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PGR05 – Place-based policy

Lent Term - WEEK 3

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University of Cambridge

SCHEDULE UPDATE

Block (A) Why?

- Lecture 1. Economic rationales for place-based policy (DL)
- Lecture 2. Socio-political rationales for place-based policy (DL)

Block (B) What?

- Lecture 3. Place-based industrial and innovation policies (DL)
 - Seminar 1. Digitalisation and firm survival during Covid-19 (visiting speaker)
- Lecture 4. Regional accessibility and investment in transportation infrastructure (DL)
 - Seminar 2. Regional development in East Anglia (visiting speaker)
- Lecture 5. Place-based policy and the green transition (DL)

Tuesday 24th February 3-4 pm

Thursday 19th Feb 3-4 pm

Block (C) How?

- Lecture 6. Theories of policy-making and the politics of subnational development (DL)
 - Seminar 3. Influencing opinions: writing a policy op-ed (DL)
- Lecture 7. Place-based policies for whom? Sustainable and equitable territorial development (SF)
 - Seminar 4. Title TBC (visiting speaker)
- Lecture 8. Place-based policy on the ground: the UK experience
 - Part 8a. Financialisation, centralisation and regional inequality in the UK (RM)
 - Part 8b. The UK's experience with levelling-up policies (PT)

Thursday 5th March 3-4 pm

Tuesday 10th March 5.30 pm

TODAY'S PLAN

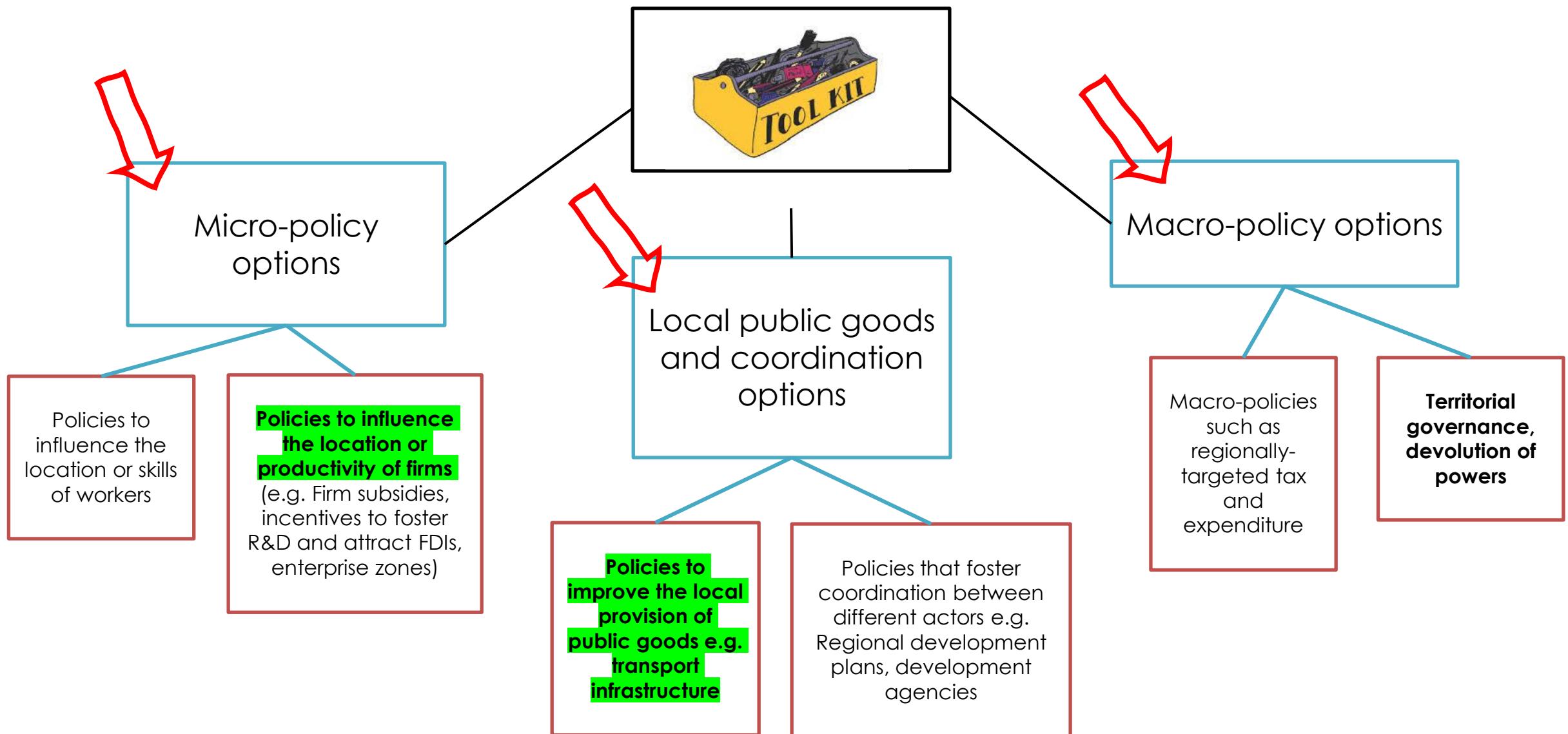
- Today we look at the evidence on the overall impact of the **EU Cohesion Policy**
- We then explore in more details evidence on the effectiveness of place-based **industrial and innovation policies**
- We conclude assessing **what might go wrong**

WHAT I WILL ARGUE TODAY

- There is evidence that place-based policies work e.g., the overall EU Cohesion Policy
- Similarly, **industrial and innovation policies can also work. There's international evidence on this**
- However, there are 3 **key caveats: quality of local institutions; displacement; perverse effects**

THE EU COHESION POLICY

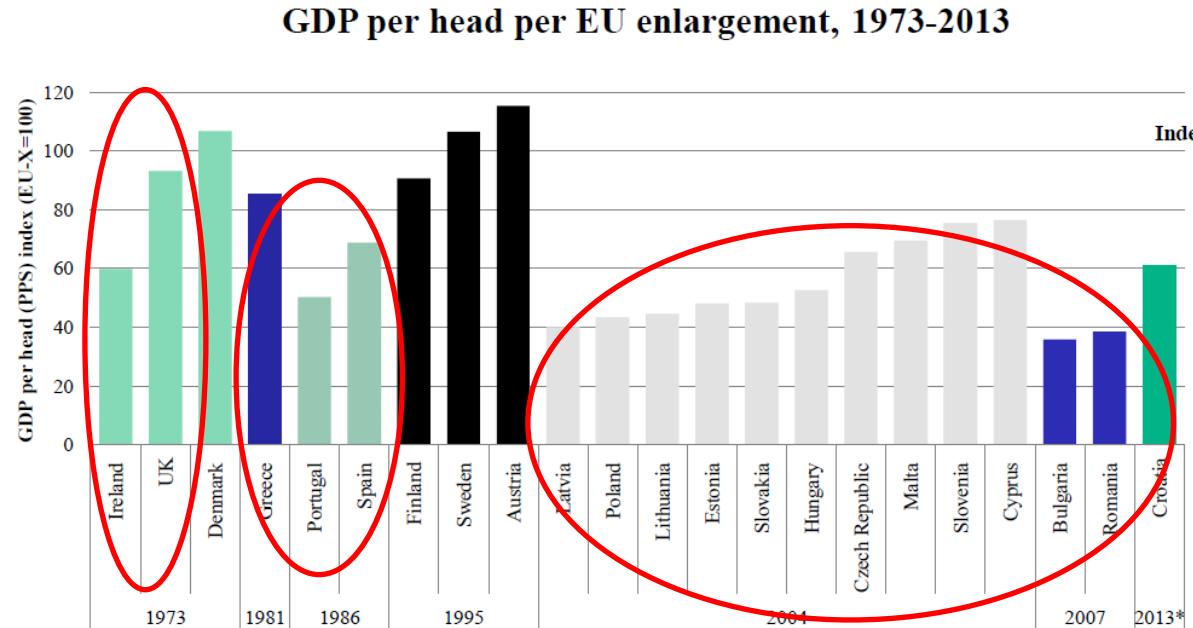
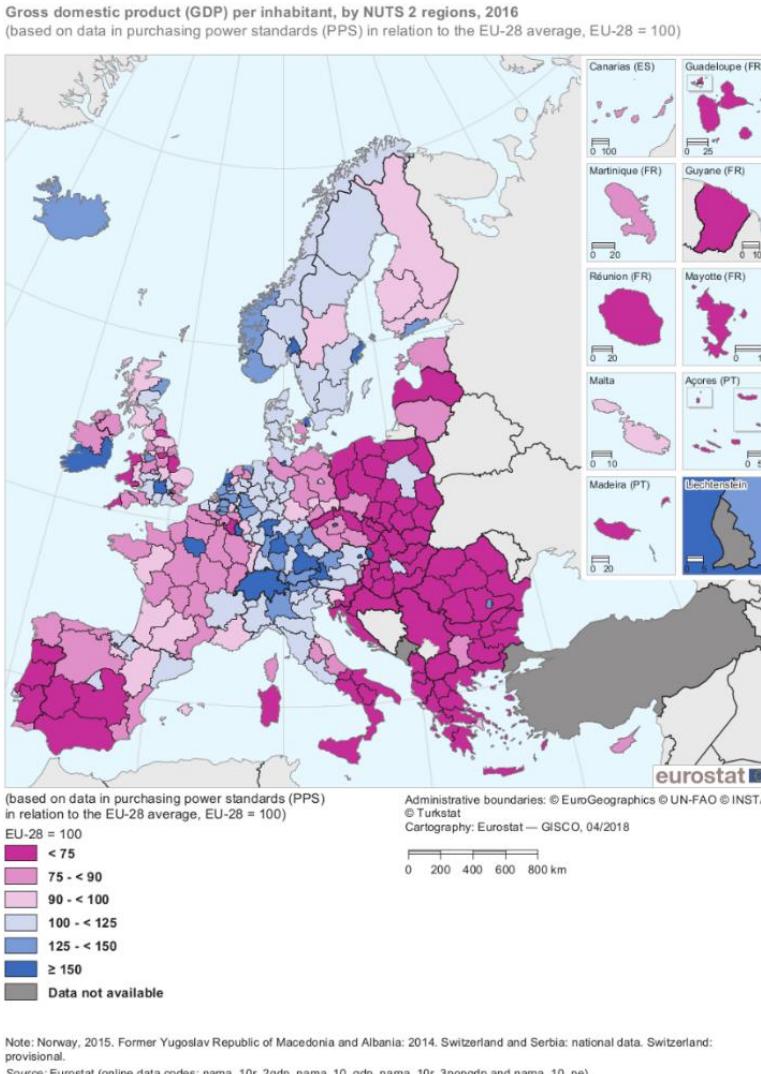
A TYPOLOGY OF PLACE-BASED POLICY INSTRUMENTS



