

## CompNet The Competitiveness Research Network



### CompNet Newsletter No.12 - November 2014

#### HIGHLIGHTS

- **Data validation** of the two CompNet data sets is ongoing.
  - For the macro data set, all programs generating indicators have been checked and results thoroughly analysed across teams (second round to be completed by mid-November)
  - The firm level data set (version 2) includes by now 13 countries (Belgium, Estonia, Finland, France, Germany, Hungary, Italy, Malta, Poland, Portugal, Slovakia, Slovenia, Spain). Country teams have been looking at the data and examined their “plausibility” against aggregate information and other available research. The process allowed teams to gain ownership of the dataset and its potential, as well as identifying needed improvements.
- **Methodological papers**, related to description and use of the two data sets are being finalised
  - Workstream 1: First version of Compendium on the macro set to be finalised by end November
  - Workstream 2:
    - Horizontal methodological paper on the updated micro-based data set. First draft to be ready by end-November. The paper will include
    - a detailed account of the construction of the data base, in depth analysis of its strengths and weaknesses, as well as a users’ guide on the appropriate use and interpretation of the data, particularly in terms of cross-country comparability.
    - Module-specific papers (trade, finance, labour and mark-up). Draft papers will be presented within the workstream sessions of the CompNe 15-16 December workshop and will be made available late January.
- **Data dissemination.** No data dissemination will take place outside the network at this stage. Broader circulation outside CompNet is left for the future, and requires reaching ex ante an agreement by all country teamson precise procedures.
- Various CompNet Workstream 1 and 2 indicators were used and discussed in **internal presentation** at the ECB.
- Workstream 3: research in the field of **Global Value Chains** is ongoing, with a focus on spillover effects and imbalances, the implications on the domestic economy, and the link with firm-level data.

► **CompNet after mid-2015:** Heads of research will be asked to support a continuation of the data collection, both Macro and Firm level. Documentation being prepared for their 11 December 2015 meeting will include:

- "CompNet firm level data quality assessment" by the ECB Statistical department.
- Request for a mandate to the Governing council related to CompNet in the longer term, to be defined by an appropriate steering committee, including procedures for data generation and dissemination.

## Research Output

### LATEST COMPNET WORKING PAPERS

#### Global value chains: surveying drivers and measures

Authors: João Amador, Sónia Cabral

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1739.en.pdf>

► *The production of most goods and services is nowadays vertically fragmented across different countries, as global value chains (GVCs) emerged as the current paradigm for the international organisation of production. This paper surveys part of the growing empirical literature on GVCs, starting by discussing the main driving forces of GVCs in recent decades. Next, it surveys the indicators used to map and measure this phenomenon, accounting for their different scopes and required datasets.*

#### Measuring the effectiveness of cost and price competitiveness in external rebalancing of euro area countries: What do alternative HCIs tell us?

Authors: Styliani Christodouloupoulou, Olegs Tkacevs

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1736.pdf>

► *This study examines the marginal effects of traditional determinants of exports and imports with a focus on the role of price competitiveness in restoring external balances. It is a first attempt to compare marginal effects of various harmonised competitiveness indicators (HCIs) on both exports and imports of both goods and services across individual euro area countries. We find evidence that HCIs based on broader cost and price measures have a larger marginal effect (with some exceptions) on exports of goods. Exports of services are sensitive to HCIs in big euro area countries and Slovakia, where exports of services are also found more sensitive to competitiveness indicators based on broader price measures. Imports of goods and imports of services are quite insensitive to changes in relative prices. Finally, in some cases measures of fit indicate that a large unexplained residual part is present, implying that other non-price related factors might play an important role in driving foreign trade.*

#### Export dynamics and sales at home

Authors: Nicolas Berman, Antoine Berthou, Jérôme Héricourt

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1720.pdf>

► *Using a French firm-level database that combines balance-sheet and product-destination-specific export information over the period 1995-2001, we study the interconnections between exports and domestic sales. We identify exogenous shocks that affect the firms' demand on foreign markets to instrument yearly variations in exports. We use alternatively as instruments product-destination specific imports or tariffs changes, and large foreign shocks such as financial crises or civil wars. Our results show that exogenous variations in foreign sales are positively associated with domestic sales, even after controlling for changes in domestic demand. A 10% exogenous increase in exports generates a 1 to 3% increase in domestic sales in the short-term. This result is robust to various estimation techniques, instruments, controls, and sub-samples. We provide empirical*

evidence suggesting that this positive effect of exogenous changes in exports on domestic sales is related to a relaxation of short-run liquidity constraints.

