Industrial policy and developmental space: The missing piece in the GVCs debate

Demián Dalle
Verónica Fossati
Federico Lavopa *

Abstract

Global value chains (GVCs) have gained unusual prominence in the research agendas of international organisations and academics devoted to the study of international trade and economy. Even more important, GVCs gained a central place at the negotiating tables of the main international economic fora held during 2013.

This theoretical framework is far from being a novelty, though. In fact, the issue of GVCs has been intensively investigated by specialized researchers since the nineties, when the seminal work of some authors, who could be labelled as neo-Schumpeterian –namely, Gary Gereffi, Raphael Kaplinksy, Timothy Sturgeon, John Humphrey, among others–, were published. What is new, though, is the use of this analytic tool to support an agenda on eminently liberal economic reforms.

Although the initiatives proposed by OECD, WTO and other organizations are of great interest and have proved to be very useful, both the underlying theoretical assumptions of these studies and the conclusions drawn from them are, at least, debatable. The aim of this paper is to provide a critical view on these conclusions and, in particular, on those prescriptions that only seem to search new theoretical and discursive underpinnings to push the trade liberalization agenda forward, disregarding the negative consequences this may have on developing economies. For this purpose, we will seek to bring new elements to the discussion and to propose a future research agenda, mainly from the perspective of developing countries. Our main objective will be to put the concept of GVCs at the service of the studies on economic development, for which it was originally conceived.

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1. Introduction

Global value chains (GVCs) have gained unusual prominence in the research agendas of international organisations and academics devoted to the study of international trade and economy. Over the last years, the Organization for Economic Co-operation and Development (OECD) and the World Trade Organization (WTO) have published a series of documents on GVCs and have created a joint database with the aim of measuring the importance of global value chains in world trade (OCDE and OMC, 2012, 2013 a and b; OCDE, 2013 a, b, c and d[1]). Other institutions, such as the United Nations Conference on Trade and Development (UNCTAD, 2013 a and b), the World Bank (Cattaneo *et al.*, 2010) and the International Labour Organization have followed suit (Milberg, 2004; Gereffi, 2006; among others). Likewise, in developed countries, public agencies[2], well-known academics and institutes specialized in the field[3] have placed the issue of GVCs at the centre of their research agendas. Even more important, GVCs gained a central place at the negotiating tables of the main international economic fora held during 2013.[4]

In its more extreme version, the "new" world view proposed by these global think tanks considers that the global economy has entered a new stage dominated by GVCs. This stage would be characterized by the growing interconnection among countries, an increased share of intermediate inputs in world imports, and specialization –in the case of both countries and companies– in certain tasks and functions rather than in locally integrated industries. In this context, the above-mentioned studies claim that the most appropriate course of action governments should take to ensure the economic development of their countries is to reduce, as much as possible, the tariffs and other barriers to trade in goods and services. In this way, the links of the chains located or willing to be located within the territory of a certain country could get their imported inputs at the lower cost possible, and would thus gain competitiveness in the global market, where they have to sell their "made in the world" end products. Accordingly, insofar as barriers to trade add costs to the inputs used by companies participating in GVCs, protectionism becomes "destruction-ism" (Baldwin, 2012).

The genesis of this new chapter in the history of capitalism marked by GVCs can be traced back to the seventies and tends to be related to the emergence of globalization and of a new era of international competition that would have modified global production and trade patterns, as well as the ways of industrial organization. In this context, companies would have fragmented their production around the world, taking advantage of a series of factors, namely: much cheaper and increasingly reliable communications, information management software, and more powerful computers, which significantly reduced the costs of coordinating complex activities both within companies and among them; transport in containers, standardization, automatization and the increasingly intermodal transportation system, which facilitated the movement of goods; and, lastly, lower tariffs and investment liberalization, which enabled companies to disperse their activities. The concept of GVCs was first introduced, precisely, as a way of analysing this international expansion and geographical dispersion of production chains.[5]

This theoretical framework is far from being a novelty, though. In fact, the issue of GVCs has been intensively investigated by specialized researchers since the nineties, when the seminal work of some authors, who could be labelled as neo-Schumpeterian –namely, Gary Gereffi, Raphael Kaplinksy, Timothy Sturgeon, John Humphrey, among others–, were published.[6] What is new, though, is the use of this analytic tool to support an agenda on eminently liberal economic reforms.

