

An anatomy of inclusive growth in Europe*

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* Based on a joint work with Guntram B. Wolff

'Inclusive growth: global and European lessons for Spain'

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What is inclusive growth?

- OECD (2014) defines **inclusive growth** as: *“economic growth that creates opportunity for all segments of the population and distributes the dividends of increased prosperity, both in monetary and non-monetary terms, fairly across society”*
- Measurement of inclusive growth **goes beyond** one-dimensional **GDP** growth
- Jobs, skills, education, health, the environment and active participation in the economy and society also matter
- Inequality of **outcomes** (such as income, wealth, health and education) and **opportunities** (access to education, jobs, finance and the judicial system) are central to understanding how inclusive growth is

Outline

1. Why does inclusive growth matter?
2. Does technological progress drive income inequality?
3. How inclusive is the EU's economic development?
4. National policies for fostering inclusive growth

Key message 1:

The literature about the impact of income inequality on long-term growth is mixed

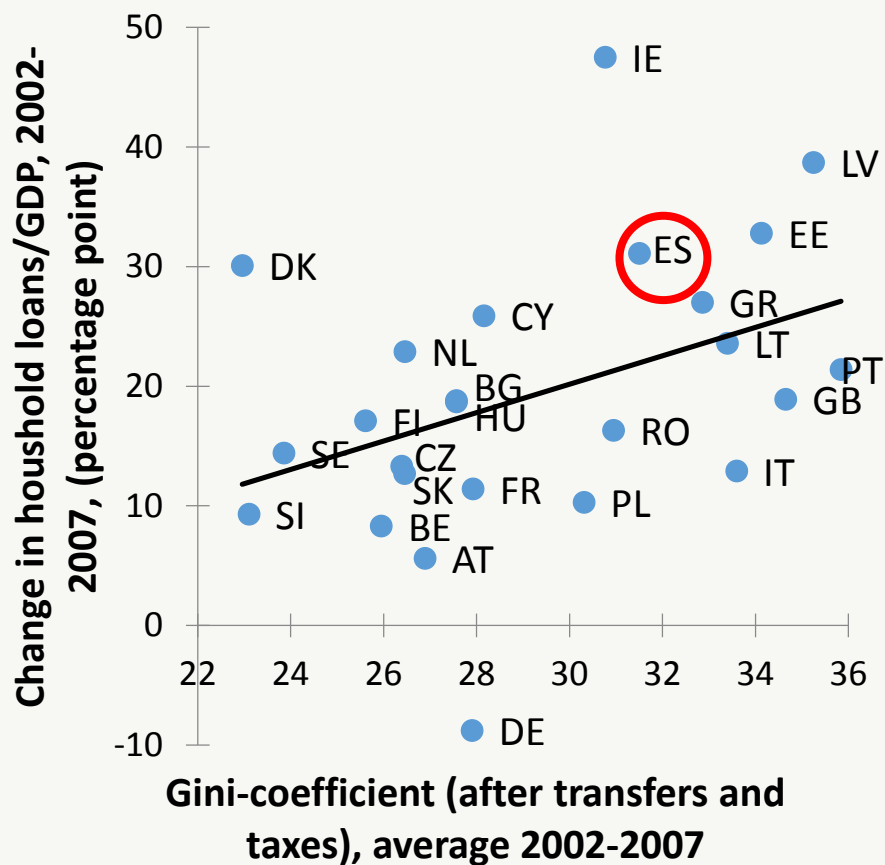
Inequality and growth

- Greater inequality could reduce economic growth:
 - by reducing the capacity of low-income households to invest in education, lowering economic growth
 - under-investment in human capital by poorer segments of society might reduce social mobility and adequate allocation of talent across occupations
 - greater inequality might lead to political instability and social unrest
- Greater inequality could increase growth:
 - if it provides incentives to work harder and take risks in order to capitalise on high rates of return
 - high return for education might encourage more people to study
 - higher inequality could foster aggregate savings and capital accumulation, because the rich consume relatively less
- The empirical evidence about the impact of inequality on growth is inconclusive

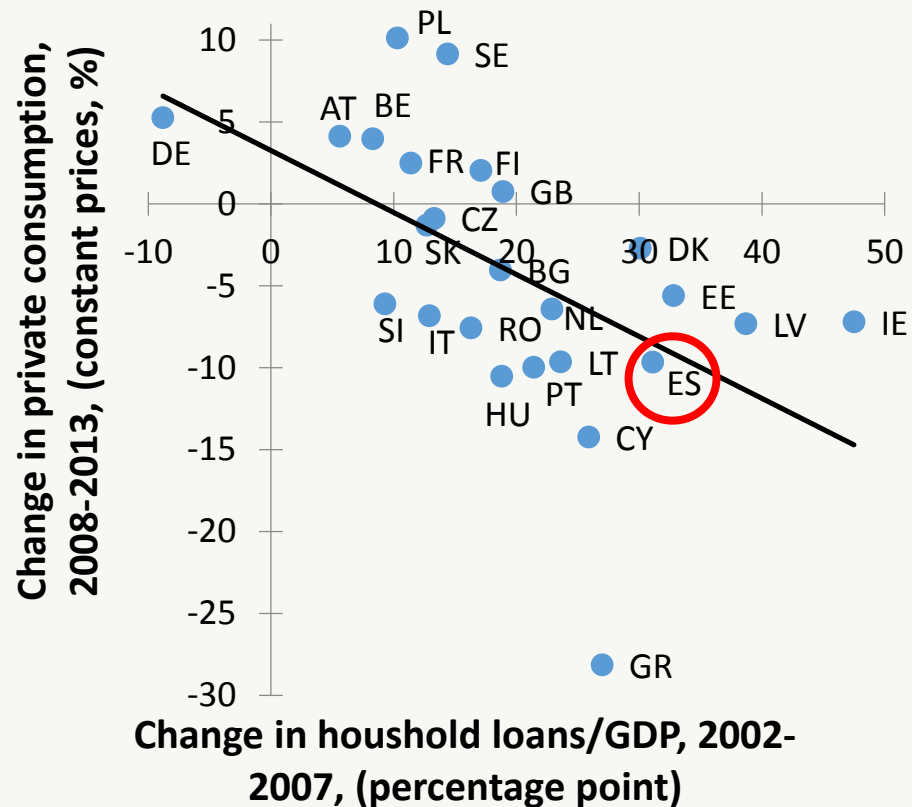
Key message 2:

