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# GLOBAL VALUE CHAINS AND SOUTH-SOUTH TRADE

## Economic Cooperation and Integration among Developing Countries

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# Global Value Chains and South-South Trade

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# Table of Contents

A. Introduction ..... 4
B. Where do value chains come from? ..... 7
B.1 Trade, industrialization and international production ..... 7
B.2 The changing face of international trade and production ..... 10
B.3 The spread of global value chains ..... 14
C. South-South Trade: Trends and impact ..... 19
C.1 Some general trends ..... 19
C.2 Global value chains and South-South trade ..... 22
C.3 Conclusion ..... 29
D. FDI, GVCs and Development ..... 31
D.1 GVCs and the Southern surge of FDI ..... 31
D.2 Enclave industrialisation: Back to the future? ..... 36
D.3 Flying geese and South-South FDI ..... 40
E. Conclusion and policy inferences ..... 43

# Global Value Chains and South-South Trade

## A. Introduction

The discussion on promoting South-South trade dates back to the 1940s, when the development of countries emerging from the colonial era began to gain importance as an international policy objective. Efforts to promote trade amongst developing countries surfaced during the drafting of the Charter of the International Trade Organisation (ITO), when participating developing countries pushed for a clause that would allow them to deviate from the principle of Most-Favoured Nation (MFN) in order to agree to preferential tariff rates with each other.[1] These efforts ended with the collapse of the ITO in 1950, but the discussion picked up pace during the 1960s and 1970s as measures to rebalance the trading system in favour of developing countries were pursued more vigorously at the regional and multilateral levels.

Raul Prebisch, in his report to the first UNCTAD, argued in support of increased South-South trade, including through preferential regional and intra-regional trading arrangements among groupings of developing countries as part of "a new trade policy for development" (UNCTAD, 1964). UNCTAD was subsequently in the vanguard of South-South trading initiatives, notably the General System of Trade Preferences Among Developing Countries (GSTP) launched in 1976, as well as through various regional and sub-regional projects (UNCTAD, 1985:189-98). By the late 1970s, the argument for expanding trade links within the South had become part of the economic mainstream. In 1979, the Enabling Clause was accepted by GATT as part of the Tokyo Round, giving developing countries the right to grant one another preferential tariff rates.

That same year, Arthur Lewis made the discussion of South-South trade the basis of his Nobel economics lecture (Lewis, 1979). In the face of what he saw as a long-term growth slowdown in the advanced economies, Lewis argued that the adverse impact on developing countries would be felt most strongly through a slowdown in the demand for their exports. While recognising that South-South trade was still small (and had not changed much over the previous two decades), Lewis believed that it could pick up the slack left by weakening demand in the North, and help support catch-up growth. In particular, Lewis argued that in five key sectors where the South still relied on imports from the North -- food, fertiliser, cement, steel and machinery -- expanded domestic output by Southern producers could end that dependence and help establish "self-sustaining growth" in a critical number of developing countries. This prediction proved premature, in part, because the institutional architecture that Lewis had envisaged to promote South-South trade never materialised, but also because the strong industrial growth experienced in many developing countries over the preceding two decades came to an abrupt halt with the debt crisis of the early 1980s. Coincidently, the (already faltering) discussion on a New International Economic Order collapsed at Cancun in l981, and was swiftly replaced by a very different international policy agenda which had no place for active measures to promote South-South cooperation.

Since the start of the millennium, the emergence of new growth poles in the South, along with a fledgling political architecture at the regional (such as UNASUR in Latin America and an expanding ASEAN in South East Asia) and cross regional (such as the BRICS, IBSA and the China-Africa Forum) levels, has helped rekindle interest in South-South cooperation. The global financial

[1] Gardner (1956: 365-368), for further details see Greenaway and Milner (1990).

crisis in late 2008 added to this momentum. Advanced economies have found it difficult to shrug off the fallout from the crisis with growth prospects damaged, on some estimates, for a decade or more (UNCTAD 2014). By contrast the major economies in the South, in particular China and a number of dynamic medium-sized economies, bounced back quickly (though not fully) from the initial shock, further consolidating their position in the world economy (Table 1).

As a result of these trends, the case for promoting South–South trade and investment as a means of maintaining growth momentum in developing countries has become a focus of the international development policy debate. Indeed, for the first time, policy makers in advanced countries have begun to see South-South cooperation in a more positive light, partly as a means to correct persistent global economic imbalances, but also as a way to shift some of the burden of global governance which is stretching budgets in these countries. However, the preferred policy agenda they attach to South-South cooperation owes little to the one outlined by Prebisch, Lewis and other early development pioneers and is instead heavily focussed on a further push towards market opening and private sector development through more rapid liberalization (often in the form of regional and bilateral agreements) and increased participation in global value chains (GVCs).

**Table 1. GDP growth, selected regions and developing countries, 1990-2014 (percent)**

| | *average 1990-2002* | *average 2003-2007* | *2008* | *2009* | *2010* | *2011* | *2012* | *2013* | *2014* | *average 2008 -2014* |
|---|---|---|---|---|---|---|---|---|---|---|
| Developed economies | 2.4 | 2.6 | 0.1 | -3.7 | 2.6 | 1.5 | 1.1 | 1.2 | 1.7 | 0.6 |
| Developing economies | 4.6 | 7.0 | 5.1 | 2.9 | 7.7 | 5.8 | 4.7 | 4.6 | 4.3 | 5.0 |
| Transition economies | -2.3 | 7.8 | 5.4 | -6.6 | 4.7 | 4.6 | 3.3 | 2.3 | 0.8 | 2.1 |
| *Selected developing and transition economics* | | | | | | | | | | |
| Argentina | 2.1 | 8.7 | 3.1 | 0.1 | 9.1 | 8.6 | 0.9 | 2.9 | 0.5 | 3.6 |
| Brazil | 1.9 | 4.0 | 5.2 | -0.3 | 7.5 | 2.7 | 1.0 | 2.5 | 0.1 | 2.7 |
| China | 9.7 | 11.7 | 9.6 | 9.2 | 10.4 | 9.3 | 7.7 | 7.7 | 7.4 | 8.8 |
| Egypt | 4.8 | 5.1 | 7.2 | 4.7 | 5.1 | 1.8 | 2.2 | 2.1 | 2.2 | 3.6 |
| India | 5.4 | 9.0 | 3.9 | 8.5 | 10.5 | 6.4 | 4.7 | 5.0 | 5.4 | 6.3 |
| Indonesia | 4.7 | 5.6 | 6.0 | 4.6 | 6.2 | 6.5 | 6.3 | 5.8 | 5.1 | 5.8 |
| Malaysia | 6.7 | 6.0 | 4.8 | -1.5 | 7.4 | 5.1 | 5.6 | 4.7 | 6.0 | 4.6 |
| Mexico | 3.2 | 3.4 | 1.4 | -4.7 | 5.2 | 3.9 | 4.0 | 1.4 | 2.1 | 1.9 |
| Nigeria | 4.6 | 7.9 | 6.3 | 6.9 | 7.8 | 4.9 | 4.3 | 5.4 | 6.0 | 5.9 |
| Russian Federation | -0.7 | 7.5 | 5.2 | -7.8 | 4.5 | 4.3 | 3.4 | 1.3 | 0.6 | 1.6 |
| South Africa | 1.9 | 4.7 | 3.2 | -1.5 | 3.0 | 3.2 | 2.2 | 2.2 | 1.5 | 2.0 |
| Turkey | 3.6 | 6.9 | 0.7 | -4.8 | 9.2 | 8.8 | 2.1 | 4.1 | 2.9 | 3.3 |
| Thailand | 5.2 | 5.6 | 1.7 | -0.9 | 7.4 | 0.6 | 7.1 | 2.9 | 0.7 | 2.8 |

*Source:* UNCTAD Secretariat based on UNDESA national accounts aggregate statistics.

This agenda has been promoted as part of a “great economic transformation” in the global economy, away from a world in which trade took the form, primarily, of finished goods between countries towards a new "21st century world" involving the continuous, “two-way flows of things, people, training, investment, and information” within GVCs organised by transnational corporations (TNCs) (Baldwin, 2012).

Analysis of these two-way flows and their impact has been hampered by data limitations from a reporting system designed at a time when countries were trading predominantly in final goods (Jones and Kierzkowski, 2001a; 2001b). UNCTAD offered a seminal analysis in its *Trade and Development Report 2002*, using revisions in the SITC statistics which made it possible to distinguish between trade in final goods and trade in parts and components for some sectors, notably machinery and transport equipment. However, parts and components are only one element of network trade associated with GVCs, which also includes final assembly and service activities. Moreover, the relative importance of these tasks varies among countries and over time in a given country, making it problematic to use data on the parts and components trade as the only indicator of the trends and evolving patterns of network trade over time and across countries. More recently, the WTO and the OECD have produced a dataset (for 57 countries, 18 industries and for selective years since 1995), to address some of these statistical weaknesses and anomalies by separating out the domestic and foreign value added contained in imports and exports.

These data issues, though important, are not, however, the real challenge when it comes to the discussion of GVCs, trade and development. The earlier UNCTAD research already showed that the success of many developing countries in expanding their manufacturing exports and improving their share in world trade, including in what appeared to be more sophisticated products, could not be taken at face value. This was because for many high and medium technology goods produced in

GVCs, most developing countries were still only engaged in low-skilled labour intensive assembly activities. Thus the apparent technological "leapfrogging" by developing countries attributed to their participation in GVCs was largely a statistical mirage. That research also showed that the heavy reliance on imported inputs that accompanied that participation did not necessarily bolster value addition or incomes, and consequently that a country's growing share in world manufacturing trade did not necessarily imply a corresponding increase in its share of world manufacturing output and income. Important differences amongst developing countries were also uncovered regarding the relation between manufacturing trade and value added, reflecting differences in how they had managed their integration into the global trading system. This was illustrated by a comparison of South Korea and Mexico, both of which experienced rapid growth of trade in manufactured goods (from the early 1980s and early 1990s respectively). In the former, however, growth was stronger for exports than imports and was accompanied by very strong growth in manufacturing value added. In the latter by contrast, growth in manufacturing value added was negligible compared with the surge in (particularly) imports and exports (UNCTAD, 2002: 77-81).

Building on previous UNCTAD research, this study examines trends and patterns of South-South trade over the last decade linked to GVCs.[2] Its findings confirm much of the earlier analysis. However, there are some new, or at least more visible, trends that have emerged over the last decade and have impacted international production and South-South trade, including the growing influence of financial markets on the real economy ("financialization"), and the emergence of China as the world`s leading export economy. There has also been strong growth performance across the developing world, which began after the recovery from the dotcom crisis of 2000, and continued after the financial crisis of 2008, albeit at a slower rate than prior to the crisis.

The study begins with an analysis of the links between trade, industrialization and the evolving international division of labour. Contrary to much recent analysis it emphasises the longstanding nature of the economic forces behind GVCs and the familiarity of the challenges they pose to policy makers in the South. This is followed by a discussion of some of the main changes in the global trading system over the past three decades, in particular the growing participation of developing countries in world trade, the shift in the composition of their trade from primary products to manufactures, and the rise of South-South trade both as a share of developing country and world trade. These three features are connected, in no small part, through the spread of GVCs. The next three sections examine in turn recent trends in global production sharing, the value added by different countries in GVCs, the contribution of GVCs to rising South-South trade, and the role of FDI in spreading international production and its development impact. A final section summarizes the key findings and draws policy implications.

## B. Where do value chains come from?

### B.1 Trade, industrialization and international production

Closer integration of countries into the world economy is expected to increase the share of international trade in economic activity. It does so by altering price incentives that favour the expansion of the traded goods sectors relative to the rest of the economy, and by shifting resources from previously protected sectors to export-oriented industries; as a result, imports and exports tend

[2] The terms global value chains, global commodity chains, global supply chains, global production sharing, and international production networks carry some nuanced differences among those who choose one or the other. For the purposes of this study we see them as essentially interchangeable.

to increase at any given level of resource utilization. Certainly, trade as a share of world output has been on a steadily rising trend over the past 60 years, while developing countries' share of world trade has been rising since the early 1970s, albeit only more persistently since the late 1980s, and now counts for 45 per cent of total world trade (Nayyar, 2013: ch.5).

What lies behind these trends and their implications for development is, however, more contested. In theory, trade liberalization, by reshuffling a country's resources in line with its comparative advantage, should yield significant efficiency gains and welfare benefits. However, these gains are difficult to quantify and substantiate, giving rise to considerable debate over the potential benefits of trade liberalization and the right balance between outward- and inward-oriented development strategies. In part that debate arises from the fact that, in practice, the benefits of trade liberalization often appear to be small and one-off while the adjustment costs can be large and persistent.[3] What matters more from a development perspective is whether closer integration and faster expansion of imports and exports result in an ongoing process of catch-up growth, economic diversification, technological upgrading, and convergence of incomes with industrial countries.

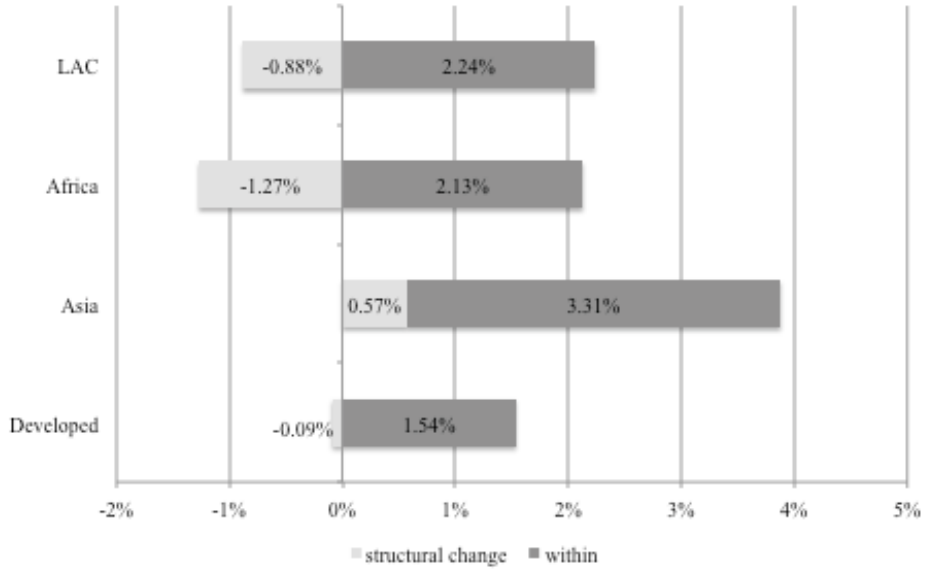
A good deal of modern trade theory has been about trying to establish such links. However, conventional analysis tends to deny or downplay the importance of structural differences in the composition of economic activity, making it difficult to move beyond "static" (Harberger-type) gains to an identification of more "dynamic" gains from trade (Winters, 2004). More heterodox economists and economic historians, by contrast, tend to highlight the importance of moving resources into higher productivity sectors and activities with the potential for technological progress, learning and upgrading, and as a precondition for making lasting gains from integration into the global economy. These studies also show that the required links within and across sectors neither emerge automatically nor evolve through marginal changes in the pattern of resource allocation, but often involve dedicated institutional efforts and active policy initiatives to help mobilise large-scale resources, channel them into new lines of activity, and build complementarities between the supply and demand sides of the market. Moreover, the attendant policy challenges vary, inter alia, with a country's level of income, the structure and sophistication of its productive base, the size of its firms and their technological capacities (UNCTAD, 1996; 1997; 2003; 2006).

In particular, because successful integration in to the global economy depends upon sustained productivity growth, building a strong manufacturing base remains a key component of a successful trade strategy in most developing countries (Toner, 1999). A number of empirical regularities associated with manufacturing are key to advancing such a strategy: the contribution of manufacturing to growth has been found to be greater than its share in total output. Faster growth in manufacturing output generates faster growth in manufacturing productivity, and faster growth in manufacturing is linked to faster growth of output and productivity in other sectors of the economy (Ocampo, 2014). A strong positive correlation between a country`s level of income and the degree to which its economy is diversified also appears to be closely associated with expanding industrial capacity (Imbs and Wacziarg, 2003). The jump from these broad trends to causal connections is, of

[3] The tendency to exaggerate the gains from further liberalisation seems to have begun with debates about Northern trade agreements, such as the Canada-US free trade agreement and the single European market, but it became commonplace during the Uruguay Round and reached new heights in the run-up to the 4th WTO Ministerial meeting in Doha. In its *Global Economic Prospects 2002*, p.xiii, the World Bank predicted between $1.5 and $7.5 trillion of additional cumulative income to developing countries from the liberalisation of goods and services. Significantly, in the run-up to the Hong Kong Ministerial meeting in December 2005, the World Bank markedly scaled back its predictions of the likely benefits of significant tariff cuts and other liberalising measures to below $100 billion and accepted that most of the gains would accrue to the richer countries. For a review of why the kinds of models used in these exercises have a tendency to exaggerate the benefits and downplay the costs, see Ackerman and Gallagher (2008).

course, not an automatic one. Moreover, dynamic and creative impulses are not unique to the manufacturing sector. However, the evidence tends to show that manufacturing carries a greater likelihood of creating both supply side (specialization, scale economies, technological progress and skill upgrading) as well as demand side (favourable price and income elasticities) advantages that together can help trigger and sustain a virtuous circle of rising productivity, employment and incomes. Recent work by Dani Rodrik comparing patterns of structural change across different regions confirms the potential of the manufacturing sector,[4] but also that its wider impact depends on whether or not countries are able to shift productive resources to this sector. A large part of the rapid and sustained growth in East Asia is explained by this shift of resources, while slower growth in Africa and Latin America reflects their failure to move resources away from primary or (low productivity) tertiary activities (Figure 1**)**.

