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"Democrazia: Cittadini responsabili si diventa - Conoscere e Partecipare"

# Per una nuova Competitività dei Territori Montani nell'Economia della Conoscenza

Sabato 22 febbraio 2025 Biblioteca Civica di Ponte nelle Alpi

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Università  
Ca' Foscari  
Venezia

# «Competitività» del territorio

Un concetto ambiguo, che richiede qualche precisazione

- Competitività come **concorrenza** tra soggetti nello stesso mercato, in un gioco a somma zero
- Competitività come **attrattività**, dove comunque il gioco rischia di essere a somma zero
- Competitività come condizione che promuove l'innovazione e favorisce la crescita della **produttività**, diventando così un gioco a somma positiva

# «Competitività»

Un concetto da rileggere nella prospettiva dell'Economia Civile

1. **Competizione per il bene comune:** la competizione non è solo un processo per ottenere vantaggi individuali, ma anche per promuovere l'innovazione, il miglioramento dei servizi e la qualità dei beni offerti alla collettività.
2. **Regole morali e giuridiche:** la competizione deve essere regolata da principi etici e giuridici. Le regole del mercato devono essere tali da garantire una concorrenza leale e da evitare comportamenti dannosi come il monopolio, l'inganno o la speculazione.
3. **Solidarietà e cooperazione:** la competizione è un'opportunità per rafforzare la solidarietà e la cooperazione tra gli attori economici. Le imprese non dovrebbero essere in competizione solo per profitto, ma dovrebbero anche mirare a soddisfare le esigenze delle persone e a migliorare le condizioni sociali.
4. **Riconoscimento dell'interdipendenza:** la competizione non è un gioco a somma zero. Ogni attore economico è interconnesso con gli altri, e quindi la competizione dovrebbe essere uno strumento per migliorare l'efficienza senza danneggiare gli altri membri della società.
5. **Sostenibilità e responsabilità sociale:** l'economia civile promuove un approccio sostenibile alla competizione, dove le imprese sono incentivate a considerare gli effetti a lungo termine delle loro azioni, non solo dal punto di vista economico, ma anche sociale e ambientale.

# **Geografia dell'Innovazione e Crescita delle Disuguaglianze Regionali**

## ***Innovation Hubs e Alpha cities***

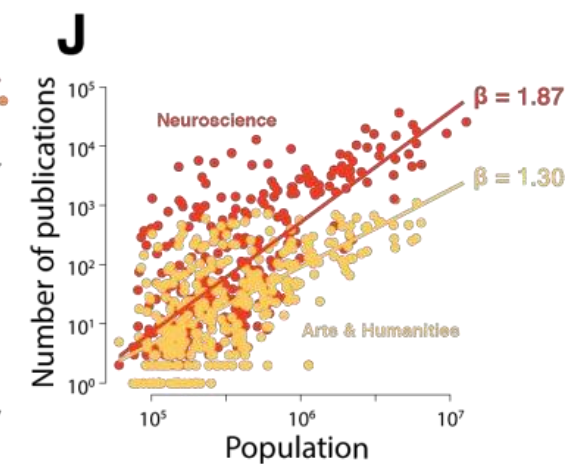
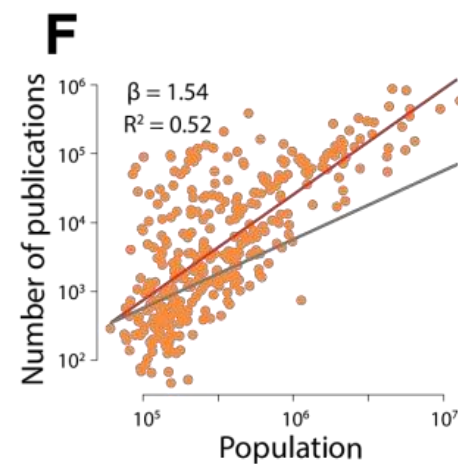
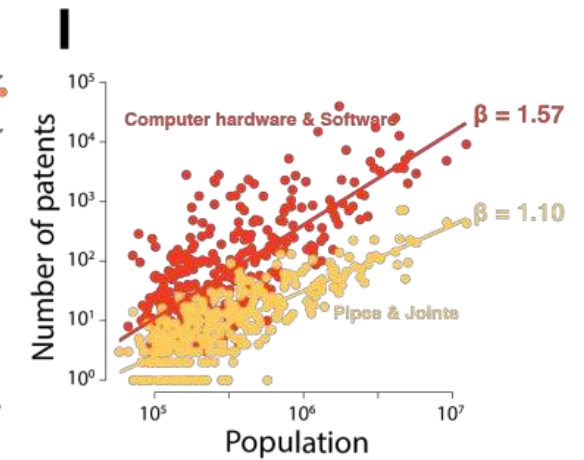
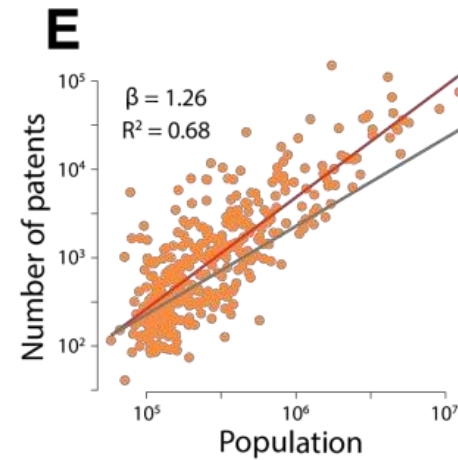
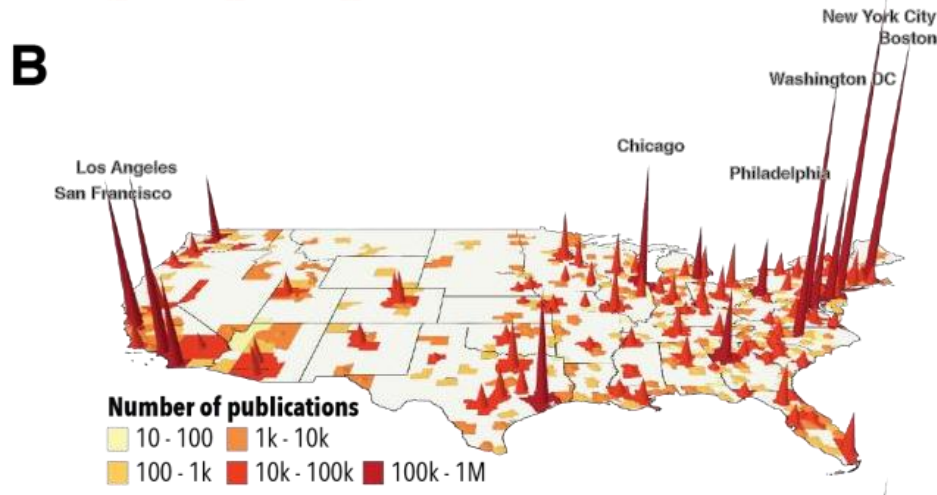
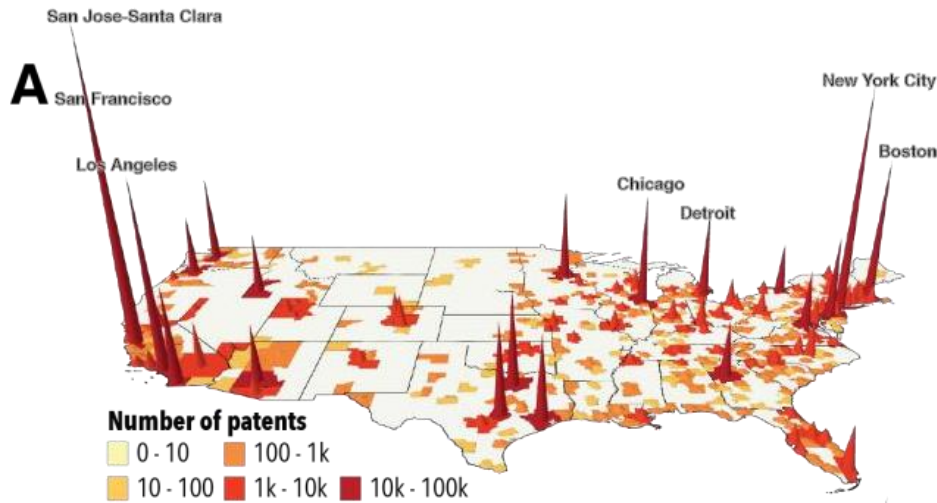
- La Nuova Geografia del Lavoro (Moretti, 2012)
- La Crescita degli Investimenti Venture Capital negli 'Unicorni' Tecnologici (Brown et al., 2017)
- Modello dei 'Winner Takes All'. Cluster Digitali e Trasformazione della Geografia dell'Innovazione USA (Chattergoon & Kerr 2022)

## **Cosa succede ai luoghi esterni a questo ristretto circolo?**

- 'Apocalypse Towns' (Coppola, 2012)
- La Vendetta dei 'Luoghi che Non Contano' (Andrés Rodríguez-Pose, 2018)
- Una Nuova divisione territoriale dello sviluppo: Booming Metropolis vs. Broken Cities (Paul Collier, 2019, 2024)
- Il Lato Oscuro della Geografia dell'Innovazione (Pinheiro, Balland, Boschma, Hartmann 2022)

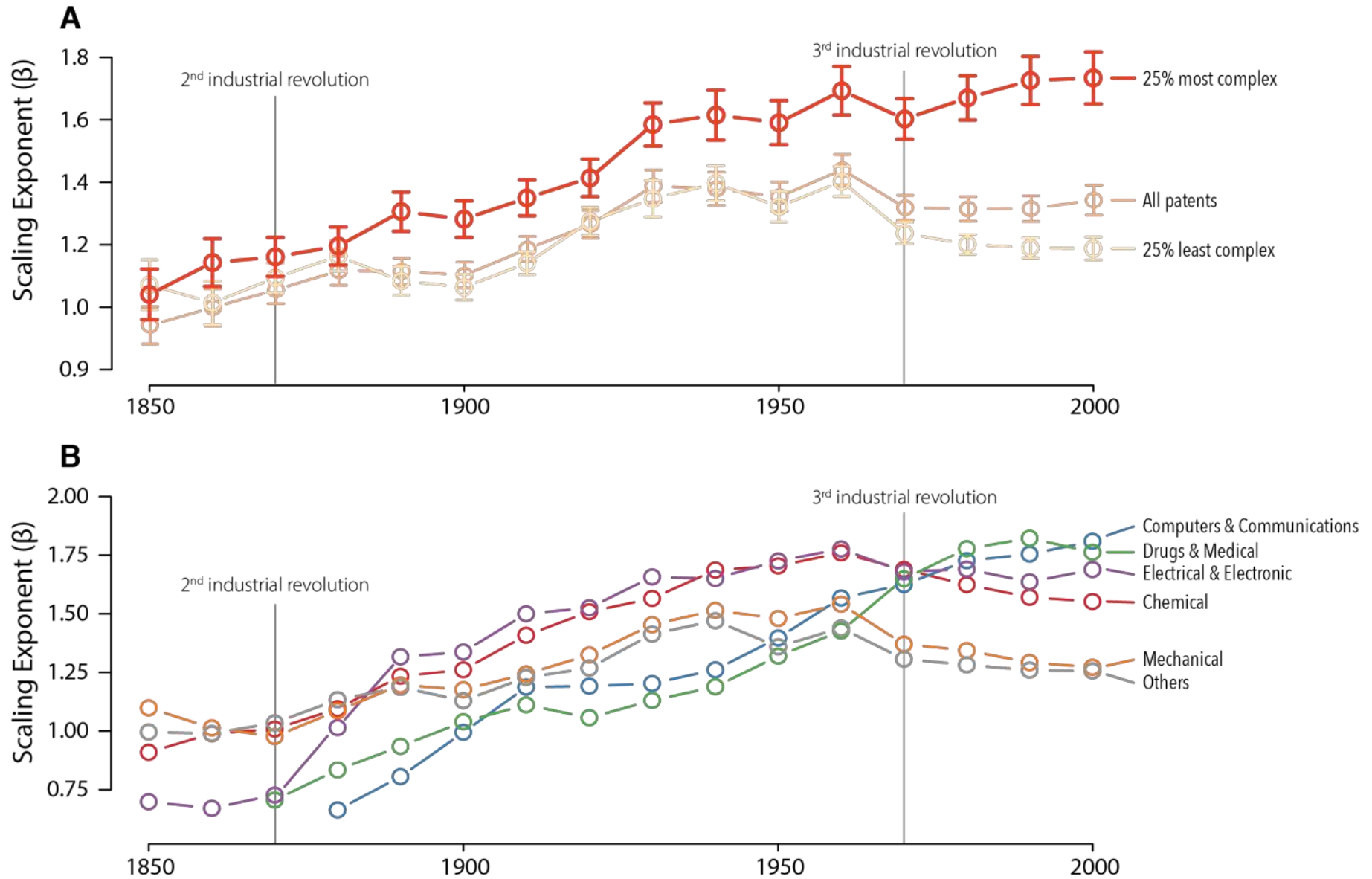
# Spatial concentration of economic activities