**Inequality was a
determinant of
unsustainable pre-2008
booms in the United States
and several European
countries**

EU countries: inequality, pre-crisis borrowing, and post-crisis contraction

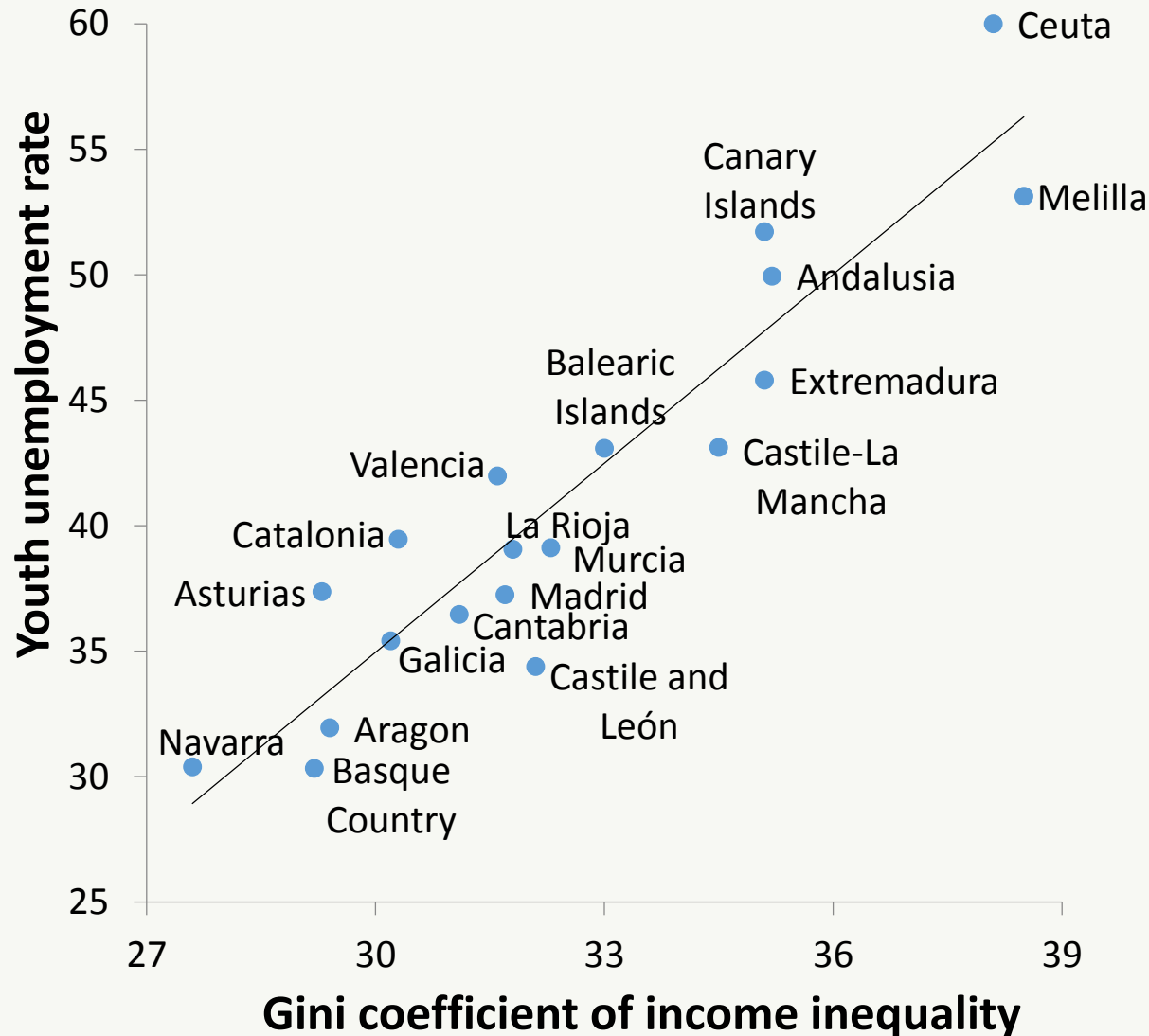


Pre crisis: High inequality → higher borrowing



Higher pre-crisis borrowing → deeper contraction in 2008-13

Spanish regions: inequality vs unemployment, 2010

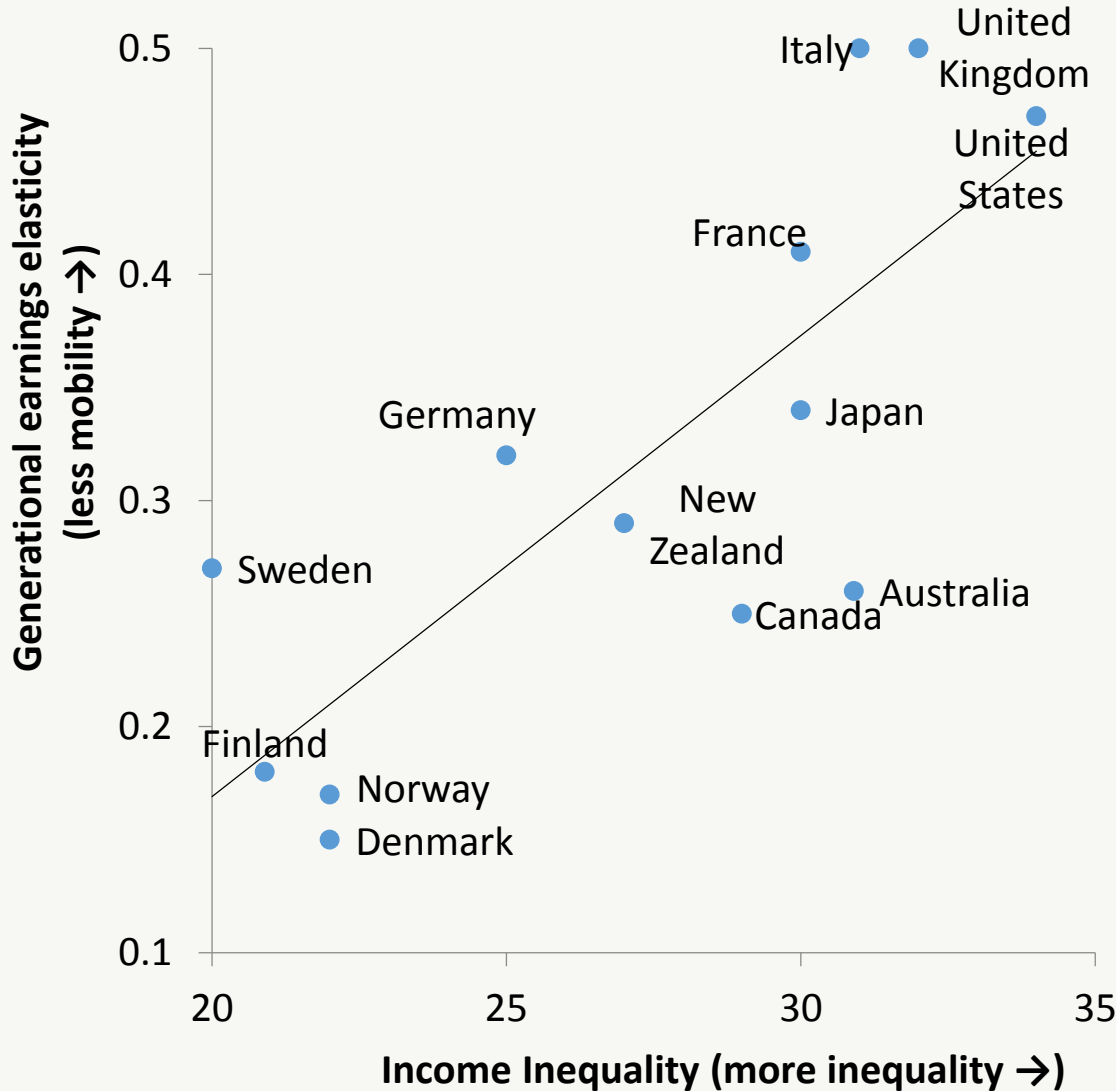


Higher inequality is associated with higher youth unemployment

Key message 3:

Higher income inequality is associated with less intergenerational (or social) mobility

The Great Gatsby Curve: more inequality is associated with less mobility across generations



High inequality: the children of poor families tend to stay poor, while the children of rich families tend to stay rich

Key message 4:

