



EUROPEAN CENTRAL BANK

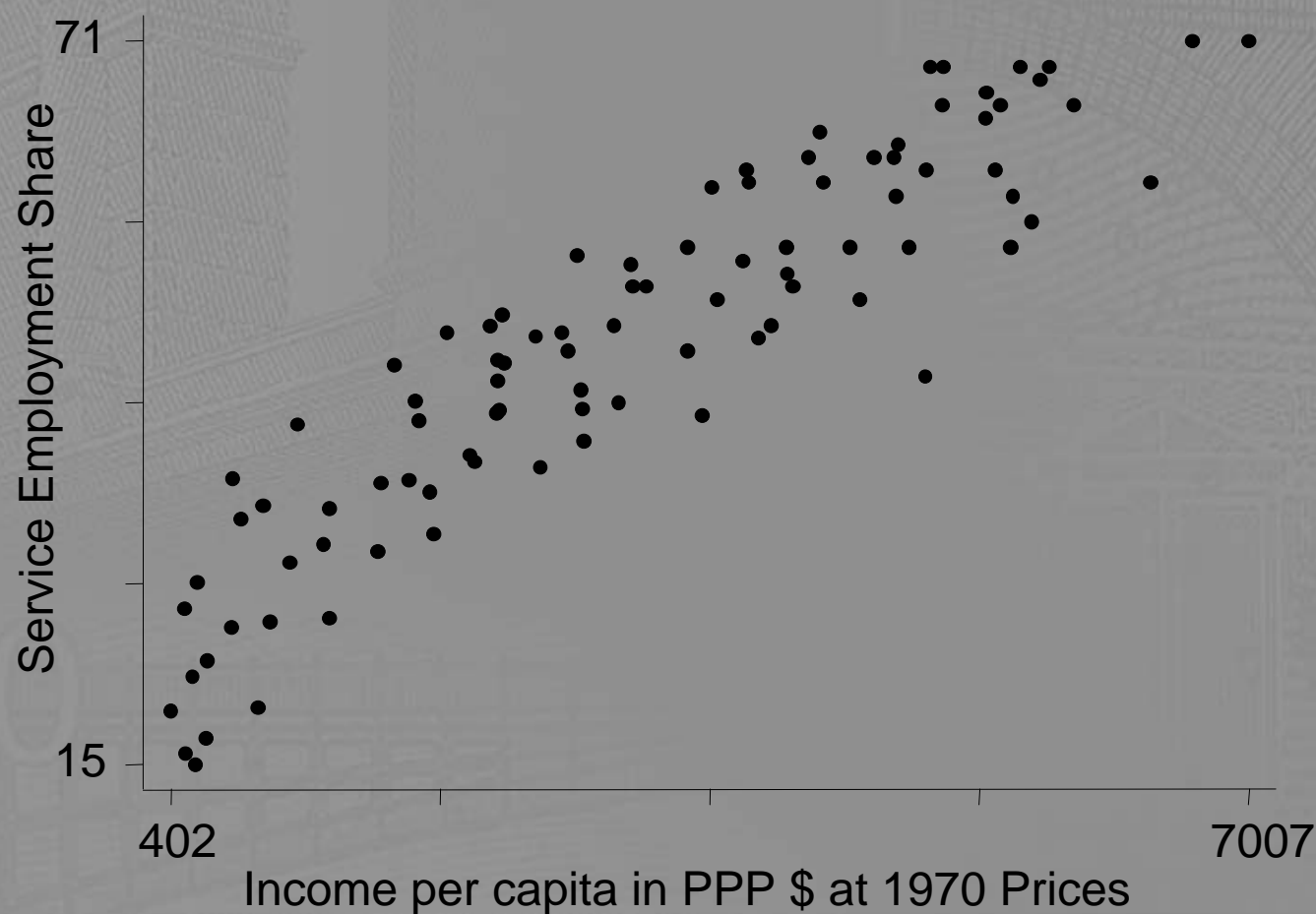
Institutions And Service Employment: A Panel Study For OECD Countries