In fact, as will be argued in the following sections, although the initiatives proposed by OECD, WTO and other organizations are of great interest and have proved to be very useful, both the underlying theoretical assumptions of these studies and the conclusions drawn from them are, at least, debatable. The aim of this paper is to provide a critical view on these conclusions and, in particular, on those prescriptions that only seem to search new theoretical and discursive underpinnings to push the trade liberalization agenda forward, disregarding the negative consequences this may have on developing economies. For this purpose, we will try to bring new elements to the

1 This last document comprises most of the work carried out by OECD over the last years.

2 Among them we can mention the United States Agency for International Development (USAID, 2011), the United States International Trade Commission (USITC, 2011) and Foreign Affairs and International Trade Canada (Sydor, 2011).

3 For example, the CEPR (Baldwin, 2012) and the World Economic Forum (2012).

4 Among them we can mention the OECD Ministerial Meeting held in Paris in May 2013 and the Pittsburgh G20 Leaders' Summit held in September 2013.

5 In its more common sense, GVCs were defined as the full range of activities which are required to bring a product or service from conception, through the intermediate phases of production, to final consumers, including final disposal after use (Kaplinsky, 2000 and 2004; Gereffi *et al.*, 2001). This comprises a wide range of activities –such as design, production, marketing, distribution and consumer support services– which may be developed by a single company or divided among different companies and countries.

6 The website Global Value Chains (http://www.globalvaluechains.org) registers over 700 publications related to GVCs from 1986 to October 2013.

discussion and to propose a future research agenda, mainly from the perspective of developing countries. Our main objective will be to put the concept of GVCs at the service of the studies on economic development, for which it was originally conceived.

The paper is organized as follows: the second section presents a brief summary of the main postulates and public policy recommendations on GVCs proposed by recent studies carried out by OECD, WTO, UNCTAD and other academic spheres. The third section intends to analyse these documents in a critical way, both by contrasting them with the contributions made by the neo-Schumpeterian authors and by questioning some of their main assumptions. Lastly, we present some final considerations and we call for the establishment of a research agenda on GVCs from a southern perspective.

2. Liberal views on integration into GVCs: Main postulates and recommendations proposed by recent studies carried out by OECD, WTO and UNCTAD

Among the many studies on GVCs mentioned above, the analyses carried out by WTO, OECD and UNCTAD are of especial interest. As stated in the introduction, over the last years these organizations have elaborated several documents in relation to GVCs and have created a joint database aimed at measuring the importance of global value chains in world trade (see the Box below). This section presents a brief summary of the main arguments proposed by this new intellectual effort to support a series of public policy recommendations revolving around trade liberalization.

The theoretical proposal made by OECD, WTO and UNCTAD seems to rely on a few basic assumptions, upon which highly optimist views about globalization and GVCs and their potential and current effects on economic development are built. Firstly, this view considers that globalization has a positive impact on productivity due to several factors, namely: efficiency improvement as a result of international competition; the possibility of having access to technology and new knowledge; and greater room for specialization and economies of scale. Moreover, it assumes that participation in value chains could further increase productivity, since it would facilitate access to cheaper or higher quality intermediate inputs (see, for example, OCDE 2013 b and d). GVCs would also work as a path for developing countries to access the international markets of goods and services by focusing on certain activities and processes rather than by establishing a complete value chain (UNCTAD 2013 a and b).

In a nutshell, according to these organizations, integration into GVCs would offer a "fast track" to development and industrialization. In fact, they stress that there is a positive correlation between the level of participation in GVCs and per capita gross domestic product (GDP) growth rate, both in industrialized and developing economies (UNCTAD 2013 a and b). However, entering this world of opportunities would not be automatic: in order to be fully benefited by GVCs the costs of intermediate inputs and services need to be reduced, thus improving export competitiveness in global markets. Based on these arguments, OECD, WTO and UNCTAD come to a series of conclusions and policy recommendations, among which those mentioned below stand out:

▪ Need for a greater liberalization of trade in goods:

Tariffs and non-tariff barriers would have a negative impact not only on foreign suppliers but also on domestic manufacturers. In particular, the measures that limit the imports of intermediate inputs would increase production costs and reduce a State's capacity to compete in international markets. As stated by one of the greatest free trade theoreticians of this time, protectionism would become "destruction-ism", since it would deter the establishment of production stages in GVCs that would otherwise set foot in the country (Baldwin, 2012). Consequently, the "traditional" notion entailing that access to a country's market must occur under the logic of reciprocity[7] would result counterproductive: unilateral liberalization would be the best response to the current paradigm.