**Inequality might foster
protest votes**

Inequality and protest votes in referenda and elections

- Our econometric estimates confirm that
 - In the United Kingdom's Brexit referendum on 23 June 2016
 - In the United States presidential elections on 8 November 2016
- **greater inequality supported Brexit/Trump votes** beyond socio-economic and geographic factors, such as:
 - Age
 - Level of education
 - Income
 - Unemployment
 - Race
 - Share of immigrants in resident population
 - Geography (in the UK: London, Scotland, Northern Ireland)

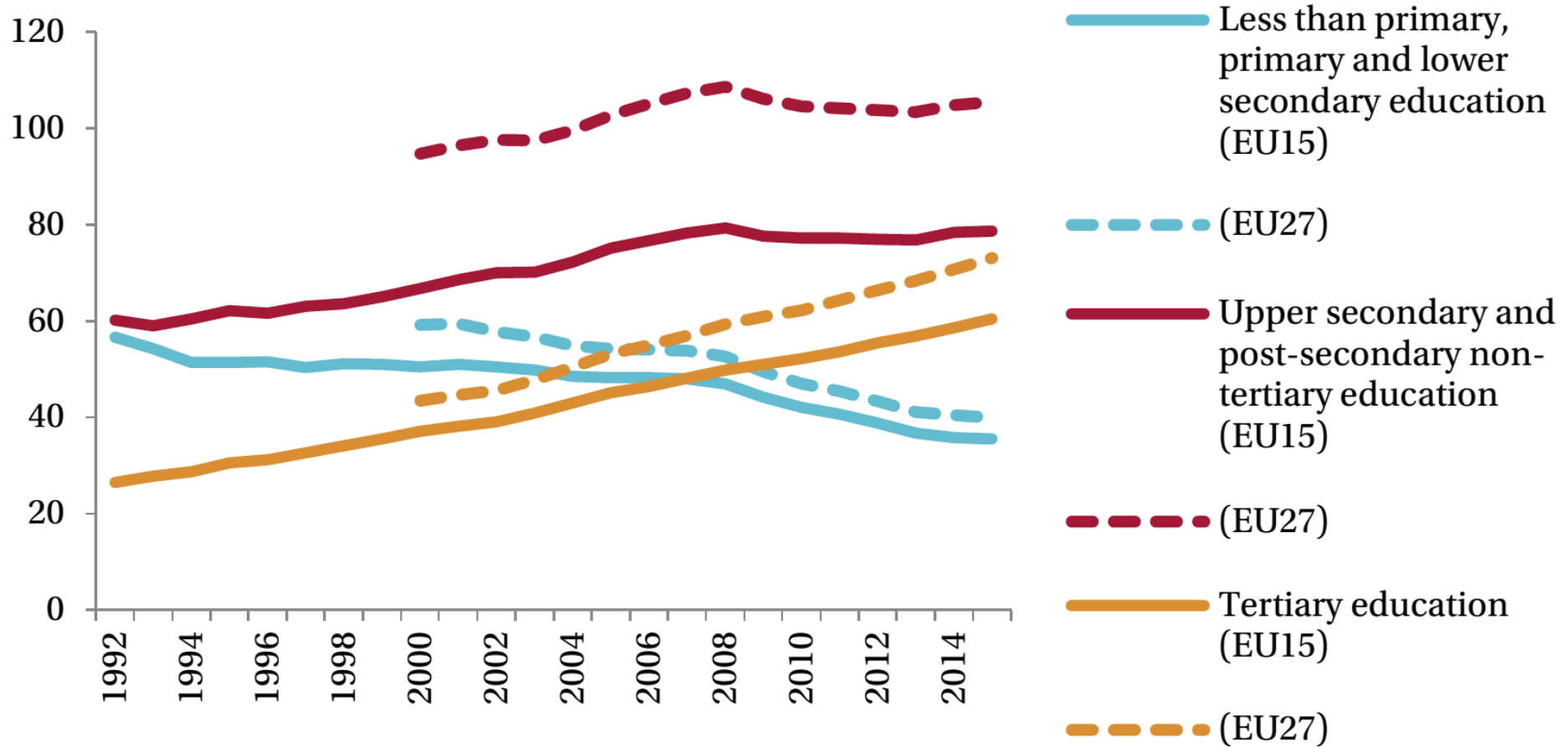
Key message 5:

**Technological development
was not the main reason
behind increasing income
inequalities**

Technological change and skill premium

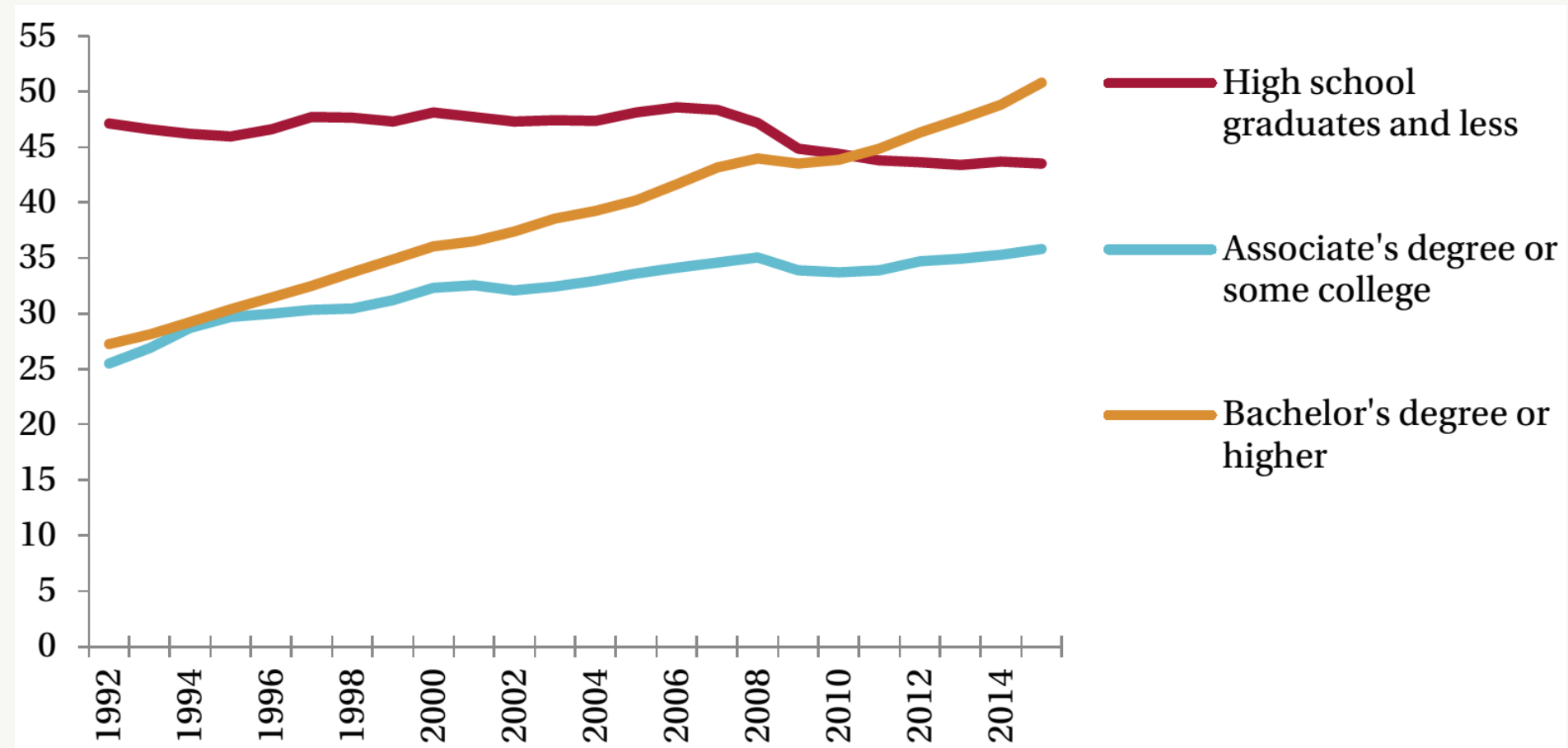
- Skill-biased technical change: technical changes shifts production to technology that favours skilled over unskilled workers
- By increasing the productivity of skilled workers, and thereby the demand for such workers, skill-biased technical change may explain rising wage inequality
- Literature dominated by the analysis of the US
- We analyse cross-country developments and do not find support of this hypothesis

Employment by educational attainment in the EU, 1992-2015 (millions of jobs)



Source: Eurostat 'Employment by sex, occupation and educational attainment level (1000) [lfsa_egised]' dataset. Note: the solid line shows the aggregate of EU15 countries (EU members before 2004), which is available from 1992. The same-colour dashed line indicates the aggregate for 27 EU member states, which is available from 2000.

