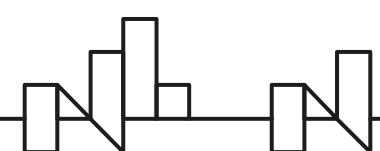


Collaborative and sharing workspaces: policies for youth in EEA peripheral regions

CoWork4YOUTH Project

‘**Collaborative** and sharing workspaces: policies for youth in EEA peripheral regions’

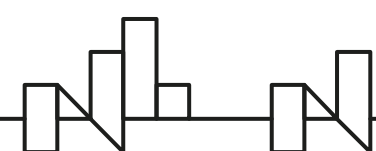
- Funded by Iceland, Liechtenstein and Norway through the **EEA and Norway Grants Fund for Youth Employment**.
- Aims to increase knowledge on the **impact of existing policies on youth employment** and also to **offer policy suggestions to increase youth employment opportunities**, centring on **Greece, Italy, Spain and Ireland**.
- Outputs to include a **baseline study, observatory, transnational reports, academic papers and policy recommendations**
 - Partners: Institute of Urban Environment and Human Resources (UEHR, Greece), National Technical University of Athens (NTUA, Greece), Rhodes Project SCE (Greece), ISEAK (Spain), ESRI (Ireland), Exeo Lab (Italy), Mid Sweden University (Sweden), ELARD (Belgium)
 - For more information: <https://www.cowork4youth.org/>



Baseline Study on Impact of Youth Employment Policies

Elish Kelly, Dora Tuda, Adele Whelan, Kostas Gourzis, Athina Avagianou, Vasiliki Krommyda, Ainhoa Oses, Nicola Vita, Maurizio Zammataro, Lea Battistoni, Valeria Lavano, Manolis Boniatis, Ioannis Papageorgiou, Erik Hansson, Kristina Zampoukos, Conor Judge

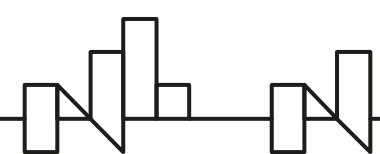
- Main objective to present **descriptive evidence on the impact of youth employment policies** across the project's four study countries (Ireland, Greece, Spain, and Italy) for the period 2008 to 2020
- **No country had returned to pre-recession levels of youth employment by 2019**
 - Rates of **youth unemployment remain between 20-30% for all countries except Ireland (9.1%)** in 2019
- **NEET rates show signs of recovery** except for Italy where they have failed to descend significantly from 2014 levels
 - In both Spain and Ireland males dominated NEET rates after the peak of the crisis, but in more recent years females have constituted the larger percentage of NEETs
- Findings suggest that the **European-led Youth Guarantee (YE) and Reinforced Youth Guarantee (RYG) policies may have been overshadowed by significant national policies** of labour market liberalisation pursued in the early years of the Great Recession, particularly in Greece and Ireland



Employment Potential for NEETs in Peripheral EEA Regions

Paul Redmond & Ciara McFadden

- Young people that are not in employment, education or training (NEET) face **increased poverty risk, social exclusion, labour market scarring and adverse health consequences**
- **Reducing the number of NEETs is a major policy priority in the European Union**
 - The target of the European Pillar of Social Rights Action Plan is to reduce the NEET rate to 9 percent by 2030, and this is supported by a considerable amount of EU funding
- **Tailoring policies towards NEETs is difficult** due to the heterogeneity within this group, and as such, different policies are required for different groups
 - Discuss three emerging labour market trends including the **green economy, remote working, and the platform economy**. The evidence on their impact is relatively underdeveloped and represents an important avenue for future research.



Determinants of Youth Employment

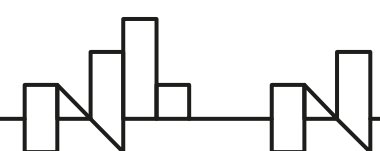
Transnational Report on employment potential for young people through alternative sectors

Adele Whelan & Elisa Staffa



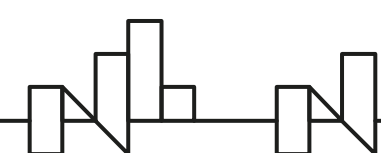
Motivation

- To date, most research on youth employment has used country specific cross-sectional or panel datasets and has focussed on identifying the individual or firm-level characteristics associated with youth employment and/or the impact of youth employment on outcomes such as wages, job satisfaction etc.
 - These micro-level studies can't give us any indication of extent to which youth employment is driven by labour demand, labour supply or macroeconomic factors etc.
- We construct a time series measure of youth employment to examine the phenomenon at a regional level to help us understand the factors that drive youth employment across regions.