**Figure 1. Decomposition of productivity growth (annual growth rate) by country group, 1990–2005**




*Source:* Macmillan and Rodrik (2012), Figure 3.2 and Table 3.1.

An additional reason why industrialisation should be given a privileged place on the development agenda is its close association with the creation of large-scale production units through the constant addition of new plant and equipment, and the progressive substitution of capital for labour, i.e. with the process of capital accumulation.[5] A critical component in this process is a strong link between profits and investment because profits provide not only an incentive for investment, but are also an important source of financing it (UNCTAD, 1994; 2003). A good deal of evidence shows that after the earliest stages of industrialisation (when agricultural and commercial incomes can still provide the main source of investment finance), capital accumulation is financed primarily by the retention of corporate profits, often in a symbiotic relation with long-term bank borrowing. In many successful late industrializing economies, there is a strong relationship between a high rate of

[4] Rodrik`s research reports unconditional convergence for this sector.

[5] A given rate of accumulation can of course generate different rates of output growth depending on its nature and composition as well as the efficiency with which new capacity is utilised.

economic growth, a high savings rate, a large share of manufacturing in GDP and a high profit share in manufacturing (Ros, 2000: 79-83).

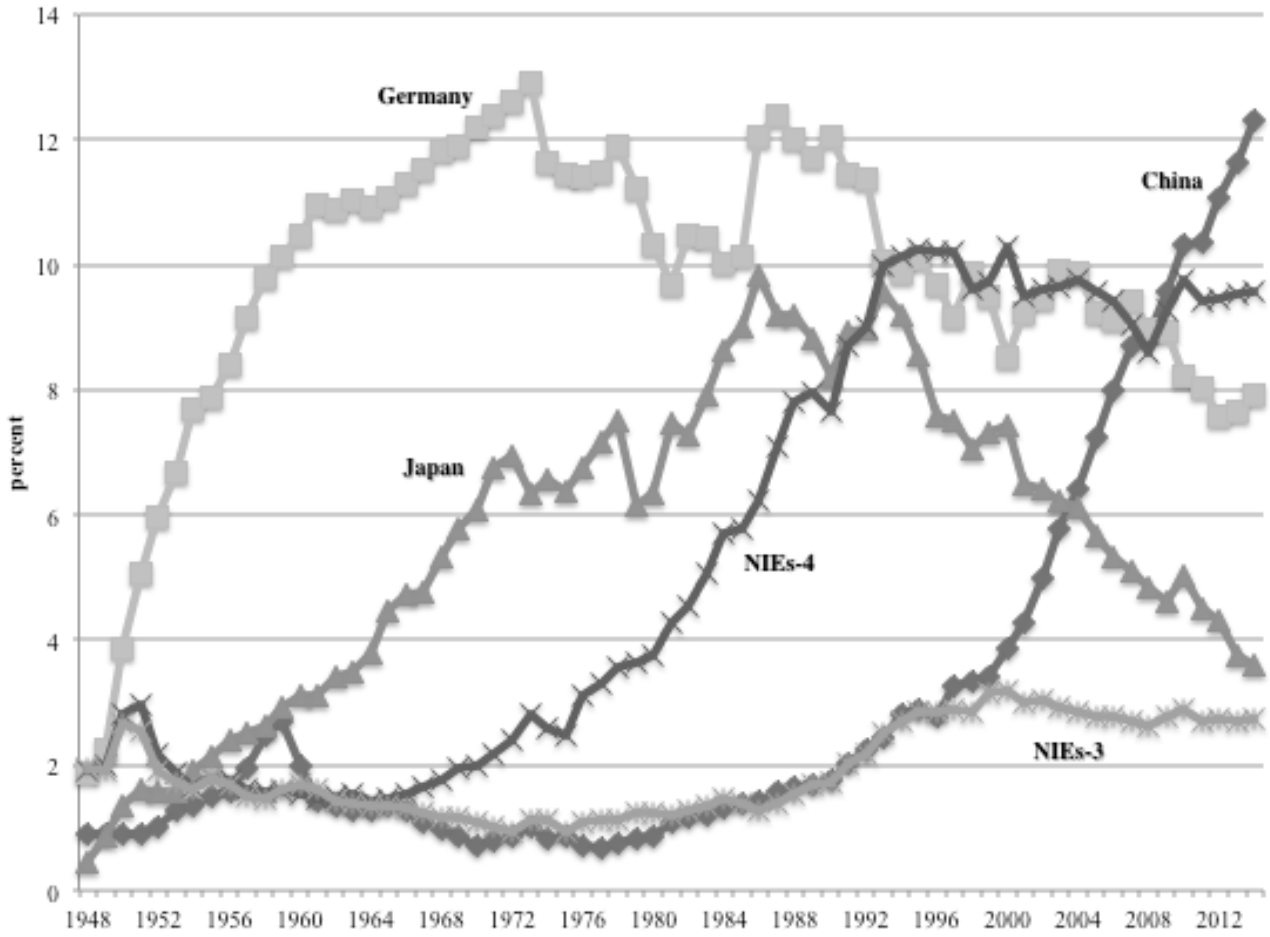
It also appears to be the case that the later the industrialization process begins the more capital-intensive it tends to be. This provides greater opportunities for rapid productivity growth, including from access to the technology and capital equipment produced in more advanced economies along with accelerated learning opportunities (Lin, et al, 2013), but it also adds to the strain of mobilizing resources for a fast pace of capital accumulation. The growth spurt in Germany after the Second World War, the leading export economy in Western Europe, was associated with a strong investment push; from the 1960s, Japanese and Korean development required an even faster pace of investment; Brazil's industrialization push in the late 1960s and 1970s also coincided with a strong investment drive, and this has, more recently, been the case in China.

This pattern of successful late industrialization also tends to be associated with fewer manufacturing jobs at any given level of income than was the case in earlier industrialization episodes. However, opportunities for some late industrializers to become "workshop economies", producing large quantities of labour-intensive products for export, can go some way towards offsetting these weaker employment elasticities by allowing countries to expand manufacturing employment beyond the limits set by their domestic markets. From this it follows that building strong links between investment and exports is likely to be critical in generating dynamic gains from participation in the international division of labour (UNCTAD, 1996).

### B.2 The changing face of international trade and production

Over the past three decades, and at an accelerated pace since the turn of the millennium, developing countries share of world manufacturing output and trade has been on a rising trend (Nayyar 2013, figure 6.2). There has also, during this same period, been an apparent shift in the composition of developing country exports away from primary exports and resource-based manufactures towards medium and high-technology goods. Primary exports accounted for three-quarters of developing county exports in 1980 but just a little over one-third in 2010, while the share of manufactures rose over the same period from 9 to 46 per cent (Nayyar, 2013, table 6.7). These trends are often taken as part of a dramatic shift in the workings of the global economy to the advantage of developing countries. However, these aggregate figures hide significant differences across regions, with almost all the gains concentrated in Asia, and more particularly in East Asia, while the composition of African and Latin American exports has exhibited little or no change over this same period. Moreover, rather than symbolising a break with the past, the Asian story would appear to continue a post-war trend of emerging "hyper-exporters" who channel a disproportionately large share of resources to their export sectors. This trend began with Germany in the 1950s, followed by Japan in the 1960s and by the first-tier East Asian newly industrializing economies (NIEs) in the 1970s and 1980s, which all saw very large gains in their share of world merchandise trade during these periods (Figure 2). The reliance on exports has been more pronounced, in scale and scope, since the 1980s, particularly in some South East Asian economies (notably Malaysia and Thailand), where the share of trade in total output has reached very high levels. However, as can be seen in Figure 2, the share of these countries (NIEs-3) in world trade has failed to reach the levels seen by earlier generations of late industrialising export economies, and has actually declined over the past decade, raising concerns that these countries are caught in a "middle-income trap" (see section D below).

**Figure 2. Share in global merchandise exports, 1948-2014**




*Source:* UNCTADstat database. NIEs-4 includes Hong Kong SAR, Korea, Singapore and Taiwan Province of China. NIEs-3 includes the Philippines, Malaysia and Thailand.

While hyper-exporting is not a new feature of the world economy, it has, in recent years, coincided with a tendency towards "hyper-specialization" in both low and middle-income countries. According to Hanson (2012: 56-57):

> For low-income countries in 2008, the share of exports accounted for by the single largest three-digit good is a whopping 21 percent, in the top four goods is 45 percent, and in the top eight goods is 58 percent. Hyper-specialization extends beyond poor nations. In middle-income countries, the one-, four-, and eight-good export concentration ratios are 16, 37, and 49 percent, respectively, and in high-income countries they are 11, 26, and 36 percent. For comparison, the U.S. ratios are 5, 17, and 28 percent.

To a large extent, it is this pattern of hyper-specialized exporting, traditionally associated with primary producers, which has underpinned the broad changes in the trade and production profiles of developing countries in the recent period. Its close association with the spread of GVCs in the

secondary and tertiary sectors has led some observers to identify these trends with a new era of "hyper-globalization" (Subramanian and Kessler, 2013).

A value chain essentially describes the sequence of activities that lead up to the sale of a final product, adding value at each stage of the process. Those activities can be contained within a single firm or divided among different firms and include, inter alia, design, production, marketing, distribution, and post-sale service. In the context of (hyper-)globalization, the activities that constitute a value chain have generally been carried out in inter-firm networks in several different locations. As such, GVCs constitute a particular form of input-output relations that tends to raise the direct import content of exports relative to value added by allowing easier access of foreign suppliers of capital and intermediate goods to domestic markets.

At one level, the cross-border spread of value chains can be seen as the global extension of Adam Smith's pin factory. Smith's example concerned functional specialisation within a single factory generating internal economies of scale which helped to expand the available market; but it anticipated the possibility of external economies through the diversification of activities in the industrial sector and increased intra-industry transactions limited only by the size of the available market.[6] Despite its venerated status in the pantheon of economic ideas, in practice, Smith's insight was left to one side in favour of a more restrictive analysis of economic development that linked welfare gains to efficiency improvements from specialization based on a country`s factor endowments.[7]

It was not until the late 1920s that Allyn Young returned to the importance of (industrial) differentiation for the modern economic development process. Young observed that "over a large part of the field of industry, an increasingly intricate nexus of specialized undertakings has inserted itself between the production of raw materials and the consumer of the final product" (Young, 1928: 527), producing a high degree of economic interdependence both within and across industries. In this world, Young argued, production is best understood as a joint set of activities coordinated by the firm. Initially the cost advantages gained from dividing and sub-dividing the production process tend to cluster around geographical centres because of the presence of highly specialised skills and services required by the separate production tasks, as well as the communication advantages involved when joint production involves "the frequent transfer of an unfinished product between numerous firms with differing specialisations" (Kaldor, 1996: 58). However, these advantages are not fixed. In particular, changes in technology can play a significant role in shaping market structure by reducing the costs of coordinating the various activities involved in producing a particular good over ever greater geographical distances, including across borders.

Young`s extension of Smith added a more dynamic dimension to the trade and industrialization story by introducing scale economies, complementarities, indivisibilities, learning and first mover advantages into the determination of the firm's cost curve and, thereby, opening up the development policy debate to a much richer set of possibilities and challenges (Toner, 1999). This analysis also provides the basis for understanding why much of the growth of trade after the end of the Second World War took the form of intra-industry trade among advanced economies, i.e. the simultaneous import and export of a given product or by a given industry. Such trade arises from an ever finer division of labour among countries with similar industrial structures and levels of per

[6] For a useful review of the different uses of the concept of scale economies and externalities, see Turner chap.1, 1999.

[7] This approach effectively ruled out a discussion of intra-industry trade, as it would imply that countries had, simultaneously, a comparative advantage and disadvantage in the same product.

capita income, which turns less on factor endowments and more on "ephemeral factors" which are embodied in a firm`s constantly shifting cost curve (Rayment, 1983: 21).

Tracing the evolution of this type of trade is not an easy task, but it almost certainly stretches back well into the 19th century. Rayment (1983), for example, has noted that the international trade in bicycle components and parts of motor cars was already flourishing in Europe before 1914, and Pollard (1981) recounts how British textile and clothing manufactures at the height of the industrial revolution began to shift labour intensive sectors of the production process to countries in the European mainland in response to domestic labour shortages and mounting wage pressure.[8] By the 1950s, when national trade data reporting systems of mature industrial countries began to produce the type of disaggregated data required for some tentative estimation, components of machinery accounted for nearly 15 per cent of their manufacturing exports (Maizels 1963). But this figure grew very rapidly in the 1960s and 1970s, largely thanks to the growth of intra-industry trade inside the Western European trading bloc.[9]

Young was ambiguous on the role of large firms in the trade and industrialization process. However, others have placed greater emphasis on their importance in shaping the pattern of international trade (Gomory and Baumol, 2000). Doing so also introduces a strong link between international trade and the internationalisation of production. The emergence of international firms is best understood as an extension of the process which originally gave rise to national corporations, and is linked to multi-plant firms that emerge along with an ever more sophisticated domestic division of labour as described earlier. In the process firms acquire specific assets (such as a superior production technology, a distinct product design or superior marketing skills), and achieve sufficient economic size to undertake profitable investments abroad despite the higher risks and additional costs that arise from coordinating production activities over large geographical distances and across distinct political territories and legal regimes. Crucially, these firms have the requisite control mechanisms to shape market outcomes and protect the rents that their specific assets can generate.

In line with Young's analysis, first-mover advantages and an evolutionary progression add an historical dimension to the discussion of international production. Most firms begin by serving a purely local market in some particular region of the national economy. They then expand within the same country by "exporting" from their local base, "importing" inputs from various independent suppliers. After a time they establish production facilities elsewhere in the same country, including for parts and components, until eventually they become an integrated national corporation. Since large firms tend to have more capital at their disposal and to enjoy scale economies, they also tend to have higher productivity, which in turn enables them to export to foreign markets. Such firms will also be the ones that normally do most of the investing abroad. Here again a sequence can often be traced; when sufficient sales have been achieved in the new market, it becomes feasible to set up local production facilities on a scale large enough to exploit externalities of one kind or another. But scale economies also bring first-mover advantages and rents that are best protected by seeking to restrict access to markets, technology and finance by potential competitors.

A good deal of the resulting FDI occurs among countries at a similar level of development, often consisting of two-way flows in the same industry. Such intra-industry FDI is either a reflection of competition between firms seeking to access each other's home market for final products by seeking to create regional centres of production and marketing, or an extension of the increasingly fine degree of international specialisation in intermediate products that had already been a major

[8] It is no accident, of course, that these same industries reappear in the contemporary discussion of global value chains.

[9] Calculation based on the data appendix of Maizels (1963).

impetus for intra-industry trade. Unsurprisingly, the "interpenetration of industrial markets" (Wilkins, 1989: 119) through FDI began first with large US-based TNCs mainly operating in Western Europe, but with European (and then Japanese) firms soon extending their rivalry by investing in each other's markets and in the US. Based on these trends, Kindleberger (1967) used the example of growing trade in "semifinished material" (what today is called "parts and components") between the Ford plants at Limburg in Belgium and Cologne in Germany in the mid-1960s to illustrate that "the world division of labour [had become] more finely articulated". From this perspective, the growth of intra-industry trade, though not identical, has been closely linked with the growth of intra-firm trade. On the basis of the data he already had available, Kindleberger questioned the validity of the conventional approach to analysing the trade-growth nexus which was "developed almost entirely on the basis of trade in final products – that is, goods wholly produced in one country and consumed in another" (Kindleberger, op cit: 108-9).

Whether a firm decides to substitute FDI for exports or to use affiliates, subcontracting or arms length-trade to source inputs will, of course, depend on a multitude of factors, some specific to the firm but also including macroeconomic conditions, infrastructure provision, labour costs etc.[10] In any event, the subsequent spread of international production networks has tended to involve large TNCs producing a standardized set of goods in several locations, or groups of small and medium-sized enterprises located in different countries and linked through international subcontracting. In the production of standardized goods, scale economies play a key role, and TNCs seek to increase profits by choosing locations with appropriate combinations of high labour productivity, low wage and infrastructure costs and adequate support services. This type of investment tends to be highly mobile, as local cost advantages can be easily lost due to wage increases or the emergence of more attractive new locations. Where international production networks are organized on the basis of subcontracting, the lead firm usually concentrates on R&D, design, finance, logistics and marketing, but it is not always involved in production activities. Such networks are typical of activities where labour-intensive segments of the production process can be separated from capital and skill/technology-intensive segments and located in low-wage areas. At the same time, know-how and technology are protected by the lead firm, which often enjoys a dominant market position as high costs of managing and coordinating such complex units constitute important barriers to entry.