PLACE-BASED POLICY INSTRUMENTS

- **Business support**, and public investments (e.g. **transport infrastructure**) have been the main expenditure categories of the EU Cohesion Policy, accounting for almost 50% of the budget (von Ehrlich, Overman, 2020)
- Both are also very common tools around the world
- Issues of **territorial governance and power** are, instead, not strictly place-specific, but are key to understand subnational development

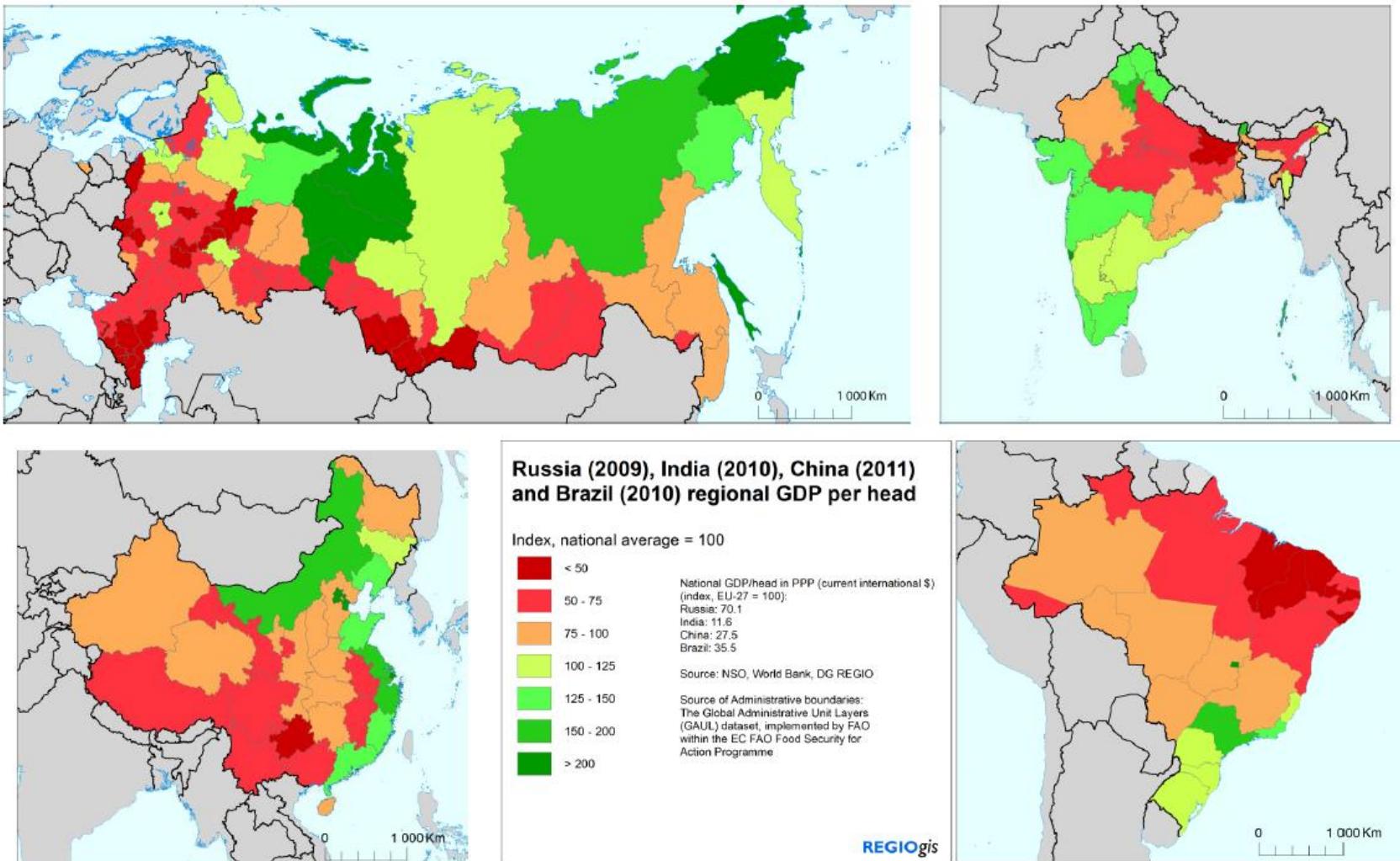
EU ENLARGEMENTS AND ECONOMIC DISPARITIES



(Source: European Commission, 2014, 6° Report on Economic, Social, and Territorial Cohesion)

Territorial inequality has increased after each round of EU enlargement

A COMPARISON



(Source: European Commission, 2014)

EU COHESION POLICY: YOUR WORK

Explore these websites:

https://ec.europa.eu/regional_policy/policy/what/investment-policy_en

<https://cohesiondata.ec.europa.eu/stories/s/2021-2027-EU-allocations-available-for-programming/2w8s-ci3y/>

https://ec.europa.eu/regional_policy/funding/erdf_en

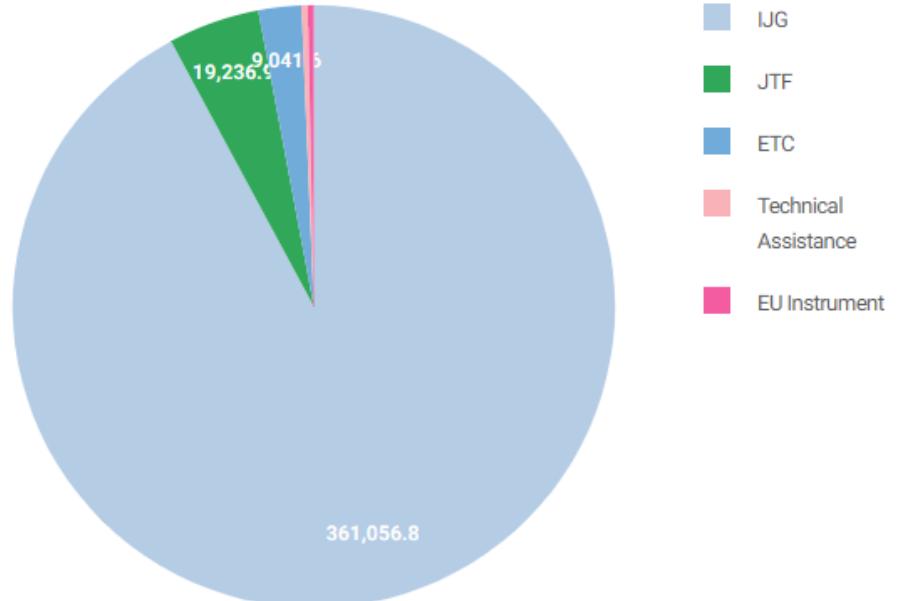
Answer the following questions:

- (1) How is the EU Cohesion Policy currently delivered, and what is each fund aimed at?
- (2) What's the financial endowment of each of the funds?
- (3) What are the current priorities ('thematic concentration') of the ERDF?

EU COHESION POLICY (2021-27 PROGRAMMING PERIOD)

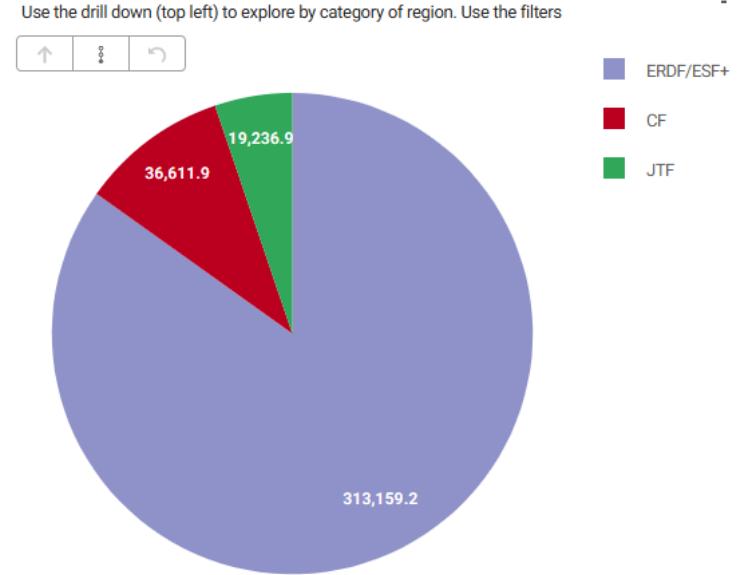
Total pot of monies over 21-27: € 392 bn. Investment for jobs and growth is by far the largest goal

2021-2027 - Cohesion policy overview with other fund...



- 1) **IJG: Investment for jobs and growth goal** funded by
 - the European Regional Development Fund (ERDF);
 - the European Social Fund+ (ESF+);
 - the Cohesion Fund;
 - the **Just Transition Fund (JTF)**;
- 2) **Interreg: European Territorial Cooperation goal**;
- 3) Commission managed **EU instruments** and **technical assistance**.

2021-2027 - Goal: Investment in Jobs and Growth - Ini...