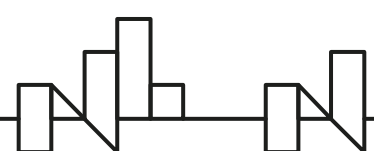
Key Research Questions

1. To **provide a descriptive assessment** of trends in youth employment across regions of Greece, Ireland, Italy and Spain over time
2. Measure the **degree of convergence/divergence** in the evolution of youth employment between NUTS2 regions over time
3. Identify some of the **underlying drivers of youth employment** (specifically impact of sectors relevant for coworking and decarbonisation – ‘green’ and ‘brown’ jobs)



Classifications of Key Regions and Sectors

- Partners from Greece (UEHR & NTUA), Italy (ExeoLab) and Spain (ISEAK) completed a short template (prepared by ESRI) on **relevant sectors and regions** relating to their respective countries
 - Unfortunately, no literature systematically defining 'green' or 'brown' sectors
- All partners assisted to identify **key sectors and regions** and provide a short summary of each in their respective countries
 - Both related to co-working, green and brown jobs
 - Group individual regions into categories on the basis of common linkages
- Key **literature** also identified by partners for their respective countries



Classifications of Key Sectors

- **Co-working Sectors: *commonly performed remotely***

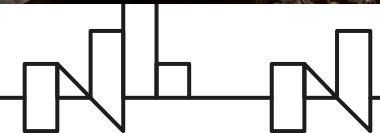
- *NACE J* (Information and communication), *K* (Financial and insurance activities), *M* (Professional, scientific and technical activities), *N* (Administrative and support service activities)

- **Green Jobs, Related Sectors: *transition to a green, carbon-neutral economy***

- *NACE D* (Electricity, gas, steam and air conditioning supply), *E* (Water supply; sewerage, waste management and remediation activities), *F* (Construction), *H* (Transportation and storage)

- **Brown Jobs, Related Sectors: *highly polluting activities sectors***

- **Sectors: *NACE B*** (Mining and quarrying)

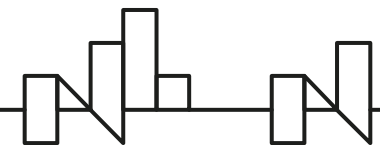


Classifications of Key Regions

Regions - Italy

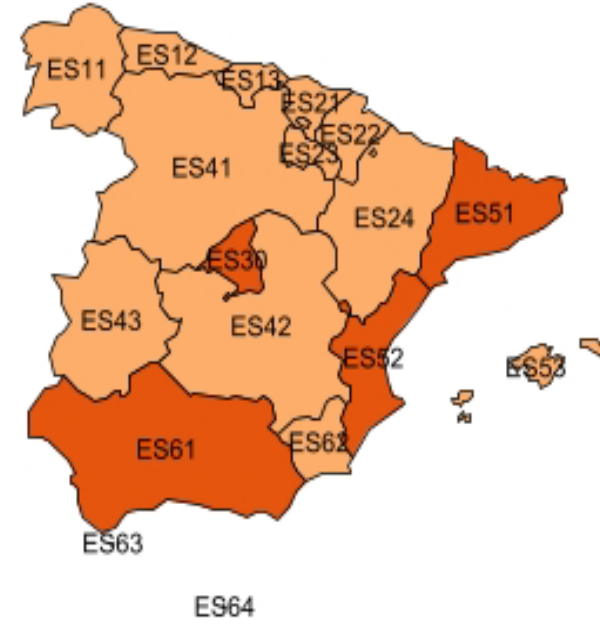


| Italy | | Co-working | Decarbonisation |
|-------|-------------------------------------|------------|-----------------|
| ITC1 | Piemonte | X | |
| ITC2 | Valle d'Aosta/Vallée d'Aoste | | X |
| ITC3 | Liguria | | |
| ITC4 | Lombardia | X | |
| ITF1 | Abruzzo | | X |
| ITF2 | Molise | | X |
| ITF3 | Campania | | X |
| ITF4 | Puglia | | X |
| ITF5 | Basilicata | | X |
| ITF6 | Calabria | | |
| ITG1 | Sicilia | | |
| ITG2 | Sardegna | | X |
| ITH1 | Provincia Autonoma di Bolzano/Bozen | | |
| ITH2 | Provincia Autonoma di Trento | | X |
| ITH3 | Veneto | X | |
| ITH4 | Friuli-Venezia Giulia | | |
| ITH5 | Emilia-Romagna | | X |
| ITI1 | Toscana | X | |
| ITI2 | Umbria | | |
| ITI3 | Marche | | X |
| ITI4 | Lazio | X | |



