

Structural change, labour market reforms and productivity

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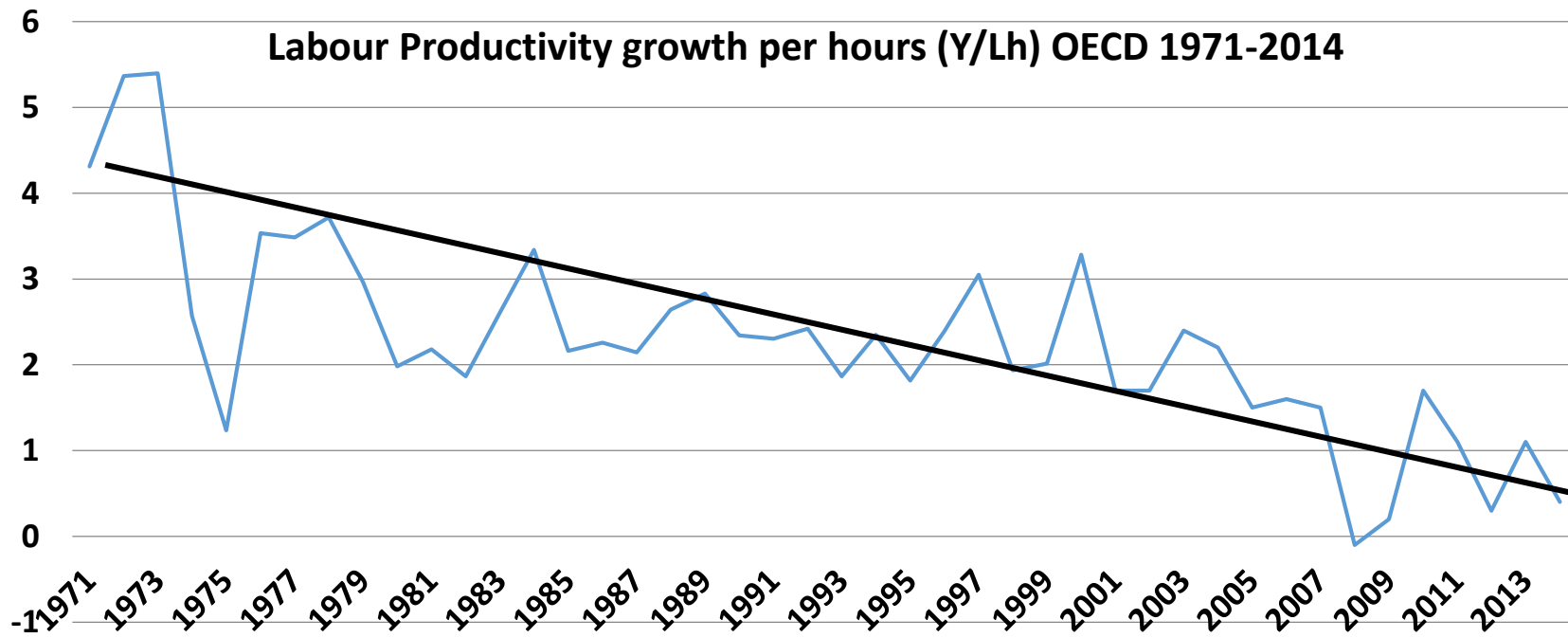
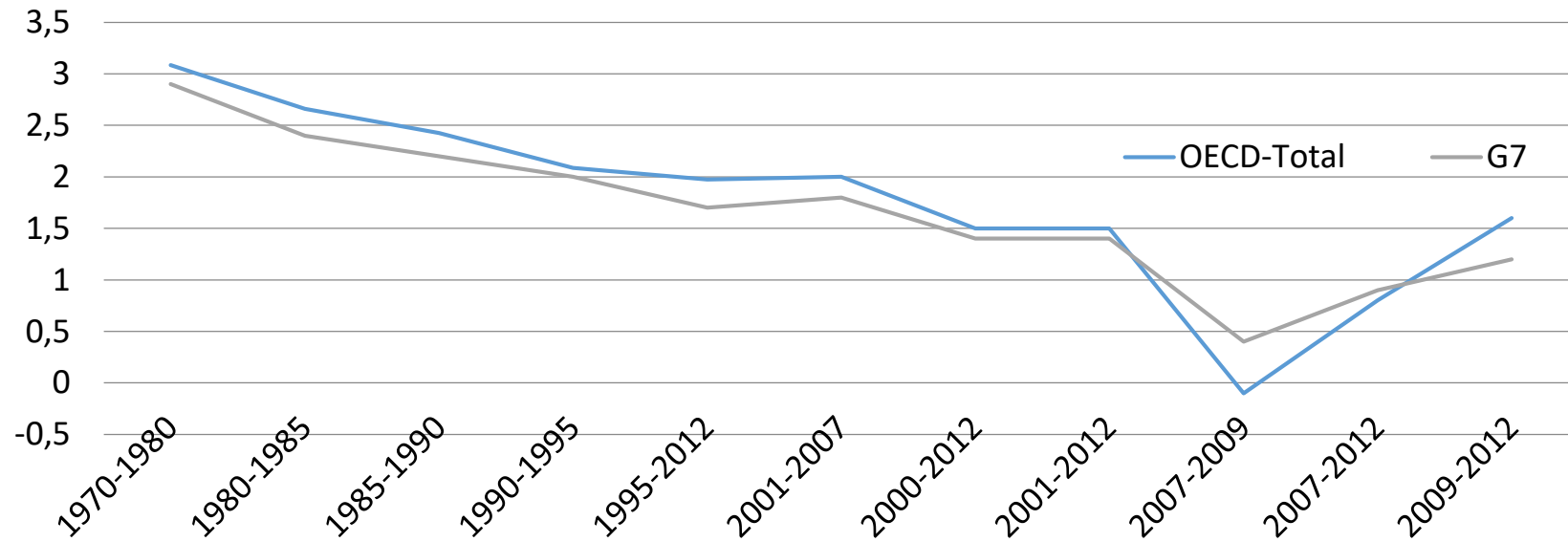
Main structure and main hypotheses

- In last 3 decades: a decline in the share of workers in manufacture and a transition towards the service sector.
- structural change as one of the main causes for low labour productivity.
- structural change with (bad) reforms in the labour market (labour flexibility..) and labour intensive Investments
- decrease of wage share weakening AD
- Structural change + inappropriate institutional change → harmful labour productivity.

Main Results

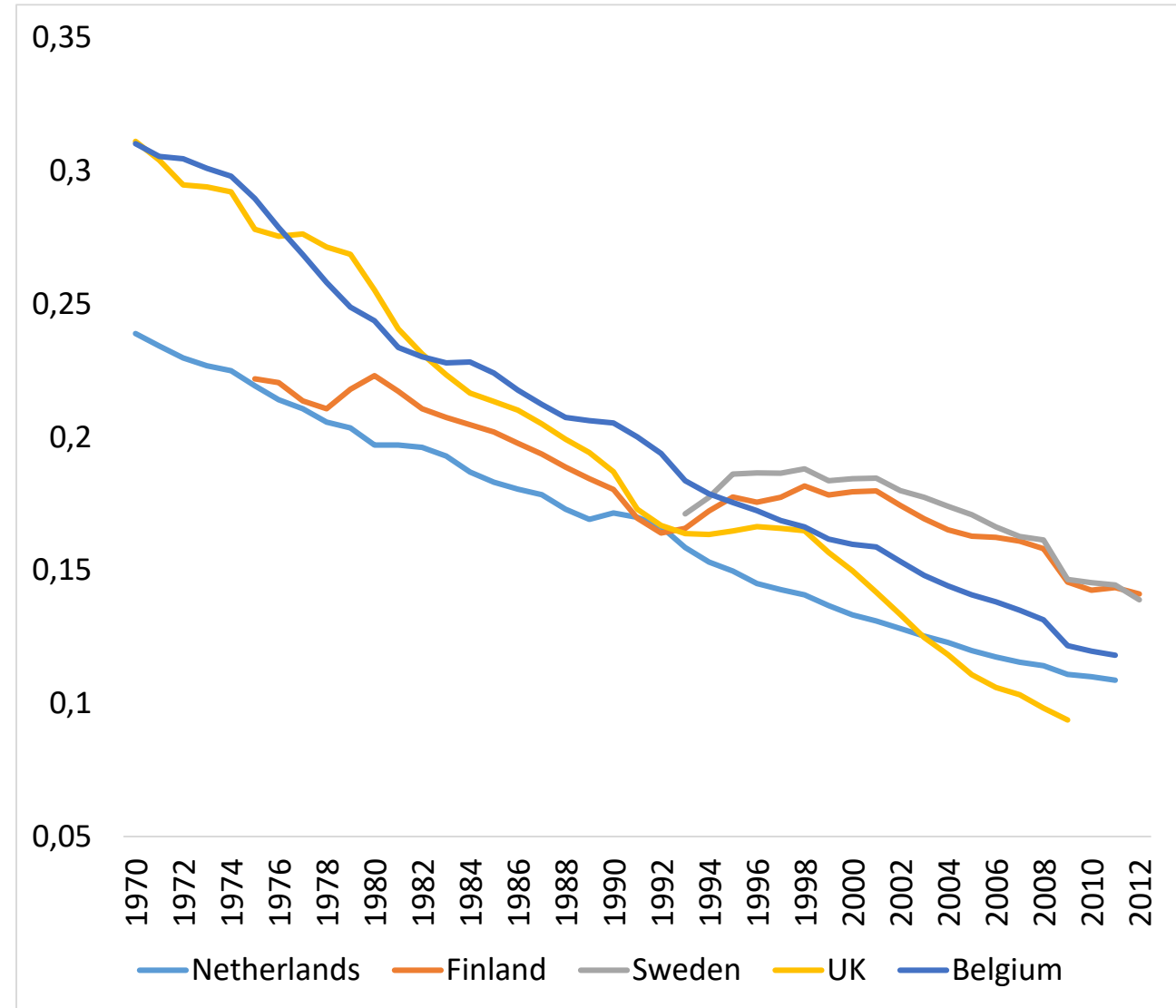
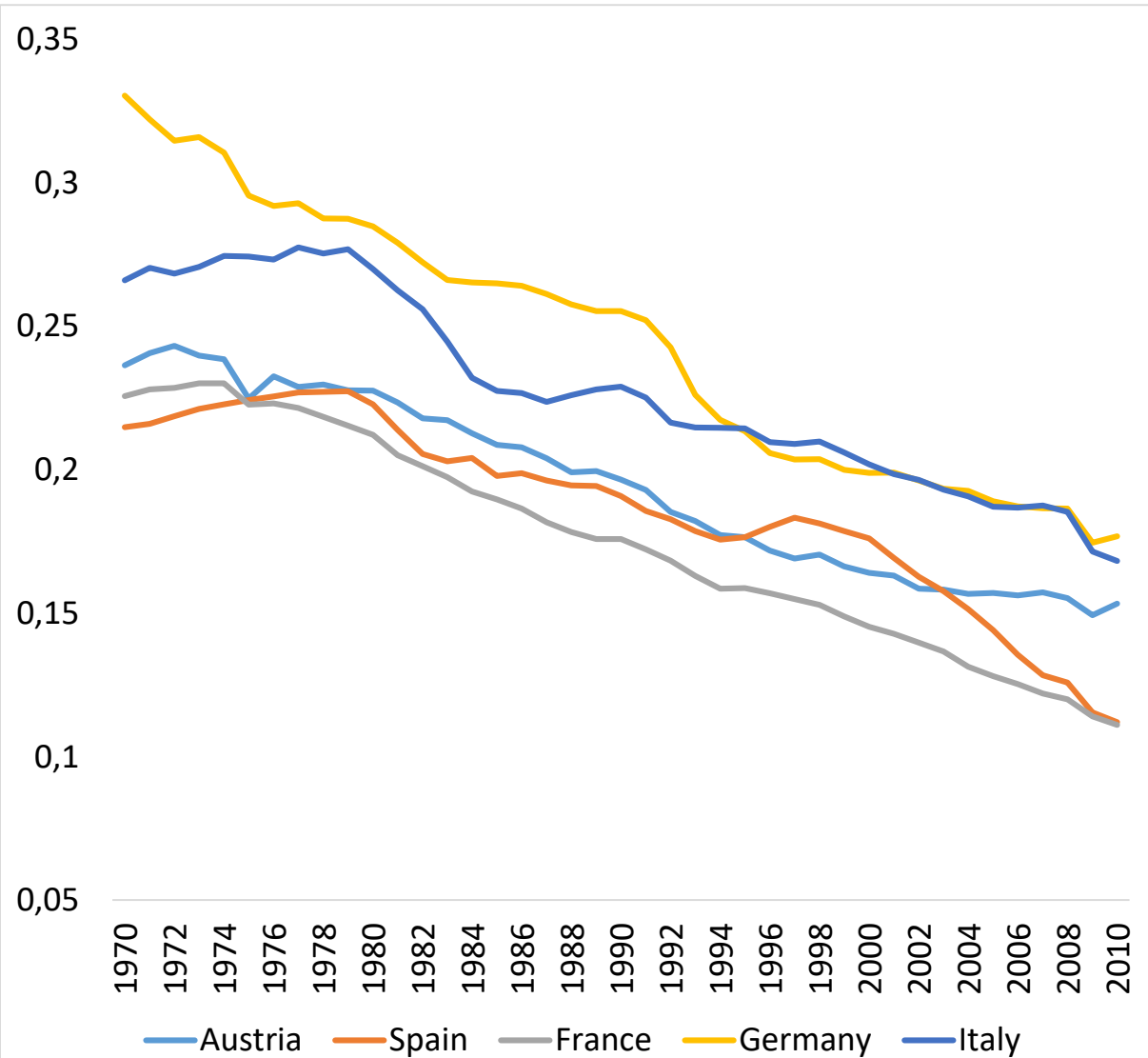
- the share of employment in manufacture is positively related to the hourly labour productivity.
- the share of employment in several service industries negatively affects it.
- Countries with most of employment in low-skilled service sectors have worst performance (LP and GDP dynamics).
- In fact AD in these countries stagnated because wage dynamics is low, and in turn, GDP performance is low.
- an increase in LF and in TW, particularly in the service sector, damage LP, while capital accumulation and an increase in the wage share enhance LP.