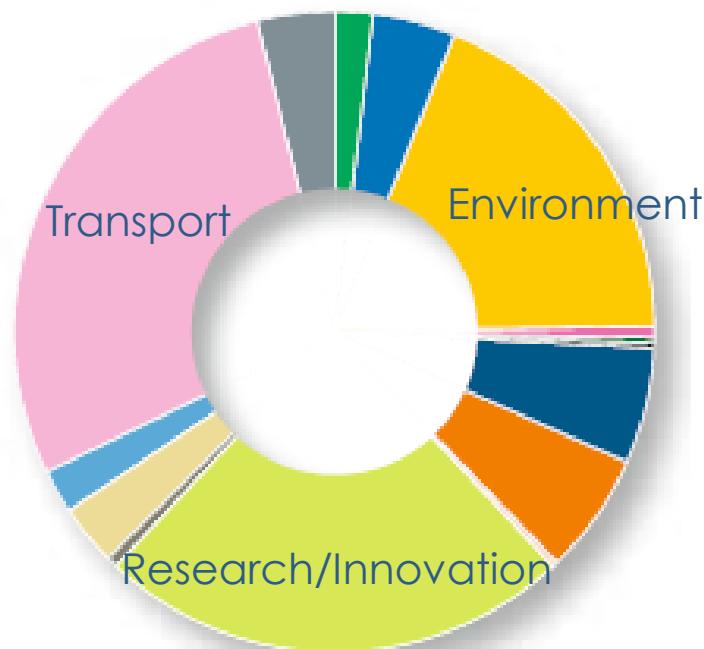


(Source: DG Regio's website)

EU COHESION POLICY (2007-2013 PROGRAMMING PERIOD)

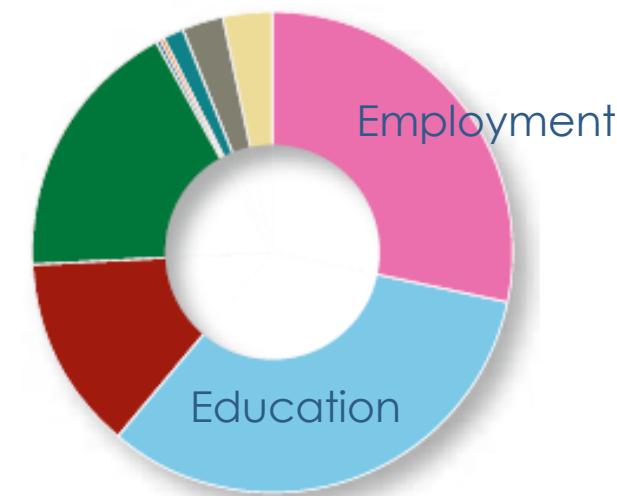
Structural Funds:

European Regional Development Fund
and Cohesion Fund (€271 billion)



- Information society
- Social infrastructure
- Energy
- Tourism
- Culture
- Institutional capacity

European Social Fund (€76 billion)

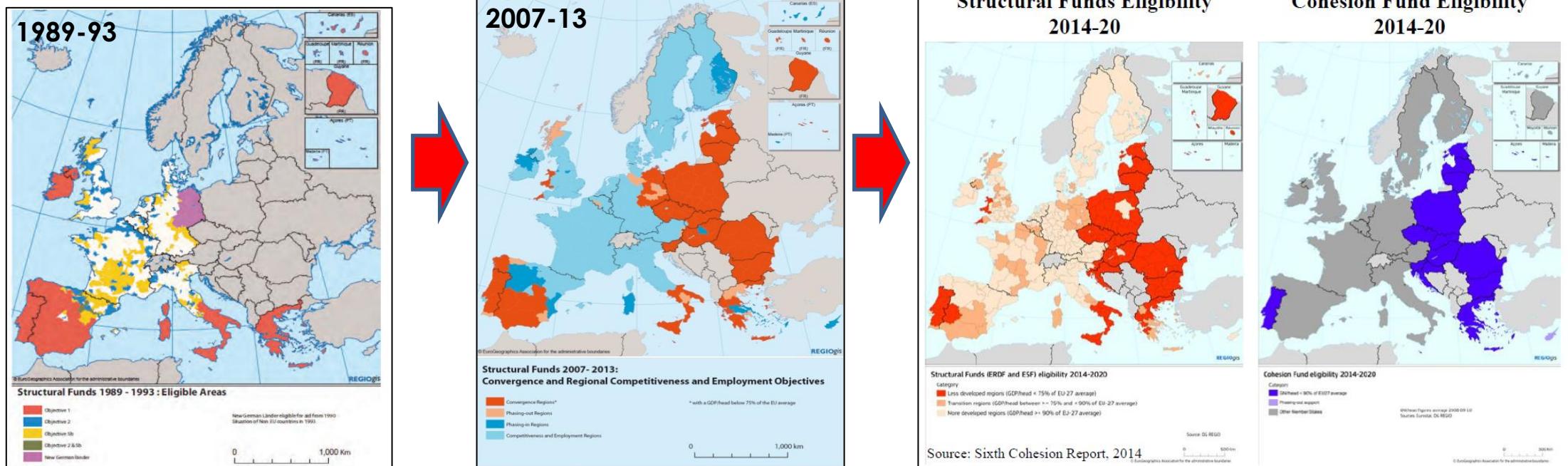


- Adaptability of workers and firms
- Social inclusion
- Capacity building
- Technical assistance

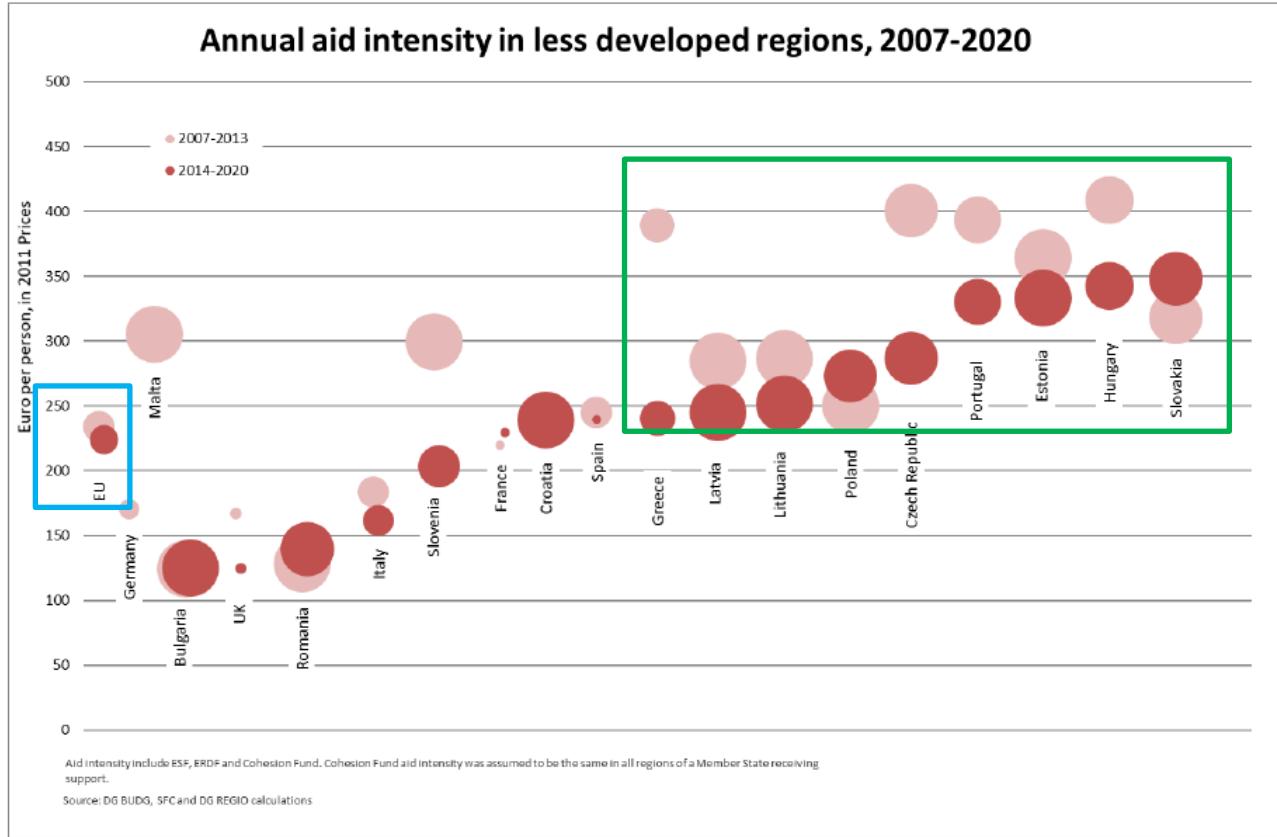
(Source: DG Regio's website)

DOES IT WORK?

- There has been a **long debate on the impacts of the EU Cohesion Policy**
- Lack of upward mobility of many Objective 1 Regions (e.g. in Southern Europe), which have remained almost the same since 1989



DOES IT WORK? ANNUAL AID INTENSITY



(Source: Dijstra, Rodriguez-Pose, 2020)

Average expenditure across the EU as a whole is not very high, but **policy expenditure is quite significant when assessed as a percentage of the GDP of many lagging regions**

E.g. throughout the 1990s around 3% of regional GDP per annum in Portugal, Greece, Ireland, between 2/3% in many Italian and Spanish Objective 1 regions

DOES IT WORK?

This keeps happening. How heavy are cats?



- **Just because two variables A and B are correlated does not imply that A causes B**
- You may be surprised to see how frequently poor evidence is used to argue for a particular public policy
- Place-based policy is a typical example of this

COUNTERFACTUAL THINKING

Gold standard of any policy evaluation would be a 'randomised experiment', also called randomised control trials (RCTs) in medical and natural sciences

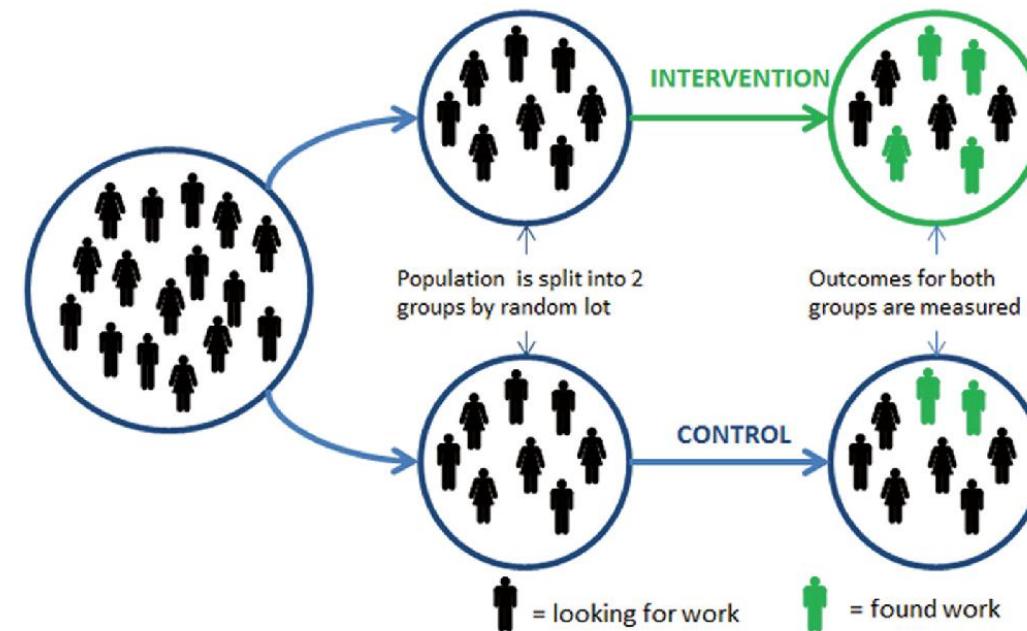


Figure 3. Illustration of a randomised controlled trial (RCT) to test a new 'back to work' programme (positive outcome)

(Source: UK Cabinet Office, accessed on https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/62529/TLA-1906126.pdf)

COUNTERFACTUAL THINKING

- Randomization experiments increasingly used in social sciences but... **often impossible or unethical to implement them!**
- A solution are **quasi-experiments**: to 'identify' a counterfactual group of places very similar to those being treated but where, for some reasons, regional policy wasn't implemented
- E.g. we can exploit institutional **rules and processes that result in some regions quasi-randomly being targeted with a policy**, or being targeted before others?