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Paris, November 2004

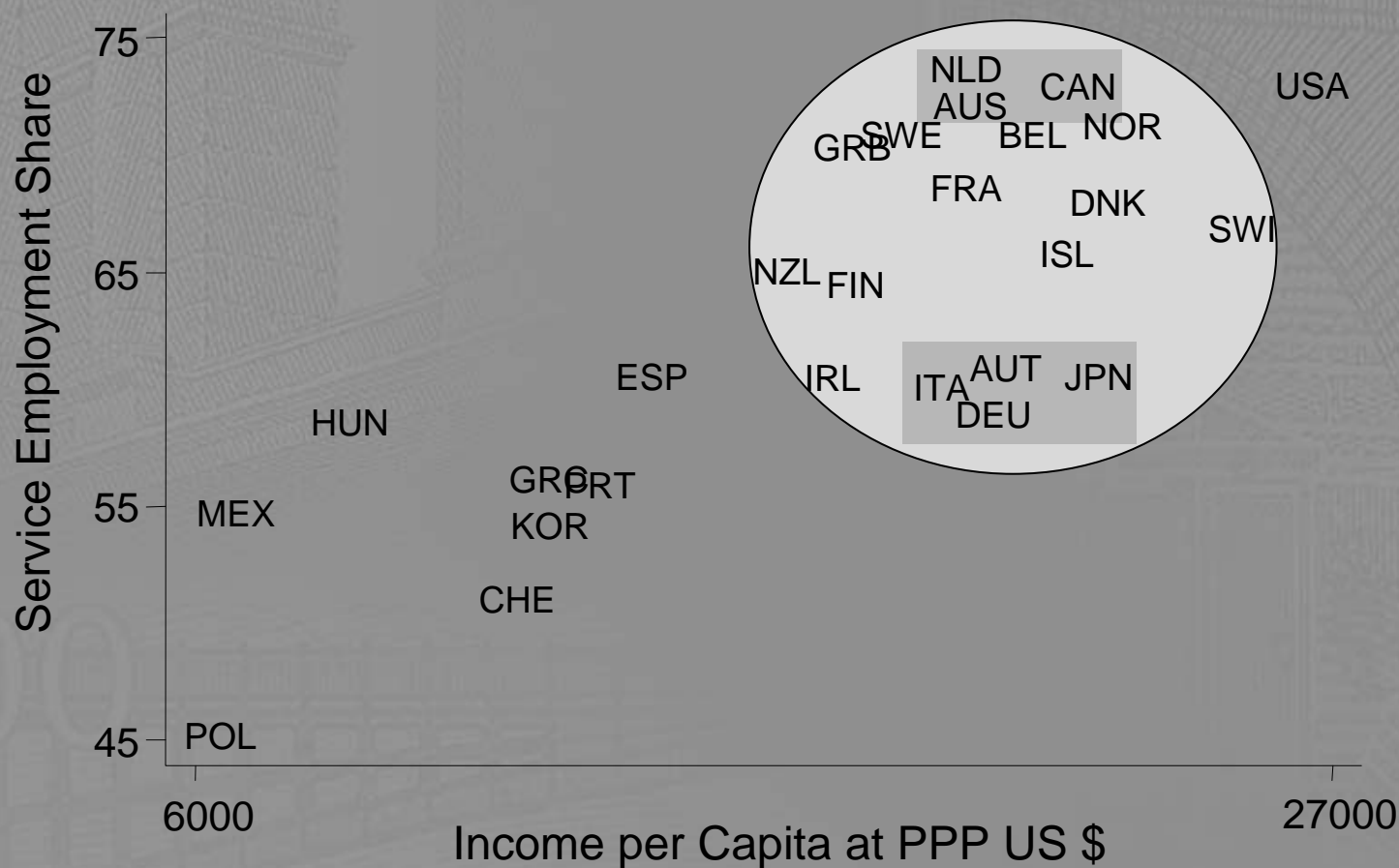
Strong forces of sectoral reallocation are associated with the growth process

