From Development to Differentiation: Just how much has the world changed?

Abstract
Given the divergent growth performances of developing countries since the establishment of the WTO, there is a growing debate on whether these can still be collectively categorized as ‘developing’ and whether those that have enjoyed sustained growth over the past quarter century should continue to receive special treatment in the context of trade, and by implication other international negotiations. This paper traces the history and reasons for the emergence of special and differential treatment provisions in the trade negotiations. It examines various development indicators in order to assess whether the developing world has evolved to the extent that a change in this basic principle of the multilateral trading system is required. The paper argues that the economic and social gaps between developed and developing countries remain significant despite the gains in some countries over the last quarter century. Moreover, the policy challenges of 21st century facing all parts of the developing world, including those triggered by the growing digital divide and environmental degradation, are mounting just as the commitment of advanced economies to international development cooperation is waning. The paper concludes that development goes much beyond trade and includes multiple economic, social and environmental challenges and their interaction, the consequences of which can only be fully assessed by countries themselves who should, consequently, be allowed to self-declare their development status.

Key words: Special and Differential Treatment; WTO and Development; Digital Divide, Infrastructure divide, Fiscal divide, Development Divide
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1. Introduction

In November 2001, a new trade round was initiated by the members of the World Trade Organization (WTO) which placed developing countries needs and interests at the centre of negotiations. Coming shortly after the international community had endorsed a series of millennium development goals, the aim was to make the trading system more sensitive to developing country challenges and, in particular, to make trade a more powerful vehicle for alleviating extreme poverty.¹ This was not a sui generis exercise.

The unlevel playing field facing developing countries in the international trade arena was acknowledged during the first United Nations conference on trade and employment and in the subsequent negotiations to establish an International Trade Organisation (Graz, 2016). While those initial efforts were thwarted with the abandonment of the ITO project, the 1954-55 Review of the General Agreement on Tariffs and Trade (GATT) -- the sole institutional survivor from the earlier discussions -- a provision under Article XVIII was included allowing developing countries to maintain quantitative restrictions for balance of payment reasons. In 1957, a decade after its first trade round was completed, the GATT appointed a group of economists to examine why the international trading system that had emerged from the ruins of the Second World War was still failing to stimulate the trade of less developed countries. The so-called Haberler Report (named after the Austrian economist who chaired it) identified chronic obstacles to such trade due to tariff and other barriers in advanced economies but also blamed the policies adopted by the “underdeveloped countries” themselves in support of import substitution industrialization. The Report led to the creation of Committee III in GATT tasked with helping to promote exports in those countries and in 1964, GATT added Part IV in which developing countries were formally relieved of their obligations to offer reciprocal concessions. However, with no concession made in the sectors of interest to the developing countries, such as agriculture and textile products, GATT remained a rich-country club.²

As a growing number of developing countries gained their political independence, they turned to the United Nations as a more reliable body to discuss the challenges they faced in the international trading system. The aim was an ambitious reform agenda which positioned their weak trade performances in the asymmetric structures and practices of the international division of labour, in particular the ways in which gaps in the multilateral rules, biases in international markets and the undue economic power of big international firms had perpetuated their dependence on commodity exports and created obstacles to industrial progress. The United Nations Regional Commissions were the first port of call for discussing these issues but as it became clear that all developing countries were facing much the same trade and development challenges regardless of their geographical location, there was a more concerted push for a comprehensive United Nations conference on trade and development to examine these issues; in 1964 the hosting of that conference in Geneva led to the establishment of a permanent secretariat (UNCTAD) to follow up on the challenges and recommendations that had been discussed.³

The debate on trade and development can be approached from many angles but at its centre is an insistence by developing countries that they face a very different set of challenges when integrating into the global economy from those at the top of the development ladder -- and who had fashioned the multilateral order at the end of the Second World War -- requiring an approach to international cooperation tailored to their distinct needs. Over the years, a variety of compensating mechanisms have been introduced, albeit in a somewhat ad hoc manner, to address the biases, asymmetries and gaps in the system that impede catching up by poorer countries, including various forms of development assistance, multilateral lending arrangements, dedicated policy support institutions and derogation from the multilateral rules.

¹ The call for a new trade round promised to address more than development concerns, but also to boost the reputation of the fledgling WTO after the problems in Seattle, to confirm the commitment of the international community to the liberal economic order after the attacks on 9/11 and to boost global economic confidence in the face of a series of shocks, see Moore, 2000.
² See Josling (2000).
³ For a longer discussion of these debates, see Toye and Toye (2004) and Mazower (2012).
The record of these various mechanisms certainly deserves a detailed assessment, however, since the 1990s and more intensely since the 2008 financial crisis, advanced economies have been rolling them back and pushing instead for the uniform application of rules and responsibilities that apply regardless of a country’s economic status and position in the international division of labour. This pushback has been particularly noticeable in the case of trade, beginning with the Uruguay Round and extended through a plethora of free trade agreements and investment treaties. The Doha Development Agenda (DDA) launched in 2001 was seen as a partial correction to this trend. However, and despite the DDA having failed to achieve tangible progress, a concerted effort is again underway to fully delink multilateral trade rules from development concerns by insisting that poorer countries can no longer be collectively categorized as developing given divergent growth performances in recent years but rather should be judged on a case by case basis in accordance with specific negotiations. Moreover, special treatment in the trading system to help offset the economic and technological disadvantages with those at the top should no longer be tolerated as these disadvantages, it is claimed, are no longer collectively shared and the countervailing measures are open to abuse by emerging economies, distorting the system and undermining its effectiveness and stability.

