

CEE Economic Growth & Development

Lecture 10: Human Capital

October 22nd, 2014

Definition

Human Capital is the qualities and abilities of individual that increases the productivity (especially, those abilities that were acquired through investment in education and training).

Sources of HC

- formal schooling
- on-the-job training
- experience
- abilities the individuals are born with

The Labor Market: Major Players

DEMAND

Firms



Labor

Wages

SUPPLY

Labor Force



Government

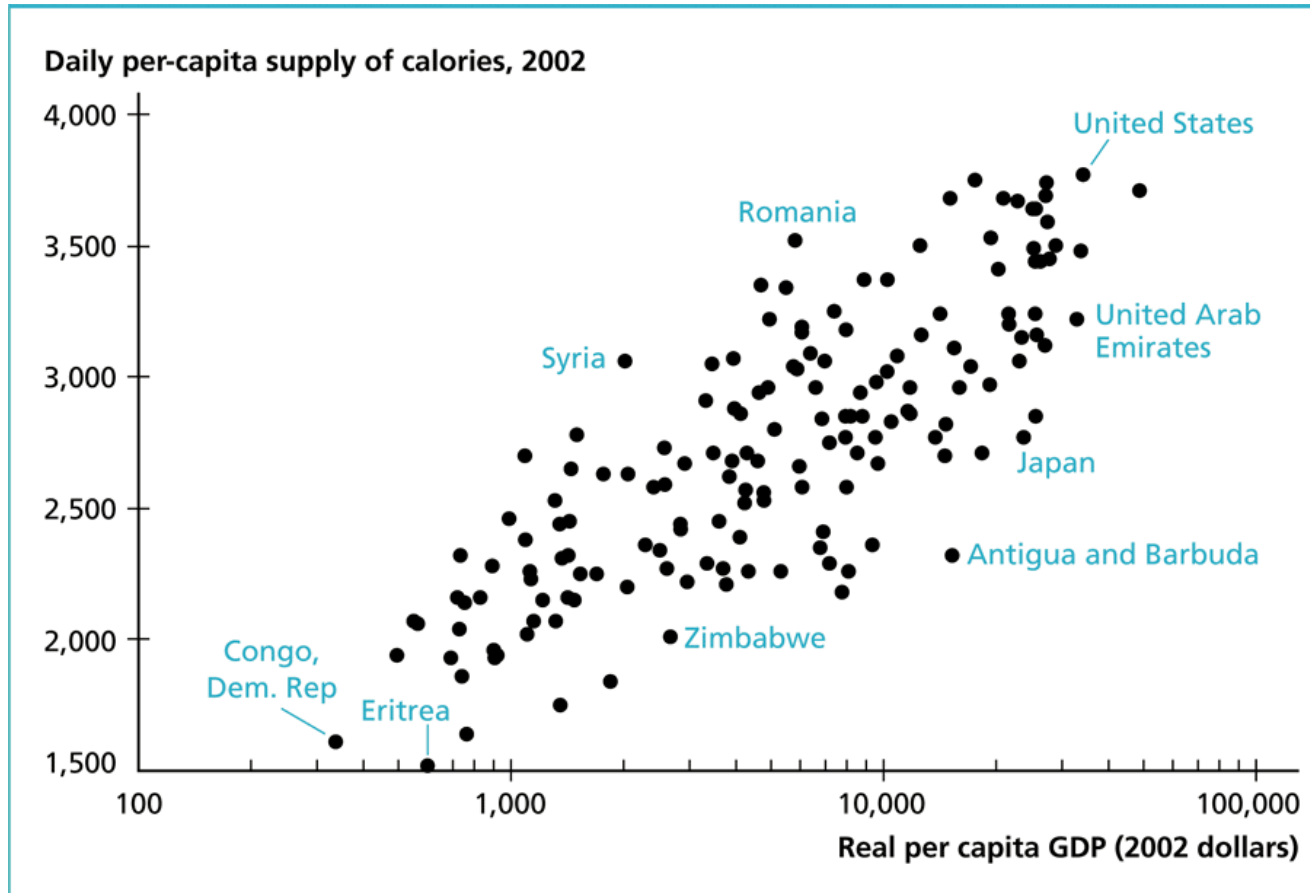
- Minimum wage
- Unemployment insurance
- Training programs

Labor unions

- Wage bargaining
- Protection of rights

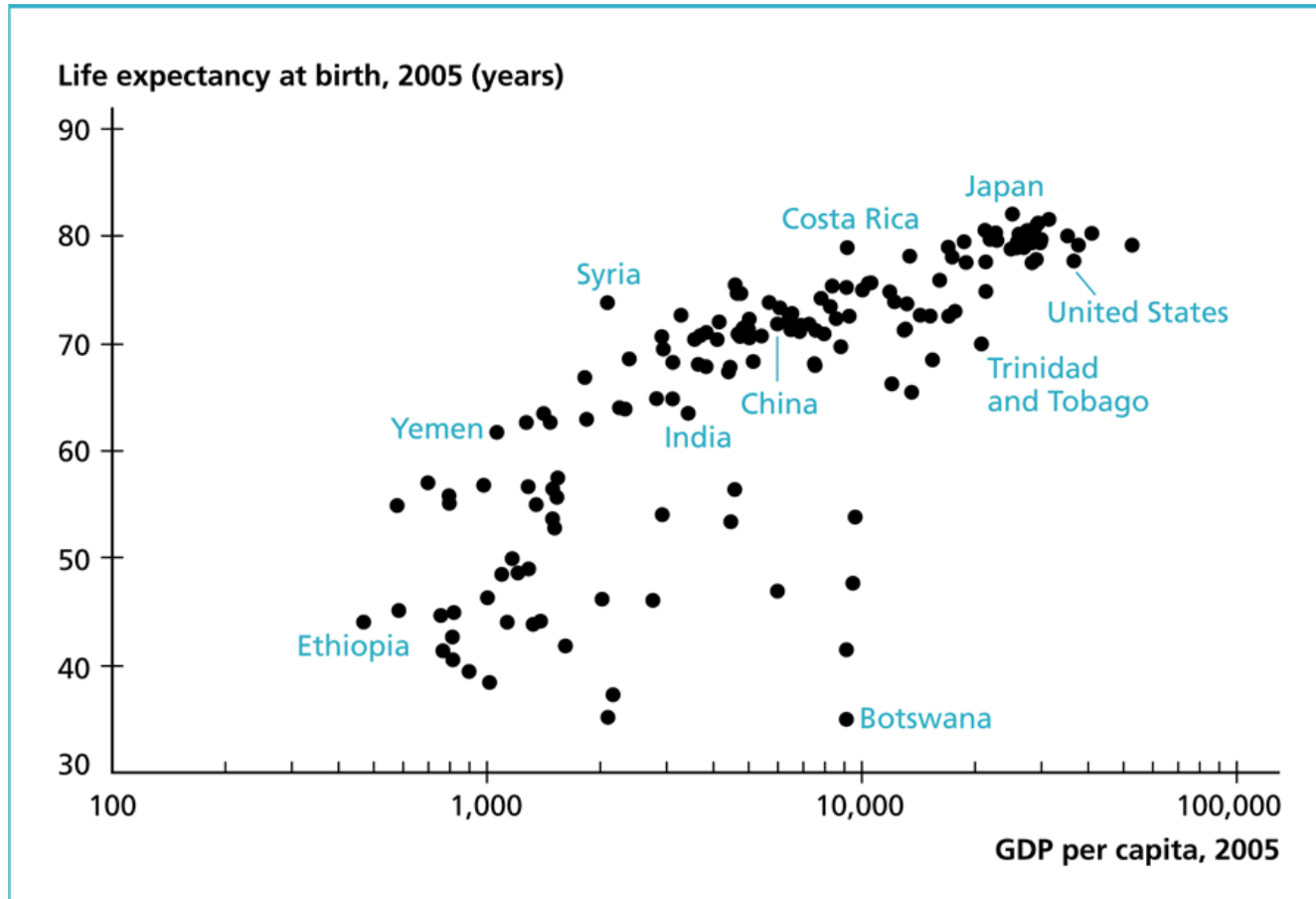
- Working age 15-65
- Employed + Unemployed
- Non-institutionalized