## Patents and Publications

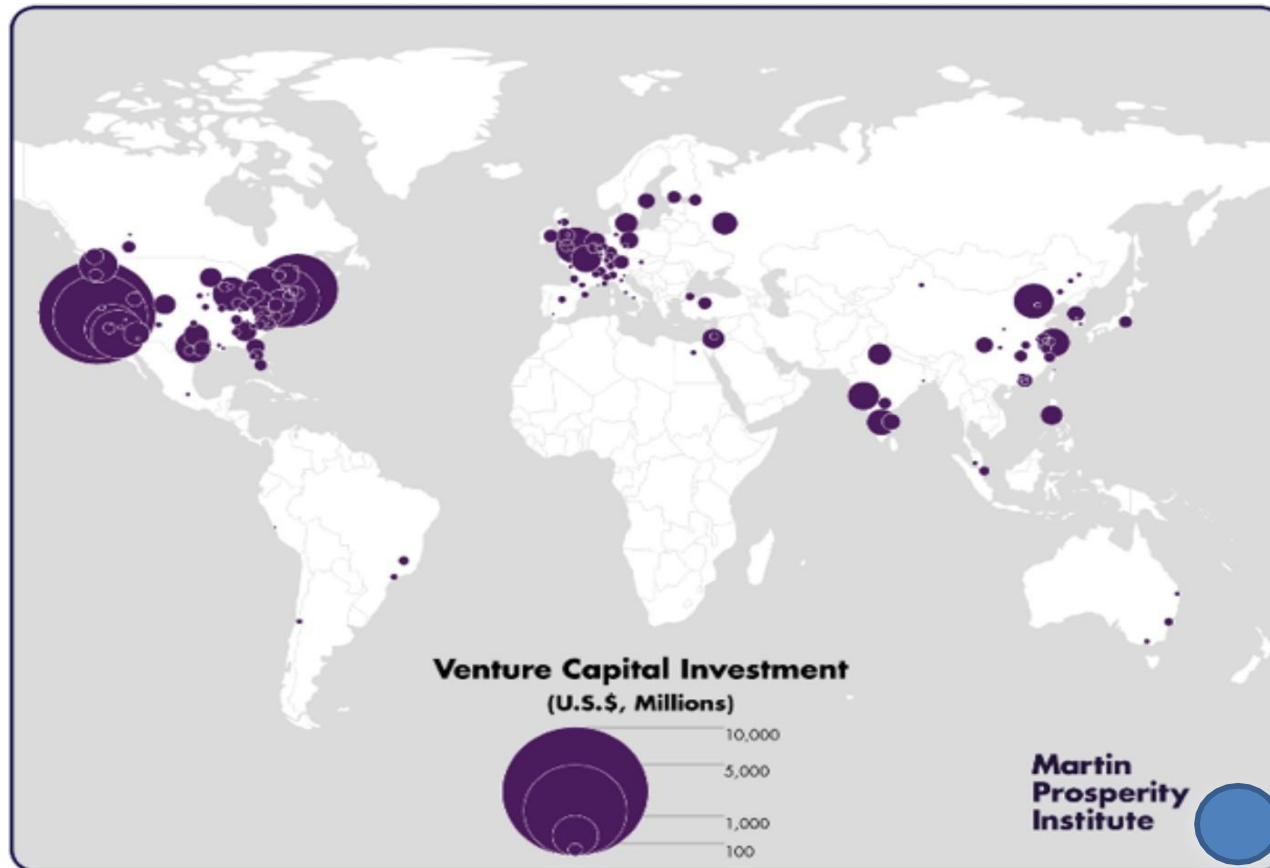


Source: Balland, P. A., Jara-Figueroa, C., Petralia, S. G., Steijn, M., Rigby, D. L., e Hidalgo, C. A. (2020). Complex economic activities concentrate in large cities. *Nature human behaviour*

# Historical scaling of patenting activity



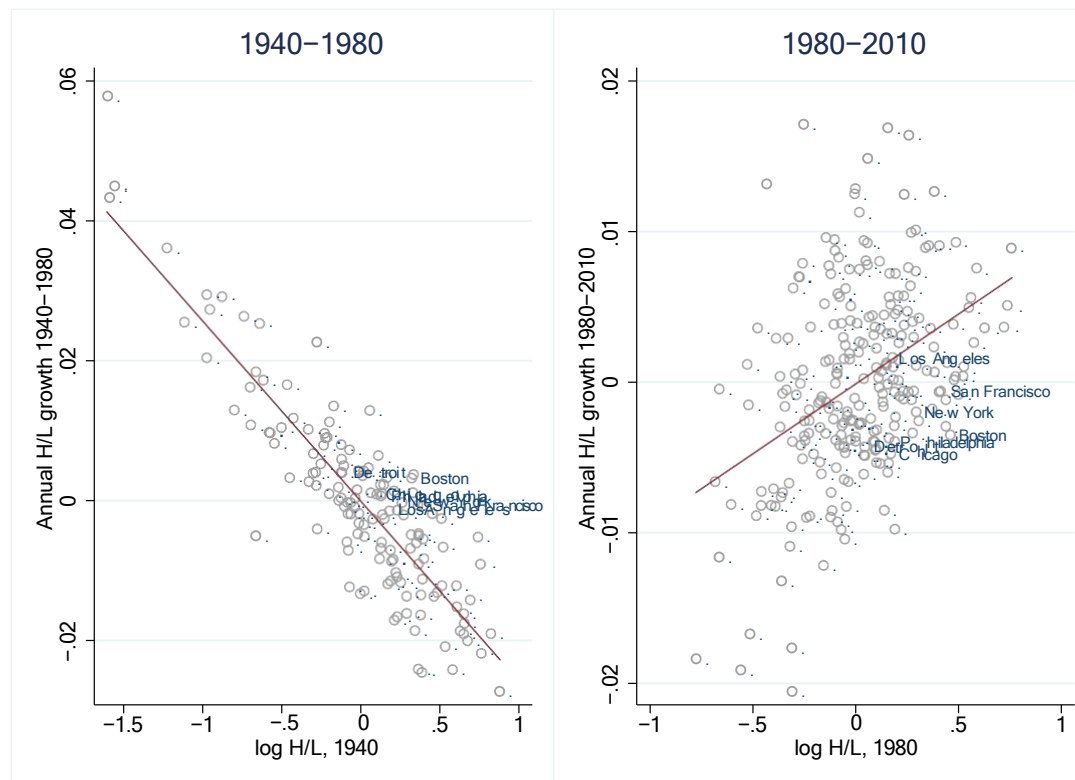
# Distribuzione Spaziale degli Investimenti in Innovazione



Top 20 Città Mondiali assorbe il 63% degli investimenti VC (Martin Prosperity Institute, 2017)

California, New York e Massachusetts assorbono il 75% degli investimenti US in startup (Case, 2022)

# Skill Convergence across MSAs before and after 1980

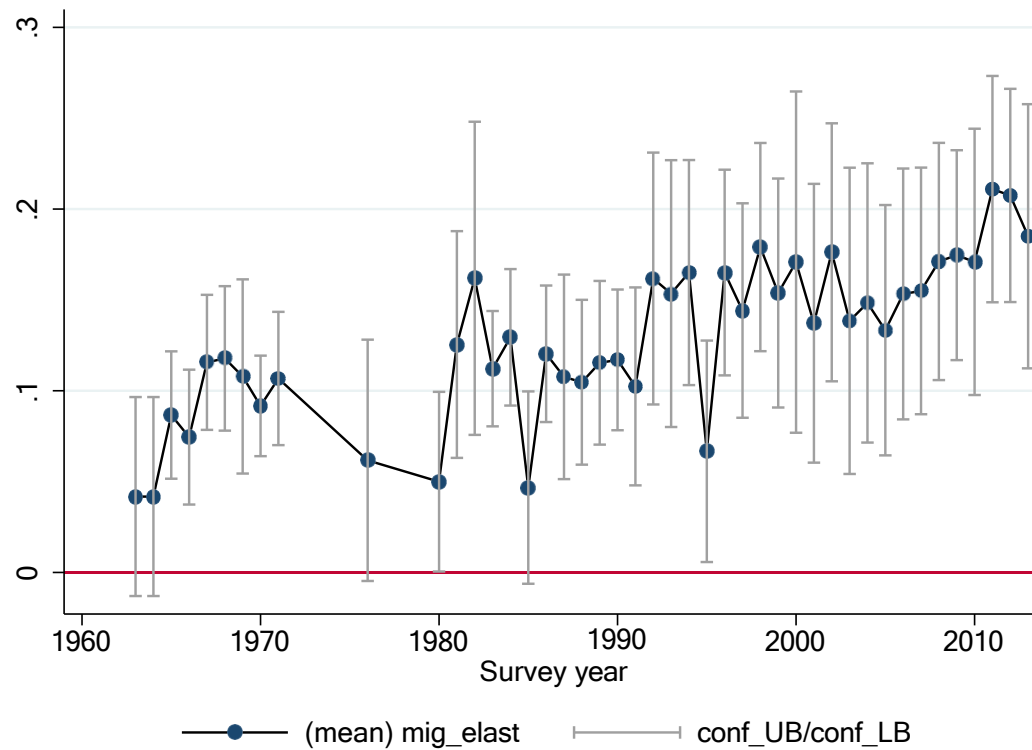


This figure plots each MSA's annual average skill growth (demeaned) against its (demeaned) initial skill level. The left depicts 1940-1980; the right depicts 1980-2008. Each MSA's circle size is proportionate to its initial population size. The red line depicts a weighted least square bi-variate regression. The size of the underlying MSA is represented by the size of the circle in the figure.

The line in each graph represents a weighted regression line from the bi-variate regression.

Source: Giannone, E., (2018), *Skill-biased technical change and regional convergence*

# Migration Rate by Destination Education Level

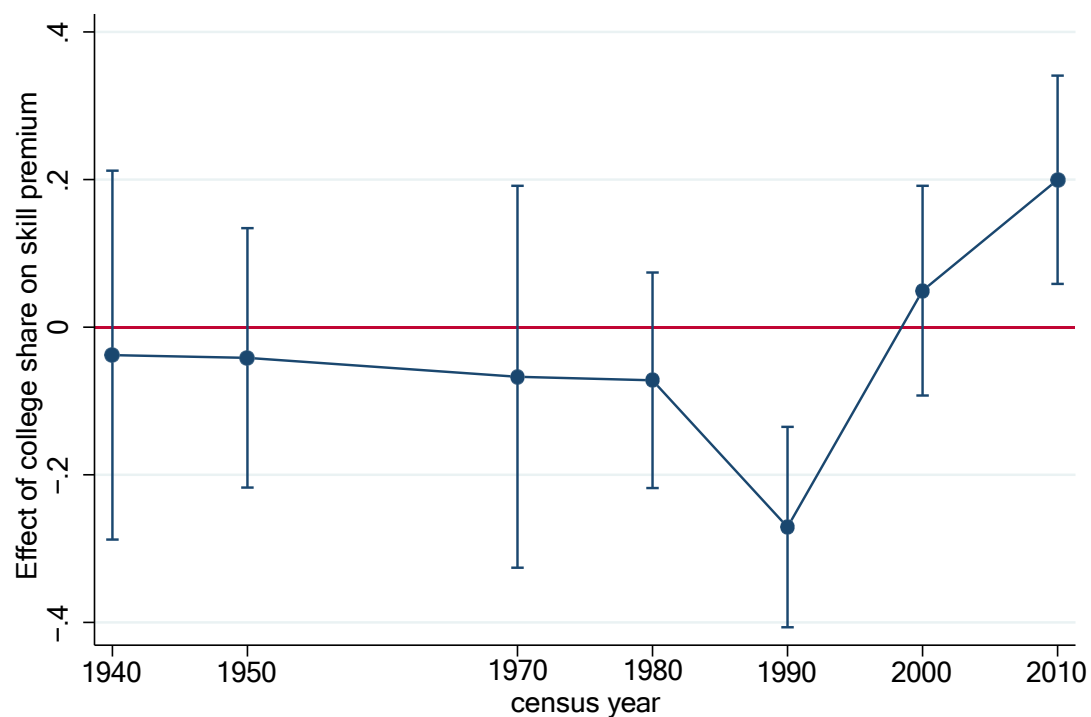


$$\checkmark \quad \blacklozenge \quad \text{Migrant}_{ijt} = \alpha + \beta_1(H_{ijt}) + \gamma \frac{H_{jt}}{L_{jt}} + \sum_{t=1963}^{2013} \delta_t 1(H_{ijt}) + \frac{H_{jt}}{L_{jt}} + \Gamma X_{ijt} + \eta_j + \eta_t + \mu_{ijt} \quad (2)$$

Figure shows that the marginal propensity to migrate conditional on being a high-skill workers and moving to high-skill MSAs is increasing over time.

**High-skill workers are strongly concentrating in the more educated MSAs!**

# Skill Premium by MSA Education Levels

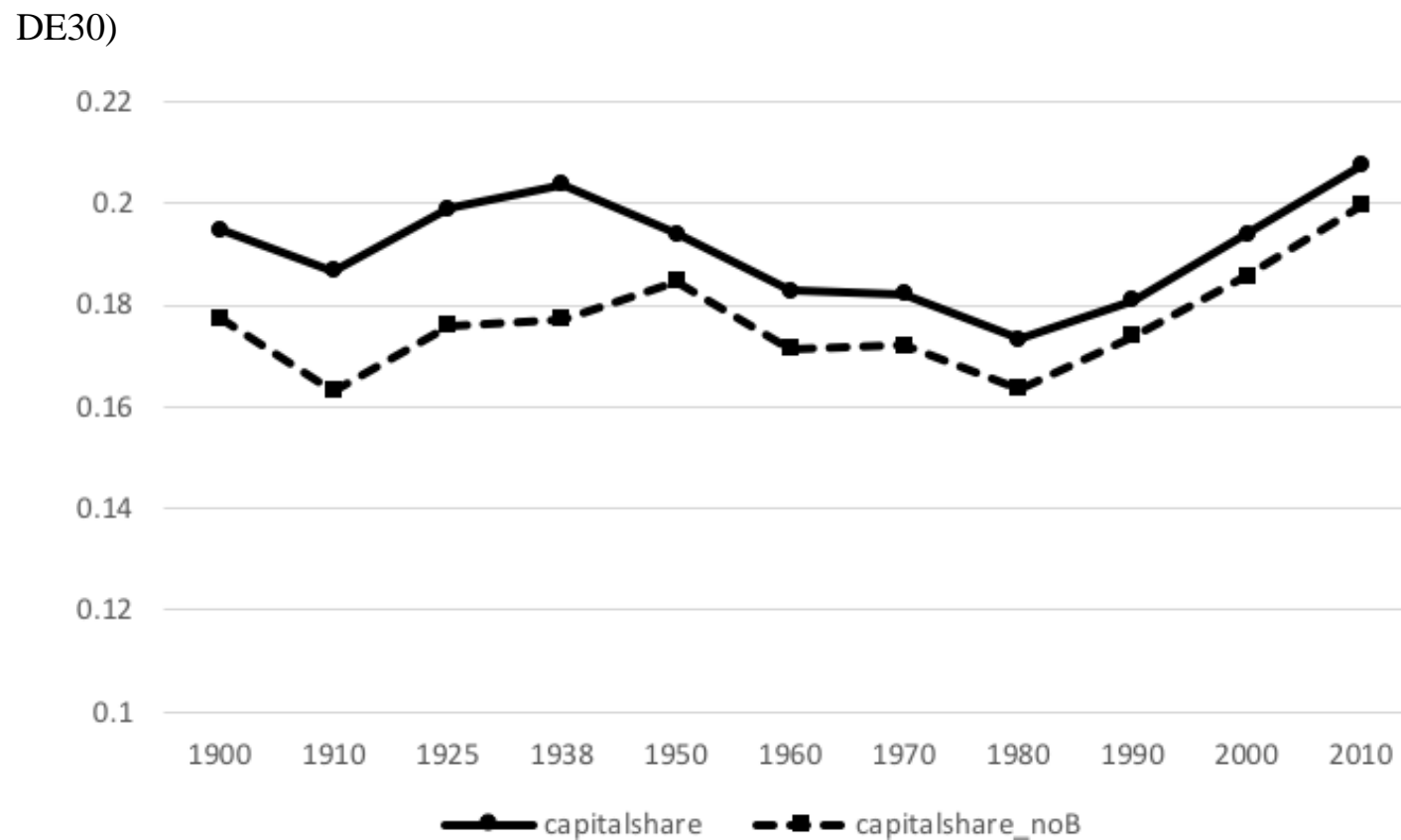


$$\ln \frac{\hat{w}_{Hjt}}{\hat{w}_{Ljt}} = \beta_t \ln \frac{H_{jt}}{L_{jt}} + \phi_j + \phi_t + \epsilon_{jt}$$