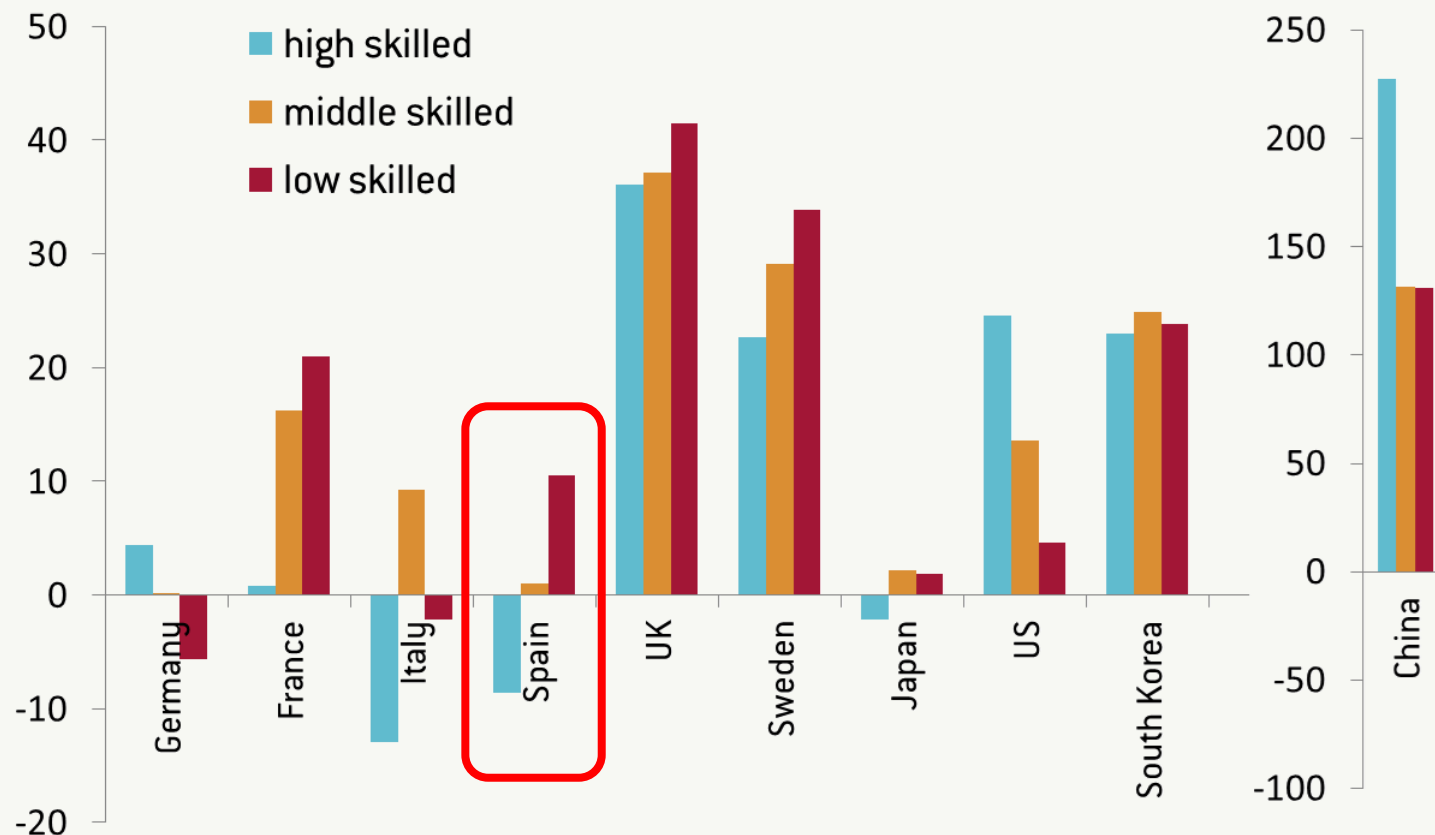
Employment by educational attainment in the US, 1992-2015 (millions of jobs)



Source: US Census Bureau.

Technological change and skill premium

Percent change in wage per hour worked from 1995-2009 (deflated by the consumer price index)