7 The concept of reciprocity in trade negotiations constitutes one of the main principles of multilateral trade rules. It was first used in article 17 of the Havana Charter and in the preamble of the General Agreement on Tariffs and Trade (GATT) of 1947; it was part of the rules of all negotiation rounds and, finally, it was included in article XXVIII bis of the GATT of 1994. The idea is that a country which reduces its level of protection obtains in return a reduction in its trade partner's level of protection.

Box 1 | Measurement of international trade in value-added terms

International trade that takes place in a world of GVCs differs from "traditional" trade and, therefore, a new method to measure the trade in goods and services is required. The concept of trade in value-added (either in relation to exports or imports) does not fit in the concept of traditional trade statistics, since the latter consider trade in goods and services in gross values (that is, including the use of inputs). [a]

Considering foreign trade transactions in gross values may entail double-counting, since the goods used as primary products or intermediate inputs usually cross the borders many times for their further processing. This constitutes a problem, especially in those countries where GVCs play an important role. Attributing the entire commercial value to the last country of origin may bias the measurement of bilateral trade balances, distort the debate on the origin of these imbalances, and lead to badly informed decisions. [b]

In this context, WTO and OECD jointly presented a new international trade database focused on the value added by each country to the production of the goods and services they export. The database contains estimates for 57 countries (among them, OECD Members and Associates; it also has estimates for Argentina) corresponding to the years 1995, 2000, 2005, 2008 and 2009. The information is disaggregated into 18 activities (OCDE and OMC, 2013 a and b).

One of the objectives of this initiative is to better understand the weight that imports of both intermediate inputs and services have in a country's total exports. This approach would contribute to further understanding trade interdependence and the role that each economy plays in GVCs. Moreover, it would help to broaden our understanding of the transmission mechanisms of macroeconomic shocks and their impact on the different links of the chain.

In turn, UNCTAD has also developed its own international trade database (UNCTAD–EORA GVC), which comprises 187 countries, covers the period 1990-2010, and includes between 25 and 500 industries, depending on the country (UNCTAD, 2013 a). Gross exports are broken down to pinpoint what the shares of domestic and foreign value-added are.

There exist other projects which, using different methodologies, seek to compile input-product tables which could serve to measure international trade in value-added terms, among them: the Institute of Development Economies associated with the Japanese External Trade Organization (IDE-JETRO); the GTAP database from Purdue University; and the World Input-Output Database (WIOD) –a project carried out by a group of 11 institutions and financed by the European Union.

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a. One of the most widely used examples to see the bias that results form attributing the total commercial value of a product to the last country of origin of exported goods is the case of the iPod: every time a country imports one of these gadgets, the declared customs value is entirely attributed as import coming from China. However, although the iPod is assembled in China, it includes a Japanese chipset, an American design, and Korean flat screens. Therefore, if the domestic origin of the value-added contained in such import is considered, it can be observed that most of its value corresponds to a re-import from Japan and the rest to the United States and Korea. In fact, less than 10% of the cost of the product's ex works price corresponds to value added by China (Dedrick et al., 2010).

b. For example, the bilateral imbalance existing between the United States and China is usually highlighted. However, if trade in value-added statistics rather than conventional trade statistics are used, it can be observed that in 2009 the bilateral US deficit with China is being overestimated by around 30% (see the May 2003 report from the OECD-WTO database on trade in value-added, available at http://www.oecd.org/sti/ind/whatcantivadatabasetellus.htm). Likewise, the bilateral US deficit with Korea or Japan would increase proportionally to the reduction of the US deficit with China.

Moreover, those countries which first undertake the liberalization initiative ("first movers") could get additional advantages, since they would get access to cheaper foreign inputs. As a result, they could increase their share in international markets, benefit from economies of scale and economies of scope and, thus make competition difficult for new participants.

- Trade liberalization interpreted in a broad sense:

Tariff reduction would only be the starting point. Trade negotiations should also include liberalization in the area of services, investment, competition policy, intellectual property, and temporary labour movement, among other issues.

Thus, for example, liberalization of trade in services would be justified because the performance of GVCs depends on the proper functioning of the logistical chain and requires efficient infrastructure networks and complementary services. With regard to investment liberalization, investment restrictions are assumed to discourage integration into GVCs and could have negative consequences on the different links of the chain. Moreover, it is necessary to ensure the protection of intellectual property rights, since they are crucial to protect the knowledge-based capital that enables companies to set values and compete in global markets, and they prevent rival companies from replicating new designs and technologies.