Nutrition versus GDP per Capita (Weil, 2012)



Sources: FAOSTAT database, Heston, Summers, and Aten (2006).

Life Expectancy versus GDP per Capita (Weil, 2012)



Sources: Heston, Summers, and Aten (2006), World Bank (2007a).

Effect of an Exogenous Shift in Income (Weil, 2012)

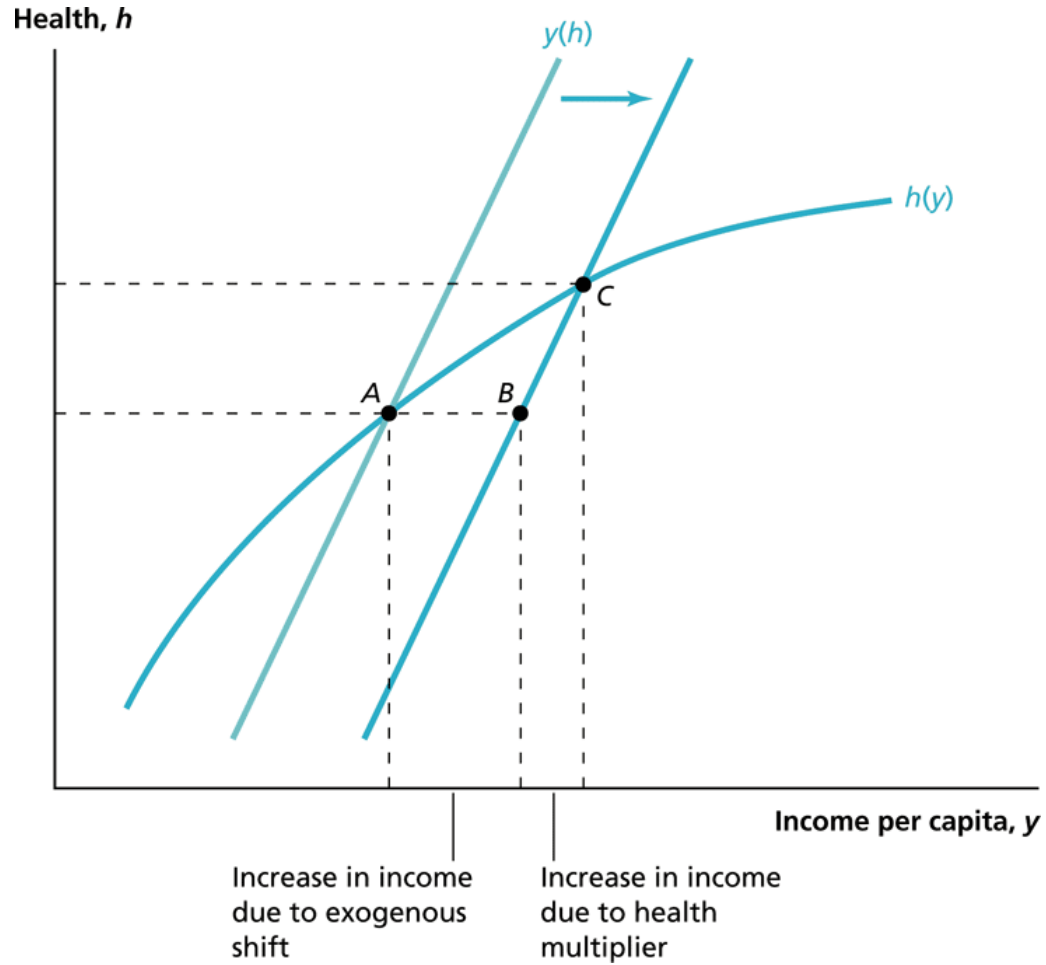
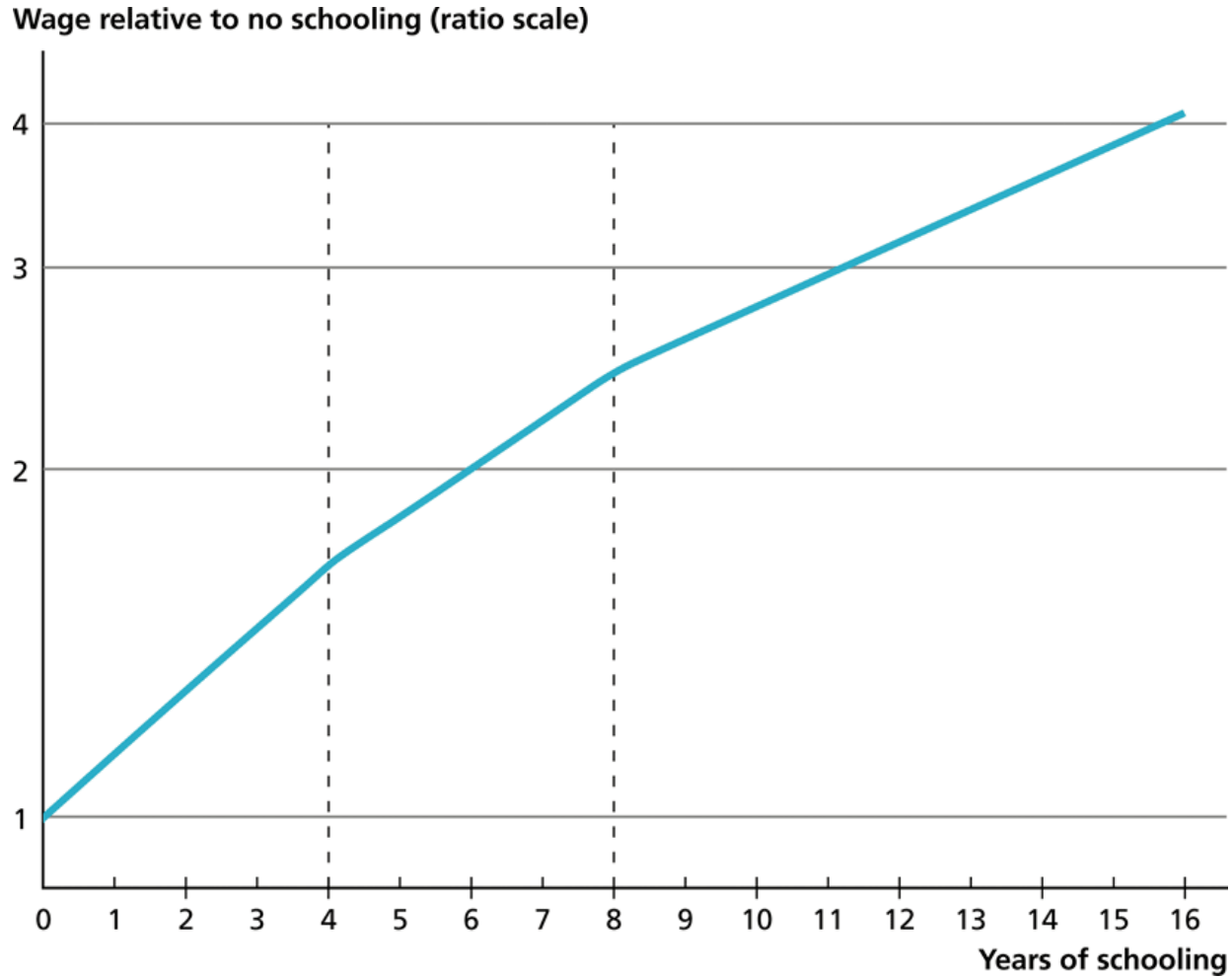