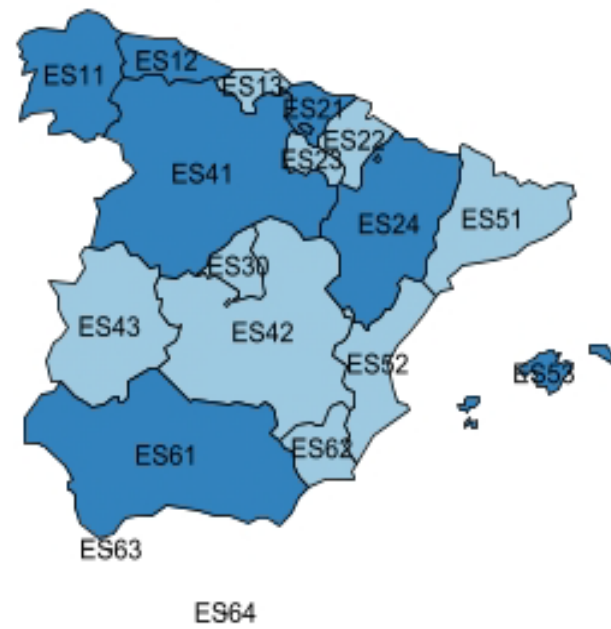
Regions - Spain

Spain- Co-working Regions



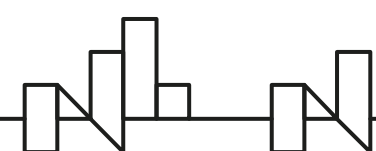
Co-working regions
Other regions

Spain- Decarbonisation Regions



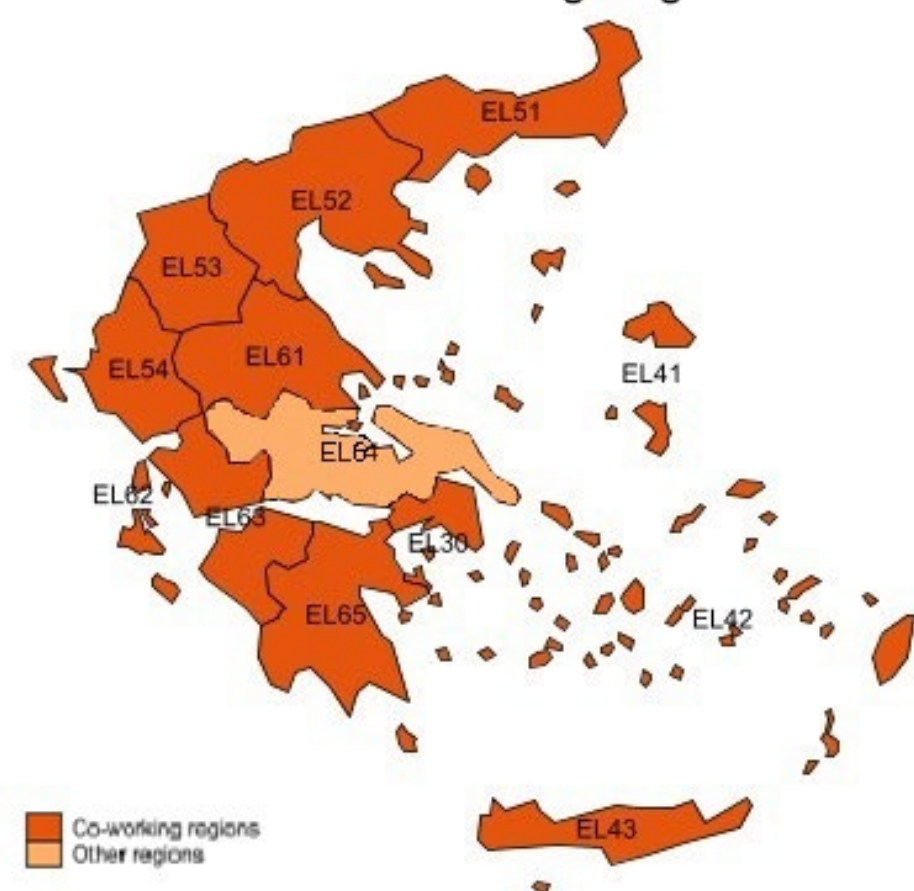
Decarbonisation regions
Other regions

| Spain | | Co-working | Decarbonisation |
|-------|----------------------------|------------|-----------------|
| ES11 | Galicia | | X |
| ES12 | Principado de Asturias | | X |
| ES13 | Cantabria | | |
| ES21 | País Vasco | | X |
| ES22 | Comunidad Foral de Navarra | | |
| ES23 | La Rioja | | |
| ES24 | Aragón | | X |
| ES30 | Comunidad de Madrid | X | |
| ES41 | Castilla y León | | X |
| ES42 | Castilla-La Mancha | | |
| ES43 | Extremadura | | |
| ES51 | Cataluña | X | |
| ES52 | Comunitat Valenciana | X | |
| ES53 | Illes Balears | | X |
| ES61 | Andalucía | X | X |
| ES62 | Región de Murcia | | |
| ES63 | Ciudad de Ceuta | | |
| ES64 | Ciudad de Melilla | | |
| ES70 | Canarias | | |

