

Workshop on the 6th CompNet data vintage – 26th April 2018

Summary

On 26th April the new 6th vintage of CompNet data was presented during a one-day workshop hosted by the ECB. The workshop brought together data users and data providers, including representatives from the ECB, Halle Institute, European Commission, several NCBs and National Statistical Institutes, the EBRD, EIB, ESM, OECD, as well as research institutes and the academia (see this [link](#) for the CompNet website). The main highlights are:

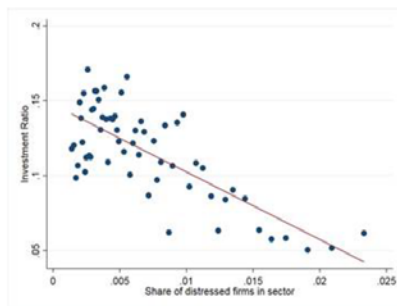
- **Significant improvements in the quality of the dataset**, which covers 18 EU countries (14 already available) plus Switzerland for the period 2002-15, and includes all 6 largest countries in the EU (DE, FR, IT, ES, NL, PL):
 - the *representativeness* of all firm samples (including firms below 20 employees) has improved greatly as a result of the new reweighting system;
 - the *cross-country report*: (i) *validates* CompNet's main indicators by comparing their levels and dynamics with those from aggregate standard sources; (ii) shows the *granularity of information* available for each indicator; (iii) shed some light on policy issues of interest;
 - a Working Group chaired by F. Di Mauro and including statisticians (Dutch Statistical Office, INSEE), prominent academics (M. Melitz, E. Bartelsman, C. Altomonte) and ECB staff has drafted an additional report providing detailed information on *cross-country comparability*, as well as all metadata underlying the dataset. The main conclusion is that the overall representativeness of data in each of the participating countries is of very good quality when compared with other micro-founded datasets using administrative sources. Regarding the issues that remain to be addressed, the report makes very *operational recommendations to data providers* to further improve harmonisation in future vintages. Most importantly and differently from other comparable datasets, the report documents all data features and limitations, so that *data users* can take them into account when undertaking their analyses.
- **Potential to shed light on several topics of policy interest**:
 - while it will be up to researchers and policy analysts to conduct the relevant analyses, several examples were presented and discussed, such as new evidence on distressed firms, wage-productivity disconnect, rise of super-star firms, and the export orientation of European regions ([see commented charts at the end of this summary \(*\)](#));
 - possibility to conduct micro-founded analyses on a wide range of variables, including e.g. trade, job creation and destruction, labour productivity, TFP, ULC, firm size, capital intensity, investment, allocative efficiency, market concentration, credit constraints, etc.
 - four presentations of recent or upcoming papers using CompNet data were given by the EBRD and ECB staff. They can be found in this [link](#), together with all other presentations at the seminar, the cross-country report and the cross-country comparability report.

- **Unique opportunity for discussion between data providers and data users** about:
 - The *data compilation process*. We discussed in detail the remaining bottlenecks, as well as ways to further improve the smooth running of CompNet statistical codes;
 - The possible *future extensions* of information collected under CompNet's umbrella, with the aim to respond to the evolving policy-relevant needs of data users. Examples are the systematic compilation of *regional data*, which started in this vintage for a few countries, and the compilation of information on *firm entry and exit*.

(*) SOME PRELIMINARY FINDINGS:

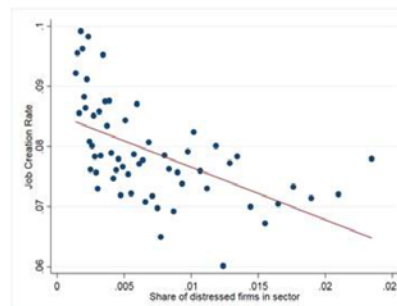
1. **Economic impact of distressed firms:** CompNet data on distressed firms include several different definitions (persistent negative profits, persistent interest coverage ratio below 1, control for dynamic start-ups, etc.) to allow analysts to choose the one which fits their research question best. We compute the share of distressed firms in each level of aggregation (sector, size class, region, etc.) and also in each decile of the TFP or size distribution within each level of aggregation. We also compute all characteristics of distressed firms. The chart below shows preliminary evidence of the economic impact of these firms: we find that **country-sector-years with a higher share of distressed firms are associated with significantly lower investment and job creation**.