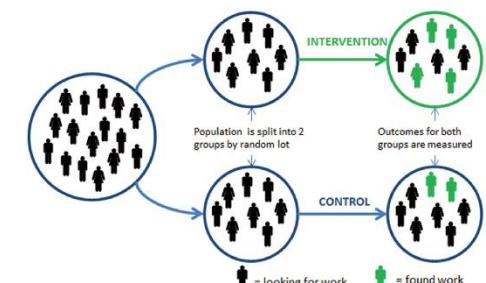
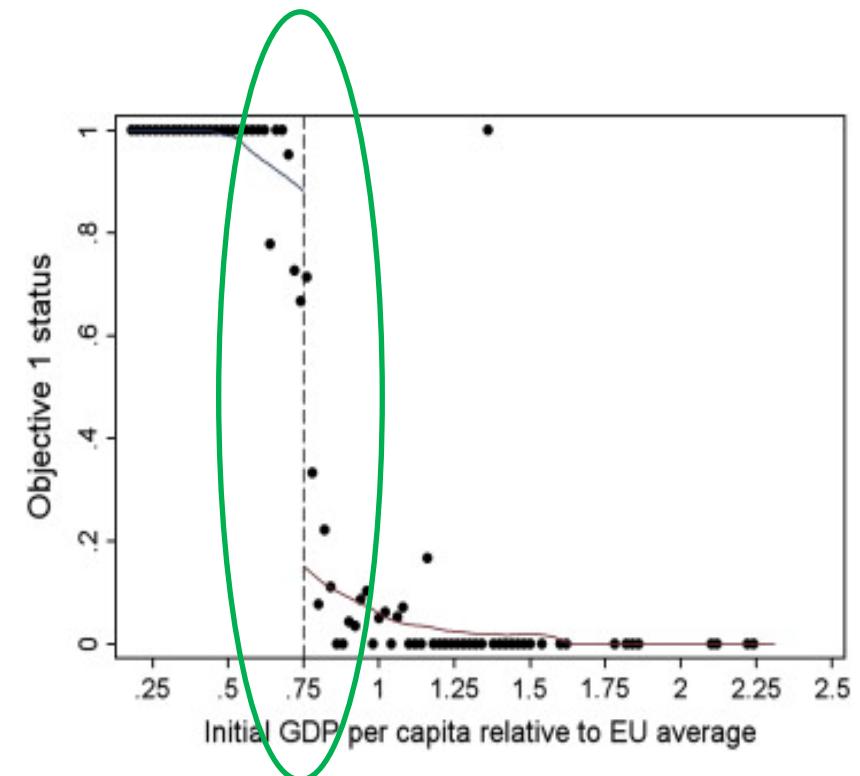


Figure 3. Illustration of a randomised controlled trial (RCT) to test a new 'back to work' programme (adapted from www.ncbi.nlm.nih.gov/pmc/articles/PMC2735033/)

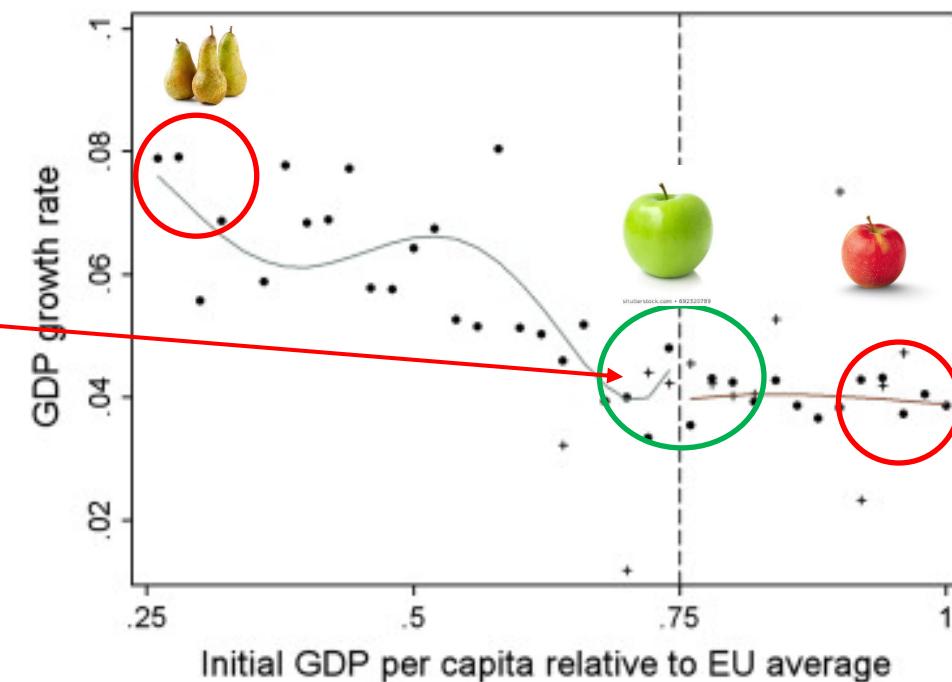
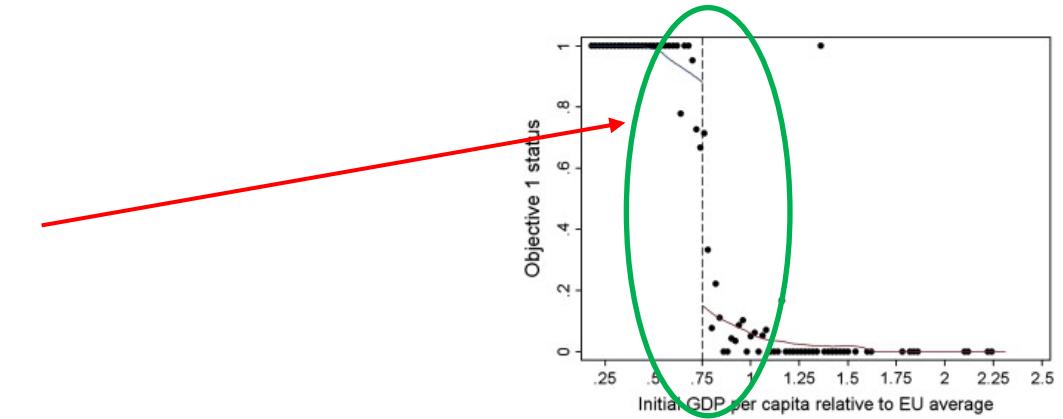
DOES IT WORK?

- Many of the initial studies were well-intentioned, but empirically weak
- Problem: recipient areas are structurally different from successful areas. Difficult to disentangle the effect of the policy!
- Regions are eligible for Objective1 status when their pre-treatment GDP per capita is below 75% of EU average
- **Becker et al. (2010)**'s idea: to exploit the 'arbitrary' legal threshold used to distinguish between regions which are eligible for support and those which are not



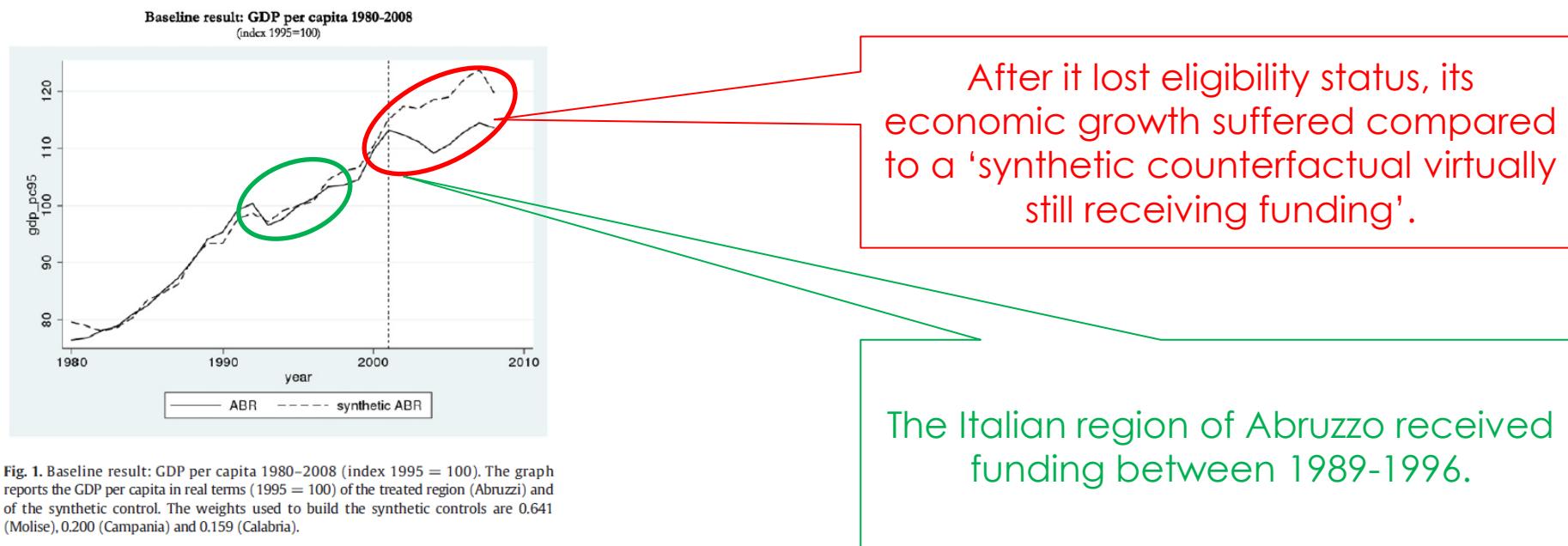
DOES IT WORK? A QUASI-EXPERIMENTAL EVALUATION

- Around this arbitrary cut-off, the chance of receiving policy support is almost 'as random'
- Regions which are very close to either side of this threshold, will be overall very similar in most aspects, with the exception of some receiving 'almost by chance' the policy treatment
- **Around the cut-off, the effect of the policy is positive!**



ARE IMPACTS LONG-LIVED?