Table 1. Changes in the Level of Education, 1960–2000 (Weil, 2012)

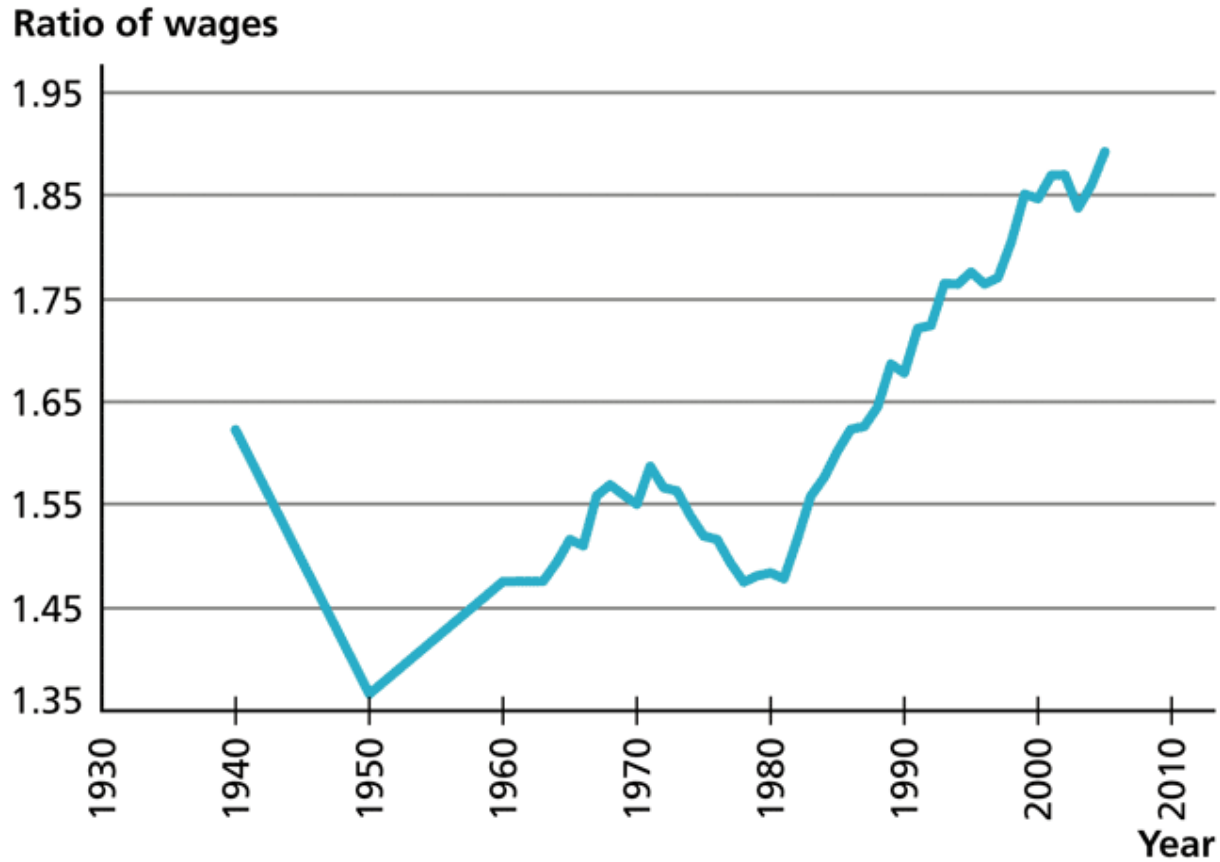
		Average Years of Schooling	Percentage of the Adult Population with			
			No Schooling	Complete Primary Education	Complete Secondary Education	Complete Higher Education
Developing Countries	1960	2.05	64.1	17.1	2.5	0.4
	2000	5.13	34.4	43.0	14.8	3.0
Advanced Countries	1960	7.06	6.1	72.9	20.2	3.0
	2000	9.76	3.7	84.6	44.7	13.0
United States	1960	8.49	2.0	78.4	31.0	7.0
	2000	12.05	0.8	94.9	68.1	24.5

Source: Barro and Lee (2000). Data are for population aged 15 and over.

