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服务业：可持续发展的新领域

BACKGROUND NOTE

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SERVICES AND VALUE ADDED

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DRAFT FOR DISCUSSION



Summary

Starting from a virtually zero base, the services component of the Global Value Chains (GVCs), has been growing exponentially since the turn of the century, showing a noticeable resilience to the negative impact of the 2008-2009 worldwide recession. Its development is unfolding in correspondence to the four modalities of services trade, with modes 1 (cross-border trade) and mode 3 (commercial presence) being the most relevant ones.

A large share of the services component of the GVC is constituted by infrastructural services. With respect to the sectoral composition of worldwide demand for offshored services, the financial industry is in the lead, with about 1/3 of the total, followed by manufacturing, telecom, energy, travel and transport, health care and pharmaceuticals, retail trade, business services, and media and entertainment.

Supply of offshored services is very concentrated amongst twenty-odd companies from few countries, most of them from the US. Several TNCs have set up specialized branches in one or more developing countries - India, the Philippines, China, Chile, Poland, Malaysia, and many others - from where they supply advanced services mostly to other TNCs and governments. Yet, local suppliers are also playing an important role, especially so in India.

For countries that are poorly developed in general terms, the special advantage of offshoring is that it allows them to export sophisticated, high-value services.

Thanks to the relative de-linking the services offshoring industry from the bulk of the domestic economy, some developing countries can at least partly overcome the constraints that traditionally have limited their role to that of exporters of primary commodities and labor-intensive manufactures.

However, the task of offshoring services is not as simple as it might appear from a mere comparison of the huge differentials between rich and poor countries. In fact, the location advantage constituted by low wages is in fact weighted by TNCs against the disadvantages typically present in developing countries, such as the lack of infrastructure and the inadequacy of education and institutions. Only in some developing countries the comparison is bound to lead to satisfactory results.

Comparative advantage as service supplier locations are strongly dependent on four key characteristics: low wages, a comparatively high level of tertiary education, language skills and (to a lesser extent) protection of intellectual property rights. As a result, to some extent, the very success of a developing country as offshore services exporter, coupled with its progress in the domain of social and human development, would eventually undermine its competitiveness. Therefore, successful integration in the GVC as a low-cost exporter of services is to be seen as a transitory stage in the context of a country's long-term development perspective.

I. Trade in Services as an Important Link in the Global Value Chains

A. International Value Chains and the Global Value Chain

There are myriads of international¹ supply/ production/value chains (IVCs)², each one supplying one or more different goods and services. Many of them, of course, are mutually interconnected at one or more stages of the value chain itself.

IVCs are, now common in many industries and are present in an increasing number of developing countries. If all the existing IVCs are seen holistically as one worldwide entity, they can be referred to as the Global Value Chain (GVC). Some form of international value chains have always existed, but modern IVCs have been expanding at an accelerated pace since the last quarter of the XXth century, and they now contribute a large and ever-growing share of the world's GDP.

A particularly apt definition of value chain and of GVC is that proposed by UNCTAD 2013g: "A value chain...describes the whole range of firms' activities from the design of a product to its end use and beyond; it includes activities such as design, production, marketing, distribution and support to final customers. Activities within a value chain can be undertaken by a single firm or divided among different firms, which comprise goods as well as services and can be concentrated within one location or spread out over different geographical locations. Since different stages in the production process are increasingly located across different economies, more and more intermediate inputs like parts and components are produced in one country and then exported to other countries for further production and/on assembly in final products...the term Global Value Chains (GVCs)³, originally from the management literature, has been associated in the economic literature with concepts like "global production sharing" "multistage production" "offshoring" and "outsourcing". These different terms all relate to the increasing importance of vertical production and trading chains across countries. Global value chains (GVCs) have been described as a system of value-added sources and destinations within a globally integrated production network⁴ (UNCTAD 2013g, p.1).)

IVCs have surged as a product of cost reduction strategies, resulting "in goods often being produced with intermediate inputs originating from several countries, are now common in many industries and extend over to an increasing number of developing countries. From an economic standpoint, the emergence of GSCs⁵ is related to the concept of comparative advantage. By relocating production processes (i.e. R&D,

¹ Of course, purely national value chains do exist as well. However, in this study we are only interested in those value chains that are based on the cooperative interaction of actors operating in different countries and engaging not only in production activities, but also in international trade activities. The latter are the international value chains.

² We preferred to use the term "international" to refer to each specific value chain, and the more holistic-sounding term "global" to refer to the worldwide web comprising all value chains. Other authors commonly use the plural term GVCs to refer to various sectoral international value chains

³ In UNCTAD 2013g terminology, there are many GVCs, one for each globalized production process.. Thus, strictly speaking, in his paper the Term GVC corresponds to the term IVC in our main text.

⁴ See OECD 2012

⁵ Nicita et al use the term GSCs (global supply chains). It is equivalent to the term IVC used in this study.

concept, design, manufacturing, packaging, marketing, distribution and retailing) in different countries, transnational corporations (TNCs) can take advantage of the best-available human or physical resources in different countries, with a view to maintaining their competitiveness through augmenting productivity and minimizing costs” (Nicita et al. 2013, p.1. See also UNCTAD 2010a,b,c; De Backer 2011).

B. A Definitional Issue

Experts diverge on the exact meaning of and coverage of the concept of (international, global) value chain. Broadly speaking, the concept is not very different from the older term *filière*, that identifies all the different operations that concur to the production of a final good or services. The operations are hierarchically ordered on a scale that usually (but not always) is characterized by a growing technological intensity, with agricultural or extractive primary sector activities being low-tech, and upper-scale transformation activities being technology and human-capital intensive. Value added is produced at every stage of the chain, and eventually the market value of the final product should reflect the sum of the value added created by each of the activities that have contributed to the overall process. The distribution of this value added depends on a number of factors, among them the quantity and quality of labor involved at each stage of the process, the power relations among the various actors that participate in the production process (such as workers, managers, and capitalists), the degree of monopoly enjoyed in national and international markets by the firm that commercializes the final product, and the policies of the host state in areas such as incentives, taxes, access to credit, labor and environment protection, and the like.

Taking into account the nature of value/ supply/production chains, the issue of coverage is one of convenience and appropriateness. Should the term cover all the activities that contribute to a certain production process, or rather only those that can be considered as specialized, demand-driven, custom-specific, and therefore clearly recognizable as being part of a specific chain?. These activities, presumably, would not have been carried out (or would have been carried out with different modalities) in an alternative “no value chain scenario”, both by the central actor that “invents” the chain - and thus substantially controls it from the technological, entrepreneurial, managerial, and organizational viewpoint – and by the other, hierarchically subordinated and often atomized participants, who usually are little more than executors of detailed processing orders issued by the central actor. If this relative restrictive interpretation of value chain is adopted, it should not cover many (mostly primary) activities that are aimed at producing homogeneous, undifferentiated commodities sold as such on international markets, without a previous (usually contract-based) agreement between the seller and the owner.

An example can help. Take for instance the Nespresso (an operating unit of the Nestlé Group) supply/production chain. In the broadest possible terms, it clearly encompasses several diverse agricultural, industrial and services activities, from the cultivation and processing of coffee, to the manufacturing of coffee machines, to the preparation and execution of a costly and spectacular commercial strategy. However, it is likely only some of these activities are carried out under the direct supervision and control of the firm. If Nespresso buys its first-class coffee in the world market, without previous contacts with coffee producers, the basic activities related to the production and local trade of the coffee bought by Nespresso should not be considered part of the Nespresso chain. If, on the contrary, Nespresso goes as far as

entering directly in contact with specialized coffee producers, imposing them strict quality standards and possibly providing them with adequate technology and trading in order to make their task feasible, and eventually buys the bulk of their coffee production, the picture becomes very different, and agricultural producers become fully members of the Nespresso value chain.⁶

In our view, the “restrictive” definition sketched above is preferable to other, all encompassing ones, as it has the advantage of clearly identifying those activities that specifically, dedicatedly, and (usually) exclusively contribute to a specific value chain, and therefore occupy a precise niche in its overall hierarchical and planned structure. A fundamental characteristic of international value chains is in fact that they are centrally planned (albeit flexible) and dedicated systems of production, that take into account the price structure in several national markets and in the world market in order to ultimately pursue profit-maximization in a medium- to long- term scenario.

On the contrary, other activities, carried out by independent producers who sell them freely in impersonal markets, where TNCs buy them as primary resources or other inputs, should not be seen as part of the value chain. Consistently, the value added by such independent producers is not part of the value chain, but simply as an input that represents for the integrated production process an external cost, that has to be paid by one or more of the actors who do participate in the chain.

C. The Services Component in the Global Value Chain (GVC)

A large and crucial sub-set of the global value chain (GVC) is constituted by services (see Box 1). The services component in the GVC constitutes a new and evolving reality in the world economy, and one of its unique characteristics is its fast-changing nature, as its rapid growth covers an ever-increasing set of services activities. In turn , these activities are performed and transacted through an array of supply and purchase modalities, which are made possible and profitable by a number of factors, such as technological advances, industry-specific growth trajectories, the avatars of the global macroeconomic and financial situation, the evolution and geographical distribution of the worldwide endowment of human capital, and changes in trade and other economic policies at the national and international level both in developed and in developing countries.

The services component in the GVC is composed by many different services activities, each of them being part of one or more IVCs that are ultimately geared towards supplying either goods or services. However, as is explained a bit more at length in Box 1, not all the activities in the GVC are services, on one hand, and not all services activities are part of one or more of the IVCs that constitute the GVC, on the other hand (see box 1).

Starting from a virtually zero base, the services component in the GVC has been growing exponentially during the first decade of the XXI century, and - thanks to its

⁶ At least in some cases, Nespresso does engage directly with coffee growers, promoting partnership programs aimed at improving quality and environmental sustainability. An example is the business cooperation experience in Colombia, involving programs carried out jointly by between Nespresso, the [The Colombian Coffee Growers Federation \(FNC\)](#), and smallholder coffee farmers (see Nespresso 2013a,b). From the Nespresso viewpoint, the benefits of this form of cooperation includes also security and image advantages.

typically counter-cyclical characteristics - has showed a remarkable resilience to the negative impact of the 2008-2009 worldwide recession⁷.

A recent UNCTAD study confirms that “GVCs make an extensive use of services” (UNCTAD 2013a, p.iii): while services account for only about 1/5 of global gross exports, a far higher (46%) share of the value added embodied in exports is contributed by service activities (many of which are inputs to manufacturing production), and the relative share of services in global FDI is very high (available estimates range from 40% to over 60%).⁸

The crucial role played by services in the overall development of the GVC, and the progressive blurring of many of the traditional barriers between services and manufacturing, have been stressed with particular emphasis by Kommerskollegium (2013):

“Services are a critical but often overlooked part of the GVC phenomenon. They are playing an ongoing critical role in the transformation of international trade and investment patterns, both through enabling the development of value chains and through the creation of value chains in their own right.

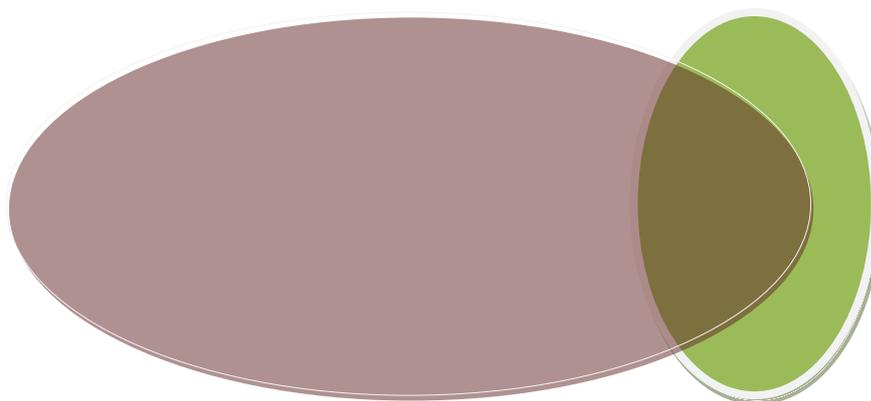
The enabling services in the GVCs support the creation of value chains in both goods and services and include a variety of key services such as communication, insurance, finance, computer and information services, and other business services. These enabling services are important since the competitiveness of GVCs in goods is dependent upon efficient services inputs” (Kommerskollegium 2013, P.3⁹. See also Stephenson 2012, Drake-Brockman and Stephenson 2012)

These developments made it possible to perform advanced service activities in far away low-wage countries and to export them cross-border in "real" time, thereby breaking the traditional personal linkage between suppliers and utilizers. Even more importantly, they also allowed to segment previously integrated manufacturing processes, increasingly separating R&D, design, calculation, elaboration, engineering, and other knowledge- and information-intensive activities, on one hand, from transport, assembling and other tasks that necessarily involve the direct interaction between human labour and material things (such as machines, inputs, and semi-finished goods), on the other hand. The core of the global value chain, even in goods-producing sectors, was thus migrating towards services and away from manufacturing activities in the strict sense.

⁷All countries in the world felt the impact of the crisis, but not all of them experienced a technical recession. Most, but not Severe and prolonged GDP reductions affected most developed and many developing capitalist economies, with noticeable exceptions such as India and Brazil. The market socialist economies of China and Vietnam kept growing at very high rates.

⁸ According to UNCTAD 2013a, “more than 60% of global FDI stock is in services activities” (p. iii). Another UNCTAD source) puts the share of services in the “global FDI total” in 2012 at 40%. (see UNCTAD 2013 e). The difference between the two estimates might be due to the fact that one of them refers to stocks and another one to flows, or to other definitional and/or methodological discrepancies.

⁹ The Swedish think-tank is in the vanguard of this area of studies. Among other publications by Kommerskollegium and his fellows on the role of services in the GVC, see Kommerskollegium 2010, 2012, 2013, , Lodefalck M.N. 2012

Box 1. The Services Component as a Sub-Set of the GVC

1. The large oval on the right represents the inter-sectoral GVC, that includes both services and non-services (i.e. commodities-producing) activities. The large oval on the left represents the complex of all world services activities. The shaded area of superposition is the services component in the GVC, i.e. that share of worldwide services activities that do enter the process of value-added generation constituted by one or more IVCs, and is therefore an integral part of the GVC.