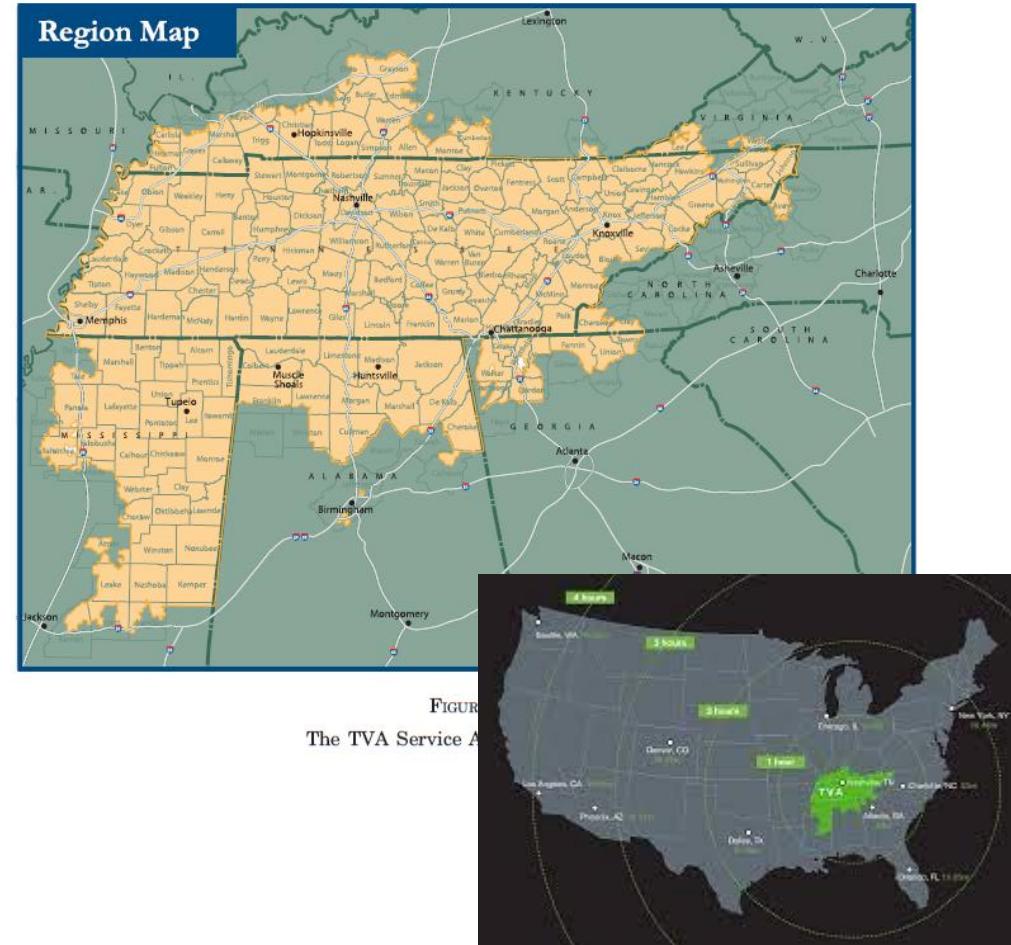
- Evidence is mixed.
- Barone et al. 2016: **The effect of losing treatment status on economic growth is negative, and tend to undo a good part of the positive policy effects**



(Source: Barone et al., 2016)

LONG-TERM POSITIVE EFFECTS: A US EXAMPLE

- **Tennessee Valley Authority**
- Proposed by President Roosevelt
- Created by the US Congress in 1933 to modernise the Tennessee river valley, one of the poorest and most backward areas of the US



LONG-TERM POSITIVE EFFECTS: A US EXAMPLE

- More than \$20 billion between 1934 and 2000, mostly between 1940-58
- **Policy tools: large public investments in public infrastructure projects**
- Hydroelectric dams, navigation canal, road network, construction of schools and flood control system. Generation of subsidised electricity



LONG-TERM POSITIVE EFFECTS: AN US EXAMPLE

- The programme led to **large gains in agriculture**, although these were reversed when subsidies ended
- And to **gains in manufacturing** employment, which continued to intensify over time: **kick-start of agglomeration economies**

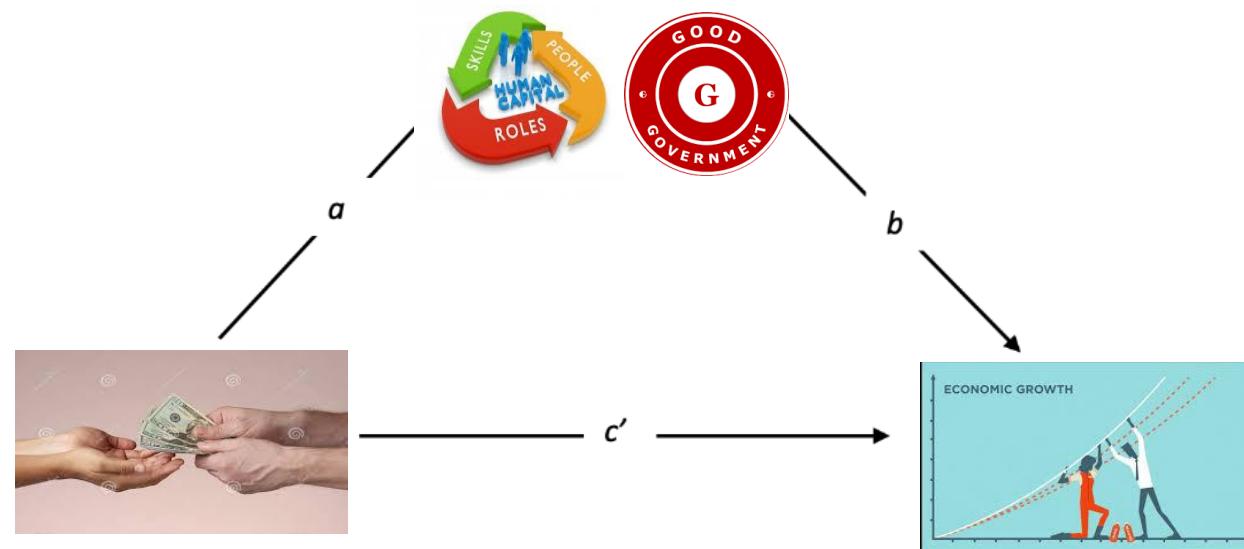
Outcome	(1) Entire U.S.		(2) South	
	1940–1960	1960–2000	1940–1960	1960–2000
Population	0.037	-0.008	0.042	-0.000
Average manufacturing wage	-0.005	0.014*	-0.003	0.010
Agricultural employment	0.106***	-0.134***	0.106***	-0.130***
Manufacturing employment	0.114****	0.033**	0.116***	0.035*
Value of farm production	0.076*	-0.030	0.081**	-0.044
Median family income	N/A	0.017	N/A	0.016
Average agricultural land value	0.027	-0.017	0.018	-0.015
Median housing value	0.019	-0.003	0.010	0.005

(Source: Kline & Moretti, 2014)

Overall, significant increase in national manufacturing productivity, with benefits exceeding the programme's costs

EU FUNDS AND LOCAL ABSORPTIVE CAPACITY

- Becker, Egger, Ehrlich (2013): concept of **absorptive capacity** i.e. local factors which are key prerequisites for regions to use policy interventions productively, rather than just wasting monies
- Good levels of **regional human capital and quality of institutions are key** to reap the benefits of regional policy aids



EU FUNDS AND LOCAL ABSORPTIVE CAPACITY

Key role played by **human capital**, and by 'soft', **institutional factors** such as functioning local governments, low levels of corruption, etc.



Problem! The policy is least effective where it's needed the most! (i.e. in the poorest regions, where in fact human capital and quality of government are often lowest)



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IMPACT DEPENDENT UPON INITIAL CONDITIONS

- In regions with poor institutional quality, a **significant inflow of monies may even worsen the already poor institutional quality!**

Research Paper | Published: 24 February 2020

Lost in Corruption. Evidence from EU Funding to Southern Italy

[Ilaria De Angelis](#), [Guido de Blasio](#) & [Lucia Rizzica](#) 

[Italian Economic Journal](#) 6, 355–377(2020) | [Cite this article](#)

204 Accesses | 2 Citations | 1 Altmetric | [Metrics](#)

- Windfall monies may generate an increase in the occurrence of corruption
- In the absence of EU funds disbursements, white collar crimes over 2007-2014 would have been 4% lower

(Source: <https://link.springer.com/article/10.1007/s40797-020-00123-2>)

- **Shall we stop implementing public policies because of this? NO, but it's important to consider how monies are being used** in regions where institutional context is weak
 - As a matter of fact, the EU has increased the levels of institutional checks and conditionalities attached to its regional policy, especially since 2014

TO SUM UP

- **Overall, the net effects** on GDP and employment growth of a big policy initiative such as the EU Cohesion Policy **are positive, yet:**
- **Effects are dependent on initial conditions**, and strongest where pre-policy disadvantage less accentuated
- **Weak evidence of long-term effects**

So far we have focused on the overall effects of Cohesion Policy, considering the whole bundle of interventions together. After the break we'll unpack these and focus on specific policy tools