Effect of Education on Wages, Weil (2014)



Ratio of College Wages to High-School Wages (Weil, 2012)



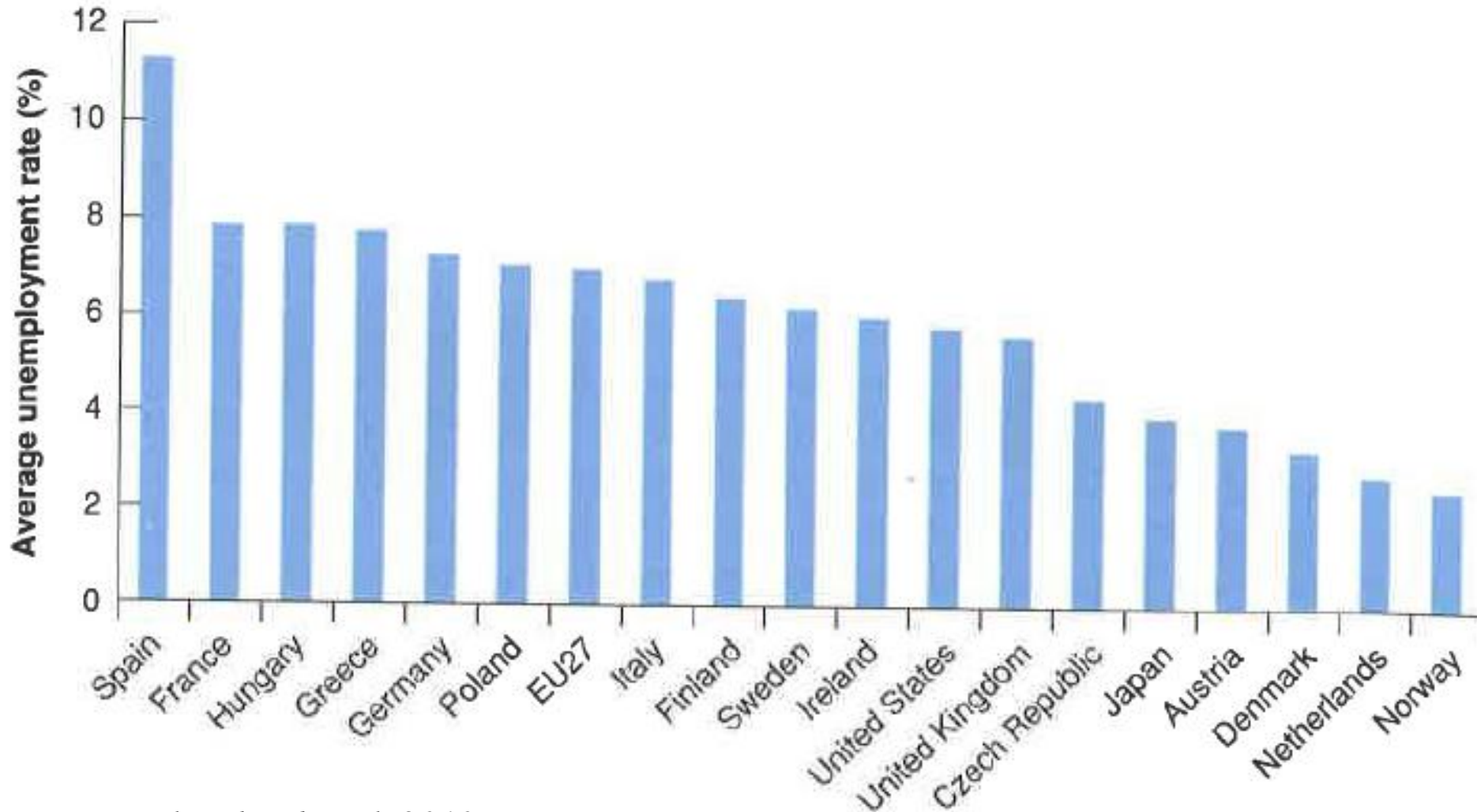
Sources: Autor, Katz, and Krueger (1998); Autor, Katz, and Kearney (2008).

Ratio of output steady state levels of countries i and j

$$\frac{y_i^{ss}}{y_j^{ss}} = \frac{h_i \times \left[A^{1/(1-\alpha)} \left(\frac{\gamma}{n + \delta} \right)^{\alpha/(1-\alpha)} \right]}{h_j \times \left[A^{1/(1-\alpha)} \left(\frac{\gamma}{n + \delta} \right)^{\alpha/(1-\alpha)} \right]} = \frac{h_i}{h_j}$$

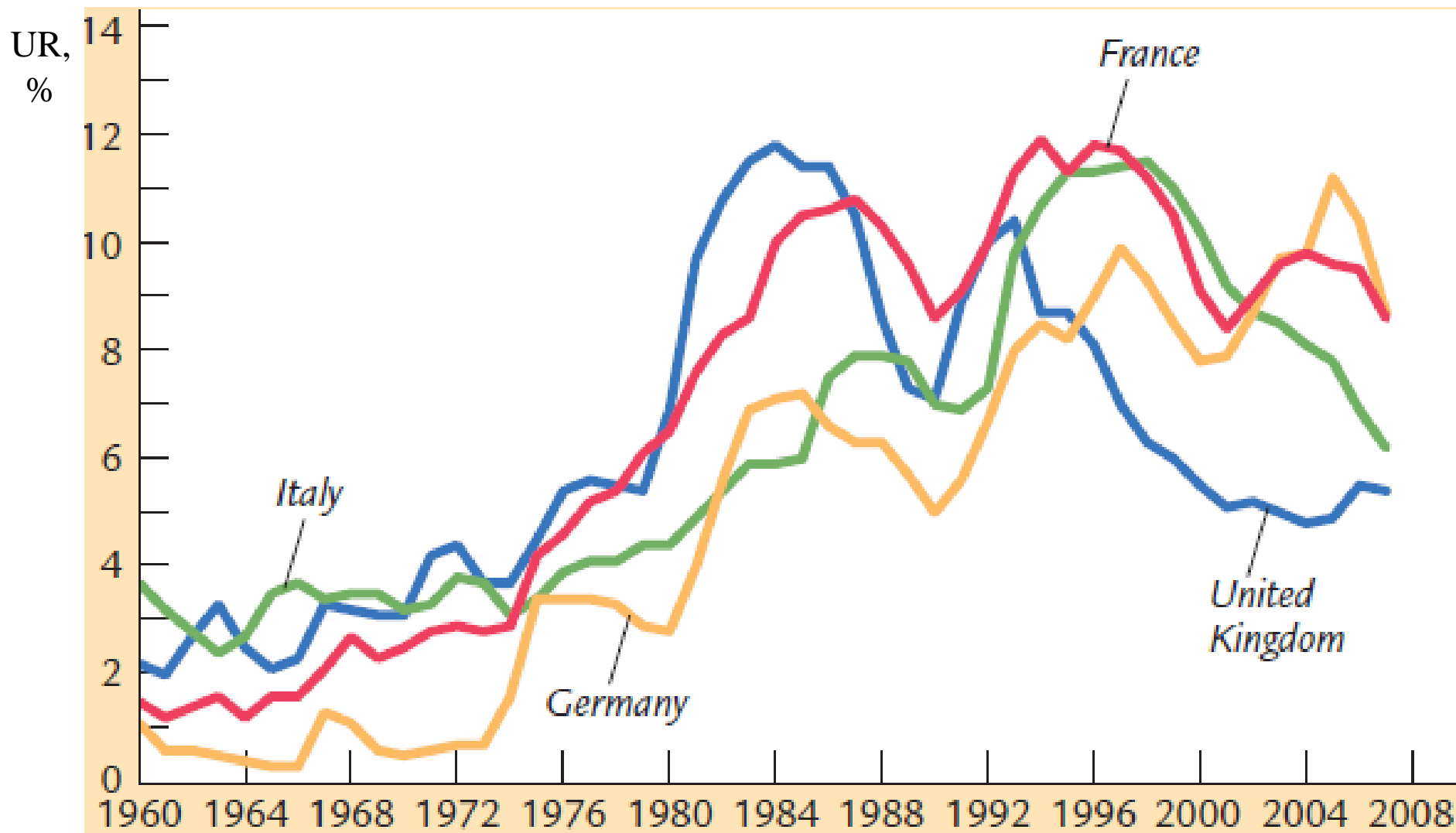
TE The average unemployment rate in European countries in 2008