Figure 4.13: Correlation between sector share of distressed firms and investment



Source: 6th vintage of CompNet
 Notes: On the y axis is reported median Investment ratio, measured as growth rate of capital plus depreciation, divided by capital. Zombie firms are defined as firms with interest payments higher than operating profits for 3 consecutive years, conditional on positive profits. Both variables are measured at the 2-digit industry for a given year and country, aggregated in a small number of bins for visualization purposes. The graph is based on the full sample of BE, CZ, FI, IT, LT, PL, PT, RO, SP and SE.

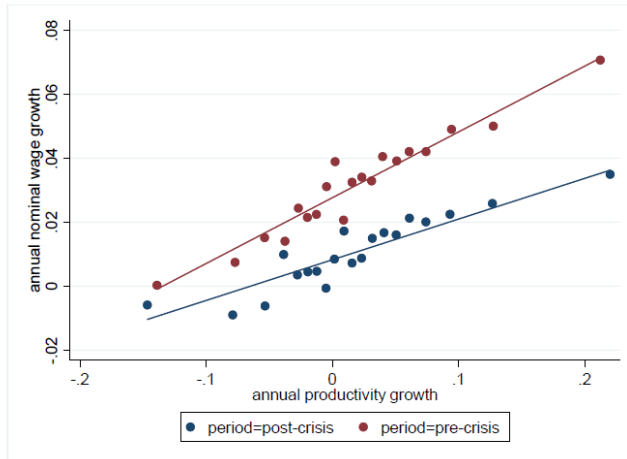
Figure 4.14: Correlation between sector share of distressed firms and job creation rate



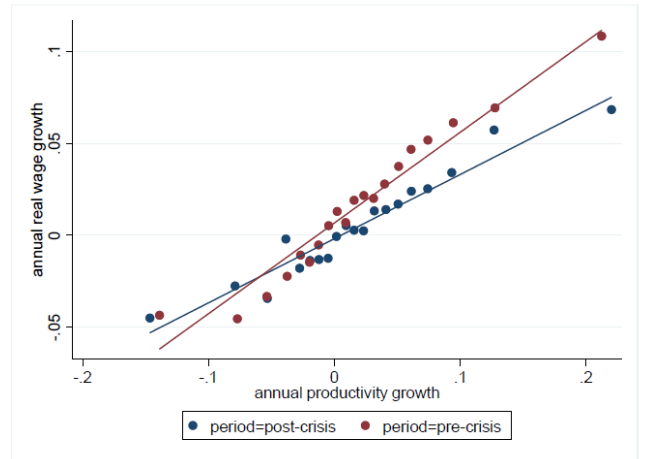
Source: 6th vintage of CompNet
 Notes: On the y axis is reported median Job Creation Rate, measured as weighted average of positive growth rates of number of employees.. Zombie firms are defined as firms with interest payments higher than operating profits for 3 consecutive years, conditional on positive profits. Both variables are measured at the 2-digit industry for a given year and country, aggregated in a small number of bins for visualization purposes. The graph is based on the full sample of BE, CZ, FI, IT, LT, PL, PT, RO, SP and SE.

2. **Understanding subdued wage growth in western Europe the post-crisis period:** The charts below focus on 7 western European countries and plot real wage growth against productivity growth in each country-sector-year by pooling together the pre-crisis period (2004-2007, in red) and the post-crisis period (2013-2015, in blue) for 2 different firm classes: the bottom 10% productivity firms (left) and the top 10% productivity firms (right). Interestingly, **in the post-crisis period there is an increasing wage-productivity disconnect, but only at the bottom part of the productivity distribution**.

Bottom 10% productive firms in each sector



Top 10% productive firms in each sector

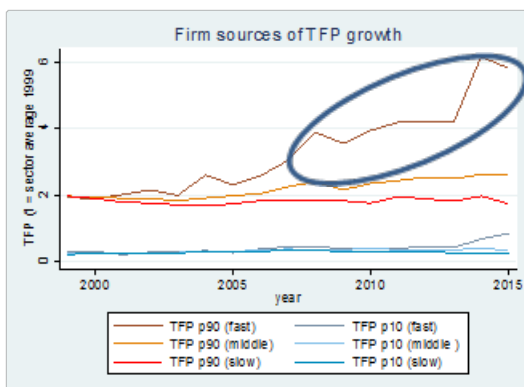


Sources: 6th vintage of CompNet, 20 employee sample.