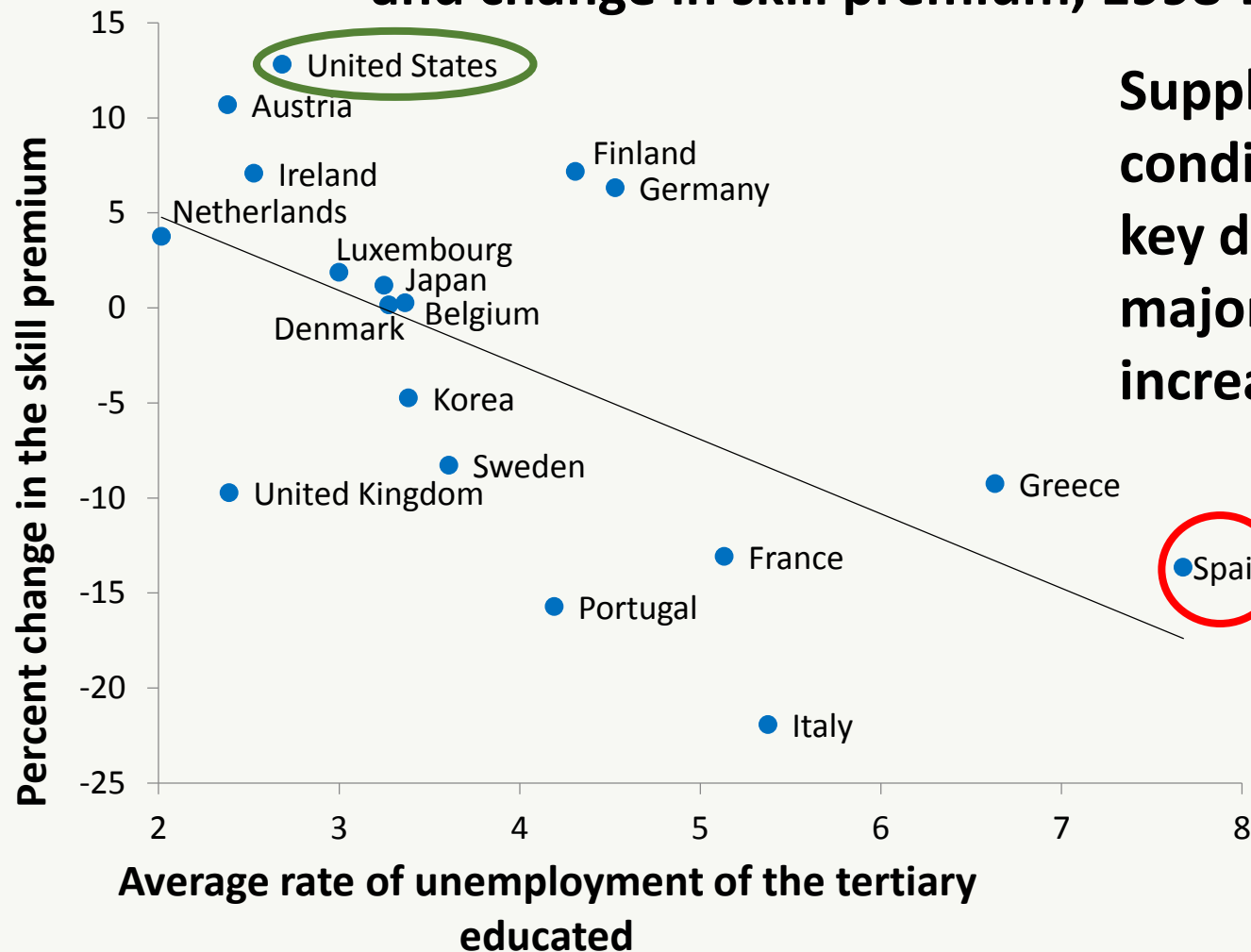


Source: World input output database, July 2014 release;

Note: definition of skills follows 1997 ISCED level, where LOW encompasses primary education or first stage of basic education and lower secondary or second stage of basic education; MEDIUM is (Upper) secondary education and post-secondary non-tertiary education; HIGH is first stage of tertiary education and second stage of tertiary education.

Technological change and skill premium

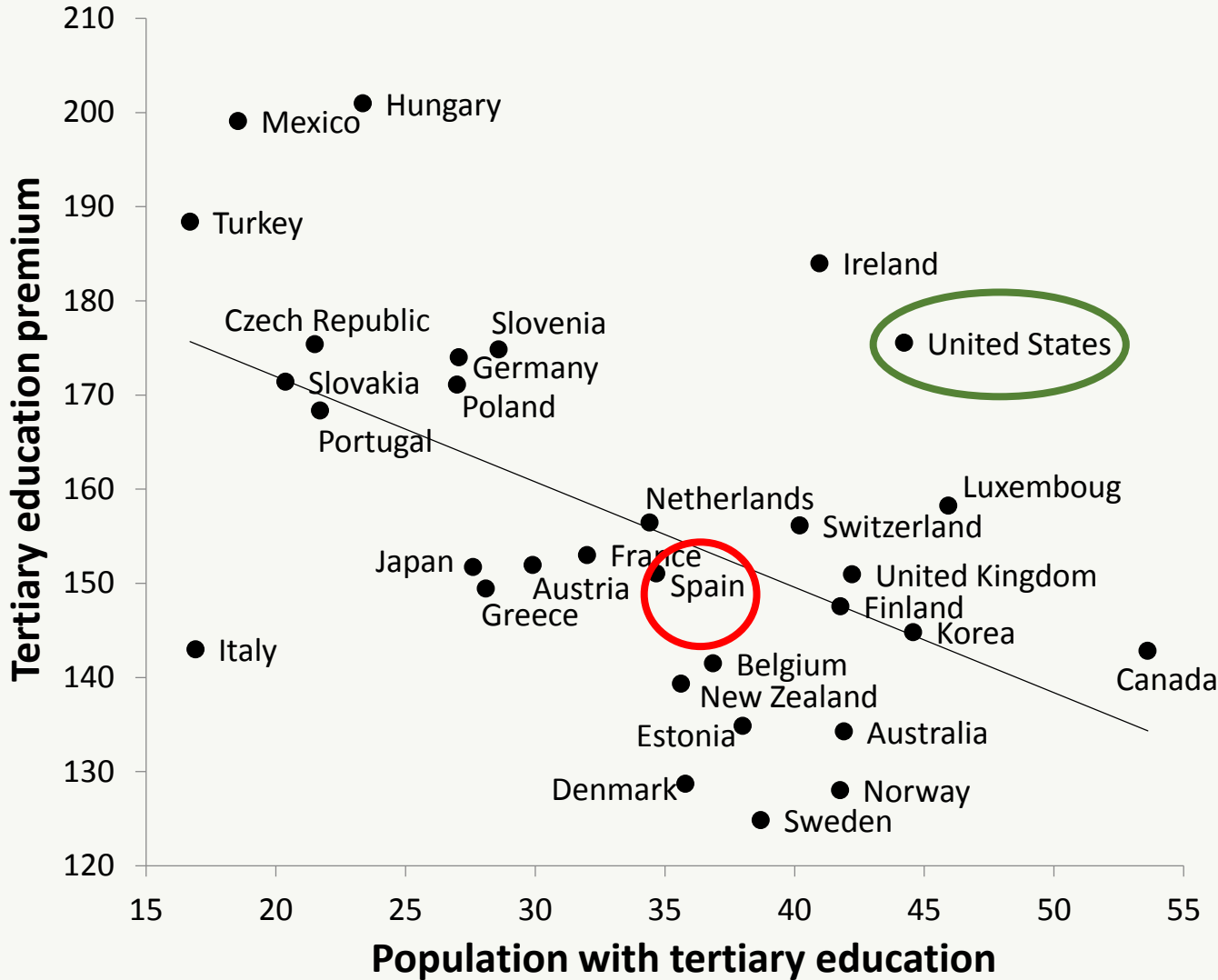
The average rate of unemployment of those with tertiary education and change in skill premium, 1998-2009



Supply-demand conditions were not the key determinants of the major skill premium increase in the US

Technological change and skill premium

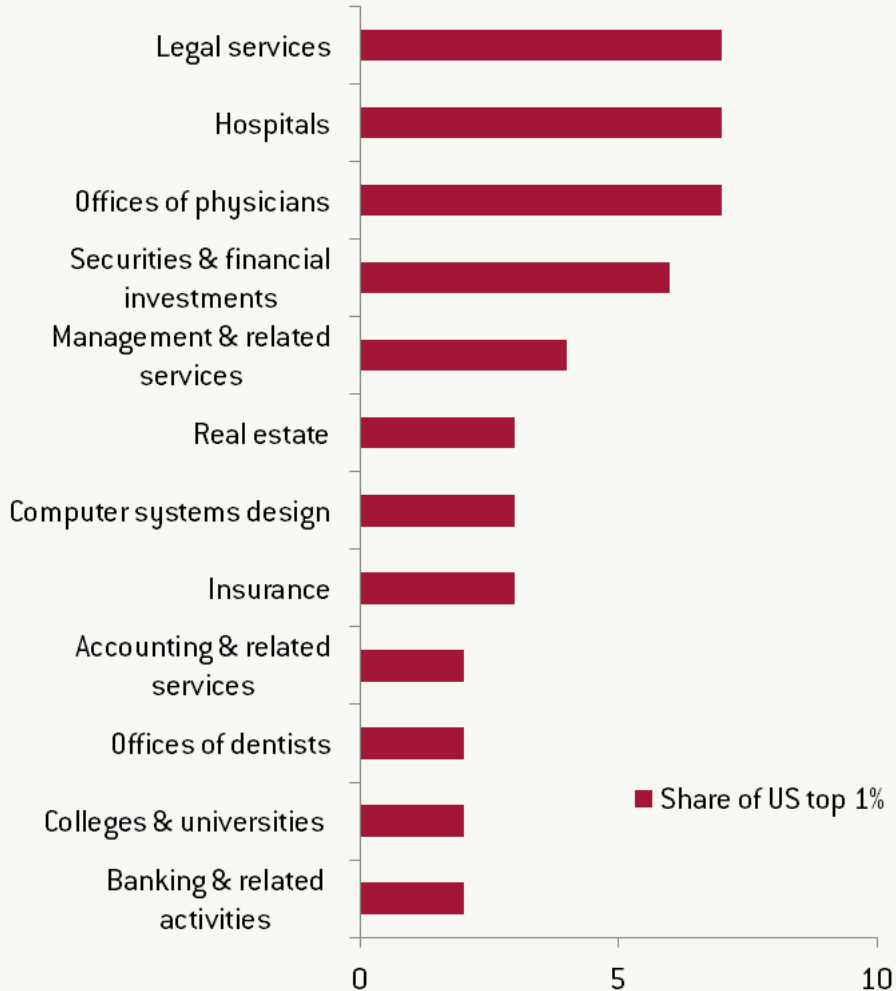
Share of tertiary-educated workers and their relative earnings, 2013