Which country had a tight labor market in 2008?



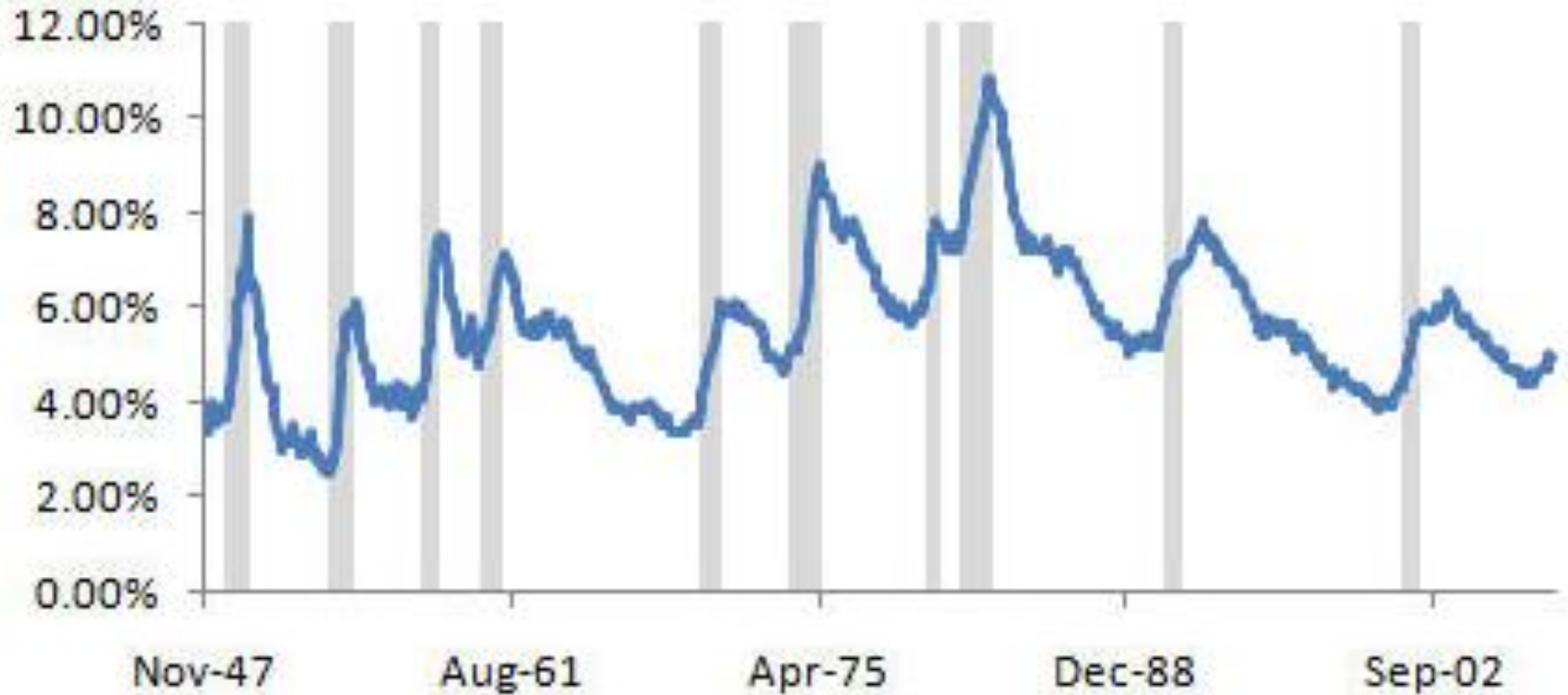
Source: Blanchard et al, 2010

TE Evolution of unemployment in four major EU economies



Source: Mankiw, 2009

TE Evolution of unemployment in the USA



Source: BEA

Unemployment and Long-Term Unemployment Rates

- Average for the period 1991-2001

	U rate	LTU rate
Czech Republic	8.2	4.3
Hungary	5.8	2.7
Poland	18.2	7.8
Slovak Republic	18.6	10.2
Lithuania	12.6	3.5
Denmark	6.7	1.7
Finland	12.8	3.4
France	11.2	4.5
Germany	8.2	3.9
Portugal	5.6	2.6
Spain	19.3	10.1
Sweden	7.9	1.7
United Kingdom	7.7	2.9
United States	5.4	0.5

Average duration of unemployment
in 2010

- **The US** – 5 month (**the lowest!**)
- **EU** – 27 months
- **France** – 40 month
- **Czech Republic** – 16 months
- **Slovakia** – 29 months

Source: OECD.StatExtracts

THE GATHERING
OF GOVERNMENT
LABOR STATISTICS...



