

International trade and investment

Two sides of the same coin?

International trade and investment have traditionally been regarded as two alternative internationalisation strategies of companies. In cases where transport costs and trade barriers are low while scale economies important, companies prefer to concentrate their production in the home economy and serve foreign markets through trade. In contrast, when international trade costs are rising and scale economies are not too significant, companies favour international investment, as it allows to save on transport costs and to circumvent trade barriers by producing directly in final markets. In the presence of these horizontal Multinational Enterprises (MNEs) producing the same type of (final) products in different countries, international trade and investment indeed act merely as substitutes.

But with the growing fragmentation of production across countries in global value chains (GVCs), a strong complementary relationship between international trade and investment emerged. Vertical MNEs locate different production activities in different countries according to the most advantageous location factors. They produce inputs in one country and then export these to another country to be included in the subsequent production stage. As vertical investment results in higher trade and particularly intra-firm trade within the MNE network, trade and investment have recently often been described as ‘two sides of the same coin’ in GVCs.

Reality is however not that simple. Companies typically tend to combine horizontal and vertical strategies in their affiliates abroad (which the literature typically indicates as ‘complex Foreign Direct Investment (FDI)’). One example, is the so-called ‘export-platform FDI’ where companies concentrate production in one location abroad and serve the neighbouring markets in the same region through trade. Further on, a significant share of investment cannot be described as horizontal or vertical. It is the case of investments in related activities for diversification purposes (‘conglomerate FDI’) as well as investments where the objective is to acquire technologies, know-how or specific assets owned by foreign firms (‘investment in capabilities’).

Existing policies – still largely reflecting the ‘old’ view on trade and investment as distinct internationalisation strategies – are largely targeted at trade and investment separately. The trade-investment nexus has increasingly become prominent in a world characterised by GVCs, hence calling for a reassessment of current policies. This note sheds some more light on the changing interdependencies between international trade and investment in today’s global economy based on new empirical evidence developed in the OECD analytical AMNE database. Since FDI statistics only include financial information, data on the economic activities of MNE affiliates abroad – as the result of international investment – are needed to develop more detailed insights.

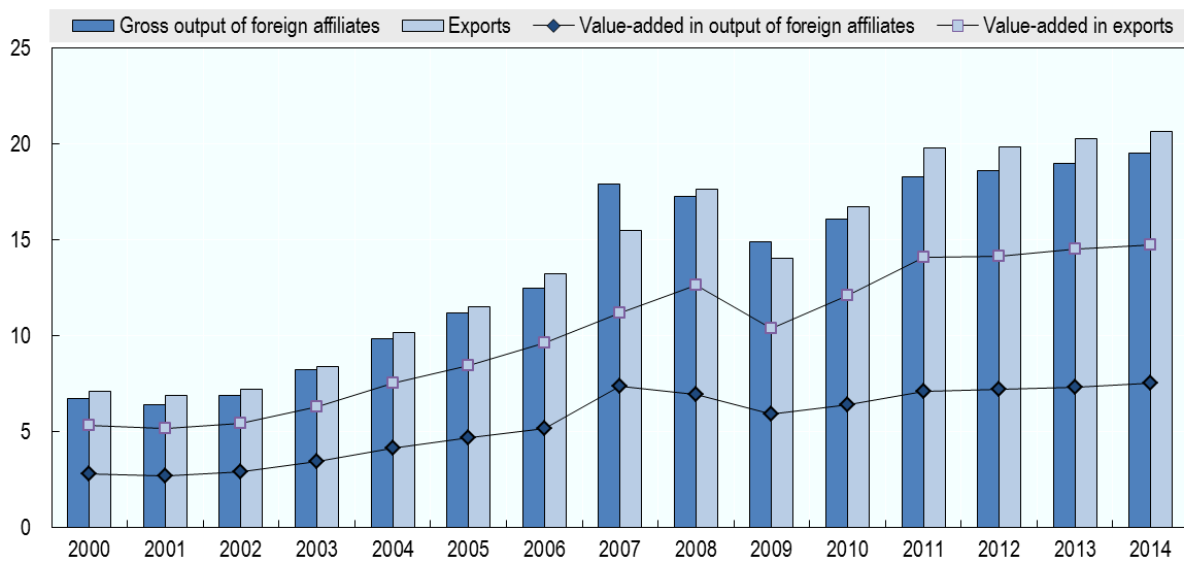
Growing international trade and investment (i.e. production by foreign affiliates)