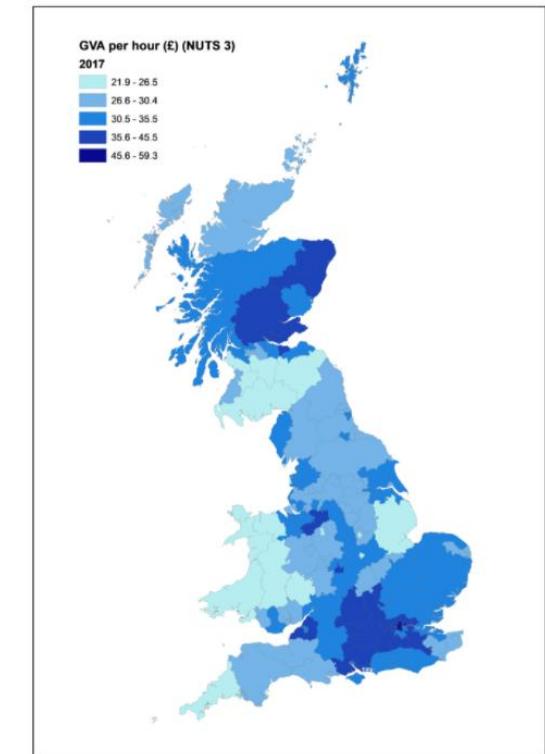
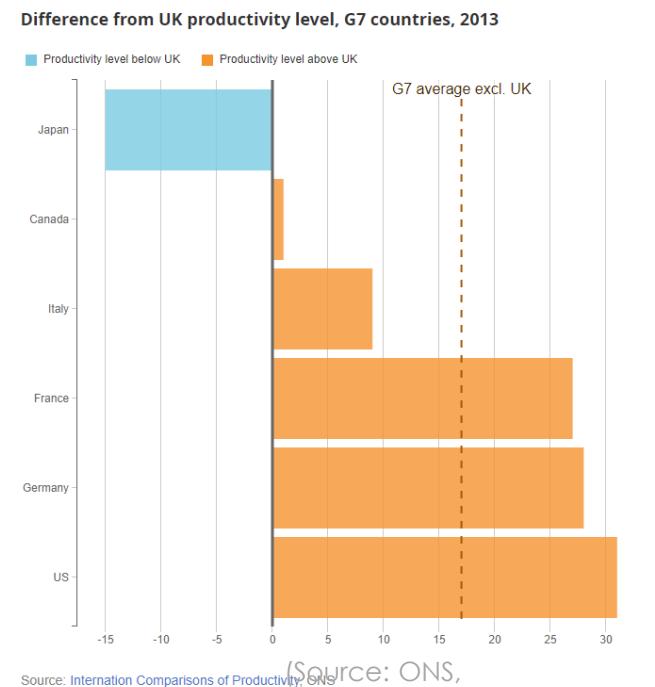
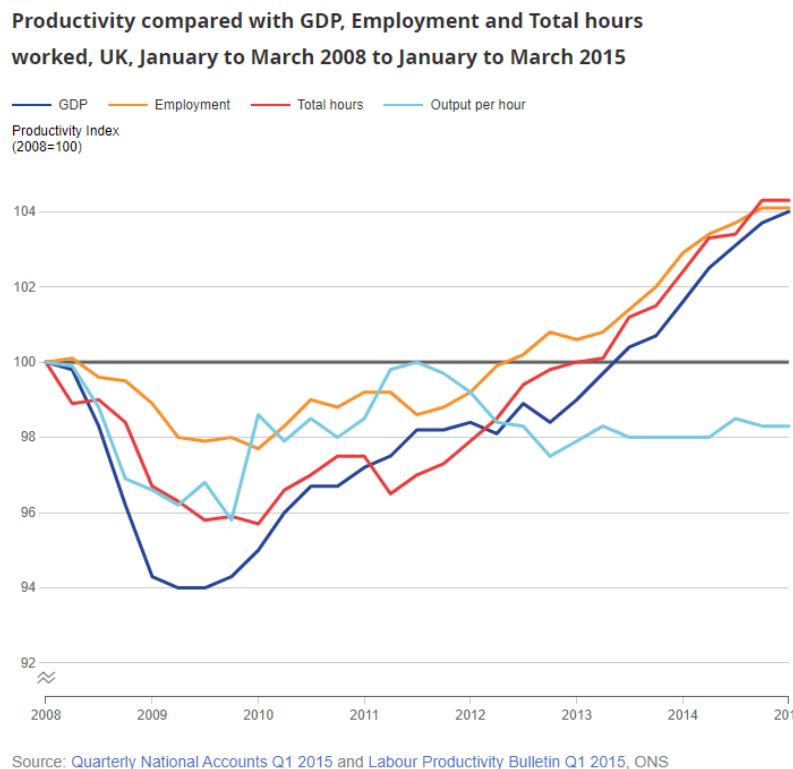
INDUSTRIAL AND INNOVATION POLICIES

FIRM SUBSIDIES

- The **establishment of new businesses**, or their growth, lead to new (and better) jobs
- Beyond entrepreneurship (new firm entrants), broad recognition of the role of **productivity to drive economic growth**
- **Place-based policies may hence try to influence new firm creation, or foster their productivity**

UK 'PRODUCTIVITY PROBLEMS'

UK has had low productivity for some time, and lower than other comparable countries



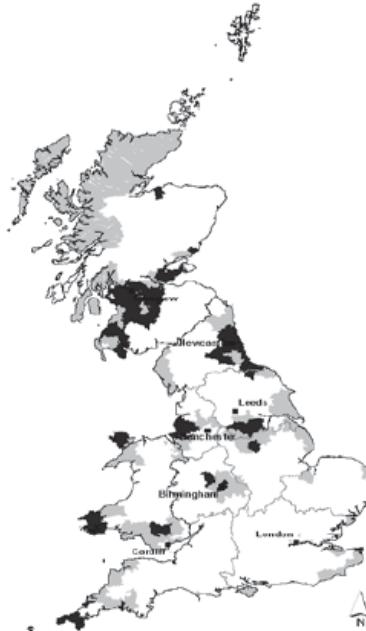
FIRM SUBSIDIES: THE UK REGIONAL SELECTIVE ASSISTANCE

- **Regional Selective Assistance**
- Started in 1972 and, from early 1980s, Britain's main business support scheme*
 - Programme provides discretionary grants to firms located in areas with low pc GDP and high unemployment
 - Specifically designed to safeguard manufacturing employment
- **Firms apply to receive up to 35% of government co-financing for capital investments**
e.g. building new plants, or modernising existing ones

* The programme has changed name over time, e.g. Selective Finance for Investment in 2004, and then Grant for Business Investment in 2008. It was repealed in 2014

FIRM SUBSIDIES: DIFF-IN-DIFF EVIDENCE

Panel A. Pre-2000



- **How to create a valid counterfactual of treated areas?**
- Criscuolo et al. (2019): The EU forbids state aids that distort free competition and trade
- British RSA rules hence had to conform to non-UK, external EU rules, which randomly changed in 2000

FIGURE 1. THE CHANGE IN THE LEVEL OF MAXIMUM INVESTMENT SUBSIDY (NGE) BETWEEN 1993 AND 2000

FIRM SUBSIDIES: DIFF-IN-DIFF EVIDENCE

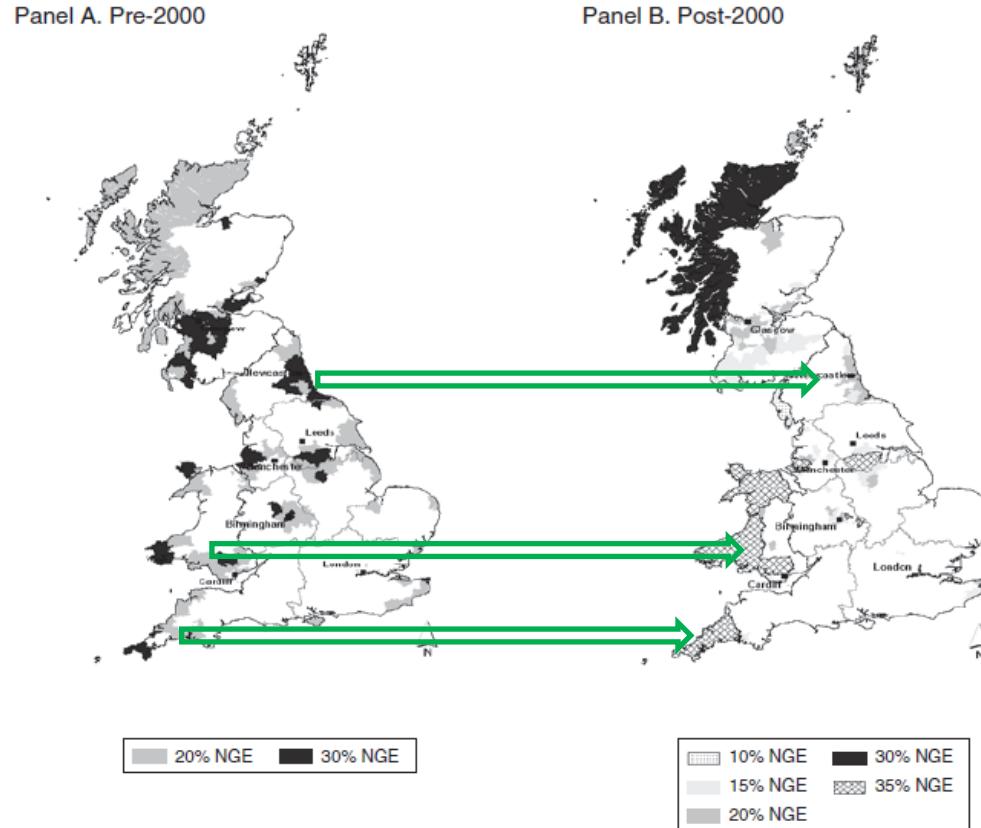


FIGURE 1. THE CHANGE IN THE LEVEL OF MAXIMUM INVESTMENT SUBSIDY (NGE) BETWEEN 1993 AND 2000

- Since eligibility rules changed independently of how regional economies were doing, one can use these random (aka ‘exogenous’) changes as a sort of natural experiment

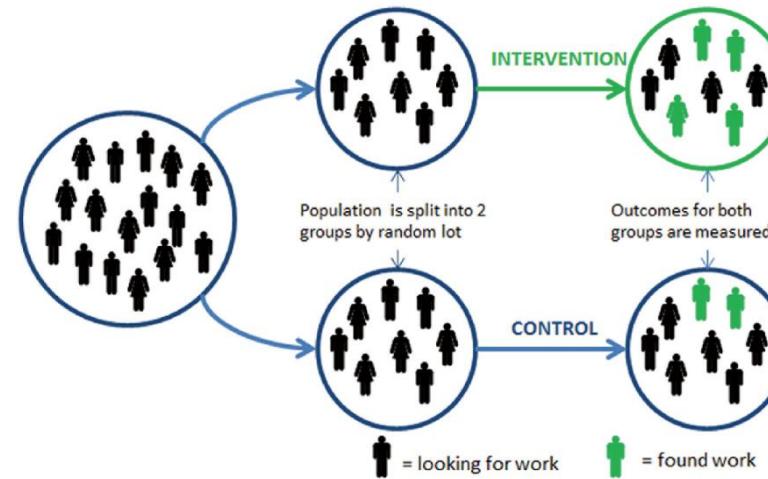


Figure 3. Illustration of a randomised controlled trial (RCT) to test a new ‘back to work’ programme (positive outcome)

FIRM SUBSIDIES: DIFF-IN-DIFF EVIDENCE

Positive and significant impacts: 10% increase in a region's rate of maximum investment subsidy causes a 10% **increase in manufacturing employment** and a 4% **decrease in total unemployment**

