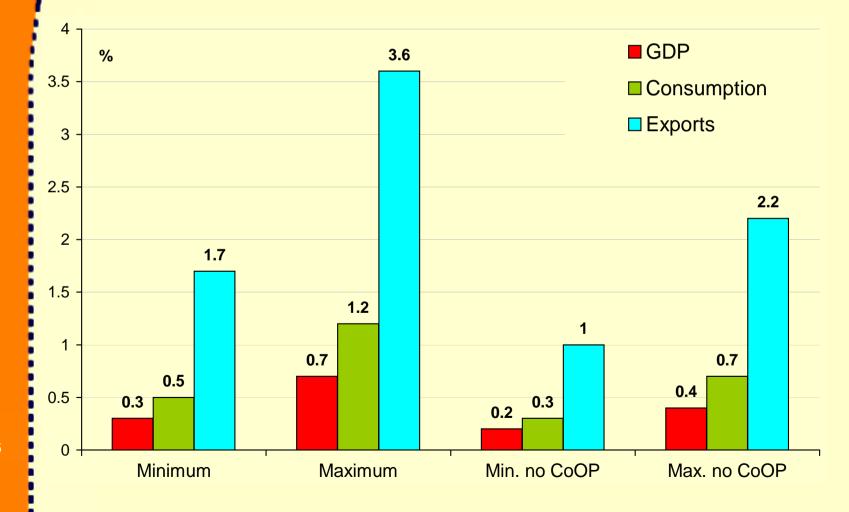
### Results trade regressions

- Heterogeneity in market regulation has a strongly negative impact on bilateral trade in commercial services
  - especially indicator for competition regulation (BC)
  - less so, indicator for discriminatory treatment (EBT)
- Regulation level in origin country significant
- Regulation level / strictness) in destination county <u>not</u> significant
- Tests:
  - other estimation methods (OLS, FE, DIM/FIML)
  - other service trade aggregates
  - results appear robust!

### **Policy context:**

- EC (2004): new proposals that should boost internal service market by 2010. Principal instruments:
  - reduce regulation heterogeneity
  - Country of origin principle
  - abandon discriminating regulations
- Use our regression results for quantifying possible effects of EU proposals
- Bilateral trade in services could increase by 65%
- Elimination of regulatory heterogeneity could triple trade.
- FDI could increase by 35%

# Impediments in Services Trade



### **Conclusions**

- Heterogeneity in regulation hampers services trade
  - ► In particular barriers to competition and explicit barriers to trade and investment
- It acts as fixed costs for market entry
- Elimination of heterogeneity could triple trade
- avg. GDP increase of SD 0.3 0.7% (= 32 74 bln. Euros)

### **CPB research on Services Directive**

- Effects Directive on intra-EU services trade and FDI (September/October 2004)
  - The Free Movement of Service within the EU (CPB Document 69)
  - Policy heterogeneity as obstacle for international services trade (Discussion Paper 49)
- Macro-economic effects (Febr. 2006)
  - Trade-induced effects of the Services Directive and the country-of-origin principle (CPB Document 108)
  - Opening services markets: the role of foreign establishments (CPB Discussion Paper forthcoming)

Impediments in Services Trade

| Regulation comparison item   | Implementation<br>mode   | Regulation<br>Country<br>1 | Regulation<br>Country 2    | Heterog-<br>eneity<br>count for<br>item | Cumulative<br>hetero-<br>geneity<br>count | Average bilateral heterogeneity count |
|--|--|----------------------------|----------------------------|---|---|---------------------------------------|
| License or permit required for operating in service sectorX  | <ul><li>a) No requirement</li><li>b) Always</li><li>c) Only firms in activity Y</li><li>d) Only firms larger thanZ</li></ul> | No requi-<br>rement        | Only firms in activity .Y. | 1                                       | 1   | 1                                     |
| Nationality requirements for management of companies operating in service sectorQ  | a) Yes<br>b) No  | No                         | No                         | 0                                       | 1   | 0.5                                   |
| Existence of restrictions (other than capital and technical) for participation in public tendering for service contracts | <ul><li>a) No restrictions</li><li>b) Always</li><li>c) Often</li><li>d) Sometimes</li></ul>                                 | Some-<br>times             | Always                     | 1                                       | 2   | 0.67                                  |

| Policy domain                 | Initial policy<br>heterogeneity,<br>avg. for EU14,<br>(1998) | Reduction due to<br>Services<br>Directive |
|-------------------------------|--|---|
| Regulatory & admin. opacity   | 0.38   | 66-77%                                    |
| Explicit barriers trade / FDI | 0.21   | 73-78%                                    |
| Admin. burden start-up firms  | 0.55   | 34-46%                                    |
| Barriers to competition       | 0.32   | 29-37%                                    |
| State control                 | 0.42   | 3-6 %                                     |
| Overall PMR                   | 0.39   | 31-38%                                    |