Both international trade and investment have significantly increased between 2000 and 2014 reflecting the rising globalisation (Figure 1). World exports and gross output of foreign affiliates both accounted for about 20 trillion USD in 2014. The evolution over time suggests a complementary relationship between trade and investment: trade and investment increase or decrease simultaneously during the period of strong GVC expansion in the first half of the 2000s and during the financial crisis in 2007-2008 respectively.

While exports and the output of foreign affiliates are more or less equal in gross terms, the value added content of exports is almost double of this of investment due to differences in double counting (Box 1). To compare trade and the output of foreign affiliates, one has to be careful when using gross figures.

Figure 1. World exports (all firms) and production by foreign affiliates, USD trillion, 2000-2014

In gross and value-added terms

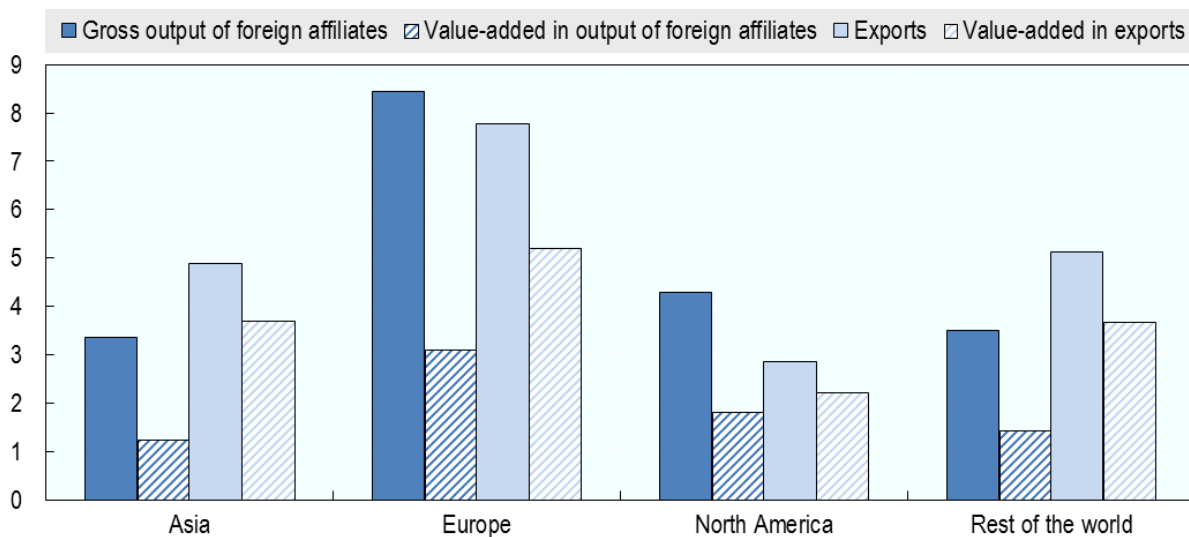


Source: OECD Analytical AMNE database.

Important differences in the prevalence of trade and investment exist across regions (Figure 2). In Europe and North America, investment plays a more important role as compared to Asia for example. It can be explained by economic integration within the European Union and NAFTA that benefits both the MNEs from these regions in their intra-regional operations and the MNEs from other regions that can set up affiliates to serve the regional market. In Asia, gross exports are larger than the gross output of foreign affiliates but the difference becomes bigger in value-added terms. It suggests that in addition to relying more on trade, MNEs operating in Asia are also relying more on domestic inputs.