Notes: The countries included are Belgium, Finland, Portugal, Sweden, France, Netherlands and Italy. Pre-crisis period is 2004-2007, and post-crisis 2013-2015.

3. The rise of super-star firms: We analyse the factors driving the growth of “frontier sectors” relative to “laggard sectors” in terms of TFP growth. To this aim, we pool all countries available together and compute the mean TFP growth in each of their 60 2-digit industries (about 550 sectors per year). We then split the sector TFP growth distribution in 3 parts: (i) the frontier sectors are sectors in the top third of the TFP distribution, (ii) the middle sectors are sectors in the middle third, and (iii) laggard sectors are sectors in the bottom third. The chart below shows the dynamics of the top and the bottom productive firms within each of these groups of sector (frontier, middle and laggard). Interestingly, **what makes the difference between frontier and laggard sectors are only the dynamics of the top firms in the frontier sectors**. The development of the bottom productive firms, on the other hand, is very similar in the frontier, middle and laggard sectors.

TFP cumulative growth of top and bottom firms in frontier, middle and laggard sectors



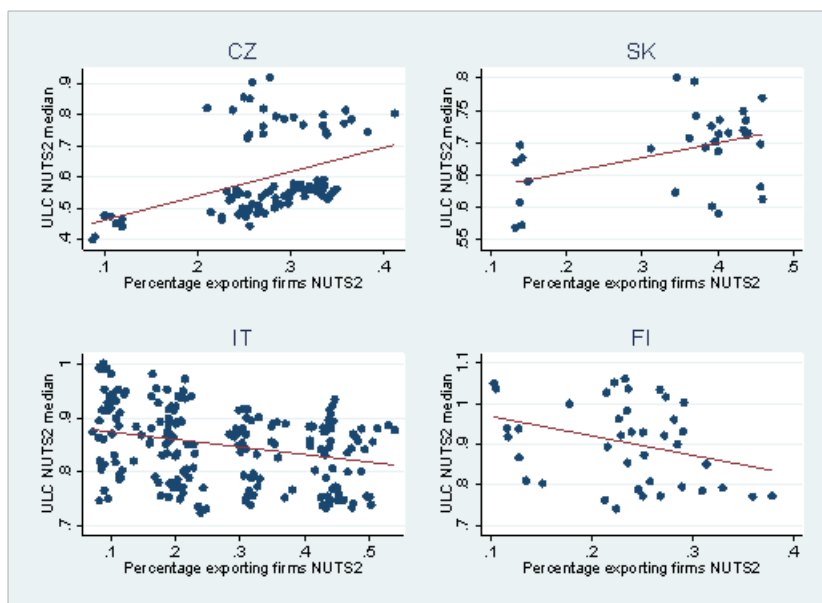
Dynamics of top productive firms in the fast growing sectors

Source: 6th vintage of CompNet data, full sample.

Notes: TFP is indexed to average productivity in 1999, which is the start year.

4. International openness and competitiveness of European regions: Using the newly available **regional data**, we explore whether regions more open to trade in a given country (as measured by the share of exporting firms in each region) show lower ULC growth, as would be expected. We focus on 4 EU countries, 2 western (Finland and Italy) and 2 eastern countries (Czech Republic and Slovakia). Interestingly, in the western countries the correlation is negative, as expected; that is, the more open to trade a region is, the lower the increase in median ULC. The correlation is, however, positive in the eastern countries. This could be due to the fact that such countries are deeply involved in GVCs and, therefore, the quality of inputs in the open regions is comparatively higher.

Median ULC and regional export orientation



Source: 6th vintage of CompNet, sample of firms with at least 20 employees

Notes: Countries included are the Czech Republic (CZ), Italy (IT), Slovakia (SK) and Finland (FI).

38 NUTS2 regions. Period: 2005-2015.