Labour productivity decline (OECD source)



Manufacturing share in total employment, 1970-2012

Source: EU KLEMS and OECD



Theoretical framework and literature review

- **Tertiarization** with decline of labour productivity is obviously not new and dates back at least to **Baumol** and Bowen (1965), **Kaldor** (1966) and Baumol (1967).
“Tertiarization may provide a structural change burden to productivity gains”
(Szirmai and Verspagen, 2015, p. 47).
- This is due in part to the fact that several service industries have a limited potential for productivity gains and are defined by **labour-intensive** production processes.
- Recent Post Keynesian elements included in this analysis: **financialisation** and **reduction of wage share**
 - **financialisation** > negative impact on labour productivity, because managers and financial corporations are more interested in maximising their bonuses, shareholders’ dividends and financial compensation rather than embarking on strategies oriented towards productive investments. In this context, assets are wasted in financial and real estate speculation and short-term strategies; no investment expansions, innovation and labour productivity gains
 - **Higher Wage share** > has a positive effect on enhancing productivity strategies and capital intensive investments

Baumol cost disease and investment strategies

- “growth disease”
- the service sector is quite heterogeneous
- investments and industrial strategies > specialisation of economies
- other supply side explanation > neo-Schumpeterian, education skills..
- other demand side explanation > Delli Gatti et al. (2012)

a) Our contribution: deindustrialisation and labour market reforms

- Our contribution aims to show the importance of the shift to the service sector, which occurred well before the crisis, as a result of low capital intensive investments in the manufacturing sector, and deindustrialisation that has occurred particularly since the 1990s in some European countries, such as Italy (Gallino, 2003; Sylos Labini, 2004).
- Deindustrialisation has been accompanied in several European countries by financialisation, by reforms in the labour market aimed at increasing labour flexibility, decreasing labour protection and increasing temporary work. These reforms in the labour market were coupled with strong retrenchments of welfare state spending. Both labour flexibility (labour cost compression) and the retrenchment of the welfare state contributed to the wage share reduction, stagnation of aggregate demand, and in turn, to the lower dynamics of labour productivity.

b) Our contribution: deindustrialisation and VoC

- The VoC and welfare state policy have affected the shaping of these processes.
 - some European continental countries, such as **Germany**, have avoided, to a large extent, the deindustrialisation and have continued to invest in manufacturing and in capital intensive sectors with positive results in terms of productivity and wage dynamics.
 - Other **Scandinavian** countries have managed to drive the transition towards a service sector dominated by public administration employment and social services of higher quality and standards, resulting in benefits in terms of productivity and wages.
 - Others such as **Italy** have experienced both deindustrialisation and migration to low skilled service sectors, dominated by sub-sectors such as accommodations, food, and private social, community and family services, with low productivity gains and low wages. The deindustrialisation has been accelerated by labour intensive investments incentivised by relatively lower wages and deep labour flexibility.

The Italian disease...