- Trade facilitation:

Lastly, within the set of recommendations to increase the benefits of integration into GVCs, we can mention the implementation of trade facilitation measures, such as actions aimed at simplifying port and customs procedures, convergence of standards and certification requirements, and the conclusion of mutual recognition agreements, among others. This type of measure would help to speed up the regular flow of operations that GVCs require and, therefore, to attract investments.

This view held by international economic institutions coincides with what Milberg (2013) calls the "liberal" view in the debate on industrial policy within the framework of GVCs. In sum, according to this approach, the presence of value chains entails reliance on the import of inputs to enhance export performance, which in turn serves as the basis for a comprehensive trade liberalization and trade facilitation. In contrast, according to the "developmental" approach –as called by said author– the presence of GVCs facilitates market access, value-added increases and the construction of regional capacities, technology and networks. According to this author, both industrial policy and government intervention in trade are required to obtain these potential benefits. The following section will seek to analyse this alternative view on the ways of integration into global economy, which is closely related to the "developmental" approach to GVCs.

3. Setting the debate in a theoretical perspective: The contributions of neo-Schumpeterian authors to the analysis of GVCs and economic development

The studies mentioned above acknowledge –albeit timidly– that the mere integration of a country's companies into global value chains does not ensure economic development. On the contrary, the success of this strategy will largely depend on the place those companies occupy in GVCs, since this will determine the benefits obtained as a result of being part of the chain. Thus, some activities corresponding to the "upper" links of the chain –design, research and development, production of advanced components– and to the "lower" links –marketing and distribution– tend to generate greater value-added than the links that are in between –e.g., assembling. In fact, the empirical evidence available confirms that labour-intensive activities are mainly found in developing and emerging countries, whereas knowledge-intensive activities are found in developed economies.

This issue, which goes virtually unnoticed in the documents published by OECD, WTO and UNCTAD, constitutes the key of what was intended by the neo-Schumpeterian authors who, towards the late nineties, developed the concept of global value chains as a conceptual tool to understand the development opportunities of developing economies (see for example, Gereffi *et al.*, 2001 and Kaplinsky, 2000 and 2004). According to these authors, the challenge for developing countries is largely to identify the ways in which they can gain access to high value-added activities in GVCs through a process generally known as upgrading, and to seek the way in which such participation could lead to sustained growth in income levels.

From this perspective, the globalization process would have originated a new international division of labour among developed countries, industrializing middle-income countries, and the poorest developing countries. Those activities which generate greater returns would be concentrated in industrialized (upper income) countries, while the production process would be carried out by developing countries. Moreover, within the latter group a distinction is usually made between emerging countries that show highly competitive production processes –some of which may produce cheap components on the basis of low salaries (such as, for example, China, India, Mexico, South Korea, Singapore)– and those economies that could integrate into GVCs only through cheap labour force and are caught in a process of "immiserising growth", in which domestic output increases but economic returns decrease (for example, Bangladesh, Dominican Republic) (Kaplinsky and Morris, 2001).

This new international division of labour would be the result of the increasing abandonment of barriers to entry the manufacturing industry –which was traditionally in the hands of developed countries–, especially since a growing number of countries –in particular, China and India– have acquired the ability to efficiently produce manufactures at low costs. As a result, the main primary economic rents in the production chain are to be found in areas outside production, such as design, branding and marketing (see, for example Kaplinsky and Morris, 2001). Aware of this situation, leading companies tend to externalize all those aspects of the production process that do no contribute to the optimization of companies' revenues (in general, tangible assets).

Against this background, there would be an asymmetry in the market structure of GVCs: whereas production is widely dispersed –i.e. there is competition– in low value-added manufacturing sectors (that is, among suppliers), there is a strong tendency towards concentration –oligopoly– of global industry (e.g., among leading companies) (Milberg, 2004). In this context, leading companies, generally located in industrialized countries, control intangible activities, whereas those companies located in developing countries occupy highly competitive links of the chain, which could lead them to "immiserising growth". This, according to the neo-Schumpeterian school of thought, would account for the increasingly unequal distribution of benefits derived from integration into GVCs.