*Income per Capita and the Service Employment Share.
Selected Countries. 1870-1997*



But not all countries benefit equally from the expansion of service employment

Service Employment and GDP per Capita in a Sample of OECD Countries. 1995-1997

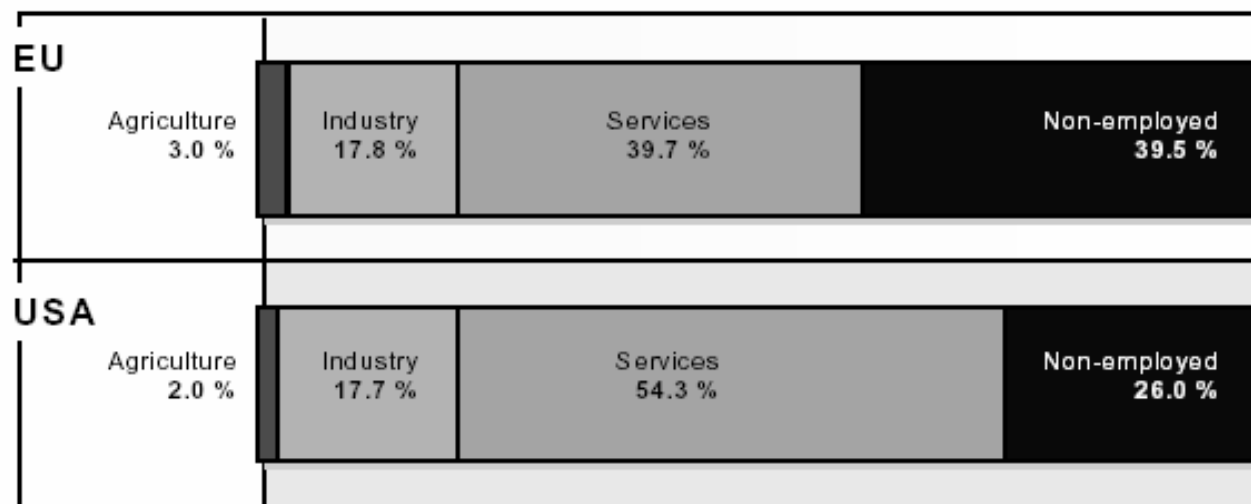


“...the real difference between Europe and the US is employment in the services sector. The fact is that, if Europe had had the same employment in the service sector as the US, there would be more than 30 million additional jobs in Europe.”

Allan Larson
Director General
Employment and Social Affairs
European Commission

The Employment potential: a growing services sector

As a share of total working age population



- *employment is substantially higher in services in the US than in the EU*
- the difference amounts to 36 million jobs
- *employment is somewhat higher in agriculture in the EU (2 ½ million jobs)*

Employment & Social Affairs



Service sector as the main engine of employment growth in modern economics

- **However, some countries seem to be lagging behind in the creation of service jobs:**
 - **Piketty (EER, 1999) About half of the French/US employment gap can be attributed to the retail sector**
 - **Gordon (1999) Missing occupations in Europe are concentrated on low wage jobs**
 - **But differences are also found within the high skilled jobs (Freeman and Schettkat, 1999)**
 - **Messina (2003) A role for entry regulations**

Literature

	Paper	Employment Share	Var of Interest	Result
• <i>Labor Market Institutions</i>				
Wage Floors and Union Power	Gordon (1997)	Services	W90/W10	0
EPL	OECD (2000)	Services	EPL ind.	< 0
Product Market Regulations	OECD (2000)	Services	PMR ind	0
Tax Wedge	OECD (2000)	Services	Tax Wedge	0
• <i>Demand Shifts</i>				
Female participation	OECD (2000)	Services	FE/TE	>
Investment Rate	Rowthorn et al. (1999)	Manufacturing	GDI/GDP	>
Government Consumption	Maddison (1982)	Services	Gov/GDP	>
Welfare State	OECD(2000)	Services	WS/GDP	>
Degree of Urbanization				
• <i>Trade Specialization</i>				
Dutch Disease	Kongsamut (1998)	Services	Nat/GDP	
Human Capital	Saeger (1997)	Manufacturing	Seco/GDP	<
North South Trade	Rowthorh et. al (1999)	Manufacturing	Trade with	0
	Saeger (1997)	Manufacturing	south/GDP	<