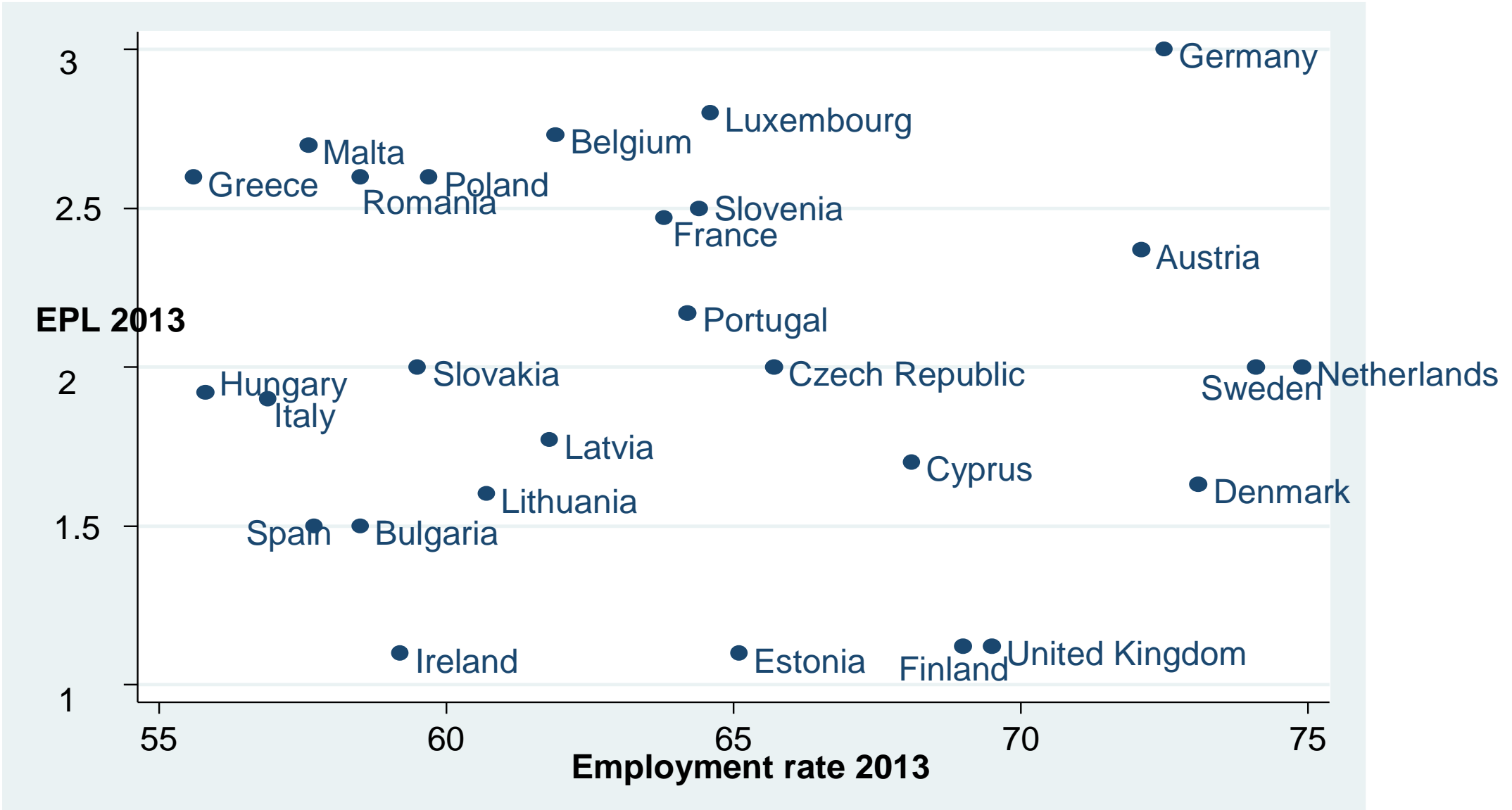


Italian economy looks more and more like a bar economy

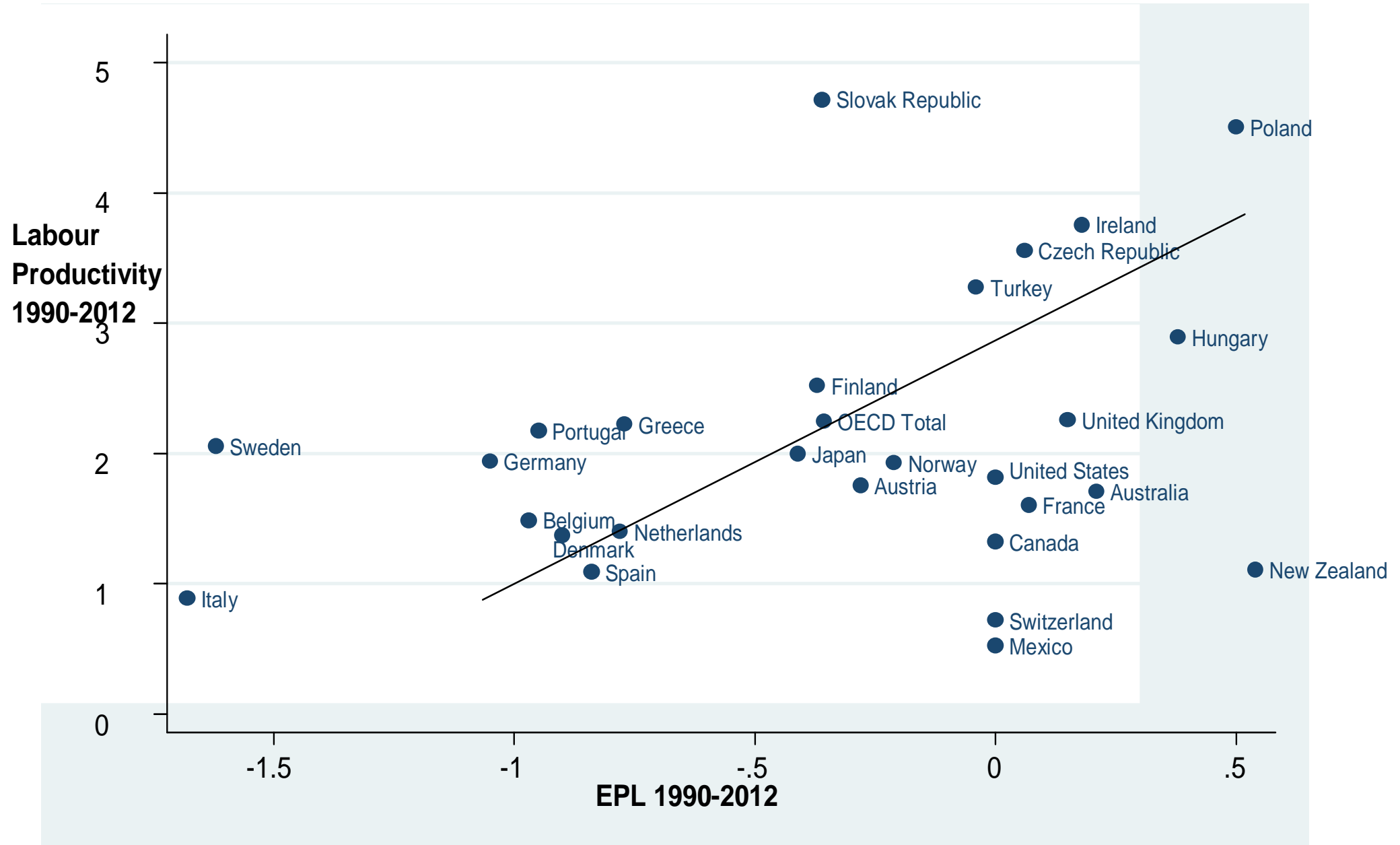
Reforms of LM after July Agreement 93

- Pacchetto Treu L 196/1997
- Legge 30/2003
- Riforma Fornero 2012
- Decreto Poletti CTD
- Jobs Act / Art. 18
- Decreto Dignità ← ←