$\hat{w}_{Hjt}$  and  $\hat{w}_{Ljt}$  are the compositionally adjusted wages for MSA  $j$  at time  $t$  respectively for high-skill and low-skill workers.  $\phi_j$  are MSA fixed effects and  $\phi_t$  are time fixed effects.  $H_{jt}$  is the ratio of the total number of workers with a college degree and the total number of workers with less than a college degree in MSA  $j$  at time  $t$ .

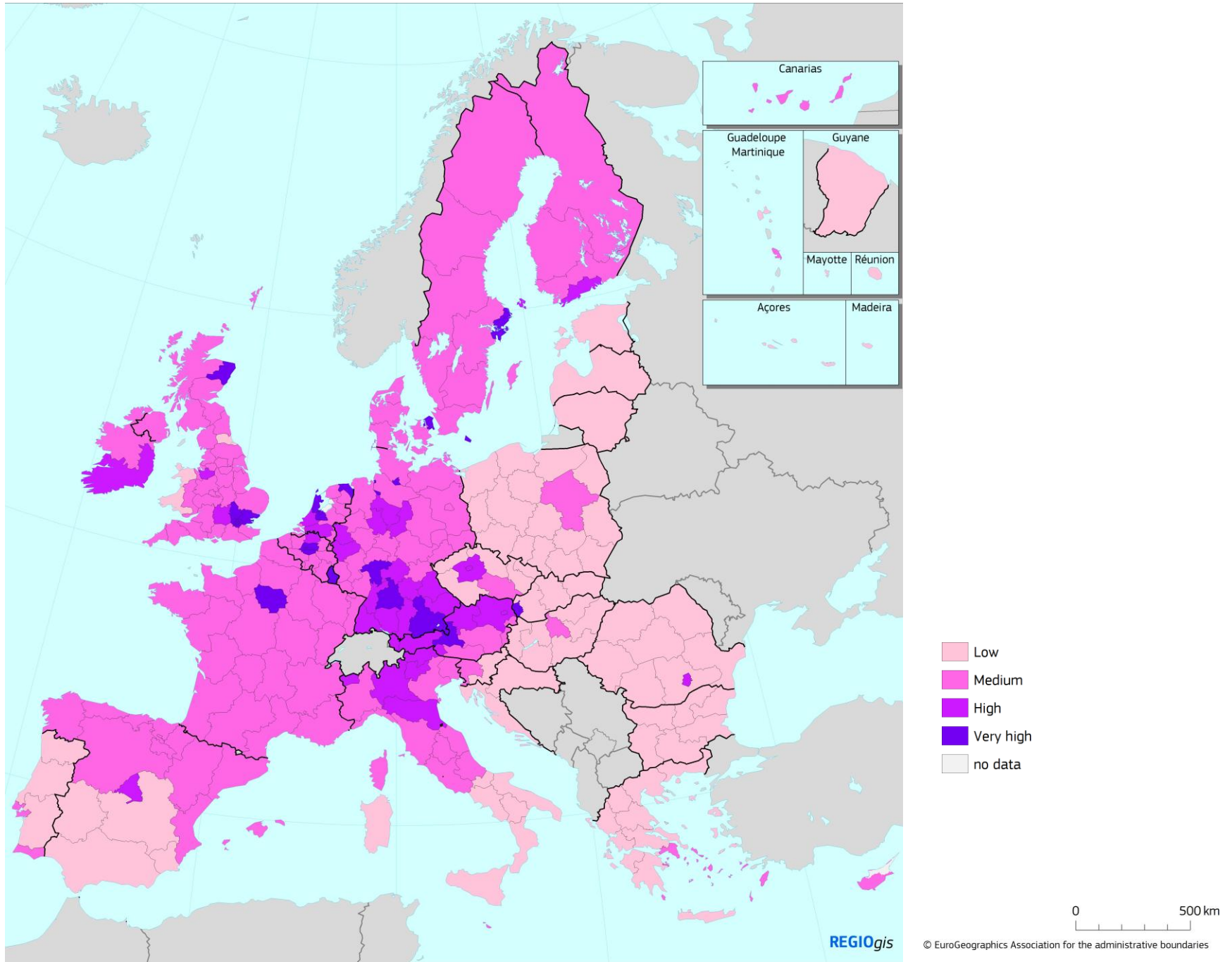
# Share of European capital regions in GDP over time

(with and without Berlin, DE30)

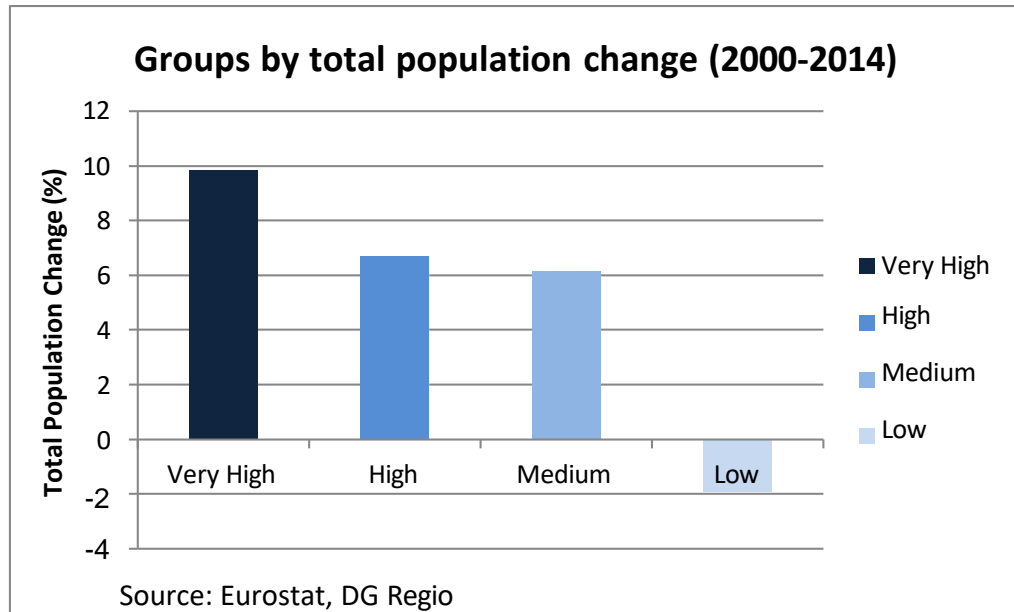


Source: Rosés and Wolf (2018).

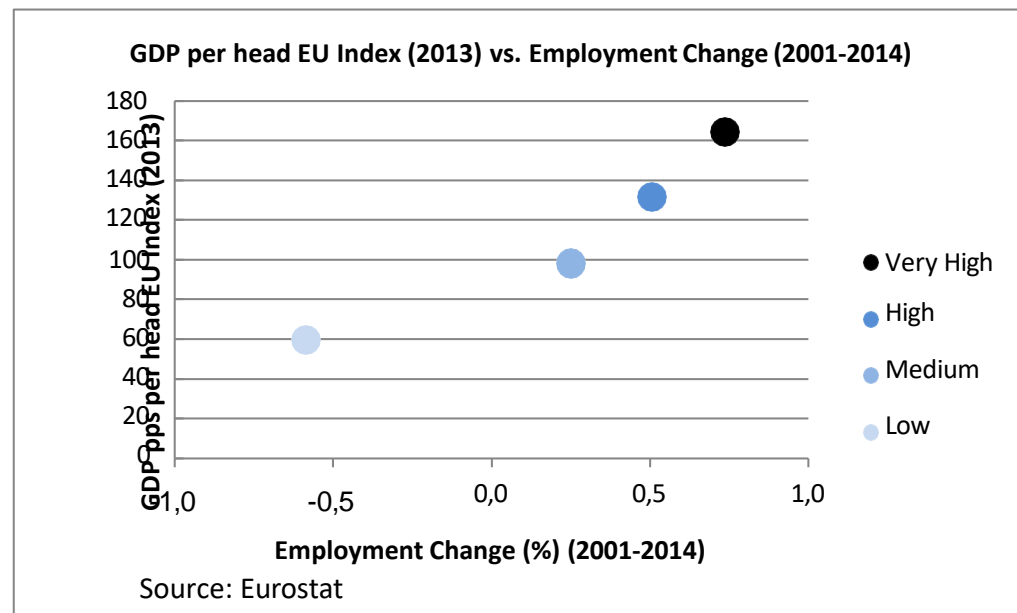
# Classifying European regions according to their level of development



**Figure 1: Groups by total population change (2000-2014)**



**Figure 2: GDP per head EU index (2013) vs. employment change (2001-14)**



# Valori immobiliari medi delle città metropolitane

(valori al mq e variazioni percentuali)

Città	Euro/mq 2022	Euro/mq 2017	Euro/mq 2012	Variazione % 2012-2017	Variazione % 2017-2022	Variazione % 2012-2022
Torino	1.969	1.937	2.711	-28,55%	1,67%	-27,35%
Genova	1.667	1.975	2.723	-27,48%	-15,57%	-38,77%
Milano	4.552	3.588	3.302	8,67%	26,87%	37,87%
Venezia	2.677	2.723	3.288	-17,19%	-1,69%	-18,59%
Bologna	2.960	2.581	3.282	-21,35%	14,66%	-9,82%
Firenze	3.394	3.275	3.245	0,92%	3,65%	4,60%
Roma	3.400	3.501	4.626	-24,32%	-2,90%	-26,51%
Napoli	2.628	2.790	2.925	-4,62%	-5,79%	-10,14%
Bari	1.905	2.003	2.219	-9,73%	-4,91%	-14,17%
Reggio C.	864	944	1.139	-17,16%	-8,42%	-24,14%
Palermo	1.411	1.430	1.826	-21,70%	-1,34%	-22,75%
Cagliari	2.038	2.088	2.054	1,63%	-2,37%	-0,78%
<b>Media</b>	<b>2.455</b>	<b>2.403</b>	<b>2.778</b>	<b>-13,52%</b>	<b>2,19%</b>	<b>-11,62%</b>

Fonte: Agenzia delle Entrate e Immobiliare.it, 2022

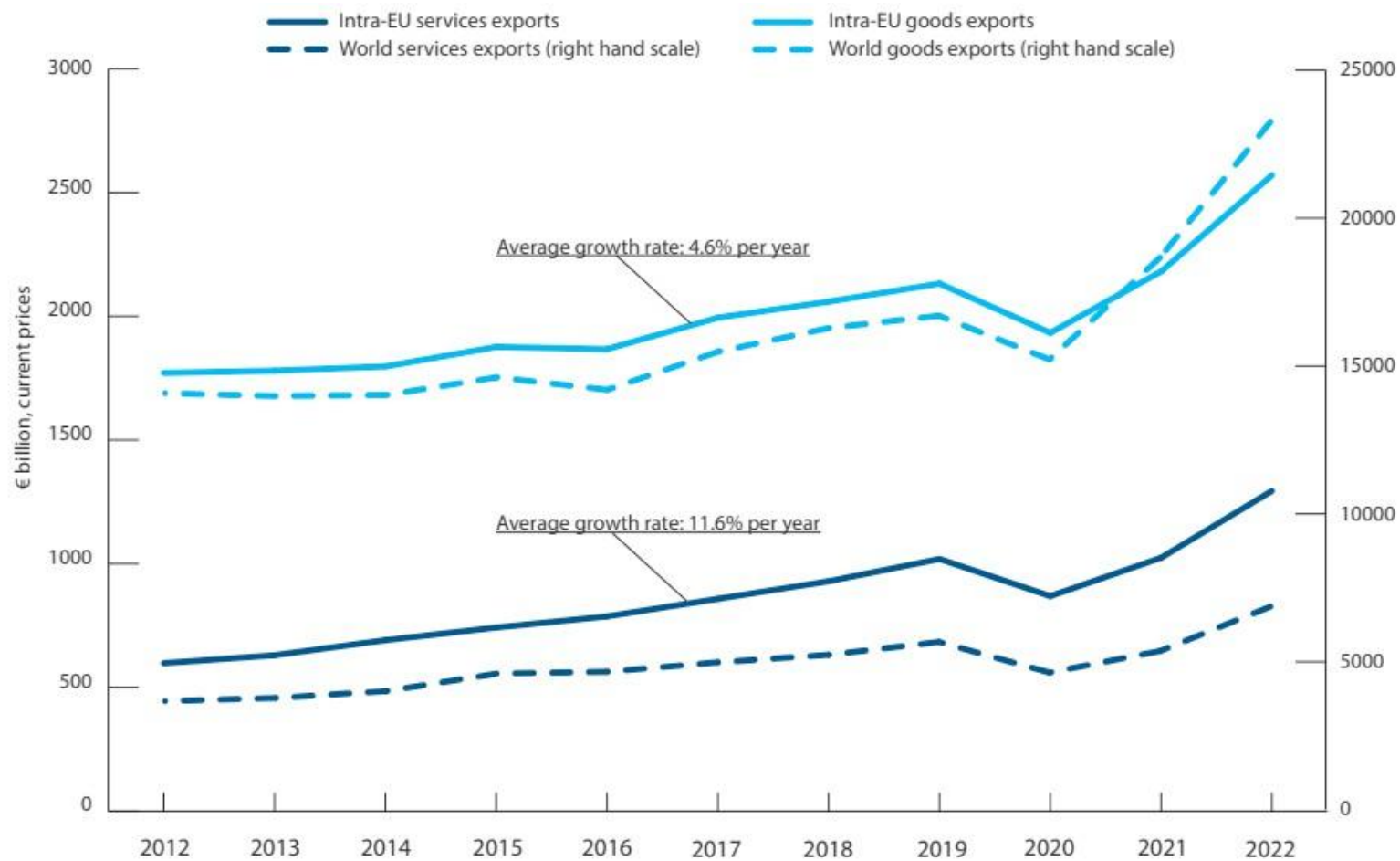
# Why cities must drive growth in the EU's single market