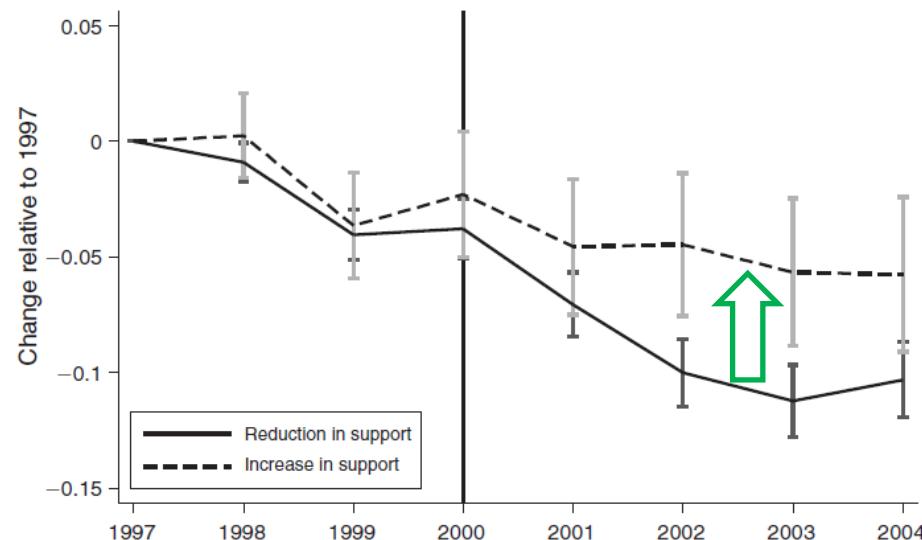


FIGURE 3. CHANGES IN MANUFACTURING EMPLOYMENT IN AREAS WITH INCREASING VERSUS DECREASING SUPPORT PROBABILITY

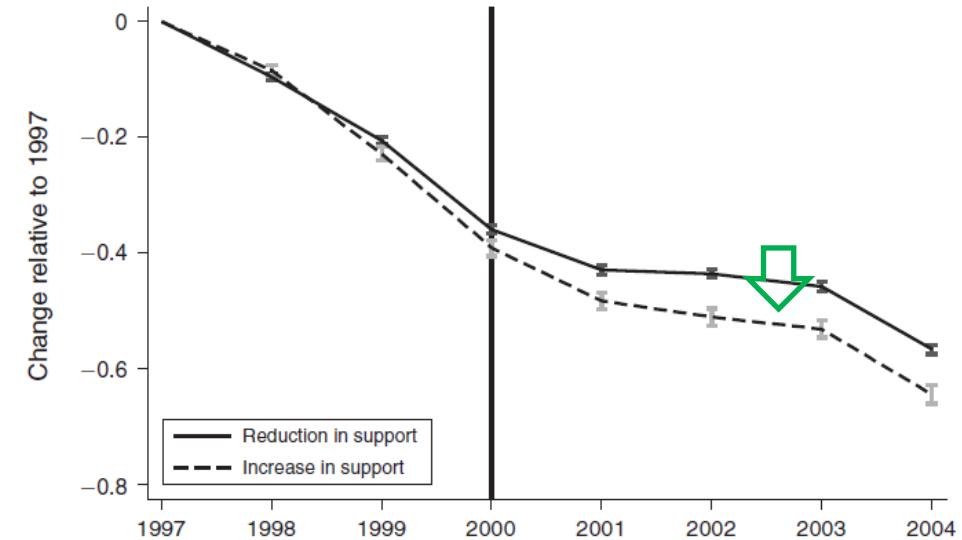


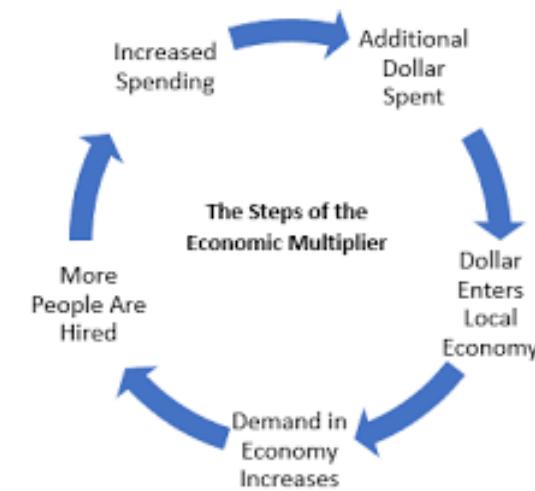
FIGURE 4. CHANGES IN UNEMPLOYMENT IN AREAS WITH INCREASING VERSUS DECREASING SUPPORT PROBABILITY

FIRM SUBSIDIES: DIFF-IN-DIFF EVIDENCE

- Positive effects are **not driven by the displacement of jobs** (i.e. jobs being opened in treated areas at the expense of untreated ones)
- Positive **effects driven by small firms** – big ones are able to ‘game the system’ and take subsidies without changing their activities
- These **effects would not be measured without the ‘quasi-experimental’ design**, since the areas that become eligible are those where the economy is doing badly in absence of the policy!

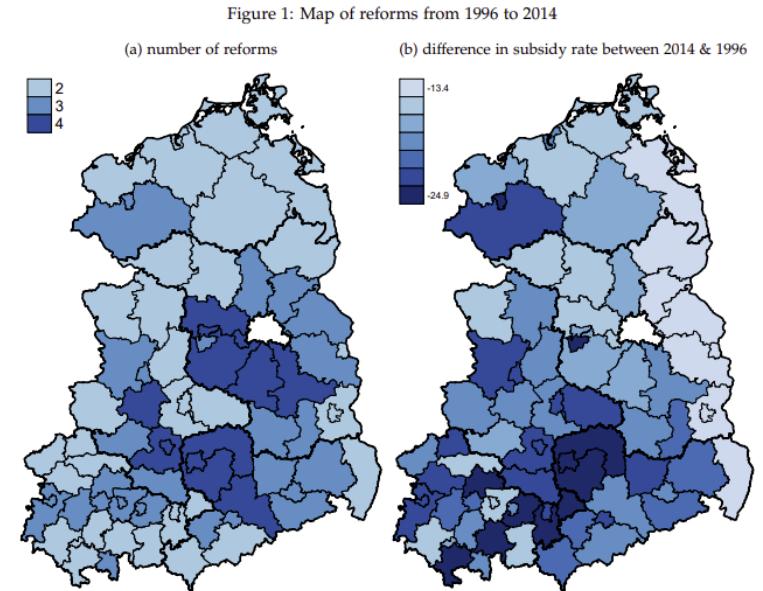
SPILLOVER EFFECTS

- The effect of the policy may go beyond direct effect to the treated firm: potential indirect effects
- **Positive spillovers e.g. agglomeration effects and local multipliers**
- **Or negative externalities e.g. relocations, negative effect on other local policy instruments**



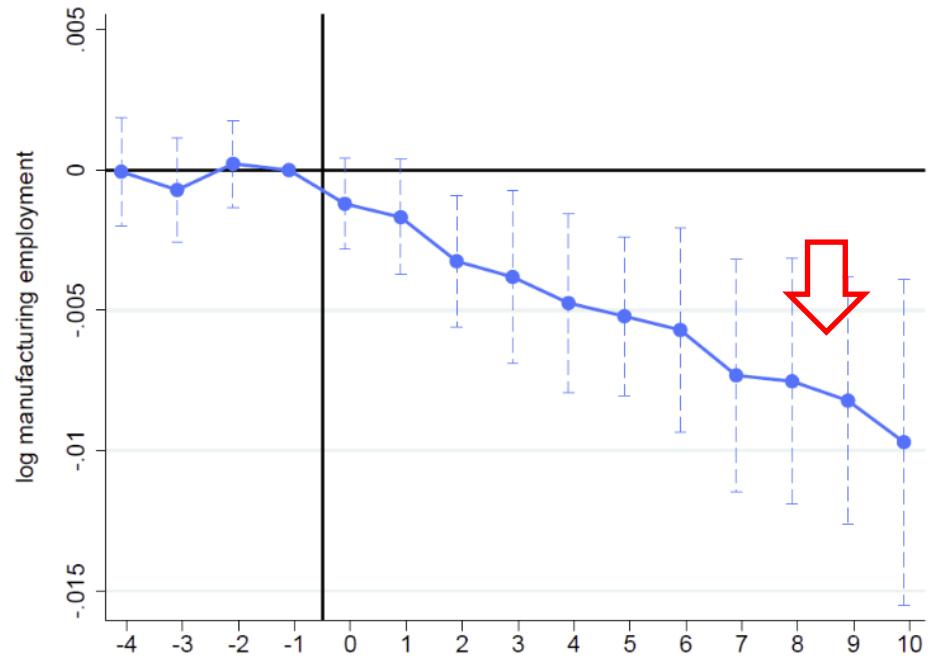
SPILOVER EFFECTS

- Gemeinschaftsaufgabe Verbesserung der regionalen Wirtschaftsstruktur (GRW)
- Germany's main place-based policy scheme for underdeveloped regions, used to revitalise East Germany after reunification!
- During 1991-2016, around €1.8 bn each year
- Main tool: **investment subsidy to manufacturing firms in eligible regions** (up to 50% of inv.)
- **Between 1997 and 2014 multiple subsidy rate changes, triggered by EU legislation**



(Source: Siegloch et al., 2022)