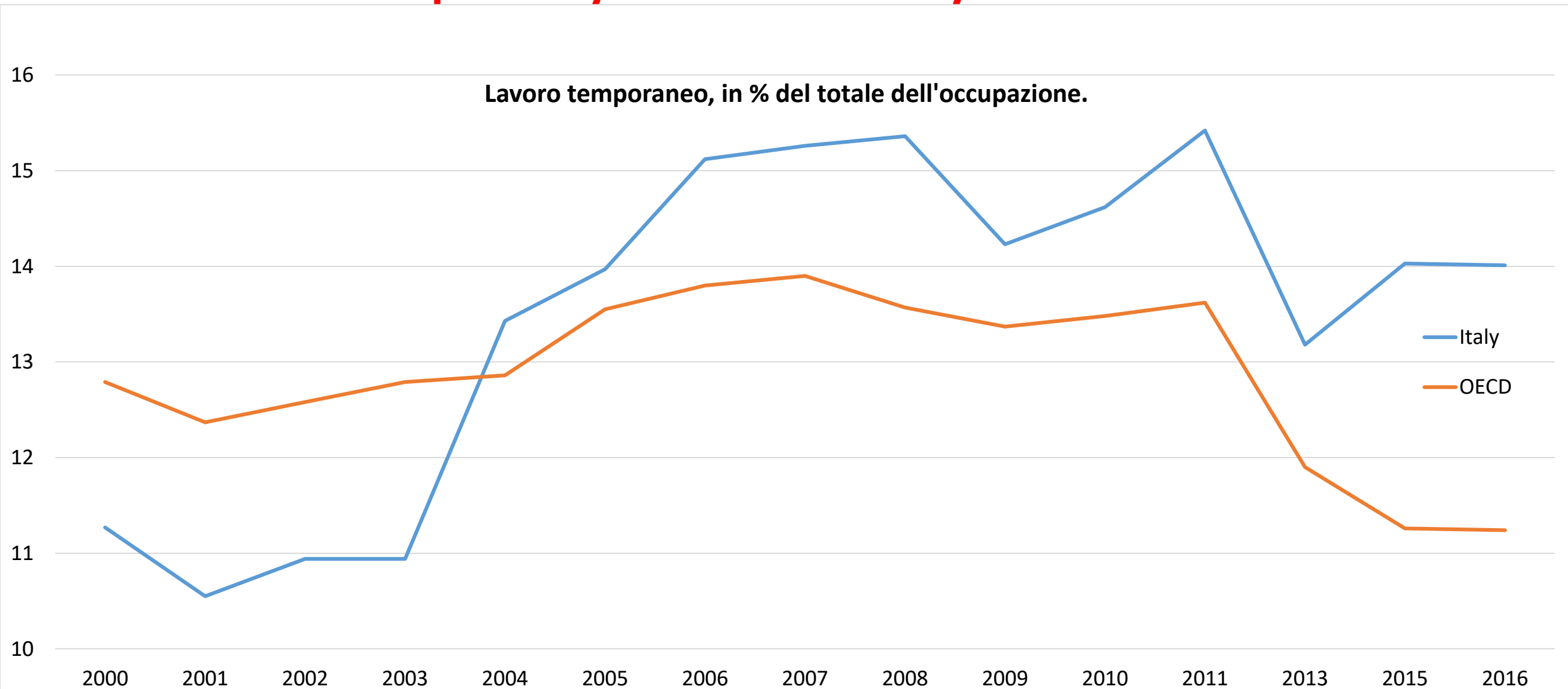
Labour Flexibility and Employment



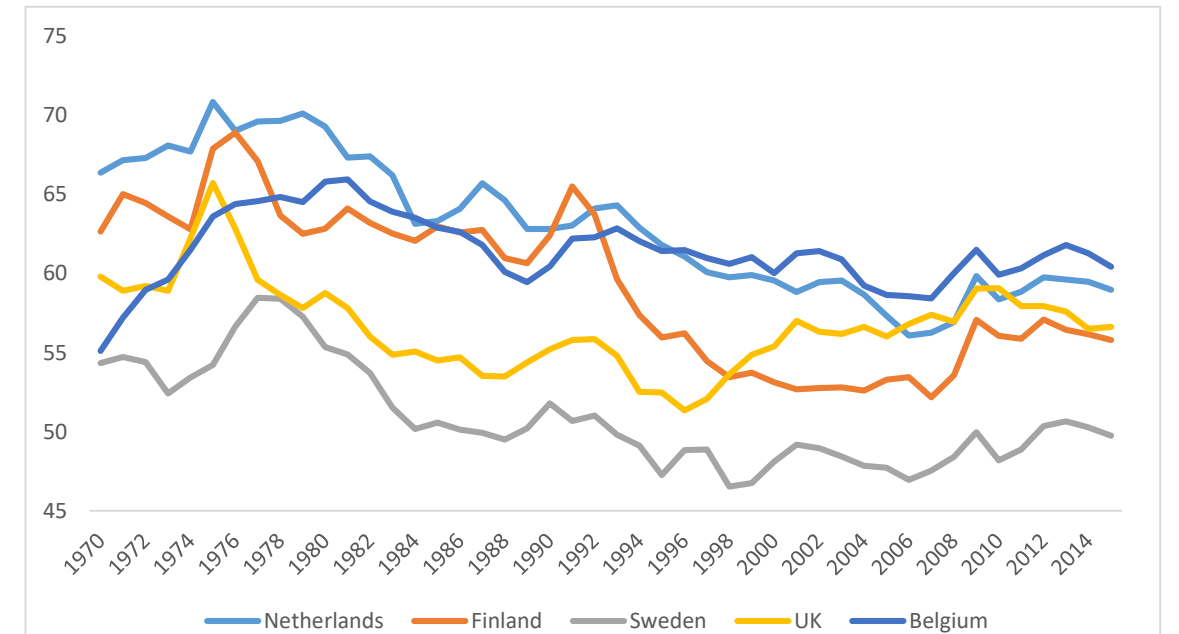
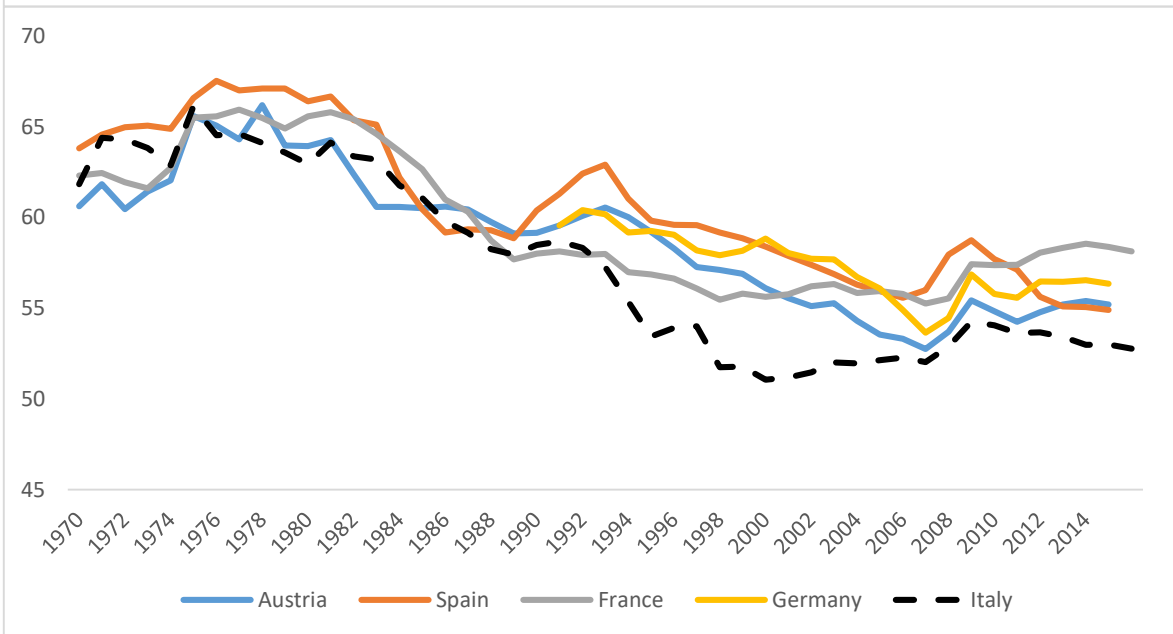
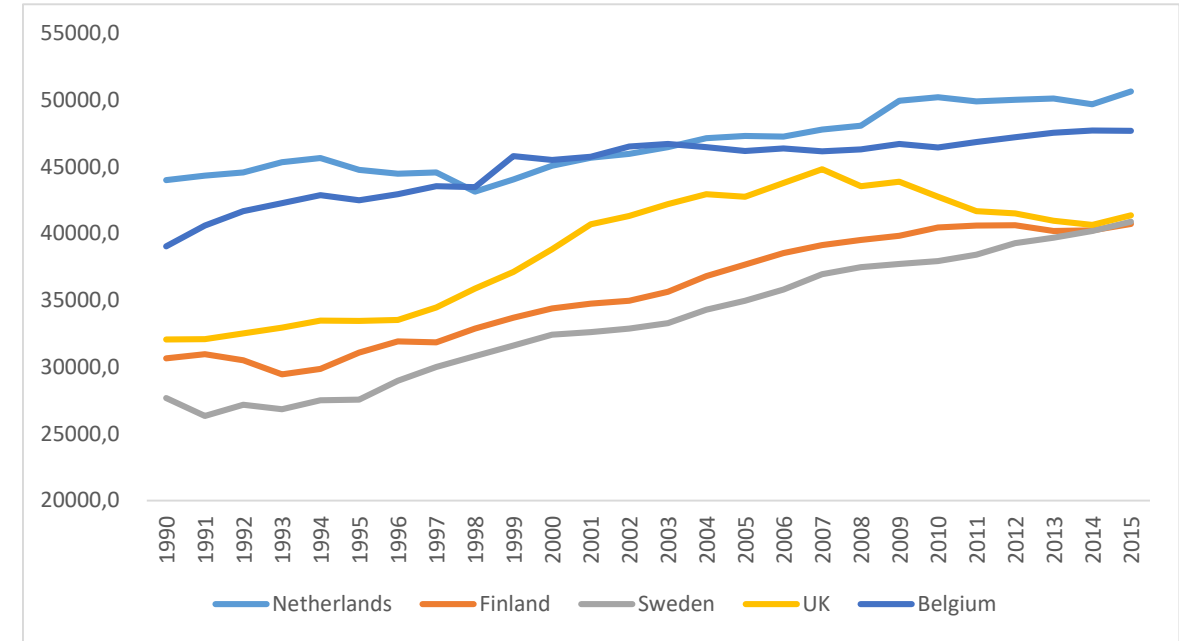
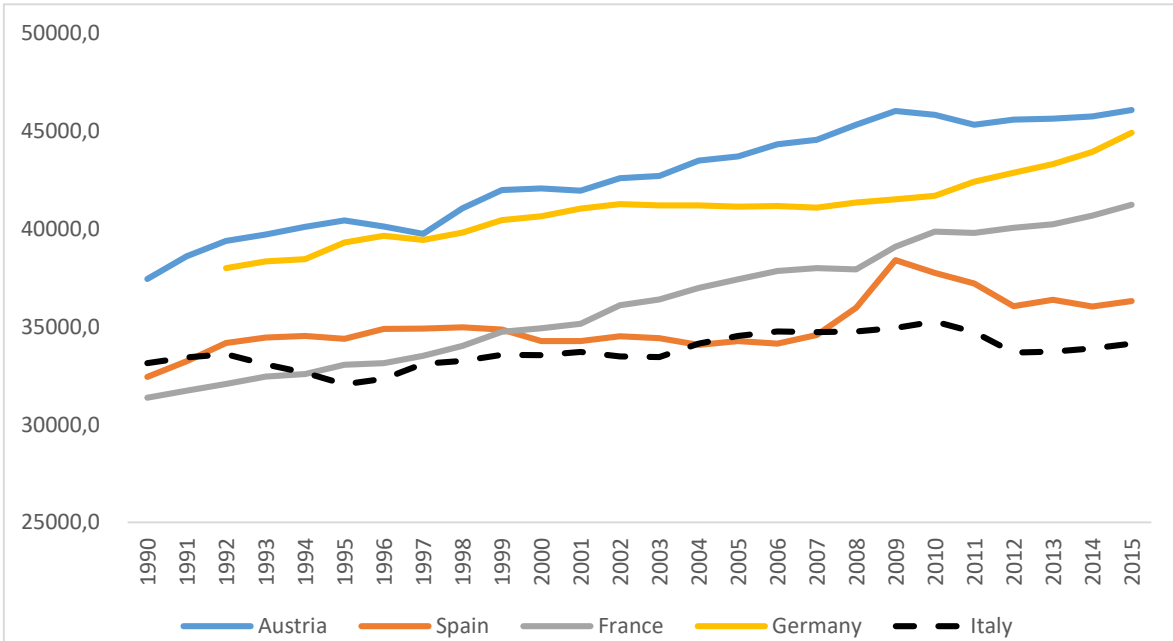
Labour Rigidity and Productivity



Temporary work in Italy and Oecd



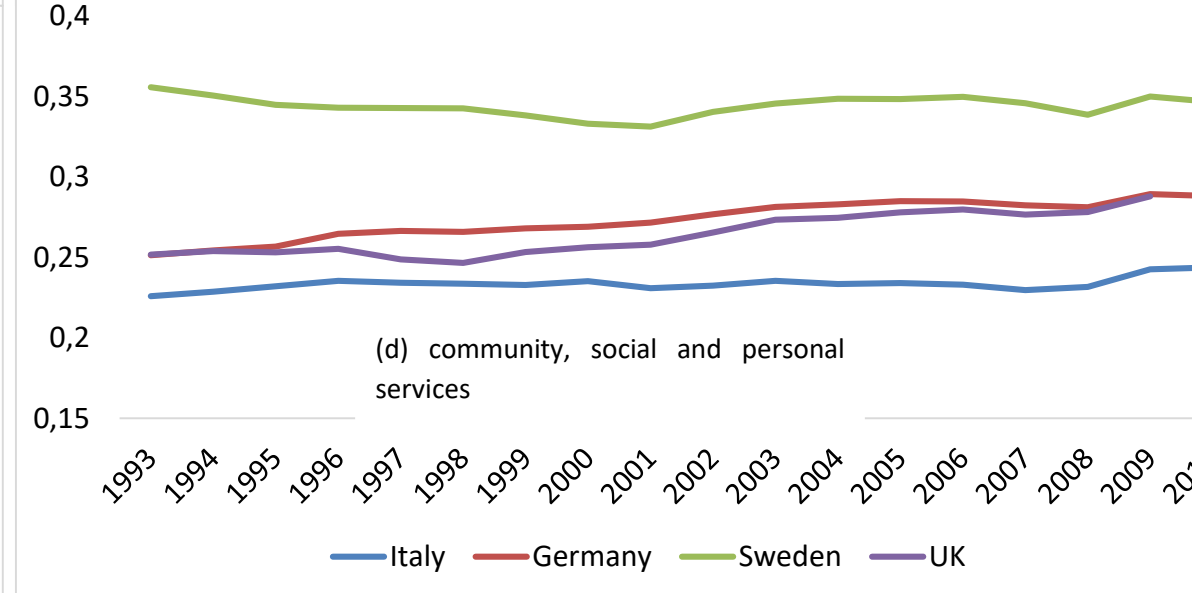
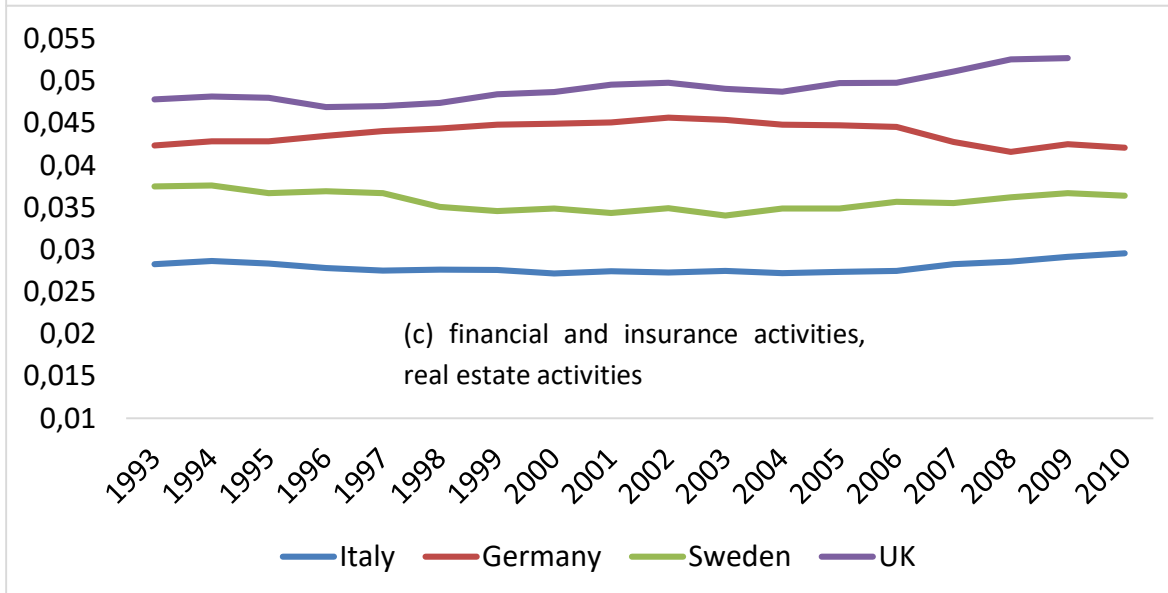
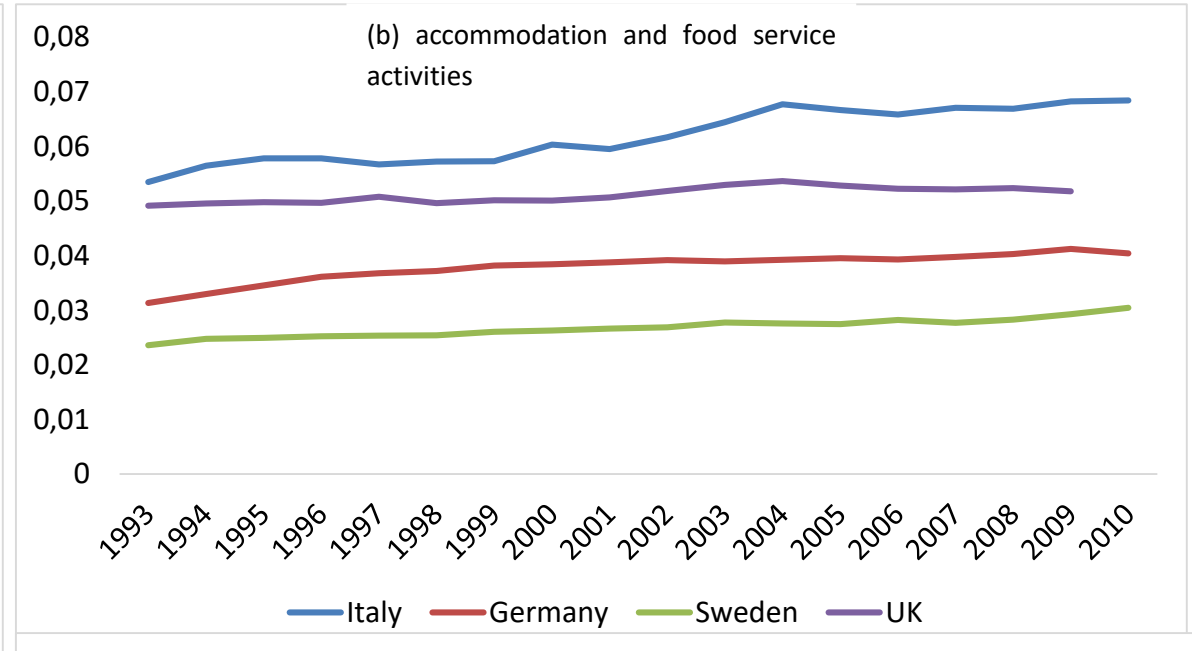
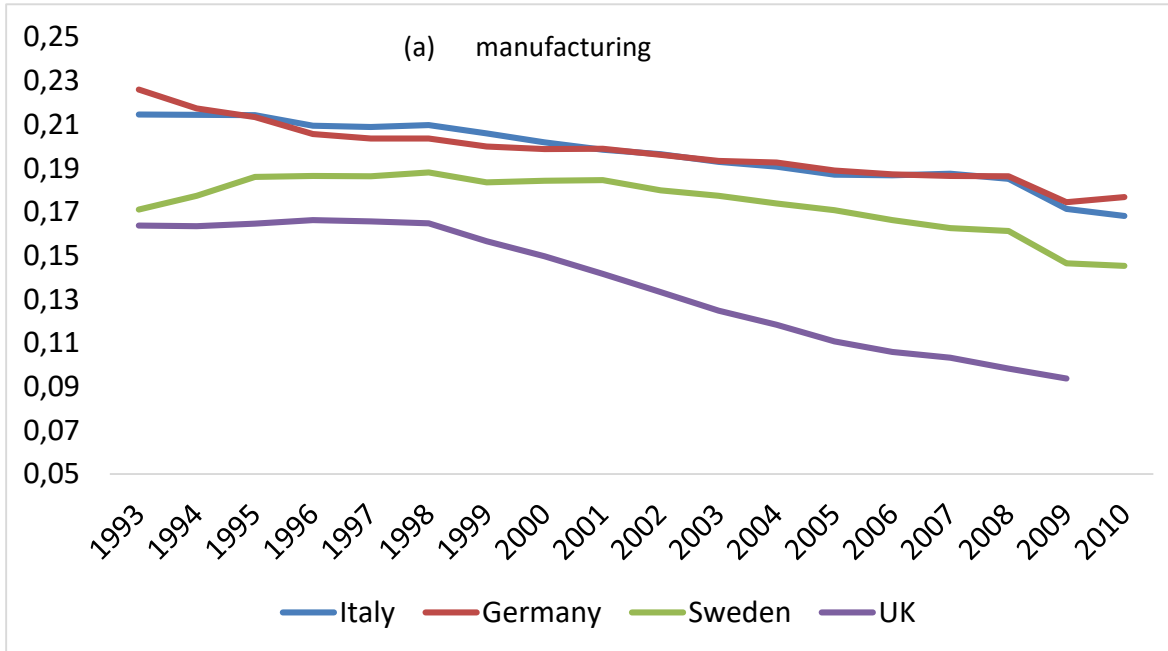
Deindustrialisation, wage stagnation (fig a) and wage share decline (fig b)