Latin America constitutes a good example of this duality. Kosacoff and López (2008) claim that the main ways in which Latin American countries integrate into GVCs, based on maquilas and processing areas, have led to schemes in which the countries of the region have specialized in labour-intensive stages of the production chain, which rely mainly on pecuniary benefits (instead of relying on the development of local capacities) and which work as enclave models whose benefits are not reflected in the rest of the economy. Furthermore, these schemes are subject to threats of relocation into other countries with lower labour costs and therefore they become very dependent on relatively high transport costs for certain goods and/or on tariff preferences. Similarly, Heidrich and Williams (2011) claim that, although export-oriented chains have generated important economic benefits in Latin America, they have also posed a series of challenges in terms of their contribution to social and economic development of the countries of the region. More specifically, their potential contribution has been restricted by i) the small number and the low quality of jobs created; ii) the lack of integration with the rest of the economy; and iii) the risk of getting trapped in the production of low value-added goods. Similar conclusions were drawn in last ECLAC's bulletin, Latin America and the Caribbean in the World Economy 2013 (CEPAL, 2013), which shows a great heterogeneity among the countries of the region in terms of their participation in value chains.[8]

By virtue of this diagnostic, the recipe proposed by neo-Schumpeterian authors is the creation of proper incentives so that national companies could go a step forward in the process of climbing up value chains from basic links to higher value-added links which generate greater revenues. Humphrey and Schmitz (2002), for example, distinguish four types of upgrading: i) process upgrading, which implies producing in a more efficient way, either by using advanced technology or by reorganizing production systems within the company, or by improving the relationships with other links of the chain; ii) product upgrading, which requires the production of more sophisticated goods; iii) functional upgrading, which involves doing activities which require greater capacities; and iv) inter-chain upgrading, which implies movement into other sectors.[9]

Some of these academics claim that it is possible to determine a successful hierarchical sequence, starting with process upgrading, then moving into product upgrading and on into functional, and lastly into inter-chain upgrading. Thus, companies start assembling and then move on, first into manufacturing output and then into design or marketing. Lastly, they may move on into a new chain (Gereffi and Fernández Stark, 2011). This is in line with the experience of some East Asian firms, which based their success on the transition from OEA production (original equipment assembling, that is, thin value added under contract to a global buyer) to OEM production (original equipment manufacturing, which implies manufacturing a product that will bear the multinational firm's badge, totally designed by it), then to ODM (own design manufacturing, where although the basic design of the product is still created by the transnational firm, the local firm integrates the parts and components and creates the detailed

8 In line with this, Prochnik (2010) finds that, although some Latin American countries have been successful at integrating into GVCs in certain specific sectors –mainly due to foreign direct investment (FDI)–, other countries of the region have been largely dependent on some markets (for example, the Untied States in the case of Mexico) and on certain products, in particular commodities.

9 In addition to upgrading, there exist other mechanisms to add greater value within GVCs. Günther and Alcorta (2011) distinguish three types of strategies: i) industrial diversification strategies (which seek to foster the creation of new industries); ii) industrial expansion and upgrading strategies (which intend to enhance the capacity of existing industries); and iii) industrial deepening strategies (which seek to create new downstream and upstream linkages and complementarities within an already existing industry).

design), and lastly to OBM (own brand manufacturing, where the local firm is not only in charge of the complete design but also of the marketing (Gereffi, 1999).

In sum, the industrialization process which occurs within the context of GVCs[10] implies upgrading to functions that generate higher value-added within a certain value chain or to new value chains that add greater value (Milberg *et al.*, 2013; Gereffi and Sturgeon, 2013). Unlike import substitution industrialization (ISI) –in which countries seek to restrict imports– and export-oriented industrialization (generally known as EOI model) –in which countries are concentrated on promoting their exports– in the case of industrialization within the framework of GVCs, the emphasis must be placed on how to use intermediate inputs to obtain greater value within value chains. By definition, a development strategy based on integration into GVCs implies importing intermediate inputs so as to manufacture the goods that will be exported. However, in general, the way to achieve upgrading is through the subsequent local manufacture of those products, which entails some type of government intervention. Therefore, these authors conclude that even when under certain circumstances protectionism may result counterproductive, in other cases it is absolutely necessary. At the same time, this type of industrialization relies on the creation of strong ties with the GVC supply base, already established in developing countries. Consequently, imports for export production necessarily involve a high degree of South-South trade (Milberg *et al.*, 2013).[11]

From the point of view of the public policy design for economic development –which is the viewpoint we are particularly interested in herein– perhaps the most interesting conclusion that can be drawn from this literature is that upgrading processes are not automatic, they vary depending on the kind of industry and country, and they require government intervention. As admitted by UNCTAD (2013 b), integration into GVCs is not synonymous with economic development: even though a greater integration into value chains may generate long-term benefits, evidence shows that relatively few developing countries have been able to increase their domestic value-added and to enhance new capabilities and productive capacity only by integrating into GVCs.