This paper

- **Extends the number of countries under study**
- **Presents an attempt to test alternative hypotheses in a unified framework**
- **Assesses the robustness of the results to different econometric specifications**
- **Disentangles the role of different structural factors in explaining the cross-country vs. the longitudinal dimension of the data**

Methodology

- **Basic Specification**

$$l_{jt} = \alpha + X_{jt}\beta + r_j\gamma + \varepsilon_{jt} \quad \text{for } j = 1, 2, \dots, n \text{ and } t = 1, 2, \dots, T_j$$

$$\varepsilon_{jt} = \omega_j + v_{jt}$$

- **Extended Specification (Mundalk, AER 1978)**

$$\omega_j = \delta_0 + \bar{X}_j\delta_1 + \eta_j$$

$$l_{jt} = \phi_0 + X_{jt}\beta + \bar{X}_j\delta_1 + r_j\gamma + \eta_j + v_{jt}$$

$$\text{for } j = 1, 2, \dots, n \text{ and } t = 1, 2, \dots, T_j$$

The data

- **Dependent variable: Service Employment Share in Total Employment**
- **Sample: 1970-1998. 5 year averages**
- **27 OECD Countries**
- **Sources:**
 - **OECD Statistical Compendium**
 - **World Development Indicators**
 - **Nicoletti et al. (1999)**
 - **Nickell and Nunziata (2001)**

Variables Included I

- **All Specifications:**
 - **GDP per capita & GDP per capita squared**
 - **Product Market Regulations: Inward Oriented Indicator and Administrative Regulations**
 - **Government Consumption/GDP**
 - **Fixed Investment/GDP**
 - **Degree of Urbanization (% population living in urban areas)**
 - **Secondary Education (and other indicators of human capital)**