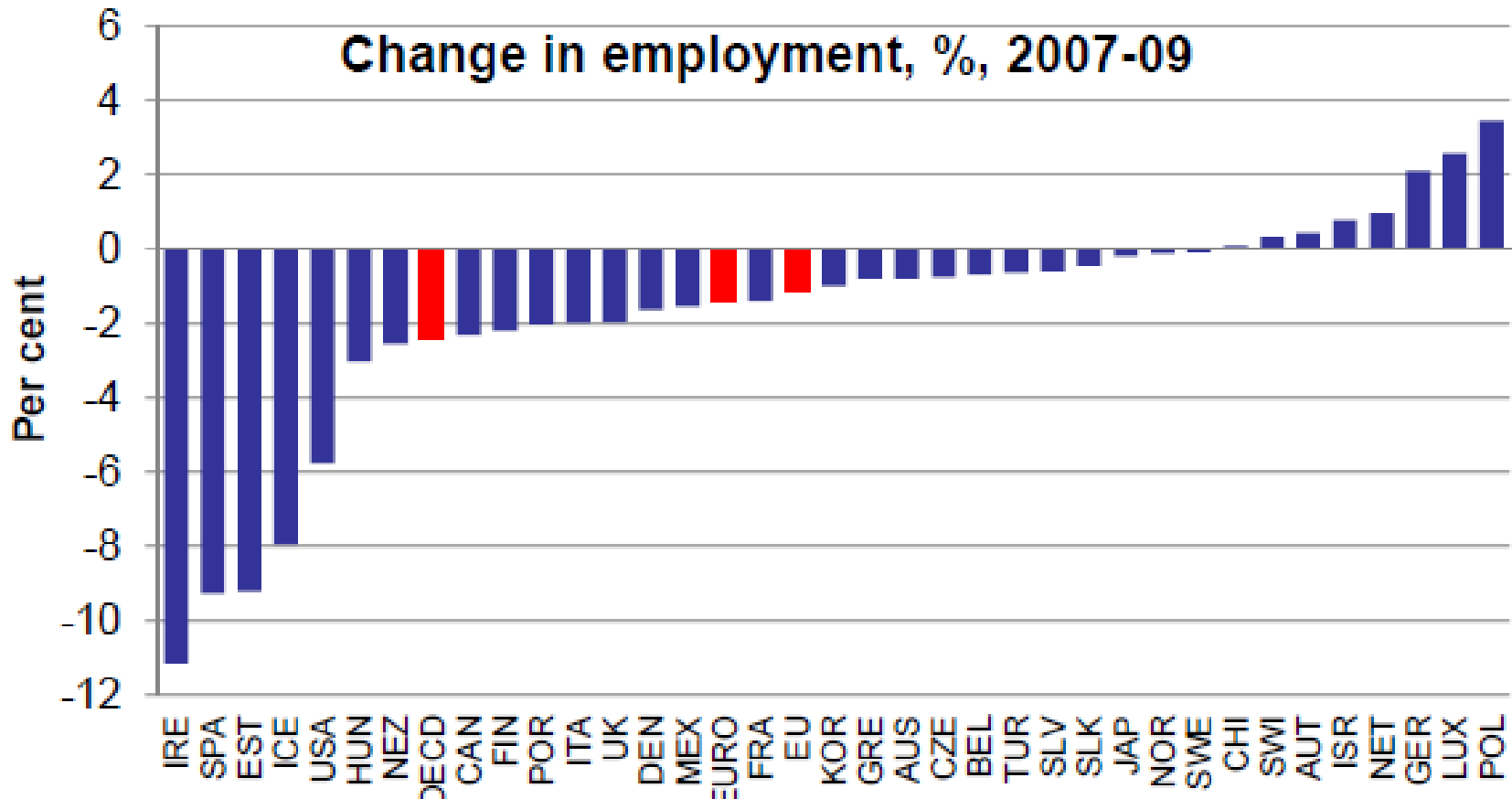
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Recession of 2007-2009

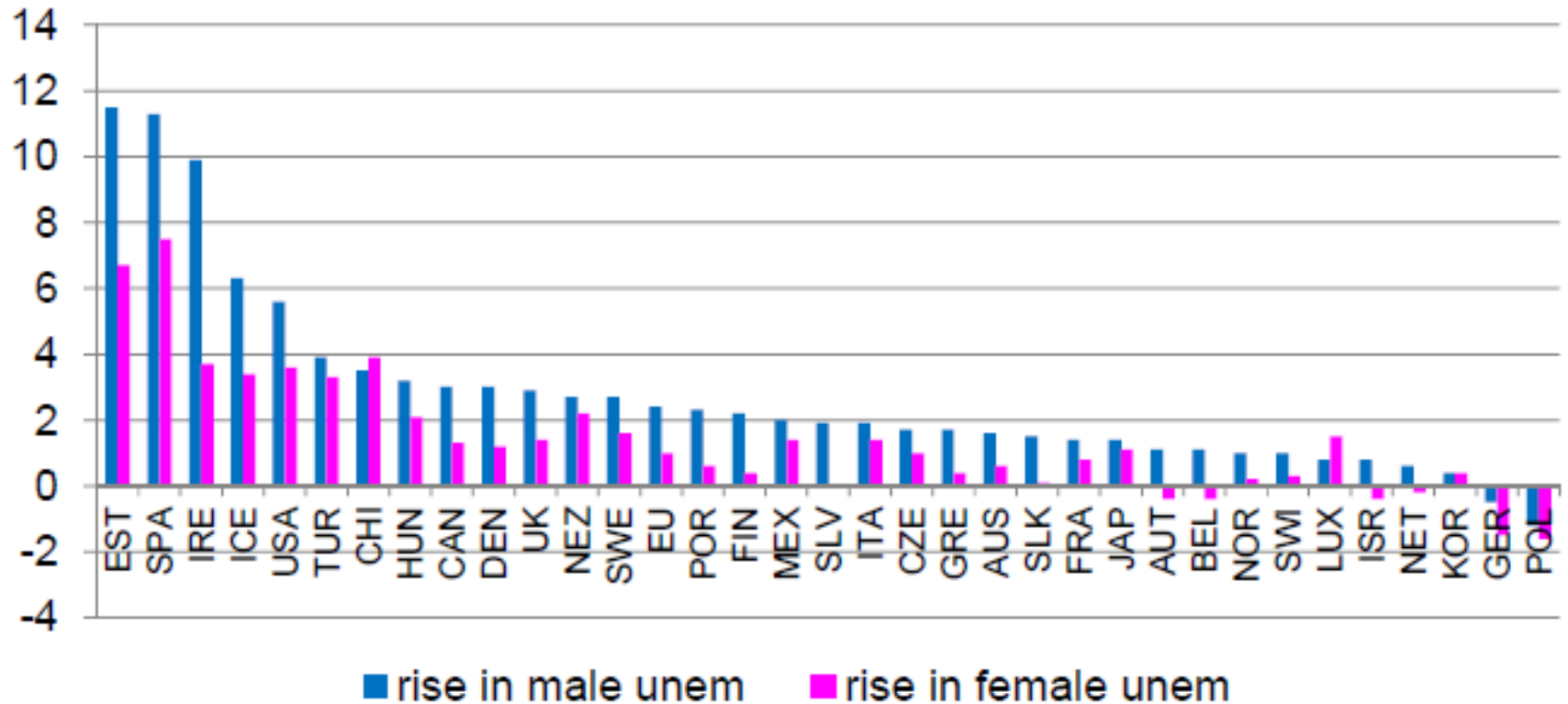
Employment response varied across countries