This paper begins with a brief history of the trade and development debate and the reasons for the emergence of special and differential treatment (SDT) provisions in negotiations. It next provides an examination of various development indicators in order to assess whether and to what extent the developing world has evolved beyond common features and challenges, closing the gaps on advanced economies to the point that a change in the basic principles of the multilateral trading system is required. It concludes by discussing the ongoing rationale for the self-declaration principle on development status in the WTO.

2. Development-Oriented Trade Policy: A Short History

Since Adam Smith, economists have made a link from increased trade flows to the “wealth of nations” with a broad consensus around the idea of trade as an “engine of economic growth”; while economic development is no longer identified with the singular goal of faster growth but a multi-dimensional challenge which requires the effective mobilization and channeling of various resources, trade has retained its standing as a driver of sustainable development (Vaggi, 2018).

For standard economic theory, specializing according to comparative advantage allows countries to reap efficiency gains from moving to a production and exporting profile that concentrates on using their relatively abundant resources and importing goods that otherwise embody relatively scarce resources; countries with plentiful supplies of unskilled labour and little land will produce and export basic manufactures, while importing capital goods and primary inputs from countries with the appropriate structure of endowments. Even countries which are lagging behind in all sectors can benefit by following this path. This “win-win” logic has been described as “the deepest and most beautiful result in all of economics” (Findlay, 1991:99).

On this basis, the policy conclusion is, invariably, rapid trade liberalization along with complementary measures to deregulate markets (particularly the market for labour) and remove other government measures that “distort” prices and stymie international competition. A vast academic industry has sprung up employing sophisticated models and statistical techniques which purport to prove a direct link from trade liberalization through increased trade flows to rapid economic growth, poverty reduction and improved social welfare. Trade simulation exercises, which seem to multiply whenever multilateral or regional trade negotiations are getting underway (or getting stuck), offer headline-grabbing multi-billion dollars gains from trade liberalization, often accompanied by finger wagging at those who are reportedly stalling or opposing the process.

While the argument is much admired for its mathematical elegance, it rests on a set of severely restrictive assumptions whose distance from reality has troubled generations of economists beginning with Adam Smith, no less, who insisted that a universal system of free international trade was more a utopian ideal than a coherent blueprint for policy and that the costs of adjusting to it required that it be done “only by slow gradations, and with a good deal of reserve and circumspection” (citited in Panic’, 1988:124). Smith’s conclusion followed from his observation of an uneven world of underutilized resources in which lagging regions faced a set of
unfavourable circumstances. Smith also recognized, that whatever the causes of the initial gaps among countries, the free movement of goods, technical know-how and factors of production could give an advantage to those who opened up an early lead, allowing them to maintain or extend that lead at the expense of later developers.

While Smith’s observations have been obscured by conventional trade models, development economists, historians and policy makers, have long recognized the implausibility of a world populated by small firms, with perfect information about consumer tastes and available production technologies, where learning or scale economies are absent, and immobile factors of production fully employed (Toner, 1999; Schleifer, 2019). This has cast a cautionary shadow over simple calls for rapid trade liberalization, with economic divergence as plausible an outcome as narrowing income and technology gaps, and an acknowledgement that, under some circumstances, “the roulette wheel of evolving comparative advantage” can lead to “genuine harm” (Samuelson, 2004:142).

In reality, trade takes place among countries at very different levels of development and is shaped by a variety of forces other than factor endowments, including economic structure, firm size, technological learning and political power. This makes for a much more uncertain trading environment than allowed for in standard trade models and implies that trade policy will be poorly designed if it is focused on achieving some single best outcome rather than on making tangible gains from an evolving set of trading relations among partners of varying degrees of economic power and sophistication.

In this world, trading possibilities are created rather than given, and market entry can, as a consequence, be slow and expensive, historical accidents have long-run economic consequences, and “market forces do not select a single, predetermined outcome, instead they tend to preserve the established pattern, whatever that pattern may be” (Gomory and Baumol, 2000). Indeed, as Gomory and Baumol insist, given that the modern trading system is so different from the implicit 18th-century historical setting of the free-trade model, the analysis of how trade works needs to start from a very different set of stylized facts. This would also suggest that a “win-win” outcome is just one among a range of possibilities in a more open trading system and that international market forces, in conjunction with varying national capabilities, can produce results that are beneficial for some but detrimental to others.

While there is considerable disagreement over how to weigh up the potential losses from trade and even more on what to do about it; there is general agreement that in this world what a country produces and exports matters, i.e., whether it exports apples or iPhones is important for its development process and prospects. This was the lesson drawn by the first catch-up economy, the United States which, under the guidance of Alexander Hamilton who as its First Secretary of the Treasury ruptured its agrarian destiny, actively pursued a pro-industrialization agenda through high tariff barriers, big infrastructure projects and support for technological learning (Cohen and de Long, 2016). This catch-up challenge has become harder as manufacturing processes (and the goods they produce) have become more and more sophisticated generating a more complex and also more fragmented division of labour that has acquired an ever larger international reach and with ever larger productivity gains for those already at the top of the industrial ladder.

By reinforcing the advantage of industrial as opposed to primary producers, a post-war generation of development economists understood that trade could contribute to polarised development outcomes between ‘centre’ and ‘periphery’ (as coined by Prebisch 1950, 1959) but also, by privileging certain activities, locations and firms, could lead to a fragmented international division of labour marked by huge asymmetries in economic power and very unequal outcomes (Hymer, 1972; UNCTAD, 2018). Whether through polarization or

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4 Smith offered a number of reasons why some countries lagged behind, including unfavourable cost conditions (which led some countries to forsake manufacturing); a hostile policy environment (which included insecure property rights and misguided trade policy); weak infrastructure (which augmented geographical obstacles to market expansion); and small or scattered populations (which limited the division of labour).