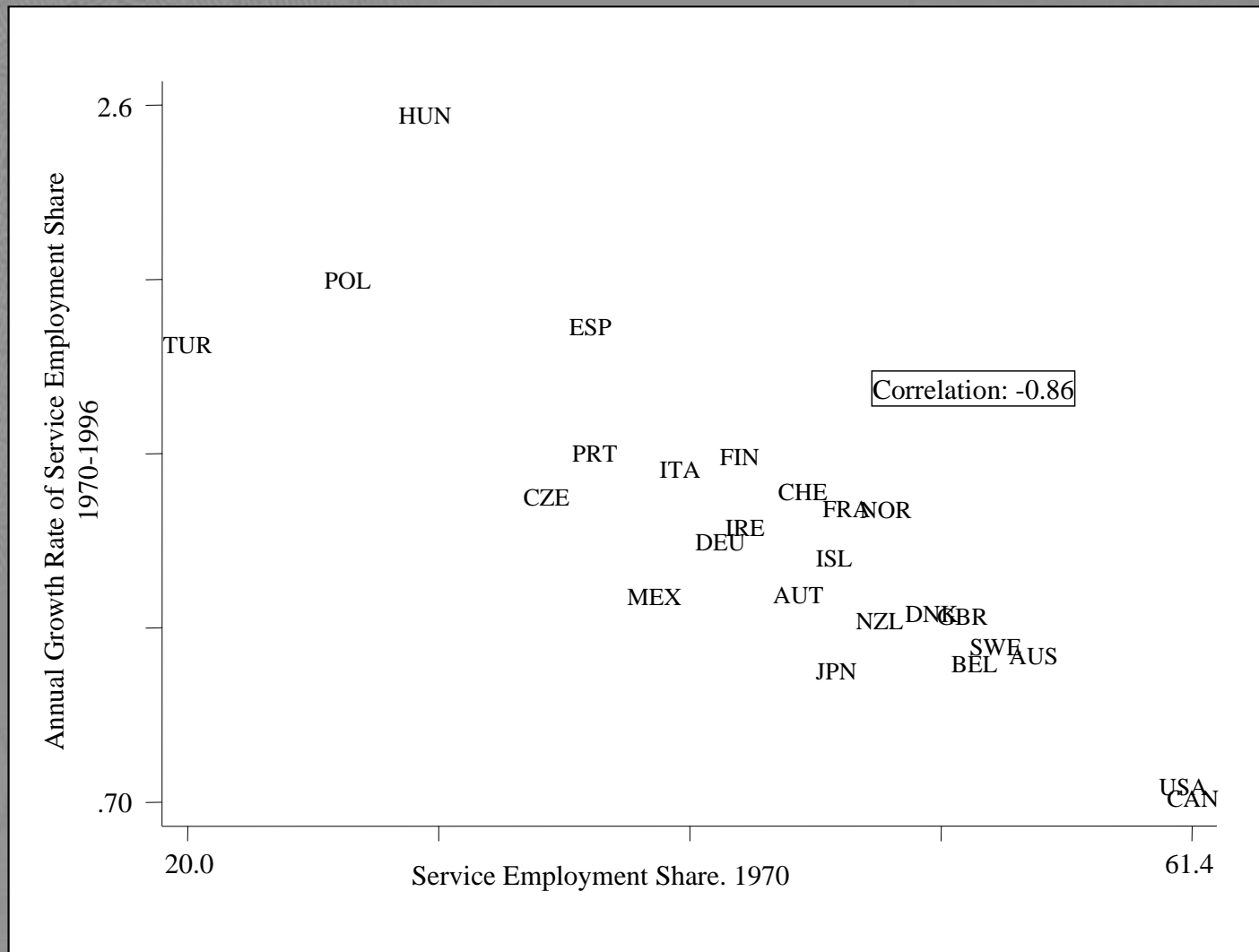
Variables Included II

- **Extended Specifications:**
 - **Productivity Differential (Labor Productivity Manufacturing/Services)**
 - **Female Employment Rate**
 - **Manufacturing/Services Trade Balances**
 - **Natural Resources Exports/GDP**
 - **EPL**
 - **Union density**
 - **Wage-setting coordination**
 - **Wage Compression: $W(50)/W(10)$**



Main Findings

- **Positive association between service employment share and GDP per capita, but turning point at 20.000 US \$: absolute convergence across this set of countries studied**



But significant differences subsist even after controlling for income per capita

- **Some structural factors are consistently associated with larger service sectors:**
 - **Countries and periods with populations more concentrated in urban areas**
 - **Countries and periods with larger government sectors**
 - **Countries and periods with smaller investment rates**

And institutional aspects have a significant role in explaining departures from the service-GDP relationship

- **Barriers to entry in the form of administrative burdens to business start-ups are negatively associated with the service employment share**
- **Higher union density and more coordinated bargaining systems also hamper the expansion of service employment**

An ANOVA decomposition

- **GDP per capita alone explains about 25% of both cross-country differences and the evolution over time**
- **On cross-country differences, the higher explanatory power falls on:**
 - **Administrative regulations**
 - **The extent of urbanization**
 - **Union power**
- **Significant impact of de-unionization in expansion of service employment**

An analysis for 4 service branches

- **Wholesale and Retail Trade (Wholesale)**
- **Transport and Communications (Transport)**
- **Social and Personal Services (Social)**
- **Financial, Business Services, Insurance and Real Estate activities (FIRE)**

Findings - 4 service branches

- **GDP per capita prominent role in all cases except Transports**
- **Urbanization and size of the public sector not significantly related to FIRE**
- **The negative impact of administrative burdens falls importantly on FIRE, while unions have a clear negative role in the expansion of Wholesale and Retail**

Concluding Remarks

- **Both structural and institutional factors are significantly associated with the recent evolution of the service employment share in OECD countries.**
- **This study concentrates on the relative size of the service sector, leaving aside an important element such as the relative efficiency of service production and its determinants.**