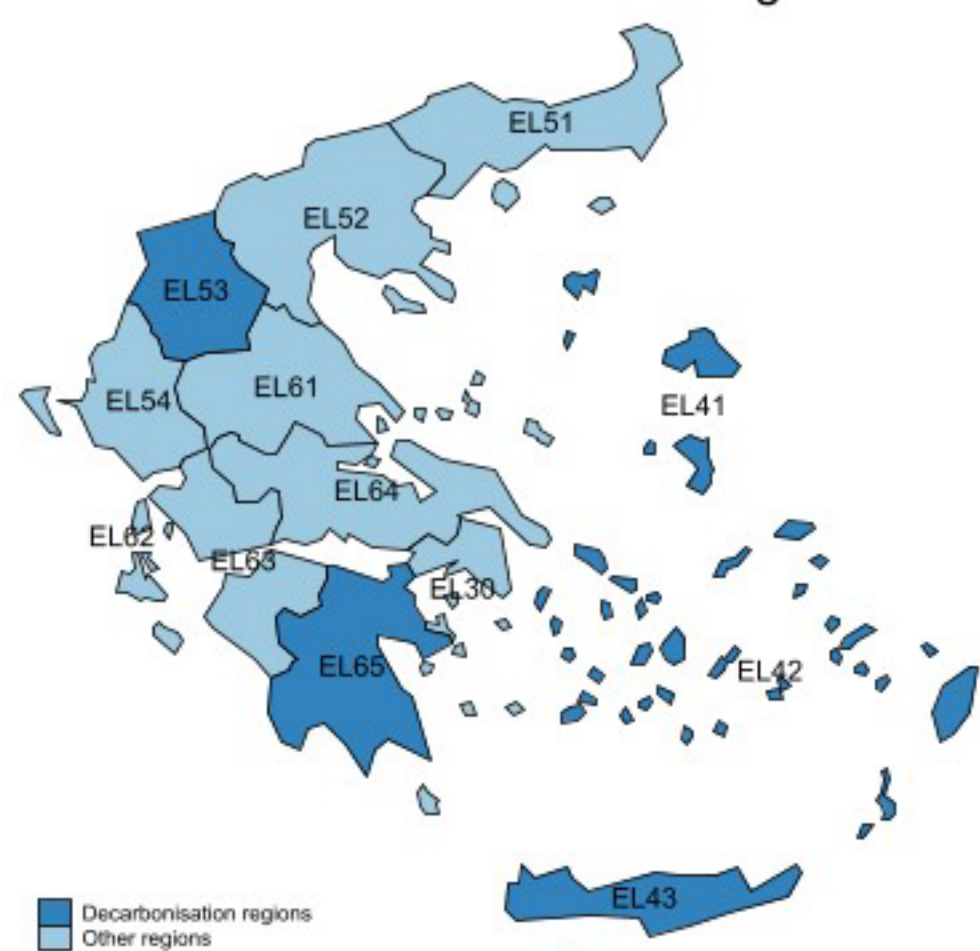


Regions - Greece

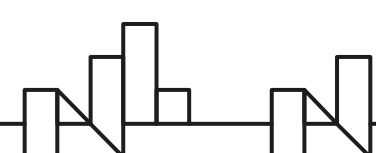
Greece- Co-working Regions



Greece- Decarbonisation Regions



| Greece | | Co-working | Decarbonisation |
|--------|-------------------------------|------------|-----------------|
| EL30 | Αττική | X | |
| EL41 | Βόρειο Αιγαίο | X | X |
| EL42 | Νότιο Αιγαίο | X | X |
| EL43 | Κρήτη | X | X |
| EL51 | Ανατολική Μακεδονία, Θράκη | X | |
| EL52 | Κεντρική Μακεδονία | X | |
| EL53 | Δυτική Μακεδονία | X | X |
| EL54 | Ήπειρος | X | |
| EL61 | Θεσσαλία | X | |
| EL62 | Ιόνια Νησιά | X | |
| EL63 | Δυτική Ελλάδα | X | |
| EL64 | Στερεά Ελλάδα | | |
| EL65 | Πελοπόννησος | X | X |