5 In his Lectures on Jurisprudence published before The Wealth of Nations, Smith noted that “it is easier for a nation, in the same manner as for an individual, to raise itself from a moderate degree of wealth to the highest opulence, than to acquire this moderate degree of wealth” Vaggi and Groenewegen (2003:113). On this recognition it seems fair to conclude that Adam Smith merits the title of father of special and differential treatment.

6 A seminal paper by Joan Robinson (1937) introduced the term “beggar-thy-neighbour” to the trade policy debate.
fragmentation pressures, the resulting room for potential slippages between trade, trade policy and development implied that even if countries enjoyed increased trade flows, and even achieved higher shares in global trade, they might at the same time fall short in terms of more meaningful development goals like poverty reduction, increased employment, stronger welfare provisions, low emissions growth, etc. It was precisely such possibilities that led developing countries to establish UNCTAD in 1964 and to strengthen their position in the trading system by promoting the right to non-reciprocal and preferential treatment, as adopted by the UN General Assembly (in 1974) in the Charter of Economic Rights and Duties of States (Finger 2007: 5).

The asymmetric interdependence that shapes the relationship between trade and development has been consistently emphasised by UNCTAD’s Trade and Development Reports (TDR, 1988-2011), which recognize the merits of multilateral trade rules and discipline in global economic governance but also highlights the need to apply these rules flexibly to all developing countries. The need for sufficient policy space for developing countries in international trading rules is one abiding consequence of this analysis. But special and differential treatment (SDT) is another of the ways for developing countries to align trade integration with their various developmental priorities, such as poverty alleviation, food security, economic diversification, employment generation, etc.

Special and differential treatment has not been exclusively limited to the area of international trade but has also been applied across the multilateral system including to the use of financial instruments, debt and development aid. However, it has been more systematically applied in the area of trade, where, up until the Uruguay Round, there was consensus that developing countries needed SDT to allow them to access and benefit from international markets as they faced far more serious challenges than developed countries. Although, the term SDT was coined much later, developing countries were allowed flexibilities in the use of tariffs and quotas under the non-reciprocity in the tariff reductions (GATT Part IV of 1964) and generalized systems of preferences (Enabling Clause of 1979). Both these instruments were linked to “border measures” applied for facilitating their exports and allowing them “policy space” for protecting infant industries, diversifying the structure of their economies and addressing balance of payments problems. The idea of granting developing countries preferential tariffs in the industrialized countries’ markets was originally presented by Raul Prebisch, the first Secretary General of UNCTAD at its initiating conference in 1964 and was adopted at UNCTAD II in 1968.

However, in the Uruguay Round, the trade agenda extended beyond ‘border measures’ to include ‘within-the-border’ areas like services, domestic support measures, intellectual property regimes, etc. This implied moving to a much deeper pattern of economic integration. Developing countries accepted this expansion of commitments into new areas of interest largely to developed economies, on the promise that those economies would, in exchange, agree to open up areas of interest to them, namely agriculture and textiles & clothing. It is well established in the literature, that this promise has gone largely unfulfilled and the gains to developing countries from a combination of lower tariff barriers in developing countries with the inclusion of “trade-related” issues in the Uruguay Round far outweighed any gains to developing countries from improved access to Northern markets. Moreover, limited institutional capacity of developing countries further restricted their gains from the deeper integration Agenda of the Uruguay Round 8 At the same time, the Uruguay Round provided the base from which future trade agreements at the regional and bilateral level were negotiated with even more demanding – ‘WTO-Plus’ – conditions for developing countries and with significant implementation costs (Finger and Schuler, 2001).

Special and differential treatment was formerly adopted as part of the newly established trade architecture under the WTO, allowing developed countries to treat developing countries more favorably than other WTO Members and giving some special rights and privileges to developing countries in order to offset the biases and mitigate the disadvantages they continued to face in the international trading system and to help them with implementing multilateral trade agreements. These include: Provisions aimed at increasing the trade

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7 This is one of the lessons to be drawn from the successful East Asian economies which successfully combined export orientation and import substitution industrialisation by using a variety of strategic trade (and related) policies, see for example UNCTAD TDR 1996, 1997 and 2003.

8 See Michałopoulou (2000); on the exaggerated and unbalanced gains to developing countries promised from the Uruguay Round see, Finger and Nogues. 2002, and from the Doha Round, see Polański 2006 and Ackerman and Gallagher, 2006.
opportunities of developing country Members; Provisions under which WTO Members should safeguard the interests of developing country Members; Flexibility of commitments, of action, and use of policy instruments; Transitional time-periods; Technical assistance; and Provisions relating to LDC Members (WT/COMTD/W/239).

In the Doha Declaration of 2001, WTO members called for a review of special and differential treatment provisions “with a view to strengthening them and making them more precise.” However, SDT was increasingly seen as a means for rebalancing the gains from the Uruguay Round rather than an essential tool for addressing the systemic biases of the trading system (Tortora, 2003). Recognizing the domestic challenges faced by all developing countries, whether big or small, developing countries were given SDT to facilitate implementation of the Agreements of the Uruguay Round as well as the WTO Agreements which promised to be more development-centric.

3. Growth and poverty trends in the era of hyperglobalization

A significant feature of the global economy over the past 30 years has been the slowdown in growth and rising inequality in the advanced countries. Since the financial crisis of 2008, itself related to these trends, recovery has been sluggish in most of these countries. The contrast with their performance in the three decades following the end of the Second World War is particularly striking, pointing to the failure of policy choices in the recent period.