Figure 2. Exports (all firms) and production by foreign affiliates, by region, USD trillion, 2014

In gross and value-added terms

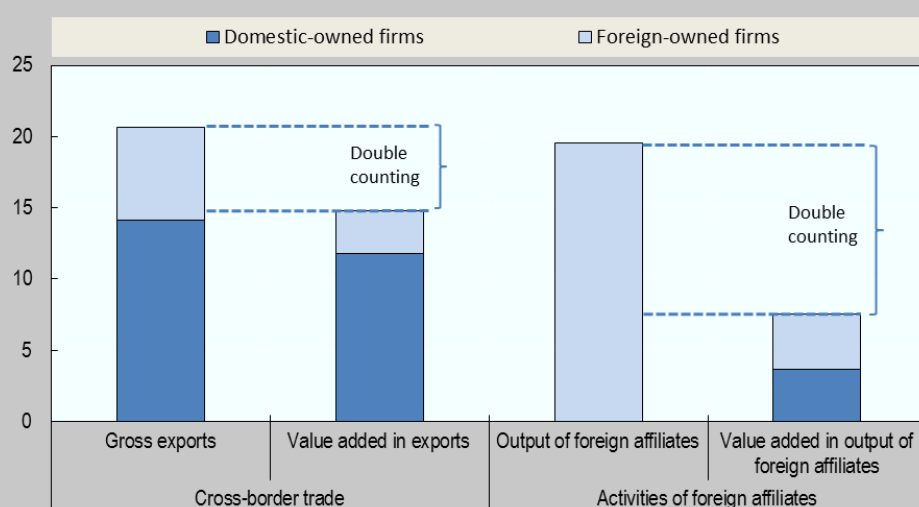


Source: OECD Analytical AMNE database.

Box 1. Why is the value-added in exports higher than in the production of foreign affiliates?

Gross measures of trade or the output of foreign affiliates include the value-added of the firms exporting or producing locally as well as the use of intermediate inputs. These intermediate inputs are themselves produced using value-added from different origins (domestic or foreign). This tends to generate some double counting when aggregating data across industries or countries as the same intermediate input can be counted several times when it is first produced and in all subsequent products using it. Inter-country input-output tables allow tracking value-added across sectors and countries and removing this double counting. In the case of trade flows, elements that are double counted are foreign inputs or domestic inputs that come back to the exporting economy (i.e. traded inputs). These inputs are counted several times in trade statistics. Removing them reduces trade by about 25%.

World exports and output of foreign affiliates in gross and value-added terms, USD trillion, 2014



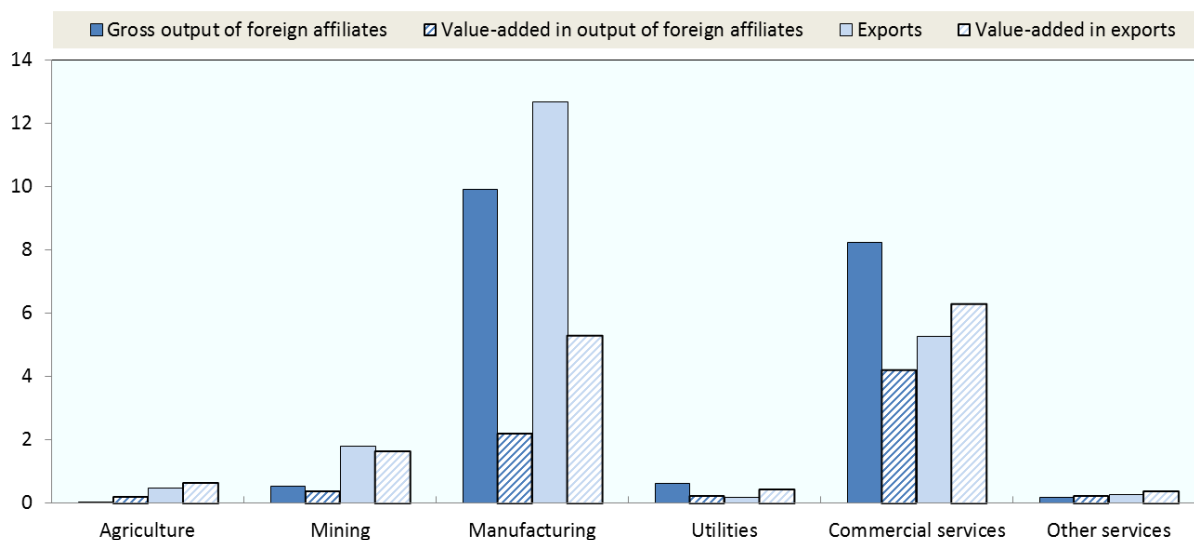
In the case of the output of foreign affiliates, double counting is more prevalent as intermediate inputs mostly come from the host economy and are also domestic sales. Let's take an example: chocolate ice cream is produced and exported by country A with milk, sugar, labour and capital from country A. There is only one imported input: chocolate produced in country B. When looking at world exports (as on the above Figure), exports of ice cream by country A will include the value of the chocolate produced by country B. This chocolate is already part of the exports of country B and will be double counted in world exports.