Within this framework, public policies play a key role when it comes to maximizing the benefits that can be obtained from integration into GVCs. According to the OECE and WTO, the role of the State in accompanying national firms in these upgrading processes would be limited to the typical pro-market recipes: increasing competition to encourage companies to improve their productivity; promoting a dynamic business sector; investing in public goods; and providing the conditions to support private investment in these areas. Regardless of the fact that there seems to be little empirical evidence underpinning the possible success of this type of policy prescription, these research studies omit a series of issues related to the tools that developing countries have (or do not have) to level the playing field and therefore generate or attract higher value-added activities to their territories. Thus, for example, OECD adopts a rather ambiguous position with respect to the role of intellectual property rights and totally omits any reference to other key issues, such as the international regulations on investment protection and the tariff structures in developing countries.

With regard to the first of these aspects, it is worth highlighting that the activities in GVCs which imply higher barriers to entry –and, therefore, offer greater revenues– are eminently intangible: in general they are knowledge- and skilled-based activities and are embedded in organisational systems. This type of knowledge –tacit in nature– is protected by important natural barriers to entry (Kaplinsky and Morris, 2001). Yet this knowledge is also "artificially" protected by intellectual property rights. For example, copyrights provide protection over 70 years and trademarks are perpetual, thus representing an absolute and immutable way of economic rent. The same occurs in the case of new technologies, which have a 20-year minimum patent protection period. This accounts for the great interest shown by developed countries –in particular, the Untied States– with regard to the protection of intellectual property rights (Kaplinsky, 2000 and 2004).

A similar comment may be made with respect to international disciplines in terms of admission and treatment of foreign investment. The existing tangle of rules on the issue in the multilateral spheres (Agreement on Trade-Related Investment Measures - TRIMs, and the mode of service supply through commercial presence of the General Agreement on Trade in Services - GATS), the regional spheres (chapters on investment in trade preferential agreement such as, for example, the North American Free Trade Agreement - NAFTA), and the bilateral spheres (the thousands of existing bilateral investment treaties - BITs) imposes a series of obligations that prevent developing countries from implementing, among others, policies aimed at selecting the type of investment that will be made in their markets or from obtaining greater benefits from those investments that are already made (for example, through performance requirements).

10 While this is called vertically specialized industrialization (VSI) by some authors (Milberg *et al.*, 2013), others refer to it as GVC-oriented industrialization (Gereffi and Sturgeon, 2013).

11 After the international crisis of 2008, many countries have even moved their export markets from north to south. Likewise, emerging economies have increased the number of local supplier networks and have turned to regional value chains.

Likewise, as pointed out by Milberg (2004), tariff reduction has been much greater in low value-added sectors. In part, this was an explicit objective of initiatives, such as the European Union's Lomé Convention and the establishment of export processing zones, which concentrated in the clothing sector (one of the lowest value-added sectors in manufacturing) and the electronics sector (the electronic parts and components produced in export processing zones are generally at the low end of the spectrum of value-added to electronic products). Furthermore, in the case of agricultural products and food, the value added by developing countries which supply industrialized markets has been historically restricted by tariff escalation and non-tariff barriers imposed by developed economies (Bhatia, 2013).

In line with this, the South Centre (2013) states that WTO rules and negotiations should provide for: i) flexibilities for developing countries, in particular, the completion of the agendas on Special and Differential Treatment and the issues relative to Implementation in the Doha Round[(12)]; ii) developing countries' strategic use of trade and tariff policies for industrial and agricultural development; iii) policy space in the regulation of services sectors in a way that encourages domestic investments and expansion in production capacities in services; and iv) certain caution in relation to binding Trade Facilitation commitments, since these commitments many times require important efforts and are not always suited to developing countries' needs.

Moreover, the documents published by OECD, WTO and UNCTAD also fail to mention another main contribution of "classic" literature to the issue: most decisions about the establishment of the different activities of a value chain in different geographical locations will depend on decisions taken in those links of the chain from which such chain is "governed".

Value chain governance types may range from arm's length (market) relationships to (vertically integrated) hierarchies, depending on the complexity of the information between actors in the chain, the extent to which the information for production can be codified, and the level of supplier competence (Gereffi *et al.*, 2005).[(13)] The fact that a GVC adopts a certain type of governance structure will have an impact on upgrading opportunities. The support provided by the leading companies of the value chain to projects that improve the capacities of developing countries' firms depends on whether or not such support contributes to their own profits. And, given that the most important decisions of the chain are left to the leading companies, their actions may either hamper or even prevent the development of subordinate companies. Thus, for example, in those value chains which have captive government structures –in which leading companies are concentrated in knowledge-intensive activities and only give a series of technical requirements to their suppliers– the exchange of intangible assets that encourages the learning process will tend to be limited. Consequently, under this type of governance, the most observed way of upgrading will be that of products and processes. In contrast, more horizontal governance structures are commonly characterized by cooperation relationships between companies, thus facilitating functional upgrading processes, which, together with inter-chain upgrading, are the processes that can ensure the greatest long-term development opportunities.