This performance also contrasts with that of the developing world, particularly since the start of the millennium when growth began to pick up across all regions (UNCTAD, 2016, chapter II). On many accounts, and particularly after the financial crisis, which hit advanced economies harder than developing economies, it was argued that growth in the South had “decoupled” from the North, driven by new “growth poles” in an emerging multipolar world (Canuto, 2010). While there are certainly endogenous drivers in the recent growth surge across the South, it was also heavily dependent on a set of circumstances in the advanced economies that favoured the exports of developing countries, including their willingness to tolerate mounting debt levels to maintain aggregate demand, and a highly unbalanced policy mix adopted by these same countries after they were hit by financial crises in 2000 and again in 2008 which triggered large capital flows to the South. As conditions (and policies) in advanced countries have changed, growth in the South has slowed down and talk of a “great convergence” in incomes between North and South has also cooled (World Bank, 2016).

Much of the discussion on contrasting economic performances between developed and developing countries has, moreover, failed to recognise that the nature of globalization has itself been transformed since the early 1980s through the deregulation of financial markets, growing corporate power including with the spread of global value chains and ascendant neo-liberal policy-making with profound consequences for growth dynamics everywhere (UNCTAD, 2017 and 2018). It is this “hyperglobalized” world economy into which developing countries have been integrating over the past three decades; and it is against this backdrop that the inherently complex task of measuring and evaluating development takes place (Dutt, 2014, chapter 2).

3.1 Has poverty reduction transformed the world since 1995?

The claim that many developing countries no longer need SDT, even as an adjustment tool, rests to a considerable extent on poverty numbers. While on some measures, global poverty has been falling for over two centuries, the pace seems to have picked-up rapidly in the recent period (Roser and Ortiz-Ospina, 2017). The number of people classified as being in extreme poverty (defined by the World Bank as $1.90 per day, 2011 PPP) has fallen from 1.9 billion in 1990 to 735 million in 2015, which is around 10 per cent of the global population.

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However, determining what is an appropriate poverty target to make historical and cross-country comparisons, or indeed what is an appropriate statistical approach to measuring poverty, is far from being a closed debate.\textsuperscript{10} The World Bank provides poverty data across regions using a benchmark figure of $1.90, but also includes data for $3.20 and $5.50 (Table 1); the differences in terms of the absolute numbers and incidence of poverty from adopting these different benchmarks are sizeable both within and across countries. For example, the spread in East Asia and the Pacific goes from just 73 million in 2018 using $1.90, to over 850 million for $5.50, with most of that increase accounted for by China; and while extreme poverty ($1.90) is the most widespread and persistent challenge for sub-Saharan Africa, the largest numbers of poor people (under $5.50) are in South Asia.

Taking the higher World Bank measure ($5.50) and estimating the extent of poverty, with and without China, it can be seen that the number of people below the poverty line has not declined in the world (excluding China) and that China itself still has a long way to go to eliminate poverty (Figure 1); also, excluding China, the decline in the number of people below poverty line in the world, is much smaller using the $1.90 (2011 PPP) and $3.20 (2011 PPP) benchmarks. Moreover, many scholars have argued that even the higher World Bank benchmark is an underestimation of the global poverty challenge. According to Jason Hickel,\textsuperscript{11} if we measure global poverty at $7.40 per day, the number of people living under this line is estimated to have increased dramatically since measurements began in 1981, reaching some 4.2 billion people in 2018; and the Harvard economist Lance Pritchett suggests that a more realistic figure should be between $10 to $15 per day, adding to the poverty challenge everywhere in the developing world (Pritchett, 2013).

\begin{table}[ht]
\centering
\begin{tabular}{|l|c|c|c|c|c|c|c|}
\hline
 & Survey coverage (per cent) & $1.90$: headcount ratio (per cent) & $1.90$: number of poor (mil) & $3.20$: headcount ratio (Per cent) & $3.20$: number of poor (mil) & $5.50$: headcount ratio (Per cent) & $5.50$: number of poor (mil) \\
\hline
East Asia and Pacific & 97.7 & 3.6 & 73.2 & 17.6 & 352 & 42.5 & 853 \\
\hline
Europe and Central Asia & 90.7 & 1.6 & 7.7 & 5.8 & 27.7 & 14.1 & 67.8 \\
\hline
Latin America and the Caribbean & 91.6 & 4.5 & 27.8 & 11.3 & 69.5 & 27.1 & 166 \\
\hline
Middle East and North Africa & 77.7 & 2.7 & 9.6 & 14.5 & 52 & 42.7 & 153 \\
\hline
South Asia & 98.1 & 15.1 & 257 & 52.6 & 894 & 83.5 & 1418 \\
\hline
Sub-Saharan Africa & 69.1 & 42.3 & 401 & 67.5 & 639 & 85.2 & 807 \\
\hline
Other High-Income Economies & 76.1 & 0.6 & 6.4 & 0.9 & 9.5 & 1.5 & 15.9 \\
\hline
World Total & 88.8 & 10.9 & 783 & 28.6 & 2044 & 48.7 & 3481 \\
\hline
\end{tabular}
\caption{Poverty estimates for reference year 2013: Comparison of April 2018}
\end{table}

Source: Atamanov et al. (2018).