According to the definition proposed in section B of this chapter, those service activities that do engage to some extent in international trade, but only as buyers of generic (non-dedicated) commodities, goods, and services, and who mostly supply services to the domestic market, are not considered as part of the services component in the GVC. This is the case, for instance, of a national public health system. The system buys part of its drugs, machines, and specialized services from the international market, but its foreign suppliers cannot be seen as part of a specific, dedicated value chain. Moreover, as the public system provides health services to the population free of charge or at political prices, it is not creating value added in conventional economic terms. Rather, it is creating “use value”, satisfying directly a basic need of the population in a non market fashion. Conversely, if the public system were privatized, and substituted by a network of profit-oriented foreign-owned clinics, there is little doubt that the health sector in that country should be seen as fully integrated in the services component in the GVC.

2. Part of the services supplied in the GVC framework enter as “inputs” in the manufacturing production activities constituting the rest of the GVC. Other globalized services activities have as final product a service that is supplied to a client (be it an individual, a firm, or an institution) who does not use such service as an input for eventually produce a material commodity. Rather, she buys the service only due to its (subjective) use value. For instance, large part of the modern world tourist industry can be seen as part of the services component in the GVC.. Yet, its final product consists in tourist services, that are purchased by clients only on the basis of their intrinsic use value, and do not enter as inputs in other sectors value chains. The most relevant example, however, is that of globalized financial services, the largest single services sector in the GVC. A relevant share of global financial activities, rather than financing productive investment, consists in a number of specialized services

supplied to wealthy clients for different, non-productive purposes (i.e. storage of value, financial transactions unrelated to productive investments, tax evasion and elusion, carry trade and other forms of speculation, and the like).

D. Statistical Shortcomings

Due to various factors, among them the very novelty of the services component in the GVC phenomenon, the persistent shortcomings of, and the intra-firm cadre in which many of the transaction in the services value chain occur, no firm data exist on its overall dimension and dynamics on a planetary scale (see Table 2 and Sako, 2005, ECLAC, 2008; Sturgeon & Gereffi, 2009). Moreover, international statistics on trade in services are still notoriously¹⁰ deficient, notwithstanding the important progress made in this field by several international organizations, among them the OECD, UNCTAD, and the Interagency Task Force on Statistics of International Trade in Services. As a matter of fact, one area of global state statistics where there have been notable advances is that of the construction of international input-output tables, but also in this domain “, data gaps are especially acute in services, where product detail is sorely lacking and vast inferences are made to settle national accounts. One reason is that the data are difficult to collect. The customized and ephemeral nature of many services has led them to be considered “non-tradable” by economists. Finally, services have long been viewed as ancillary to manufacturing, either as direct inputs (e.g., transportation) or as services provided to people who worked in manufacturing (e.g., residential construction, retail sales, etc.). As such, services have been viewed as a by-product, not a source, of economic growth. Thus, data collection on services has historically been given a low priority by statistical agencies although the need for statistical evidence for policy making has been clearly articulated” (UNCTAD 2013f).

With respect to the specific issue of international value chains, several case studies have been carried out on manufacturing products, that usually embody also services activities(see UNCTAD 2013b, c, d) , but similar exercises for of individual international value chains fully belonging to the services sector are lacking. From a methodological vantage point, UNCTAD 2013g constitutes a useful contribution. UNCTAD 2013g shows that more advances techniques aimed at estimating the effective distribution of the value created by globalized services supply networks among the various countries and sectors value-added and GVC indicators have been recently developed. These techniques are based on specific value-added- and GVC-based indicators. However, they ultimately extract their raw statistical information from “some kind of international input-output (I-O) database” (p.96), which are far from fully developed at the present stage. Therefore, “ more detailed analysis at the industrial level is necessary to to examine the position of countries within international production networks” (p.96), especially so for the services components

¹⁰ Significant improvements have been achieved in this area in a framework of international and interagency cooperation. The Interagency Task Force on Statistics of International Trade in Services is presently in the final stage of its thorough revision of the Manual on Statistics of International Trade in Services (see DESA 2002). Updated information on the work of the Interagency Task Force can be found in <http://unstats.un.org/unsd/tradeserv/TFSITS/> .

of international value chains demand for offshored services (see also Koopman et al 2010, OECD 2012, OECD-WTO 2013).

Due to these caveats, also the data, estimates and forecasts that are presented in the remainder of this study shall be taken with pinch of salt (see box 2).

Box 2. A Conceptual and Methodological Note

It is important to note that the general data reported in this paper are very approximate estimations of the value added generated by the various components of the services component in the GVC. The information available at such an aggregate level does not allow do disentangle at a deeper level the full structure of the overall matrix of inter-industry trade relations, a large part of which involves trade in services that are acquired as inputs in sectoral value chains ultimately geared to the production of commodities. In the sector of (private) financial services*, in particular, it is not possible - at least, at the level of generalization inevitably adopted in this non-specialist paper - to estimate the share of overall financial operations that is earmarked to fund industrial or agricultural processes ultimately leading to the production of commodities. Thus, it is not possible to distinguish such “productive” financial services activities from it from the bulk of the operations performed by the (private) globalizing financial sector, that are overwhelmingly speculative and/or rent-related in nature, and therefore do not enter (at least directly) in any productive process.

** The financial services firms involved in the services component in the GVC are exclusively, or at least prevalently private.*

II. Trends

A. Growth Estimates

The order of magnitude of the services component in the GVC is impressive. Its global revenues in 2008 have been estimated in a range between 100bn and 160bn US\$, and according to available estimates the market was expected to expand to over 250 bn US\$ by the end of the decade (see the Boston Consulting Group 2007, OECD 2008, NASSCOM 2009). To my knowledge, the latest available by the estimates on the overall size of the services component of the GVC have been elaborated by the Center on Globalization, Governance & Competitiveness (CGGC) of Duke University. In a conference held in Santiago in October 2012, Karina Fernandez-Stark (one of the Center’s leading experts) has substantially confirmed the above-mentioned predictions, providing an estimate in a range of 250-280 bn US\$ for the year 2010 (see Fernandez-Stark 2012). Moreover, the GVSC directly employs over four million people (Fernandez-Stark et al. 2011).

The CAGR (Compound Annual Growth Rate) of the services component in the GVC for the second half of the decade is believed to be over 40% (see The Boston Consulting Group, 2007; Gereffi and Fernandez-Stark 2010a,b;, NASSCOM, 2009; OECD, 2008). The most advanced component, KPO services, is growing even faster, at a CAGR of almost 60%. Since 2008, while most developed and many developing economies are mired in a crisis, the services component in the GVC has merely experienced a deceleration in the most mature supplier markets (i.e., India), while

keeping expanding fast to Brazil and other new emerging countries (see Gereffi G.& Fernandez-Stark K., 2010b).

The services component in the GVC is a fully demand-driven phenomenon. Notwithstanding the emergence of many supplier firms from the South, some of them quite sophisticated and of sizeable dimension, relatively few large TNCs from the developed world maintain a substantial control on the technological, economic and financial dimensions of the value chain, and the vast majority of ITO and BPO services suppliers cater to their demand. Among the developed regions, North America is leading, with a market share ranging (according to different estimates) between 1/2 to over 2/3 of the total. European and Asian firms generate most of the remaining global demand for offshored services.

The rest of the world still accounts for just about 2% of the world market. Yet, many TNCs from the developing world are beginning to contribute to global demand in the industry, and their role will become progressively more relevant. Another emerging trend which is changing the structure of the services component in the GVC is the entry of SMEs, which might account for up to 1/3 of the market. These smaller-sized firms are often more flexible than large TNCs and are not hampered from the latter's diseconomies of scale¹¹, and therefore are in an optimal position to exploit the synergies with offshore services suppliers, especially in the advanced segment of new product development (see UNCTAD 2005a,b., 2007, Duke Offshoring Research Network & Booz&Co., 2006,2007).

B. The US Market as the “Core of the Core” of the Services Component in the GVC and the Emergence of China as a Key Player

Notwithstanding the rise of China¹², India, and – to a lesser extent – of other emerging countries, the unique role played by the UK in the international trade in financial services, and the relative decline of America's global economic dominance, the core of the services component in the GVC is still clearly identifiable with the US economy¹³ (including in the latter term all service-related activities carried out by US TNCs worldwide and by non-US firms operating in the US territory¹⁴): “...the United States remains the world's largest services market and also the world's leading exporter and importer of services. Moreover, the United States continues to maintain the largest services trade surplus of any country in the world.”(USITC 2010, p.xiii). In turn, the “core of the core” of the services component in the GVC is constituted by the traded IS activities involving (as buyers or sellers) one or more US enterprises¹⁵:

¹¹ As a general rule, firms grow larger to reap an array of economies of scale. Yet, in doing so, they also eventually incur in diseconomies of scale (stemming from factors such as high systemic fixed and overhead costs, excessive centralism, increasing internal communication hurdles, bureaucratization).

¹² China is the world fifth largest importer and exporter of services.

¹³ The country where offshored services activities are most developed is India, but the engine of the whole demand-driven services component in the GVC machine is the US economy.

¹⁴ The value of services sold by non-US firms operating in the US territory do not, of course, contribute statistically to US GDP. Yet, from a conceptual and factual viewpoint, they must to be seen as belonging to the core component of the services component in the GVC that revolves around the US economy.

¹⁵ In fact, given the holistic nature of the services component in the GVC, also the transactions of infrastructure and other services involving exclusively non-US TNCs operating in the US are to be seen as part of the “core of the core”, as they are directly or indirectly motivated by the unique role of the US economy.

“Infrastructure services are vital components of the U.S. economy. These industries...exert an economy-wide influence through their cost, quality, and reliability. Low-cost banking, securities, and insurance, for instance, facilitate lending and risk management that promote entrepreneurship and economic growth; high-quality, reliable telecommunications and electricity provide the communications and energy necessary to support industrial activity; and low-cost transportation and retailing provides for the efficient distribution and marketing of manufactures and agricultural goods.” (USITC 2010, p.xiii).

The relative weight of IS¹⁶ in US GDP and employment is quite large (37% and 30% respectively), even taking into account that the tertiarization in the US has gone so far that services now constitute 4/5 of the economy, both in terms of GDP and of employment. Notwithstanding their relatively low (albeit increasing) degree of tradability¹⁷, infrastructure services also account for a significant share of U.S. services trade, representing 27 percent of total U.S. cross-border¹⁸ private-sector services exports and 39 percent of U.S. cross-border services imports.¹⁹ The largest contribution to US IS exports comes from the financial sector (over 40% of total IS exports in 2008). Until the outburst of the global crisis (that actually originated from one major US IS sector, namely finance) both GDP and trade in IS had exhibited high and above-average growth rates (see USITC 2010, USDOC-BEA 2009a,b). In 2008, however, US IS industries’ output declined by 0.5%, and employment fell by

¹⁶ The definition of IS in USITC 2010 is wider than the one consistently adopted in this Note. It includes (see USITC 2010, p. 2-1):

- Wholesale services;
- Retail services;
- Transportation and warehousing;
- Information services;
- Finance and insurance;
- Utilities (including energy, water, and sewage services).

¹⁷ The US export a relatively low share of their IS supply, while exhibiting a relatively high dependency on IS imports. IS are still mostly non-tradable, especially in a large economy like that of the US. Such a relative “non-tradability” is not in contradiction with the high weight of IS within US services imports (the US trade ratio is low, both in goods and services, and thus US services imports are a relatively small magnitude in comparison with US services GDP).

¹⁸ USITC 2010 utilizes data generated by the Bureau of Economic Analysis (BEA). According to BEA methodology, cross-border trade in services corresponds to transactions that would be classified under Modes 1 and 2 (and, in a few cases, under mode 4) under the GATS terminology (see USDOC-BEA 2009a,b).

¹⁹ The definition of IS in USITC 2010 is wider than the one consistently adopted in this Note. It includes (see USITC 2010, p. 2-1):

- Wholesale services;
- Retail services;
- Transportation and warehousing;
- Information services;
- Finance and insurance;
- Utilities (including energy, water, and sewage services).

1%, due to the initial impact of the crisis in the financial sector, and US cross-border trade in IS even recorded a small deficit²⁰.

The magnitude of US cross-border trade in IS, however, dwarfed by that of affiliate transactions²¹, thereby confirming the advanced degree of trans-nationalization and global integration of the IS component of the services component in the GVC: “The vast majority of U.S. infrastructure services trade takes place through affiliate transactions.”(USITC 2010, p.2-7).

In 2007, services supplied by US-owned foreign affiliates reached US \$ 1 trillion, having increased at an annual rate of over 14% since the mid-2000s. IS services accounted for over half (51%) that huge figure (US\$519 bn)²². In that same year (2007) services supplied by foreign-owned TNCs in the US were US\$677.8bn (out of which more than 60% were IS), having increased at an average rate of less than 10% since the mid-2000s. As result, in the period immediately preceding the crisis, the US has been recording a huge and growing surplus in its trade in service balance. Trade surpluses were recorded by most US services industries and in most bilateral trade relations. Most of US trade service relations still link it with other advanced capitalist countries, notably the UK, Canada, and Japan. Yet, US- China services trade is also a rapidly growing phenomenon, where structural US surpluses) partially offset the deficits recorded by the US in the merchandise bilateral trade relation with the Asian giant. ” In 2005-11, China doubled its share of U.S. services exports, vaulting from 11th to 4th among U.S. service export partners. The compound annual growth of these exports in 2001-2011 was 16.4 percent, versus just 7.7 percent for U.S. services exports to the world. Meanwhile, U.S. imports of services from China, which primarily comprise services related to goods, such as freight and transport, have not increased much over time, further expanding the U.S. trade surplus in services with China. Nonetheless, at \$27 billion in 2011, China was still far behind the United States’ top-three export partners in services, Canada (\$56 billion), the UK (\$53 billion), and Japan (\$45 billion)(USCC 2013, pp. 9-10)

As a matter of fact, China is rapidly putting behind its shoulders its traditional image of a low-skill, manufacturing-only, service-underdeveloped world factory, and has rapidly become a first-class player in both the manufacturing and the services components of the GVC.²³ The share of services in China’s GDP, which was as low as 18.5% still in 1990, surpassed the 30% level in the early 2000s, and reached 42.6% in 2009 – a 0.8% increase from the year prior. China is presently the world fifth largest importer and exporter of services. From 2005 to 2011, China's service exports more than doubled (from 89 US\$ billions to 184 billions), exhibiting a CAGR of 12.9%, and lifting China’s share of world services exports by 0.8 percent) (see Simpkins 2011, USCC 2013).