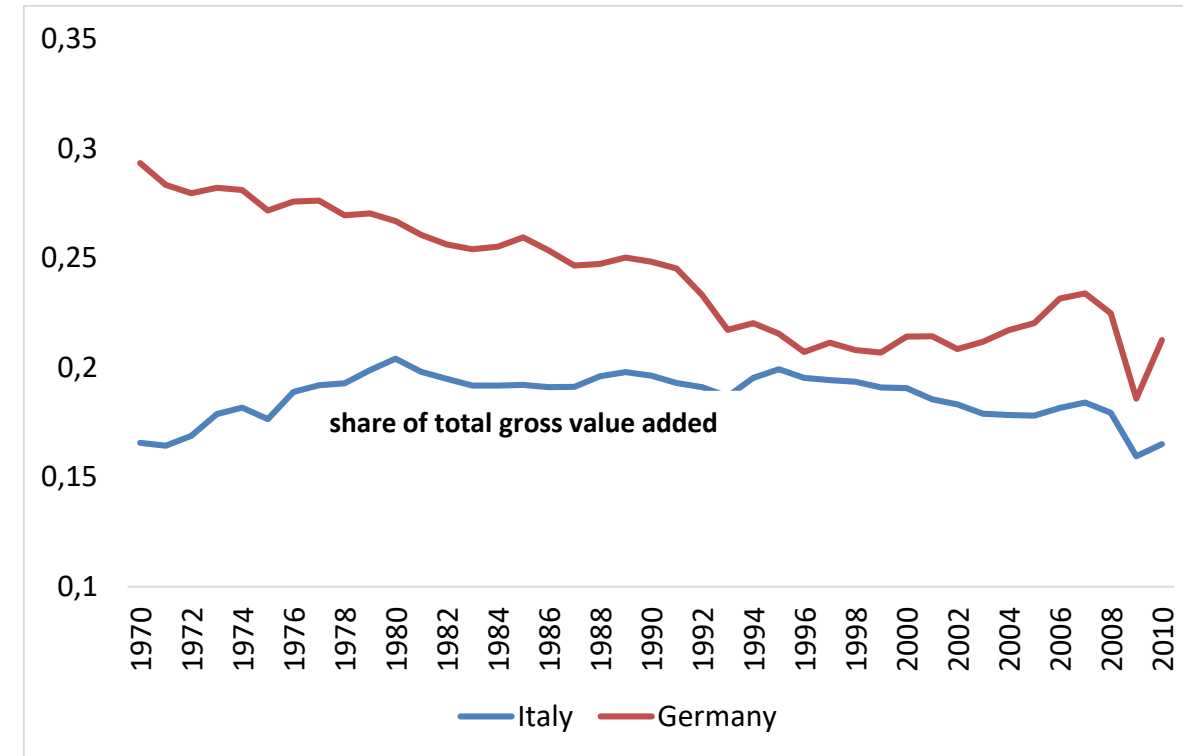
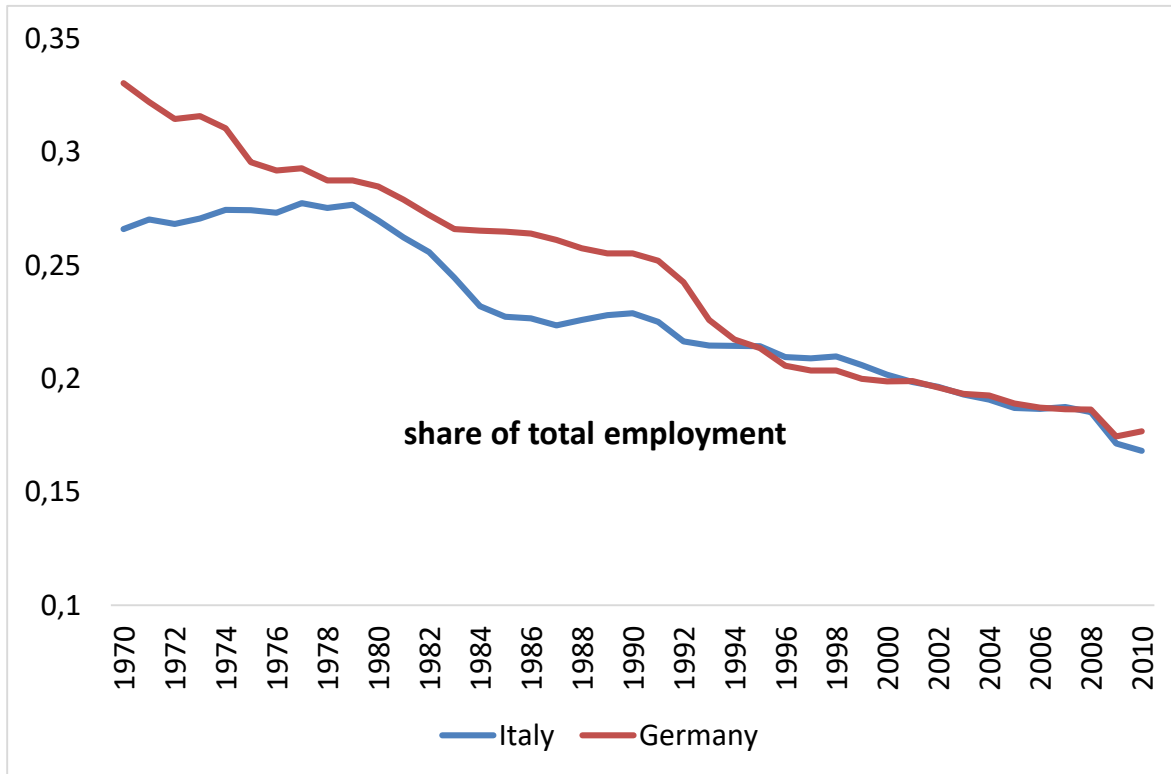
+ Wage and + productivity

- Wage compression acts as a substitute for the adoption of technologically advanced production processes (Sylos Labini, 1999; Pariboni and Tridico, 2017); as a consequence, low wage countries tend to remain stuck in low-tech production segments (Storm and Naastepad, 2015).
- On the other hand, an increase in real wages might push firms which do not keep pace with technological innovations out of the market (Webb, 1912; Pasinetti, 1981).
- Moreover, in the face of exogenous changes in the income share accruing to workers, entrepreneurs might want to defend their income share by attempting to enhance labour productivity and reduce labour unit costs (Hein and Tarassow, 2010).
- Marquetti (2004) performed an econometric analysis regarding the relation between real wages and labour productivity in the US over a 130 year time span and concluded that “*real wages Granger-cause labor productivity...*”