### B.3 The spread of global value chains

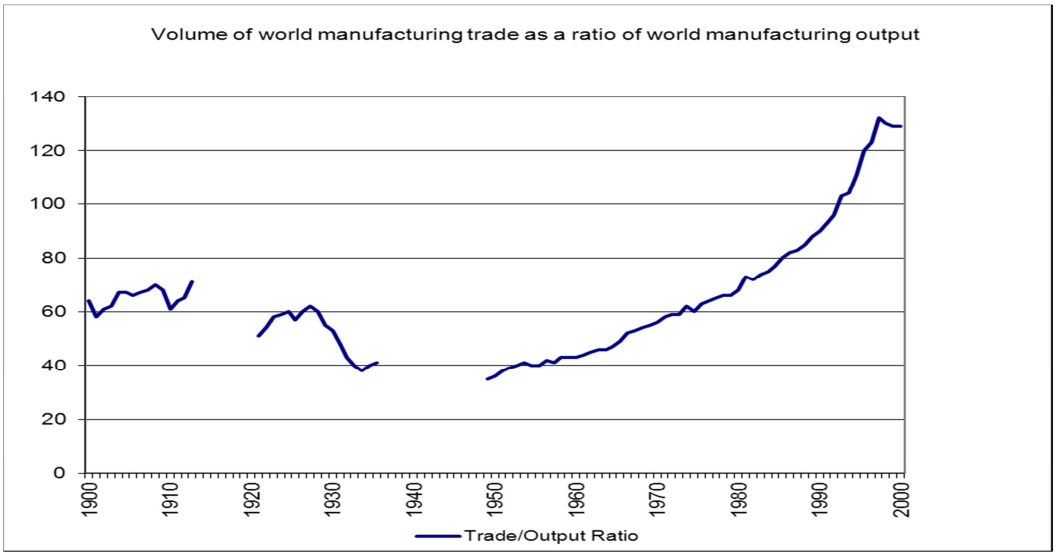
The previous section identified some of the underlying forces behind the emergence and spread of GVCs. This is hardly a new phenomenon; value chains in agro-processing and shipbuilding have been traced back to the 16th century (Gereffi and Korzeniwicz, 1994) and commodity chains spread rapidly in the 19th century with the acceleration of industrial development in Western Europe and North America, often closely linked to the internationalisation of complementary service activities in infrastructure, finance, etc. (Wilkins, 1989). After the Second World War a number of leading industries in the advanced economies also witnessed an increased pattern of internationalisation across neighbouring territories. However, describing the recent period as one of "hyper-globalization" has led some observers to see a radical break with these earlier periods.

The discussion in the previous section would appear to lend some support to what is often seen as the distinct feature of contemporary value chains, namely their governance by a "lead firm", whether operating through affiliates abroad or through subcontracting with a network of smaller suppliers (Gereffi, 2013). This story essentially revolves around vertical specialization in the

[10] FDI is likely to follow a different path in extractive and service industries where locational or pull factors have a greater influence.

manufacturing sector, where trade as a share of output has been on a strongly rising trend since the end of the Second World War but does appear to have accelerated since the mid-1980s (Figure 3). However, while this pattern has coincided with a significant rise in the volume of trade in intermediate goods over the last two decades, these goods have remained fairly steady as a share of world trade (Figure 4), raising some initial caution around talk of a “great transformation” of the international trading system accompanying the spread of GVCs.

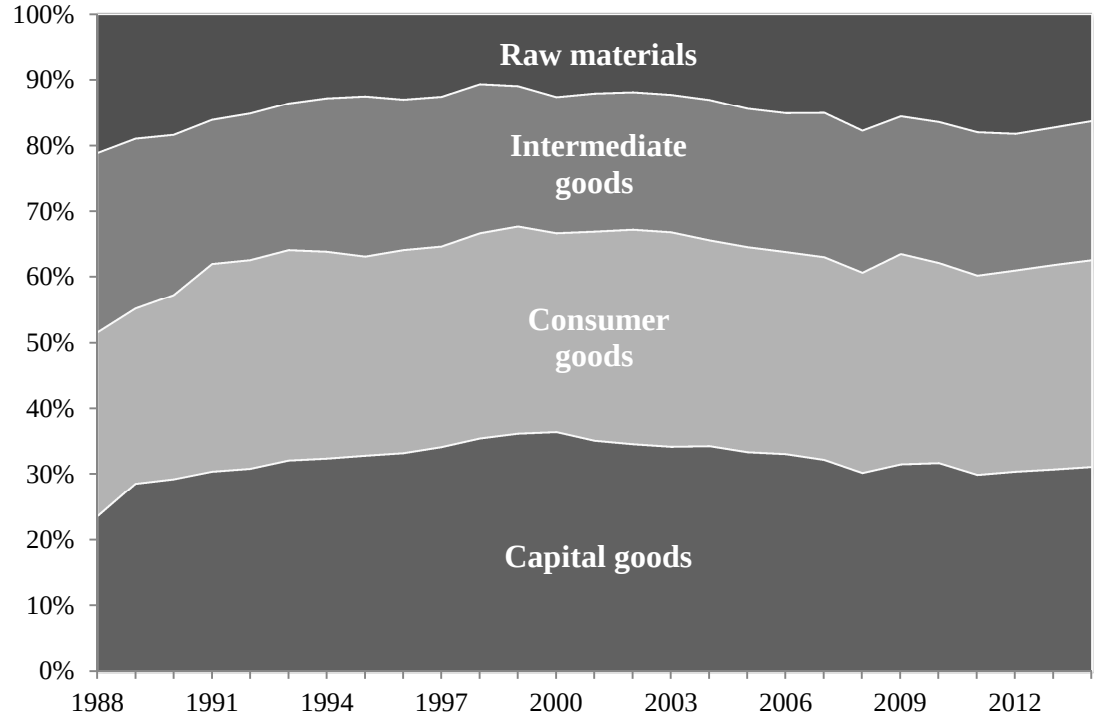
**Figure 3. Volume of world manufacturing trade as a ratio of world manufacturing output (per cent)**




*Source*: World Integrated Trade Solution (WITS), UNCTAD and World Development Indicators

The share of intermediate goods in total developing country trade during this period has also fallen, principally during the 1990s. Still there is no doubt that from their modest start in clothing and electronics industries in the late 1960s, North-South exchanges within international production networks have now spread to many other industries such as sport footwear, automobile, televisions and radio receivers, sewing machines, office equipment, electrical machinery machine tools, cameras, watches, light emitting diodes (LED), solar panel, and surgical and medical devices. Moreover, in its infancy, North-South production sharing was predominantly a two-way exchange between the home and host countries; parts and components were exported to the low-cost, host country for assembly, and the assembled components were re-imported to the home country for final sale or further processing (as in the case of electronics). But in recent years, production networks have evolved to encompass multiple countries involved in different stages of the assembly process and with proliferating South-South linkages.

**Figure 4. Composition of world trade by product group, 1988-2014**




*Source*: World Integrated Trade Solution (WITS), UNCTAD Secretariat.

In the process of expanding into new product areas and locations, international production networks have added a distinct dimension to the pattern of intra-industry trade, namely that some products travel across several locations before reaching final consumers. As a result, the total value of trade recorded in producing a final good can exceed its value added by a considerable margin. Consequently, trade in such products can grow rapidly without a commensurate increase in their final consumption as production networks are extended across space. The trend is less pronounced in the service sector, but here too it has become easier to fragment supply chains, including some activities with a higher knowledge intensity, and relocate them to lower cost locations (UNCTAD, 2013).

One prominent explanation for seeing recent trends as breaking with the past is their link to technological progress. Containerization, for example, has significantly reduced transportation costs while recent advances in information and communication technologies have contributed to much lower coordination costs and have widened the possibilities for "slicing and dicing" the bundle of activities that go into making a particular product. Moreover, some fragments of the production process in certain new industries have become 'standard fragments' which can be effectively used in a larger number of products. For instance, long-lasting cellular batteries, which were originally developed by computer producers, are now widely used in cellular phones, cameras, electronic organizers, etc.; transmitters which were originally designed for radios are now also used in personal computers and missiles; and the use of electronic chips has spread beyond the computer industry to sectors such as consumer electronics and motor vehicle production (Brown and Lindent 2005, Johns and Kierzkowski 2001b). However, these developments point as much to continuity with the industrial differentiation story of Young as they do a new trend. It is also possible that the combination of technological changes and growing network trade has contributed to an accelerating process of deindustrialisation in advanced economies, through for example the rise of outsourcing

(Milberg and Winkler, 2013). But again this looks like an extension of a process underway for several decades (and reflecting multiple factors) as much as an abrupt change of direction.

Technological advances have, in recent years, coincided with an easing of regulations on the movement of capital in general, and on firms doing business abroad in particular. According to UNCTAD research, between 1992 and 2012, 9 out of every 10 policy measures linked to the internationalisation of production pushed towards greater liberalization. But an equally important factor has been the growing influence of financial markets and institutions on the workings of the real economy (UNCTAD, 2012). Financialization has been extensively discussed at the macroeconomic level, particularly in terms of its impact on the business cycle. However, it has also had a profound impact on corporate governance by heightening shareholder pressure, skewing corporate pay structures, squeezing labour costs, privileging asset accumulation (including mergers and acquisitions) over capital formation, and generally shortening corporate planning horizons. In terms of international production dynamics, Milberg and Winkler (2013) have argued that these pressures have fed the offshoring boom that picked up pace at the start of the millennium in some industries, while others have shown how financialization has allowed TNCs to generate new revenue streams from innovative financial activities. In general, in recent years TNCs have been allowed much greater space to augment their profits by protecting the rents generated from their core assets while squeezing down costs in the lower rungs of the value chain. However, this is not the inevitable outcome of (globalisation) processes beyond the control of state actors, but the result of explicit policy choices made by those same actors (Kozul-Wright and Rayment, 2007).

In addition to changes in corporate governance, financialization has also impacted the workings of the international trade and production systems. In particular, the spread of value chains has occurred during an era of large global imbalances (in the form of current account surpluses and deficits) and linked to mounting levels of debt, particularly in the private sector, as well as a shift, common in both developed and developing countries, in the functional distribution of income away from wages and in favour of profits (UNCTAD, 2012). The links between these trends and the internationalisation of production have, to date, been insufficiently explored.

Two further factors have been highlighted as important to the recent expansion of GVCs and networked trade. First, there is the rise of China as a manufacturing centre, particularly as an assembly hub for some of the industrial sectors that have been restructured around GVCs. While China's economic reforms began in the early 1980s, its switch to a more export-oriented growth strategy began a decade later. China's accession to the WTO in December 2001 significantly accelerated the spread of these networks by granting that country Permanent Normal Trade Relations status in the US, and eliminated discriminatory or WTO-inconsistent measures against its exports. This removed the uncertainties regarding the issuance of the yearly waiver by the US President, and played a central role in the rapid increase of FDI to China, which doubled the levels of the late 1990s to reach $80 billion in 2007, and consolidated the position of the East Asia region in many value chains. It is, however, important to stress that China`s recent development story is based on a familiar late industrialization narrative (Studwell, 2012), including the employment of active industrial policies (Lo and Wu, 2014), although its reliance on exports as part of its growth dynamic is unprecedented for a country of its size and level of income.

Second, as international production networks have become firmly established, producers in advanced countries have begun to move the final assembly of an increasing range of consumer durables (for example, computers, cameras, TV sets and motor cars) to locations that are physically closer to final users in expanding markets in the South. Projections of a recent growth spurt in the developing world readily anticipate the next global consumer frontier in the so-called emerging

economies as tastes shift in line with rising incomes. This "massive expansion of the middle class" in emerging economies is increasingly seen as a major factor in the future spread of GVCs and a "breeding ground for technical innovation and creative entrepreneurship" (UNDP, 2013: 14-15).

The significance of these two factors in the spread of GVCs will be considered in more detail later in this study.

## C. South-South trade: Trends and impact

### C.1 Some general trends

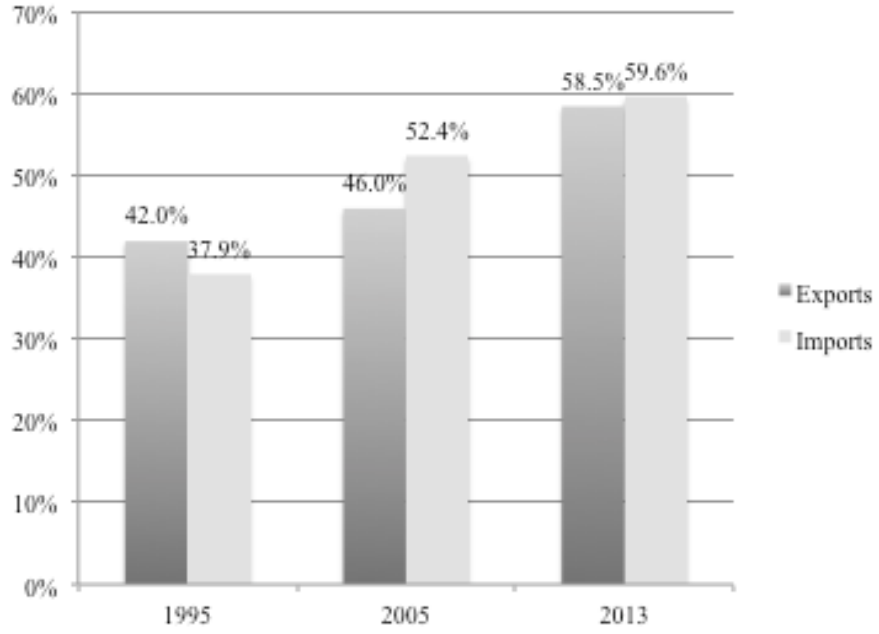
Up to the end of the 1980s, South-South trade was limited and unpredictable. There was a small but steady increase in both its value (in current dollars) and share in total world trade during the period from 1970 to 1982 -- a period of relatively strong growth in the South and weak growth in the North -- followed by a mild contraction in the ensuing three years. According to data compiled by the GATT Secretariat, this weaker performance largely reflected the impact of the debt crisis that erupted in 1982, and the subsequent "lost decade" of development in a large number of developing countries (Ventura-Dias, 1989; GATT, 1986-90, annual); the share of South-South in total world trade reached a historical low of 5.1 per cent in 1985, and had increased only marginally to 5.4 per cent in 1989.

In a significant departure from the pattern in the 1970s and 1980s, South-South trade has, since the early 1990s, shown strong and sustained growth, above that for total world trade (measured on either the import or export side), with the differential widening over the past decade.[11] The average annual growth rate (in current dollar terms) of South-South trade increased from 14 per cent during 1990-99 to 16 per cent during 2000-10, and its share in world trade increased from 7.4 per cent in 1990-91 to 10.2 per cent in 2000-01, and then to 15.4 per cent in 2009-10. During the 1990s, the share of South-South exports in total merchandise exports of developing countries varied in the range of 33.7 to 39 per cent without showing any clear trend. But it has increased steadily since then, from 44 per cent in 2000 to 57 per cent in 2012. On the import side the increase has been even faster, from 44 to 59 per cent over the same time period.

A common observation from the studies conducted in the 1980s was that the South-South share in total exports of developing countries was generally higher than that on the import side (Amsden, 1976; Lall, 1984), which could be explained by growth in these countries relying disproportionately on capital goods and intermediate goods coming from developed countries. while directing their exports to 'easy' markets in other Southern countries. That gap has narrowed over the years as a result of a faster increase in the Southern share in total developing country imports (Figure 5). One explanation is the increase in demand for primary commodities resulting from the faster growth of Southern economies. A more important reason is the emerging inter-country division of labour within production networks that has contributed significantly to strengthening trade complementarity among developing countries, and, in particular, among those in East Asia.

[11] In order to ensure inter-regional comparability this section focuses solely on non-fuel trade. However, inclusion or exclusion of fuel (products which come under category 3 of the International Standard Trade Classification (SITC 3)) does not significantly alter the overall patterns. The only notable difference is that, when fuel is excluded, Southern share in world exports has continued to remain about one percentage point higher than the Southern share in imports.

**Figure 5. Share of South-South trade in developing countries' merchandise trade.**




*Source*: Based on data compiled from UN Comtrade database.

Table 2 presents data on South-South trade disaggregated by the major developing regions, focussing on three key aspects: the share in total trade, the share of intra-regional trade in total Southern trade and the regional composition. The share of South-South exports in total developing countries' exports increased from 40.2 per cent in 1990-01 to 49.7 per cent in 2009-10. On the import side the increase was larger: from 38.2 to 48.4 per cent. At the regional level, while all Southern regions have recorded increases in the share of South-South trade in total trade, there are clearly some very significant differences across regions. In 2009-10, exports to and imports from Southern countries accounted for 53.2 per cent and 47.0 per cent of total exports and imports respectively for developing Asian countries; the relatively larger share on the export side points to the rapid expansion of final manufactured goods into Southern markets from China and NIEs at the expense of imports coming from traditional Northern producers. The figures for Africa and Latin America are smaller, though the increase in both cases has been larger. There is also a difference between developing Asia and the other Southern regions in terms of the degree of regional concentration of South-South trade. In developing Asia about four-fifths of South-South trade (both exports and imports) is intra-regional, compared to a little over one-half in Latin America and under one-half in Africa. For regions, the intra-regional share in South-South trade has declined, particularly in Africa.

**Table 2. South-South non-fuel trade by major region, 1990-91 and 2009-10, (percent)**

| | | **Exports** | | | **Imports** | | |
|---|---|---|---|---|---|---|---|
| | | ***Share of total exports*** | ***Share of S-S exports*** | ***Intraregional share*** | ***Share of total imports*** | ***Share of S-S imports*** | ***Intraregional share*** |
| **Developing Asia** | 1990-91 | 45.0 | 86.8 | 84.7 | 38.2 | 94.3 | 89.8 |
| | 2009-10 | 53.2 | 80.1 | 77.2 | 47.0 | 65.2 | 84.5 |
| ***NIEs*** | 1990-91 | 32.6 | 32.5 | 42.4 | 28.8 | 30.7 | 25.9 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | 2009-10 | 57.3 | 22.9 | 21.9 | 31.9 | 9.8 | 76.1 |
| ***China*** | 1990-91 | 45.2 | 36.1 | 25.2 | 43.8 | 34.7 | |
| | 2009-10 | 50.0 | 39.1 | 33.9 | 50.8 | 33.1 | |
| ***Southeast Asia*** | 1990-91 | 34.7 | 14.3 | 12.6 | 27.4 | 24.2 | 34.4 |
| | 2009-10 | 54.9 | 12.1 | 23.8 | 51.7 | 15.2 | 34.4 |
| ***South Asia*** | 1990-91 | 26.7 | 3.9 | 17.3 | 28.4 | 4.7 | 10.6 |
| | 2009-10 | 58.9 | 5.5 | 12.7 | 55.7 | 6.4 | 7.4 |
| ***Pacific*** | 1990-91 | 14.6 | 0.0 | 38.1 | 20.6 | 0.1 | 8.2 |
| | 2009-10 | 14.2 | 0.0 | 36.3 | 28.3 | 0.0 | 21.8 |
| ***Central Asia*** | 1990-91 | | | | | | |
| | 2009-10 | 48.4 | 0.4 | 25.3 | 32.6 | 0.6 | 9.6 |
| **Middle East** | 1990-91 | 25.1 | 3.9 | 38.2 | 14.3 | 5.1 | 29.2 |
| | 2009-10 | 37.9 | 5.9 | 34.0 | 37.6 | 9.0 | 19.1 |
| **Africa** | 1990-91 | 19.8 | 0.9 | 62.4 | 13.3 | 1.1 | 26.5 |
| | 2009-10 | 44.5 | 3..3 | 47.7 | 44.1 | 6.2 | 20.3 |
| **LAC** | 1990-91 | 23.2 | 8.4 | 61.7 | 16.0 | 7.3 | 77.9 |
| | 2009-10 | 38.4 | 10.7 | 52.7 | 43.6 | 13.1 | 42.6 |
| **Total South** | 1990-91 | 40.2 | 100 | 100 | 29.8 | 100.0 | 100 |
| | 2009-10 | 49.7 | 100 | 100 | 48.4 | 100.0 | 100 |

Source: Athukorala and Nasir (2012), Table 4.