By John Springford, Sander Tordoir and Lucas Resende Carvalho



| BertelsmannStiftung

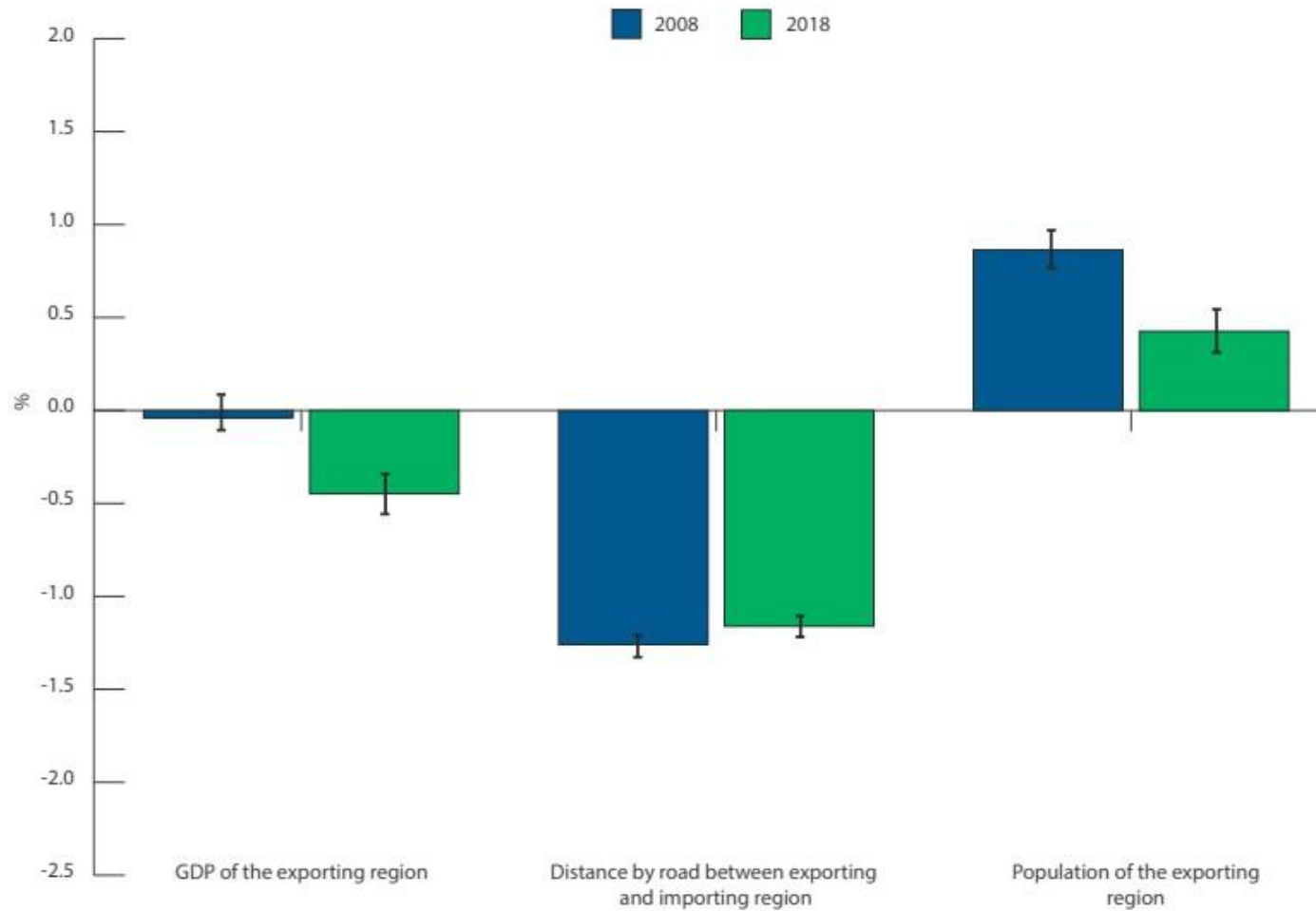
## Export di **beni** e **servizi** intra-EU e globale



Source: CER analysis of Eurostat, international trade in goods and services (the latter since 2010), and World Bank, global exports in goods and services.

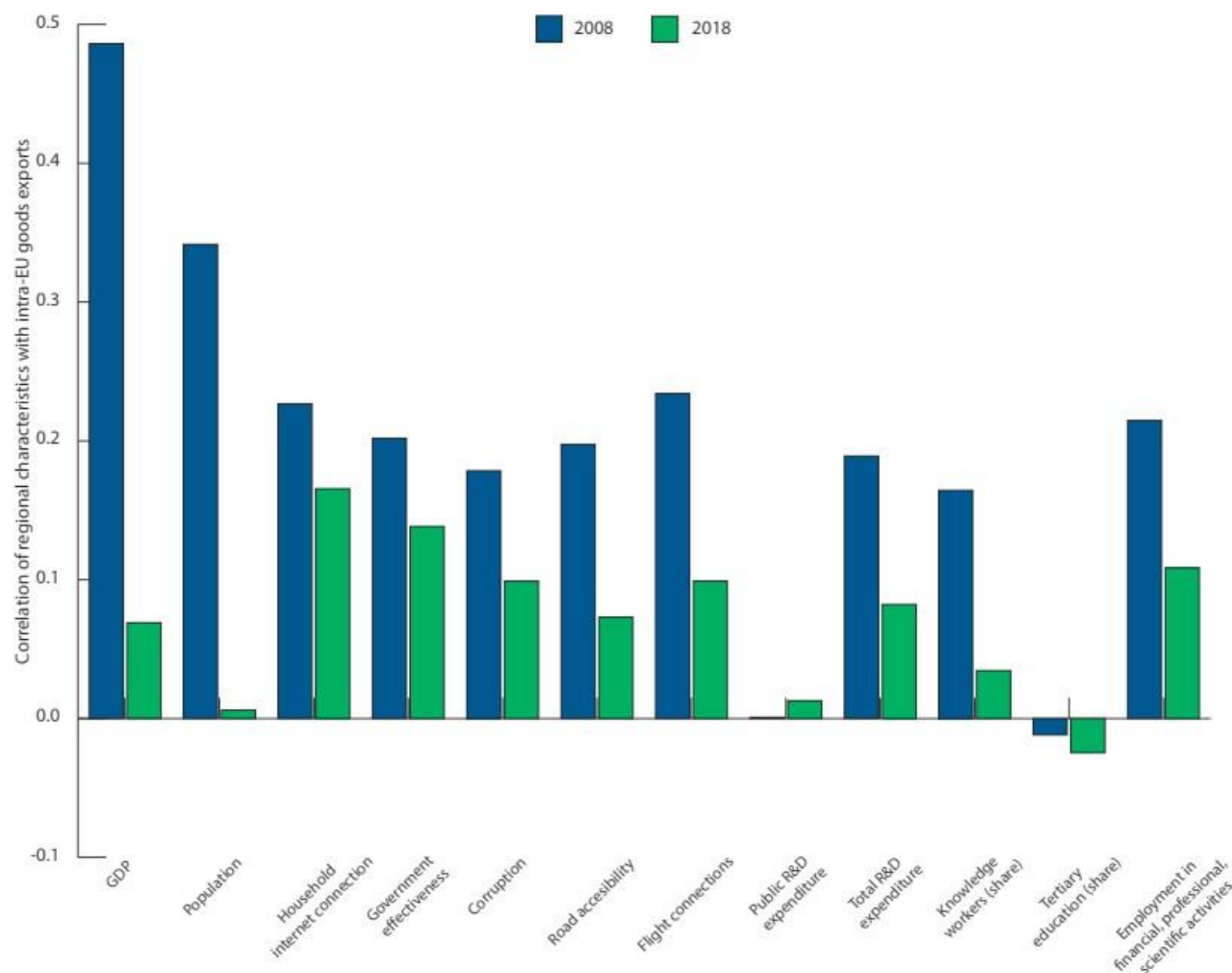
# L'export manifatturiero intra-EU denota sempre meno le regioni ricche d'Europa (1)

An X% higher GDP/distance/population of a region is associated with a 1% change in exports of industrial goods



Source: CER analysis of Siyu Huang and Pantellis Koutrompis, 'European multi-regional input-output data for 2008-2018', 2023; Eurostat, GDP and population at NUTS 2 level; Marcell Kurucz and Attila Katona, 'eudistance: Distance calculator for different levels of European NUTS regions', 2022.

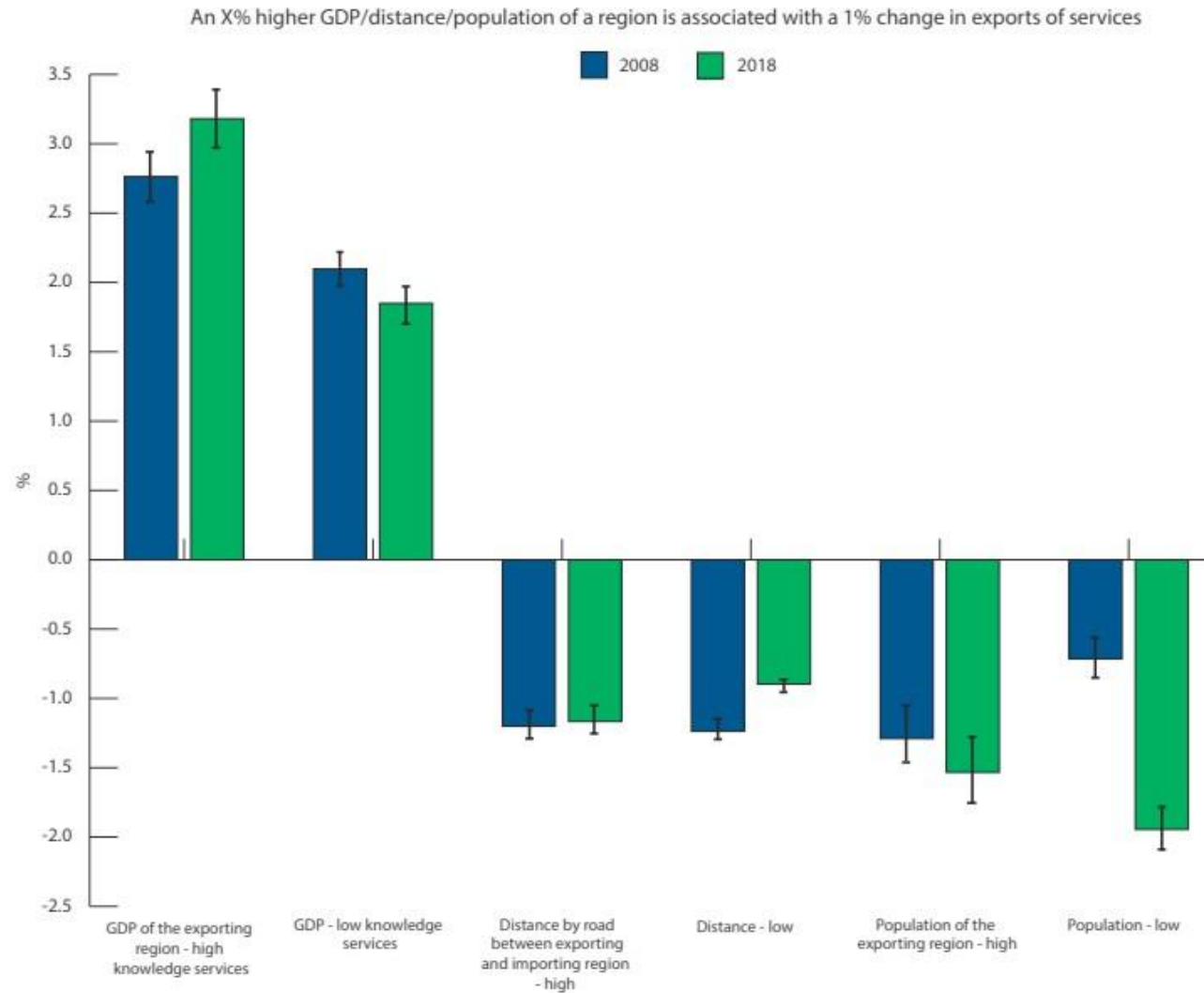
## L'export manifatturiero intra-EU denota sempre meno le regioni ricche d'Europa (2)



Source: CER analysis of Siyu Huang and Pantelis Koutrompis, 'European multi-regional input-output data for 2008-2018', 2023 and the European Commission's 'EU Regional Competitiveness Index: RCJ 2010' & 'The European Regional Competitiveness Index 2019'.