Let assume now that the ice cream is produced by a foreign affiliate in country A buying the milk and sugar from other foreign affiliates. The sales of foreign affiliates now include three transactions in country A: milk, sugar and ice cream. This time, there is double counting within country A, as the value of the milk and sugar is also included in the ice cream and counted twice. Whether the milk and sugar come from domestic-owned firms or foreign affiliates does not affect the existence of this double counting but will further impact the allocation of value-added. If the inputs are produced by domestic-owned firms, their value-added (net of any double counting) is still a positive contribution to domestic GDP (but going to the domestic-owned firms). At the end, the value-added by foreign affiliates is a relatively small percentage of the gross output of foreign affiliates (about one fifth).

In addition to regional differences, there is also significant heterogeneity across industries (Figure 3). Manufacturing goods are relatively more supplied through cross-border trade both in gross and value-added terms. In contrast, the sales of services by foreign affiliates are higher than gross exports of services but when looking at the value-added flows, services trade is more important than foreign affiliates' production. The differences are however smaller, confirming that sales through foreign affiliates (mode 3 trade in services or trade through 'commercial presence' in the language of the General Agreement on Trade in

Services) are more important for services. It stems from the fact that services often require a face-to-face contact with the customer or can be seen as co-created with the customer. Services often require a commercial presence from the foreign supplier in the country of the consumer. Within the digital economy however, services are increasingly supplied through cross-border trade.

Figure 3. Exports (all firms) and production by foreign affiliates, by broad industry, USD trillion, 2014
In gross and value-added terms

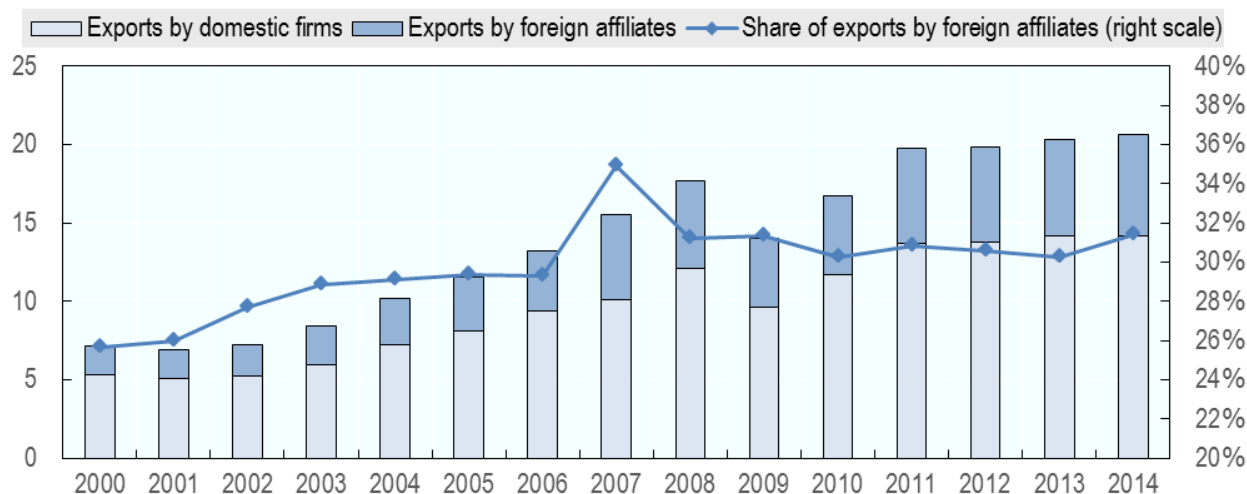


Source: OECD Analytical AMNE database.

