OECD GLOBAL FORUM ON TRADE 2016

SESSION 1:
BACKGROUND DOCUMENT

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Trade and Investment Linkages in Global Value Chains: Insights from the new TiVA-MNE Dataset

The development of trade statistics in value-added terms has been a big step forward to understand global value chains and global trade relations between countries. Many policy implications have been derived from a new approach focusing on the value added generated by exports in different economies. For example, the OECD TiVA database has highlighted that three-quarter of world trade is composed of intermediate and capital products and only 25% of final goods and services exported to consumers. Most of trade is about moving inputs and factors of production across countries in what has been described as global value chains.

But these new insights are still partial since firms’ global strategies have not yet been included in large detail. A particular policy concern in a large number of countries relates to the ownership dimensions of firms, i.e. the importance of multinational enterprises (MNEs) as a driving force of GVCs because of their widespread networks of foreign affiliates resulting from their foreign investment across different countries. It means that there is also an investment network, not necessarily and fully overlapping with the production network in which trade in value-added takes place.

A new analytical dataset: the TiVA-MNE project

In order to introduce an ownership and investment dimension in TiVA, the current database has been linked with statistics on Activities of Multinational Enterprises (AMNE) by STI and TAD. A document from STI [DSTI/IND(2014)6] has first developed a methodology and offered preliminary estimates based on available data from the OECD AMNE database. STD has also provided similar estimates as part of its work on firm heterogeneity and TiVA [STD/CSSP/WPTGS(2015)36]. Moreover, STD aims at improving the collection of ownership information within the supply-use tables framework underlying the next generation of TiVA statistics and has joined efforts with DAF to combine FDI statistics with TiVA [COM/STD/WPTGS/DAF/WGIIS(2016)1]. Largely because of limited data availability, these plans will only materialise in the (near) future.
To provide a more complete set of estimates using currently available data, STI and TAD have worked on a parallel project linking TiVA with AMNE statistics. A full description of the methodology will be released at the same time as reports are presented next year to the Committee on Industry, Innovation and Entrepreneurship (CHE) and to the Working Party of the Trade Committee (WPTC). Box 1 provides a brief summary of what has been done. The project has no ambition to create a new set of statistics to be officially released; rather it offers analytical data for policy analysis thereby well acknowledging the limitations of the available information. This note aims to introduce some preliminary results and to indicate some directions for further policy analysis during the PWB 2017-2018.

**First insights from preliminary tables and policy issues that can be addressed**

*Location versus ownership in output of foreign affiliate*

The distinction between global output according to ownership allows to analyse the importance of exports at the one side and international investment/production at the other side in the internationalisation strategies of firms. Figure 1 provides a comprehensive overview of world foreign affiliate (FA) output and its distribution across regions both in terms of the location where foreign affiliates operate (inward activities) and the region of parent companies (outward activities). OECD countries account for a very large share of world FA output, in terms of inward activities (59%) and even more in terms of outward activities (85%). For key partners and non-OECD economies, there is on the contrary a low share of outward FAS while inward FAS reflect more the weight of these countries in the world economy. Only some high-income economies in Asia follow the same pattern as OECD countries with more outward activities.

![Figure 1. Share of world foreign affiliate output, by region (2011)](source: TiVA-MNE database, preliminary results. ‘Non-OECD Asia’ includes Chinese Taipei, Hong Kong, Malaysia and Singapore. ‘Non-OECD: Central & Eastern Europe’ includes Croatia, Lithuania, Bulgaria and Romania.)

The evolution over time indicates that MNEs from emerging economies are catching up in terms of outward activities but unlike what can be seen by looking at trade networks, the view from foreign affiliate activities suggests that the integration of emerging and developing countries in the world economy is slower in terms of the investment network.
A new decomposition for gross exports revealing the contribution of foreign affiliates

By adding an ownership dimension in TiVA, the TiVA-MNE tables allow us to revisit TiVA statistics to show the contribution of foreign-owned firms in the value-added in exports (Figure 2). Instead of simply decomposing gross exports into a domestic and foreign component, one can make apparent the role of the foreign-owned firms both in the generation of domestic value added (the foreign affiliates established in the exporting economy) and in the use of inputs (the inputs imported by these foreign affiliates, including from their parent economy).

Figure 2. Domestic and foreign content of gross exports, by country and type of ownership, % (2011)

Source: TiVA-MNE database, preliminary results.

From a policy point of view, identifying the value added generated by foreign-owned firms in the exporting economy is important to understand the benefits of FDI and how the entry of foreign firms determines countries’ export capacity. It puts the emphasis on the complementarity between inward FDI and exports. The above decomposition highlights that the contribution of foreign-owned firms is very different across countries, with implications in terms of how much FDI matters for exports and what type of trade or investment barriers are the most detrimental.

A new breakdown of world GDP analysing the links between trade and investment networks

Adding an ownership dimension in the process the value creation in exports but also domestic sales allows to look world GDP from a complete different angle: who creates value added, where and how (Figure 3). This provides a better understanding of the relative importance of trade and activities of foreign affiliates and where they overlap.

Most of the value-added in the world is by domestic-owned firms in their domestic market (69%). This figure refers to the domestic part added by the domestic-owned firms notwithstanding the production of most of the final products has involved a foreign part. The grey part of Figure 3 is therefore not to be understood as being outside GVCs. It is for a large part the continuation of international production at home (for example the distribution activities at the end of the GVC when local retailers sell international products -case studies evaluate such trade margins to be on average between 15% and 25% accounting for a significant part of GDP in all countries).
In terms of value added, trade represents a higher share of world GDP than foreign affiliate sales (whether domestic or corresponding to exports). Trade accounts for about 22% of world GDP while activities of foreign affiliates are estimated around 14%. The overlap between trade and sales of foreign affiliates can be seen in the 5% of value-added in exports by foreign-owned firms. In this case, the value added is both found in exports statistics and FAS statistics.

**Directions for further policy research**

A number of additional directions for policy analysis are foreseen in this project in the next PWB:

- **MNEs in the global economy**: The ownership dimension does not allow to fully analyse the role of MNEs in the global economy (e.g. domestic owned companies are both MNEs and non-MNEs). Additional efforts are planned to provide a more comprehensive picture of the importance of MNEs in GVCs and the global economy.

- **Servicification**: In the above charts, no distinction was introduced between manufacturing and services but the same way the TiVA data have revealed the importance of services as inputs in value chains, there are additional policy implications from a closer look at services in sales of foreign affiliates (Mode 3 trade in services in the GATS). The value-added perspective offers a better comparison when it comes to the economic importance of Mode 1 versus Mode 3.

- **Digitalisation**: New business models are increasingly based on the use of digital technologies, which can be expected to impact the structure of GVCs. The TiVA-MNE data can be used to incorporate in the analysis the role of foreign-owned firms, like for example digital trade or e-commerce which are also often at the interface between trade and investment.

- **Trade slowdown**: Some questions in explaining the trade slowdown are related to changing strategies of MNEs and a possible shift from exports to sales of foreign-affiliates or domestic firms. More recent data (beyond 2011) will be used within the TiVA-MNE framework to address this issue in more detail.