Notwithstanding some regional diversification, the outstanding feature of South-South trade is the dominant role of developing Asia, which accounted for 80.1 per cent and 65.2 per cent of intra-Southern non-oil exports and imports respectively in 2009-10. Between 1990-91 and 2009-10, China's share in total South-South exports increased from 36.1 to 39.1 per cent, while its Southern import share declined marginally from 34.7 to 33.1 per cent, reflecting its increasingly important role within the region. China's growing importance within the region has been accompanied by a notable decline in the Southern market shares of regional NIEs; the first-tier NIEs' share in South-South trade declined from 28.4 per cent in 1996-97 to 21.9 per cent in 2009-10, while the second-tier from Southeast Asia shows a similar pattern of reduced shares in South-South trade over time, moving from 15.2 per cent in 1996-97 to 11.2 per cent in 2009-10 (Athukorala and Nasir, 2012: 43, table 9).

The product composition of South-South trade is dominated by manufactured goods, a pattern similar to that of the total trade of developing countries. While the share of the South in total exports of developing countries reached 55 per cent in 2011, its share in exports of manufactures was higher still at 59 per cent (albeit a slightly lower figure than a decade earlier). The share of agricultural products in South-South exports has remained more or less constant over this period at around 17 per cent, while the share of minerals and fuels has been on a gently rising trend since the early 2000s, thanks in part to favourable price movements. However, there are differences among Southern countries/regions reflecting differences in resource endowments, stage of development, and the nature/patterns of integration within global production networks.

The manufacturing trade of developing countries is in fact very heavily concentrated in developing Asia, whose share in world manufacturing exports increased from 11.1 per cent in 1996-97 to 23.1 per cent in 2009-10 (amounting to an increase in Asia's share in developing country

exports from 68.4 to 75.0 per cent).[12] Until the mid-1990s, the four first-tier NIEs were the dominant players, but since then China has played the leading role: China's share in world manufacturing exports increased from 3.6 to 14.7 per cent between 1996-97 and 2009-10 (accounting for 22.2 per cent and 47.8 per cent of total developing country exports respectively), while the share of NIEs-4 in global manufacturing exports has remained virtually unchanged at about 2.7 per cent during this period. This same tendency is apparent for the ASEAN countries (which include second-tier NIEs but for the purposes of these calculations exclude Singapore); their share in world manufacturing exports changes little over the period, moving from 3.7 per cent in 1996-97 to 3.9 per cent in 2009-10. Notwithstanding its strong export expansion in recent years, South Asia (a country group dominated by India) still accounts for a mere 1.8 per cent of total world manufacturing exports, equivalent to 7.8 per cent of the Developing Asia total. The shares of the Middle East, Africa and Latin America and the Caribbean regions have recorded a modest increase during this period, but these regions combined accounted for only 7.7 per cent of world manufacturing exports, or 25.0 per cent of developing country manufacturing exports, in 2009-10.

### C.2 Global value chains and South-South trade

To shed further light on these trends, we now focus our attention on the share of South-South and its geographic profile in world non-fuel manufacturing network trade, which is in turn split into "parts and components" and "final assembly". Data reported in Table 3 depict the relative importance of Southern markets for total network exports coming from Southern countries. The South-South share in total network trade involving developing economies shows a persistent increase during the past one-and-a-half decades, from around 40 per cent in the mid-1990s to around 50 per cent in 2009-10, a trend which is insensitive to the exclusion of the East Asian NIEs from the developing country coverage. In the mid-1990s, less than 40 per cent of both components and final (assembled) goods originating in the South found markets within the South. These shares have increased continuously during the ensuing period, as production networks in the South (predominantly in developing East Asia) gained maturity and China emerged as the Asian assembly hub for GVCs. Developing countries as a whole continued to account for a relatively larger share of components exports compared to that of final assembly, but the latter seems to have increased at a faster rate in recent years. Developing countries' share in world non-network ('horizontal') manufacturing trade also recorded impressive growth during this period, but at a slower rate, rising from 19.7 per cent of the total in 1990-91 to 37.3 per cent in 2009-10.

**Table 3. South-South share in network trade, 1996-2010 (percent)**

| | Total network trade | | Parts and components | | Final assembly | |
|---|---|---|---|---|---|---|
| | ***South including NIEs*** | ***South excluding NIEs*** | ***South including NIEs*** | ***South excluding NIEs*** | ***South including NIEs*** | ***South excluding NIEs*** |
| **1996** | 40.5 | 38.1 | 37.5 | 38.7 | 36.9 | 38.0 |
| **1997** | 40.5 | 38.2 | 37.6 | 39.7 | 37.6 | 37.8 |
| **1998** | 37.4 | 35.3 | 37.2 | 35.8 | 37.5 | 35.2 |
| **1999** | 35.7 | 33.3 | 36.9 | 35.3 | 35.0 | 32.6 |
| **2000** | 36.8 | 34.6 | 38.5 | 37.7 | 35.9 | 33.2 |
| **2001** | 38.0 | 35.7 | 41.0 | 39.6 | 36.5 | 34.0 |

[12] The figures for the rest of this paragraph are calculations based on the data presented in Athukorala and Nasir (2012), Table 1, p. 30-31.

| | | | | | | |
|---|---|---|---|---|---|---|
| **2002** | 39.2 | 36.8 | 44.1 | 42.7 | 36.5 | 34.1 |
| **2003** | 41.6 | 38.7 | 47.1 | 44.3 | 38.5 | 36.1 |
| **2004** | 42.0 | 39.2 | 47.6 | 45.0 | 39.0 | 36.6 |
| **2005** | 43.9 | 41.1 | 50.0 | 47.0 | 40.5 | 38.3 |
| **2006** | 44.9 | 42.2 | 51.2 | 47.9 | 41.6 | 39.5 |
| **2007** | 46.9 | 44.3 | 53.8 | 51.2 | 43.5 | 41.3 |
| **2008** | 48.1 | 45.4 | 54.6 | 52.1 | 45.1 | 42.6 |
| **2009** | 50.7 | 47.7 | 57.7 | 55.6 | 47.3 | 44.3 |
| **2010** | 51.4 | 48.6 | 56.9 | 54.5 | 48.7 | 46.0 |

*Source*: Athukorala and Nasir (2012), Table 6, p. 30.

In terms of geographical distribution within the South, network trade unsurprisingly accounts for a much larger share in developing Asian trade than in all other regions. In 2009-10, developing Asia accounted for 26.5 per cent of total world network exports (and 77 per cent of total developing country network exports), with China alone accounting for 17.3 per cent (and 57 per cent of the developing country total). The combined share of developing countries, other than Asian developing countries, in world assembly exports amounted to only 9.4 per cent in 2009-10, up from 5.7 per cent in 1996-97. The increase in this share has predominantly come from Latin America and the Caribbean. On the import side developing Asia's share in world assembly imports is relatively smaller compared to the comparable figures on the export side. China accounts for only 4.5 per cent of total final assembly imports but for 13.8 per cent of component imports, reflecting its role as the premier assembly base in the South.

Network trade remains heavily concentrated also at the sectoral level. The literature highlights seven critical product categories that constitute the bulk of network trade: office machines and automatic data processing machines (SITC 75), telecommunication and sound recording equipment (SITC 76), electrical machinery (SITC 77), road vehicles (SITC 78), professional and scientific equipment (SITC 87), photographic apparatus (SITC 88), clothing (SITC 84), footwear (SITC 85) and travel goods (SITC 87). It is quite reasonable to assume that these product categories contain virtually no products produced from start to finish in a given country. In 2006-2007 exports within production networks (including both part and components and final assembly) accounted for 88 per cent of total trade of machinery and transport equipment trade and 41 per cent of total trade of ICT products; but these figures go down to 2 per cent for resource-based products and only 0.2 per cent for chemicals.

These trends confirm that the growth of South-South trade over the past two decades has been heavily concentrated in manufacturing and has been closely linked to network trade. These trends also appear to conform to a long held view that developing countries should open up and diversify away from primary products in order both to maximize the gains from participating in the trading system, and to reduce their vulnerability to external shocks. However, in a world of production sharing, it is now generally accepted that the conventional approach to trade flow analysis, which aggregates horizontal and vertical trade, tends to exaggerate emerging trends in South-South trade and, more importantly, carries the danger of overstating its growth impact given the potential divergence between nominal trade volumes and domestic value added linked to that trade. This point was made in the *Trade and Development Report 2002*, which noted that the participation of developing countries in international production networks during the 1990s led them to trade much more, but without a commensurate increase in value added. Over the subsequent decade, there have been a series of favourable changes in the international economy which have

supported faster growth in developing countries, including increased capital flows. However, as can be seen from Table 4, the trends in manufacturing value added and trade shares established in the 1990s have continued over the last decade. Broadly speaking the tendency for countries to trade extensively but to add relatively less value from doing so has persisted or intensified.

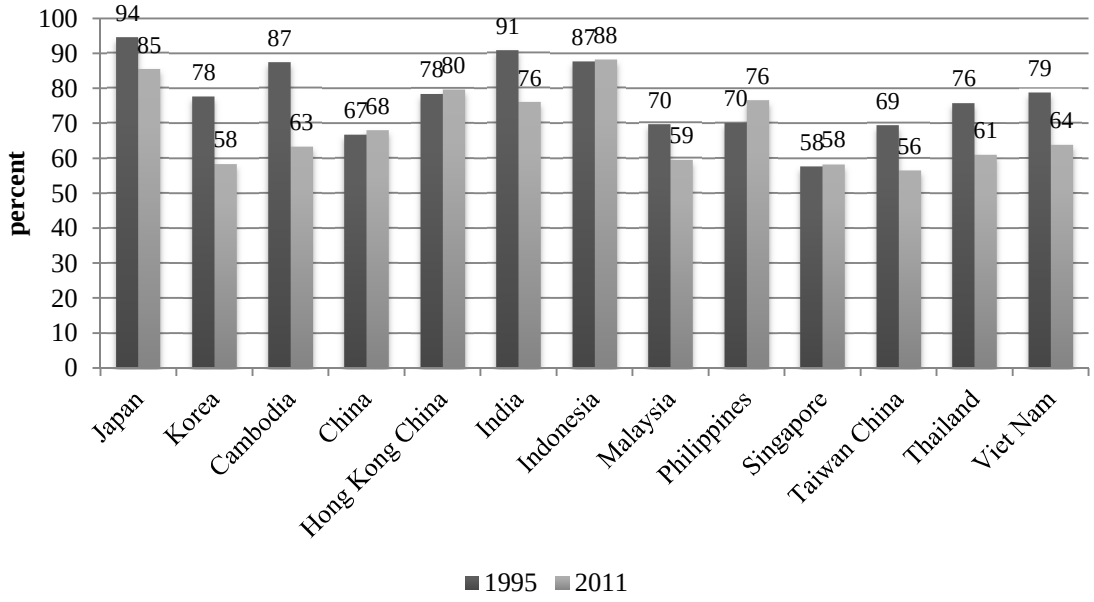
**Table 4. Manufacturing value added and export share 1980-2011 (per cent)**

| | Manufacturing value added as a share of GDP | | | Manufactures exports as a share of goods and services exports | | |
|---|---|---|---|---|---|---|
| | *1980-89* | *1990-99* | *2000-11* | *1980-89* | *1990-99* | *2000-11* |
| **Argentina** | 29.3 | 20.5 | 21.2 | 26.0 | 25.9 | 27.4 |
| **Bolivia** | 15.8 | 18.1 | 14.5 | 1.7 | 13.3 | 9.8 |
| **Brazil** | 32.7 | 20.3 | 17.1 | 41.4 | 47.2 | 42.1 |
| **Chile** | 19.9 | 19.2 | 14.4 | 6.5 | 11.4 | 12.9 |
| **China** | 36.0 | 32.9 | 32.1 | 30.2 | 79.6 | 81.7 |
| **Colombia** | 22.2 | 17.4 | 15.1 | 15.2 | 24.4 | 27.7 |
| **Cote d'Ivoire** | 15.7 | 18.4 | 19.1 | 3.5 | 6.4 | 15.5 |
| **Ecuador** | 19.4 | 20.9 | 9.8 | 1.7 | 5.7 | 8.4 |
| **Egypt** | 14.4 | 17.5 | 17.1 | 13.0 | 10.6 | 15.1 |
| **Ghana** | 8.7 | 9.9 | 8.9 | 1.7 | 5.2 | 12.8 |
| **India** | 16.0 | 15.8 | 15.1 | 44.6 | 57.4 | 44.3 |
| **Indonesia** | 15.3 | 23.7 | 27.3 | 13.5 | 42.6 | 42.3 |
| **Kenya** | 12.0 | 11.5 | 11.4 | 6.1 | 16.6 | 16.8 |
| **Korea, Rep.** | 27.5 | 27.1 | 27.8 | 81.7 | 78.7 | 76.5 |
| **Malaysia** | 20.4 | 27.0 | 27.4 | 27.8 | 62.2 | 63.3 |
| **Mexico** | 23.1 | 20.5 | 18.6 | 25.9 | 64.1 | 73.6 |
| **Morocco** | 18.0 | 18.2 | 16.0 | 26.5 | 37.9 | 37.0 |
| **Nigeria** | | | 3.1 | 0.1 | 0.8 | 2.2 |
| **Pakistan** | 16.0 | 16.4 | 17.4 | 53.3 | 63.3 | 71.2 |
| **Peru** | 26.7 | 16.9 | 15.6 | 13.3 | 14.1 | 15.2 |
| **Philippines** | 25.0 | 23.6 | 23.3 | 17.8 | 45.5 | 71.8 |
| **Thailand** | 23.3 | 29.5 | 34.5 | 26.7 | 56.1 | 64.0 |
| **Turkey** | 20.7 | 23.0 | 19.6 | 38.5 | 43.8 | 55.1 |
| **Uruguay** | 27.8 | 20.8 | 15.5 | 26.7 | 24.8 | 18.1 |
| **Venezuela, RB** | 17.4 | 16.7 | 16.5 | 5.2 | 11.9 | 12.3 |

*Source*: UNSTAT, World Development Indicators.

This trend emerges even more clearly once domestic value added as a share of gross exports is estimated for the Asian countries, which have been engaged extensively in network trade. Figure 6 shows the extent to which the domestic value added share in gross exports has in fact declined over the period 1995 to 2009 in many Asian countries, especially those with a high share of manufactures in their exports like Korea, Taiwan China, Cambodia, Thailand, and Viet Nam.