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\textsuperscript{10} See Reddy and Lahoti (2015).
In advanced countries, the notion of poverty does not conform to a standard benchmark but is usually based around some country-specific minimum of family income; as such poverty has also been on the rise in many advanced economies in recent years but it is still not on the scale or to the degree of deprivation found in developing countries. Indeed, when the United States embarked on its “war on poverty” in the 1960s under President Johnson, the benchmark for defining poverty was taken as $3,000 per year for a family of 4, considerably higher than the figures used in developing countries today. Translating that figure in to 2011 dollars approximates to $8.50 per day; confirming that any contemporary “war on poverty” in developing countries is of an order of magnitude far greater than in 1960s in the United States.

What it seems reasonable to conclude from an examination of poverty numbers is that the very sharp drop in extreme poverty is to a significant extent the result of China’s strong economic performance; that excluding China, poverty trends in the era of hyperglobalization have been in the wrong direction; and that once we go beyond the extreme definition of poverty, even China has still to tackle the challenge of large numbers of poor people in its society. It seems clear that on any objective assessment, while there have been welcome strides in reducing extreme poverty in developing countries over the past two decades, these trends do not provide any basis for pronouncing an end to the development challenge and reclassifying countries on such a basis.

3.2 From reducing poverty to closing income gaps

There is, of course, a close relationship between rising per capita income and falling poverty, though distributional dynamics influence the closeness of fit. Accordingly, per capita income is often taken as the measure of a country’s development status, and comparison both among developing countries and with advanced economies is somewhat easier to make on this measure as the data is more readily available, standardized and reliable across longer time periods. This measure is the one adopted by the Bretton Woods institutions for classifying countries, with income thresholds used to distinguish groups of similar countries. Differences in per capita income across the developing world have been significant since the early 1960s; for instance, GDP per capita (in constant 2010 US$) in 1960 was $5605 in Argentina and $192 in China, almost 30 times lower! On some counts, however, it is widening differences since the mid-1990s that now make it impossible to talk about a common set of development challenges (USTR, 2019). But, much like the poverty numbers, it is difficult to draw this conclusion from a close look at the empirical evidence. Figure 2 shows the evolution of the dispersion of GDP per capita in developing countries between 1960 and 2016 with the difference in GDP per capita in relative terms between the upper and lower quartiles represented by the size of the box. This has increased during this period so indicating also a marginal increase in inequality among developing countries, with some economies (i.e. African and Latin American economies) losing ground with
respect to the small group of catch-up economies, the so-called Asian tigers (China; Hong Kong, Singapore; The Republic of Korea and Taiwan, China)

**Figure 2. Dispersion of GDP per capita among developing countries, 1960–2016**

While per capita income figures offer a better measure of development than poverty numbers they are far from providing an ideal benchmark, triggering various attempts to design more comprehensive measures of human development and wellbeing. The UNDP’s Human Development Index (HDI), which is a composite measure of economic and social criteria, offers one such measure. This indicator has risen in many developing countries over the past two decades and in a very limited number of cases (such as Singapore) has even surpassed the OECD average. But despite this progress, the HDI confirms the wide gap between developing countries and developed countries.

The index for most developing countries, including fast growing economies, is still well below the OECD average in 1990. China currently ranks 86 among 189 countries with the HDI score of 0.752, which is slightly above the world average 0.728 but lower than OECD average in 1990 (Figure 3). And for India, its HDI is 0.64, lower than the world average. Indeed, there still appears to be a high correlation between the HDI and per capita income; so, given that the later does not provide grounds for redefining countries, it is unlikely that using the HDI would lead to a different conclusion. On the contrary, it appears to confirm the large development gaps that continue to distinguish developed from developing economies.

**Source:** UNCTAD Secretariat calculations based on World Bank World Development Indicators database.

**Note:** A boxplot is a method for graphically depicting groups of numerical data through their quartiles. The median is represented by a line subdividing the box. The length of the box represents the interquartile range (IQR). Box plots also have lines extending vertically from the boxes (whiskers) indicating variability outside the upper and lower quartiles. The whiskers are drawn to span all data points within 1.5 IQR of the nearer quartile. That is, one whisker extends to include all data points within 1.5 IQR of the upper quartile and stops at the largest such value, while the other whisker extends to include all data within 1.5 IQR of the lower quartile and stops at the smallest such value. Outliers were not reported in this chart. Box plots are non-parametric: they display variation in samples of a statistical population without making any assumptions of the underlying statistical distribution. The spacings between the different parts of the box indicate the degree of dispersion (spread) and skewness in the data.
As was noted earlier, much has been made of the convergence in incomes between developed and developing countries in recent years based on accelerated growth in the latter and slower growth in the former. However, a closer look at the data shows that this too is a partial assessment. Average annual GDP per capita growth in the developing world during the 1980s and 1990s was actually lower than in the 1960s and 1970s, with convergence resulting from economic slowdown in the developed economies and accelerating growth in East Asia. The first decade of the 2000s stands out as a period of rapid and generalized growth in all developing regions but the first half of the current decade already indicates that this may have been something of an anomaly, as average growth rates in many countries in the developing world have settled back closer to the rates experienced in the 1960s and 1970s, and in some cases below those rates (UNCTAD, 2016).

Taking the period 1980–2015 in its entirety, developing countries and regions have not shown similar trajectories, with only the Asian region showing a consistent pattern of convergence. The East Asian region has been able to maintain the momentum it built up during the previous era with South Asia joining in more strongly from the start of the millennium. Even at the regional level, the ratio of GDP per capita of many country groups to the GDP of the USA remains less than 20 per cent, except for the first tier newly industrialized economies which are a little above 50 per cent. However, in terms of per capita income, given their initial starting points and the pace of convergence, only the economies of East Asia have made noticeable strides in terms of closing the absolute income gap with those countries at the top of the development ladder. Even so for the big fast-growing Asian developing countries like China and India, the absolute income gap with the United States remains very wide and, on some measures, has been widening (Table 2).