The important overlap between international trade and investment

The co-movement between international trade and investment is partially driven by the fact that foreign affiliates are also engaged in exports: actually they export relatively more than domestic firms. The share of foreign affiliates in world exports has increased from 26% in 2000 to 31% in 2014 (Figure 4). This trend seems to be an illustration of the vertical strategies of firms in GVCs with affiliates producing inputs along the value chain or final goods and services that are exported to consumers in the region where the affiliate is established (export platform). A continuous expansion of GVCs is observed until the middle of the 2000s which was halted by the financial crisis. Since then, the share of exports by foreign affiliates remained lower compared to its peak level in 2007.

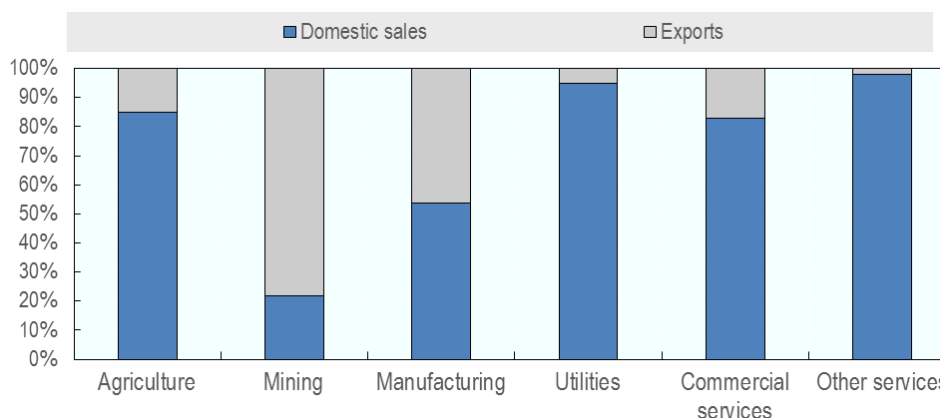
Figure 4. Exports by domestic firms and by foreign affiliates, USD trillion and ratio (%), 2000-2014



Source: OECD Analytical AMNE database.

The involvement of foreign affiliates in exports is not the same across industries (Figure 5). Foreign affiliates producing services tend to serve primarily the domestic market while manufacturing affiliates have their activities almost equally split between exports and domestic sales. In the mining industry, 80% of the output of foreign affiliates is exported while almost none is exported in the case of non-commercial services (other services), a category that includes health, education and other personal services.

Figure 5. Share of exports and domestic sales by foreign affiliates, %, 2014

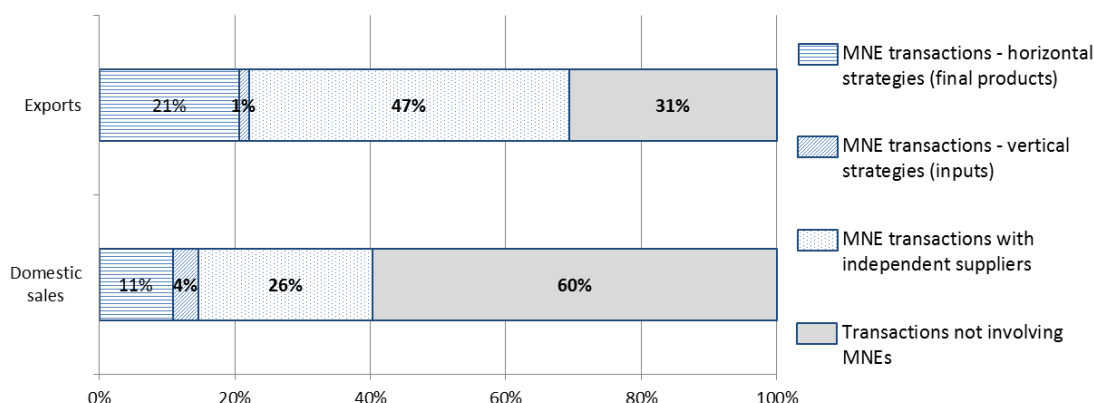


Source: OECD Analytical AMNE database.