**Figure 6. Domestic value added share of gross exports (per cent), 1995 and 2011**

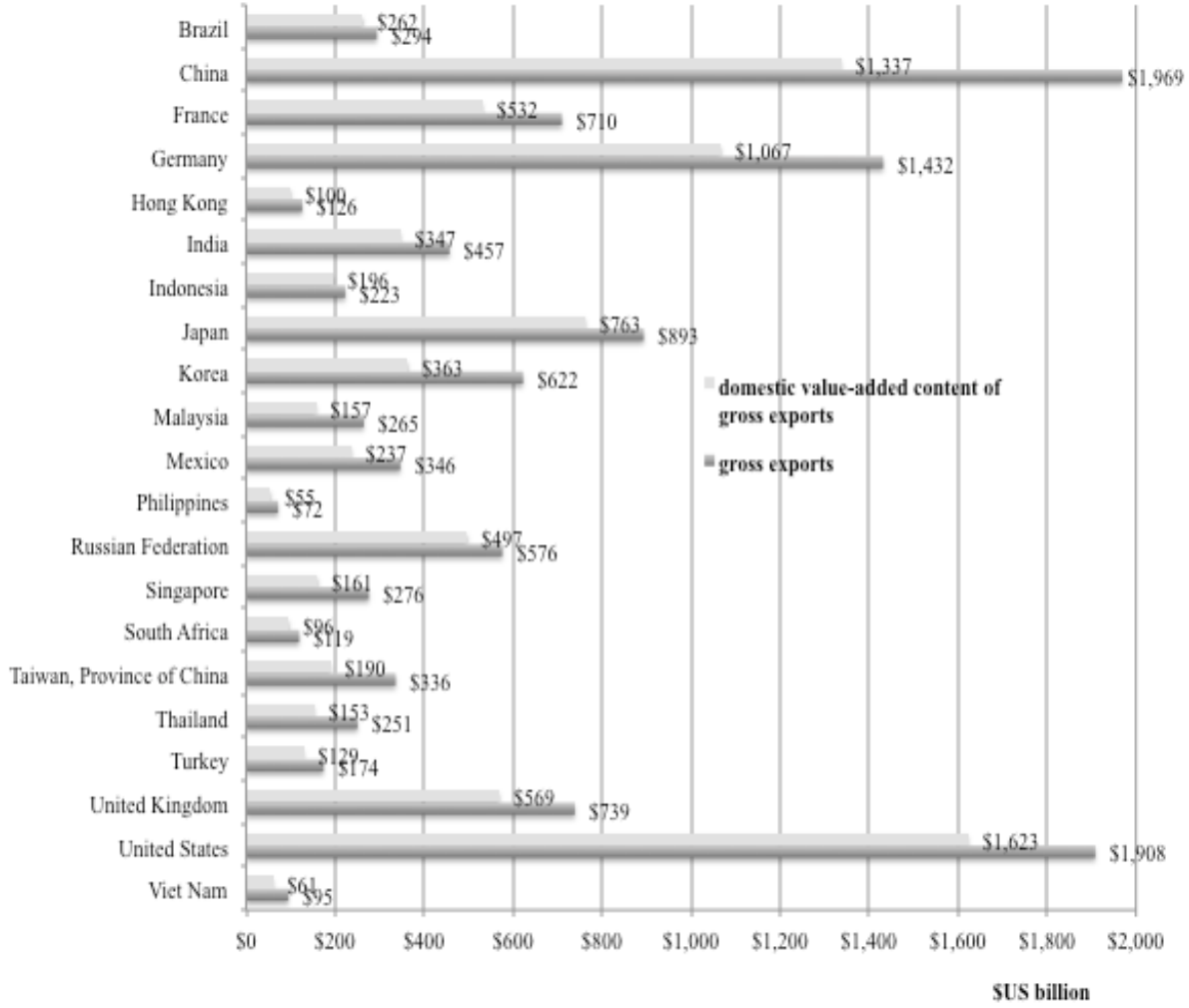



*Source:* OECD-WTO TiVA.

In light of these trends, it is important to ask just how much of the impact of GVCs on trade growth and development is a statistical exaggeration? As noted earlier, trade in parts and components within global production networks leads to double counting as reported in the standard (official) trade data; each country is engaged in a particular segment (task) of the production process, and consequently the organisation of the process involves multiple border crossing of components before they are embodied in a specific final product. Purging parts and components from the trade data allows for an initial recalculation of the share of South-South exports in manufacturing trade and the geographic profile of South-South manufacturing trade. When this is done, the share of South-South trade in world manufacturing exports is systematically smaller in every year over the past decade. However, the differences are not large. For instance, in 2009-10, the South-South shares in total manufacturing exports based on unadjusted and adjusted data are 18.3 per cent and 15.2 per cent respectively. For the period 2000-2010 the average discrepancy is around 3.5 percentage points. However, at the regional level, there are notable differences between the two estimates. Naturally, South-South shares of the other regions become larger when the adjusted data are used given the heavy concentration of components in exports from developing Asia.

To further address the multiple counting problems, it is necessary to net out the foreign value added in exports of each country, with the sum of "domestic value added exports" of all countries providing the actual global value added exports. The extent of the difference between gross exports and value-added exports varies across countries depending on their engagement in network trade. As shown in Figure 7, this difference is most apparent for the first-tier NIEs, including Singapore (41.7 per cent), Taiwan, China (43.5 per cent), and Korea (41.6 per cent); followed by the second-tier NIEs, including Malaysia (40.6 per cent), Philippines (23.5 per cent), and Thailand (39.0 per cent); then China (32.1 per cent) and Hong Kong China (20.4 per cent). For most developed countries foreign value added in gross exports is less than 30 per cent; it is also low for commodity exporting emerging economies, especially Brazil and the Russian Federation.

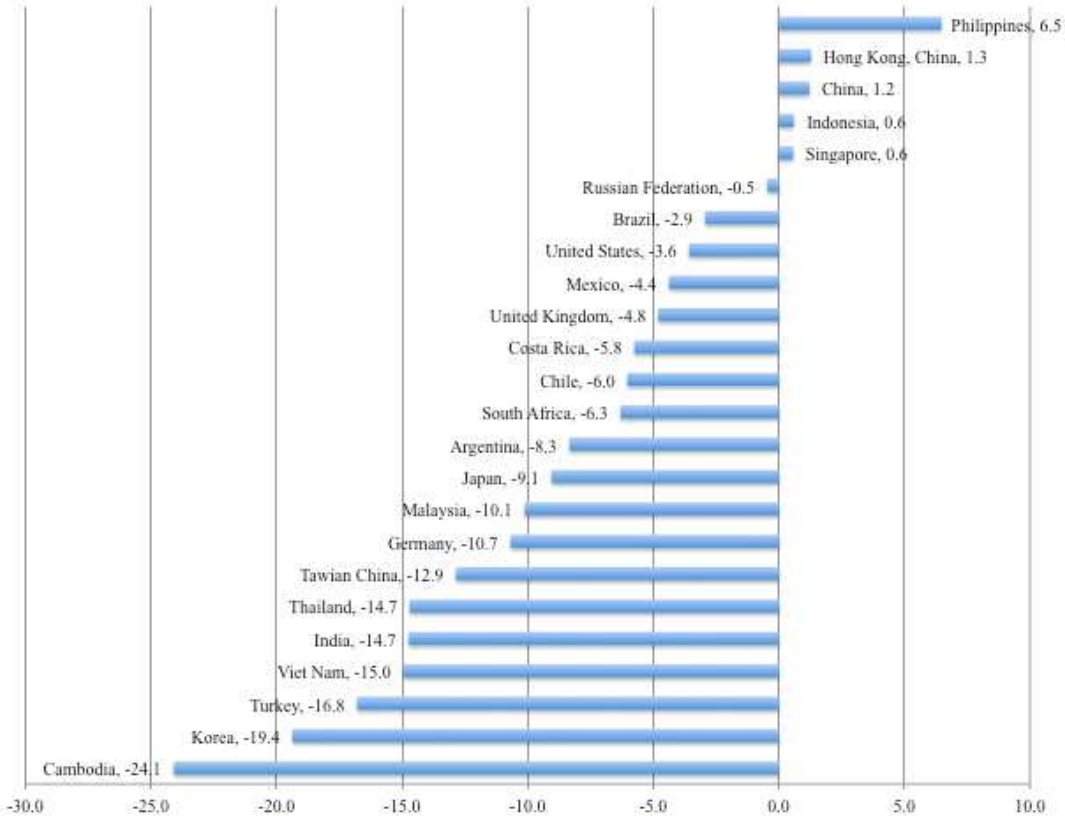
**Figure 7. Gross exports and domestic value added exports, 2011 ($US billion)**




*Source:* OECD-WTO TiVA, October 2015

Trends in domestic value added as a share of gross exports for the period 1995-2011 reveal some interesting insights (Figure 8). Domestic value added in gross exports has declined substantially for many developing countries, indicating an increase in the share of foreign value added. The percentage point decline has been particularly evident in some of the countries most involved in international production networks, including Cambodia (-24.1), Korea (-19,4), Viet Nam (-15.0), India and Thailand (-14.7), and Taiwan China (-12.9). Outstanding exceptions are represented by exporters of primary products or commodities that have structurally higher forward linkages, as these exports are used as inputs in other countries' exports; the performances of the Russia Federation (-0.5), Brazil (-2.9) or Indonesia (0.6) are therefore not surprising.

**Figure 8. Percentage point change in domestic value added as a share of gross exports between 1995 and 2011**




*Source:* UNCTAD Secretariat and OECD-WTO TiVA database, October 2015

Using data on domestic value added generated by foreign demand,[13] we also estimate the share of South-South value-added trade over global value-added trade for the years 1995 and 2009. We find that although South-South value-added trade as a proportion of global value-added trade has doubled in this period (from 6 to 12 per cent), it still remains much lower than North-South value-added trade, which grew from 35 to 42 per cent over the same period.[14] Interestingly between the same years total gross South-South trade measured as a share of world gross trade remained twice as large as its value-added counterpart, increasing from 12 to 21 per cent.

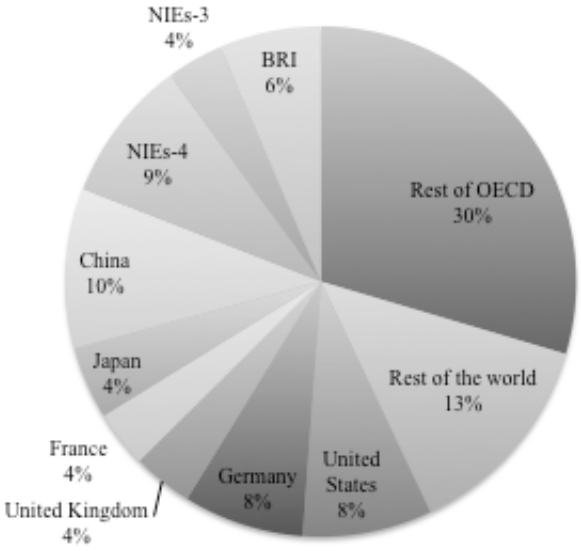
The dominance of developed countries in capturing value in global value chains is also reflected in the distribution of total value created by trade in GVCs (which is the sum of backward and forward linkages of all countries). In 2011, the share of OECD countries in total value added created by GVCs was 61.6 per cent, the share of NIEs-4 was 9.0 per cent, and NIEs-3 was 3.6 per cent. BRIC countries together accounted for 16.6 per cent, of which China constituted 10.1 per cent. Among OECD countries, the shares of the top six countries total nearly one-third of global trade

[13]Data on domestic value added embodied in foreign final demand is used; this shows how industries export value both through direct final exports and via indirect exports of intermediates through other countries to foreign final consumers (households, charities, government, and as investment). It reflects how industries (upstream in a value-chain) are connected to consumers in other countries, even where no direct trade relationship exists. The indicator illustrates therefore the full upstream impact of final demand in foreign markets to domestic output. It can most readily be interpreted as "exports of value-added"(OECD-WTO TiVA, May 2013).

[14] The share of South-South value added trade in total South value added trade increased from 27 per cent in 1995 to 36 per cent in 2009, while the share of "gross" South-South trade in total South-South trade remained substantially, higher moving from 43 to 53 per cent.

linked to GVCs, with the following breakdown: US (8.2 per cent), Germany (7.7 per cent), Japan (4.6 per cent), Korea (4.2 per cent) UK (3.8 per cent), and France (3.6 per cent). Adding China to this list, these countries together accounted for 42.1 per cent of global value added created by GVCs in 2011 (see Figure 9).[15]

**Figure 9. Share in global value added created by global value chains, 2011**




*Source:* UNCTAD Secretariat and OECD-WTO TiVA database

When it comes to the profits generated in global value chains, the asymmetry between firms from developed and developing countries is, if anything, even greater than that revealed through value added data. A recent examination of the world's top 2,000 publicly-traded companies has revealed this dominance, as measured by the share of profits lead firms from advanced (particularly US) economies generate, in 25 sectors (Starrs, 2014). The exceptions are in oil and gas, banking, utilities construction and real estate, where companies from the BRICS have built a stronger presence, albeit in most cases operating in relatively large but closed domestic markets. Even in the case of China, whose firms are generally amongst the most successful, the difference between their export performance and profit performance is dramatic; thus in electronics where China's participation in value chains has driven its share of global exports to almost one-third, Chinese firms account for just three per cent of profits (Starrs, 2014: 91).

## C.3 Conclusion

It is worth summarizing the broad conclusions from this section. First, it is certainly the case that a good deal of the growth of South-South trade is attributable to GVCs. And while global

[15] Value added trade created by GVCs is estimated using data from the OECD-WTO TiVA database (October 2015), and equals the sum of foreign value added in gross exports (the import content of gross exports) and domestic value added embodied in foreign exports (how much of domestic production goes into foreign exports).

production sharing does introduce upward bias into estimates of both the share of South-South trade in world trade and Asia's share in South-South trade in particular, the general conclusion about the growth of South-South trade and Asia's dominance in South-South trade still remain valid. However, by combining trade and value-added data, important conclusions emerge which show that in many developing countries, particularly Asian developing countries including China, exports have increased substantially without having lead to comparable increases in domestic value added, therefore weakening the production-linked gains commonly expected with export-led growth.

Second, network trade in the South is predominantly a developing-Asia (and more accurately an East and South East Asian) story, continuing a pattern of development that goes back several decades, with China essentially replacing the first-tier NIEs over the past decade. In 2009-10 developing Asia accounted for 85 per cent of total South-South network exports, and China alone accounted for 47 per cent of Southern network trade. The small-scale production networks in the other regions in the South operate quite independently of the East Asia centred dynamic production networks. However, the participation of China has added two important new dimensions to the value chain story. In the first place, China adds a different scale to the hyper-exporting model, given that traditionally this has been associated with economies much smaller in both size and influence. Second, the very low wage share in China`s national income is unprecedented. While real wages have been increasing in recent years, they continue to lag productivity growth; the low and persistent decline in the wage share is different from other workshop economies. These features, as discussed later, suggest that China has the possibility to switch to domestic markets as growth engines, but might find it more difficult to move away from its export-led growth model than is often presumed. If this is the case other developing economies will continue to struggle to enter into the labour-intensive links in global value chains. Moreover, intra-East Asian trade cannot be exclusively described as South-South; the first-tier NIEs have graduated to advanced country status and their relations with neighbouring countries is similar to North-South.

Third, there has been a persistent 'Northern bias' in final assembly exports compared to components exports, but it is not large. In 2009-10, about 52 per cent of total exports of final (assembled) goods went to Northern markets, whereas about 53 per cent of components produced/assembled in the South was used as inputs into final assembly in production networks within the South. This has raised the danger of a "fallacy of composition" as more and more potential suppliers face limited market opportunities, a danger exacerbated by the current growth trajectory of many developed economies. However, the dependence of the growth dynamism of East Asia-centred production networks on Northern markets has reduced over time, even though the general inference that production-sharing based international specialization cannot be sustained purely as a regional phenomenon still remains valid.

Finally, the story of the past decade appears to continue a pattern of many developing countries trading more but without the requisite value addition that is associated with a healthy process of industrial catch-up and economic diversification. In many countries, the share of manufacturing in total value added has declined over time, although there has been a rise in the share of manufacturing exports in total exports. A clearer understanding of this pattern of development requires a closer examination of the role of FDI in the development process.

## D. FDI, GVCs and Development

### D.1 GVCs and the Southern surge of FDI

There is broad agreement that technological developments, leading to reduced transaction (transport, communication and coordination) costs, along with accelerated liberalization measures have contributed to the rapid expansion of FDI over the past two decades, including through the promotion of global value chains. This surge of FDI along with the expanding universe of TNCs has been extensively documented by UNCTAD. Even as world trade grew at over 8 per cent per annum between the early 1980s and 2008 (significantly faster than the growth of world output), overseas investment by TNCs grew faster still, with the overall stock rising from 5 per cent of global GDP in 1982 to 27 per cent in 2008.[16]

The share of developing countries in the global stock of FDI rose from one-quarter in 1990 to just under one-third in 2011, although almost all this increased share took place after 2005. While a significant increase in flows over this period took the form of mergers and acquisitions, these were more heavily concentrated in advanced than developing countries, where greenfield investments predominated. However, FDI flows have, throughout this period, continued to be heavily concentrated in Asia, accounting for between three-fifths and two-thirds of flows to developing countries.

The growth of South-South trade is very closely linked to these trends and a growing body of literature, and related policy advice, has promoted an FDI-technology-export nexus as the basis of a new 21st century growth and development model (WTO, 2013; WEF, 2013). However, as discussed earlier, there is considerable analytical confusion surrounding the decision of firms to expand their activities abroad and their impact on host countries, particularly host developing countries. Conventional trade theory provides little guidance on the impacts, in part because it is hard-wired to a static analysis based around competitive markets, fully employed resources, readily accessible technology and trade in final goods. Microeconomic theories of the firm have, more usefully, stressed the comparative costs of hierarchies and markets in managing more intangible assets and emphasised the potential efficiency gains and reduced transaction costs generated by international firms from their “internalisation strategies” (Markusen, 1995). However, this approach tends to downplay, if not ignore altogether, the significance of firm size, corporate control and market power in shaping outcomes.

The “eclectic" approach to international production associated with the work of the late John Dunning provides a more realistic institutional assessment of the behaviour of international firms. However, its focus is very much on attracting FDI, and it has been criticised for offering too general and descriptive a framework which does not go very far in explaining its uneven and contingent impact, particularly on developing countries (Kamaly, 2003). Rather, as suggested earlier, digging beneath supply and demand curves to explore the realm of production tends to uncover more dynamic forces that have led to some firms growing in size to the point where they are powerful enough to shape market outcomes, at home and abroad. Recognising this means abandoning the

[16]Even more than with international trade, FDI figures can be misleading. For instance, a large share of FDI flows over this period has taken the form of "mergers and acquisitions" which is simply a process of switching ownership of existing assets rather than the addition of new plant and equipment. The latter is investment as conventionally understood by economists (and indeed what many policy makers have in mind when talking about FDI).

fiction of price-taking firms in perfectly competitive markets, and contemplating instead an international economic landscape structured by asymmetric power relations, imperfect markets and rent-seeking behaviour.