²⁰ Source : USITC 2010. The data refer to 2008, the latest available. Therefore, they only marginally reflect the impact of the financial and economic crisis.

²¹ In the BEA methodology, affiliate transactions basically correspond to trade transactions carried out under GATS Mode 3.

²² This figure is actually an underestimate, as “data were suppressed for telecommunications services and transportation and warehousing services” (USITC 2010, p. 2-7, Note 11)..

²³ On the historical transformations that led China to join the GVC see, for instance, Lehmann 2012

C. Sectoral Trends and Forecasts

The most recent estimates on the overall magnitude and growth trends of the services component in the GVC as a whole refer to 2008, and have been reported in section II.A. (see OECD 2012).²⁴ Available estimates of the sectoral composition of worldwide demand for offshored services by the end of the first decade of the XXI century shows the financial industry to be in the lead, with about 1/3 of the total, followed by manufacturing ²⁵(1/5), telecom (12%), energy (11%), travel and transport services (7%), health care and pharmaceuticals, retail trade, business services, and media and entertainment. Thus, IS as whole constitute over 60% of GVC's services activities (see Rao, 2008, Jaruzelski & Dehoff, 2008). Under the impact of the global financial and economic crisis, the finance sector did take a serious beat, but other services did not fare too bad.

More updated and forward-looking estimates and forecasts are being continuously produced by mostly private research centers, referring to the services sector that jointly constitute the core of the services component in the GVC.. In the remainder of this sub-section, we report briefly on some of their results, which paint an overall picture of continuous impetuous growth even in the midst of the present international economic crisis.

Financial Services

The total assets of the global banking industry are expected to climb to an Estimated US \$163,058 Billion by, with a CAGR of 8% over the 2012-2017 period (Reuters 2012. On the globalization trends pervading private financial services see also Deloitte 2006)

Energy and Transportation Services

The global energy scenario map is undergoing deep changes, which are likely to imply far-reaching consequences for energy markets and trade. The main elements of novelty are by the resurgence in oil and gas production in the United States, the trend towards a retreat from nuclear power in some countries, and persistently fast growth of “alternative” and/or new wind, solar, and unconventional gas technologies. Perspectives for international oil markets are clouded by uncertainties on the future of crude production in Iraq. A huge potential exists for improving global energy efficiency, but for this purpose a set of concerted policy initiatives in needed.

²⁴ In late May, 2013, OECD and WTO are expected to publish the results of a joint initiative aimed at estimating some key indicators on the value added embodied in the exports of developed and emerging countries. The indicators refer to the years 2005, 2008, and 2009. The series are being calculated on the basis of newly-constructed I-O tables, and that shall contain interesting statistical information (including, in particular, the services content of gross exports by exporting industry, broken down by foreign/domestic origin) referring to 40 countries (all the OECD countries, plus Brazil, China, India, Indonesia, Russian Federation and South Africa). See OECD-WTO 2013.

²⁵ Large manufacturing firms from the developed world also tend to offshore many tasks to services providers in developing countries. In some cases these providers are sub-units established by the firm itself, and in others they are (at least formally) independent local actors. One of the most interesting examples is constituted by large pharmaceutical enterprises that are increasingly offshoring delicate and human-capital intensive service activities such as clinical trials and R&D towards developing countries, where they can be performed at a cost up to ten times cheaper than in the north. R&D offshoring is also common in the ITC industry

In IEA's base scenario, "global energy demand grows by more than one-third over the period to 2035 ...with China, India and the Middle East accounting for 60% of the increase. Energy demand barely rises in OECD countries, although there is a pronounced shift away from oil, coal (and, in some countries, nuclear) towards natural gas and renewables "(IEA 2012, p.1). Notwithstanding the growth in low carbon sources of energy, fossil fuels will remain dominant, thanks inter alia to huge and increasing subsidies (over 1/2 a trillion dollars in 2011), that dwarf those benefitting renewable energy technologies (see Jeschke 2011, EIA 2012, Forbes 2013)).

A recent forecast for the global transportation services projects a slow growth scenario, that would lead the industry's value added to reach an estimated US \$2,735 billion in 2017, with a CAGR of 2.5% over the next five years: Growth is expected to be driven by government infrastructure investments, improved economic conditions, rise in industrial production, and mining activities."(Lucintel 2012b)

The World Energy Council has estimated two basic long-term forecast scenarios on the evolution of energy and transport trends. The first scenario assumes the prevalence of unbridled market forces, while the second one the States intervene effectively with various policy tools, such as through regulation, technology innovation and planning, and infrastructural investment. Both scenarios expect most of the increase in transport services and energy demand will stem from China, India, and other developing countries. Yet, their overall implications are strikingly divergent (see Table 1. The most obvious implications is that a full unfolding of Scenario 1 is in fact not a realistic possibility, as its material and environmental lack of sustainability is self-evident.

Table 1. Percentage Increase in Key Transport and Energy Indicators, 2010-2050

	Scenario 1	Scenario 2
Total fuel demand	82%	30%
Demand for major fossil fuels	68%	10%
Number of cars	2.6 times	2.2 times
CO ₂ emissions	79%	16%

Source: World Energy Council 2011

IT and Telecom

The overall revenue of the global telecommunications industry revenue in 2012 has been estimated at \$2.1 trillion (Epstein 2012).

Worldwide IT spending is projected to total \$3.7 trillion in 2013, a relatively modest 4.2 percent increase from 2012 spending of \$3.6 trillion, according to the latest forecast by Gartner, Inc. However, IT growth is expected to accelerate in the next years, and the global IT market is forecast to reach US \$1,147 billion in 2017, with a CAGR of more than 5% during 2012–2017 (see Gartner 2013, Lucintel 2012a).

According to a AT Kearney estimate, total revenues generated in the Internet value chain amounted to US\$1,930 billion in 2008, and are bound to keep growing at annual rates of over 10% for the foreseeable future (AT Kearney 2013).

Manufacturing

Among the most interesting emerging trends in the area of globalizing manufacturing processes are a renewed interest for investing in production facilities in the US, an acceleration of product innovation competitive pressures, and changes in the philosophy of value chain management pointing towards standardization, increased localization and responsiveness, tighter collaboration with suppliers, and a greater emphasis on risk management. (see KPMG 2011, Forbes 2013, Meckstroth 2012, MAPI 2013)

Pharmaceutical Industry

The TNC-dominated pharmaceutical industry, that relies heavily on offshore services, reached global revenues ranging in the industry ranged from \$101 to \$157 billion in 2008 (Gereffi G. & Fernandez-Stark K., 2010) . The industry is expected to grow at a CAGR of 5% during 2011-2017, exceeding sales worth US\$ 1.1 Trillion by 2017 (see ReportLinker 2013)

III. Why is the Services Component in the GVC Emerging?

A. Why did Entrepreneurs Resort to Create the Services Component in the GVC?

The core engine of the services component in the GVC is the unceasing attempt on the part of large and advanced capitalist²⁶ enterprises to cut costs - especially overhead expenses stemming from their complex infrastructure and systemic organization - in order to survive and thrive in the midst of global oligopolistic competition. To this purpose, they strive to exploit to the largest possible extent the new potential offered by fast-evolving ICT technologies, which in practice allow them to acquire high-quality, strongly human capital-intensive services in developing

²⁶ So far, China's large publicly controlled mixed enterprises have not engaged in off-shoring services activities on a large scale, mainly because skilled labor costs in China are still very competitive by international standards. In the future, it is likely that they will follow the example of Western TNCs, as far as cost saving considerations will be considered as paramount with respect to other priorities (such as that of employment preservation) in the eyes of those planners who ultimately retain the bulk of the ownership control on this new class of mixed enterprises.

countries where wages are a fraction than those prevailing in the developed world.²⁷ Besides technological progress, the boom of services trade in the GVC framework is also favoured by other complementary enabling conditions, such as the opening to markets of many areas of the world that were previously secluded or isolated from the global capitalist web, the advances of multilateral, regional and bilateral trade liberalization agenda, and the expansion of university and postgraduate education in many developing countries.

TNCs from industrialized countries have been transferring to low-cost countries an ever-expanding range of service activities. This provision of services from abroad is called "offshoring". Moreover, a crucial characteristic of the services component in the GVC, and one that goes a long way to explain its extraordinary expansive drive, is that not only traditional services activities are being offshored, but also many activities which were traditionally embodied in the industrial manufacturing process. Thanks to technological progress in ICT and other areas, these activities can presently be disembodied. Such a vertical disintegration of the production process allows the newly-created services activities to be performed in a remote location, transformed into informational inputs, and purchased through market transactions.

For countries that are poorly developed in general terms, the special advantage of offshoring is that it allows them to export sophisticated, high-value services. Although TNCs "initially outsource business processes at the lower end of the value chain, these jobs are often among the advanced tasks for typical developing countries offshore production does not depend on strong linkages to the domestic economy" (Meyer 2009, p.3).

Thus, thanks to the quasi- enclave nature of the services offshoring industry and its relative de-linking from the bulk of domestic economic input-output relations²⁸, some economic agents in some developing countries can at least in part leapfrog over the systemic constraints that traditionally have chained them to the unattractive role of exporters of primary commodities and unskilled labor-intensive manufactures.

However, the task of offshoring services is not as simple as it might appear from a mere comparison of the abysmal wage differentials between rich and poor countries. Notwithstanding the above-mentioned property of relative isolation, the location advantage constituted by low wages is in fact weighted by TNCs against the disadvantages typically present in developing countries, such as the dearth of infrastructure and the poor quality of education and institutions. Only in a minority of developing countries the comparison is likely to lead to satisfactory results.

Moreover, in the specific case of software development (the industry that pioneered the services component in the GVC), as in other potentially offshorable services sectors, each participant in a project generally lacks ex ante all the knowledge

²⁷ Besides technological progress, the services component of the GVC boom is also favoured by other complementary enabling conditions, such as the opening to markets of many areas of the world that were previously secluded or isolated from the global capitalist web, the advances of multilateral, regional and bilateral trade liberalization agenda, and the expansion of university and postgraduate education in many developing countries.

²⁸ Offshore services industries in low-cost countries are by definition integrated with the developed world in the GVC framework, yet their establishment and functioning are relatively independent from their backward linkages with the remainder of the domestic economy.

required to successfully accomplish her task, and needs to absorb it costly through various channels such as documentation, training, meetings, and error-and-trial processes (Walz et al., 1993). Actually, "The process of knowledge acquisition and sharing is problematic as knowledge is embedded at societal, organization, and cognitive levels of analysis...organising principles, routines and standard operating procedures may be non-migratory due to embeddedness of knowledge in context."(Nicholson and Sahay 2004, p.330). Therefore - without underestimating the enabling role of modern ITC technologies - the task of organizing and mastering complex processes of knowledge interchange and development across boundaries in different countries characterized by different cultures is not a trivial one: ". outsourcing is not merely about managing the economics, but also developing cultural sensitivity and empathy" (Nicholson and Sahay 2004, p.362).

B. Changes in the International Scenario that Favoured the Emergence of the GVC

The emergence of the services component in the GVC is a recent phenomenon, as it was practically non-existent until the end of the past millennium. It constitutes by far the fastest growing component of the world economy and implies major qualitative changes in the structure of global production and trade relations.

The birth of the services component in the GVC was propitiated by three crucial factors, that began operating in different moments over the last quarter of the XXth century and reached a mutually enforcing momentum during the 1990s. Two of them are related to the expansion of the world market, which is now all-compassing and quasi-universal. The third one is product of a major leap in technical progress.

The first factor is constituted by increased participation to global market relations of several countries, among them China and Russia, that previously followed relatively autarchic policies and carried out most of their trade in a planned fashion, through channels external to those of the bulk of world trade.

The second is the progressive generalization in the South of market-based relations of exchange²⁹, which expanded to capture most areas of the domestic economy previously dominated by subsistence and other non market-based livelihood and survival strategies. The quasi-universalization of market relations was mainly the result of the interplay of global economic factors and changes in world power relations, but was also supported by the progressive liberalization of international trade and by the advance of multilateral, regional and bilateral trade negotiations. Its major implication was an enormous increase in size and depth of all major international markets, among them the world labour market, where pre-existing equilibria were deeply modified by the entrance of over a or 2 billion of relatively well educated and skilled workers.

The third relevant factor in shaping a scenario favourable to the surge of the services component in the GVC was a brisk acceleration and intensification of technical change trends, and the spreading of the ICT technology revolution in particular (see

²⁹ This development is not a new one, it just the prosecution of a very old long-term trend that initiated in the High Middle Ages. By the 1990s, the process of marketization of most aspects of economic life had already unfolded until its ultimate consequences in the developed world since a long time.

UNCTAD 2008). “Over the last three decades, the progressive liberalization of cross-border transactions, advances in production technology and information services, and improvement in transport logistics and services have provided firms with greater incentives to fragment production processes and to geographically delocalize them. spreading of the ICT technology revolution in particular (see UNCTAD 2008)” (Nicita et al.2013, p., along with a huge surge in productivity across all economic sectors - led to a dramatic shedding of the cost and the time required to process and elaborate sophisticated, high-quality information, and to transmit it overseas. These developments made it possible to perform advanced service activities - such as software elaboration, data processing, and many others - in far away low-wage countries and to export them cross-border in "real" time, thereby breaking the personal linkage between service suppliers and utilizers that traditionally characterized the services macro-sector.³⁰ Even more importantly, they also allowed to segment previously integrated manufacturing processes, increasingly separating R&D, design, calculation, elaboration, engineering, and other knowledge- and information-intensive activities, on one hand, from transport, assembling and other tasks that necessarily involve the direct interaction between human labour and material things (such as machines, inputs, and semi-finished goods), on the other hand. The core of the global value chain, even in goods-producing sectors, was thus migrating towards services and away from manufacturing activities in the strict sense.

IV. Leading Sectors: the Cases of Finance and R&D Services

A. Financial Services

1. Offshored Financial Services

Offshored financial services (OFS) are the largest and most dynamic³¹ services component of the GVC. The bulk of OFS consists in intermediate services provided from offshore financial centres (OFCs) (i.e. "jurisdictions that oversee a disproportionate level of financial activity by non-residents", Rose and Spiegel 2005, p.1) to wealthy clients residing in neighbouring countries.