These numbers do not support the claim (with the exception of the East Asian NIEs which are still classified as developing in the United Nations statistical framework) that developing countries have graduated to a status that is comparable to advanced economies. In fact, the chances of moving from lower to middle- and from middle- to higher income groups during the recent period of globalization shows no signs of improving and have, if anything, weakened.
### Table 2. Rising income gaps between China and the United States, 2000-2016

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<td>GNI per capita</td>
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<td>43 319</td>
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<td>GNI per capita,</td>
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<td>36 930</td>
<td>34 030</td>
<td>15 480</td>
<td>58 650</td>
<td>43 170</td>
</tr>
<tr>
<td>PPP (current</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>international $)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GNI per capita,</td>
<td>940</td>
<td>36 070</td>
<td>35 130</td>
<td>8 250</td>
<td>56 800</td>
<td>48 550</td>
</tr>
<tr>
<td>Atlas method</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(current US$)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: World Development Indicators, 2019

### 4. The persistent divide between North and South

Development is, at its core, a transformational process, combining a series of interactive and cumulative process that link together in a virtuous circle of stronger resource mobilization, increasing employment, higher incomes, expanding markets, more investment and innovation, leading to better jobs and more dynamic firms better able to mobilize additional resources. Strong aggregate productivity growth is the fuel that keeps this circle going, providing the basis for rising incomes across the different stakeholders in society and policymakers the room to better manage trade-offs and conflicting interests, and, in the case of poorer countries, the material basis to narrow gaps with developed economies.

In this context, the immense appeal of manufacturing lies in its potential to generate strong productivity growth (Kaldor, 1966), and to establish wider linkages that can spread the gains across the economy through production, investment, knowledge and income flows. Several linkages deserve mention here. To begin with, expanding production can help build “backward” linkages (to source inputs for production), and “forward” linkages insofar as the produced goods are used in other economic activities (Hirschman, 1958). Intersectoral linkages emerge as knowledge and efficiency gains spread beyond manufacturing to other sectors of the economy, including primary and service activities (Cornwall, 1977; Tregenna, 2008; UNIDO, 2009). Static economies of scale (i.e. lowering unit costs owing to increasing scale of production) tend to be substantial in manufacturing. In addition, there is scope for exploiting dynamic economies of scale when capital accumulation goes hand in hand with the use of increasingly sophisticated technologies, with knowledge acquisition through learning-by-doing and with the development of tacit skills and know-how. Spillovers of skill acquisition and technological learning across manufacturing firms, and from manufacturing to other sectors through both direct and indirect channels, in turn generate further productivity increases. Consequently, the possibilities for this sector to absorb resources from less dynamic sectors and to make technological gains through continuous upgrading of products, processes, organizational patterns and market possibilities remains key to triggering virtuous development circles (Schumpeter, 1961; Gerschenkron, 1962; Amsden, 2001) and highlights the role of structural transformation in fostering sustained economic growth and development. This focus on linkages shifts the development policy debate from closing income gaps to the wider challenge of catching-up.
4.1 The Structural Divide

From 1950 to 1980, structural change in all developing regions more or less followed the pattern that development economists both predicted and prescribed. The share of agriculture in value added and employment fell, while that of manufacturing increased, along with that of other industries (utilities, construction and mining). There was, of course, considerable variation across countries reflecting differences in initial conditions and policy choices, with the most successful examples in East Asia (UNCTAD, TDR 2003: 93–94). Perhaps not surprisingly, these structural changes coincided with a period of particularly fast industrial growth rates which, with one or two exceptions, has not been replicated before or since (Benetrix, et al, 2012).

In the subsequent periods, manufacturing industry’s shares increased only in Asian economies, both for value added and for employment; they both fell in Latin America and in Africa, while manufacturing’s share in value added tumbled, the employment share barely moved (UNCTAD, 2016). Indeed, a number of developing countries have suffered “premature deindustrialization” in this period (UNCTAD, 2003; Rodrik, 2015), i.e., countries are running out of industrialization opportunities sooner and at much lower levels of income compared to the experience of early industrializers.

Data on labour productivity provides more telling evidence of this pattern and of the break in the process of structural transformation for several regions after 1980. The productivity gap between manufacturing industry in the three developing regions and the United States. As expected, Asia’s productivity gap shrank continuously over the period, most sharply in the late 1960s, but it still remains behind Latin America. However, it is more surprising (given the criticisms directed at Latin America’s and Africa’s development policies in this period) to find that, in both regions, labour productivity increased strongly in the 1960s and 1970s, keeping pace with the United States in the 1960s (Figure 4). Conversely, from the early 1980s, there appeared to be a trend towards increasing divergence in labour productivity. A similar picture describes the evolution of labour productivity in market services (Timmer et al., 2014: 13).

**Figure 4. Labour productivity in the manufacturing sector and in the overall economy, selected developing regions, 1960–2010**

*Percentage of United States productivity*

![Figure 4](image)

Source: UNCTAD secretariat calculations, based on Timmer et al., 2014.

Note: Figures in 2005 constant prices in national currencies were converted using 2005 exchange rates. Weighted averages across region.

Figure 5 shows that the size of the primary sector (excluding mining and oil) as a share of GDP in developing countries has been declining over several decades but it remains significantly greater than in developed countries. Moreover, the current levels in many developing countries remain much higher than what they used to be in developed countries several decades ago. The relative shrinking of the rural economy in China since
1990 has certainly been significant but it remains larger than in many other middle-income countries and considerably more so than in advanced economies. The shift in India appears to have stalled in the new millennium.