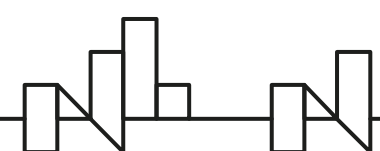


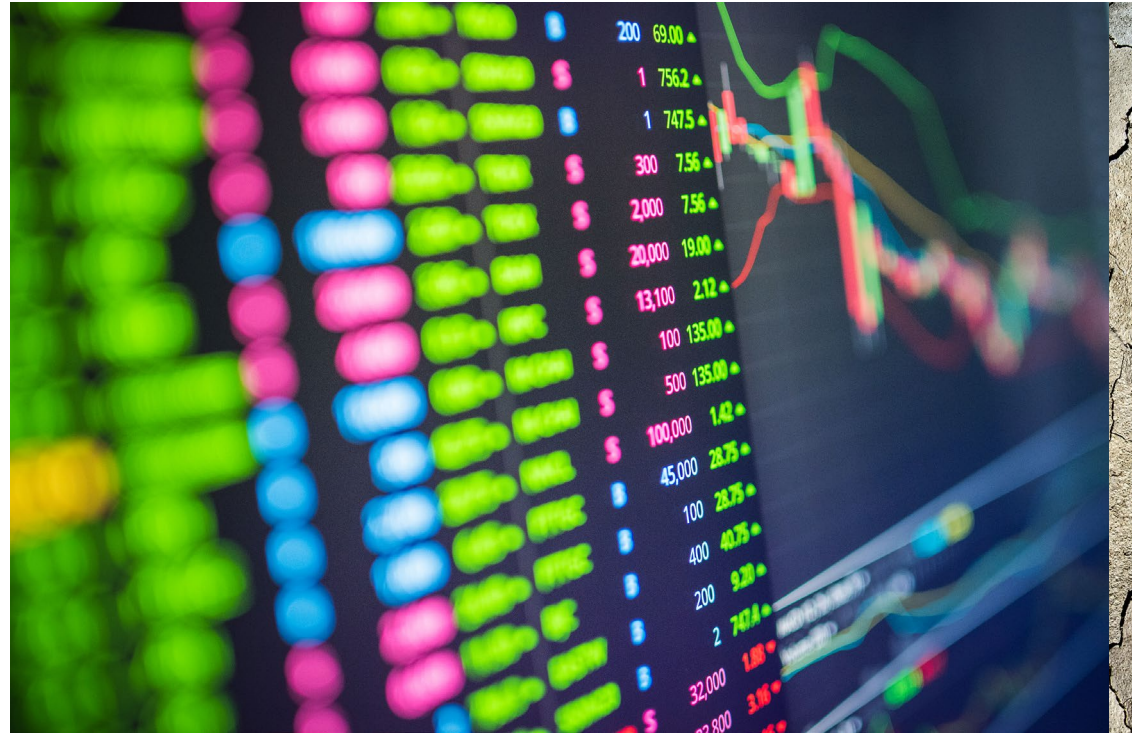
Regions - Ireland



| Ireland | | Co-Working | Decarbonisation |
|---------|----------------------|------------|-----------------|
| IE04 | Northern and Western | X | |
| IE05 | Southern | X | X |
| IE06 | Eastern and Midland | X | X |

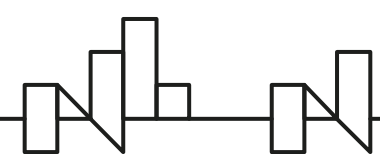
- Unfortunately, Ireland has to be collapsed into **one region** (for now) due to numerous changes to regional classification of core variables
 - Previously, two regions, now three regions. However, the midlands were passed from one region to another!



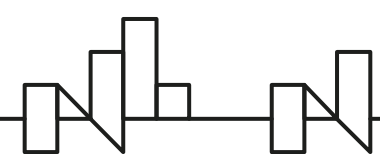
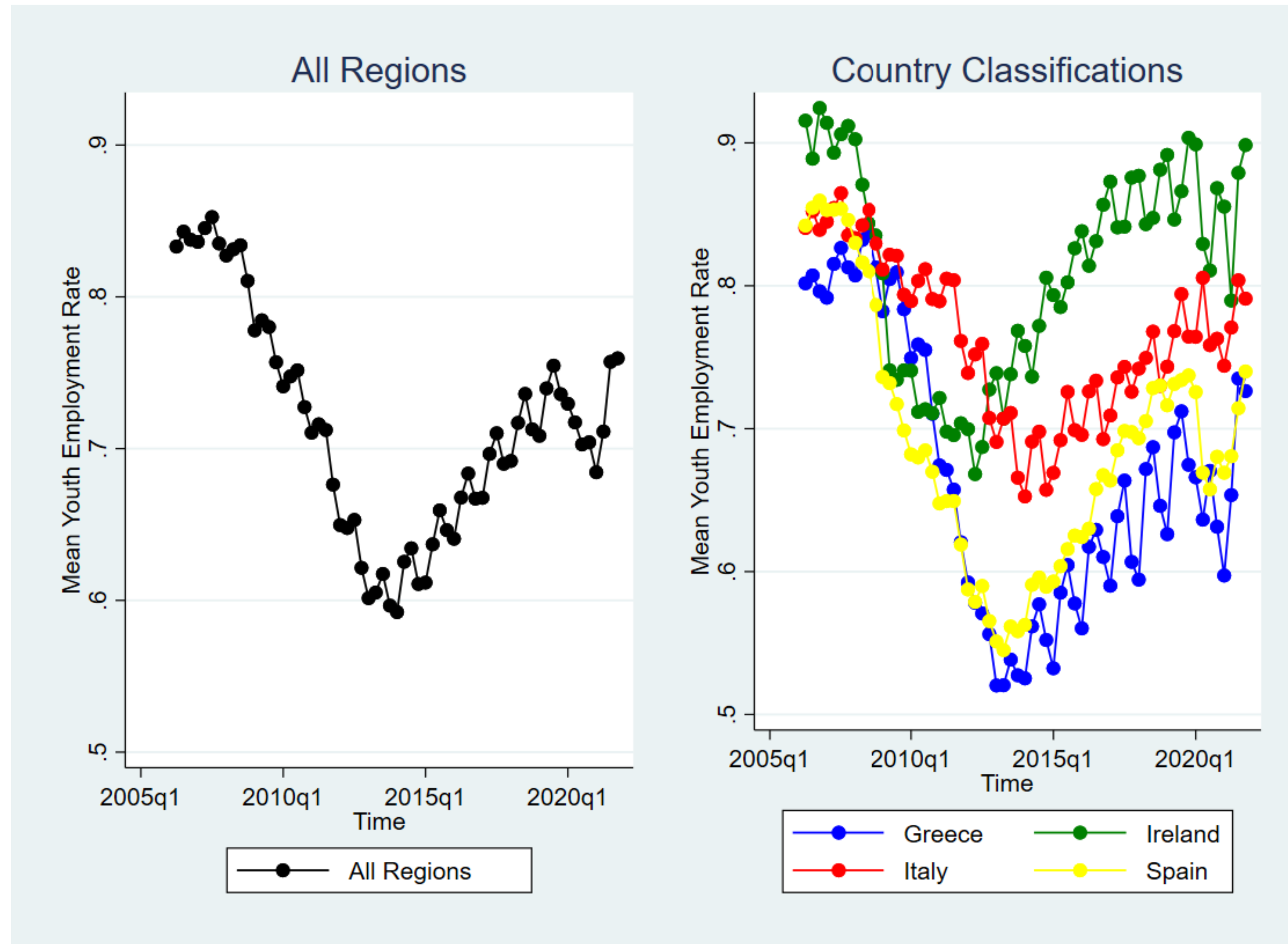