In the case of the financial industry, there are two main sets of factors behind the offshoring drive. The first one is common to all services industries participating in the services component in the GVC,, and is basically related to the golden opportunity to offered by the fast development of ICT communication technologies. These new technologies allow operators to offshore commoditized international financial services in order to slash dramatically operational costs.³² The term "commoditized" refers to

³⁰ The term "macro-sector" refers to the two main components of any economy, that cover all services activities and all goods-producing activities respectively. Each macro-sector is composed by many sectors, such as transport services, health services, etc.

³¹ At least, until the eruption of the global financial and economic crisis and the following prolonged period of stagnation among advanced capitalist countries. Of course, the crisis and its aftermaths are slowing the worldwide expansion of the financial industry. However, they are also prompting advanced capitalist countries to adopt more stringent regulation measures to rein in the quasi-anarchic world of private finance, and thereby increase the incentive for private financial agents to offshore more and more of their business.

³² ICT technologies allow financial operators to save in two conceptually distinct ways. One way is to increase labor productivity. The other is to make it possible to carry out many financial activities overseas, in low-wage countries.

those financial operations that can be handled in a standard and almost routine fashion, according to established procedures. More complex, high value-added financial services are less apt to be offshored, and thus they continue to be developed and co-ordinated in a few major international financial centres endowed with unique experience, technical capabilities, agglomeration economies, and other local, regional or global comparative advantages (see von Furstenberg 2006).

Conversely, the other - and probably more powerful - set of factors is peculiar to the financial sector, and is stemming from the desire to evade or elude the regulatory and fiscal regimes applied by most developed countries and by many developing countries. In fact, the main drivers of OFCs' popularity among globalized financial wealth owners are two. The most common is simply to avoid taxation in their home countries. The other one, that involves fewer agents but large amounts of funds, is money laundering. Albeit self-evident, the prevalence of these two main determinants of cross-border asset holding has been econometrically demonstrated, among others, by Rose and Spiegel (2005)³³. The development of OFCs specializing on favouring "bad behaviour" on the part of foreign clients is made possible by the existence of an opportunistic regulatory framework in host countries, accompanied by an equally opportunistic "benign neglect", tolerant attitude on the part of their larger neighbours, resulting from the lobbying power of their richest social strata.³⁴ With respect to the latter point, however, there are signs that the severity of the international crisis is beginning to weaken the traditional tacit support for the existence of OFCs: "In some of the most legally and financially sophisticated countries in the world, concern is growing about erosion of the domestic tax base as a result of offshore re-incorporations motivated by tax advantages... the rise of private banking services... and, in the United Kingdom, the ability of the super-rich to opt for an offshore domicile with a more advantageous tax regime while remaining physically resident in Britain"(IDRC 2010).

2. Policy-Related Conditions for the Development of OFC

No country is born an OFC by virtue of a unique natural resources-based comparative advantage. On the contrary, countries (both developed and developing) become OFCs as a result of a successfully implemented, focused strategy on the part of their governments. Therefore, in an only apparent paradox, these cathedrals of market freedom are the product of an astute combination of domestic economic policies (mainly in the fiscal, monetary, and regulatory areas) and foreign policies. The main thrust of the latter is easy to grasp. As mentioned above, OFCs in relatively small countries (especially, but not exclusively³⁵, those where the non-financial sectors is poorly developed) can only be sustainable and prosper with the acquiescence of the elites in larger and powerful neighbours³⁶. Such a necessary condition could not be

³³ Rose and Spiegel used a gravity model and a probit model applied to a cross-section of over 200 countries for the years 2001-2002.

³⁴ The demand for this kind of financial services activities is not significantly related to the cost of labour, as is shown for instance by the fortunes of the financial industry in Switzerland, a country that can hardly be singled out for its low wages.

³⁵ Contrary to popular perception, the manufacturing sector in Switzerland is large, advanced, and internationally competitive.

³⁶ A possible exception might be constituted by a case where OFS development is purposefully fostered by country A mainly as a weapon to sabotage country B, a rather uncommon but plausible occurrence.

satisfied if these elites perceived the host country to be an economic, geopolitical or military adversary.³⁷ In the cases of (more economically than geographically) larger developed and developing countries, the relationship between external relations and the growth of the financial industry is more complex, as the synergies between foreign financial players and the real (i.e., non-financial) component of the respective economies acquire a much more relevant role. This is the case for instance in Japan, Australia, Korea, and Singapore, and even more so in China, a country that is at same time the largest in the world in geographic terms, the second-largest in economic terms, and has the most heavily centrally planned economy among major world players.³⁸

Even in a favourable external context, however, policy makers willing to promote the development of the offshore financial industry in their country must fulfil several requirements in the realm of domestic economic policies. Moreover, they can only embark in this endeavour if a minimum set of basic conditions are met. Following von Furstenberg 2006, they can be classified into macroeconomic, infrastructural, human-capital-, and industry-related conditions.

Macroeconomic conditions revolve around the design and implementation of a sufficiently flexible regulatory regime overseeing international capital flows, interest rates, and complex financial architecture products, and on the preservation of basic macroeconomic and political stability, especially in the areas of exchange rate fluctuations, inflation, fiscal regime, public debt, social and labour unrest.

Infrastructural conditions include the availability of advanced ICT and transportation facilities, listing and exchange systems, efficient over-the-counter (OTC) and organized-exchange trading platforms, and public provision of financial information and ratings. Another crucial condition is the existence of a strong legal system protecting property and contract enforcement rights, including efficient settlement procedures for payments and for trades in stock, bond, and derivatives, international accounting and auditing rules and effective privacy safeguards.

Human capital-related conditions consist in the availability of skilled and reliable bankers, regulators, supervisors, and other analytical and managerial support staff, widespread English literacy, a favourable living environment and free entry for expatriates, thereby lowering the cost of attracting foreign specialists.

The key industry-related condition is the existence of economically strong, credible, efficient, and open financial institutions and other complementary financial businesses

³⁷ On occasion, the previously coincident interest of ruling classes in countries that host OFCs and countries from which their clients come from can diverge, jeopardizing the tacit equilibrium that made possible the smooth operations of OFS to begin with, and leading to a policy clash. Such an occurrence is particularly likely in times of economic crisis, that force governments to strive to increase their fiscal revenues.

³⁸ For a long time, China's policy makers studiously avoided a premature financialization of the Shanghai growth pole, rather favouring the utilization of Hong Kong's already developed and flexible financial industry to facilitate the smooth flow of funds towards the domestic industrial sector. More recently, they used their "strong and quite visible hand" (von Furstenberg G.M. 2006, p2) to promote the development of Shanghai's Pudong Liujiazui New Area (see Gordon 1998, Zhang 2003, GHK 2007).

endowed with a critical mass sufficient to achieve economies of scale and scope, and a low degree of banking and securities regulation.³⁹

It is also important to note that the relative importance of the above-mentioned conditions depends on the specific characteristics of each OFC, and in particular on the main drivers attracting the bulk of its clients. In those cases where legal international financial intermediation prevails, considerations of technical and infrastructural adequacy, efficiency, and cost-effectiveness are relatively more important. In others, where the bulk of the financial business is constituted by illegal or semi-legal⁴⁰ transactions, requirements such as privacy, bank secrecy, and even opacity and corruptibility become absolutely paramount.

3. Benefits and Costs

From the host country viewpoint, there are surely a number of benefits stemming from the existence of a thriving OFC, in terms of employment, income generation, and technological advancement. These benefits are generated through both direct and indirect channels - i.e. through the multiplier and spillover effects on tourism, transportation, infrastructural and human capital investment.

For developing countries as a whole, however, the fiscal costs implied by the existence of OFCs probably exceed the benefits. According to a comprehensive Oxfam report (Oxfam 2000), : "developing countries might be losing as much as US\$50 billion per year in tax revenues – roughly equivalent to the annual amount of ODA they receive – as a consequence of tax avoidance and inter-jurisdictional tax competition. "(IDRC2010). See also, among others, Naylor 1987, Gates 2002, Labonte et al.2004).

From a more holistic vantage point, moreover, it is legitimate to question whether or not it is ultimately it correct to consider OFCs - and, more generally, the international private financial sector as a whole - are truly part of the global value chain. The answer to this apparently odd question cannot be straightforward. Actually, it is basically dual: yes, in a way; no, in another way. The problem is in fact revolving around which meaning are we attributing to the very term global value chain, and has to be analyzed referring to the traditional distinction between exchange value and use value. Generally speaking, the exchange value of any economically significant item - be it a commodity (including the labor force), a service or a financial instrument - represents the quantity of other commodities (or services, or other financial instruments) it will exchange for, if traded under prevailing market conditions. The use value of a commodity or of a service is the intrinsic benefit (or

³⁹ In fact, optimal conditions for international private financial-only private investors obtain in contexts where a minimum degree of regulation of capital flows and a maximum degree of opacity and secrecy are coupled with a maximum degree of enforcement of property rights.

⁴⁰ A typical example of semi-legal transaction is the transfer of funds from country A to country B on the part of a country A citizen, in order to evade taxes. Such an operation is surely illegal according to country A norms, but can well be legal according to country B regulations, which were actually shaped to make it attractive

welfare increase, satisfaction of needs, or utility) that can be obtained by human beings directly through its consumption.⁴¹

The international private financial sector undoubtedly allows the generation of financial exchange value, in the context of a world economy that is overwhelmingly shaped by capitalist relations of production and exchange. Actually, the exchange value generated by private financial activities is indistinguishable from the exchange value generated by "real" activities in terms of its command on actually produced goods and services. However, a crucial difference between final goods and services, on one hand, and financial instruments, on the other hand, is that the latter have exchange value, but do not have use-value. At best, financial services can be paralleled to intermediate goods: their function is to ensure a certain stage of the production process that will ultimately generate final goods and services. In practice, however, the bulk of private financial services are geared towards the generation of private rents, without significantly contributing to "real" global welfare, and rather often jeopardizing its sustainability. This observation, by definition, does not apply - at least, in principle - to non-private financial institutions, where no individual agent is legally entitled to capture the surplus generated by the financial activities supplied as public services on behalf of the State. Nevertheless, it cannot be ignored that real-life occurrences do obtain in some countries where public financial institutions are de facto captured by special interests of small social groups, and therefore essentially function as a rent-generating machines as well.

4. Public and Private Banks

Actually, in a world without public financial institutions, it would be easy to identify the use value generating function of the international private financial sector. It would consist in the improvement in the global production of goods and services (identifiable in a simplistic form with global welfare⁴²) made possible by the sector's fulfilment of its financial intermediation mission. This mission is to allow the transformation of savings into investments, by smoothing and facilitating the transactions between different categories of agents characterized by diverging saving and investment behaviours. Naturally, as financial markets are far from perfect and in fact very murky, even under such a "no public banks" assumption there would be no reason to believe in an equivalence between the use-value indirectly created by the private financial sector and the exchange value it captures under form of profits and rents.

The crucial point, however, is another one. In the real contemporary world public banks do exist and fulfil (more or less efficiently, with varying degrees of corruption, and with uneven scope and success from one country to another) a large and

⁴¹ The term consumption is to be intended in economic term, as the act of extracting an actual, real benefit from the utilization of a commodity (service). In some cases the act of consumption is compatible with the full preservation of the physical and economic features of the commodity. For instance, in a museum, visitors can purchase the right of watching a famous painting, thereby obtaining as a counterpart of the exchange value of the money paid for the entrance ticket the use-value attainable from admiring the artwork, without materially affecting its material preservation. More rigorously, however, visitors should be seen as consumers of a service supplied by the museum, with respect the availability of artwork constitutes a necessary enabling condition.

⁴² Of course, this simplification implies to ignore all negative environmental and other externalities, the issue of ultimate material sustainability of energy consumption and production patterns, etc.

important part of the basic financial task mentioned above - i.e. collecting savings and providing credit to would-be (non-financial) investors. Public banks and other state-owned financial institutions are also active in international financial transactions, and in some cases they fulfil a key enabling role in fostering industrial development - as it is the case, for instance, in the Shanghai's Pudong Liujiazui New Area (see Note 39). Private financial institutions are left with the task of fulfilling only a part of this welfare-increasing task (in many countries, a minor one, as the largest and strategic investment projects are usually financed mostly by public banks).

To some extent, the co-existence of public and private banks can be justified on welfare grounds under the assumption that - thanks to the beneficial effects of competition - it allows to improve the worldwide allocation of savings with respect to the situation that would prevail if only public banks were allowed to operate in a monopolistic fashion⁴³. Private financial institutions are expected to carry out this welfare-increasing function by supplying credit to (real sector) producers at more favourable conditions than those they would have faced dealing with public banks, or lending to producers that would not have access to credit from public banks altogether.

Some analysts are actually very sanguine on the beneficial impact of international private finance, not only because they see it is seen as performing a virtuous role in channelling global financial wealth towards highly profitable and welfare-enhancing non-financial investments in savings-starved countries, but also because its very existence exerts a healthy pressure on national governments, forcing them to modify their financial policies in a more pro-competitive direction. For instance, in the same 2005 article referred to above, Rose and Spiegel argue (on the basis of an ancillary result of their quantitative analysis) that the economic damage suffered by neighbouring countries as a result of the "bad behaviour" of OFC clients is partly mitigated by an enhanced pro-competitive behaviour in their domestic banking sector. The authors unambiguously state that OFCs' pro-competitive impact on public banks is "beneficial. A group of leading international law and finance experts, observing in a recently published collective volume that OFCs have become key players in corporate finance and captive insurance markets, argue that they offer legal protections for financial privacy and provide regulatory competition to onshore jurisdictions, forcing national governments to evaluate and reform their own tax and regulatory policies. OFCs also facilitate FDI flows and foster growth opportunities for countries with weak financial systems by providing access to global capital and better-functioning courts (Morris Y.A.,(ed.), 2010).

Actually, more cautiousness would be warranted. The increase in competitiveness in the domestic banking sector might substantially consist in a desperate race to the bottom on the part of policy-makers to offer more favourable conditions to footloose wealthy individuals, resulting in even worse welfare loss on the part of the majority of the population.

⁴³ The term monopolistic refers to public banks as if they jointly constituted only one collective agent. In practice, even under a financial regime where only public institutions are allowed to operate, governments can utilize several regulatory and policy instruments to foster a fairly high degree of competition among the various public banks.