MNEs apply different strategies that do not always involve their foreign affiliates

As previously highlighted, firms use trade and investment for different purposes in the value chain and have complex strategies. The importance of MNEs in exports and domestic sales and their different strategies is illustrated in Figure 6 where transactions are broken down based on the role played by MNEs. Horizontal strategies can be identified by the final sales of MNEs and their foreign affiliates, while vertical strategies can -roughly- be estimated through the sales of intermediate inputs between MNEs and foreign affiliates (where both parties belong to the same country). Transactions with independent suppliers involve arm's length trade where only one party is a MNE (this category covers contractual relationships with independent suppliers). A last category measures the transactions not involving any MNE (i.e. between independent firms).

Figure 6. The prevalence of MNEs in exports and domestic sales, by type of transaction, %, 2014



Source: OECD Analytical AMNE database.

In the case of domestic sales, most transactions are between (domestic) independent firms and do not involve MNEs or their foreign affiliates (60%). This share is lower in the case of exports where the combined transactions by MNEs reach 69%, leaving only 31% between independent firms. However, the transactions involving MNEs are predominantly with independent firms (47% and 26% respectively for exports and

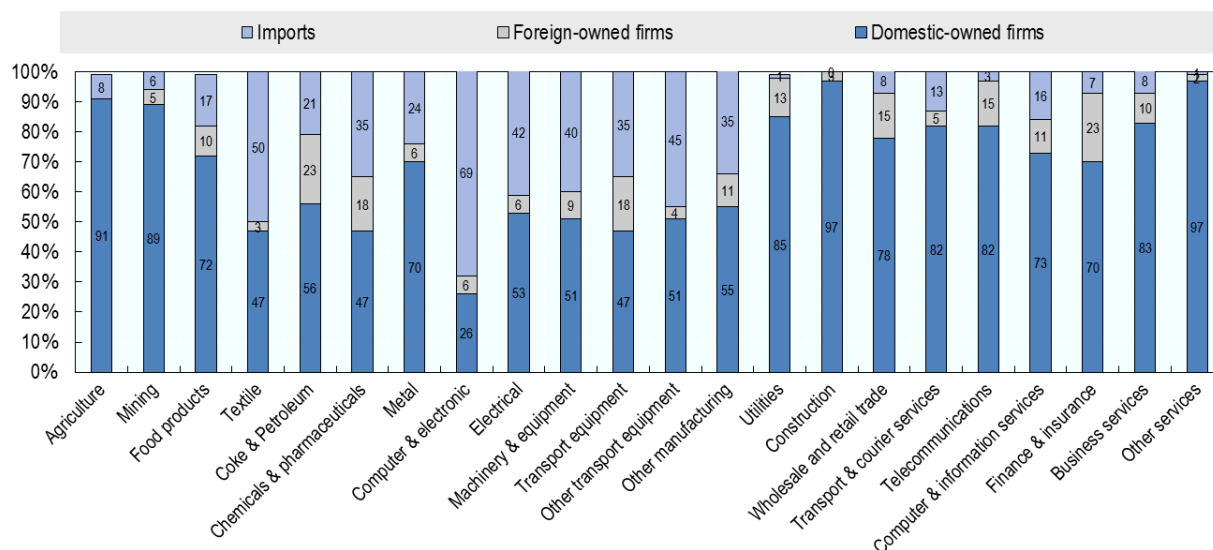
domestic sales), highlighting that GVCs are not mainly organised within the network of MNEs. MNEs work together with a variety of firms through non-equity partnerships (i.e. not involving investment and the creation of foreign affiliates) like franchising, contractual relationships, strategic partnerships, etc.