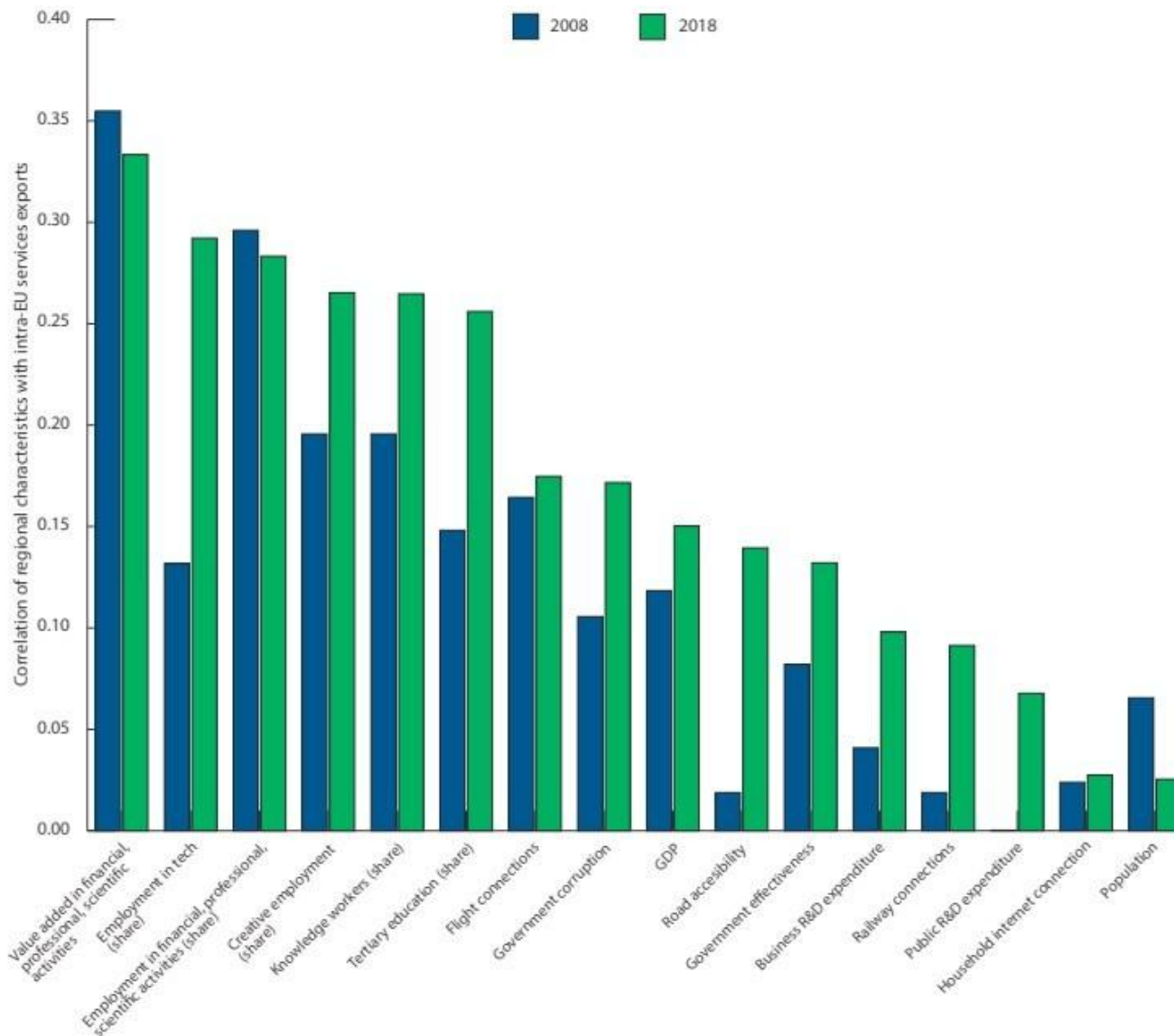
Notes: Eurostat, GDP and population and all other variables at NUTS 2 level. Some similar variables have been left out for legibility (such as creative employment vis-à-vis employment in professional and scientific activities).

# L'export intra-EU di servizi contraddistingue le regioni più ricche d'Europa (1)



Source: CER analysis of Siyu Huang and Pantellis Koutromplis, 'European multi-regional input-output data for 2008-2018', 2023; Eurostat, GDP and population at NUTS 2 level; Marcell Kurbucz and Attila Katona, 'eudistance: Distance calculator for different levels of European NUTS regions', 2022.

## L'export intra-EU di servizi contraddistingue le regioni più ricche d'Europa (2)



Source: CER analysis of Siyu Huang and Pantellis Koutrompis, 'European multi-regional input-output data for 2008-2018', 2023 and the European Commission's 'EU Regional Competitiveness Index: RCi 2010' & 'The European Regional Competitiveness Index 2019'.

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Fonte: Agenzia delle Entrate e Immobiliare.it, 2022

## Perché l'innovazione tende a concentrarsi in alcune grandi città?

- La **crescita degli intangibili**: *Sunk costs, Scalability, Synergies, Spillover* (Hastle & Westlake 2018, 2022)
- Alla ricerca di **ecosistemi urbani dinamici**: *Matching, Sharing, Learning* (Balland et al. 2020; Goldin & Tom Lee-Devlin 2023)
- Il doppio nodo fra **finanza e innovazione** (Cooter & Shafer 2012)
- **Connettività globale**
  - Infrastrutture di trasporto
  - Intercity connectivity (mobilità, telecomunicazioni, network scientifici e professionali)
  - Imprese multinazionali e mobilità internazionale delle persone
  - Diversità culturale (legami con le aree del mondo e punti di vista originali)

# Alla ricerca di una soluzione

## Cosa non funziona

- Scelta dei vincitori e migrazione “efficiente”
  - Le migrazioni pagano rigidità economiche e costi sociali
  - Disincentivo agli investimenti relazionali e al *voice* del capitale umano
  - Perdita di risorse e trappole dello sviluppo
  - Geografia del discontento e vendetta dei luoghi che non contano
- Politiche redistributive
  - Sussidi compensativi vs. incentivi all’innovazione
  - Coalizioni distributive vs. forze produttive
  - Non modifica le cause delle trappole dello sviluppo
  - Sviluppo non è non solo consumi, bensì autonomia, dignità, senso

# Alla ricerca di una soluzione

## Periferie competitive

Focus su città e aree secondarie fuori dal radar dei principali investimenti VC, ma che hanno creato ecosistemi innovativi

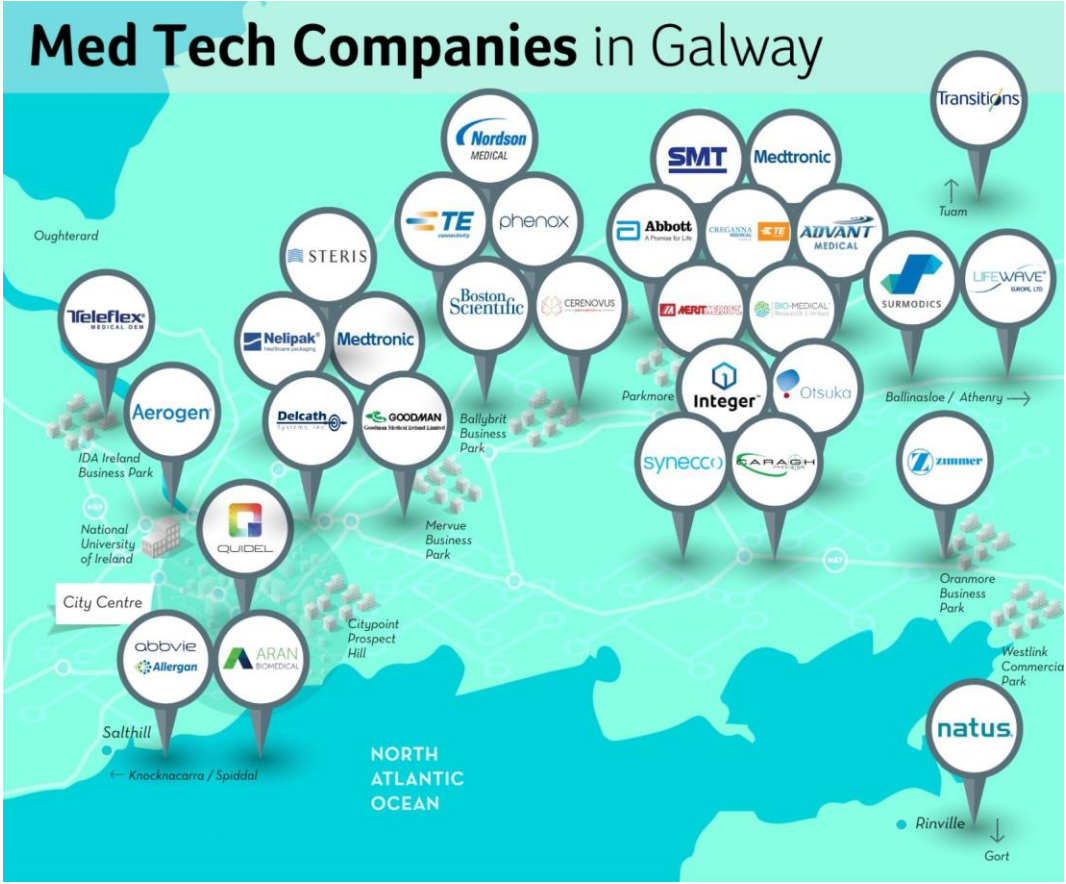
Galway (Ireland) – Medical Devices Cluster

Raleigh-Durham (USA) – Research Triangle Park

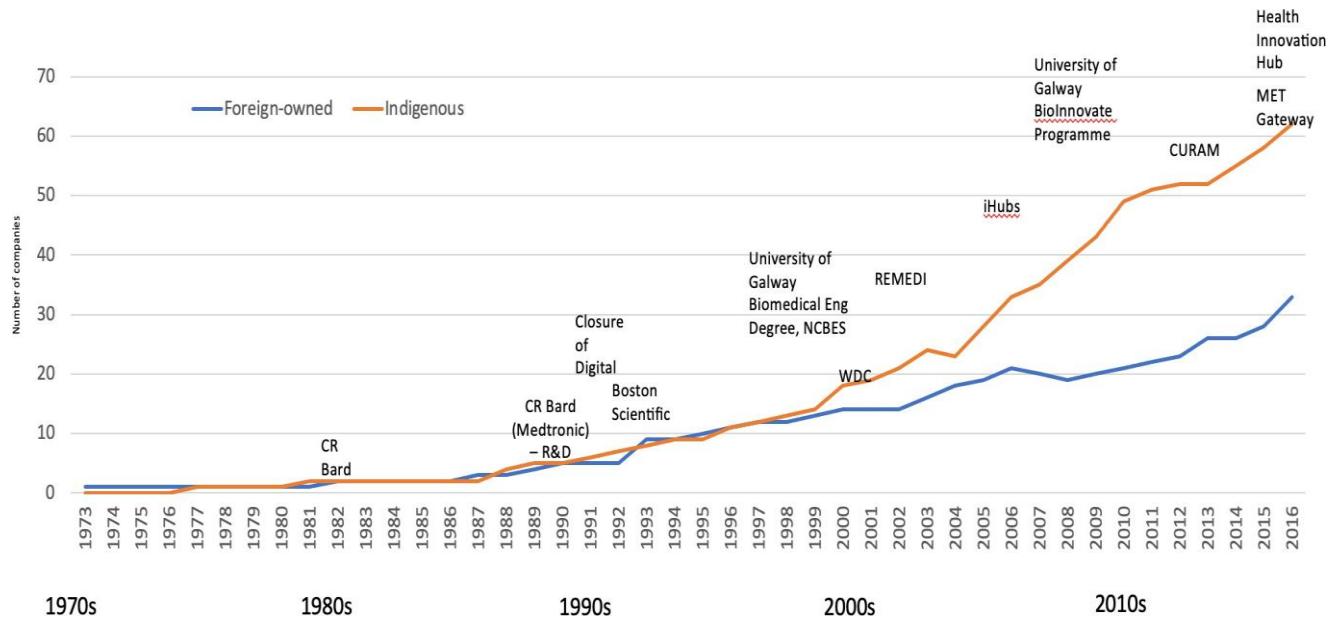
Metropole Ruhr (Germany) – Cultural Cluster and Environmental Upgrading

Emilia Romagna (Italy) – Industrial Districts 4.0

# Med Tech in Galway - Innovation at the Edge of Europe



# Evolution of the Galway's Med Tech Ecosystem



Source: Majella Giblin, NUI Galway (2023)



WESTERN DEVELOPMENT COMMISSION



HealthTech Ireland ASSOCIATION



Centre for Research in Medical Devices

BIOINNOVATE

NEEDS DRIVEN OPPORTUNITY



Health Innovation Hub Ireland



medical & engineering technologies



DIGITAL HEALTH CLUSTER



University College Hospital Galway



CORRIB CORE LAB

Translational Medical Device Lab  
Close to Patient, Close to Market



BioMEC



Centre for Cell Manufacturing Ireland

Welcome to the Centre for Cell Manufacturing Ireland.