5. *Distributional Issues*

Mounting evidence suggests⁴⁴ that the relative weight of the traditional "virtuous", ultimately wealth-creating private financial activities is actually a minor and declining one, if seen in the larger context of the complex web constituted by the myriad of ever-fancier operations carried out by the international private financial sector as a whole. As a matter of fact, the main function of the international private financial sector is to allow some private agents to capture a high and ever-increasing share of the real wealth actually produced worldwide, quite independently from the actual size of the global wealth itself.. Private financial institutions can maximize various forms of rent as they exploit a number of "imperfect" features of really existing markets, such as the prevalence of high degrees of monopoly power, the ubiquitousness of "market failures", and the frequency with which agents' decisions are the product of mental processes heavily characterized by bounded rationality and non-rationality, among them asymmetric information, moral hazard, herd behaviour, and the like. The most significant result of these activities is the earmarking of potentially investable (in the real sector) resources towards financial profits. These profits, in turn (unless they are re-invested back in the private financial sector) mostly fuel conspicuous consumption.

This outcome can be favourable to some or all social groups in those countries that are able to set up successful OFCs, especially if they do so in the framework of a public-private partnership strongly shaped by a strong and effective planning intervention on the part of a developmental state. These benefits, in many cases, do not consist mainly in those income and employment gains generated directly, or even indirectly, by offshore financial activities per se, but rather by their enabling and facilitating impact on the possibility of obtaining external financing for real investment. Yet, from a more general viewpoint, it is very likely that the very existence of international private finance it lowers global welfare, both because it earmarks resources towards financial profits, thereby decreasing the global investment rate - and therefore global production of goods and services - and because it worsens income distribution worldwide. Moreover, the very existence of a (poorly regulated) international private financial sector feeds various forms of speculation and other destabilizing activities, increasing the likelihood of crises⁴⁵ and contributing ly to hamper and distort economic development worldwide (see Flassbeck 2008, UNCTAD 2009a).

⁴⁴ A proper demonstration, however, would require a very comprehensive and complex quantitative analysis that would go far beyond the scope and focus of this paper.

⁴⁵ This statement is not contradictory with the fact that the world financial crisis originated not in OFCs, but in the very core centres of international private finance in the most advanced developed countries. From this limited viewpoint, it is in fact true that " offshore tax havens are actually innocent in terms of the global financial crisis. Whilst certain financial institutions within offshore tax havens have collapsed and/or added to the global crisis - Kaupthing Singer & Friedlander, Isle of Man (KSFIOM) most notably – the havens themselves are not central factors to the dire economic state" (Shelter Offshore 2009)

B. R&D

1. R&D Offshoring: a New Trend in Globalization

Traditionally, TNCs have been outsourcing and offshoring only unskilled-labor intensive, non-strategic activities, while keeping the core components of their business in the center. However, recent developments - among them the ICT boom and the dramatic improvement of human capital supply and emergence of specialized service providers in the South - have led several leading TNCs to globalize their R&D operations, offshoring them first to other OECD countries and then to developing countries. In some cases TNCs outsource part of their R&D activities to specialized providers overseas, in others - the most egregious examples being probably IBM and General Electric - companies set up large and well-equipped research laboratories abroad, more and more in developing countries (see Amritt 2010). One of the latest examples of this trend is offered by Toyota, that is exploring the possibility of setting up an R&D facility and engine plant in India (Global Innovation & Offshore R&D 2010).

This process is also known as Knowledge Process Outsourcing (KPO), and is particularly developed in countries such as India and China. The two Asian giants, besides the availability of a large pool of cheap and qualified engineers, software developers and other scientists and highly skilled professionals, offer the advantage of vast and fast-expanding domestic markets (see Tiwari 2007).

A particularly crucial enabling condition for R&D offshoring has been the dramatic advancements in information technology, that has made it possible to separate many tasks from their original physical location (Reddy 1997). Not only R&D can be separated from production, but even the various operations contributing to R&D activities can increasingly be physically separated from each other. Separate R&D service activities are also becoming increasingly externalized and commoditized, and hence opportunities are being created by the possibility to trade in previously non-existing international knowledge and R&D markets (see Paju 2007).

2. Main Features of the KPO

The inception of the KPO drive goes back to the 1960s, when some TNCs began to internationalize R&D activities, as a form of technology transfer aimed at gaining access to foreign markets. The process accelerated in the following decade, with companies starting to develop new products specifically targeted to new markets (Reddy 1997). However, the bulk of R&D internationalization took place in the 1980s and 1990s. Increasing sophisticated⁴⁶ R&D activities were being offshored, with TNCs setting up corporate technology units and centers for regional and global technology development abroad. Contrary, for instance, to many low-tech consumer goods manufacturing processes, R&D activities require a continuous interaction among highly skilled researchers, accompanied by an exceptional attention to the preservation of proprietary knowledge. Therefore, they tend to be rather difficult and expensive to fragment. (see UNCTAD 2005). Nevertheless, since the late 1990s -

⁴⁶ The traditional dichotomy between "commodity" R&D and "mission critical" R&D is being progressively blurred (see UNCTAD 2005).

under the strong pressure exerted by global competition to accelerate the rhythm of innovation and to contain operational costs - TNCs have been increasingly recurring to R&D outsourcing and, in particular, to contract R&D.

The convenience of such a strategic choice is further increased by the opportunity to access a larger set of specialized and multidisciplinary competencies and skills and to share parts of the risks of the research endeavour (see. Ernst 2005, Narula 2001, Koulopoulos & Roloff 2006; Quélin & Duhamel 2003). For instance, a study on French export-oriented companies engaged in the offshore outsourcing of R&D has shown that these enterprises become increasingly outward oriented, as competition in international product markets pushes them to integrate global networks of innovation. The study also found that technological sourcing motivation (searching of technological competencies) is becoming a more powerful driver of R&D offshoring with respect to more traditional cost-saving motivations, such as labor cost and tax-exemptions (Jabbour and Zuniga 2009). In the 1990s, the process of R&D internationalization, initially confined to OECD members, spread to some developing countries (Gerybadze & Reger 1999, Reddy 1997). Additional drivers of this process, especially in Asia, have been the opportunity to cut the time between the generation of innovations and their launching in local markets, and to exploit the different time zones to carry out virtually around the clock complementary and globally coordinated operations (Khan & Fitzgerald 2004; Quélin & Duhamel 2003).

3. R&D Offshoring: a Delicate and Complex Strategic Move

A myriad of complex knowledge-sharing, communication, culture-related and other problems render the governance of the R&D offshoring process a far from trivial task, and one that requires a high degree of entrepreneurial, assessment, planning, negotiation and governance skills on the part of its main promoters (see Doig, Ritter, Speckhals & Woolson 2001, Paju 2007). From the enterprise's point of view, the large benefits made possible by R&D offshore outsourcing (in terms of efficiency, cost-effectiveness, and the possibility to tap into a wider sources of knowledge) must be weighted against the risks, such as information leakages or over-dependency on external providers and collaborators. These risks are magnified by the fact that the overall regulatory framework, and IPR legislation in particular, is far from being fully satisfactory (from the point of view of TNCVs)⁴⁷ in most developing countries (see Kshetri, 2007, Kobayashi-Hillary 2005).

R&D offshoring is a delicate and complex strategic move that requires a careful mapping and evaluation of risks and benefits, and that often implies a deep change in the very nature of enterprises' R&D activities, from a role of unique generators of a company's innovations towards scanning, purchasing and adapting innovations of other organizations. Moreover, the phenomenon of national champions moving knowledge-intensive, strategic activities abroad is often seen with preoccupation on the part of both politicians and the general public in developed countries (see, for instance, Beulen, Ribbers & Roos 2006 on the debate in the US on the eve of the 2004 presidential elections).

⁴⁷ In most cases, a less-than-unlimited degree of protection of IPRs is consistent with the best long-term development interests of developing countries.

4. The crucial Role of Skilled Labor Availability

As previously mentioned, the most powerful country-specific factor driving R&D offshoring to developing countries is constituted by the exceptionally favorable labor market conditions created by the increased availability of highly skilled labor force made possible by the expansion of public education, while at the same time the wage differential vis a vis developed countries remains huge. From a business perspective, an effective R&D offshore outsourcing strategy must strive to achieve a "careful balance between retaining core internal R&D capabilities while leveraging formal, collaborative technology relationships that enhance new product development and protect the corresponding intellectual property." (Hemphill 2005, p.351).

Other policy related factors stem from the incentive and tax policies applied by potential host governments in the area of R&D.⁴⁸ From the point of view of governments in developing countries, the goal is to accomplish successfully a complex benefits maximization exercise in choosing the best possible mix of policy tools. Promoting R&D FDI is not a totally risk-free endeavor (see Quinn 1999). Yet, under favorable circumstances, and provided a sufficient indigenous absorptive capacity has been developed, synergies and spillover effects can create complementarities between domestic and foreign-funded R&D, thereby fostering overall technology progress in the host developing country without unduly penalizing national firms and increasing external dependence (see Veugelers & Cassiman 1999). Effective proactive policies on the part of host governments, who successfully engaged TNCs in a tough "technology for markets" bargaining game, have also powerfully contributed to the relocation of R&D activities in some developing countries, especially so in China (see Gabriele 2009, Gabriele and Khan 2010).

V. Trade and Development Implications

A. The Impact of the Services' Role in the Global Value Chains

At the purely theoretical level, many authors have attempted to gain some insights on the motivations and behavior of the agents participating in the global value chains (such as TNCs, workers, and policy makers). Some of them pay particular attention for the crucial phenomenon of the progressive transformation of the nature of many manufacturing activities that had traditionally been performed in-house into de-integrated, specialized service activities, that are intensively traded according to both the inter-firm and intra-firm modalities⁴⁹, that reverberates at the statistical level into a long-term increasing trend in the share of trade in services in GDP, both at the national level and at the global level. Most of this literature applies intensively the traditional approach based on assumptions that are not very realistic (such as perfect competition, smooth static market clearing, and the like) and individual agents' one-dimensional optimizing behavior.

Rodriguez-Clare (2009), for instance, proposes a "Ricardian" (yet, methodologically neo-classical) model, in order to gauge the impact of offshoring on wages and welfare

⁴⁸ Not surprisingly, if R&D incentives are available only to nationals, offshore R&D investment are actually discouraged.

⁴⁹ Consistently with the analytical approach proposed in the previous section, it is interesting to note that a major consequence of this phenomenon is the

in rich and poor countries⁵⁰ respectively, both in the short and in the long run. He argues that while the standard, intuitive impact on wages (i.e., a significant deterioration in the rich country and a modest⁵¹ improvement in the poor country) does hold in the short run, the increase in profits enjoyed by the offshoring TNCs will trigger an increase in R&D efforts in the rich country, while discouraging research in the poor one⁵². As a result, in the long run the rich country will gain, and the poor country will lose from increased production fragmentation. Rodriguez-Clare's conclusions are intriguing, and likely to correspond to the real-world facts in many practical scenarios. Yet, his theoretical apparatus is too mechanistic to convincingly show the necessary causal connection between profits and R&D, especially with respect to the necessary assumption of endogenous technology levels in the long run (see Eaton and Kortum 2001).

Another theoretical contribution is that of Grossman and Rossi-Hansberg (2008). The authors, on the basis of a relatively simple model, go as far as to "show" that offshoring "tasks" (i.e. operations that are mostly transformed into services activities performed in the poor country) "can generate shared gains for all domestic factors, in contrast to the distributional conflict that typically results from reductions in the cost of trading goods." (p.1978).⁵³ Other theoretical studies following a similar methodological approach are, for instance, Krugman, P. R., 2000; Jones and Kierzkowski H., . 2001; Egger and Falkinger J., 2003; Grossman and Helpman E., 2005; Antràs and Helpman 2004, Antràs, Garicano, and Rossi-Hansberg 2006.

Far more interesting is the empirical analysis carried out by Amiti and Wei (2009a) on the basis of input/output and trade data from the US, for the 1992-2000 period. Their results show that "service offshoring has a significant positive effect on productivity in the manufacturing sector. It accounts for around 10 per cent of labour productivity growth over the sample period."(p.205). Amiti and Wei, following Mitra and Ranjan (2007), attribute such a productivity increase to two effects, namely compositional and structural change. Compositional change occurs when a firm offshores its relatively inefficient activities, and can thereby concentrate its (domestic) resources in those production stages where it has comparative advantage, thereby increasing the productivity of the remaining workers. In carrying out such a restructuring of non-offshored production operations, the firm also has an opportunity to improve their efficiency and productivity. Other productivity benefits of offshoring might stem from access to new input varieties and learning effects.

Amity and Wei, along with other observers, have also explored other important issues related to the service offshoring phenomenon, among them the widespread fear that

⁵⁰ Of course, the assumption is that, as it is the case in practice in vast majority of cases, where value-adding activities are offshored from a rich country to a poorer, low-wage country.

⁵¹ As a general rule, and surely at the global level, the impact of offshoring on the respective national labor markets is stronger in the North, as the size of the "reserve army of labor" is much larger in the South.

⁵² Workers in the poor country are incentivized to work in the offshored production or services activities, rather than engaging in research.

⁵³ Not surprisingly, such a "counterintuitive" result is based on a wrong kind of reasoning, and more specifically on the confusion between a form of exogenous technical progress that reduces transaction and communication costs, and therefore makes offshoring convenient, and the genuine productivity gains that are supposed to stem from offshoring itself.⁵³ (see Grossman and Rossi-Hansberg 2008, section I).

it is tantamount to job losses in rich countries,⁵⁴ the impact on wage inequality - and, more broadly, on income inequality and social relations - and the implications for innovation, technical progress, and macroeconomic stability (see Amiti and Wei 2005, 2006, 2008, 2009b; Clark Zmud, and McCray 1995, Feenstra R, 2007; Ekholm and Hakkala, 2005; Bergin, Feenstra and Hanson G.H., 2009; Cockburn and Slaughter (eds.), 2010; McMillan 2009; Karabay and McLaren, 2009; Slaughter 2007, 2010; Reinsdorf M. and Slaughter M., (eds.), 2009; Antras. and Helpman, 2004; Egger and Egger, 2006; Gorg, Hanley and Strobl (2008); Hijzen, A., 2007; Hijzen, Piu, Upward and Wright, 2007).

Finally, a very interesting quantitative analysis, leading to rich policy implications of particular interest for developing countries, has been published recently by Nordas and Kim (2013). The authors focus on the relationship between competitiveness in manufacturing and the quality of key IS.