Again, in terms of public policy design, the most relevant conclusion that can be drawn from this last issue is that governments that seek to encourage industrialization must take into account the power relationships within the value chain, and the interests and strategies of leading companies and of supplier networks (which either cooperate or compete with local companies). In this context, industrial policy needs to promote domestic manufacturers' capability to directly get involved in GVCs and to build skills and capacity in response to private sector's needs (Milberg *et al.*, 2013; Gereffi and Sturgeon, 2013).

Furthermore, we intend to present the implicit assumptions underlying the recommendations made by WTO, OECD and UNCTAD. To put it simply, it could be affirmed that the conclusions drawn by these institutions are strongly based on the following reasoning: tariff exemptions on imports of inputs will lead to an improvement in external competitiveness of the economy and this, in turn, will result in an increase in exports and, therefore, in income. This argument lies on at least two implicit assumptions which, as we will see, ignore the difference in the productive structures of the different countries and they are only valid in certain special cases, which do not necessarily abound in the real world and, in particular, in the periphery.

Firstly, it is assumed that there exists a high elasticity of exports and that, therefore, they respond vigorously to a

12 It includes issues that would contribute to developing countries' industrial development, such as: Trade-Related Investment Measures (TRIMs), review of GATT Article XVIII on governmental assistance to economic development, strengthening of Article XXXVIIIC on infant industry, Trade-Related Aspects of Intellectual Property Rights (TRIPS), and technology transfer for least developed countries.

13 Gereffi *et al.* (2005) distinguish five different types of governance structures: i) market, which implies relatively simple transactions and little coordination between the stakeholders of the chain; ii) *modular*, in which production specifications are more complex but easy to codify; iii) relational, in which buyers and sellers depend on complex information that cannot be transmitted easily, and in which a close coordination is required; iv) captive, in which a group of suppliers depend on one or very few buyers and in which the presence of power asymmetries in the value chain; and v) hierarchy (or vertical integration), which entails that leading companies govern suppliers.

price change. This may not be the case in many developing countries, especially in those countries whose exports are largely made up by primary products or natural-resource-based manufactures, which find physical or natural limitations to increase their production.[14]

On the other hand, even in the case of countries having a high price elasticity of exports, increase in exports will not necessarily imply an improvement in gross domestic product. In fact, a tariff cut on intermediate inputs may lead to GDP and employment contraction if there is a high replacement rate in the use of inputs, that is, if local firms are highly prone to replacing their local suppliers with foreign suppliers when imported inputs become cheaper. If the reduction in the production of domestic intermediate goods is not compensated for by a greater increase in the exports or domestic consumption of final goods, the overall result will be a contraction in the total economic income. The conclusion is that the shrinking effect of the measure may many times surpass the expansive effect, even when exports are sensitive to changes in production costs.[15]

Lastly, it is worth mentioning a further weakness of the argument put forward by WTO, OECD and UNCTAD, which could be framed within the so-called "fallacy of composition": even when the integration of developing countries via upgrading is feasible, the production chain will always –by definition– include a labour-intensive, low value-added and price-competitive link. If this is so, not every developing country will be able to integrate into the higher value-added links of GVCs simultaneously. Thus, for example, a basic link will always be required to assemble the high value-added components produced in the sophisticated links of the chain. In other words, the encouragement that international economic institutions are giving to the integration into GVCs as a development policy has a natural limit: not every country will be able to benefit to the same extent and at the same time from this strategy.[16]

4. Final considerations: Towards a research agenda on the GVC phenomenon from a southern perspective?

GVCs seem to be seen as a far-reaching analytical tool and as a mandatory topic in the debates that will be held in the different international economic fora in the next years. The topic has revived and gained an increasingly important role in the research agendas of international institutions such as OECD, WTO and UNCTAD, and it has also begun to be included in the negotiation agendas of different fora such as OECD and G20. The growing visibility of GVCs is such that it is even presented as a new and improved development paradigm, which would replace other schemes, such as ISI in Latin American countries and the export-led model of the Southeast Asian countries.