Source: Pissarides, 2012

Recession of 2007-2009

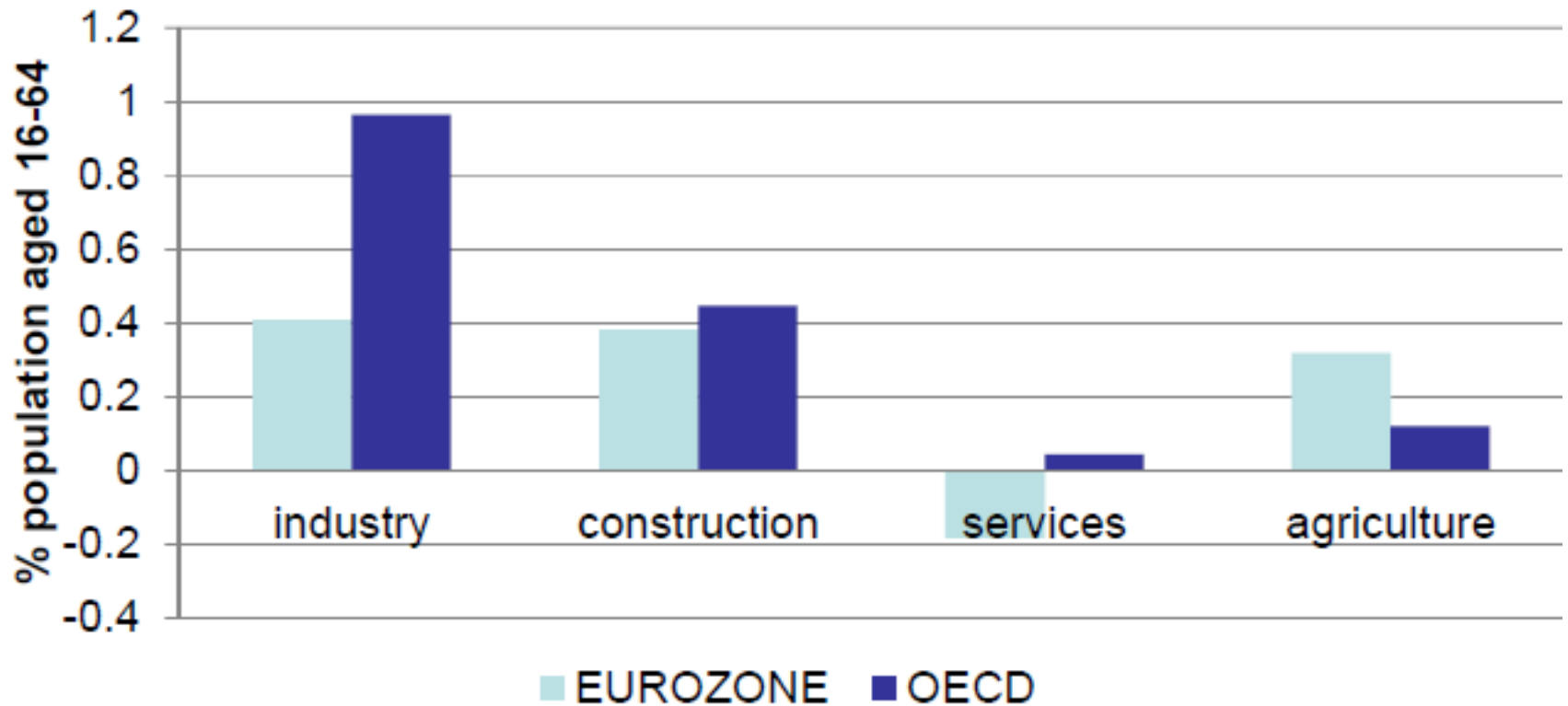
Men suffered more unemployment than women