### **Intra-industry trade between CESEE countries and the EU15**

Authors: Ernest Dautovic, Lucia Orszaghova, Willem Schudel

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1719.pdf> ► *The rapid increase in intra-industry trade (IIT) between the EU15 and Central, Eastern and South-Eastern European (CESEE) countries after the collapse of the Soviet Union indicates a structural change in the nature of trade in CESEE and a new process of transition and real convergence to the EU. Using a product-level trade flows database and employing linear and non-linear panel data specifications, this paper assesses the determinants of intra-industry trade between the EU15 as the main trading block and CESEE, which are further divided into the 'new' EU member states (NMS) and the EU candidate countries and potential candidates (CCPC). The analysis highlights the importance of intra-industry trade in terms of achieving real convergence. The paper finds that there exist some common factors driving IIT across the sample, such as the corporate tax rate, the flexibility of exchange rate regimes and the quality of political institutions. However, the determinants of IIT between NMS and EU15 countries deviate considerably from those between CCPC and EU15 countries.*

### **A consistent set of multilateral productivity approach-based indicators of price competitiveness**

Authors: Christoph Fischer, Oliver Hossfeld

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1706.pdf>

► *We propose a novel, multilaterally consistent productivity approach-based indicator to assess the international price competitiveness of 57 industrialized and emerging economies. It is designed to be a useful assessment tool for monetary policy authorities and, thereby, differs from previously proposed indicators, which are hardly applicable on a day-to-day basis. Special attention has been paid to an appropriate selection of price and productivity data in levels as opposed to indices, and to the treatment of country fixed effects when interpreting currency misalignments. The discussion of the results focuses on the larger economies of the sample. At the current juncture, and in contrast to the prevailing view, we find US price competitiveness to be above and China's price competitiveness to be below its derived benchmark.*

### **European competitiveness - A semiparametric stochastic metafrontier analysis at the firm level**

Authors: Marijn Vershelde, Michel Dumont, Glenn Rayp, Bruno Merlevede

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1701.pdf>

► *In this paper a semiparametric stochastic metafrontier approach is used to obtain insight into firm-level competitiveness in Europe. We differ from standard TFP studies at the firm level as we simultaneously allow for inefficiency, noise and do not impose a functional form on the input-output relation. Using AMADEUS firm-level data covering 10 manufacturing sectors from seven EU15 countries, (i) we document substantial, persistent differences in competitiveness (with Belgium and Germany as benchmark countries and Spain lagging behind) and a wide technology gap, (ii) we confirm the absence of convergence in TFP between the seven selected countries, (iii) we confirm that the technology gap is more pronounced for smaller firms, (iv) we highlight the role of post-entry growth for competitiveness.*

### **Intermediate inputs, external rebalancing and relative price adjustment**

Authors: Rudolfs Bems

Paper available at: <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1699.pdf>

► *This paper proposes a methodology for tracing out the effect of intermediate inputs, including ‘processing trade’, on the link between external rebalancing and relative price adjustment. We find that neglect of inputs distorts parameterization of the traditional multi-sector macro model. Distortions affect the link between external rebalancing and relative price through several opposing channels. (1) Mismeasured imported inputs exaggerate economic openness and understate the price response to rebalancing. (2) Mismeasured domestic inputs increase cross- sectoral asymmetry in openness, leading to an overstated price response. (3) Mismeasured price elasticities tend to overstate the price response. (4) Distortions in model parameters interact to generate a sizable further understatement of the price response. Quantitative results show that the identified channels can each be significant in economic terms.*

## RESEARCH PIPELINE

An updated version of the **CompNet Research Pipeline**, which contains a list of on-going projects, is now available for each worksteam separately:

WS1: [http://www.ecb.europa.eu/home/pdf/research/compnet/ongoing\\_research\\_pipeline-WS1.pdf?f4ee63a060722cd6dfdadc263fc6fe39](http://www.ecb.europa.eu/home/pdf/research/compnet/ongoing_research_pipeline-WS1.pdf?f4ee63a060722cd6dfdadc263fc6fe39)

WS2: [http://www.ecb.europa.eu/home/pdf/research/compnet/updated\\_research\\_pipeline-ws2.pdf](http://www.ecb.europa.eu/home/pdf/research/compnet/updated_research_pipeline-ws2.pdf)

WS3: [http://www.ecb.europa.eu/home/pdf/research/compnet/ongoing\\_research\\_pipeline-WS3.pdf?fa3fef3e258ad6f740194562f63941d8](http://www.ecb.europa.eu/home/pdf/research/compnet/ongoing_research_pipeline-WS3.pdf?fa3fef3e258ad6f740194562f63941d8)

In case of any additional project to be included or any information to be updated, please e-mail us at [compnet@ecb.europa.eu](mailto:compnet@ecb.europa.eu).

## CompNet Workshops and Events

► Forthcoming Events include:

15-16 December 2014: CompNet workshop at ECB, Frankfurt am Main

26-27 March 2015: CompNet workshop in Madrid

25-26 June 2015: CompNet Conference on “Enhancing competitiveness and fostering sustainable growth: methodological issues and empirical results” (Presentation of CompNet final report to the academic and policy community at the European Central Bank).

## Further Information

- All relevant information and documents on objectives and output of the network can be found on the **CompNet website** at: [http://www.ecb.europa.eu/home/html/researcher\\_compnet.en.html](http://www.ecb.europa.eu/home/html/researcher_compnet.en.html).

For further information or suggestions, please e-mail us at [compnet@ecb.europa.eu](mailto:compnet@ecb.europa.eu).