



**PRODUCTIVITY AND BUSINESS DYNAMICS:
AN OVERVIEW OF THE OECD MULTIPROD
AND DYNEMP PROJECTS**

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Based on work by the **MultiProd** and **DynEmp** teams

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Agenda

- Motivation
- MultiProd and DynEmp
 - Overview
 - Some of the policy questions that can be answered
 - How?
- Some key takeaways, so far
- Next steps...



Motivation

- Productivity slowdown
- Increasing divergences (earnings, between high and low performing firms), are these linked?
- Debate on job creation and firm characteristics
- Debate on declining business dynamism
- What role for policy?

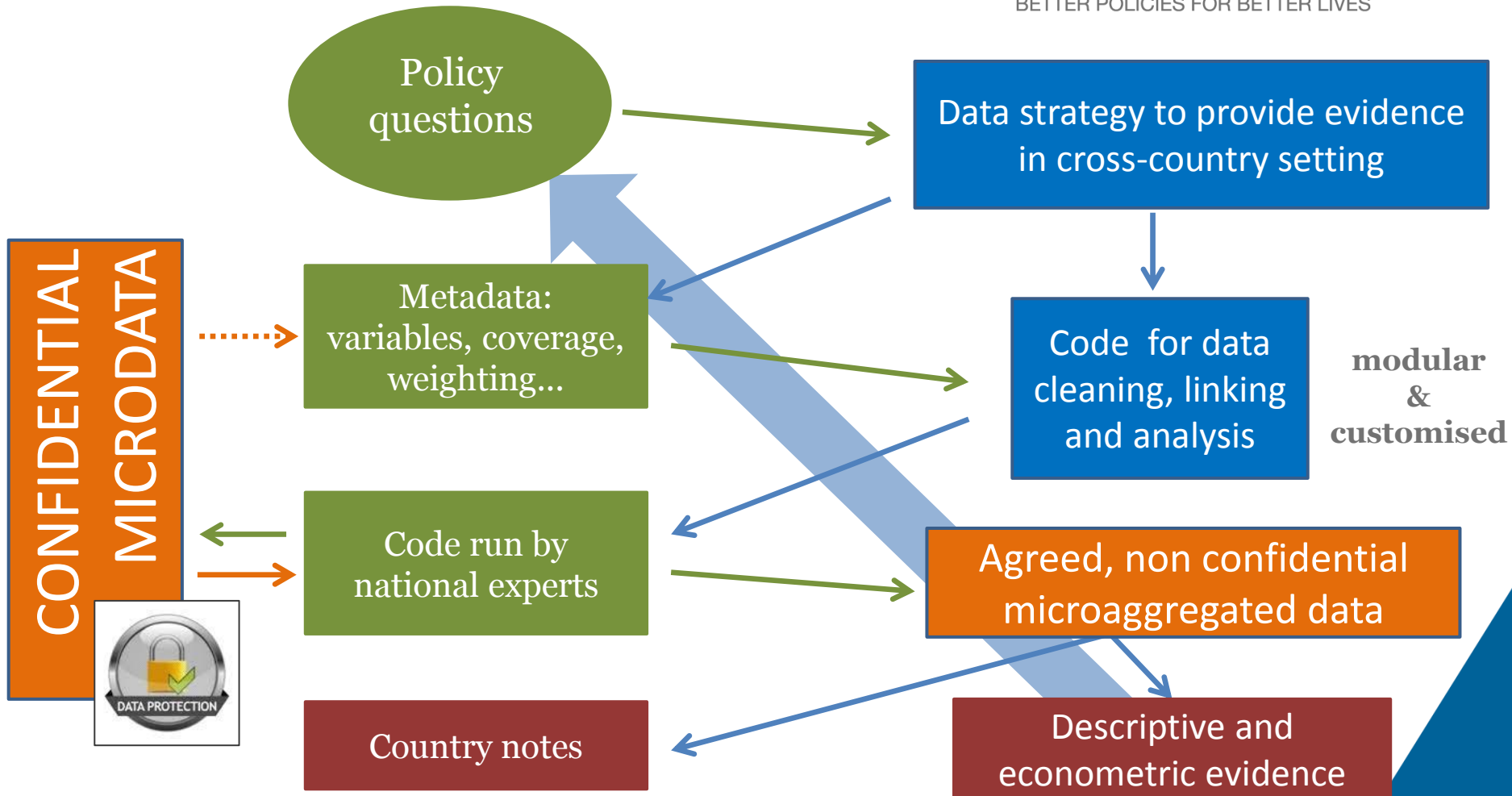


THE MULTIPROD AND DYNEMP PROJECTS



A distributed microdata approach

COUNTRIES





Productivity within and across countries: The OECD MultiProd project

Coverage:

- 24 countries (and expanding)
- Period: 1995-2012(4)
- Whole economy, detailed at 2-digit level
- Some statistics further refined by: i) age or/and size classes, ii) ownership, iii) quantiles of the productivity distribution or quantiles of the size distribution

Representativeness:

- Typically have whole population of firms
- For countries with partial data (production survey)
 - Reweight using Business Register population weights (if available)
 - Compute number of firms by year / sector / size class



MultiProd – A brief overview

Some of the policy questions that can be answered:

- Has divergence in productivity increased over time? Is the increase due to the top or the bottom of the distribution? Is this linked to wages dispersion?
- Is the allocation of resources efficient in a particular economy?
- What are the contribution of business dynamism to productivity growth?
- What is the role of large firms for the economy?

How?

- Measures of Productivity: LP; MFP Wooldridge; MFP Solow...
- Changes in distributions over time (productivity; wage and size)
- Firm-level productivity and employment growth
- Static and Dynamic Productivity decompositions
- Measures of Misallocation



Employment and business dynamics: the OECD DynEmp project

Building blocks and data sources:

- DynEmp
 - DynEmp Express, DynEmp v.2 and DynEmp3
 - Firm-level data from BR or other administrative sources
- DynEmp Regional
 - Focus at the local level (TL2 regions, metropolitan areas)
 - Plant-level data from administrative sources

Coverage:

- More than 20 countries participate in the project
- Data until 2015 (DynEmp3 and DynEmp Regional)
- Age, size, industry, employment growth percentiles, trade, ownership, transition dynamics following cohorts of firms

Representativeness:

- Data aim at universal (population) coverage



DynEmp – A brief overview

Some of the policy questions that can be answered:

- What kind of businesses create more jobs? What is the role of size and age?
- What role of start-ups and new firms for job creation across countries?
- What are the policy determinants of differences in employment growth between entrants and established incumbents?
- Is business dynamism declining?

How?

- Gross job flows
- Employment growth statistics: average employment growth, growth dispersion and volatility
- Business dynamism measures: churning rates and excess job reallocation rates; entry and exit rates
- Cohort-level analysis: survival shares, post-entry growth performance up to 10 years
- Distribution of employment growth rates



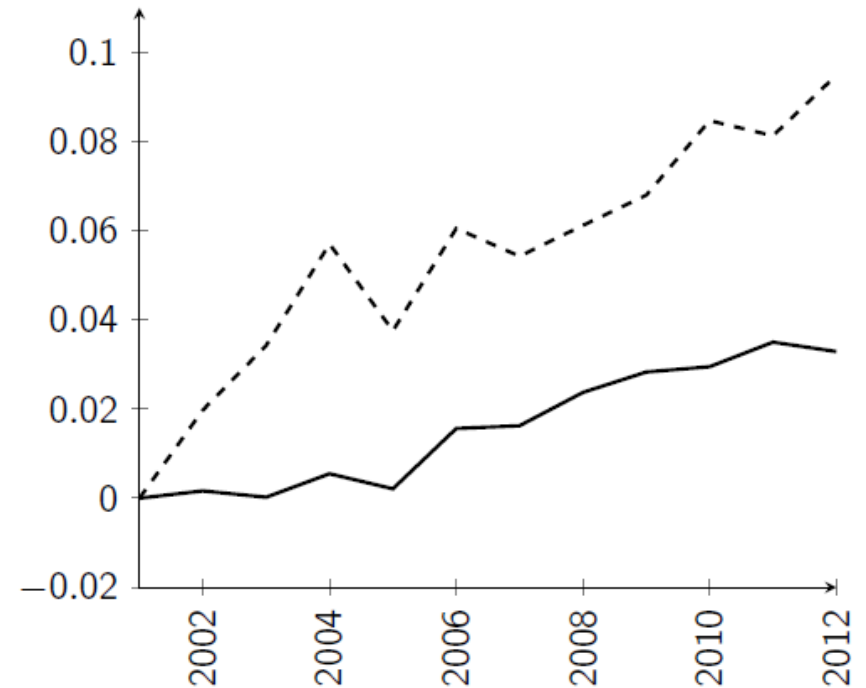
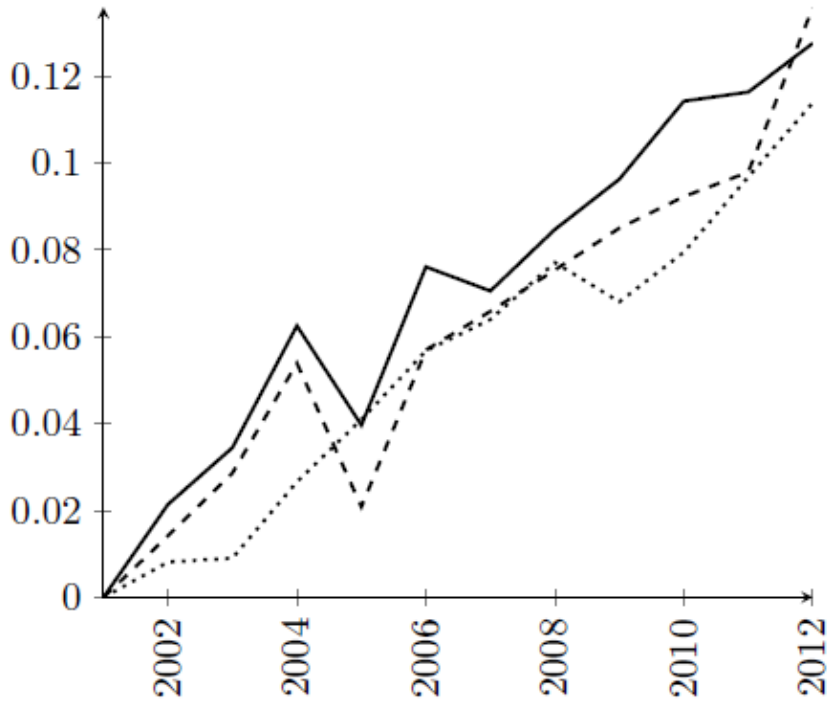
SOME KEY TAKEAWAYS, SO FAR