Data: Quarterly anonymized regional level (NUTS2 level) data from the **European Union Labour Force Study (EU-LFS)**

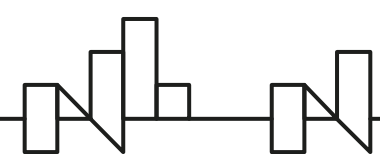
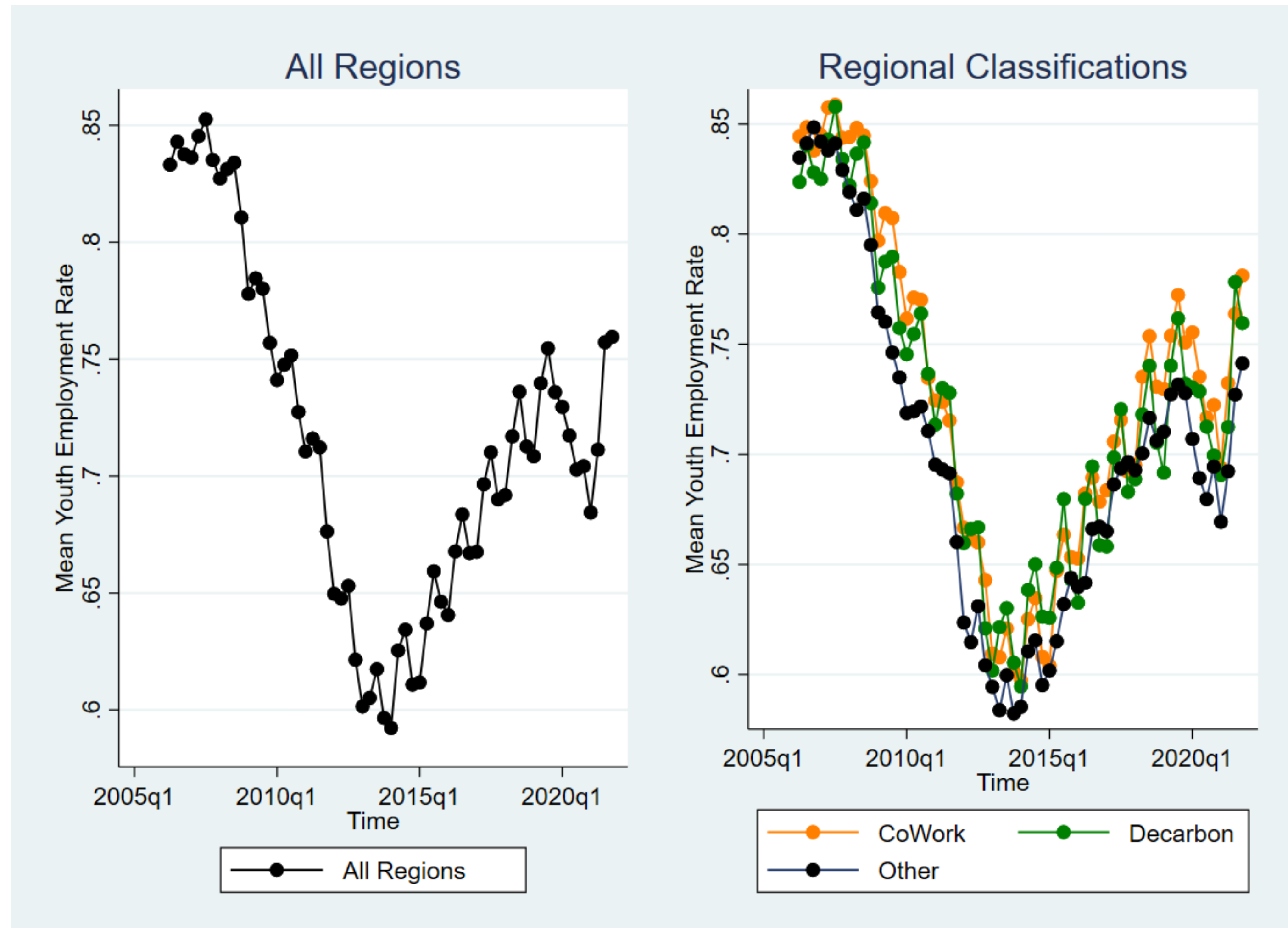
- Use micro level data to create regional macro level time series data
- **For Ireland, Spain, Greece and Italy (~50 regions)**
- For the period **Q1 2005 up to Q4 2021**
- For example, youth employment rate for region x in time period y is based on the percentage of youths aged 15 to 29 in the labour force reporting to be in employment
 - ~ 70 quarterly observations generated variable extracted for each country