Generally speaking, their econometric analysis does confirm that the quality and availability of IS is a potent competitiveness-enhancing factor, affecting strongly the production and exports of goods. Among the various characteristics of the most relevant IS sectors utilized in the study as explanatory variables, the density of telecoms networks and the reliability of electricity supply turn out as the most significant, and therefore crucial determinants of manufacturing competitiveness.

Investment in telecom and energy is thus a necessary condition for market-compatible industrialization. To achieve a high rate and a good quality of investments in these to key IS industries, however, is not an easy policy task: “ensuring that regulation provides the right incentives for investment in telecommunications while keeping the telecom market competitive and not least investing in smart electricity are costly⁵⁵” (Nordas and Kim 2013, p.6).

However, the authors also find that the impact of services quality and policy on competitiveness on manufacturing sectors of different degrees of technological complexity is positively correlated with each country’s overall degree of economic development. Thus, for instance in low-income countries, the impact of services quality and policy on competitiveness is highest in low-tech manufactures. This finding “suggests that better services contribute to moving up the value chain in industries where a country already has technological capacity and comparative advantage, but better services alone may not stimulate product differentiation in sectors where a country is far from the competitive edge” (p.2).

Therefore, other policy measures are needed to upgrade developing countries’ positioning in the international division of labor. Among them, relatively simple and cost-free⁵⁶ policy measures such as low import tariffs, the ease at which contracts can

⁵⁴ Amiti and Wei (2005) reach rather optimistic conclusions, showing that the share of offshored services jobs from advanced countries is still small with respect to total employment, and that in many cases job losses are compensated by the creation of “insourcing” jobs related to the overall process of globalization.

⁵⁵ The term “costly” is to be understood essentially as “exacting in terms of policy-making capacity”.

⁵⁶ In this context, the term “relatively” is to be interpreted in a quite strong sense. For instance, to enhance the “ease at which contracts can be enforced” might in practice be a very hard and long-lasting policy task in countries plagued by an under-developed, inefficient and/or corrupt legal system..

be enforced and the time it takes to export and import goods are strongly related to manufacturing competitiveness, and can in some cases be rather effective also in the short run.. Long-term improvements in public education, however, are also a necessary condition to improve a country's overall industrial competitiveness.

B. The Services Component in the GVC as the Most Dynamic Segment of the Global Economy

The services component in the GVC has been the fastest growing component of the world's economy during the first decade of the XXI century, and especially so - thanks to its resilience and to its anti-cyclic characteristics - during the crisis-plagued late 2000s. More and more TNCs are entering the fray, and the number of low-cost supplier platforms in all the regions of the globe is constantly rising. The original individual offshore ventures are being progressively superseded by increasingly integrated and sophisticated forms of global delivery models. Notwithstanding the novelty of the phenomenon, the world offshore services market is already experiencing a marked trend towards consolidation and concentration. As in other sectors, such a trend at the top is accompanied by a proliferation of new small and medium-sized new entrants, many of whom are services firms from the South. Larger and smaller globalized services enterprises do compete with each other, but often they also enter into mutually advantageous forms of symbiotic collaboration. The

barycentre of the services component in the GVC is continuously moving upwards, with an increasing role being played by higher-value added services requiring strong analytical skills and that are therefore not suitable to commoditization, , among them complex scientific and business operations and R&D. Consistently, the KPO segment is growing faster than the other services components of the value chain (see Gereffi G.& Fernandez-Stark K., 2010a,b, KPMG International,2008, Wipro Limited 2008 Lewin, A. and Heijmen A., 2008).

However, the depth and length of the world crisis led many observers to ask themselves whether it might lead to structural breakdown of globalization itself. It is still early to answer such a critical question in a definitive fashion, and it is actually likely that, in the long run, some of the key features of the world economic structure will be radically transformed with respect the pre-crisis situation, or will disappear altogether. The most suitable candidate is the most recent and pathological wave of the overall globalization phenomenon – the global private hyper-financialization drive. So far, however, globalization as such – at least, in the relatively narrow sense of the progressive integration of national economies into the world economy through an ever-expanding network of trade, FDI, and capital flows – does not appear to be one of them, neither. A fortiori, the trend towards the subsumption and incorporation of previously separate components of national and local goods- and services-producing sectors into global value chains (GVCs), far from withering out, appears to have been strengthened and accelerated by the Darwinian impact of the world crisis, condemning smaller and weaker players to extinction and driving TNCs to redouble their efforts to cut costs and to achieve economies of scale and scope⁵⁷.” the

⁵⁷ “Consolidation is taking place not only at the country level, but also at the firm level. There is a tendency by lead firms to prefer larger, more capable, globally operating, first-tier suppliers... This trend predates the crisis; however, lead firms used the crisis to consolidate their

crisis has not reversed globalization, but accelerated two long-term trends in the global economy: the consolidation of GVCs and the growing salience of markets in the South” (Cattaneo, Gereffi and Staritz 2010, p.6). In this context, however, “Not all developing countries face similar options. The shift to Southern markets and the growth in South-South trade has created more possibilities for entry and upgrading in GVCs, but also has resulted in new challenges, in particular for the least-developed countries. GVC consolidation poses significant opportunities as well, especially for countries and firms with rising capabilities, but it threatens to leave many countries on the periphery⁵⁸”(ibidem).

The services component of the GVCs, has been on the whole quite resilient to the world crisis, with a very important exception represented by the financial sector. Most globalized services activities are still growing, albeit at a slower pace (see Lewin et al. 2009, Gereffi and Fernandez-Stark 2010a,b), as TNCs worldwide feel under increasing pressure to reduce their employment levels in high-wage countries while maintaining, or increasing them in low-wage countries. This “substitution effect” has been particularly evident in the case of the Philippines, where the offshore services industry kept growing at a rapid pace also in 2009, while the country’s GDP growth almost came to halt. Even some Indian providers opened up call centers in the Philippines, both to diversify their operations and to further cut costs (see Villafania 2009, Economic Times 2010 Gereffi and Fernandez-Stark 2010a).

However, the overall contraction of demand was felt also by this “nascent industry with vast potential remaining largely untapped” (Gereffi G. and Fernandez-Stark 2010a, p.368), leading many enterprises to reduce employment and/or wages, albeit probably on a temporary basis, while waiting for the storm to pass. Such a moderately negative “demand effect” was felt particularly in India, a country where the offshore services industry is more mature than in the Philippines⁵⁹. Another, related consequence of the world crisis has been to worsen perception of the job market situation on the part of workers, thereby reducing the attrition rate, that had been traditionally very high in the services component of the GVC. This phenomenon has been observed in the Philippines and also in India, a country where nationwide GDP growth has remained very robust (see Van der Shane 2010a,b,c; Philippine Daily Inquirer 2009, AbhiSays.com 2009, BPOWatch India 2008 NASSCOM 2009a,b,c).

supply bases further and focus on big, well-established companies with whom they have ongoing strategic relationships. Thus, the elimination and shutdown of marginal suppliers during the crisis could exacerbate asymmetric buying patterns when demand recovers. Because large orders give them an advantage in credit markets, global suppliers will be in a better position to expand when the market rebounds, further reinforcing the consolidation of GVCs at the firm level.”(Cattaneo, Gereffi and Staritz 2010, pp.16-17).

⁵⁸ Clearly, market size is central to lead firms’ sourcing and production decisions as the potential for local industrial growth often gravitates toward the largest developing countries... Consolidation of GVCs has serious implications for those countries and firms with limited capabilities seeking to move up the value chain, and it may work to exclude potential new entrants entirely (Cattaneo, Gereffi and Staritz 2010, p.17).

⁵⁹ The growth rate of India’s offshore services industry about halved in 2009 with respect to the previous year. Still, it was about 15%, quite high for the standards of practically any other sector (source: Fernandez-Stark 2012).

C. The Development Potential of the Services Component in the GVC

It is clear that the expansion of the GVC offers developing countries substantial potential development opportunities for economic and (indirectly) also social and human development. Integration into GSCs can favor the growth of a country's export potential, the absorption of technology and know-how, and the emergence of positive economy-wide externalities in the areas as employment, improvement in technology and skills, productive capacity upgrading and export diversification. In turn, those externalities might further increase the attractiveness to more foreign direct investment.

From a holistic development viewpoint, it can be observed that, on one hand, the direct contribution of the offshore services industry to poverty reduction through employment creation is still negligible, as the number of jobs it generates is a tiny fraction of India's overall workforce, and they are mostly held by relatively well-off urban professionals and skilled workers. On the other hand, however, India's participation in the services component of the GVC is providing a major contribution to the country's balance of payments and to the advancement of its technological and managerial capabilities, and therefore has a significant impact on present and future growth prospects.

Without unduly overestimating the intrinsic development potential of a phenomenon that is firmly driven by profit-oriented, development⁶⁰-indifferent TNCs (most of which are northern-based), there is no doubt that participating as services exporters in the GVC can constitute a valuable opportunity for some countries⁶¹, during a certain phase of their historical development path. Although TNCs "initially outsource business processes at the lower end of the value chain, these jobs are often among the advanced tasks for typical developing countries. Offshore production does not depend on strong linkages to the domestic economy" (Meyer 2009, p.3).

However, these development benefits cannot be seen as an automatic byproduct of GVC expansion. It should not be forgotten that "GSCs are fundamentally a business strategy of TNCs, and are driven by their own business interests. Low labour costs alone are not a sufficient justification for relocating a part of TNC's production processes. GSCs also rely on sophisticated and competitive networks of goods and information flow. Participating and upgrading along the chains require not only manufacturing skills but also a sound business environment that are often lacking in developing countries." (Nicita et al. 2013, p.1.)

D. Domestic (pre) Conditions for the Flourishing⁶² of Services Activities in the GVC Framework

Comparative advantage as service supplier locations are strongly dependent on five key elements: low wages, a relatively open trade policy regime, a comparatively high

⁶⁰ This expression clearly refers to the economic, social and human development of the host country

⁶¹ In these conclusive remarks I refer essentially to the experience of developing countries. Yet, as shown by Ireland's example, also some developed countries act as services suppliers in the GVC framework.

⁶² We use the term "flourishing" in order to avoid reference to the very different concept of (holistic) development commonly utilized by the UN.

level of tertiary education, language skills and (to a lesser extent) protection of intellectual property rights(see Ghelfi 2004)⁶³.

The wage differential with respect to the countries from where the demand for services (and usually the technological and managerial know-how needed to ignite at least the first stage of development of the offshore services industry in the supplier country) originates must be substantial, as purchasing specialized services overseas implies substantial informational, transactional and other forms of cost.

The second element (a relatively open trade policy regime) is obviously a necessary condition for engaging in any form of trade, and thus a fortiori to insert parts of a country's productive activities in global value chains. In fact, the location choices of the large TNCs that dominate GVCs are particularly sensitive to even modest cost differentials, that could be unduly undermined by inadequate formal and informal, tariff- and non-tariff-based trade barriers. Yet, an open and market-friendly policy and regulatory stance is not a synonymous of a purely hands-off, laissez-faire attitude on the part of the government, not even in the domain of trade policies proper.⁶⁴ Moreover, appropriate trade policies are necessary, but their effectiveness is declining, as the global trend towards liberalization leads towards an overall decline of tariffs and the erosion of preferences. More importantly, in the GVC business model delocalization choices are determined by a wide range of factors, including the whole set of policies influencing the overall business environment (see Nicita et al., 2013)

With respect to the education in particular, the ideal situation for the development of the offshore services industry is probably a particular combination of features, constituted by the availability of a pool of well-educated skilled workers that is large in absolute terms even is tiny in relative terms, on one hand, and of a very low level of literacy and skills endowment among the bulk of the population, on the other hand.⁶⁵ The latter condition, in fact, contribute to drive down average productivity and wages, thereby strengthening the first and decisive factor mentioned above. This is in fact the situation prevailing in India, the stellar global exporter of offshored services.

These specific characteristics of the services component of the GVC imply that, to some extent, the very success of a developing country as offshore services exporter, as well as in other sectors, coupled with its progress in the domain of social and human development, would eventually undermine its competitiveness. Therefore, successful integration in the GVC as a low-cost exporter of services is to be seen as a transitory stage in a country's long-term development perspective. However, this stage can also imply an array of technological, educational, managerial and infrastructural

⁶³ IPR protection is crucial in some, but not all the services activities that are performed in the GVC framework.

⁶⁴ Non-neutral tariff and non-tariff policies influencing the overall investors' incentives structure might actually favor a desirable development path also in the domain of participation, for instance introducing a virtuous bias towards more human capital- and value added-intensive services activities.

⁶⁵ The specific skills required for working in the services component in the GVC cannot be acquired exclusively in a standard study program set up by a national education system, not a even at the best university level. Therefore, TNCs increasingly devote corporate resources to internal specific education courses and on-the-job training. In this respect, host countries might also invest in specific and ad hoc educational and training programs, thereby enhancing their human capital endowment and becoming more attractive for foreign investors.

advances that are bound to play an important enabling role in helping the country to position itself at higher levels of the international division of labour once its GVC-specific competitive advantage becomes exhausted thanks largely to its own success (see Nicita et al 2012).

E. Proactive Strategies to Foster Developing Countries' Insertion in the Services Component of the GVC

To avoid this fate, a proactive strategy is required on the part of host countries in the developing world, in the domain of globalized services activities as in any other one. It is plain that, generally speaking, open trade and investment policies are required to allow services to be enablers of global value chain creation and operation, more so than in other areas of the economy. Moreover, “two more specific factors can further contribute, “modal neutrality and regulatory coherence... As most services firms provide services through several modes of supply, their operations flourish best in a regulatory environment of modal neutrality that allows them to switch freely between modes and to combine them when necessary for cost purposes... Regulatory simplicity and efficiency are important determinants of services competitiveness and the ability of a country to capture services tasks in the value chain...it can be noted that that policy formulation should treat goods and services together, and not separately” (Kommerskollegium 2013, p.3).

A far-reaching strategic vision is a prerequisite for a successful GVC development from the vantage point of a country's long-term development interests. In this respect, governments – especially in developing countries – shall not simply open up their markets waiting for foreign-controlled TNCs to exploit the comparative advantage of permanently low domestic wages. Trade policy itself, while necessary, is not sufficient. Rather, they should launch well-targeted programs and initiatives, and set up a carefully crafted incentive system, in order to favour a continuous climbing of the value chain and an increasing mastering of ever-evolving technologies⁶⁶. Horizontal policy measures, especially in the areas of such as education, infrastructure, and technology transfer, are also required.