There are very few transactions involving the exchange of inputs between MNEs and affiliates (or among affiliates) belonging to the same country (1% for exports and 4% for domestic sales), despite this category being broader than pure intra-firm trade (as our data can only identify affiliates that are from the same parent country and not from the same parent company). The small percentages from Figure 6 are still meaningful as the decomposition is for world output. But the results suggest that vertical strategies of MNEs are not as prevalent as sometimes argued. MNEs often prefer to source inputs from independent firms rather than from foreign affiliates they own.

Trade and investment in final demand

The relative importance of international trade and investment can also be assessed by looking at how domestic markets are served. Estimating the contribution of trade and investment to industry final demand, each bar in Figure 7 presents the origin of value-added for all products in the world sold in a specific industry : imports (i.e. value-added from foreign countries), domestic value-added by foreign-owned firms or domestic-owned firms. In this decomposition, exports of foreign affiliates contribute to imported value-added (from the point of view of the consuming economy). The share of value-added originating in foreign affiliates is relatively small across industries, a trend accentuated by the fact these foreign affiliates source most of their inputs from domestic-owned firms. It is only in the coke and petroleum industry, utilities, construction, telecommunications, finance and insurance and other services that more value-added is created by foreign affiliates as compared to imports. Services are also predominantly produced with domestic value-added from domestic-owned firms while manufacturing industries rely more on foreign value-added or value-added by foreign affiliates.

Figure 7. Value-added in final demand by origin: imports, foreign-owned firms and domestic-owned firms, %, 2014



Source: OECD Analytical AMNE database.

The most 'international' industry is the computer and electronics sector where products consumed include only 26% of value-added by domestic-owned firms. But this industry relies mostly on imported value-added and the contribution of local foreign affiliates is also small (6%). Manufacturing industries such as coke and petroleum, chemicals and pharmaceuticals and transport equipment are the ones where the value-added by foreign affiliates is more meaningful. It is also the case in some services industries, particularly finance and insurance.

Policy implications of the new relationship between trade and investment in GVCs

Policy coherence is needed between trade and investment

Trade and investment are increasingly intertwined in GVCs but are still often dealt with separately when it comes to policy-making. Some progress has however been made to avoid the 'silo approach' where trade and investment policies are discussed in isolation, particularly within governments at the national level. But the international regime for trade and investment still appears fragmented. Because of the overlap with services trade, there are some multilateral rules on investment at WTO. But most of investment disciplines are found in a growing number (over 330) of regional trade agreements (RTAs) that deal both with trade and investment and more than 3,000 bilateral investment treaties (BITs) that are exclusively about investment and generally cover a narrower set of investment provisions as compared to RTAs.

Having rules on trade and investment in different agreements is not an issue *per se* but requires a higher level of co-ordination to ensure policy consistency. Given that investment disciplines have an impact on trade and trade disciplines have an impact on investment, policy-makers need to identify the policy complementarities. For example, foreign firms may not invest in the first place if other measures related to market access, movement of people, e-commerce or intellectual property are not providing the regulatory environment required for their operations in GVCs.

Implications for the negotiation of trade and investment agreements

The traditional approach for countries in the negotiation of trade and investment agreements is to identify 'offensive' and 'defensive' interests. The offensive interests are in industries and products where the country has a comparative advantage and where market access is sought in partner economies. The defensive interests are in industries that should be shielded from foreign competition because they are not competitive enough. This approach becomes increasingly obsolete in a world of GVCs, particularly when taking into account the specificities of trade and investment.

For example, the importance of conglomerate FDI and the expansion of firms in related activities suggest that market access in 'related' industries might be as important as market access in the industries in which a country is already specialised. By focusing on a set of sectors and trying to cherry-pick industries, trade and investment negotiations are not likely to bring the best outcome for businesses, especially when taking into account the dynamic environment and the fact that 'related' industries quickly change over time.