According to the representatives of this post-globalization economic development mainstream, integration into GVCs would offer a quick path to development and industrialization. Therefore, developing countries should concentrate their policies in the integration into these value chains, and encourage domestic companies to engage into certain specific activities rather than into complete industries.

However, as argued above, the outbreak of the GVC phenomenon in the international economic literature occurred many years before its recent and sudden appearance in the research agendas of institutions such as OECD, WTO and UNCTAD. Even more important, we have intended to show that, in their original neo-Schumpeterian conception the public policy recommendations arising from this analytical tool were diametrically different from the proposals made by these international economic institutions. In fact, far from proposing a trade and investment liberalization agenda, authors such as Kaplinsky, Gereffi and Milberg have stressed the importance of identifying barriers –both natural and artificial– that make it difficult for developing countries' companies to climb up the links of GVCs to the activities that generate greater returns. Therefore, we have arrived at the conclusion that it is necessary to recover this original and much more sophisticated and complex view of the relationship between global value chains and public policies for economic development.

14 For example, in the case of Argentina, Berrettoni and Castresana (2009) estimated, through an econometric study, a low price elasticity of exports.

15 See Michelena (to be published), who carries out a detailed analysis of the macroeconomic effects of a unilateral tariff liberalization using a general equilibrium model as basis, according to which the results depend on the values that the price elasticity of exports and the replacement rate of inputs may reach.

16 The literature also shows a growing concern over the fact that participation in GVCs not only fails to generate better or more stable jobs, but also is related to a worsening of labour and social conditions, that is, that there is not a one-to-one correspondence between economic and social upgrading (See for example, Barrientos et al., 2010; Gereffi and Fernández Stark, 2011).

From this perspective, the mere participation in GVCs does not *a priori* imply a positive aspect for a country's economic development prospects. In order for such participation to be effective, it must be accompanied by a group of factors that allow domestic companies to climb up the links of the chain, thus making it easier to reap the potential benefits from integration into GVCs. In other words, upgrading should allow developing countries to move away from lower value-added activities, in which competitiveness solely depends on the costs and the barriers to entry are low.

Again, these upgrading processes are much less linear and automatic than what the documents elaborated by WTO and OECD seem to suggest and, as it is usually the case, they differ according to the industry and the country where they take place. Upgrading possibilities depend on several factors, which include those pointed out by OECD-WTO, i.e. aspects of national economies that have an impact on the "business environment" (institutional and macroeconomic stability, current public policies, labour force availability, companies' technological and absorptive capacity, the stock of infrastructure, and innovation systems, etc.). However, of the studies published by these international institutions seem to remain silent about other aspects that are of paramount importance, among which we can mention: i) the decisions made in the links from which value chains are governed –generally placed in central countries– on the location of the different activities and on the division of labour within the chain; and ii) the limitations that the international economic rules impose on different public policy tools that would allow developing countries to create the right incentives to climb up value chains (for example, the international protection of intellectual property rights, the international protection of investments, and the tariff structure of developed countries).

The striking prominence that the study of GVCs has gained in the agendas of international institutions and fora will surely have an impact on the international economic rules and policies that will be implemented in the next years. However, so far the efforts made from the southern hemisphere and, in particular, from Latin America, appear to be insufficient to carry out a critical analysis of the contributions that these think tanks –which in general hold a view that is closely linked to developed countries' interests– are making. This paper thus sought to take the first steps in the urgent task of setting a research agenda which includes questions such as: to what extent do value chain governance structures have an impact on the possibilities developing countries have to integrate into higher value-added activities?; what public policy tools are still available for developing countries which are willing to attract those links of GVCs that generate greater returns?; to what extent will the recommendations made by OECD-WTO and other institutions for the promotion of international disciplines on the protection of investment or intellectual property rights involve a reduction in this policy space? Similarly, if we are willing to reject the linear proposal stating that the path to successfully integrate into GVCs depends almost exclusively on trade and investment liberalization, then we should map the concrete examples of public policies that have been proposed to create the right incentives for national companies to upgrade and determine how accessible these proposals are for developing countries which, many times, have budget constraints that limit their room for manoeuvre.

Far from being exhaustive, this list of questions only seeks to illustrate the gaps in our knowledge that call for an urgent need: i) to critically analyse the studies on the GVC phenomenon –as well as the public policy recommendations made by them– which multiply and spread rapidly, especially in the different think tanks linked to developed countries; and ii) to set a research agenda on GVCs that somehow reflects the interests of developing countries.

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