Recession of 2007-2009

Most job losses in industry

Job losses, 2007-2009



Minimum Wage

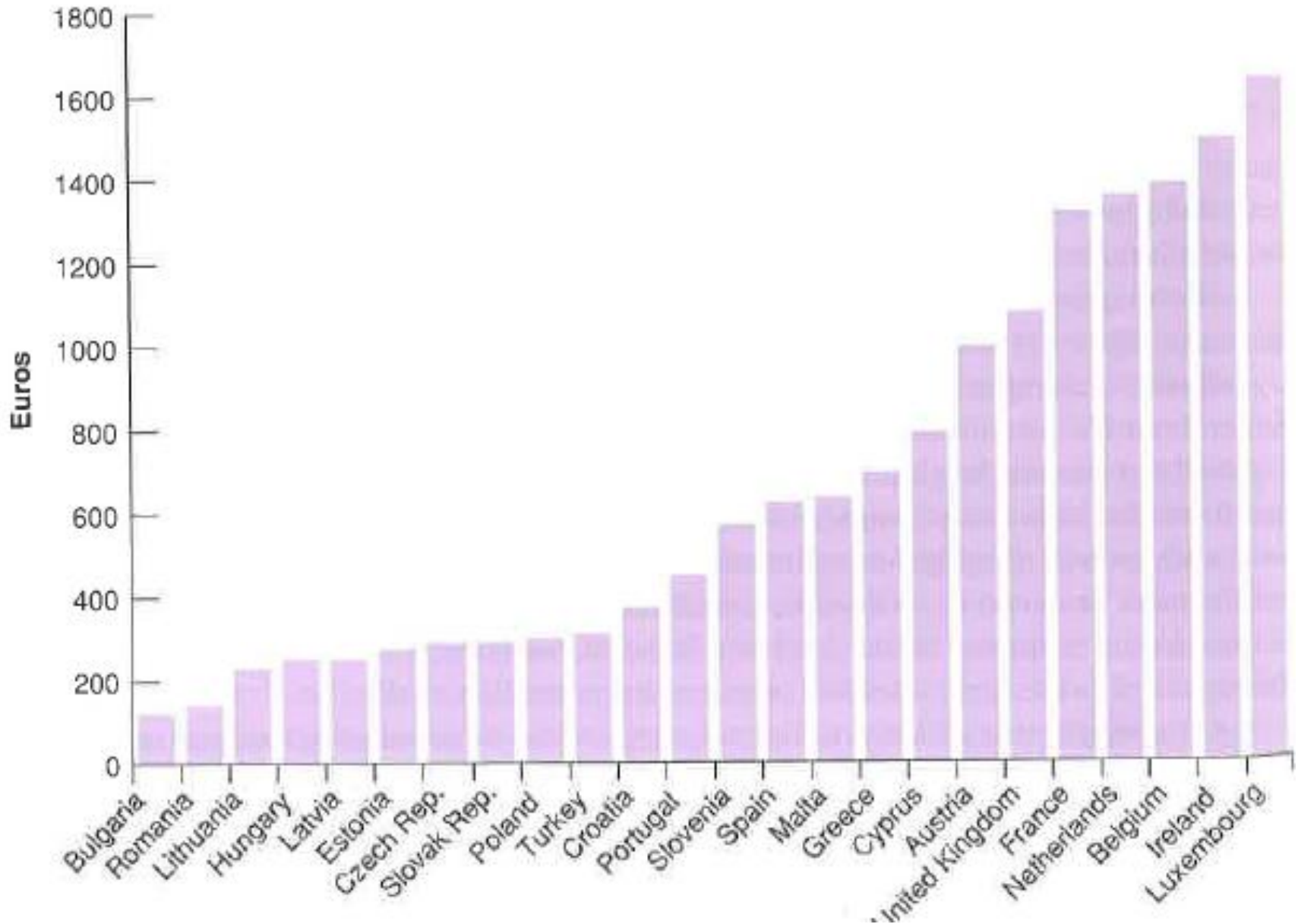
- **Wage rigidity** – the failure of wages to adjust to the equilibrium level
 - A legal minimum on wages set by the law
 - In the range of 30-50% of the average wage in manufacturing

Objective: Rising the income of working poor

Major criticism: Increases unemployment

- Causes teenagers to drop out of school
- Prevent low skilled workers from the participation in training programs

Gross minimum wages Euros per month, 2009



Source: Blanchard et al (2010)

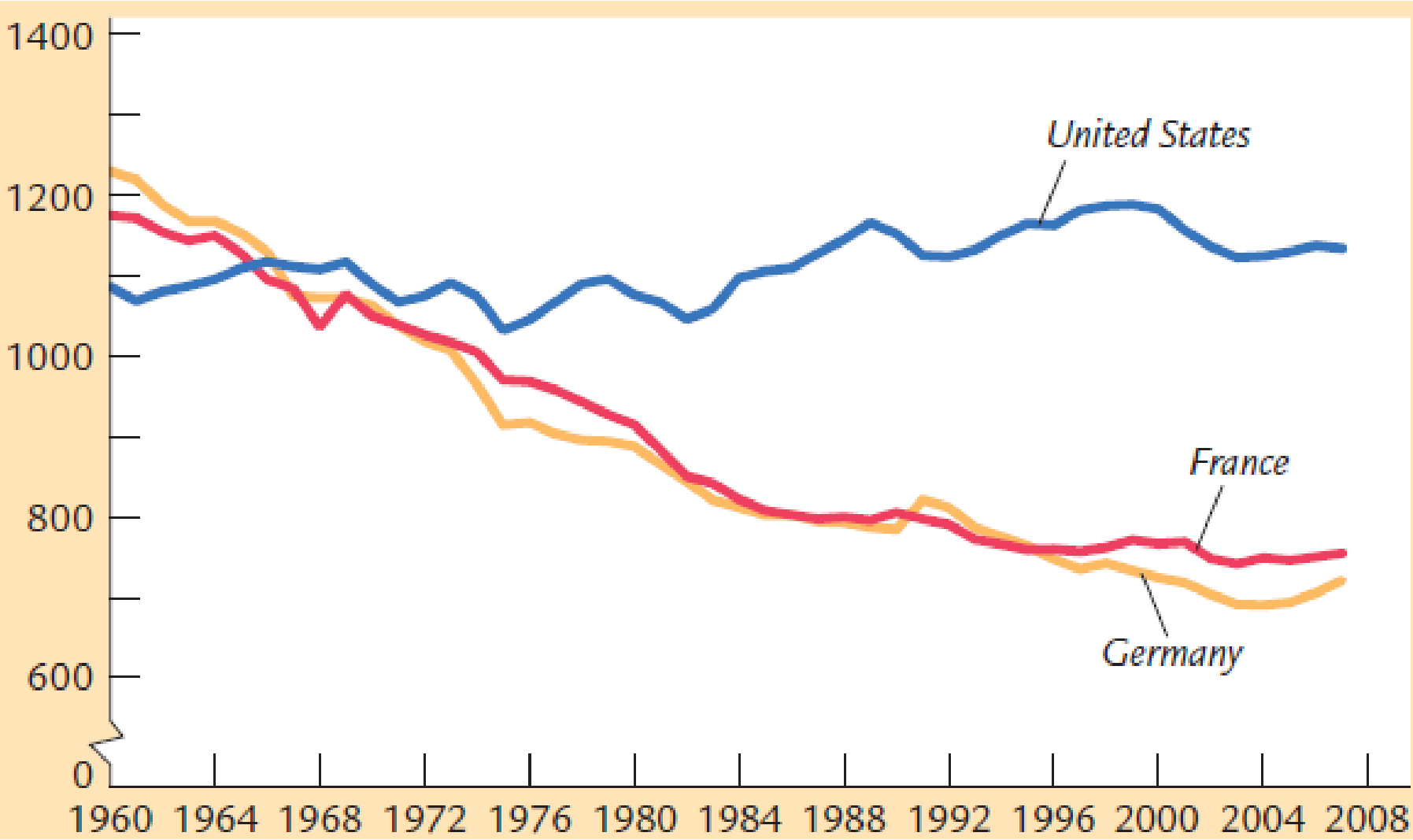
The Importance of Labor Unions

Percent of Workers Covered by Collective Bargaining

United States	18%
Japan	23
Canada	38
United Kingdom	47
Switzerland	53
New Zealand	67
Spain	68
Netherlands	71
Norway	75
Portugal	79
Australia	80
Sweden	83
Belgium	90
Germany	90
France	92
Finland	95
Austria	98

American vs. European Labor Markets

Annual hours worker per person



Source: Mankiw, 2009