As discussed above there is often a sequence to the overseas expansion of large firms beginning with exporting, moving to the wholesale transplant of the production process to neighbouring economies, through to the more dispersed activity associated with value chains. Technological factors and liberalisation measures have in recent years widened the choice of potential hosts, including in developing countries, as well as increasing the governance options for lead firms within production networks (UNCTAD, 2011). In the case of standard consumer goods such as garments, footwear, and toys, global production sharing normally takes place through arm's length relationships, with international buyers playing a key role in linking the producers and the sellers in developed countries. Global production sharing in electronics and other high-tech industries, on the other hand, has evolved in a different manner. Initially the process involved an overseas affiliate performing some of the functions previously done at home (Gereffi, Humphrey and Sturgeon, 2005), but as production operations in the host countries became firmly established, fragmentation in these industries eventually began to spread to subcontracting some activities to local (host-country) firms, providing the latter with detailed specifications and even fragments of their own technology. At the same time, many firms which were not formally part of a network began to procure components globally through arm's-length trade. These new developments suggest that an increase in network trade need not be accompanied by an increase in the host-country's stock of FDI (Brown et al. 2004).

According to Milberg and Winkler (2013: 17) these developments are the result of a "Chandlerian" shift in corporate strategy which has given the lead firm greater room to manage its desired cost structure and mark-up options:

> The main focus of the GVC framework is the governance of the supply-chain, including the nature of contracting with suppliers, the degree of sharing of technology, the extent of barriers along the supply chain and the ability of firms to "upgrade" within the supply chain by moving into aspects of production generating higher value added per worker. The relations between lead firms and their suppliers may take a variety of forms, often intermediate forms between the extremes of hierarchy and market, involving some sort of knowledge sharing and regular extra-contractual relations between buyer and supplier firms.

This implies that the existence of GVCs ultimately hinges on companies deciding that it has become more profitable to outsource several stages of the production process.

Despite the greater control and room for manoeuvre for TNCs, and even as the international division of labour has widened its geographical scope, FDI still appears to be strongly influenced by neighbourhood effects, i.e. TNCs find a disproportionately large number of investment locations close to home. Thus the bulk of FDI flows, and more so the myriad exchanges linking international production, continue to take place among advanced countries with similar economic structures. The bias is particularly apparent when stocks of FDI are compared. Thus as Nolan (2010) has noted, on the eve of the 2008 financial crisis companies from the advanced capitalist core controlled an outward stock of FDI equal to $13 trillion while the inward stock of FDI in the advanced economies was $10 trillion. Indeed, between 1987 and 2008 there were over 2,000 cross-border 'mega-mergers' of over $1 billion, with a total value of $7 trillion, most of which involved firms from developed countries. By contrast, on the eve of the financial crisis, the international assets and foreign revenues

of the ‘top hundred TNCs from developing countries’—including firms from South Korea, Kuwait and Qatar— amounted to barely 14 per cent of those of the world’s hundred largest TNCs. In 2008, only 3 of the top 100 non-financial firms had their headquarters in countries classified by the World Bank as low and middle income.

This, in part, reflects the close links between industrialisation and the evolution of the international division of labour discussed in section B. Within regional blocs direct investment and trade are often complementary, whereby plants in different countries of the bloc either collaborate in the creation of a single product or specialise in the production of different finished goods for export to the entire bloc or beyond. Since the regional blocs are large, production facilities within them can be of a sufficiently large and complex scale to undertake most of the activities originally carried out at home by the parent company. Under these circumstances it is certainly plausible to see FDI as part of a virtuous development circle, complementing and reinforcing the principle forces of growth and development.

Regional ties are most advanced in Western Europe, where the consolidation of the European Union and its expansion eastwards has gradually lead to the formation of pan-European firms and value chains (Dicken, 2011). But they are also strong in North America where the historically close economic ties between Canada and the United States have extended to Mexico under NAFTA, albeit with a strong sectoral bias, and have spread further south to include other parts of Latin America and the Caribbean. The regionalisation process is more complex in East Asia, beginning in the mid-1980s when Japan started to invest heavily in some of its neighbouring economies (UNCTAD, 1996). Indeed, Japan’s role as a regional leader gave rise to the idea of a "flying geese" pattern of interconnected production, investment and trade relations (see below). However, the development gap between Japan and its neighbours was even wider than that within Western Europe or North America, constraining the regional role of Japanese FDI. Managerial and technical assistance from Japanese firms did play an important role in the development of some sectors, such as shipbuilding and steel in South Korea, but when the second-tier Asian NIEs began their export-oriented development path in the mid-1980s, it was the first-tier NIEs who emerged as an important source of regional FDI (UNCTAD, 1996). As discussed earlier, the rapid pace of industrial development in China has continued, indeed accelerated, these regional links (see Box 1).

**BOX 1. China's integration in regional value chains**

Developing countries in Asia have historically accounted for the bulk of South-South trade flows; up until the mid-1990s, the four first-tier NIEs were the dominant drivers of South-South trade, before the arrival of China as the preferred site for cheap-labour assembly operations. This re-routing of trade patterns, dubbed China's "triangular" trade or processing trade, sped the withdrawal of the most advanced Asian economies from lower-value production, leading to growing Chinese trade deficits with East Asian countries in intermediate goods, particularly in parts and components, and rising Chinese surpluses vis-à-vis Western countries in final goods. As a share of China's exports, processing trade rose rapidly from about 46 per cent in the mid-1990s to 55 per cent in 2003. Even with the onset of financial crisis in 2008, China maintained a level of processing exports of over 50 per cent of total exports.

Particularly since the early 1990s, FDI has been key in establishing China's assembly platform. The first wave of FDI into China came mainly from nearby jurisdictions such as Hong Kong, China and Taiwan, China. From the mid-1980s to mid-1990s, Hong Kong constituted 55 to 68 per cent of total inward FDI in China, mainly located in a few coastal Special Economic Zones (SEZs) in restrictive legal forms and selected industries. FDI from four locations, the Virgin Islands, the Cayman Islands, Samoa and Mauritius, also increased rapidly after 1992, but a large part of it was round-tripping through these tax havens (Hanson 2004). Nonetheless, FDI inflows into China spurred major changes in its export basket. Using incentives related to SEZs, infrastructure provision

and selective export tax rebates, the processing trade has evolved over time with low-value light manufacturing goods such as clothing and textiles, toys, shoes and plastics prevalent in the 1990s, but overtaken by higher-end items such as electrical equipment, computers and telecommunications equipment particularly after 2004 (Hanson, 2012: 53; Gaulier et al., 2005: 21).

The value-added tax (VAT) rebate, which is a refund of the VAT paid by exporting companies on imported inputs, is seen as particularly effective in accelerating the expansion and diversification of China's processing activities. For example, between 2007 and 2010, Beijing adjusted the rebates 13 times to boost profitability in particular sectors, including textile and garment sectors, mechanical and electrical products, glassware, chemical products, and other non-ferrous metal processing goods (Evenett et al., 2012: 290, 295-299; Gaulier et al., 2005: 14-15).

While some have argued that China's export bundle resembles the sophistication of a country with an income-per-capita level three times higher (Rodrik 2006:4), in participating in these foreign-led GVCs, China's domestic value-added share in this export production, while increasing over time, has generally remained low. This feature is often associated with the heavy dependence on foreign affiliates in carrying out the processing trade and the limited backward and forward linkages that occur as a result. According to 2002 statistics from China's Ministry of Science and Technology, wholly foreign-owned enterprises (WOFEs) accounted for 55 per cent of high-tech exports. More specifically, in 2003 WOFEs held a 62 per cent share of China's industrial machinery exports, 75 per cent of exports of computers, components, and peripherals, and 43 per cent of exports of electronics and telecommunications equipment (Gilboy 2004). As Naughton (2004) has illustrated: Seagate, a U.S. firm, produces hard disk drives in Wuxi, in China. It exported $1.2 billion worth of hard disk drives out of China. But it also imported from its neighbors in the rest of East Asia almost the exact same number, $1.2 billion worth of components for assembly in China. The value added in China was less than 10 per cent of the exported product. Although we do not know the exact value added in the United States that accrued to U.S. designers and engineers, it was almost certainly more than 50 per cent of that $1.2 billion.

For these reasons, many analysts believe that "China is likely to maintain a long-lasting specialisation in labour-intensive products", based on its "almost unlimited supply of low-cost labour" (Gaulier et al., 2005: 39). This raises the question of whether the terms on which China has joined the global economy will reinforce its dependence on foreign technology and investment, thus restricting its potential to become an industrial and technological challenger to advanced countries (Gilboy, 2004). Such views are corroborated by findings that for production of an Apple iPod, only $4 out of the total value of $150 can be attributed to producers located in China, while most of the value accrues to the US, Japan and Korea (Dedrick et al., 2009). In the sectors of the economy where FDI has been attracted to a growing domestic market, Chinese state planners paid closer attention to ownership and often required joint ventures, and where industrial policies across a range of sectors were and remain prevalent. "Market-seeking" FDI began ramping up in the 2000s, mostly in capital- and technology-intensive sectors of the economy, or so-called "strategic", "backbone" or "pillar" industries, often referred to as the "lifeline" of the economy (经济命脉) (Szamosszegi and Kyle, 2011; Mattlin, 2007). (See also Box 2.)

The cross border expansion of firms in the context of GVCs has certainly generated closer interdependence among countries, but it has done so unevenly and in the context of increasing levels of industrial concentration in key segments of the supply chain. As can be seen from table 5, in large commercial aircraft production, automobiles, information technology, and beverages, all sectors in which global value chains are strong, key segments of the supply chain are dominated by just a handful of firms. Given that the potential benefits to local suppliers from linking to lead firms in production networks, in terms of enhancing their capabilities and the efficiency of their operations, are not automatic and depend, in part, on a variety of firm and sector specific characteristics, including the bargaining strength and strategy of both parties, this pattern of industrial integration would appear to work in favour of a few lead firms at the top of the chain.

**Table 5. Industrial consolidation among selected firms within global value chains**

| Industrial Sector | Number of firms | Combined global market share (percent) |
|---|---|---|
| ***Large Commercial Aircrafts*** | | |

| Industrial Sector | Number of firms | Combined global market share (percent) |
|---|---|---|
| Engines | 3 | 100 |
| Banking Systems | 2 | 75 |
| Tyres | 3 | 100 |
| Seats | 2 | >50 |
| Lavatory Systems | 1 | >50 |
| Wiring Systems | 1 | >40 |
| Titanium Lock bolts | 1 | >50 |
| Windows | 1 | >50 |
| ***Automobiles*** | | |
| Glass | 3 | 75 |
| Constant velocity joints | 3 | 75 |
| Tyres | 3 | 55 |
| Seats | 2 | >50 |
| Banking systems | 2 | >50 |
| Automotive steel | 5 | 55 |
| ***Information Technology*** | | |
| Micro-processor for PCs | 2 | 100 |
| Integrated circuits for wireless telecommunication | 10 | 65 |
| Database software | 3 | 87 |
| Enterprise resource planning programme (ERP) | 2 | 68 |
| PC operating systems | 1 | 90 |
| DRAMS | 5 | 82 |
| Silicon wafers | 4 | 89 |
| Glass for LCD screens | 2 | 78 |
| Serves | 2 | 63 |
| Equipment to manufacture semiconductors | 1 | 65 |
| ***Beverages*** | | |
| Cans | 3 | 57 |
| Glass containers | 2 | 68 |
| Industrial Gases | 3 | 80 |
| High-speed bottling lines | 2 | 85 |
| Fork-lift trucks | 2 | 50 |
| PET bottle blowing equipment | 1 | 75 |

*Source*: Nolan, 2012: 19-20, Table 2.

Beyond the immediate firm-level transactions, whether or not the spread of GVCs can help generate wider spillovers to the local economy is an empirical issue. The existing evidence appears to be ambiguous,[17] but Hanson (2005: 178) provides a sobering summary of what is known about the extent of spillovers from FDI in developing countries:

> As international economists what can we tell policymakers in developing countries about how they should treat multinational firms? Based on empirical work to date, the answer, unfortunately, is 'not much'. The literature is just beginning to seriously consider empirical evidence issues about FDI`s effect on domestic firm […]. Given the developing state of the field, it is important that policymakers realize that we do not know how these firms affect their economies […] an abundance of evidence that FDI generates positive spillover effects does not exist. So far, researchers have yet to

[17] The methodological difficulties in measuring spillovers are legion and all the more difficult in developing countries where data gathering and gaps are even more challenging. For a review of evidence in the UK economy, which highlights the methodological challenges but also confirms the contingent nature of outcomes, see Harris (2009). For a review of the wider literature on FDI, spillovers and industrial policy, see Harrison and Rodriguez-Clare (2010).

uncover robust empirical support for the kinds of subsidies that many countries have begun to offer multinational enterprises.

This leaves a good deal of the argument hanging on whether or not attracting FDI in the context of GVCs can help developing countries undertake the kind of structural transformations needed for sustained and inclusive development.

### D.2 Enclave industrialisation: Back to the future?

Participation in GVCs is increasingly presented to policy makers in the South as an alternative to the "failed" policies of import substitution industrialisation (ISI) and the "foreclosed" policies of export-led industrialisation, at least as practiced in the East Asian NIEs (Milberg, et al 2013). Whether or not these past policy options are in fact off the agenda, participation in GVCs may not necessarily lead to sustained growth and industrialisation in developing countries, highlighting the need to carefully assess the policy challenges that such participation may pose.

The share of developing countries in world manufacturing value added has been on a strongly upward trend since the start of the millennium. However, that growth, as noted earlier, has been confined almost entirely to Asia and more particularly to East Asia. Indeed, as also noted above, the spread of global value chains has, in fact, taken place against a backdrop of slowing industrial growth in much of the developing world, and even where it has picked up since the lost decade of the 1980s it has, in most cases, failed to match growth rates of the ISI era (Rodrik 2006b).

Long-term economic success depends on sustained improvements in productivity. Capital accumulation plays a key role by allowing a fuller use of underutilised resources, but also by channelling resources to higher productivity activities and embedding technological changes in new production processes. As noted earlier, the broad sweep of historical evidence suggests a close relationship between a strong investment drive, a rising share of industrial employment, rapid growth rates of industrial output, vibrant market demand and successful integration in to the global economy, which together, and cumulatively, feed faster productivity growth. This is consistent with a diversity of successful industrialisation paths, reflecting differences in natural-resource endowments, country size and geographical location. But structural change is also the product of policy and institutional reform. Indeed, managing such change, and, in particular, building the strong inter-sectoral linkages around which output, employment and productivity can grow in a mutually supporting manner, is what distinguishes successful development stories (UNCTAD, 2003).

In countries that have failed to establish a strong pattern of internal economic integration, FDI, to the extent it is attracted, is likely to form enclaves of production, using a good deal of imported technology and inputs, and with limited linkages to the rest of the economy. In light of the various forces behind the spread of GVCs, any expectation that this pattern will be avoided appears to hinge on a "leapfrogging" story whereby FDI allows countries to skip or truncate the industrialization process as traditionally conceived. However, when FDI flows from North to South in the manufacturing sector, lower unit labour costs are likely to be a prominent part of the decision process, and GVCs almost certainly heighten the sensitivity of those decisions to relatively small cost variations. As a result easier entry for some countries into the simpler stages of the industrialisation process runs the danger of tying that process to more footloose activities with limited linkages with the wider economy. The high foreign value added component of manufacturing

exports reported above provides one measure of just how more footloose industrial activity has become. As Milberg and Winkler (2013) have shown, this trend has been closely associated with the spread of export processing zones (EPZs) in developing countries, which have risen from just 176 (spread across 47 countries) in 1986 to 3,500 (across 130 countries) 20 years later, accounting for over half of total exports in many cases. While EPZs have played a role in some success stories, the broad body of evidence points to serious limitations with their development potential:

> First, EPZs do not resolve, and in fact may exacerbate the problem of a lack of backward linkages from a successful export operation. Second, EPZs play an important role in the asymmetry of market structures that has underpinned the terms of trade weakness for developing country manufactures exports. Third, while EPZs have created employment and pay average wages slightly above those of similar jobs outside EPZs, they have not been associated with significant improvement in wages and labor standards. (Milberg and Winkler, 2013: 247)

The lack of linkages to the domestic economy has often meant that export platforms have failed to catalyse development of the local industrial base. As Paus (2014) has shown in the case of Costa Rica, which successfully changed its export structure by attracting FDI into its fledgling IT sector, one measure of that failure relates to the challenge of developing both the necessary range of productive capabilities at both the firm and social levels that could build a more sustained and inclusive development model. Another measure of that failure is the absence of medium-technology exports in countries that have come to rely heavily on FDI. Such exports represent an important stage in the upgrading process. To sustain the development process a country must be able to progressively upgrade its human capital, raise internal value added by exporting high quality manufactured products and challenge more advanced competitors. A fast pace of human capital formation is therefore essential to ensure economic transformation, and eventually, the acquisition of capabilities to develop and diffuse new products (and processes). Indeed, many of the elements of the technological infrastructure needed to allow domestic firms to compete in this middle range of exports are still missing in the second-tier Asian NIEs, and upgrading along the lines already pursued by the first-tier NIEs remains a key policy challenge (Studwell, 2012).

This has given rise to a growing literature on a middle-income trap (Eichengreen et al, 2013). The middle-income trap has various causes, but linking to value chains may increase the risk of "delinking domestically" and *hollowing out* of the manufacturing sector in the process of concentrating on production of specific parts and components rather than the final product. Under these circumstances a combination of weak productivity growth and rising labour costs (or the emergence of alternative lower cost locations) can lead to declining profitability, disengagement by the lead firm and a further weakening of productive capacity (see Box 2 on China and the middle-income trap). This pattern can also generate balance of payments difficulties and a further weakening of the macroeconomic conditions needed for sustained industrial development.