US tertiary educated workers enjoy unusually high premium

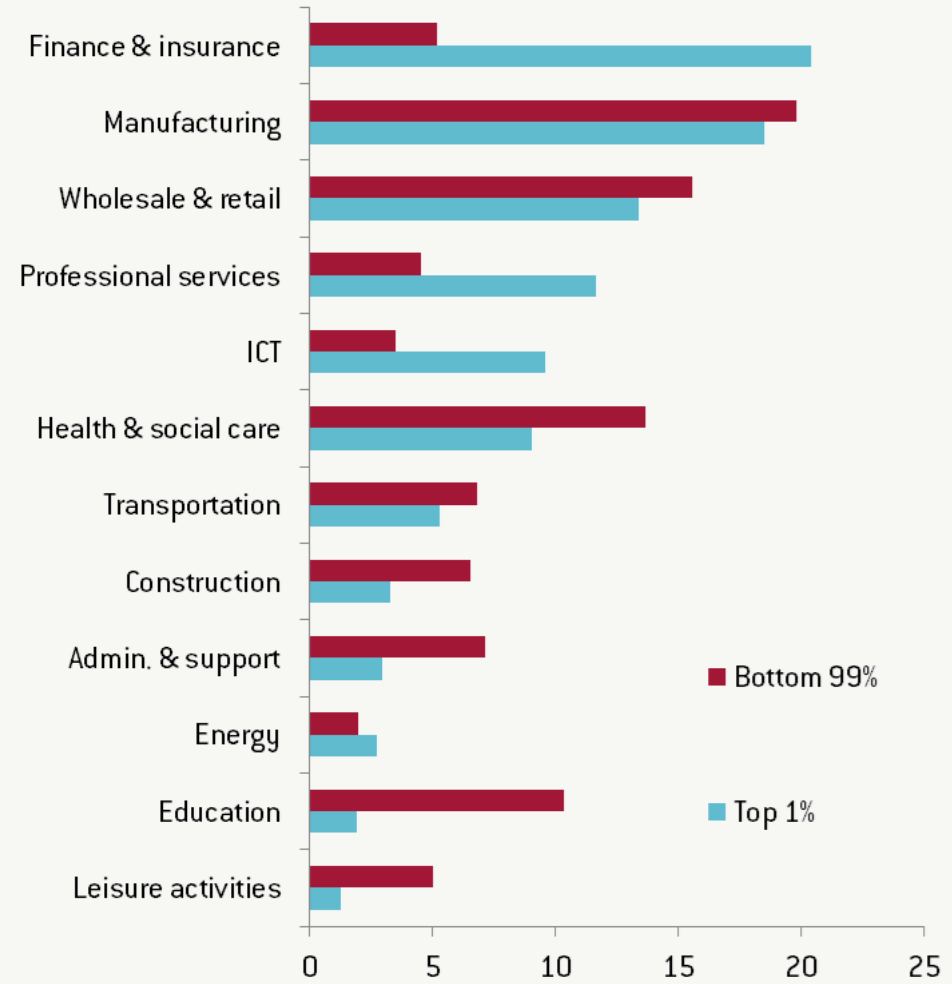
Industries with the most top 1% earners

United States



Source: Rothwell (2015).

European Union



Source: Denk (2015)

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Technological change and skill premium

To sum up:

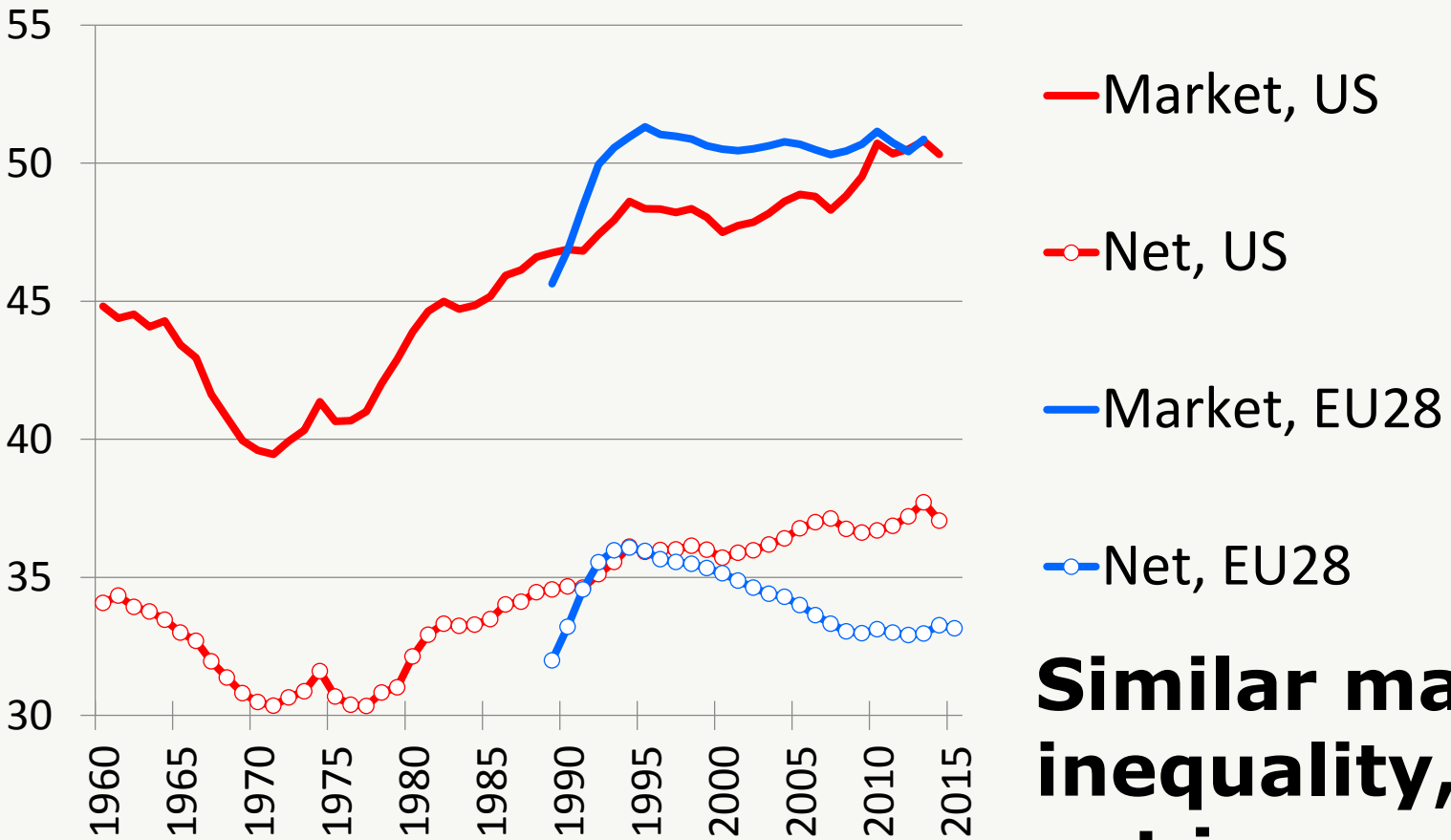
- Technological change tends to favour those with greater skills;
- However, it is hard to see in the data how it has contributed to rising skill premia and consequent income inequalities;
- Most likely, other factors were more important
 - Redistribution, education policies, regulation...