Annual Average Youth Employment Rates by Country



Annual Average Youth Employment Rates by Region Type



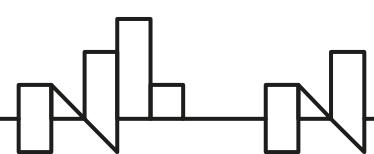
Methodology

- Estimate a Barro regression to assess the extent to which youth employment rates have converged or diverged over the period in these regions

$$\frac{\ln EmpY_t - \ln EmpY_0}{t} = \beta_0 + \beta_1 \ln EmpY_0 + \varepsilon$$

- GMM panel approach that accounts for both fixed effects (unobserved heterogeneity) and possible endogeneity of explanatory variables (Arellano and Bond, 1991) is used to examine the determinants of youth employment

$$\Delta EmpY_{it} = \alpha \Delta EmpY_{it-1} + \beta_j \Delta x_{ijt} + \Delta \varepsilon_{it}$$

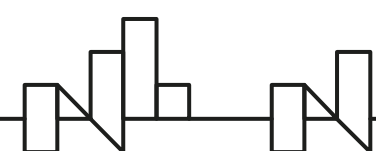


Barro Equations: Ongoing Divergence

- Our Barro equations indicate that youth employment growth between 2006 and 2021 was lower in regions with a lower initial levels in 2006

| Youth Employment Shares | All Regions (54) Coefficients | CoWorking Regions (21) Coefficients | Decarbonisation Regions (20) Coefficients | Other Regions (18) Coefficients |
|-------------------------|----------------------------------|--|--|------------------------------------|
| Total Youth Employment | 0.016** (0.007) | 0.002 (0.016) | -0.008 (0.012) | 0.034*** (0.009) |
| Male Youth Employment | 0.025*** (0.009) | -0.008 (0.028) | -0.006 (0.017) | 0.036*** (0.011) |
| Female Youth Employment | -0.002 (0.007) | -0.006 (0.012) | -0.014 (0.011) | 0.021* (0.011) |

Time period: 2006Q4 to 2021Q4 for 54 regions across four countries. Significance levels: *** p<0.01, ** p<0.05, * p<0.1



Possible determinants of youth employment rates

- **Labour Market Demand :**

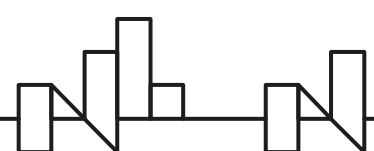
- + Share of employment in co-working sectors;
- + Share of employment in green sectors;
- - Share of employment in the brown sectors;
- + GDP per capita.

- **Labour Market Supply:**

- + Overall labour force participation rate;
- - Share of migrants in labour force;
- - Share of part-time workers;
- + Female workers in employment.

- **Relative D&S :**

- + Share of those tertiary educated;
- - Ratio of workers in High (2,3) to Low (7,8,9) SOC

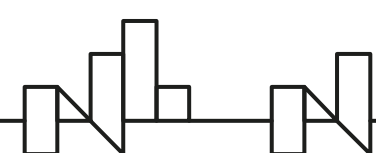


Determinants of Youth Employment across all Regions

NUTS2 Level Regions in Greece, Italy, Ireland & Spain

| VARIABLES | (1) Fixed Effects | (2) GMM-L1 |
|--|------------------------------------|------------------------------------|
| Overall participation Rate | 0.235*** (0.042) | 0.362*** (0.048) |
| % Migrants in Labour Force | -0.081** (0.041) | -0.252*** (0.056) |
| % Part-Time Workers | -0.116*** (0.043) | -0.274*** (0.054) |
| % Female Workers | 0.056 (0.063) | 0.237*** (0.074) |
| % Tertiary Educated | 0.040 (0.025) | 0.079*** (0.029) |
| Ratio of Workers in High (2,3) to Low (7,8,9) SOC | -0.031*** (0.006) | -0.043*** (0.007) |
| % Employed in CoWork Sectors | 0.141*** (0.026) | 0.131*** (0.041) |
| % Employed in Green Sectors | 0.049*** (0.018) | 0.056** (0.029) |
| % Employed in Brown Sectors | -0.610*** (0.176) | -1.121*** (0.256) |
| Ln GDP per capita | 0.106*** (0.010) | 0.147*** (0.013) |
| Q2 Seasonal Dummy | 0.021*** (0.002) | 0.020*** (0.002) |
| Q3 Seasonal Dummy | 0.018*** (0.002) | 0.016*** (0.002) |
| Q4 Seasonal Dummy | -0.006*** (0.002) | -0.006*** (0.002) |
| Lagged Youth Employment (L1) | 0.754*** (0.011) | 0.720*** (0.012) |
| Constant | -1.058*** (0.095) | -1.556*** (0.127) |
| Observations | 3,615 | 3,561 |
| R-squared | 0.817 | |
| Number of Regions | 54 | 54 |
| Prob > F | 0.00 | |
| Prob > chi2 | | 0.00 |
| A-Bond test AR(1), p (H0: no autocorrelation) | | 0.00 |
| A-Bond test AR(2), p (H0: no autocorrelation) | | 0.04 |
| A-Bond test AR(3), p (H0: no autocorrelation) | | 0.11 |
| Sargan Test, p(HO: overidentifying restrictions are valid) | | 0.00 |