Increase in Productivity Dispersion, especially at the bottom of the distribution

— LP_VA 90-10 --- MFP_W 90-10 MFP_SW 90-10

— Log LP_VA 90-50
--- Log LP_VA 50-10

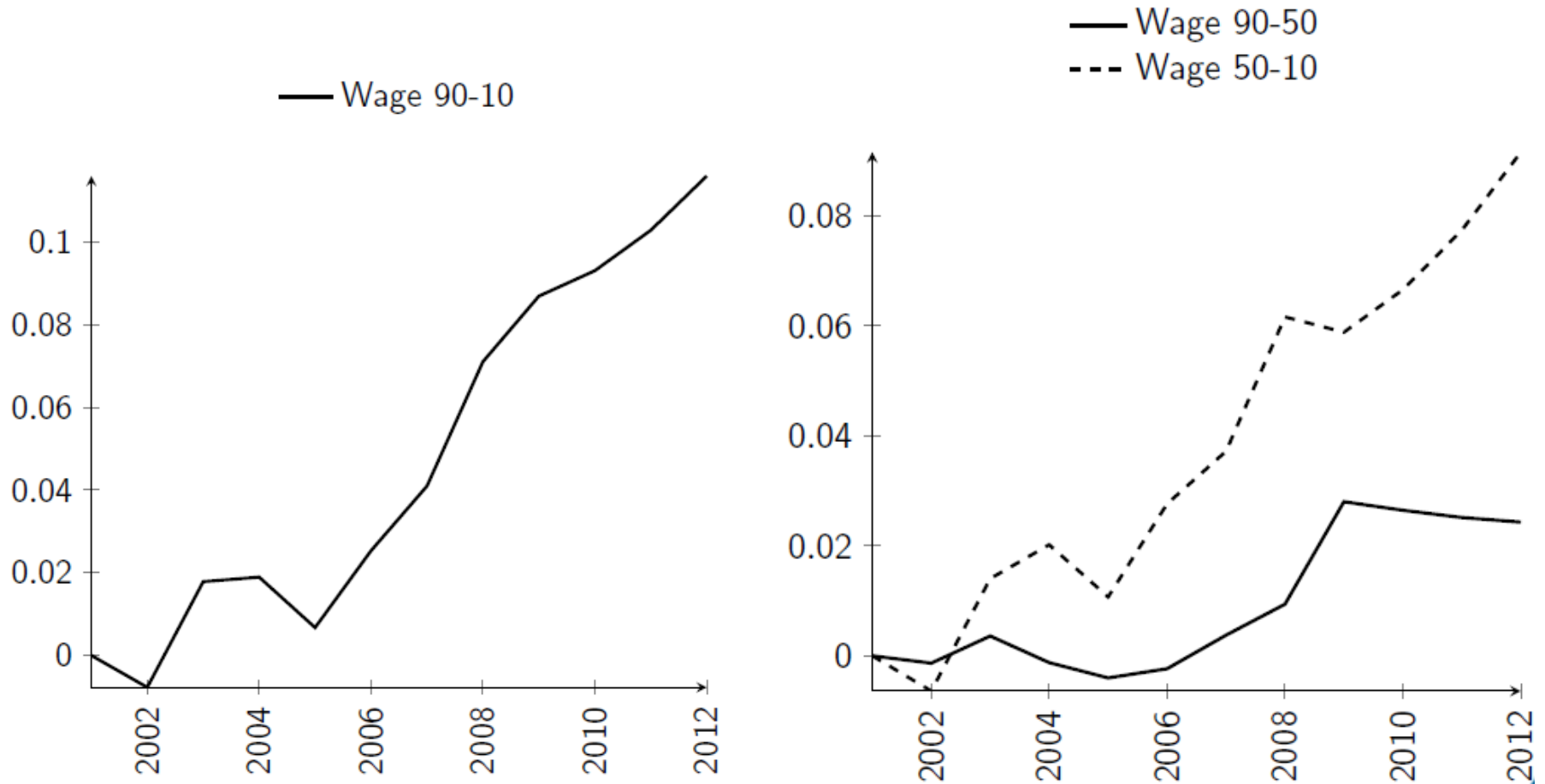


Source: Berlingieri et al. (2017).

Note: Year dummy estimates of a regression of between-firm log-productivity dispersion (90th to 10th percentiles ratio) within country-sector pairs.



But also... Increase in wage inequality, especially at the bottom of the distribution



Source: Berlingieri et al. (2017).

Note: Year fixed-effects of a regression of log-wage dispersion, within country-sector pairs.



These divergences are linked and depend on policy and structural factors

- Wage dispersion is linked to productivity dispersion within country-sector over time
- Role of policy and structural factors
 - Increased globalisation and digitalisation associated with wage divergence, and stronger productivity-wage dispersion link
 - Important role of minimum wages, unionization, EPL and wage coordination



Heterogeneity of employment dynamics along different dimensions

- Young firms are key for job creation across countries
- The extent to which new firms add new jobs to the existing workforce can be decomposed in
 - Start-up ratio
 - Average size at entry
 - Survival share
 - Post-entry growth
- Important cross-country variation along these margins
- New firms appear more vulnerable to policy failures than established incumbents



Declining business dynamism across countries



Source: OECD DynEmp v.2 database.



NEXT STEPS...



Next Steps

Data

- Extend the analysis to more countries
- Adding dimensions at the firm level (e.g.: skill/occupation composition)
- Use of matched employer-employee data

Analyses

- Digitalisation and business dynamics