Key message 6:

Inequality and poverty in Europe are rather low, though diverse across member states

Unemployment is a problem

Income inequality: the EU as a whole vs the US



Market: before taxes and social transfers
Net: after taxes and social transfers

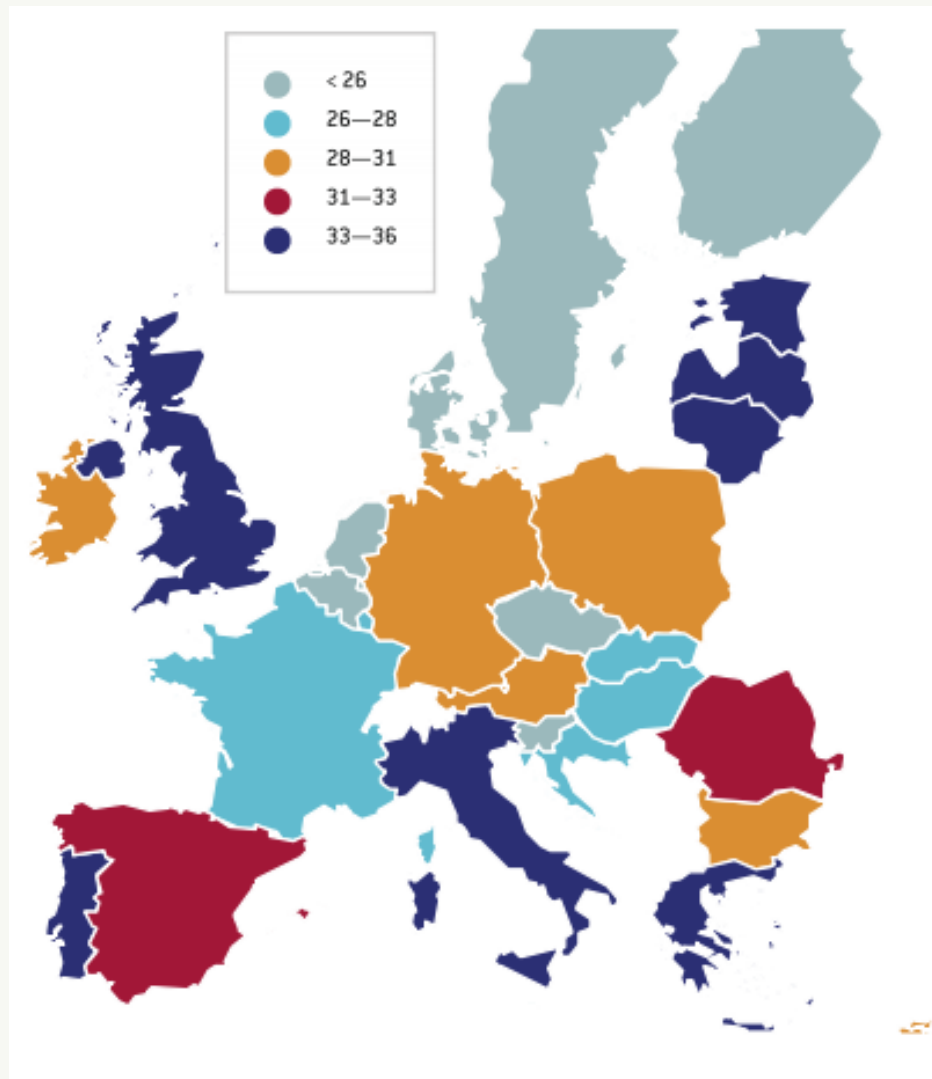
Similar market inequality, while net inequality in the EU fell in 1995-2008

Poverty and income inequality around the world

		No. countries	Poverty (%)	Income inequality	Unemployment rate (%)
EU	EU15 (ex. south & UK)	10	0.5	27	7.8
	Southern EU	4	2.3	34	19.4
	United Kingdom	1	0.5	35	6.2
	Baltics	3	1.5	34	9.6
	Other newer EU members	10	1.7	30	10.3
Non-EU	United States	1	1.3	37	6.1
	Non-EU advanced (ex. US)	7	0.3	29	4.8
	China	1	19.3	53	4.1
	Asia (ex. China & CIS)	19	23.6	40	4.5
	Latin America	19	12.1	44	6.9
	Africa	36	72.5	44	12.0
	CIS (former USSR)	10	19.3	35	6.9

Source: Bruegel based on World Bank World Development indicators (poverty), the Standardised World Income Inequality Dataset (income inequality), International Monetary Fund World Economic Outlook (unemployment rate). Note: Poverty refers to the percent of population living below \$2.50 a day. Income inequality refers to the Gini coefficient after taxes and transfers. For each country and indicator, the latest available data is used, which is typically available for 2012 or 2013 for poverty and income inequality and 2015 for the unemployment rate.

Income inequality in EU countries, average 2000-2014



**Large
diversity**

Source: Bruegel based on the Standardized World Income Inequality Database (SWIID). Note: Gini coefficient is after taxes and social transfers.

Key message 7:

Polarisation between the south and the north of the EU has increased, as well as between the young and the old

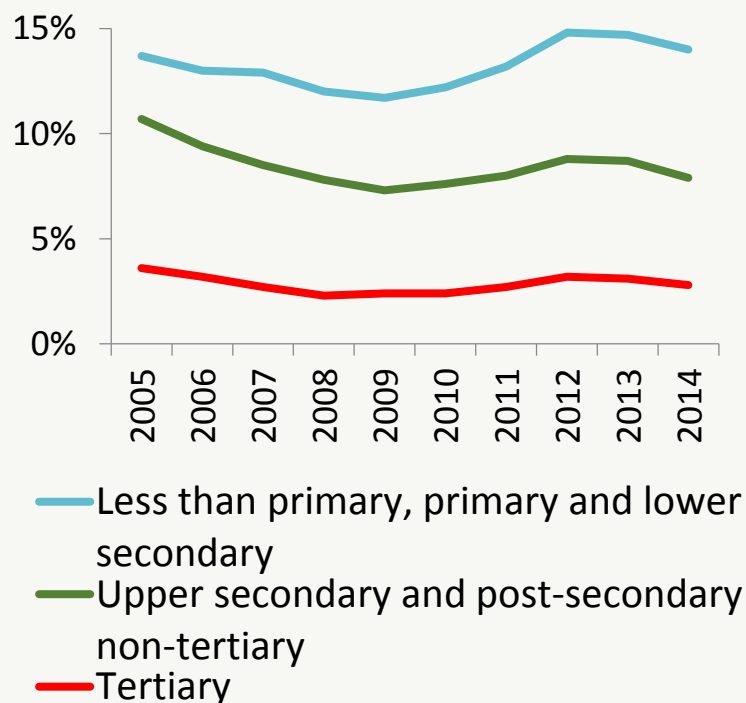
Widening divides within the EU

- Between north and south of EU
- Between old and young
- Between high-educated and low-educated