OLLSCOIL NA GAILLIMHE  
UNIVERSITY OF GALWAY



HEALTH RESEARCH BOARD  
CLINICAL RESEARCH FACILITY GALWAY  
Enhancing Health through Excellence



INNOVATION HUBS  
GALWAY MAYO

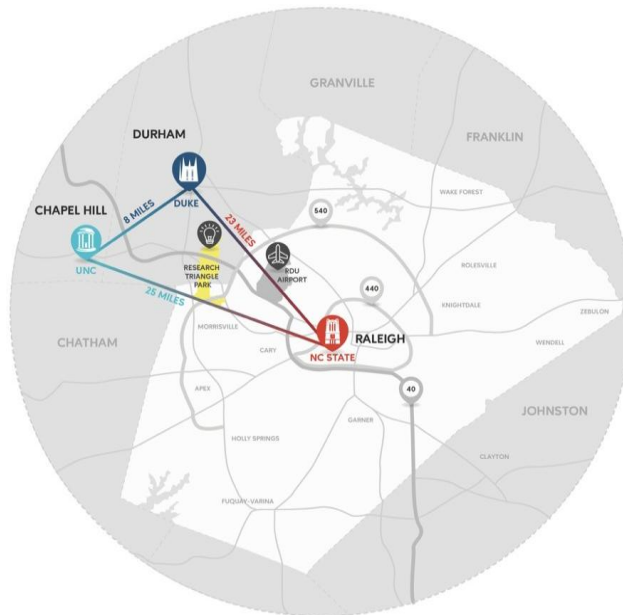


Official Technological Institute in Athlone  
Atlantic Technological University

## Research Triangle Park - A Thriving Ecosystem in the Old South



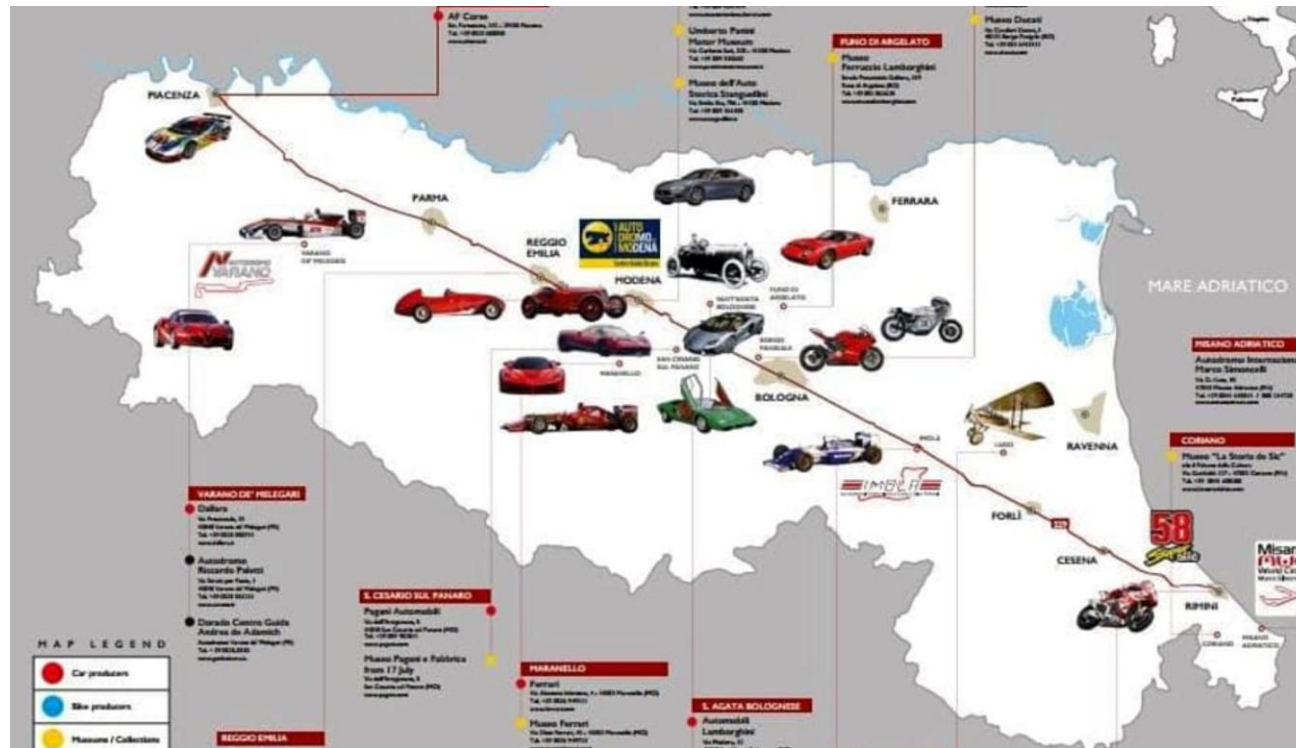
# Universities, Multinationals and Startups



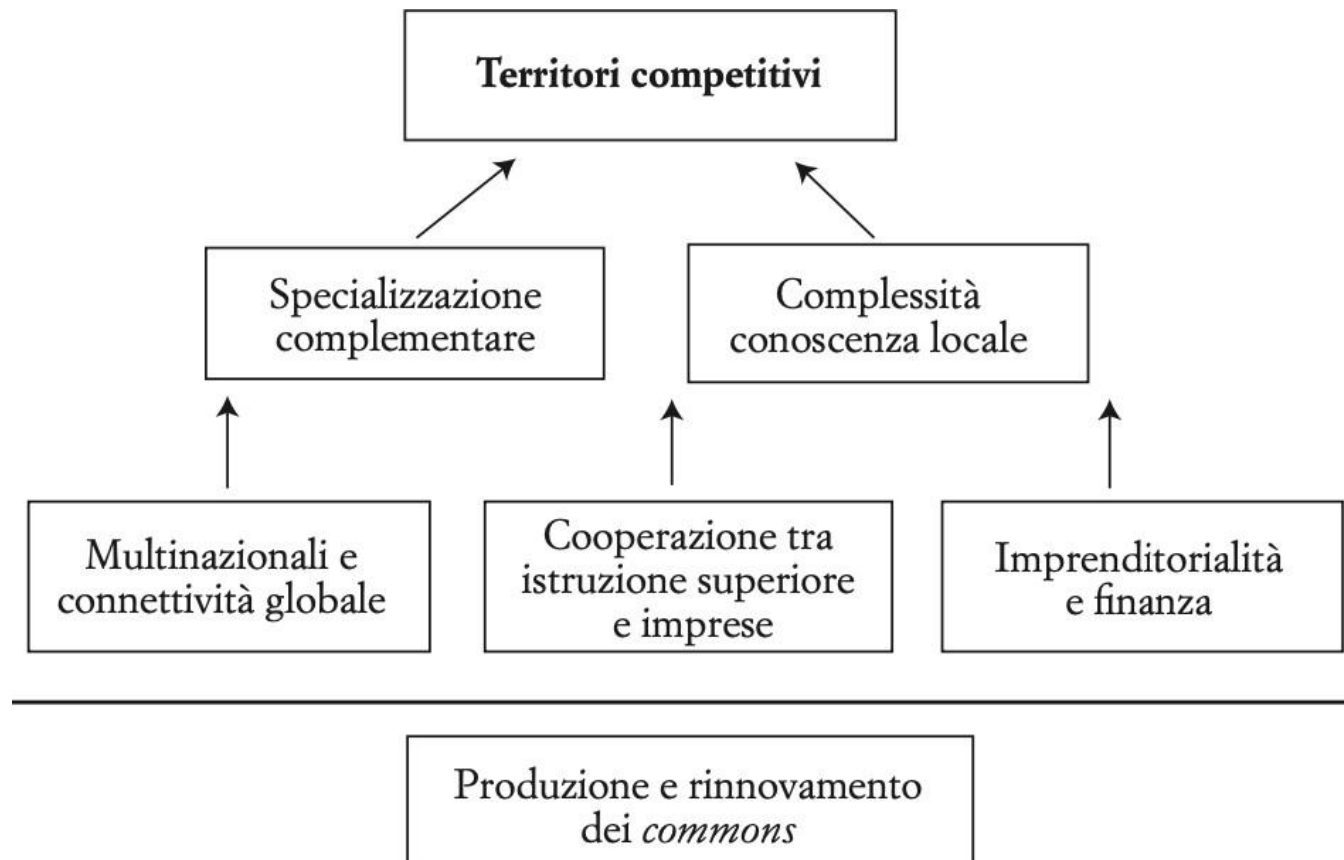
## Life Sciences

- Accord Healthcare, Inc.** | India | Durham
- ADAMA** | Israel | Wake
- Arbion** | France | Durham
- Astellas Pharma** | Japan | Wake
- Aurobindo Pharma** | India | Durham
- BASF Plant Science LP** | Germany | Durham
- Bayer CropScience LP** | Germany | Johnston
- bioMérieux, Inc.** | France | Durham
- Collectis** | France | Wake
- Cirrus Pharmaceuticals, Inc.** | India | Wake
- Fresenius Kabi** | Germany | Wilson
- Fuji Silysia Chemical Ltd.** | Japan | Durham
- GlaxoSmithKline** | UK | Durham
- Grifols** | Spain | Johnston
- Guerbet** | France | Wake
- KriGen Pharmaceuticals, LLC** | India | Harnett
- Medicago** | Canada | Durham, Wake
- Merck** | Germany | Durham
- Merz, Inc.** | Germany | Wake
- Novo Nordisk** | Denmark | Johnston
- Novozymes North America, Inc.** | Denmark | Franklin
- Seqirus** | Australia | Wake
- Sodexo, Inc.** | France | Wake
- Syngenta** | Switzerland | Durham
- Tecan U.S. Group, Inc.** | Switzerland | Wake
- Valeant Pharmaceuticals International** | Canada | Durham
- Xellia Pharmaceuticals** | Denmark | Wake

# Bologna C The Motor Valley - From Industrial Cluster to Ecosystem



# Politiche industriali per periferie competitive



# Periferie competitive

Lo sviluppo dei territori  
nell'economia della conoscenza

Giulio Buciuni  
Giancarlo Corò

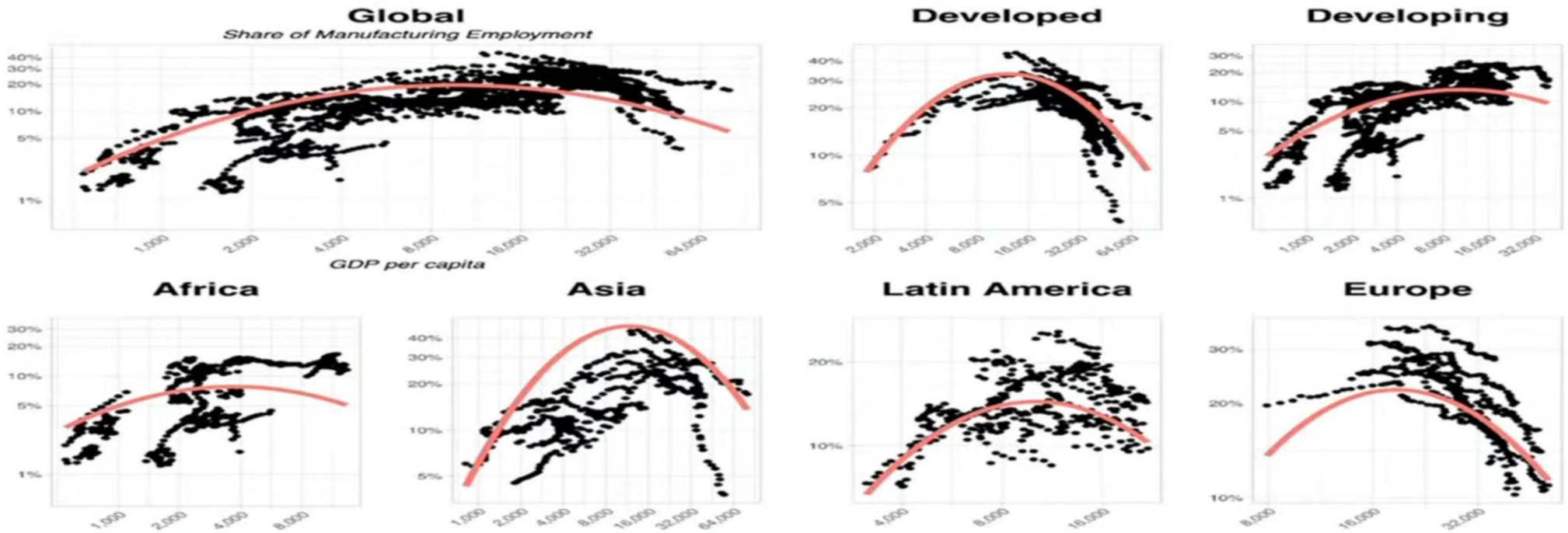


**il Mulino**

# Behind the Curve

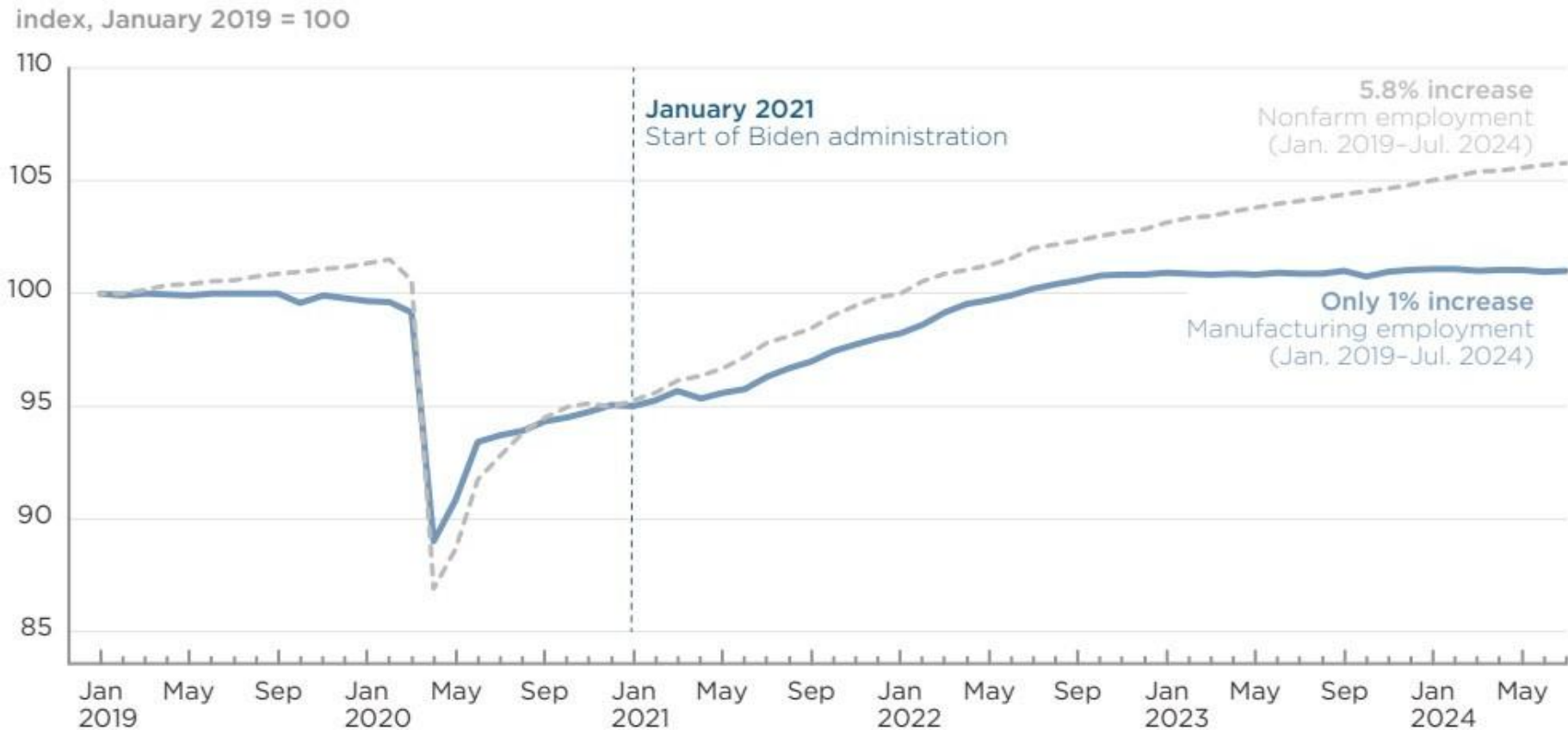
Can manufacturing Still Provide inclusive Growth?

