Directorate for Science, Technology and Industry

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Global value chains

International production, trade and investments are increasingly organised within so-called global value chains (GVCs) where the different stages of the production process are located across different countries. Globalisation motivates companies to restructure their operations internationally through outsourcing and offshoring of activities. Firms try to optimise their production processes by locating the various stages across different sites according to the most optimal location factors across countries. The past decades have witnessed a strong trend towards the international dispersion of value chain activities such as design, production, marketing, distribution, etc.

The spread of global value chains is significantly changing the functioning of the global economy. An increasing number of firms, countries and other economic actors take part in today's global economy and have become increasingly connected across borders. Intermediate inputs like parts and components are produced in one country and then exported to other countries for further production and/or assembly into final products.

Because of increased trade (including of intermediates) and FDI within GVCs it can be expected that, ceteris paribus, countries will benefit from a better integration into GVCs. Just like globalisation in general, GVCs are expected to result in a more efficient allocation of productive resources across the world. However, the gains are not distributed evenly and differ across countries. Governments need to carefully analyse in which activities and industries they can keep or gain their comparative advantage.

GVCs are expected to generate substantial impacts on national economies but the size and direction of these effects are however not yet fully understood. A broad range of policies is needed to optimally benefit from the new international organisation of productive activities, calling for a multidisciplinary approach. In analysing the key policy problems, the OECD research on GVCs is organised along a number of issues:

GVCs and new metrics

Since existing data and indicators fall short of capturing the impact of GVCs on national economies, governments are looking for more and better policy evidence. The OECD is developing new empirical evidence studying the emergence of GVCs: recent OECD work has discussed intermediates trade, vertical specialisation, offshoring and outsourcing. Work is currently underway to develop indicators in order to assess the role of individual countries in GVCs. Due to its high quality databases (Input-Output Tables, Bilateral Trade Data, STAN database, etc.), the OECD has, in cooperation with the WTO, launched an ambitious project on the measurement of trade in value-added terms. Since these data capture the domestic value that countries are adding to goods and services, the results will give a better picture of the integration and position of countries in GVCs.

GVCs and emerging economies

The development of GVCs has allowed emerging economies to integrate quickly in the global economy following the important offshoring of firms to these countries. OECD countries are gradually losing market shares on international markets while emerging countries (among which China) have built up a strong export base over a very short period. The growing linkages between OECD and emerging countries have resulted in large productivity gains but also raised fears about the sustainability of employment in OECD countries. GVCs have rendered the effects between trade, value creation and employment more complex; for example, the strong position of

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(emerging) countries in GVCs as reflected in export figures does not always mean that these countries capture a large part of the value generated within GVCs. Better insights in the process of value and employment creation within GVCs is of high policy interest as it directly determines where the income and jobs created.

GVCs and global trade

The increasing importance of GVCs has significantly reshaped the global trade landscape and the resulting economic interdependency between countries calls for a re-assessment of external trade policy. The costs of protectionist policies have most likely grown with the increasing importance of GVCs and the higher import content of exports. Import duties may actually tax exports, given the large use of imported intermediates in countries' exports. Today, protectionist policies risk having a negative impact on the integration of production processes across borders and thus may directly hurt the competitiveness of domestic industries within GVCs.

GVCs and national competitiveness

GVCs increasingly challenge the concept of national competitiveness as countries have become embedded in international networks of production. Countries no longer rely exclusively on domestic resources to produce and export goods and services; instead, countries' exports increasingly embody the technology, labor and capital of the countries from which the country in question imports intermediate goods. Countries are looking for new ways to position in these global networks in order to safeguard economic performance. The drivers of countries' competitiveness increasingly include factors outside the scope of national policies, hence seemingly limiting the direct influence of policy makers on jobs and wealth within their national borders.

GVCs and intangible assets

Intangible assets have become increasingly important for the creation of economic growth and employment in the global economy. Recent research suggests that intangible assets are not only a key input for successful innovation (i.e. in creating value) but are also important for effectively capturing the value from innovation. In addition, intangible assets allow countries to upgrading and move up the value chain by positioning themselves in higher value-added industries, activities and market segments. Most of the value is increasingly created in activities up and downstream while only limited value is added in the pure manufacturing/assembly stages.

GVCs and global (systemic) risk

The increased connectivity between countries through trade, FDI, technology, etc. within GVGs has brought greater interdependencies between national economies. As a result of the growing global links between countries, national economies have become more vulnerable to so-called systemic risk, i.e. the risk or probability of the breakdown of an entire system as opposed to the breakdown of individual parts or components. Global value chains (GVCs) can facilitate the spread of local risks into global risks and that GVCs have recently functioned as important contagion channels. Demand- and/or supply-driven shocks originating in one part of the (economic) system can be rapidly transmitted through GVCs on a global scale, thereby propagating and amplifying systemic risk.