**Figure 5. Value added of Agriculture, Forestry, and Fishing, 1960–2017**  
*Per cent of GDP*

A. By income groups

B. Selected developing countries

Source: World Bank World Development Indicators (WDI)

This result is corroborated by employment data for 2016. High-income economies employ the great majority of the workforce in the services sector and only a tiny fraction of it in agriculture while low and middle-income ones, as classified by the World Bank, display a very different occupational structure with a substantial part of the workforce still employed in agriculture (Figure 6).
4.2 The Infrastructure Divide

That it will take many years for emerging economies from the South to enjoy levels of productivity and per capita income comparable to those of the industrialized countries emerges from a closer examination of the development prospects of the largest of these economies: Brazil, India, China and South Africa (BICS).

It is widely accepted that investment in human, social and physical infrastructure is a crucial for structural transformation, although the details of the links are still being researched. Countries that educate more of their citizens and construct extensive and efficient infrastructure networks tend to display faster growth rates, everything else equal. In this sense, in any given moment in time, we can look at these variables as "initial conditions" that have a significant bearing on the speed of the successive phases of economic development. Therefore, assessing the relative abundance of infrastructures and human capital in the BICS as compared with high income economies can help us to shed some lights on future catching-up.

The first column of Table 3 shows that the average level of education for the BICS group at the end of the 2000s was essentially the same as the one of high-income OECD countries back in 1960. The ratio between the current level in BICS and the 1960 level for OECD, is almost 1 and the average number of years of total schooling is between 6 and 7. Starting from that level, OECD countries took almost 50 years to reach the current level of income. Since recent empirical literature suggests that secondary and post-secondary education matter more for growth than primary education (Krueger and Lindahl, 2001), the second column of table 3 reports also the levels of tertiary education in BICS showing (again) that 2000s average years of tertiary schooling in these emerging Southern economies are comparable to those registered in industrialized countries in 1960.

Physical infrastructure represents another important pillar of development. To read the experience of emerging economies in a historical perspective, we consider an infrastructure indicator available from the beginning of the 1980s: rail lines. The third and fourth columns of Table 3 show how the multipliers for the total kilometre of rail lines and the rail lines density (i.e. rail lines per square kilometre of land) are both below 0.5, implying that the rail coverage in the BICS at the end of the 2000s was less than the 50 per cent of the one enjoyed by high income economies in 1980.

---

12 Calderón et al. (2011) estimated that a 10 per cent rise in infrastructure assets can directly account for an increase in GDP per capita of between 0.7 per cent and 1 per cent. Also see TDR (2018: pp 103-111)
Finally, we also compare the levels of energy consumption in the BICS in the 2000s with those registered in advanced economies along the development process. Interestingly, and in line with our previous observations, the last column of Table 3 shows that the levels of energy per capita consumed in BICS at the end of the 2000s was well below those registered for advanced economies back in 1960.

**Table 3. Education, infrastructure and energy use**

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Average years of total schooling</th>
<th>School enrolment, tertiary (per cent)</th>
<th>Rail lines (km)</th>
<th>Rail lines density (km per sq. km)</th>
<th>Energy consumption (kg of oil eq. per capita)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>2014</td>
<td>7.4</td>
<td>49.9</td>
<td>29'817</td>
<td>0.004</td>
<td>1'485</td>
</tr>
<tr>
<td>China</td>
<td>2014</td>
<td>7.6</td>
<td>41.3</td>
<td>66'989</td>
<td>0.007</td>
<td>2'236.7</td>
</tr>
<tr>
<td>India</td>
<td>2014</td>
<td>6.1</td>
<td>25.5</td>
<td>65'808</td>
<td>0.02</td>
<td>6'37.4</td>
</tr>
<tr>
<td>South Africa</td>
<td>2014</td>
<td>10</td>
<td>19.8</td>
<td>20'500</td>
<td>0.017</td>
<td>2'695.7</td>
</tr>
<tr>
<td>BCIS</td>
<td>2014</td>
<td>7.8</td>
<td>34.1</td>
<td>183'114</td>
<td>0.012</td>
<td>2'139</td>
</tr>
<tr>
<td>OECD</td>
<td>1960</td>
<td>6.7</td>
<td></td>
<td></td>
<td></td>
<td>2'669</td>
</tr>
<tr>
<td>OECD</td>
<td>1980</td>
<td>30.7</td>
<td></td>
<td>555'170</td>
<td>0.015</td>
<td>4'142.1</td>
</tr>
<tr>
<td>Ratio</td>
<td></td>
<td>1.2</td>
<td>1.11</td>
<td>0.33</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

Source: World Development Indicators

A simple back-of-the-envelope exercise, based on the simplifying assumption that the growth rates of the last 20 years would remain unchanged, suggests that it would take around 30 years for China to converge with the 1980s levels of the OECD in terms of rail lines density and more than a decade to reach comparable levels of energy consumption.

Figure 7 shows that the levels of energy consumption per capita in developing countries remains significantly lower than in developed countries and even what it used to be in these countries in the 1960s.

**Figure 7. Annual energy use, 1960–2014**

* (Kg of oil equivalent per capita)

A. By income levels

B. Selected developing countries

Source: World Bank World Development Indicators (WDI).
4.3 The Fiscal Divide

Infrastructure is, in many instances, a public good and as such is poorly provided if the market alone is left to mobilise the requisite resources for its delivery. At the same time, the public sector in developing countries is constrained in mobilizing the finance required to do the job. In general, developed countries tend to have greater fiscal space than developing countries, as they collect larger revenues as a share of GDP. This reflects a long historical process: in the early 1900s, revenues collected by the Government in the United Kingdom amounted to 15 per cent of GDP, compared with 40 per cent one century later (Clark and Dilnot, 2002); in the United States, government revenues rose from below 10 per cent of GDP to 30 per cent during the same period (Maddison, 2001).