4 model of transitions : share of total employment, 1993-2010

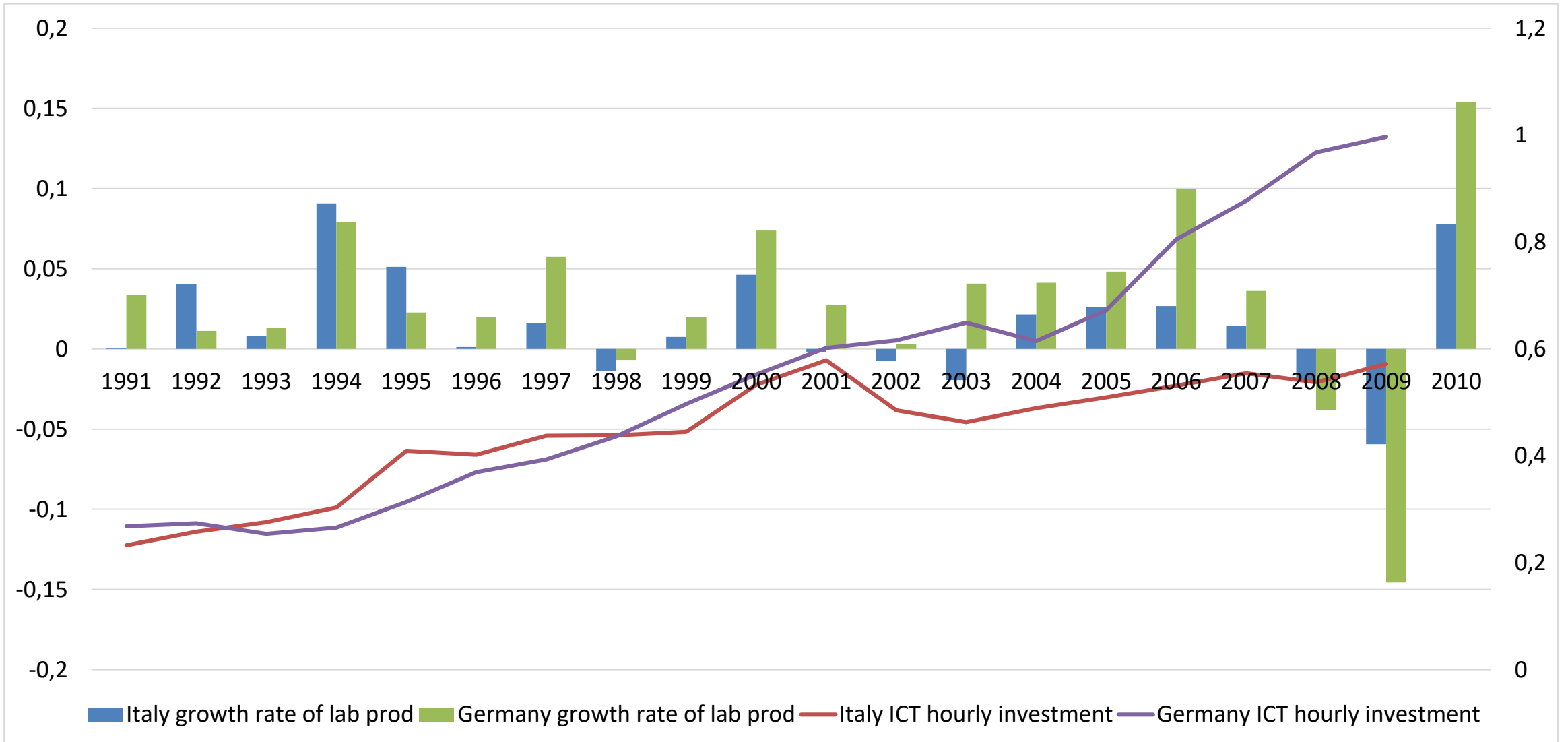


Italy vs Germany: where is the problem?



Italian (mediterranean) model in a nutshell: Manufacture + food and accomodation + lack of ICT investment

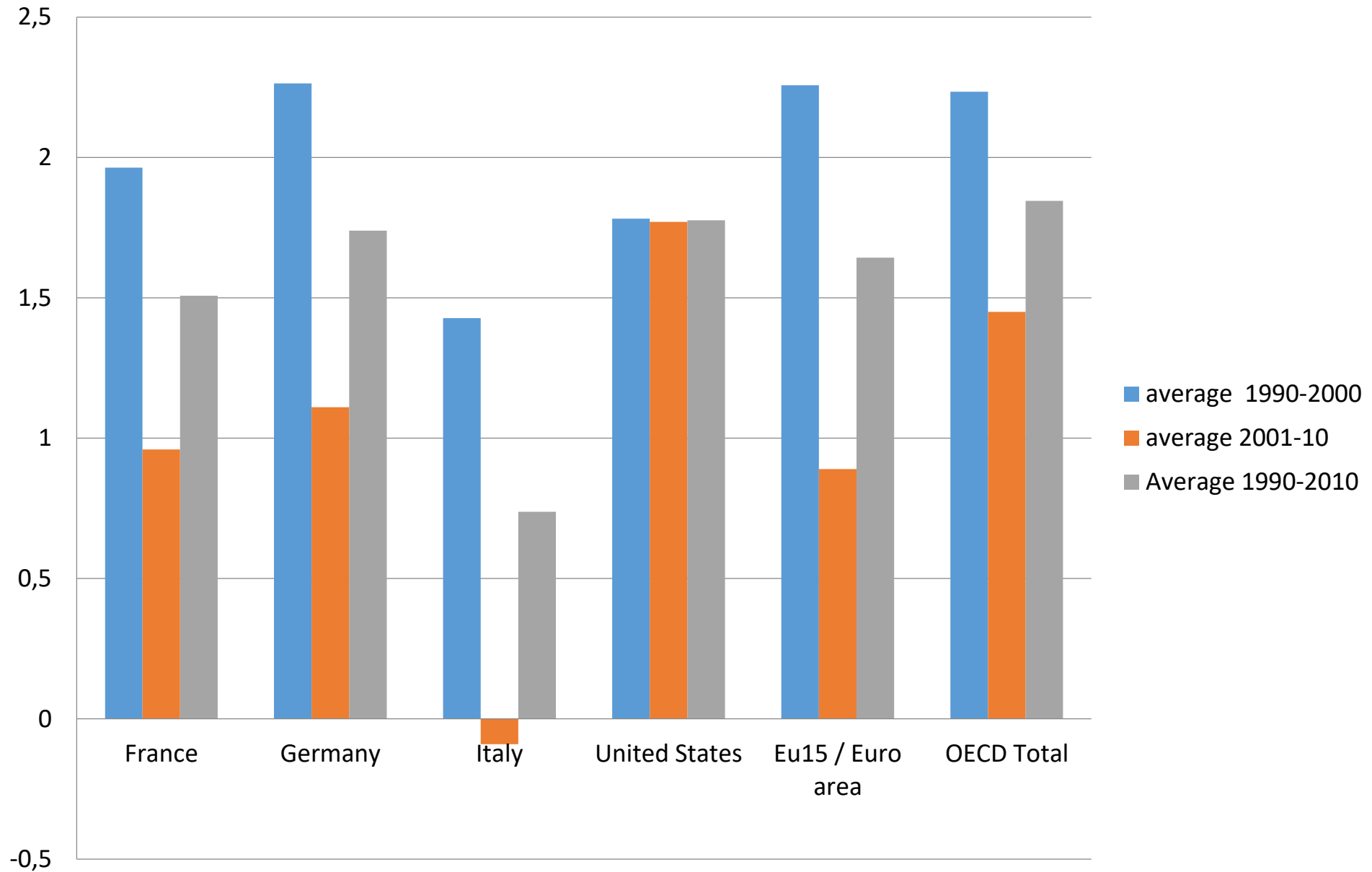
Poor LP growth (left) and lack of ICT investment (right)