**Box 2. China and the middle-income trap**

The difficulty in assessing China's development trajectory stems, in part, from the "dual-track" nature of its economic reforms (Lin and Wang 2008; Qian 2003). With trade policy, in particular, reforms have combined ongoing support for import-substitution in selected sectors, while simultaneously promoting export-processing activities considered new for the domestic economy. As has been noted, "until the mid-1990s, China had liberalized its trade regime only at the margin. Firms in special economic zones (SEZs) operated under free-trade rules, while domestic firms operated behind high trade barriers. State enterprises still continued to receive

substantial support. In an earlier period, South Korea and Taiwan, China, pushed their firms onto world markets by subsidizing them heavily, and delayed import liberalization until domestic firms could stand on their feet" (McMillan and Rodrik 2011: 23). Gaining access to sell directly to China's domestic market involved "market-seeking" FDI, which became subject to a number of restrictions and conditions generally absent from China's promotion of "efficiency-seeking" FDI. The former was seen as implicitly trading access to the domestic Chinese market in exchange for technology transfer through joint ventures with domestic Chinese companies (Stewart *et al*. 2007).

A rough sense of which industries were "strategic", "key", "backbone", and "pillar" was already present in the 1990s, as can be seen in China's use of "Foreign Investment Guidance Catalogues" that began in 1995 and which categorized incoming FDI as "encouraged", "permitted", "restricted" or "prohibited". For instance, up until the 2011 version of the investment catalogue, in the manufacturing of complete automobiles, the proportion of foreign capital was not allowed to exceed 50 percent. The 2011 investment catalogue removed this stipulation, but placed greater emphasis on encouraging foreign investments in key automobile parts, components, and electronic devices, while placing a 50 percent ownership ceiling on encouraged investments in the manufacture of key parts and components in "new energy vehicles". By comparison, for example, there was no change in the investment catalogue from 2007 to 2011 for encouraged investments in the design, manufacture and maintenance of civil aircrafts for trunk and regional lines, which are required to have Chinese partners as the controlling shareholders. However, it was only in 2006, and after the establishment of the State-owned Assets Supervision and Administration Commission (SASAC) in 2003 (reporting directly to the State Council), that China delineated these categories more clearly.

SASAC was given the mandate to own and oversee management over state assets at the central level, while providing guidance for SASAC bureaus established in local governments. With the country's largest firms among the 196 enterprises originally under central SASAC supervision, it was envisioned that this number should be roughly halved by 2010, leaving only 80 to 100. As of May 2009, central SASAC either closed, merged or privatized 58 firms, leaving only 138. By July 2013, 114 firms remain under central SASAC ownership.[18] Below the central level, it is estimated that 300 SASACs exist; there are about 30 provincial SASACs overseeing provincially controlled state-owned enterprises (SOEs), and scores of municipal SASACs responsible for local SOEs. All told, state-owned entities are estimated to exceed 100,000 (Szamosszegi and Kyle, 2011: 6, 26).

Chinese policy makers are currently rethinking their strategic orientation in light of the so-called middle-income trap (WB and DRC, 2012: xxi, xxiii; Fang, 2012). This concept has no accepted definition or theoretical framework, but is rather based on the empirical observation that while many countries have developed rapidly into middle-income status in the postwar era, far fewer countries have gone on to attain high-income status, and remain stuck at the middle-income level.

China's ability to overcome the middle-income trap may depend on learning the lessons of successful industrialization experiences in East Asia, most notably Japan and South Korea. And there are already many signs that China is indeed learning these lessons. A defining feature of the first-tier NIEs was their emphasis on developing domestic production capacities in medium-technology industries such as iron and steel, petrochemicals, machine tools and electrical machinery; but subsequent waves of fast growing Asian countries have been unable to repeat this pattern. This proved an important stage in the upgrading process precisely because these heavy and capital goods industries deepened these countries' productive capacities, while supplying key inputs for goods both for export and for domestic markets (Weiss 2005:20). Sometimes referred to as the "secondary import substitution" phase, deepening domestic capacities in machinery and equipment sectors is especially critical in light of cross-country evidence revealing a strong positive relationship between machinery and equipment investment intensity with economic growth and productivity gains (DeLong and Summers 1992). For example, a 2011 report by the Economist Intelligence Unit (EIU) finds evidence that Chinese firms are beginning to serve markets in other developing countries particularly in medium-technology capital goods sectors and related parts, such as in construction machinery and equipment. These trends, the EIU argues, suggest a different kind of competition emanating from China: unlike the processing trade and even joint-venture-driven sectors such as the automobile industry, the construction equipment sector does not owe its existence to FDI. Moreover, construction equipment manufacturers grew rapidly in response to domestic demand, rather than through exports to advanced country markets. For these reasons, the report contends that, "the growth of the construction equipment industry - and heavy machinery in general - has been more organic. A relatively comprehensive domestic supply chain has emerged" (EIU 2011:7).

[18] See central SASAC's website: http://www.sasac.gov.cn/n1180/n1226/n2425/index.html

One further factor in China's push up the value chain pertains to the issue of China's "surplus labour force", estimated to be in the order of 100-200 million low-skilled workers. Following 30-plus years of fast growth, rapidly rising wages alongside signs of worker activism and labour shortages have raised questions about whether China has passed from a period of "unlimited" low-cost labour supply to a new era of widespread labour shortages, also known as the "Lewis turning point" (Zhang *et al.*, 2011; Das and N'Diaye, 2013).

This finding carries important policy implications both for the global economy as a whole, and China's future development trajectory. For instance, if China is entering an era of labour shortage, China's labour-intensive and export-driven growth model will gradually lose its competitive edge due to rising costs, and China's development will increasingly depend on more capital intensive economic activities and the availability of skilled labour. Demand for relatively scarce labour, in principle, will give workers more bargaining power, which would put upward pressure on wages. Higher wages could also narrow the sizeable rural-urban income gap, which in turn could spur greater domestic consumption. Such a scenario could lead to a more "natural" rebalancing of China's economy from the "bottom-up" (through higher wages), rather than solely from the "top-down" (through exchange rates), "as labour supply from the agricultural sector tightens, the marginal products of labour in the agricultural and non-agricultural sectors converge and agricultural wages start to increase, putting an upward pressure on wages in the non-agricultural sector as well" (Dorrucci *et al.*, 2013:39). This natural rebalancing, however, is not automatic, and will ultimately depend on China upgrading its competitiveness by moving up the value chain and translating these productivity gains into higher standards of living, the ultimate measure of attaining international competitiveness. In this way, China's evolving growth model and its ability to sidestep the middle income trap is at a critical juncture, with significant implications for its future development trajectory.

A second area of attention for policy makers concerning FDI inflows is their impact on capital formation and industrialisation. The tendency to associate a healthy investment climate with measures to attract more FDI can be misleading if those measures crowd-out domestic investment. There is an extensive, but largely inconclusive, literature on this issue, with outcomes varying over time and contingent on a variety of country level variables. One study of 32 developing countries between 1970 and 1996 found the strongest evidence of crowding-out in Latin America, whereas in Asia crowding-in was stronger, and in Africa the effect was neutral (Agosin and Mayer, 2000). In a more comprehensive study of 98 developing countries between 1980 and 1999, a significant relation between FDI and domestic investment was detected in 52 countries, with 29 experiencing net crowding-out and 23 crowding-in, with Latin American countries again proving most vulnerable to crowding-out (Nagesh and Pradhan, 2002). A more recent study for 30 countries covering the period 1992 to 2010, found strong crowding in effects for Asia and much weaker effects for Latin America, but also a clear crowding out effect for African countries (Göçer, et al, 2014).[19]

The spread of GVCs in an era of financialization does not appear to have mitigated any of these developmental challenges associated with international production. Indeed, the impact, both positive and negative, of FDI on a host economy has become, if anything, even more difficult to measure and manage. However, as in the past, it is likely to vary unpredictably with the share of TNC profits in value added, the degree of import dependence and the proportion of the final good sold in domestic markets. Certainly, there is no escaping the burden on policy makers to monitor these variables just as, if not more, carefully than in the past.

The risks are particularly high when trade is based on preferential market access and if countries become too complacent about their ability to manage diversification to higher-value-added products. Moreover, because much of the technology is embodied in imported parts and components,

[19] Methodologically, most of these studies suffer from the failure to distinguish between FDI (which is a hybrid category taken from the balance of payments accounts) and investment (as measured through the national accounts). They are not therefore strictly comparing like with like.

with limited local value added and related linkages, there is an added threat from external shocks (UNCTAD, 2002a). This is further compounded when FDI is financed with loans, including from the parent company, rather than equity. This pattern of integration, which shares some of the features of commodity enclaves, can hinder the development of domestic supply capabilities, expose countries to the threat of external shocks, and risk locking them into current trading patterns based on unskilled and semiskilled labour-intensive activities.

**D.3 Flying geese and South-South FDI**

The East Asian first-tier NIEs provide the most recent example of developing countries breaking through the middle-income trap, in part, thanks to their effective employment of active industrial policies (Wade, 2004; Studwell, 2012). Another component of that success is linked to strong regional trade and investment ties which have led to a series of industrialization waves flowing across neighbouring countries and the emergence of a regional division of labour based on an industrial and locational hierarchy sometimes dubbed "a flying geese development paradigm" (UNCTAD, 1996). The success of this paradigm has raised interest in using regional supply chains to promote more inclusive and sustainable patterns of development elsewhere in the developing world.

The combination of historical interpretation and policy prescription within the flying geese paradigm needs, however, to be approached with a degree of caution on a number of levels (see UNCTAD, 1996; Chang, 2010). Many accounts paint an overly harmonious picture in which East Asian development is presented almost entirely in cooperative terms and through the lens of comparative advantages (Lin 2011), while potentially conflictual and competitive aspects of this process, and their policy implications, are virtually ignored. This is in contrast to the original version of the model put forward by Kaname Akamatsu (1962: 8), where sentiments of "economic nationalism" in the less-developed countries were expected to give rise to a "conflicting relationship between imported consumer goods and native-produced consumer goods", which would lead to policy measures to encourage local production of these items. The conflicting relationship would then proceed to other industries operated by foreign capital, and, further, to the domestic production of capital goods industries.

In the context of today`s global economy, a simple harmonious vision is particularly problematic with regards to the role ascribed to TNCs and FDI in the host country. The interests of TNCs and governments do not necessarily or automatically coincide even where the home and the host are developing countries. An important part of policy intervention in successful East Asian economies has been to avert potential problems and conflicts by facilitating adjustment to changed conditions of competitiveness, or to bring about desired outcomes by inducing domestic and foreign investors to undertake activities they would not otherwise envisage. Indeed, even the promotion of industries which enjoy advantages arising from existing resource endowments, including cheap labour reserves, have often required considerable policy effort and the process of industrial upgrading even more so.

East Asian development included not only tighter integration amongst economies in the region but the incorporation of the East Asian economies into the global economy through increased trade with advanced economies (UNCTAD, 1996). Hence, the transfers of capital and technology, recycling of manufacturing capacity, industrial upgrading and upward mobility of countries were predicated on the availability of export markets outside the region, primarily in the US and EU, which may not apply to newer generations of developing countries. The need to bolster domestic demand in developing countries can, in this context, be linked to efforts to strengthen regional trade ties. However, this will likely require a shift in macroeconomic policies to complement measures in

support of structural transformation, including measures to boost public revenues, income policies, counter-cyclical policies and an expanded mandate for the central bank (UNCTAD, 2013).

The role of the "lead" goose is also unclear in the East Asian context. Japan was a late regional arrival in terms of FDI flows, particularly in the secondary sector where its firms only became significantly more active in the second half of the 1980s, and then largely skipping the first-tier NIEs. The latter, however, became significant investors in the second tier NIEs from the late 1980s and within a few years had a stock of FDI in these countries comparable to that of Japan. It is important to recognise in this context that policy measures played a significant role in stimulating outward FDI from the first-tier NIEs (UNCTAD, 1996: 83-84). Nor did Japan play a very significant role as a market for the exports of manufactures from the first-tier NIEs in their early stages of development, though it was more important for the second-tier.

The process of East Asian integration has not been the outcome of South-South cooperation. Rather, it is due to the spread of a hierarchical pattern of production across the region, driven by the search for lower production costs for goods distributed across global markets, combined with effective industrial policy employed with varying degrees of commitment in the different countries of the region. In this sense, trade and investment relations in East Asia have a distinctly North-South inflection, rather than being the outcome of organised and harmonious relations between countries in the South.

There are, however, some features of the new growth poles in the South that suggest a greater scope for using FDI as part of a wider cooperation agenda amongst developing countries. Not only do Southern homes have a bias towards locations elsewhere in the South but there are often close links between FDI, trade and development assistance. Indeed, the fact that many TNCs from the South are state-owned enterprises or have significant ties to the public sector does suggest that the potential conflicts between home and host can be more effectively resolved through negotiations. However, to date the numbers are on a relatively small scale and, in many cases appear to be linked to value chains which continue to reflect a dominant position of Northern firms and markets. As Nolan (2012) has noted, even Chinese corporations are still in the earliest stages of constructing international business networks and China's total outward stock of FDI amounts to only a small fraction of the total value of foreign assets accumulated by the world's leading multinationals. In particular, China's outward FDI stock accounted for only 0.6 per cent of the world total at the end of 2005, and although this figure has increased rapidly to 2.2 per cent by 2012, even this amount remains a disproportionately small share of the global total.

It would seem likely that Chinese firms will expand abroad more aggressively as production costs rise at home, opening up opportunities not only for poorer neighbouring countries but for LDCs in other parts of Asia and Africa. There are certainly some signs of this happening as well as a greater willingness from the Chinese side to shift production out of lower-value light manufacturing goods to ensure that host countries are in a position to diversify and upgrade their industrial capacity. However, it is not clear that significant tranches of manufacturing production will move out of China any time soon, given the government's emphasis on gradual rather than sudden and drastic shifts in policy direction; and the fact that it is just as likely that some manufacturing production will migrate to inland China first (Memis, 2009: 25). This pattern of development would reduce the near-term usefulness of 'flying geese' approaches for the rest of the South. For the medium- to long-term, however, China has already started establishing industrial bases in some African countries in the form of special economic zones. A precise sectoral breakdown is hard to come by, but the Carnegie Endowment for International Peace has estimated that in 2009 only 29 per cent of Chinese FDI in

Africa went to the mining sector, with more than half going to manufacturing, finance, construction and infrastructure industries (Ali and Jafrani 2012).

As noted earlier, the success of the flying geese model in East Asia depended in part on the sale of the final good to advanced country markets in Europe and North America. As those markets look set to face a stressful decade of weak growth and sluggish consumer demand, the search for alternatives has turned to growing emerging markets and the possibility of creating more self-sustaining South-South value chains. As noted in section B above, a good deal of the promise of South-South value chains appears to hang on the expectation of a rapidly emerging middle class in the developing world.

The developing world's emerging middle class is a critical economic and social factor because of its potential to expand local markets and drive domestic demand. The experience of Brazil and Korea provides a useful comparison. In the 1970s the countries enjoyed similar rates of economic growth; however, due to high inequality in Brazil, the middle class made up only 29 per cent of the population, in contrast to Korea's 53 per cent. Its sizeable middle class partly explains Korea's successful shift away from export driven growth towards domestic consumption, a transition that did not occur in Brazil (Kharas 2010). However, projecting recent growth performances produces spectacular but highly speculative numbers which often presume that the South has already decoupled from the growth performance in the North, which is not the case and, as a result, ignores structural and systemic threats to growth in the South over the medium and longer term linked to economic trends in the advanced economies (Akyuz, 2013). In fact, growth in the South has been slower since the financial crisis and sharply so in some emerging economies (see Table 1). These projections also ignore the rather obvious fact that an expanding domestic market ultimately hinges on rising wages, in both absolute and relative terms. In reality across much of the developing world (much like the developed world) over the past two decades, employment in the formal economy has been stagnant, real wages have been growing slowly if at all, and the share of wages in national income has been stagnant or declining, albeit with some reversals in recent years (from low levels) in Latin America and South East Asia (Stockhammer, 2013). Significantly, some of the same pressures that lie behind the spread of GVCs, notably financialization and its impact on corporate strategy, are also among the main reasons why the wage share has been declining in many countries. A rising wage share has also historically been the basis on which a robust public sector has emerged, with rising public expenditures becoming a key component of self-sustaining growth and an expanding middle-class. Again, recent trends in developing countries do not suggest that this component of the story is firmly established. Indeed, if anything the hollowing out of the public sector in many developing countries points in the opposite direction. Ignoring the links between distribution and economic growth is, as a consequence, unlikely to provide sensible projections of income and spending across the South over the coming decades.

China, the one emerging economy which has achieved a degree of self-sustaining growth and has had strong linkage effects to other developing economies, is now searching for a different growth path which relies less heavily on a strong investment-export nexus. Regardless of temporary cyclical exigencies, it seems likely that Chinese growth will be considerably slower than the double-digit rates of the recent past, with uncertain knock-on effects for other developing economies. That China acts primarily in its own interests should be expected, so it is the manifestation of its national interests at its current stage of development that sets its policy approach and mindset apart from traditional developed country partners. If China's process of globalization is understood as an "externalization of particular national forms of capitalism" (Henderson, Appelbaum and Ho, 2013), then there may be more strategic features found in bilateral Sino-relations that are closely linked to

learning from aspects of its growth experience. Insofar as China's more coherent use of industrial policies will directly "increase the cost of not using such policies" in other developing countries (Rodrik 2010: 92-3), while also indirectly providing a 'real-time' demonstration of how such policies can be used relatively effectively, then China's emergence could be an opportunity to foster growth dynamics in other developing regions that more accurately reflect the flying geese concept as originally conceived.

## E. Conclusion and policy inferences

South-South trade has been a dynamic component of the global trading system over the past two decades, and particularly since 2001. However, this has been an uneven process. Developing Asia, in particular East Asia, has dominated this picture, with China playing a pivotal role in recent years as a hub for the assembly of inputs produced elsewhere in the region. There is some evidence of expansion in other parts of the South, but this has not dented the dominance of developing Asia in South-South trade.