by Robert Z. Lawrence, 2024



# US manufacturing and nonfarm employment

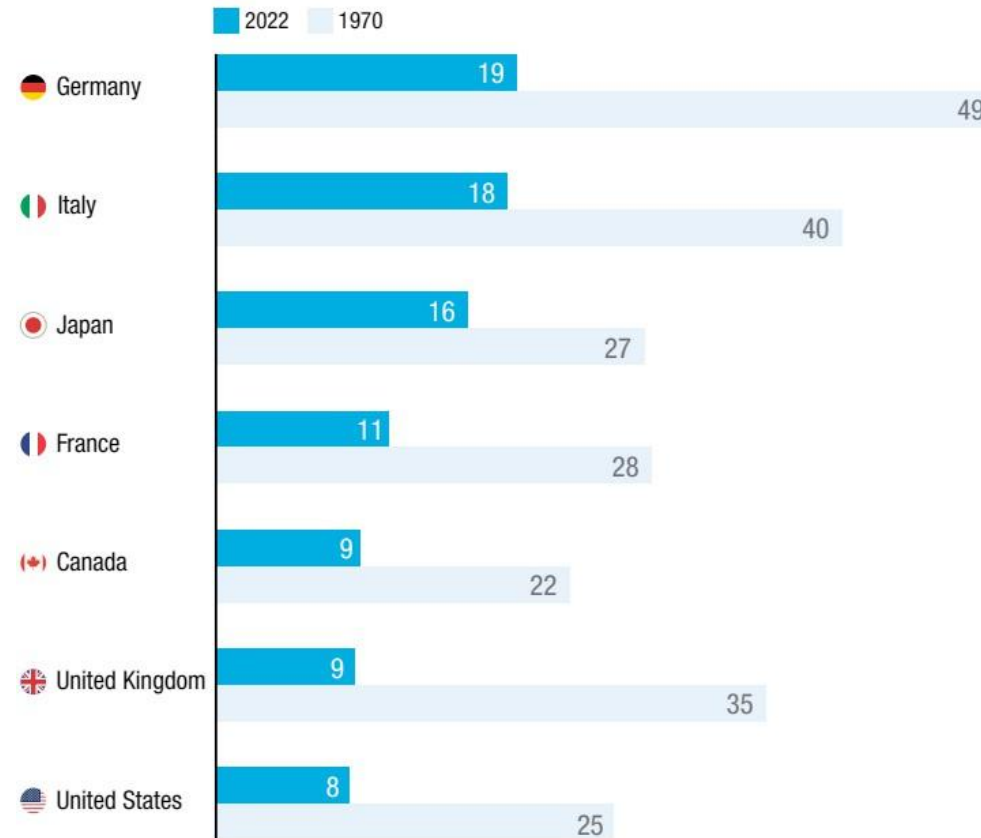
January 2019–July 2024



Source: Federal Reserve Bank of St. Louis, Federal Reserve Economic Data (FRED), <https://fred.stlouisfed.org/series/MANEMP>.

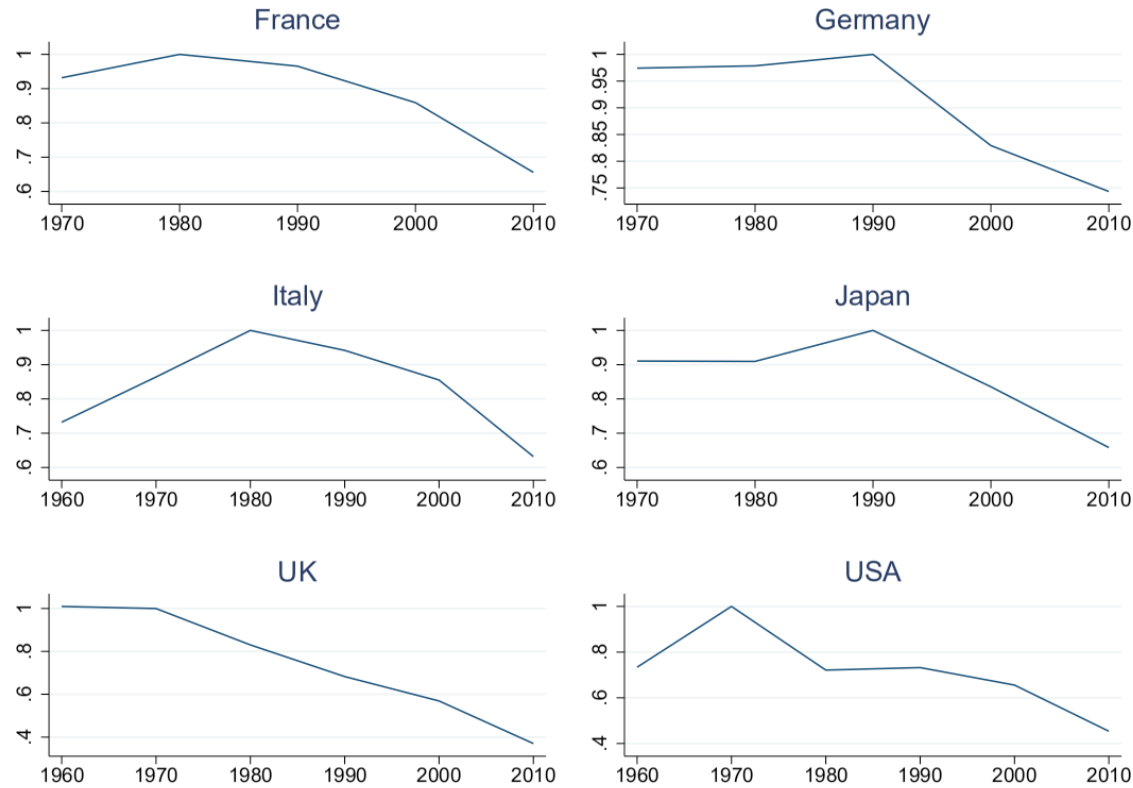
## Workers in advanced countries could long count on stable jobs but many no longer find them in manufacturing

Share of manufacturing in total employment, selected developed countries  
(Percentage)



Source: UNCTAD based on data from the Organisation of Economic Co-operation and Development and United States, Bureau of Labor Statistics.

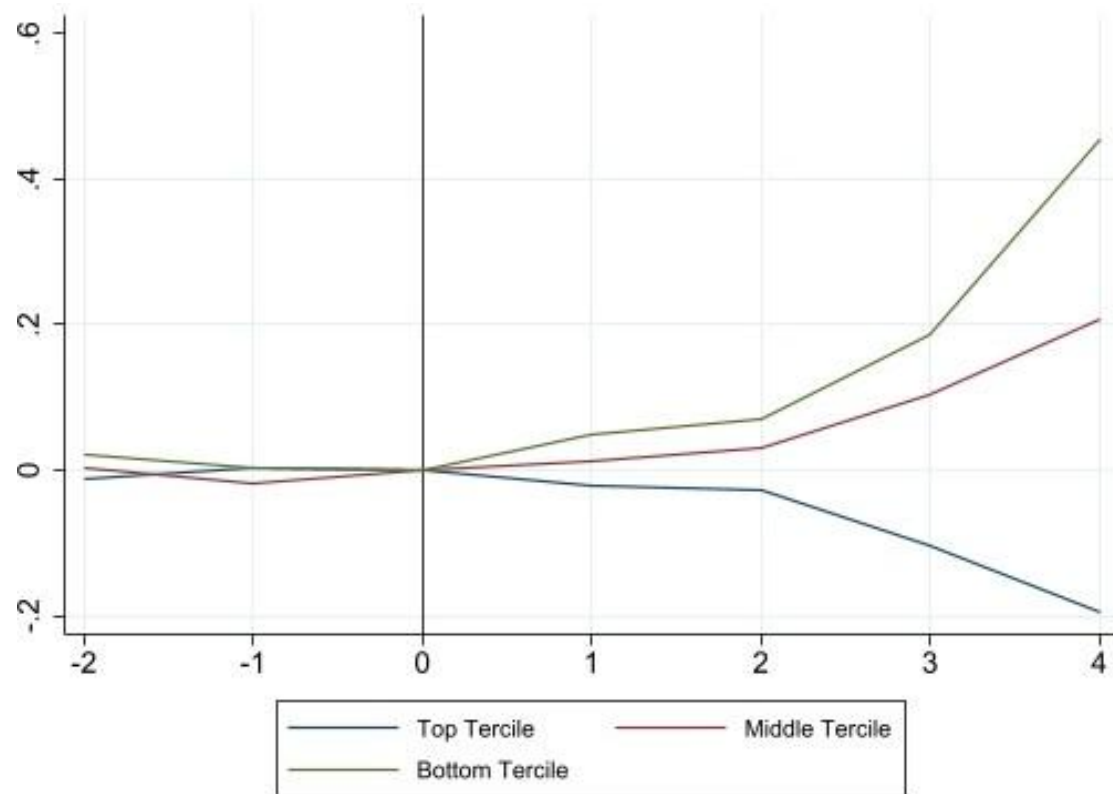
## Employment in manufacturing, by Country



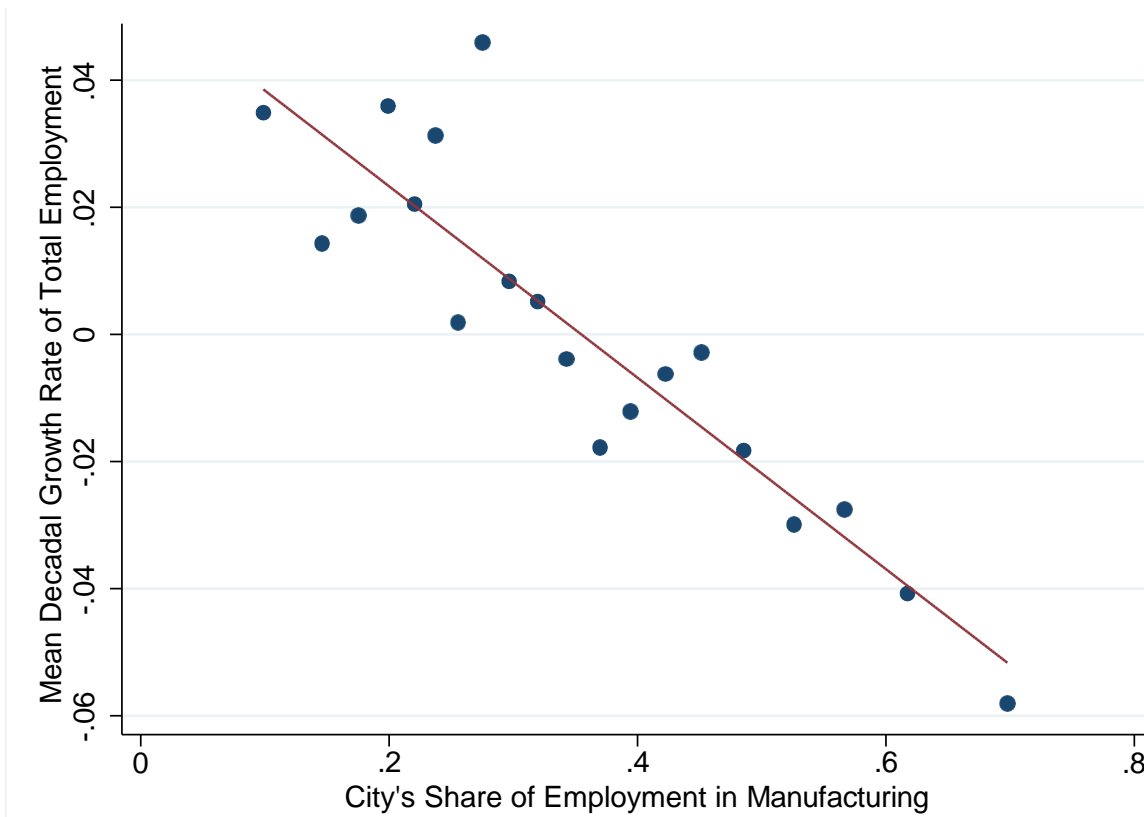
Note: Manufacturing employment in a country is normalized to 1 in the year of the country's manufacturing peak.