- Understand the link among divergence, concentration, market power, and declining business dynamism
- Determinants of declining business dynamism
- Understand the links among wage, size and productivity
- Misallocation and the role of policy



THANK YOU!

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Further information online...

MultiProd

<http://www.oecd.org/sti/ind/multiprod.htm>

DynEmp

<http://www.oecd.org/sti/dynemp.htm>



Further reading

- Berlingieri, G., P. Blanchenay and C. Criscuolo (2017), "The great divergence(s)", OECD Science, Technology and Industry Policy Papers, No. 39, OECD Publishing, Paris.
- Berlingieri, G., P. Blanchenay, S. Calligaris and C. Criscuolo . (2017), "The Multiprod project: A comprehensive overview", OECD Science, Technology and Industry Working Papers, No. 2017/04, OECD Publishing, Paris.
- Calvino, F., C. Criscuolo and C. Menon (2015), "Cross-country evidence on start-up dynamics", OECD Science, Technology and Industry Working Papers, 2015/06, OECD Publishing, Paris.
- Calvino, F., C. Criscuolo and C. Menon (2016), "No Country for Young Firms?: Start-up Dynamics and National Policies", OECD Science, Technology and Industry Policy Papers, No. 29, OECD Publishing, Paris.
- Criscuolo, C., P. N. Gal and C. Menon (2014), "The Dynamics of Employment Growth: New Evidence from 18 Countries", OECD Science, Technology and Industry Policy Papers, No. 14, OECD Publishing.
- OECD (2016), "No Country for Young Firms?", Policy Note, Directorate for Science, Technology and Innovation Policy Note, June 2016.
- OECD (2017), "The Great Divergence(s): The link between growing productivity dispersion and wage inequality", Directorate for Science, Technology and Innovation Policy Note, May 2017.