The ultimate goal, of course, is to foster a dynamic and sustainable business environment characterized by fast technical progress, a progressively increasing indigenous capability to absorb and eventually produce innovation, regularly increasing wages, and effective environmental protection..

⁶⁶ UNCTAD estimates have shown that , among countries that are increasingly participating in the services component of the GVC in the last 20 years, those that manage to upgrade their domestic value addition exhibit average per capita income growth rates over 1% higher than those who don't (see UNCTAD 2013a).

References

- AbhiSays.com., 2009. "IT Attrition Rate Has Gone Down in India." January 31. Accessed March 3, 2010, in <http://abhisays.com/software-companies/it-attrition-rate-has-gone-down-in-india.html>.
- Amiti, M. and. Wei S.-J (2005), 'Fear of Service Outsourcing: Is it Justified?', *Economic Policy*, 20, 42, 307–39.
- Amiti, M. and Shang-Jin Wei S.-J., 2006, "Service Offshoring and Productivity: Evidence from the United States," NBER Working Paper no. 11926.
- Amiti, M. and. Wei S.-J. (2008), 'Does Service Offshoring Lead to Job Losses?', in M.Reinsdorf and M.Slaughter (eds.), *International Flows of Invisibles*, NBER.
- Amiti M and Wei S.-J. 2009a, "Service Offshoring and Productivity: Evidence from the US," *The World Economy*
- Amiti, M. and S.-J. Wei , 2009b, 'Does Service Offshoring Lead to Job Losses?', in M. Reinsdorf and M.Slaughter (eds.), 2009.
- Anràs, P. and Helpman E. 2004. "Global Sourcing." *Journal of Political Economy*, 112(3): 552–80.
- Anràs, P., Garicano L., and Rossi-Hansberg E., 2006. "Offshoring in a Knowledge Economy." *Quarterly Journal of Economics*, 121(1): 31–77.
- Amritt 2010, *Offshore Research and Development*, in <http://www.amritt.com/offshore-research-and-development.html>
- AT Kearney 2013, *Internet Value Chain Economics*, in <http://www.atkearney.com/documents/10192/a70da6a8-aa98-4e43-999b-3a83a58d1c80>, accessed on May 6, 2013
- Beulen, E., Ribbers, P. and Roos, J. 2006. *Managing IT outsourcing. Governance in global partnerships*. Oxon: Routledge.
- Bergin, P. J., Feenstra R.C., and Hanson G.H., 2009, "Outsourcing and Volatility," NBER Working Paper 13144, 2009.
- BPOWatch India. 2008. "Best of 2008 and Challenges for 2009." Accessed March 5, 2010 from http://www.bpowatchindia.com/BPO_special_features.html.
- Cattaneo O., Gereffi G., and Staritz C., 2010, *Global Value Chains in a Postcrisis World: Resilience, Consolidation, and Shifting End Markets*, in Cattaneo O., Gereffi G., and Staritz C.(eds.), 2010, *Global Value Chains in a Postcrisis World: A Development Perspective* (2010), Washington, DC: The World Bank
- Clark T., Zmud R.W., and McCray G.E., 1995, *The outsourcing of information services: transforming the nature of business in the information industry* *Journal of Information Technology* (1995) 10, 221–237; doi:10.1057/jit.1995.26

Cockburn I. and . Slaughter M., (eds.), 2010, Factors Affecting the Location of Biopharmaceutical Activities, NBER Conference Volume, University of Chicago Press..

De Backer K. 2011, Global Value Chains: Preliminary evidence and policy issues,(agenda point 4), WPGI- meeting, 19 May 2011, in <http://www.oecd.org/sti/ind/47945400.pdf>

Jaruzelski, Barry and Kevin Dehoff. (2008). Beyond Borders: The Global Innovation 1000: Booz & Company Inc

United Nations Department of Economic and Social Affairs, 2002, (DESA 2002), Statistical Division, Manual on Statistics of International Trade in Services, statistical Papers Series No.86, ST/ESA/STAT/SER.M/86

Deloitte 2006, Global Banking Industry Outlook, in http://www.deloitte.com/assets/Dcom-Albania/Local%20Assets/Documents/al_fsi_banking_260606.pdf

Drake-Brockman and Stephenson S. 2012, Implications for 21st Century Trade and Development of the .Emergence of services value chains, 2012, in <http://ictsd.org/downloads/2012/11/implications-for-21st-century-trade-and-development-of-the-emergence-of-services-value-chains.pdf>..

Duke Offshoring Research Network & Booz&Co. (2006). Offshoring Research Network 2006 Survey. The Offshore Services Global Value Chain

Duke Offshoring Research Network & Booz&Co. (2007). Offshoring 2.0: Contracting Knowledge and Innovation to Expand Global Capabilities.

Doig, S., Ritter, R., Speckhals, K. and Woolson, D.I. 2001. Has outsourcing gone too far? McKinsey Quarterly, (4): 25-37.

Eaton, J. and Kortum, S., 2001. "Technology, trade, and growth: A unified framework," European Economic Review, Elsevier, vol. 45(4-6), pages 742-755, May

ECLAC. (2008). "Offshore Corporate Services in Latin America and the Caribbean". Paper presented at the Offshore Corporate Services in Latin America and the Caribbean. Santiago, Chile. November 18, 2008.

Egger, H., and Falkinger J., 2003. "The Distributional Effects of International Outsourcing in a 2x2 Production Model." North American Journal of Economics and Finance, 14(2): 189–206.

EIA 2012, World Energy Outlook 2012, Executive Summary, in <http://www.iea.org/publications/freepublications/publication/English.pdf>

Ekholm, K. and K. Hakkala (2005), 'The Effect of Offshoring on Labor Demand: Evidence from Sweden', IUI Working Paper No. 654.

Egger, H. and Egger P., (2006), 'International Outsourcing and the Productivity of Low-Skilled Labor in the EU', Economic Inquiry, 44, 1, 98–108.

Epstein Z., 2012, on Jan 5, 2012, Global telecommunications industry revenue to reach \$2.1 trillion in 2012, in <http://bgr.com/author/zach-epstein/> at 7:30 AM

Ernst, D. 2005. The complexity and internationalisation of innovation - why is chip design moving to Asia? *International Journal of Innovation Management*, 9 (1): 47-73.

Feenstra R. C., 2007, Comment on: Mary Amiti and Shang-Jin Wei, "Does Service Offshoring Lead to Job Losses?"

Fernandez_Stark K., 2012, Conferencia Deslocalización de servicios y cadenas globales de valor: ¿Nuevos factores de cambios estructurales en América Latina y el Caribe? Santiago, Chile, 18-19 de Octubre de 2012, in http://www.cepal.org/comercio/tpl/contenidos/offshore_services_global_value_chain_Fernandez_Stark.pdf

Fernandez-Stark K., Bamber P, and Gereffi G., 2011, *The Offshore Services Global Value Chain, Economic Upgrading and workforce development.*, Centre on Globalization Governance & Competitiveness, Duke University .

Flassbeck H., 2008, On the financial crisis (interview) *Alliance Sud News No. 58*, Winter 2008/09

Forbes 2013, Manufacturing Forecast - Growth Expected in 2013, www.forbes.com/.../manufacturing-forecast-growth-expected-in-2013/

Gabriele A ., 2009, The enhanced role of the State in China's industrial development, 2009, *Economics, Management, and Financial Markets*, 4 (3) 2009.

Gabriele A., 2010, *Economics, Management, and Financial Markets* 5(4), December.

Gabriele A. and Khan H., 2010, *Enhancing technological progress in a market-socialist context: China's national innovation system at the crossroad*, (with Haider Khan), LAP LAMBERT Academic Publishing, ISBN-10: 3838352467, ISBN-13: 978-3838352466, 84 pp., 2010.

Gartner 2013, Gartner Says Worldwide IT Spending Forecast to Reach \$3.7 Trillion in 2013, in <http://www.gartner.com/newsroom/id/2292815>

Gates, J. 2002. '21 ways neoliberalism is redistributing wealth worldwide.' *The CCPA Monitor*, 8: 19–22.

Gereffi G.& Fernandez-Stark K., 2010a, *The Offshore Services Global Value Chain*, Center on Globalization, Governance & Competitiveness, Duke University (paper commissioned by the Chilean Agency for Economic Development (CORFO), March 1, 2010

Gereffi G.& Fernandez-Stark K., 2010b, "The Offshore Services Value Chain: Developing Countries and the Crisis", *World Bank Policy Research Working Paper 5262* (April 2010): <http://go.worldbank.org/K28XW86T40>

Gerybadze, A. and Reger, G. 1999. Globalization of R&D: recent changes in the management of innovation in transnational corporations. *Research Policy*, 28 (2-3): 251-274.

Ghelfi 2004, The 'Outsourcing Offshore' Conundrum: An Intellectual Property Perspective, WIPO, Geneva, in <http://www.wipo.int/export/sites/www/sme/en/documents/pdf/outsourcing.pdf>

Government of Hong Kong SAR, Central Planning Unit, 2007, (GHK 2007), Our Way Forward: Financial Services, Report on Economic Summit on "China's 11th Five-Year Plan and the Development of Hong Kong" (Attachment B).

Economic Times 2010, Global Innovation & Offshore R&D 2010, Toyota eyes R&D centre, engine unit in India, reports Economic Times, June 7th, 2010, in C:\Documents and Settings\Gabriele\Desktop\ASCE\OS R&D Global Innovation & Offshore R&D.mht

Gordon, D. (1998), "Strong Hand of the State: Redirecting Asian Capital Flows," *Stanford Journal of International Relations*, 1(1) , in http://www.stanford.edu/group/sjir/1.1.05_gordon.html.

Grossman, G. M., and Elhanan Helpman E., 2005. "Outsourcing in a Global Economy." *Review of Economic Studies*, 72(1): 135–59.

Grossman, G. M., and Esteban Rossi-Hansberg. M., 2008. "Trading Tasks: A Simple Theory of Offshoring." *American Economic Review*, 98(5).

Hemphill A.T. ,2005, US offshore outsourcing of R&D: Accommodating firm and national competitiveness perspectives *Innovation: Management, Policy & Practice*, Volume 7 Issue 4 - 2005, in <http://www.innovation-enterprise.com/archives/vol/7/issue/4/article/1625/us-offshore-outsourcing-of-randd>

Hijzen, A ., 2007, International Outsourcing, Technological Change, and Wage Inequality *Review of International Economics* Volume 15, Issue 1, pages 188–205, February 2007

Hijzen, A., M. Piu, R. Upward and P. Wright (2007), 'Employment, Job Turnover and Trade in Producer Services: Firm-Level Evidence', GEP Research Paper No. 07/36, University of Nottingham.

IDRC 2010, International Finance, Tax Competition and Offshore Financial Centers, Doc.4, in http://www.idrc.ca/imfn/ev-67839-201-1-DO_TOPIC.html

Jabbour L.and Zuniga M.P., 2009, Drivers of the Offshore Outsourcing of R&D: Empirical Evidence from French Manufacturers, , Research Paper series on Globalisation, Productivity and Technology, Research Paper 2009/04,, University of Nottingham, in <http://www.nottingham.ac.uk/gep/documents/papers/2009/09-04.pdf>

Jeschke S. 2011, Global Global Trends in Transport Routes and Goods Transport, 160 ACEA Meeting, in

http://www.acea.be/images/uploads/files/Global_Trends_in_Transport_Routes_and_Goods_Transport.pdf

Jones, R.W., and Kierzkowski H., 2001. "Globalization and the Consequences of International Fragmentation." In *Money, Capital Mobility, and Trade: Essays in Honor of Robert A. Mundell*, ed. Guillermo A. Calvo, Rudiger Dornbusch, and Maurice Obstfeld, 365–83. Cambridge, MA: MIT Press.

Karabay, B. and McLaren J., 2009, "Trade, Offshoring, and the Invisible Handshake," NBER Working Paper 15048, June 2009.

Khan, N. and Fitzgerald, G.. 2004. Dimensions of offshore outsourcing business model. *Journal of Information Technology Cases and Applications*, 6 (3): 35-50.

Kobayashi-Hillary, M. 2005. *Outsourcing to India: the offshore advantage*. Berlin: Springer-Verlag.

Koopman R., Powers W., Wang Z and Wei S-J., 2010. "Give Credit Where Credit Is Due: Tracing Value Added in Global Production Chains," NBER Working Papers 16426, National Bureau of Economic Research, Inc.

Kommerskollegium 2010, *At Your Service. The Importance of Services for Manufacturing Companies and Possible Trade Policy Implications*. 2010 in www.kommers.se/Documents/.../2010/.../report-2010-2-at-your-service.pdf

Kommerskollegium 2012, *Everybody is in Services - Kommerskollegium* in www.kommers.se/Documents/... Kommerskollegium 2013, *Global Value Chains and Services – An Introduction*, in <http://www.kommers.se/Documents/dokumentarkiv/publikationer/2013/rapporter/report-global-value-chains-and-services-an-introduction.pdf>

Koulopoulos, T. and Roloff, T.. 2006. *Smartsourcing: Driving Innovation and Growth Through Outsourcing*. Avon: Platinum Press.

KPMG International. (2008). *Knowledge Process Outsourcing: Unlocking Top-Line Growth by Outsourcing "The Core"*: IT Advisory. February.

KPMG 2011, *Global Manufacturing Outlook 2011*, in https://www.kpmg.at/uploads/media/Global_Manufacturing_Outlook_2011_01.pdf

Krugman, P. R. 2000. "Technology, Trade and Factor Prices." *Journal of International Economics*, 50(1): 51–71.

Kshetri, N. 2007. Institutional factors affecting offshore business process and information technology outsourcing. *Journal of International Management*, 13 (1): 38-56.

Labonte R., Schrecker T., Sanders D., , and Meeus W., 2004, *Fatal Indifference*, University of Cape Town Press/IDRC 2004, ISBN 1-91971-384-0 e-ISBN 1-55250-130-2..