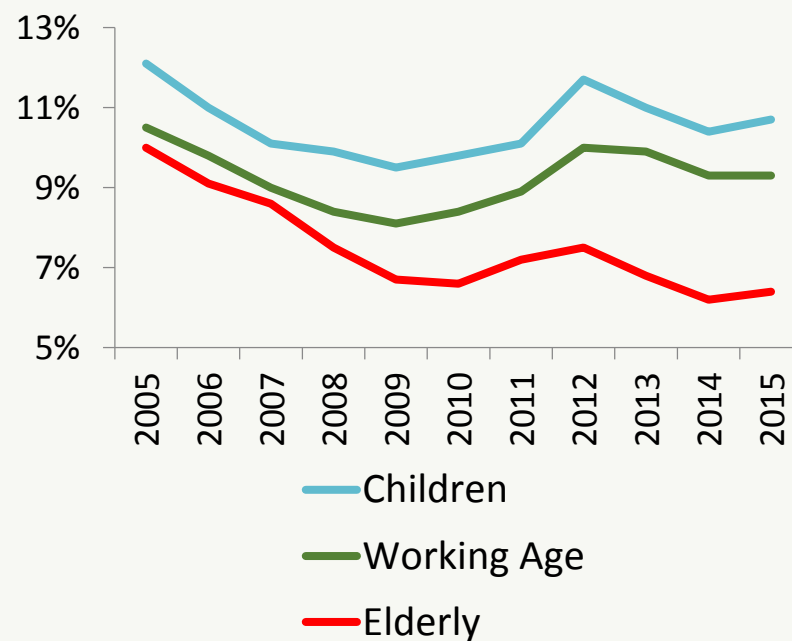
Poverty in the EU

Severe material deprivation rate

EU27, by educational attainment



EU27, different age groups



Poverty is much more widespread among low-educated people and they suffered more during the crisis.

The gap between young and old widened during the crisis.

Key message 8:

**National policies for
fostering social mobility and
fairness are crucial**

EU can do little

National policies for fostering inclusive growth

- Tax policy, social policy, labour laws or education policies are almost exclusively national competences in the EU
- National policies:
 1. Recent economic policy decisions in the EU and in particular, fiscal adjustment strategies during the recent crisis (see table next slide)
 2. Addressing unemployment
 3. Adequacy of national policies for fostering social mobility (e.g. education: early childhood education, tertiary education, challenges by robotisation)
 4. Extent of redistribution and progressiveness of tax systems
 5. Protection of different sectors
 6. Efficiency of national redistribution systems (see chart)

Fiscal consolidation: Old-age spending increased or preserved, education and family spending cut

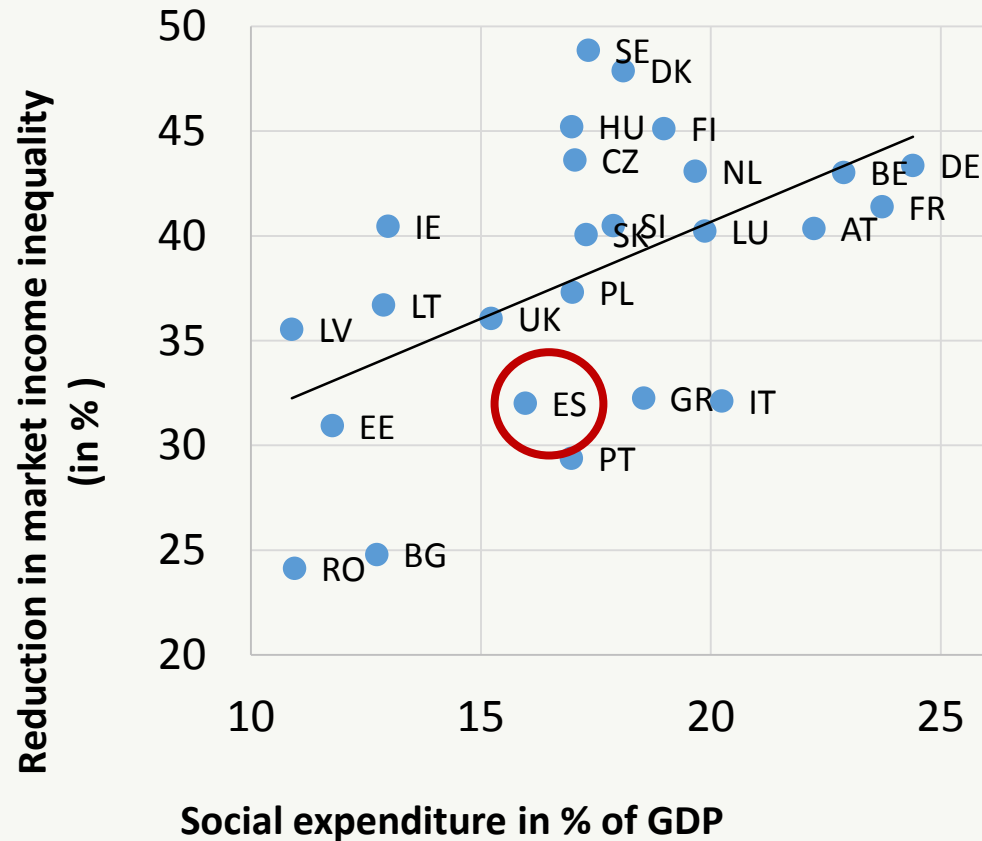
General government expenditure by function

	Share EU24	Percent change in current prices, 2009-2012					
		EU24	Greece, Ireland, Portugal	Italy, Spain	9 other EU15	Baltics 3	7 other NMS
Total general government expenditures	100	4	-12	1	6	-3	7
Interest payments	5	23	14	32	19	164	22
Broad services	17	-2	-12	-11	2	-15	-1
Economic affairs	9	-5	-45	5	-6	-20	-4
Environment protection	2	-5	-26	-8	-4	-6	21
Health, recreation	17	4	-20	-7	8	-6	12
Education	11	2	-14	-10	5	-7	8
Old age	20	10	0	8	10	15	13
Family and children	4	0	-19	-10	3	-14	1
Housing	1	12	-30	6	13	23	20
Unemployment	4	0	11	14	-5	13	-11
Sickness and disability	6	7	-7	-1	9	-5	12
Other social protection	5	7	-11	5	9	26	8
Memorandum: inflation		8	6	8	7	12	10

Source: Bruegel using Eurostat's 'General government expenditure by function' (COFOG) database. Note: Belgium, Croatia, Slovakia and Romania are not included because of lack of data; we report data for the aggregate of the remaining 24 countries of the EU (EU24). For the Baltic States, the 2008-12 period is shown, because fiscal consolidation started earlier in these countries. The aggregates for countries with different currencies were calculated using constant exchange rates (the average of 2009-13) and therefore exchange rate fluctuations do not affect the values shown. Broad services include: general public services except interest payments, defence, public order and safety and community amenities.

Efficiency of social redistribution system

Social expenditure vs income inequality reduction, average for 2000-14



Without extra money, Spain could achieve better social outcomes by more efficient social spending.