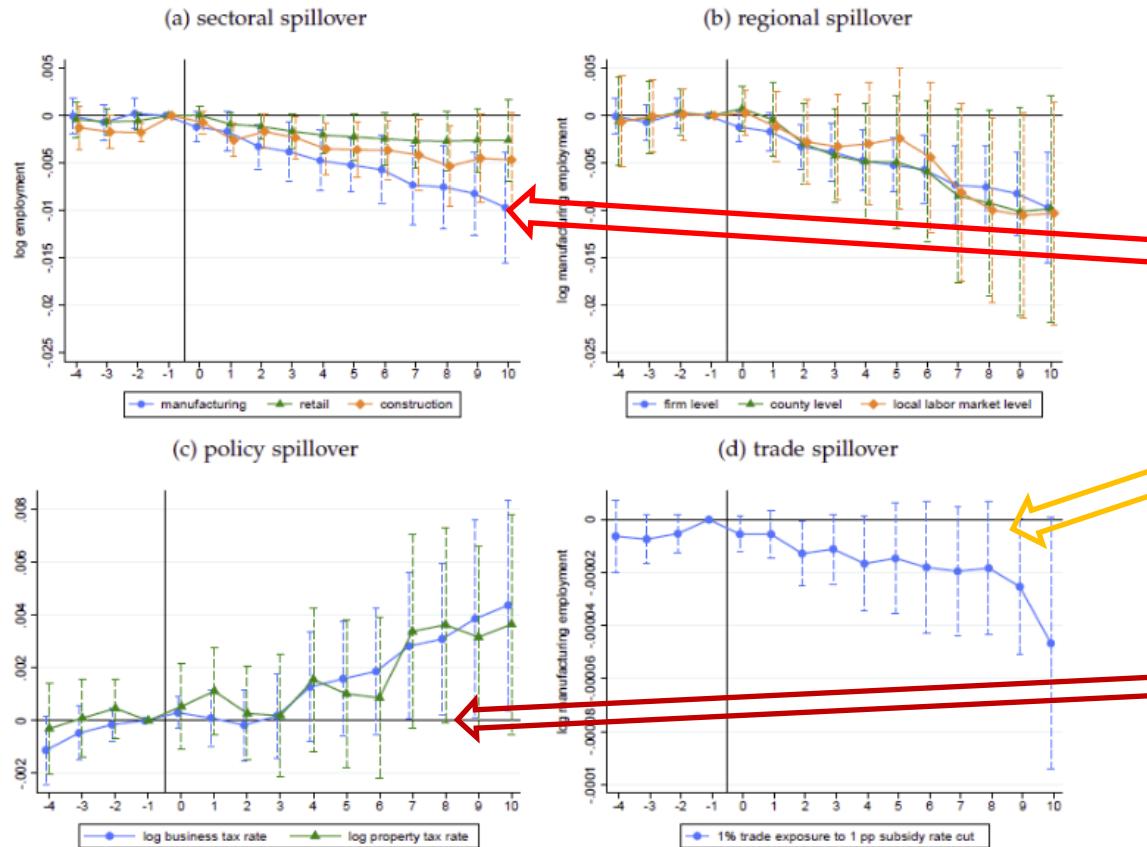
EVIDENCE ON SPILLOVER EFFECTS IN GERMANY



- What happens when reforms cut subsidy rates?
- Direct effect:
- 1% decrease in subsidy leads to 1% decrease in long-run manufacturing employment

(Source: <https://cepr.org/voxeu/columns/regional-firm-subsidies-direct-spillover-and-welfare-effects>)

EVIDENCE ON SPILLOVER EFFECTS IN GERMANY



- **Indirect effects!**
- Negative spillovers to other sectors within the recipient region
- Negative manufacturing employment spillovers in adjacent regions (via trade)
- Negative policy spillovers: increase in local tax rates

Overall, the policy was cost-effective, and more efficient in reducing regional inequality than cash transfers to individuals

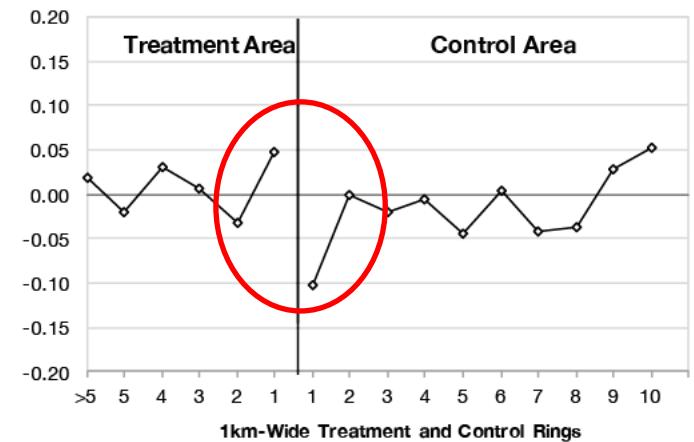
BUT SOME CAVEATS

- Overall, there's evidence on the positive effects of place-based subsidies to firms
- But with 2 potential caveats:
 - **Deadweight problem** – public help is used to subsidise activities which would have happened anyway
 - **Displacement** – when subsidies encourage new activities in targeted areas, at the cost of activity elsewhere. This problem is for example frequent in enterprise zones

E.G. UK Local Enterprise Zone Initiative (LEGI), programme
Targeting deprived areas of the UK during 2006-2011



Figure 1. Displacement of employment at the LEGI boundary



(Source: <https://voxeu.org/article/effectiveness-place-based-policies-uk-evidence>)

YOUR WORK

- Read this policy blog piece:
- https://cepr.org/voxeu/columns/place-based-policies-italian-case-part-2-mind-negative-side-effects?utm_source=dlvr.it&utm_medium=twitter
- **Identify what has not worked in Italy, and what are the policy suggestions of the authors**

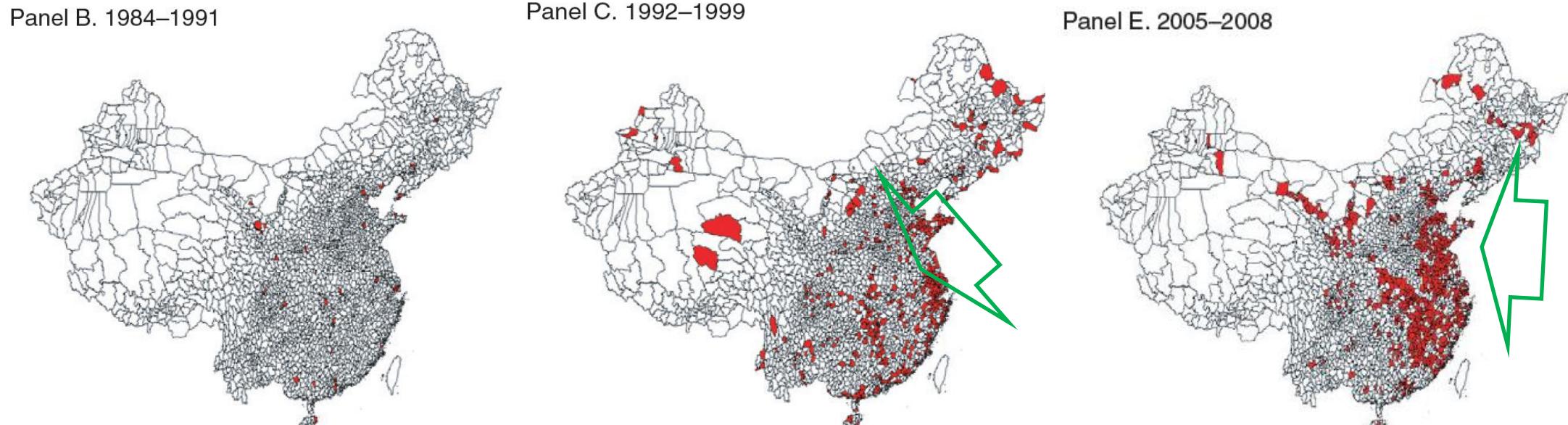
INTERNATIONAL OUTLOOK: CHINA'S ENTERPRISE ZONES

- **Special economic zones (SEZs):** place-based enterprise programmes, offering tax deductions, custom duty levies, cheaper land use, easy access to credit
- In China, SEZs were adopted to:
 - attract foreign and domestic investment
 - promote international trade
 - stimulate technological innovation in designated areas
- Very common policy tool in developing countries



SPECIAL ECONOMIC ZONES: THE CASE OF CHINA

- Initially established in coastal provinces' main cities
- **After 1992, growing use of SEZs in inland regions** as a way **to tackle the growing territorial inequality**. This especially after 2000's Western Development Strategy



(Source: Lu et al., 2019)

SPECIAL ECONOMIC ZONES: THE CASE OF CHINA



(Source: Lu et al., 2019)

- The policy had a **significantly positive impact** on capital investment, employment, output, productivity, and wages
- Most of these effects are linked to new firm entries
- Overall, these findings show how **regional policies can be effective** not only in advanced economies but **also in developing countries**

SPECIAL ECONOMIC ZONES: SOME CAVEATS

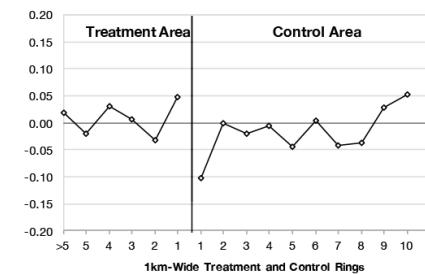
- Special economic zones are **especially suited to developing countries** (their aim is to attract FDI, enhance manufacturing, etc.)
- Export-led **growth reliant on cheaper labour/factors of production** typical of emerging economies
- This often comes with **social/environmental problems**
- A broader point: achieving success in an emerging economy is much easier than in a declining region of a rich country (middle-income traps)

TO CONCLUDE

- Policies such as **subsidies to firms can be particularly effective** in redressing territorial inequality. Yet two key caveats:
- **Effects of regional policies are dependent on initial conditions.** Good local governments and human capital are key to reap any positive benefits
- **Risk of deadweight problems and displacement effects**



Figure 1. Displacement of employment at the LEGI boundary



REFERENCES CITED IN THE SLIDES

- Armstrong H. and Taylor J. (2000), chapter 9 (Regional policy instruments), pp. 232-262.
- von Ehrlich M., Overman H. (2020), Place based policies and spatial disparities across European cities, *Journal of Economic Perspectives*, 34(3): pp 128-149.
- Criscuolo C., Martin R., Overman H., Van Reenen J. (2019), Some causal effects of an industrial policy, *American Economic Review*, 109(1): 48-85.
- Lu, Y., Wang, J., & Zhu, L. (2019), Place-based policies, creation, and agglomeration economies: evidence from China's Economic Zone Program, *American Economic Journal: Economic Policy*, 11(3), 325-60.
- Siegloch S., Wehrhofer N., Etzel T. (2022), Spillover, efficiency and equity effects of regional firm subsidies, ECONtribute discussion paper no. 210, https://www.econstor.de/RePEc/ajk/ajkdps/ECONtribute_210_2022.pdf
- Becker, Sascha O., Peter H. Egger, and Maximilian v. Ehrlich. 2010. "Going NUTS: The Effect of EU Structural Funds on Regional Performance." *Journal of Public Economics* 94 (9): 578–90.
- Cerqua A., Pellegrini G. (2018), Are we spending too much to grow? The case of Structural Funds, *Journal of Regional Science*, 58: 535-563.
- De Angelis I., de Blasio G., Rizzica L. (2020), Lost in corruption. Evidence from EU funding to Southern Italy, *Italian Economic Journal*, 6: 355-377.
- Barone G., David F., de Blasio G. (2016), Boulevard of broken dreams. The end of EU funding (1997: Abruzzi, Italy), *Regional Science and Urban Economics*, 60: 31-38.

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