Lehmann J.-P., 2012, China and the Global Supply Chain in Historical Perspective, in World Economic Forum 2012,

The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy
http://www3.weforum.org/docs/WEF_GAC_GlobalTradeSystem_Report_2012.pdf

Lewin, A. and Heijmen A., (2008). Offshoring: An Intermediary Step to New Transformational Global Capabilities: Findings from the 2007-08 Offshoring Research Survey. Conference: The Conference Board Strategic Outsourcing Webcast Achieving the Next Evolution of Success. July 15.

Lewin, A., Massini S., Perm-Ajchariyawong N., Sappenfield D., and Jeff Walker J., 2009. "Getting Serious about Offshoring in a Struggling Economy."
https://offshoring.fuqua.duke.edu/pdfs/Shared%20Services%20News_ORN.pdf.

Lodefalk, M.L., 2012. "The Role of Services for Manufacturing Firms' Exports". Working Papers 2012:10, Örebro University, School of Business.

Lucintel 2012a, Global IT Services Industry Analysis 2012–2017: Industry Trend, Profit and Forecast Analysis, in

http://www.researchandmarkets.com/reports/2078480/global_it_services_industry_analysis_20122017

Lucintel 2012b, Global Transportation Services Industry 2012-2017: Trend, Profit, and Forecast Analysis, in Global Transportation Services Industry 2012-2017: Trend, Profit, and Forecast Analysis

MAPI 2013, MAPI: Manufacturing Continues to Grow, Face Challenges, in <http://www.manufacturing.net/news/2013/01/mapi-manufacturing-continues-to-grow-face-challenges>

McMillan M.S., 2009, Production Offshoring and Labor Markets: Recent Evidence and a Research Agenda, Tufts University and NBER, in http://siteresources.worldbank.org/INTRANETTRADE/Resources/239054-1239120299171/5998577-1244842549684/6205205-1259868742627/6620468-1259868782354/OffShoring_McMillan.pdf

Meckstroth 2012, THE GLOBAL MANUFACTURING OUTLOOK - The National, in www.national-economists.org/gov/meckstroth12.pdf

Meyer T., 2009, Offshoring to China -From worldbank to back office?, January 13, 2009 , _Digital Economy and structural change, Economics 68, Deutsche Bank Research, in http://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000236071.pdf

Mitra, D. and P. Ranjan (2007), 'Offshoring and Unemployment', Syracuse University mimeo

Narula, R., 2001. Choosing between internal and non-internal R&D activities: some technological and economic factors. *Technology Analysis & Strategic Management*, 13 (3): 365-387.

Naylor R.T., 1987, *Hot Money and the Politics of Debt* Simon & Schuster; ISBN-10: 0671623192, ISBN-13: 978-0671623197

Nespresso 2013a, Smallholder coffee farmers- Nespresso, in www.nespresso.com/.../the-colombian-coffee-growers-federation-fnc.html, retrieved on May 7, 2013

Nespresso 2013b, Empowering small-scale coffee farmers in Colombia - Nespresso, in www.nespresso.com/.../empowering-small-scale-coffee-farmers-in-colombia.html, retrieved on May 7, 2013

USCC 2013, Monthly Summary of U.S.-China Trade Data (May 3, 2013, in http://origin.www.uscc.gov/sites/default/files/Research/Monthly%20USCC%20Trade%20Report_03-2013.pdf)

Nicita A, Ognivtsev, V., Shirotori M., 2012, GLOBAL SUPPLY CHAINS: TRADE AND ECONOMIC POLICIES FOR DEVELOPING COUNTRIES GLOBAL SUPPLY CHAINS: TRADE AND ECONOMIC POLICIES FOR DEVELOPING COUNTRIES, Policy Issues in International Trade and Commodities Study Series No.55, UNCTAD, Geneva

OECD 2012, MAPPING GLOBAL VALUE CHAINS Working Party of the Trade Committee, 4-5 December 2012, The OECD Conference Centre, Paris http://www.oecd.org/dac/aft/MappingGlobalValueChains_web_usb.pdf

OECD-WTO 2013, Measuring Trade in Value Added: An OECD-WTO joint initiative, in <http://www.oecd.org/industry/ind/measuringtradeinvalue-addedanoecd-wtojointinitiative.htm>, retrieved on April 22, 2013

Oxfam 2000, Tax Havens Releasing the hidden billions for poverty eradication , Oxfam Briefing Papers, Oxfam International 01 Jun 2000

Nicholson, B., Sahay, S., 2004, "Embedded knowledge and offshore software development." *Information and Organization* 14 (2004): 329-365.

Nordas H. and Kim Y., (2013), The Role of Services for Competitiveness in Manufacturing (OECD Trade Policy Paper No. 148)

Paju, T. (2007) Conceptual model of R&D offshore outsourcing. *Journal of*

Global Business and Technology, Vol. 3, No.1, 4961.

Philippine Daily Inquirer. 2009. "BPOs Not Entirely Crisis-Proof, Study Says." May 28. Accessed March 1, 2010 from <http://business.inquirer.net/money/topstories/view/20090528-207661/BPOs-notentirely-crisis-proof-study-says>.

Quélin, B. and Duhamel, F., 2003 Bringing together strategic outsourcing and corporate strategy: outsourcing motives and risks. *European Management Journal*, 21 (5): 647-661.

Quinn, J. 1999 Strategic outsourcing: leveraging knowledge capabilities. *Sloan Management Review*, 40 (4): 9-21.

Reddy, P. 1997. New trends in globalization of corporate R&D and implications for innovation capability in host countries: a survey from India. *World Development*, 25 (11): 1821-1837.

Reinsdorf M. and Slaughter (eds.), 2009, *International Flows of Invisibles: Trade in Services and Intangibles in the Era of Globalization*, CRIW-NBER Conference Volume, University of Chicago Press, 2009.

ReportLinker 2013, Research and Markets: Global Pharmaceutical Market Report & Forecast: 2012-2017, in <http://www.thefreelibrary.com/Research+and+Markets%3A+Global+Pharmaceutical+Market+Report+%26+Forecast%3A...-a0305338417>

Reuters 2012, Research and Markets: Global Banking Industry 2012-2017: Total Industry Assets Forecast To Climb to an Estimated US \$163,058 Billion in 2017 With a CAGR of 8% Over the Next Five Years, in <http://www.reuters.com/article/2012/07/17/idUS214706+17-Jul-2012+BW20120717>

Rodriguez-Clare A., , 2010. "Offshoring in a Ricardian World," *American Economic Journal: Macroeconomics*, American Economic Association, vol. 2(2), pages 227-58, April

Rose, Andrew K & Spiegel, Mark, 2005. "Offshore Financial Centres: Parasites or Symbionts?," *CEPR Discussion Papers* 5081.

Sako, M. (2005). "Outsourcing and Offshoring: Key Trends and Issues". Paper presented at the Emerging Markets Forum. Oxford, UK. Retrieved July 6, 2009, from <http://www.sbs.ox.ac.uk/NR/rdonlyres/99F135D4-E982-4580-9BF0-8515C7B1D40B/1752/EMFOutsourcingNov05.pdf>.

Shelter Offshore 2009, Offshore Tax Havens Innocent in Global Financial Crisis, in <http://www.shelteroffshore.com/index.php/offshore/more/offshore-tax-havens-innocent-financial-crisis-10518>

Sturgeon and Gereffi G.. (2009). "Measuring Success in the Global Economy: International

Trade, Industrial Upgrading, and Business Function Outsourcing in Global Value Chains."

Transnational Corporations, 18(2): 1-35.

The Boston Consulting Group. (2007). *Estudios de Competitividad en Clusters de la Economía Chilena*.

Documento de Referencia Offshoring. May 18.

OECD. (2008). Europe Regional Investment Strategy Key Findings of the Sector Specific Study. Sarajevo:

OECD Private Sector Development Division. July 3.

NASSCOM. (2009). Indian IT-BPO Industry Factsheet. Retrieved July 17, 2009, from http://www.nasscom.in/upload/5216/IT_Industry_Factsheet-Mar_2009.pdf

Rao, P.M. (2008). The Emergence of the Pharmaceutical Industry in the Developing World and its Implications for Multinational Enterprise Strategies. <http://www.emeraldinsight.com/Insight/viewPDF.jsp?contentType=Article&Filename=html/Output/Published/EmeraldFullTextArticle/Pdf/3240020202.pdf>.

Slaughter M, 2007, "Globalization and Declining Unionization in the United States," *Industrial Relations*, 46(2), 2007.

Slaughter M, 2010, "Global Engagement and the Innovation Activities of Firms," with Chiara Criscuolo and Jonathan E. Haskel, *International Journal of Industrial Organization*, 28 (2), 2010.

Stephenson S., 2012, *Services and Global Value Chains*, in *World Economic Forum 2012*,

The Shifting Geography of Global Value Chains: Implications for Developing Countries and Trade Policy, http://www3.weforum.org/docs/WEF_GAC_GlobalTradeSystem_Report_2012.pdf

Tiwari R., *The Role of Offshore R&D in Strengthening Competitive Advantage: Chances and Challenges in India (2007)*. *Innovationen und Produktentstehung in der Antriebs- und Steuerungstechnik*, Tagungsband des 3. Rexroth Doktoranden Kolloquiums, May 2007. Available at SSRN: <http://ssrn.com/abstract=1583701>

UNCTAD. 2005a. *World Investment Report 2005. Transnational Corporations and the Internationalization of R&D*. New York: United Nations. OJO

UNCTAD 2005b, *Business Process Offshore Outsourcing- Untapped Opportunities for SMEs, Guide for SME Managers*, Prepared by the UNCTAD secretariat, UNCTAD/SDTE/TIB/2005/6, Geneva, 01/08/05 OJO

UNCTAD 2008, *Information Economy Report 2007-2008, Science and technology for development: the new paradigm of ICT*, 06/02/08 ,UNCTAD/SDTE/ECB/2007/1, Sales no.: E.07.II.D.13, ISBN: 978-92-1-112724-9, Geneva 2008.

UNCTAD 2009a, *Information Economy Report 2009: Trends and Outlook in Turbulent Times*, UNCTAD/IER/2009, Sales No. E.09.II.D.18, ISSN 2075-4396, ISBN 978-92-1-112778-2, Geneva 2009

UNCTAD (2010a), *Integrating Developing Countries' SMEs into Global Value Chains*, UNCTAD/DIAE/ED/2009/5, New York and Geneva.

UNCTAD (2010b), Review of Maritime Transport 2010.

UNCTAD (2010c), Summary note on dynamic exports and new exports of Asian LDCs, UNCTAD Mimeo, discussed at the ESCAP/UNVTAD/WTOARTNet Research Workshop in Vientiane, Laos, October 2010 (http://www.unescap.org/tid/artnet/mtg/tdgc_note.pdf).

UNCTAD 2013a, Global value chains and Development, in www.unic.org.in/.../Publications_GlobalValueChainsAndDevelopment2013.pdf

UNCTAD 2013b, Fasteners' production and trade of China, Case study on GVCs (forthcoming)

UNCTAD 2013c, The Analysis of LED value chain in China Case study on GVCs (forthcoming)

UNCTAD 2013d, Rubber Tires Production and Trade n China Case study on GVCs (forthcoming)

UNCTAD 2013e, Facts and Figures, Services Economy, N.1.May 2013,

UNCTAD 2013f,. Product-level Global Value Chains: UNCTAD Study on Improving International Trade Statistics Based on Global Value Chains, (forthcoming)

UNCTAD 2013g, Tracing Value Added in Global Value Chains: the case studies and the policy issues from the prospect of developing countries, UNCTAD Discussion Paper, (forthcoming)

U.S. Department of Commerce , Bureau of Economic Analysis (USDOC-BEA 2009a). "Full-Time Equivalent Employees by Industry." Interactive tables: Gross-Domestic-Product-by-Industry Accounts. August 29, 2009.

http://www.bea.gov/industry/gpotables/gpo_action.cfm?anon=508764&table_id=25734&format_type=0 (accessed January 7, 2010).

U.S. Department of Commerce , Bureau of Economic Analysis (USDOC-BEA 2009b).———. "Real Value Added by Industry." Interactive tables: Gross-Domestic-Product-by-Industry Accounts. April 28, 2009, in

http://www.bea.gov/industry/gpotables/gpo_action.cfm?anon=508764&table_id=25700&format_type=0 (accessed September 8, 2009).

United States International Trade Commission (USITC 2010). Recent Trends in U.S. Services Trade, 2010 Annual Report Investigation, June 2010, publication no. 4163, Investigation No. 332-345.

Van der Shane G., 2010a Philippine Bpo Service Providers And The Philippine Economy, Articles Base, Mar 02, 2010, in <http://www.articlesbase.com/outsourcing-articles/philippine-bpo-service-providers-and-the-philippine-economy-1927672.html>

Van der Shane G., 2010b, Bpo Philippines – Gaining The Advantage, ArticlesBase, Mar 10, 2010, in <http://www.articlesbase.com/outsourcing-articles/bpo-philippines-gaining-the-advantage-1965191.html>

Van der Shane G., 2010c, The Growth Of Bpo Philippines, ArticlesBase, Mar 12, 2010, in <http://www.articlesbase.com/outsourcing-articles/the-growth-of-bpo-philippines-1977980.html>

Villafania, Alexander. 2009. "Call Center Revenues Reach \$5B in '09." Accessed January 11, 2010, in <http://newsinfo.inquirer.net/breakingnews/infotech/view/20090720-216409/Call-center-revenues-reach-5B-in-09>.

Von Furstenberg, G.M., 2006, The Economics of Offshore Financial Services and the Choice of Tax, Currency, and Exchange-Rate Regimes (August 1, 2006). Available at SSRN: <http://ssrn.com/abstract=925885>

Veugelers, R. and Cassiman, B., 1999. Make and buy in innovation strategies: evidence from Belgian manufacturing firms, *Research Policy*, 28 (1): 63-80.

Walz, D., Elam, J., & Curtis, B. (1993). Inside a software design team: knowledge acquisition, sharing, and integration. *Communications of the ACM*, 36(10), 63-77.

Wipro Limited. (2008). Annual Report 2007-08: Wipro Limited.

Wipro (2009). The Journey. Retrieved November 11, 2009, from <http://www.wiproapplyingthoughtinschools>

World Energy Council 2011 Global Transport Scenarios 2050 report http://www.worldenergy.org/documents/wec_transport_scenarios_2050

Zhang, L.-Y. (2003), "Economic Development in Shanghai and the Role of the State," *Urban Studies*, 40: 1549-72.