Source: Gagliardi, Moretti, Serafinelli, December 2023

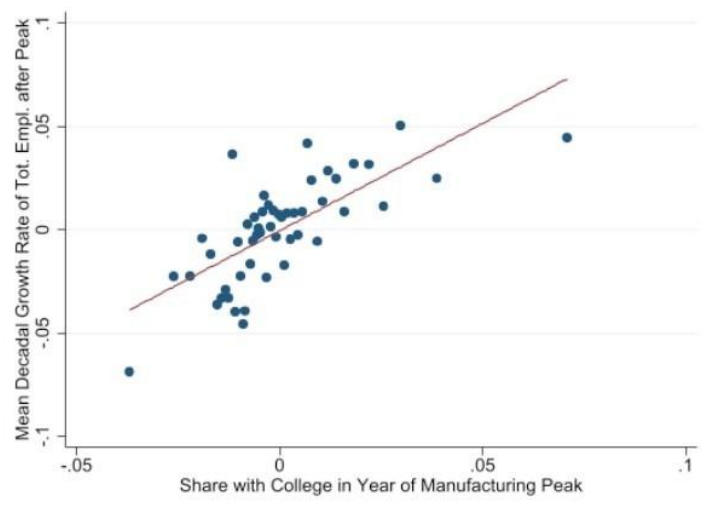
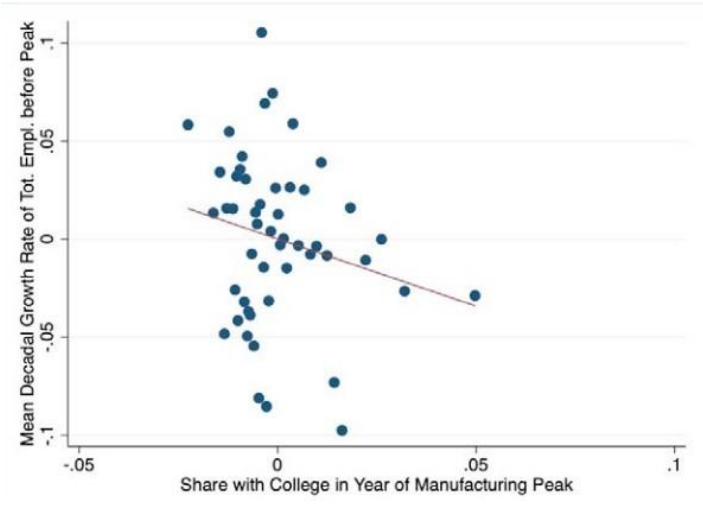
## Total Employment Before and After the Year of Manufacturing Peak, by Initial Manufacturing Share Tercile



## Initial Share of Employment in Manufacturing and Subsequent Mean Decadal Growth Rate of Total Employment

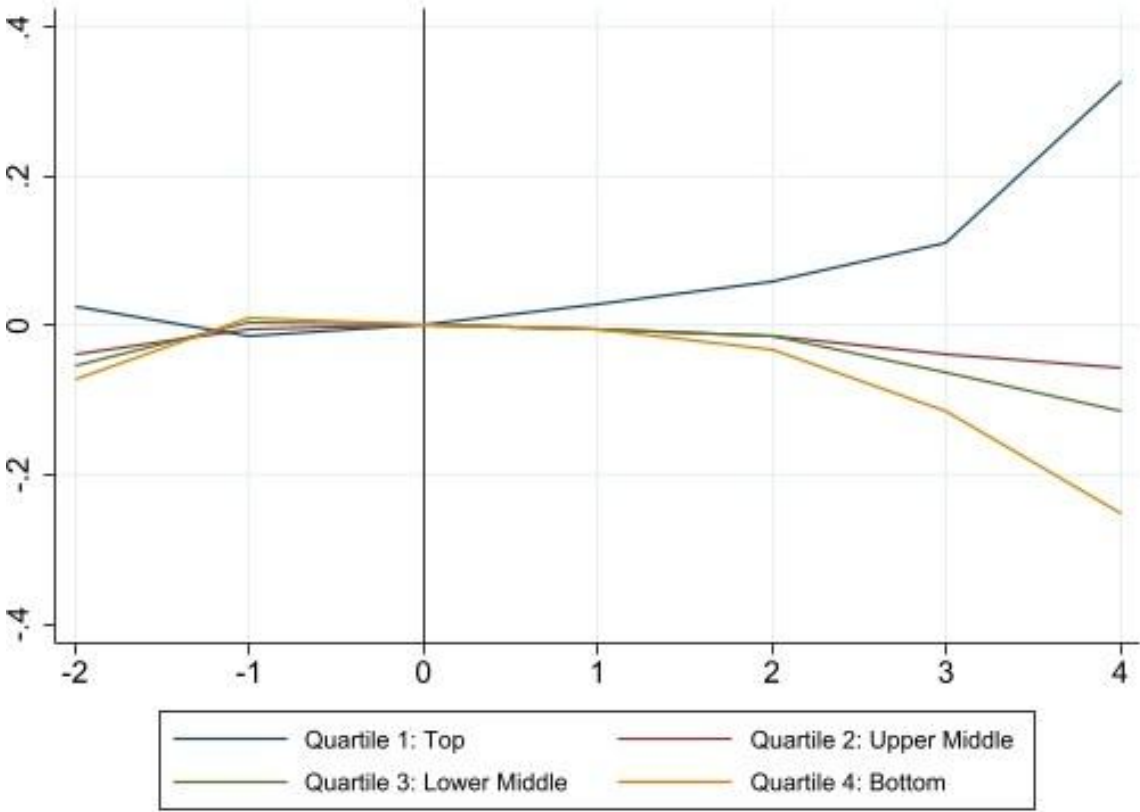


**Change in Total Employment Before and After the Manufacturing Peak as a Function of the Share of Local Residents with a College or University Degree in Year of the Manufacturing Peak**

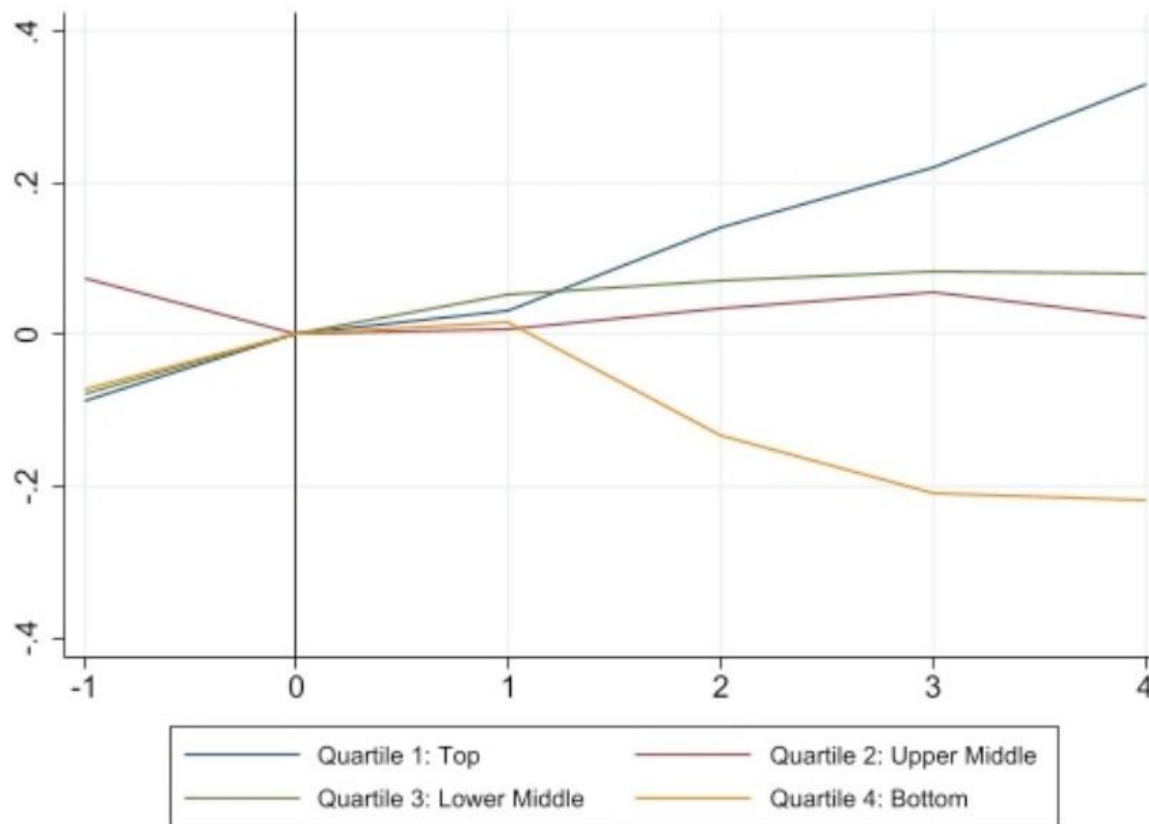


Source: Gagliardi, Moretti, Serafinelli, December 2023

# Total Employment Before and After the Year of Manufacturing Peak, by College Share Quartile



Employment in **Human Capital and Knowledge Intensive Service**  
Before and After the Year of Manufacturing Peak, **by College Share**  
**Quartile**

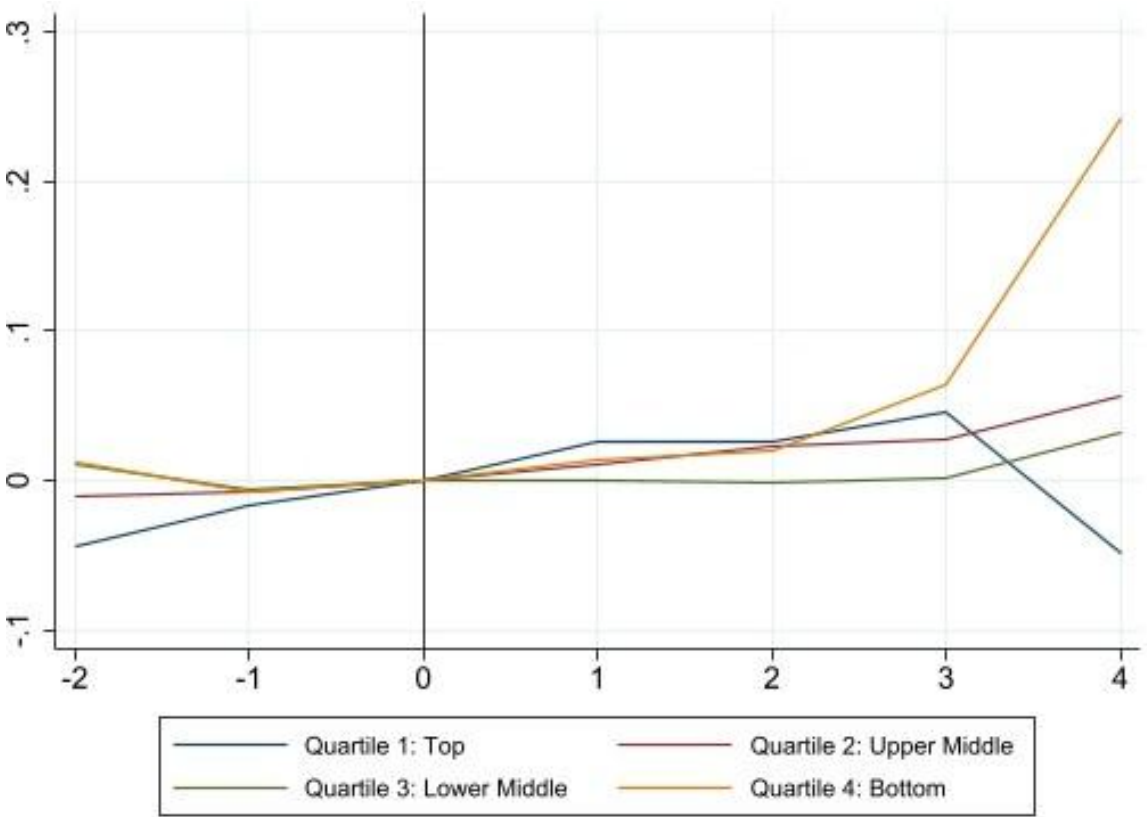


## Effect of Initial Share of College-Educated Workers on Subsequent Employment Growth

	OLS				IV			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
College Share	1.02 <sup>***</sup> (0.13)	1.13 <sup>***</sup> (0.13)	1.23 <sup>***</sup> (0.14)	1.22 <sup>***</sup> (0.18)	1.27 <sup>***</sup> (0.57)	1.46 <sup>***</sup> (0.62)	2.43 <sup>***</sup> (1.08)	2.95 <sup>***</sup> (0.88)
Manuf Share	-0.15 <sup>***</sup> (0.02)	-0.14 <sup>***</sup> (0.02)	-0.14 <sup>***</sup> (0.02)	-0.13 <sup>***</sup> (0.02)	-0.14 <sup>***</sup> (0.02)	-0.14 <sup>***</sup> (0.02)	-0.11 <sup>***</sup> (0.03)	-0.09 <sup>***</sup> (0.03)
Coeff on College Share equal to OLS (p-value)					0.6593	0.5944	0.2724	0.0548
<i>First Stage</i>								
Log Distance					-0.0048 <sup>***</sup> (0.0007)	-0.0044 <sup>***</sup> (0.0007)	-0.0028 <sup>***</sup> (0.0007)	-0.0042 <sup>***</sup> (0.0008)
AP F-statistics					47.67	40.85	15.09	30.41
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Total Empl		Yes	Yes	Yes		Yes	Yes	Yes
Urban			Yes	Yes			Yes	Yes
High Tech Share				Yes				Yes
<i>N</i>	1826	1826	1826	1478	1826	1826	1826	1478

The dependent variable is the Mean decadal growth rate of Total Employment. Robust standard errors in parentheses. AP 1st stage F-statistics: Angrist-Pischke multivariate test of excluded instruments F-statistic. % High-Tech MF not available for French cities. Germany includes only Local Labor Markets in West Germany. <sup>\*</sup> $p < 0.1$ , <sup>\*\*</sup> $p < 0.05$ , <sup>\*\*\*</sup> $p < 0.01$ .

# Total Employment Before and After the Year of Manufacturing Peak, by Quartile of Distance from Historical Colleges



# Employment in Human Capital and Knowledge Intensive Services Before and After the Year of Manufacturing Peak, by Quartile of Distance from Historical Colleges