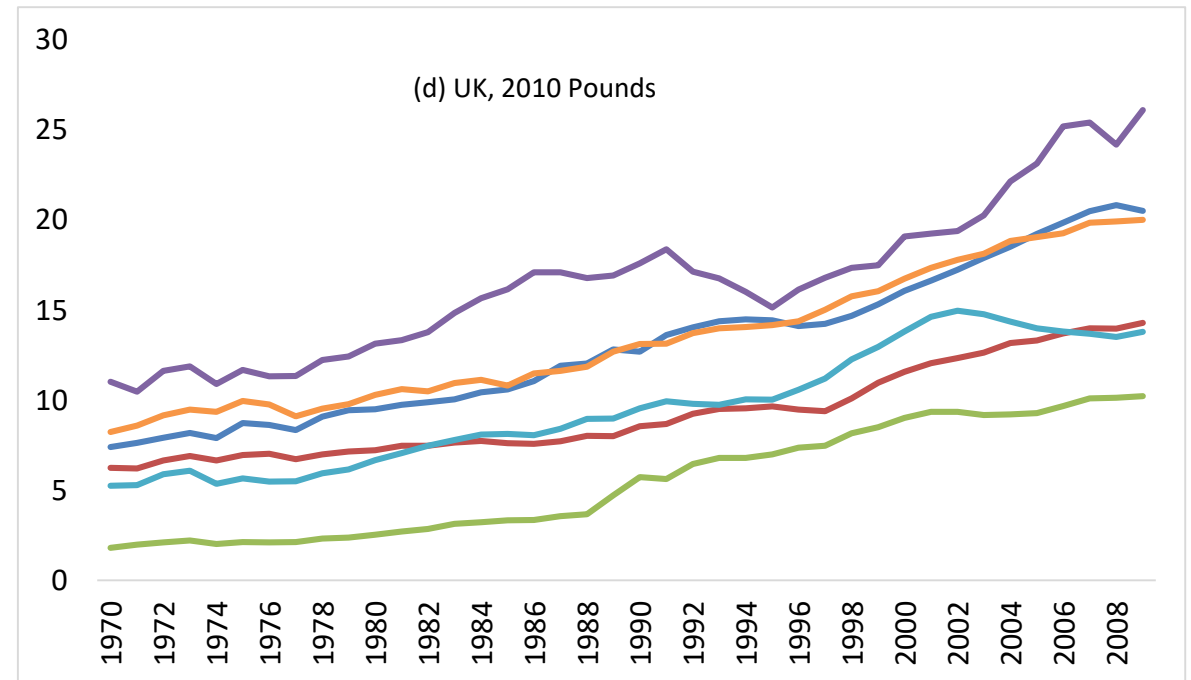
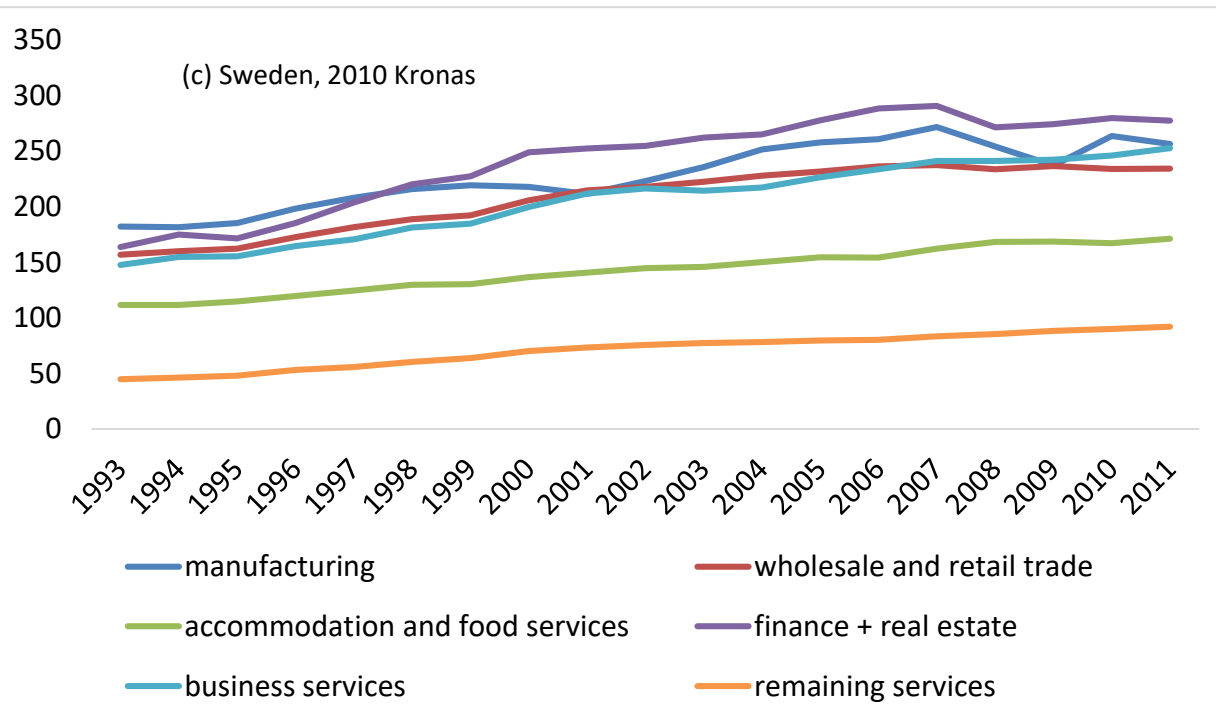
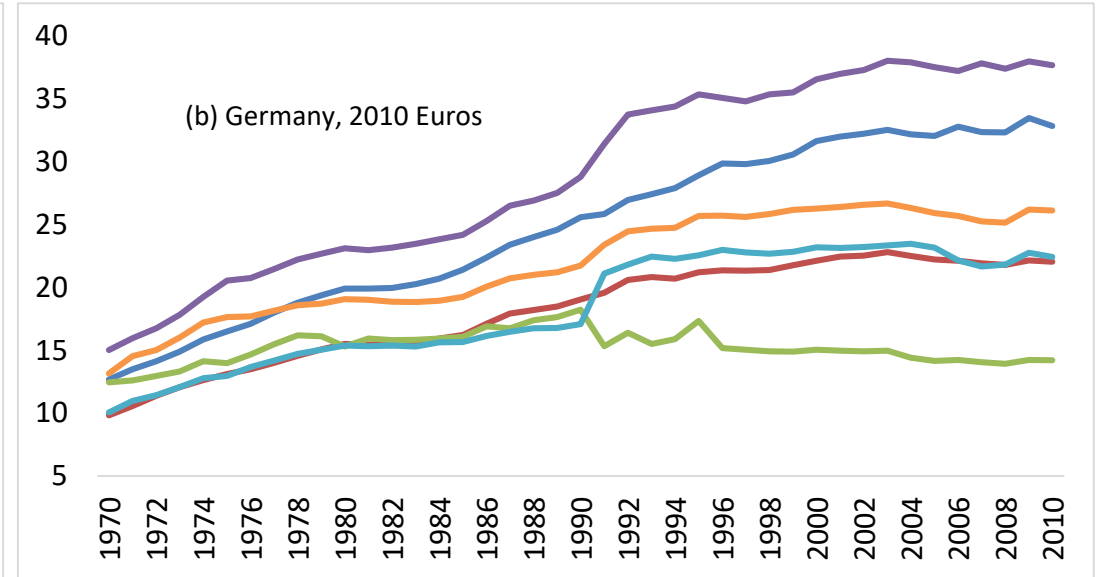
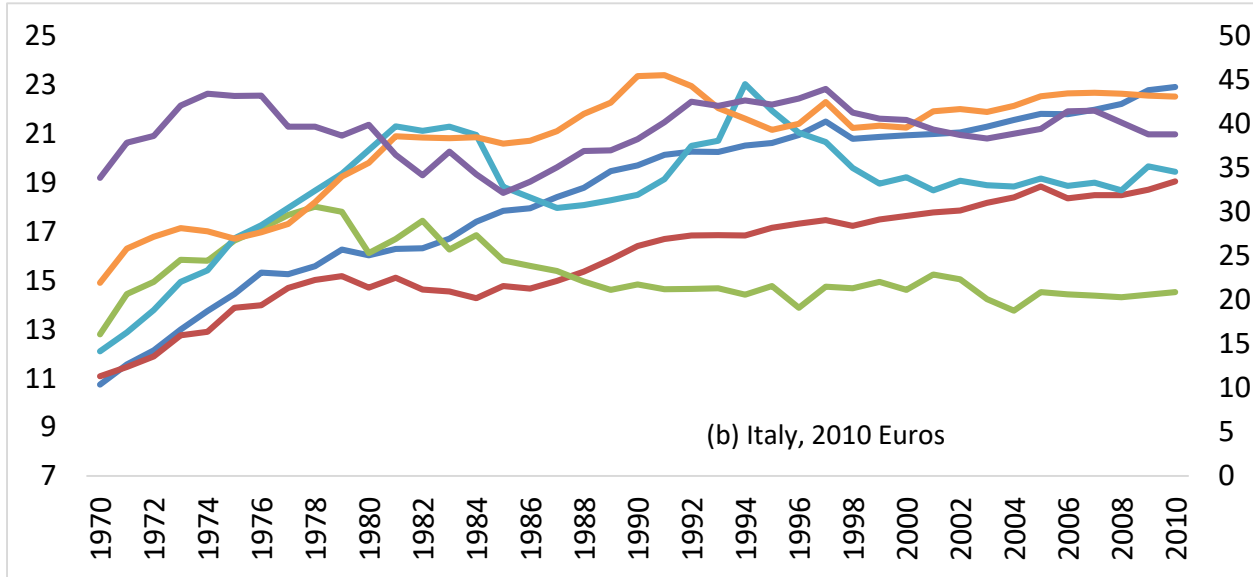
Productivity and Investment

- Similarly to the manufacturing this figure suggests that the Italian service industries might also suffer from structurally poor investment dynamics
- Both ICT and total non-residential hourly investment have been mostly stagnating throughout the last couple of decades, while in Sweden, the comparable magnitudes grew steadily, with some cyclical fluctuations in the acquisition of ICT assets.

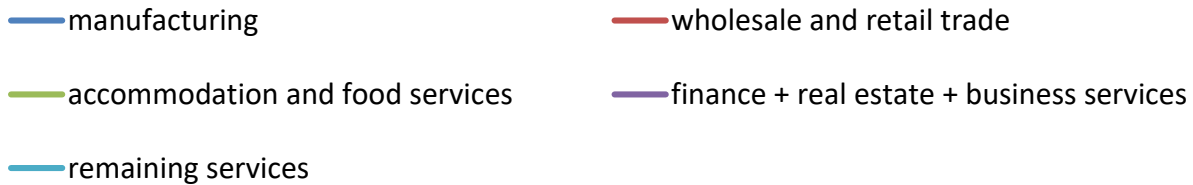
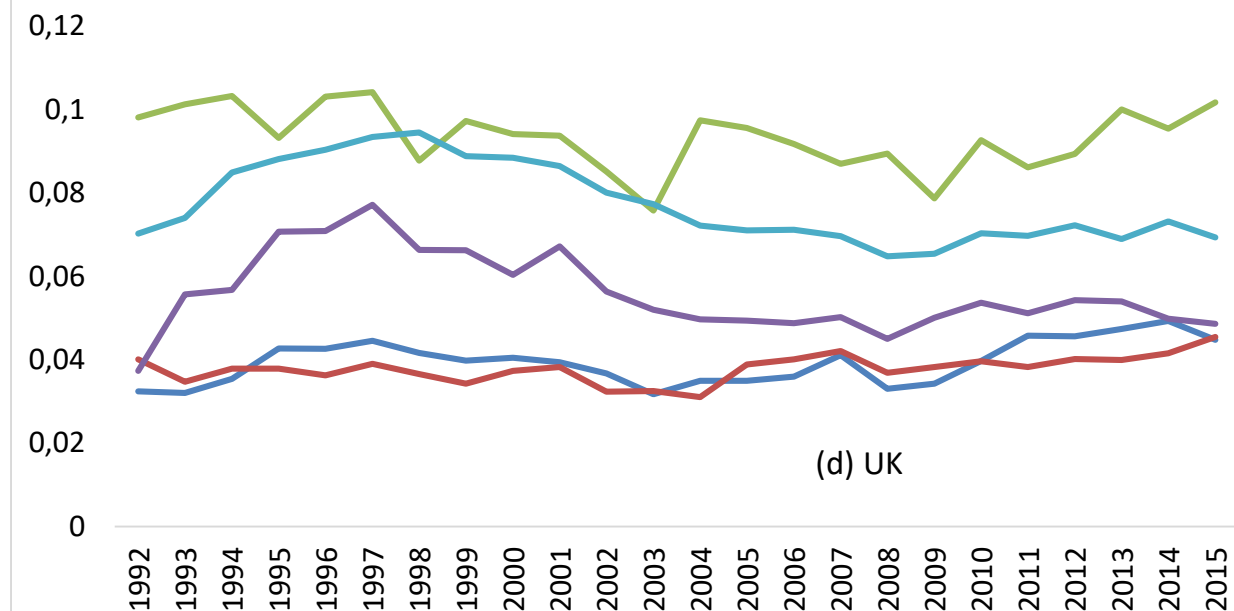
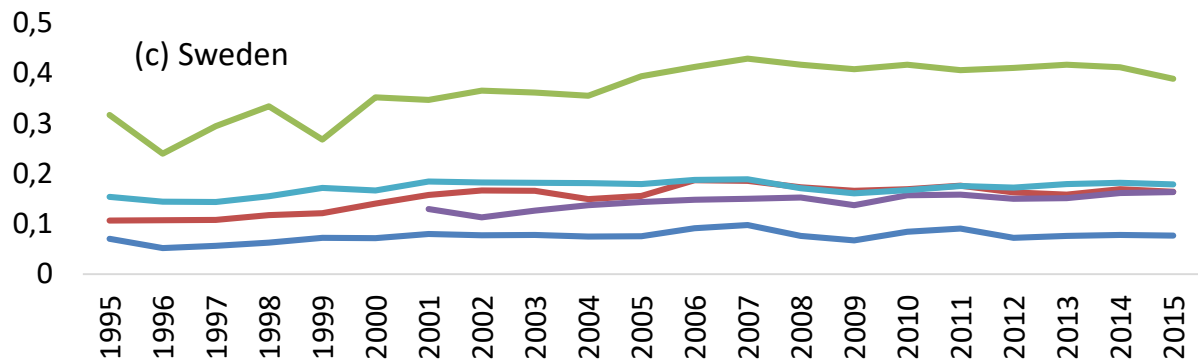
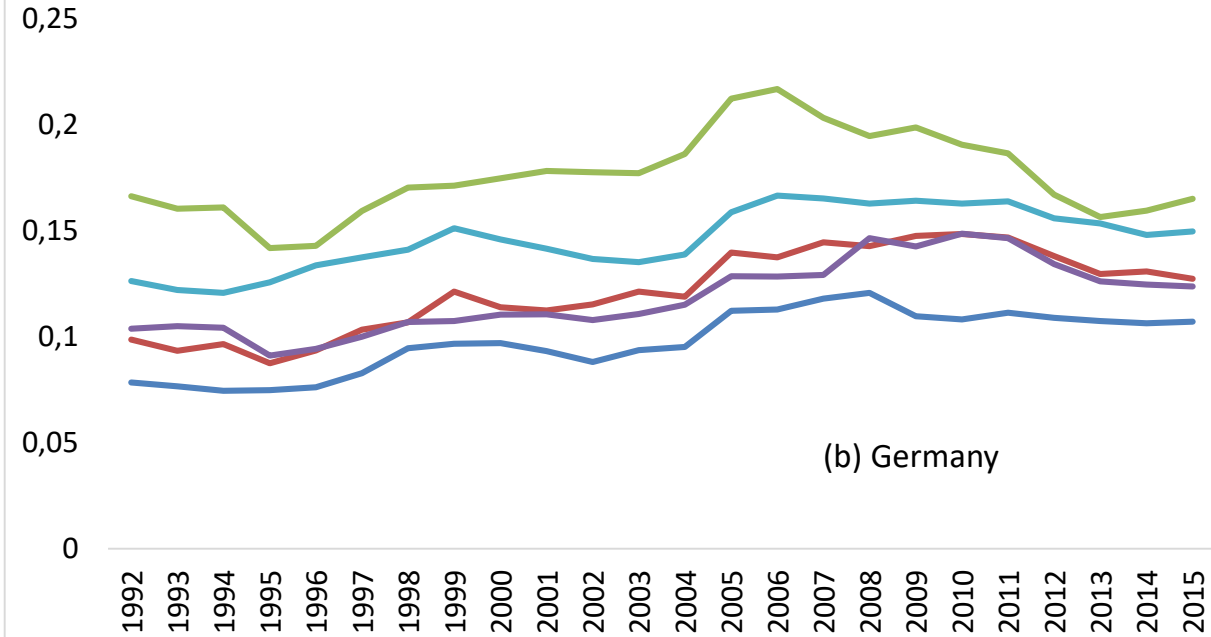
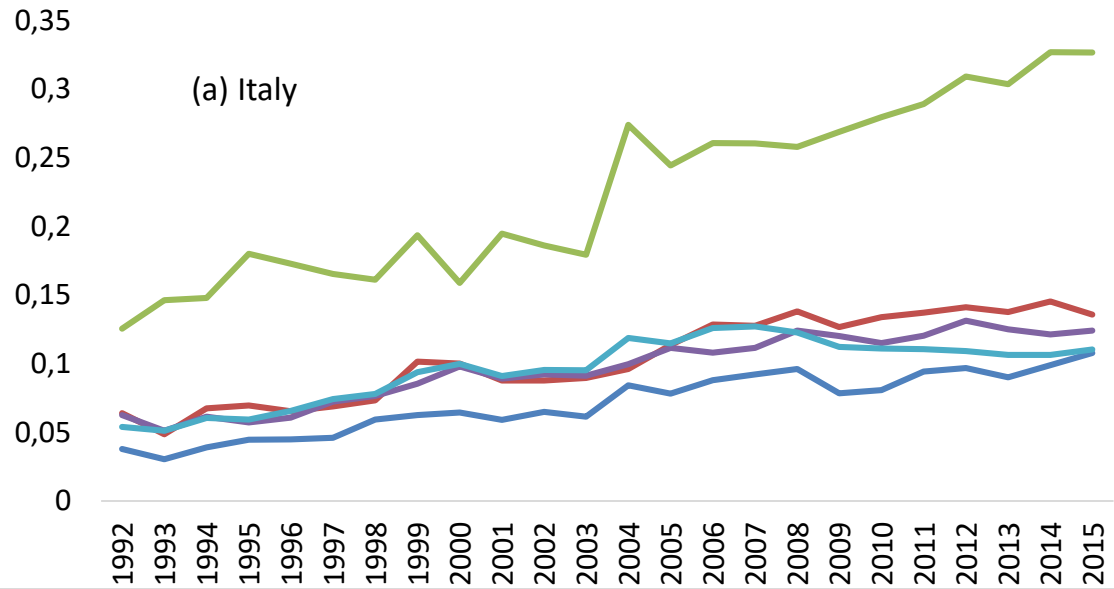
Productivity growth : 1990-2010