The growth of South-South trade over the past two decades has been heavily concentrated in manufactured goods, and more specifically, in one or two sectors. The spread of international production sharing from the mature industrial countries to developing countries has played a central role in the expansion of South-South manufacturing trade which has been complementary to, rather than competitive with, South-North trade. This is not altogether surprising given its reliance on TNCs and final markets in the North. The dependence on Northern markets has been reduced over the past decade but the inclusion of East Asian NIEs in the South exaggerates this trend; for example the share of Hong Kong in China's total exports of capital goods increased from 13 per cent in 2002 to 23 per cent in 2011, suggesting a big jump in South-South trade which would be misleading.

The recent growth of primary exports and their rising share in the composition of developing country trade, including South-South trade, after 2002 (reversing the trend of the previous 20 years) can also be linked to the spread of global value chains, albeit of a more traditional type. However, while favourable price movements have worked in favour of some Southern exporters, the opportunities and challenges this brings should not be conflated with those associated with manufactured goods.

All these trends have been strongly shaped by the financialization of the global economy, which has been visible at the macroeconomic level (triggering faster growth in the South after the dotcom crisis but also raising levels of private debt in the advanced economies and generating large global imbalances), and the micro level (in the form of changing corporate strategies and rising profit levels). However, the fragilities and imbalances associated with financialization serve as a warning about potential difficulties linked to the spread of global value chains. Moreover, slower industrial growth across many parts of the developing world, along with a shift in bargaining position of TNCs, points to weakening opportunities for economic and social upgrading in the context of global value chains and the real danger of some countries facing a middle income trap. This serves as a reminder that industrial policy remains an essential part of the policy toolkit for developing countries, but also that it cannot be approached as a standalone measure but must be integrated with trade, macroeconomic, financial and trade policies (UNCTAD/ILO, 2014).

The increased production complementarities between developed and developing countries imply a growing weight of the decisions and performance of large foreign firms in shaping future economic opportunities and outcomes in poorer countries. This need not be a problem in itself, but it runs the danger of further reducing policy autonomy in developing countries in terms of formulating

development strategies that emphasize building national enterprises, capabilities and markets. At the same time, South-South trade in final assembly has been lagging behind the expansion in market opportunities in the South, which suggests that South-South value chains are still weak and underdeveloped. Strengthening such chains should not, however, be approached as a challenge that is independent of building industrial capacity across the South.

Critical to the likely development impact of GVCs is the extent to which they generate spillovers, particularly in the area of technology and skills. As noted earlier, evidence on spillovers from hosting TNCs is ambiguous. However, there are concerns that the more geographically dispersed pattern of production activities associated with GVCs may actually reduce spillovers, given that the package of technology and skills required at any one site becomes narrower, and because cross-border backward and forward linkages are strengthened at the expense of domestic ones. Furthermore, when only a small part of the production chain is involved, out-contractors and TNCs have a wider choice of potential sites – since these activities take on a more footloose character – which strengthens their bargaining position vis-à-vis the host country. This can engender excessive and unhealthy competition among developing countries as they begin to offer TNCs increasing fiscal and trade-related concessions in order to compensate for the shifting competitiveness from one group of developing countries to another; it can thereby aggravate the inequalities in the distribution of gains from international trade and investment between TNCs and developing countries.

The costs and benefits of participation in international production networks have been recognised for some time. Already in the early 1970s, when the trend first emerged, Paul Streeten (1974) argued that in a world where trade was in activities rather than in finished goods, and organized around global value chains rather than factor endowments, developing countries are essentially just exporting *labour itself* rather than the *product of labour*. He concluded that:

> The packaged nature of the contribution of the MNEs [multinational enterprises], usually claimed as its characteristic blessing, is in this context the cause of the unequal international distribution of the gains from trade and investment. If the package broke or leaked, some of the rents and monopoly rewards would spill over into the host country. But if it is secured tightly, only the least scarce and weakest factor in the host country derives an income from the operations of the MNEs, unless bargaining power is used to extract a share of these other incomes. (Streeten, 1993: 356–357)

The experience of the East Asian economies in exploiting gains from global production sharing suggest that tapping this potential requires more than simply creating a policy climate to facilitate global integration of national economies through the liberalisation of trade and investment regimes and reducing the cost of services involved in global production sharing through improving the quality of trade-related logistics.

Trade facilitation, i.e. improving the procedures and institutions relating to the flow of goods across borders, can offer one way to expand trade (see, e.g., Hoekman and Nicita, 2011). These reforms, however, are not as easy to implement as often suggested, and commonly cited examples such as customs administration and procedures are part of an ongoing process of building developmental states as much as a quick fix of corrupt practices. In reality, reforming customs administrations is likely to be a part of reforming the judiciary or civil services more broadly.

For low-income countries, efforts aimed simply at attracting FDI through macroeconomic stability, signing bilateral investment treaties, favourable tax policies and weak regulations run the risk of locking static advantages inside export platforms with minimal linkages to the domestic industry. This risk of getting locked in is particularly high where trade flows are based on preferential market access that requires production inputs to be sourced from a developed country partner.

The fundamental policy challenge for developing countries is to ensure that participation in global value chains is one amongst several complementary components of a development strategy that focuses on a rapid pace of capital formation, economic diversification and technological upgrading. Significantly, in the case of the first-tier East Asian NIEs, this included import substitution industrialization in an effort to move from the assembly of imported components to their domestic production. This was the case, for example, with the South Korean clothing and textiles sector and the computer industry in Taiwan China. Singapore was also successful in targeting specific industries for promotion, and in using TNC-controlled assets in efforts to upgrade. However, these successful upgrading stories appear to have been the exception rather than the rule, even in East Asia. A second-tier of NIEs emerging from the same region in the 1980s, while successful in building capacity in the resource and labour-intensive parts of GVCs (including with the help of strong regional trade and investment flows), have been much less successful in upgrading to more skill and technology intensive activities.

On some counts, reverting back to an older generation of development policy is no longer possible given the reduction of policy space that has already taken place through trade agreements, lending conditionalities, etc, while on others it is no longer desirable given that lead firms rather than national governments are now best placed to shape industrial development (Milberg et al, 2013). Neither position is convincing. Indeed more active policy responses are now under consideration in many developing countries as industrial policies make a welcome return to their toolbox (UNCTAD/ILO, 2014). While simple imitation is ruled out by country specific constraints and challenges, a number of broad policy lessons can be drawn from successful industrialisers. First, a broader pro-growth macroeconomic stance is essential. This requires adopting a full range of macroeconomic instruments both to stimulate investment and to counteract any damaging effect on capital formation from economic shocks and volatility. As Bradford (2005) rightly notes, prioritising growth and introducing more instruments to the policy mix opens the way to heterodox strategies. This will involve different combinations of fiscal, monetary and exchange-rate policies, including capital controls calibrated to specific conditions, to allow countries to meet their objectives for employment, price stability and external balance. Other instruments, including debt restructuring, wage and price controls, and labour-market policies, might also be needed to help maintain growth at the desired rate. Most of the required measures are not, formally at least, proscribed by international rules and agreements.

Secondly, given the strong links between investment and structural transformation, and the importance of financing investment from retained earnings, the state will need to raise enterprise profits to levels above those that would likely emerge from the workings of the market and to ensure those profits are used to support an agenda of productive transformation. However, the current organization of global value chains, as discussed earlier, would appear to pose serious constraints on a strong investment-profit nexus emerging in local suppliers in developing countries. Currently, many fiscal measures appear to amplify the profitability of lead firms. Instead, fiscal instruments such as tax breaks and accelerated depreciation allowances need to be used directly to boost profits of domestic firms, and to allow them to set up various reserve funds against risk which can be used

to defer paying taxes on profits. The effects of such policies will be amplified if they encourage commercial banks to make loans more easily available for investment. A number of other measures can also be used to increase rents: for example, selective import protection, controls over interest rates and the allocation of credit, managed competition involving government encouragement of specific mergers and restrictions on entry into certain sectors, the screening of imported technology, and the promotion of cartels for particular purposes such as product standards or export promotion. Such measures will set the tone for a different kind of competition policy which, rather than promoting competition for its own sake, fosters industrial depth and economic development. Competition that leads to price wars or sharp falls in profit or declining wages is unlikely to stimulate investment on the appropriate scale or of the right kind. In some instances the right strategy may be to restrict competition, at other times to promote it vigorously. In most cases, policy makers will again have to discover for themselves the appropriate blend of competition and cooperation to achieve faster rates of long-term growth (Singh, 2013).

While most of the fiscal and other instruments can be applied deliberately to specific industries at specific times, investment should be especially promoted in industries with the greatest potential for upgrading skills, reaping economies of scale and raising productivity growth, thereby increasing the rates of return on investment. Total investment can also be boosted by favouring sectors with important forward and backward linkages to the rest of the economy. Such policies can lay the basis for a dynamic manufacturing sector which, in turn, can greatly ease the balance-of-payments constraint on the import of capital goods.

Adopting this more strategic approach should not be seen simply as favouring universal protection as a means to "pick winners", as is sometimes suggested; rather, it aims to prescribe liberalisation, protection and subsidies in various combinations, depending on a country's resource endowments, macroeconomic circumstances and level of industrialisation. Such an approach, a staple feature of the rise of today's advanced countries throughout the 19$^{th}$ and 20th centuries, is part of the process of discovery and coordination whereby firms and governments learn about the underlying costs and profit opportunities associated with new activities and technologies, evaluate the possible externalities associated with particular projects, and push towards a more diversified and higher-value-added economy. Dani Rodrik (2004: 25-28) has discussed a possible package of six industrial policies which are most likely to make a difference in this context. These include subsidising the early stages of developing new products or the adaptation of imported technologies with a view to maximising high learning spillovers; developing mechanisms to increase the supply of higher risk finance with longer time horizons than those of commercial banks; addressing coordination failures; public spending on R&D; subsidising general technical training; and engaging the skills and financial resources of nationals abroad.

The challenge here is not simply one of resurrecting "old style" industrial policy for the diversification and upgrading of domestic output, but of redeploying existing measures which have tended to favour exports and foreign firms. There are a number of factors which appear to be important for the success of such policies and whose absence helps to explain the failure of past efforts in developing countries. First, the rents created by these measures should be provided only to productive activities that support the broader national economic strategy. Second, subsidies and rents should be made available only as a condition of enhanced performance, especially of exports and of technological upgrading. Third, large, diversified business enterprises, together with close, interlocking ownership relationships with banks, enable firms to resist short-term demands to distribute profits to shareholders and instead invest for the longer term. This form of business organization can be particularly effective in countries with relatively weak endowments of capital,

entrepreneurship and skills, and it can help the government in its coordination efforts by facilitating the exchange of information and reducing the risks of investment. Fourth, the effectual implementation of such an industrial strategy depends on the creation of an appropriate structure of public and private institutions and, not least, on the development of a strong and competent bureaucracy.

The sectors where policies can make a difference are broadly circumscribed by a country's initial labour and resource endowments. Even so, these do not dictate a country's industrial future; even in the early stages, developing the sectors that use these inputs intensively and raising their relative value added requires a rapid rate of fixed investment. Also from an early stage, fiscal and other incentives will have a role to play in encouraging the growth of more sophisticated industries. Additional measures will also be needed to encourage the creation and expansion of technological capacities, such as local research and development facilities, the expansion of educational institutions and a wide range of vocational training.

Boosting profits, raising domestic investment and curbing capital flight are demanding goals that will often require the use of new or revived policy instruments. Some of the constraints negotiated in the WTO, however, no longer allow such an expansion of policy space, and the relentless pressure to further cut developing country tariffs is certainly unhelpful. Nevertheless, scope for innovation in these areas still exists and many of the policies needed fall outside the current rules: these include, for example, some "disguised" subsidies to industry (through infrastructure investment, cheap food, subsidised housing, incomes policies, etc.) as well as "targeted" subsidies (such as tax rebates, support for R&D or temporary monopoly privileges). Any efforts to enlarge policy space will also need to address weak domestic institutional capacity. Developing-country policy makers need to pursue closer interaction between government and the private sector, already a prominent part of the policy environment in advanced industrial countries (Wade, 2014). This implies paying closer attention to start-up financing, improving the transfer of intellectual property from public agencies to private firms, more effective use of procurement contracts, the provision of financial and infrastructural support for export promotion, and so on. As Akyüz (2005) has rightly insisted, however, because the sequencing process differs from country to country and is non-linear, all developing countries should also be allowed to retain the option of using tariffs, on a selective basis, as and when needed to encourage diversification and upgrading. Whether or not this requires a renegotiation of trading rules, it will certainly need a sharpening of the political skills of policy makers and trade negotiators in support of more development-sensitive trade agendas.

Essentially, what is needed is a development strategy where the central focus is on the creation of local enterprises with a high propensity to invest as a necessary prelude to closer integration with the global economy, and on encouraging the development of a business class that will eventually be able to maintain the dynamic of industrial change and technological upgrading on its own. Although the spread of GVCs and the exposure of an economy to intensified global competition may not prove to be an effective way to encourage the creation of a competitive local manufacturing base, this does not mean that FDI, global value chains and TNCs should be ignored or rejected in building a sustainable and inclusive development process. This is neither possible nor desirable. It does mean, however, that the starting point for policy should be an evaluation of the likely net gains from hosting FDI rather than simply attracting it at any cost, and, because the interests of TNC shareholders do not necessarily coincide with national development objectives, policy makers need to ensure they have some means available to bargain effectively with these firms. Evaluating the net gains will be country- and sector-specific, with policies towards FDI needing to be tailored accordingly and in full knowledge that there will be trade-offs and a potential for conflicts of interest

between TNCs and host governments. It is therefore important that the governments of host countries adopt a strategic approach to FDI, preserving a full range of instruments to ensure that it supports the objectives of domestic development.

To the extent that international trade and investment agreements, whether bilateral or regional, restrict the strategic use of FDI as part of their development strategy, policy makers need to carefully weigh any expected gains from signing such agreements against such potential losses. There is an ongoing assessment of the experience of BITs in developing (and some developed) countries, many of which were signed on the expectation that doing so would of itself attract FDI.. That attitude is changing as policy makers look to amend the terms of their investment agreements or to exit from them altogether (UNCTAD, 2014). There is also an ongoing effort to reform the dispute arrangements that have been attached to such agreements and which have, in practice, often been biased towards the interests of the investor (van Harten, 2012).

There is growing agreement on the need to build a stronger regional dimension in the development strategy. Milberg et al. (2013), for example, have argued that regional supply chains could be anchored in a new set of policies that go beyond trade liberalization toward a regional industrial policy, that the private sector has a more important role than in previous regionalization efforts and that a broader set of industries are involved, ranging from minerals to agriculture to apparel to mobile phones. On this basis they argue for a more integrated policy framework centred around economic and social upgrading within regional supply chains. However, the analysis is short on details, and relies too heavily on lead firms for defining the needs of industrial policy, pays insufficient attention to possible conflicts of interest between these firms and national development goals, and gives little attention to the institutional challenges involved in macroeconomic and industrial cooperation at the regional level.

There is some evidence that regional trade agreements can have a significant positive effect on the expansion of South-South network trade. However, given the paucity of data on tariff and non-tariff protection, it is difficult to capture the impact of changes in the level of overall trade protection on network trade. In reality, the trade effects of any FTA depend very much on the nature of rules of origin (ROOs) built into it. Trade-distorting effects of rules of origin are presumably more detrimental to network trade than to conventional final-goods trade, because of the inherent difficulties in defining the 'product' for duty exemption and the transaction costs associated with the bureaucratic supervision of the amount of value added in production coming from various sources. Even small differences in ROOs among criss-crossing FTAs can raise costs and divert trade and associated investment. Those costs are much more onerous for small and medium-size trading firms in developing countries than they are for large corporations. There is also the possibility that authorities can use ROOs as a means of protecting import-competing industries in a context where a country pursues both export-promoting and import-substitution industrialization strategies simultaneously (as is the case with a number of countries in the East Asian region). Using ROOs for this purpose become easier when the production process involves procuring parts and components from a number of sources: tightening ROOs on the procurement of one critical input would suffice to protect competing domestic producers of the final (assembled) product.

But in discussing the opportunities of extending South-South trade and investment at the regional level, and particularly in light of the weak growth performance of advanced economies, it will be important to return to the older tradition of South-South cooperation associated with Prebisch, Lewis and others. As such, expanding South-South cooperation will need to be part of a bolder regional integration agenda which includes arrangement designed to maintain stable intraregional and effective exchange rates, macroeconomic policy coordination and financial

regulation, and competition policy. In particular, the management of capital flows and intraregional lending and policy adjustment will be crucial if strong productive regional links are to emerge in support of shared industrial development. Critically, as Poon (2013) has insisted, heightened efforts at South-South cooperation need to build around the idea of sharing successful policy lessons and dynamically building sufficient policy space to ensure those experiences gain wider purchase across the developing world, including through providing long-term development finance to help break the various constraints that continue to hold back structural transformation in many developing countries.

The wild card in the South-South story is the developmental dynamism embedded in China's growth model. Although its ability to move-up the global production value-chain and attain advanced countries' standards of living remains uncertain, its ambitions to do so and the extensive policy toolbox it stubbornly retains are not. To be sure, it is certainly difficult to forecast the future outcomes of China's developmental path. However, it is clear that China's competitive challenge is of a North-South nature, and assessments that dismiss China's efforts to gradually move-up the value chain, appear premature and run the danger of ignoring some of the new opportunities in South-South relations that could spur self-sustaining growth across many parts of the developing world. And as Lewis contended, if a sufficient number of developing countries can reach a point of self-sustaining growth, then “we are into a new world”.

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