*** p<0.01, ** p<0.05, * p<0.1

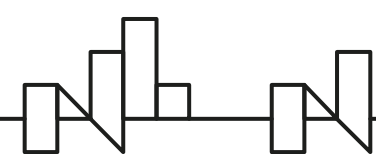


Determinants of Youth Employment across all Regions, Key variables

NUTS2 Level Regions in Greece, Italy, Ireland & Spain

| VARIABLES | (1) Fixed Effects | (2) GMM-L1 |
|------------------------------|----------------------|------------------|
| | (0.006) | (0.007) |
| % Employed in CoWork Sectors | 0.141*** | 0.131*** |
| | (0.026) | (0.041) |
| % Employed in Green Sectors | 0.049*** | 0.056** |
| | (0.018) | (0.029) |
| % Employed in Brown Sectors | -0.610*** | -1.121*** |
| | (0.176) | (0.256) |
| All control variables | Y | Y |
| Seasonal Dummies | Y | Y |
| Constant | -1.058*** | -1.556*** |
| | (0.095) | (0.127) |
| Observations | 3,615 | 3,561 |
| R-squared | 0.817 | |
| Number of Regions | 54 | 54 |
| Prob > F | 0.00 | |
| Prob > chi2 | | 0.00 |

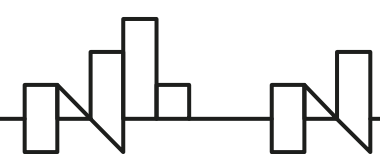
*** p<0.01, ** p<0.05, * p<0.1



Determinants of Youth Employment across Regional Classifications, Fixed Effects Model

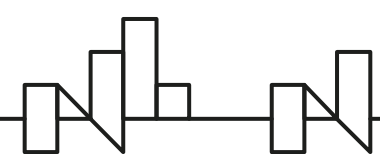
| VARIABLES | (1) ALL REGIONS | (2) COWORK. REGIONS FE-L2 | (3) DECARB. REGIONS FE-L2 | (4) OTHER REGIONS FE-L2 |
|------------------------------|-----------------------|---------------------------------|---------------------------------|-------------------------------|
| % Employed in CoWork Sectors | 0.141*** (0.026) | 0.197*** (0.060) | 0.064 (0.050) | 0.168*** (0.036) |
| % Employed in Green Sectors | 0.049*** (0.018) | -0.003 (0.035) | 0.109*** (0.037) | 0.050* (0.026) |
| % Employed in Brown Sectors | -0.610*** (0.176) | -0.731*** (0.212) | -0.757*** (0.206) | -0.874 (0.715) |
| All control variables | Y | Y | Y | Y |
| Seasonal Dummies | Y | Y | Y | Y |
| Observations | 3,615 | 1,407 | 1,407 | 1,203 |
| R-squared | 0.817 | 0.833 | 0.775 | 0.846 |
| Number of Regions | 54 | 21 | 21 | 18 |
| Prob>0 | 0.00 | 0.00 | 0.00 | 0.00 |

*** p<0.01, ** p<0.05, * p<0.1



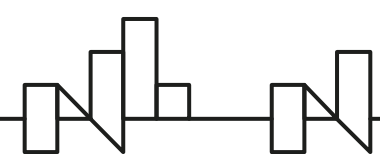
Conclusions I

- Youth employment rates decreased significantly, on average, across all regions over the period 2006-2014), increasing rates from 2014-2019, followed by another drop in rates due to COVID-19 and since the rates have been recovering
- Results from the Barro equation indicate that youth employment has been growing slower in regions where it was initially lowest – slow divergence
 - Particularly for youth male employment and in ‘other’ regions i.e. non co-work / decarbonization regions



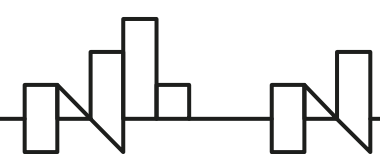
Conclusions II

- Young people are more likely to be exposed to higher rates of employment when regional labour markets have higher shares employees in sectors suitable for ‘coworking’ and ‘green’ sectors.
 - Also, when regional labour markets are buoyant (with high rates of participation and high GDP per capita) and when there are greater shares of females in employment and tertiary educated individuals
- In contrast, young people are more likely to be exposed to lower rates of employment when regional labour markets have higher shares of employees in ‘brown’ sectors.
 - Also, when labour markets have greater shares of migrants and part-time workers and when the ratio of workers in high (2,3) to low SOC is higher



Further Research

1. Investigate whether the determinants of youth employment have been stable over time, by examining models pre- and post- 2014
2. Investigate differential determinants of youth employment by gender



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Thank You