Real hourly labour compensation



Share of temporary employees in total employees



The models

- $Y_{1970} = \alpha + \beta_1 M - \beta_2 WSR - \beta_3 AF - \beta_4 FRE + \beta_5 PBS + \beta_6 IC + \beta_7 RS + \beta_8 I + \beta_9 W + \varepsilon$
-2015
- $Y_{1994} = \alpha + \beta_1 M - \beta_2 WSR - \beta_3 AF - \beta_4 FRE + \beta_5 PBS + \beta_6 IC + \beta_7 RS + \beta_8 W - \beta_9 TW + \beta_9 EPL + \beta_{10} ICT + \varepsilon$
-2015

Main results

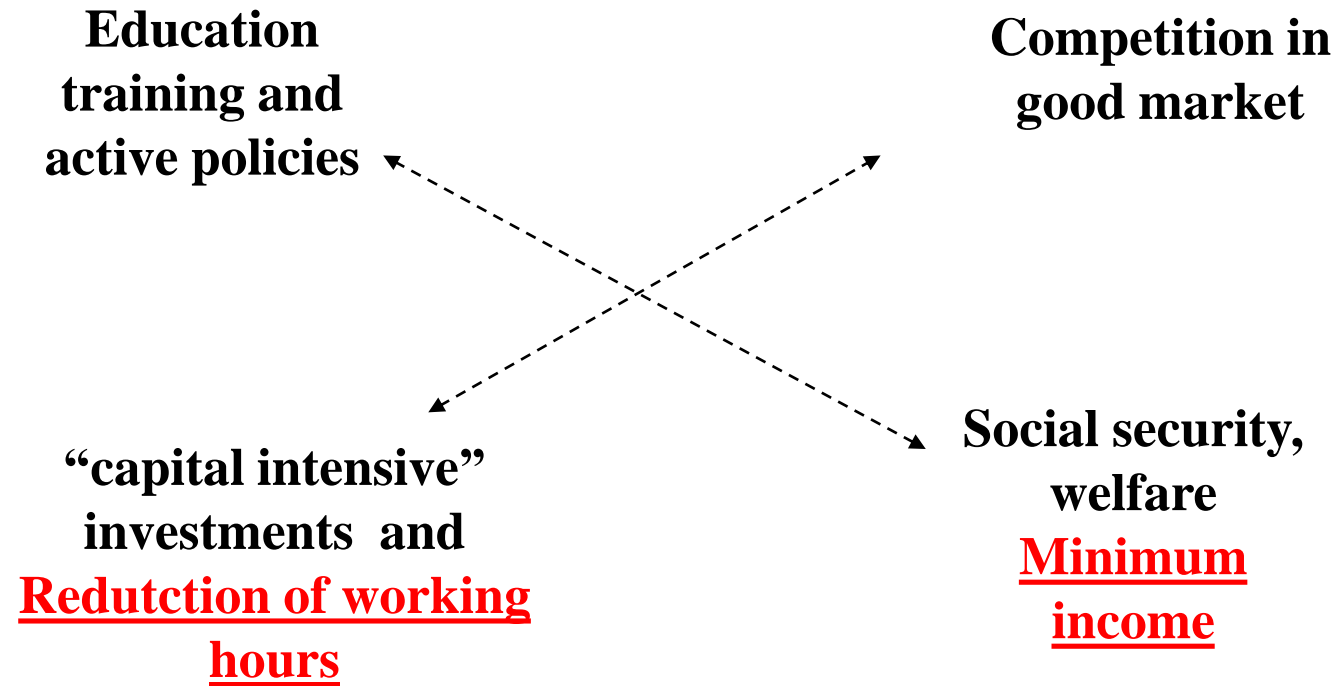
- Labour productivity is a positive function
 - of the share of hours worked in the manufacturing sector and the advanced service sectors, such as the professional sector and business services (architecture, engineering services, etc.),
 - while it is a negative function of the share of hours worked in other service sub-sectors, such as food, restaurants, and accommodations.
 - Moreover, it is a positive function of wages and a positive function of investments, in particular in the ICT assets.
 - Finally, it is a negative function of labour flexibility captured by the variables temporary work and EPL

	GLS model, random effect. - Dep var: hourly labour productivity	
	Panel 1970-2015	Panel 1995-2015
sthwm	13.55841 (5.123227)**	22.77713 (8.897275)***
sthwwsr	-9.984194 (9.341191)	-79.01002 (15.90175)*
sthwaf	2.562935 (11.78464)	-32.44724 (23.24004)
sthwfre	-26.33085 (18.96174)	-48.97454 (33.30619)*
sthwpbs	73.42521 (8.162228)*	117.9447 (12.28364)*
sthwic	-67.73225 (28.2348)**	203.8687 (57.81981)*
sthwrs	13.26419 (5.195353)**	19.71993 (9.654674)**
Tot_NR_Inv_2	.216437 (.1294167)***	
RLCH_avg	1.211317 (.0405092)*	.3294595 (.0510691)*
ttw		-.1312379 (.0274403)*
epl		2.542203 (.4842897)*
lct inv		10.13182 (1.039787)*
R-sq: overall = 0.9446; Wald chi2(9) = 4401.17; Prob > chi2 = 0.0000; Number of obs = 268; Number of groups = 9		R-sq: overall = 0.9463; Wald chi2(9) = 2133.38; Prob > chi2 = 0.0000; Number of obs = 133; Number of groups = 9

The Entrepreneurial State / Innovator

- Labour Flexibility discourages innovation
- Low Wage and flex bring intensive labour investments
- Productivity decreases
- The Innovative State can not be in favor of job flexibility
- It can not be for low wages
- It promotes and makes innovation and therefore high salaries

New policy consensus: proposal



Conclusions

- The econometric analysis confirms our hypothesis, in particular, hours worked in manufacturing and in the professional and business sectors and the information and communication sectors → + labour productivity, and hours worked in the wholesale and retail and financial and real estate sectors → -
- investment in the ICT → + while labour flexibility, (EPL) and the share of temporary work → -
- similar results regarding labour flexibility, innovation and labour productivity: found by Kleinknecht (1998) and Tridico (2013). + employment turnover and a lack of stable industrial relations produce fewer incentives for firms to invest in innovation and in human capital, and therefore, to gain higher efficiency from workers.
- The enhancing role of wages on productivity is also confirmed, meaning that wages have a positive effect on productivity: Aggregate demand and increasing consumption are positive challenges for firms, which are pushed to embark on capital intensive strategies when they are burdened by higher labour costs to satisfy the larger demand, which in turn, has a positive impact on labour productivity.
- Conversely, negative pressures on labour, such as flexibility and temporary work, have a detrimental effect on productivity for at least two reasons: 1) aggregate demand and consumption will decline, and following Kaldor's (1961) approach the incentives for productivity enhancing strategies will be lost; and 2) firms are inclined to exploit labour intensive investment strategies, which would place them on a lower technological frontier, with lower productivity gains and the prevalence of unskilled workers (Pasinetti, 1981; Sylos Labini, 1999).
- This trend is particularly likely to occur in the service sector, in which a national strategy that is state-supported and technologically driven (following the Mazzucato (2013) approach) would thus be very useful.