For industries under the pressure of foreign competition, trying to avoid any market opening is also not the best way to help domestic firms. It is likely that through co-operation with foreign competitors the industry has better chances of adjusting and becoming competitive again. Moreover, trade and investment agreements are not limited to market access provisions, they include regulatory co-operation and other mechanisms that can mutually benefit the two economies and facilitate co-operation among businesses.

In deep trade and investment agreements, there is a broad set of provisions that can directly impact the way firms co-operate and create value together. These provisions include intellectual property, the movement of business people, data transfer, investment protection or the harmonisation of standards. Co-operation and mutual dependence are important factors to take into account to ensure that trade and investment agreements have a positive impact on economies and societies.

But the trade and investment 'coin' has more than two sides

The fact that trade and investment policies should go together can be summarised by saying that they are the 'two sides of the same coin'. However, the metaphor is not fully accurate of the complex reality as presented in this note. Trade and investment are not the only alternatives for firms to serve foreign consumers or source inputs, as companies also increasingly use licensing, franchising, contract manufacturing and other types of strategic partnerships. Moreover, what companies achieve through trade and through investment tends to be different. The international sourcing within GVCs is organised through trade flows often with independent suppliers but also among affiliated companies, thus creating a complementarity between trade and investment. At the same time, investment also relates to the strategy of

the firm when it comes to organising its production, its financial structure and its expansion in new products and markets. Investment is however only one modality among others in this strategic planning.

Since companies have many ways to access foreign markets and this access is key from the point of view of productivity and growth, the focus of policies should then not be to promote specifically trade or investment or other forms of access. It should rather be to provide the best environment for the right foreign market entry decisions. Policies should be comprehensive in terms of addressing all the potential relevant policy areas (not only trade and investment but also movement of people, contractual relationships, intellectual property, etc.) but also seek some kind of neutrality in order for decisions of firms to be based on economic efficiency rather than regulatory distortions.

There is still a need for adequate investment policy but it should be kept in mind that MNE strategies increasingly involve non-equity modes. Therefore, one should not look at MNEs only through investment nor trade policy. Moreover, investment is mostly about the financial conditions that best served the interests of firms. As such, investment is not the variable that should be primarily used by policymakers to assess the outcome of their policies. What matters at the end is the value-added generated by foreign activities of firms (whether through exports, equity or non-equity modes of production).

Establishing a conducive domestic policy environment

While trade and investment agreements can help to enhance co-operation, a number of policies that can support firms in their efforts to become more competitive are domestic. If it is important to put the emphasis on connectedness with foreign partners and the insertion in international production networks, one should also recognise that the domestic part of the value chain is as important as its foreign part and that domestic policies play an important role in the domestic segment of the value chain. In order to establish a conducive domestic policy environment, policies related to access to capital, skills, R&D incentives and the simplification of administrative procedures are key, as well as the development of physical and virtual infrastructure.

Finally, it is important to keep in mind that global firms are not just large manufacturers. Lead firms are often wholesalers or retailers in what is described as ‘buyer-driven’ value chains. Moreover, manufacturing firms increasingly combine goods and services to add value and tend to sell integrated solutions to their customers (servitisation). It suggests that policies related to services sectors are especially important and that both trade and investment policies should address linkages between goods and services and offer consistent regimes across products that will not impede firms in their efforts to become more productive through servitisation strategies.

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Further reading

Andrenelli, A. et al. (2018), “Multinational production and trade in services”, *OECD Trade Policy Papers*, No. 212, OECD Publishing, Paris. <http://dx.doi.org/10.1787/16ec6b55-en>

Cadestin, C. et al. (2018), “Multinational enterprises and global value chains: the OECD analytical AMNE database”, *OECD Trade Policy Papers*, No. 211, OECD Publishing, Paris. <http://dx.doi.org/10.1787/d9de288d-en>

Cadestin, C. et al. (2018), “Multinational Enterprises and Global Value Chains: New Insights on the Trade-Investment Nexus”, *STI Working Paper*, No 5, OECD Publishing, Paris.

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