This enlargement of the tax base was the result not only of the growth of the modern (and formal) sector of the economy, but also of adjustments in legislation, the introduction of new taxes and other fiscal charges, and their variation over time, as well as considerable efforts to strengthen tax administration and enforcement (Besley and Persson, 2013). Greater revenue collection capacity, in turn, provided the means for meeting the demands of citizens for publicly provided goods and services based on the concept of a welfare State. More generally, it permitted financing higher growth-enhancing public spending, which generated a positive interrelationship between development and fiscal space. In the period 2011–2012, developed countries, on average, collected public revenues totalling 41.5 per cent of GDP, with tax revenues alone amounting to 25.5 per cent. In contrast, during that period the total revenues and tax revenues of general government in developing countries amounted to 23.7 per cent and 16.3 per cent of GDP, respectively.

The gap between a number of developing and developed countries in terms of public revenue shares in GDP has narrowed over the past two decades, as a result of faster growth and growing domestic resource mobilization in the latter (Figure 8). Increased public earnings from commodity exports also contributed, reflecting higher commodity prices, and in some cases, changes in the terms of contracts agreed with oil and mining corporations. Yet, the Figure 8 shows that apart from West Asia, government revenues in developing countries still remain far below the ones from developed countries.

4.4 The Employment Divide

For the vast majority of people, working conditions are the best gauge of their economic and social standing. SDG 8.5 calls for “equal pay for work of equal value” and although ILO’s research indicates faster growth of real wages in developing countries compared to developed countries in past decade, the gap remains huge and there are equally striking, and telling, differences in terms of the nature of work. The informal nature of labour markets has been a long-standing characteristic difference between developed and developing countries. The latest ILO research concluded that 60 per cent of the world’s employed population earn their livelihoods in the informal economy and remains primarily a feature of developing countries. In many countries, such as India, the share of informal employment in total employment ranges between 75 per cent to 85 per cent but even in China it ranges between 50 per cent to 74 per cent, while in North America it is less than 20 per cent (Figure 9). This figure alone provides a stark reminder of which countries are truly in the advanced country category.

13 Despite this broad association between levels of income and fiscal revenues, there is obviously no benchmark for the ratio of public revenue to GDP and a significant dispersion within these groups exist. The ratio of public revenue depends as much on an economy’s capacity to furnish public revenues – and the administrative capability to collect them – as on political choice. There are significant differences in this ratio across countries at similar levels of per capita income, reflecting historical circumstances, dissimilar revenue-generating capacities and socially accepted policy choices about the role of the State. Those policy choices concern its redistributive role and the extent to which both socially important services should be delivered by the public sector, and instruments of public finance are used for macroeconomic management and to support policies for structural transformation. Having said this, one can deny the positive relationship that exist between government revenues as a share of GDP and per capita GDP across a wide range of developed, developing and transition economies.
Figure 8. Sources of Public Revenues, selected country groups: 1991-2012

**Latin America**

**Transition economies**

**East, South and South-East Asia**

**West Asia**

**Developed economies**

Source: International Monetary Fund, Government Finance Statistics
4.5 The Digital Divide

While developing countries have continued to struggle to catch-up with the developed economies, the fourth digital industrial revolution is posing new challenges for development. The digital divide is widening posing a danger for many developing countries of not just being left behind but pushed to one side (UNCTAD, 2018). Although G20 includes some of the largest developing countries, like China, Indonesia, Brazil and India, in terms of their digital development they lag behind many developed countries. The average rank of G20 developing countries in the ICT development index\(^{14}\) is 77, as compared to 15 for the developed countries (Table 4). China may be seen as a rising exporter of digital products, but in terms of its ICT Development index, it ranks lower than 79 countries in the world, while India ranks lower than 133 countries. South Africa and Indonesia also rank lower than 90 countries in the world. While only 32 per cent of individuals use internet in Indonesia and 34 per cent in India, in developed countries like Denmark, Japan, Sweden, Switzerland and the UK more than 90 per cent of individuals use internet.

In the coming years, digital divide can have serious implications on trade competitiveness of developing countries. While India is considered as one of the largest exporters of software, when it comes to be digitally prepared for international trade, India is found to be lagging far behind other developing as well as developed countries in terms of its digital infrastructure (Banga, 2019).

Figure 10 provides a glimpse of trade trends in information and communication technology (ICT) goods for developing countries. While net trade in total ICT goods is in surplus, the trend reversed if net trade in ICT electronic components is examined. These contrasting trends help to reveal the strong role of high-income economies as providers in GVCs of key components that are inputs into overall ICT goods in which developing countries are net exporters, such as computers and peripheral equipment, communication equipment, and consumer electronic equipment.

As has been well documented, GVCs are generally organized so that developing countries export final products that are assembled from imports of key parts and components from high income economies. This is especially the case in production of ICT goods, which has been one of the main sectors subject to extensive segmentation of production across borders. This structural view of ICT goods trade flows is further supported by trends in trade in value-added in which high income countries capture a large share of value-added related to GVCs and developing countries are generally relegated to low value-added tasks and production processes.

\(^{14}\) ICT Development Index is based on 11 ICT indicators, based on internet access, connectivity and affordability.
### Table 4. ICT Development Index, selected country groups, 2017

<table>
<thead>
<tr>
<th>Developed G20 Countries</th>
<th>ICT Development Index 2017 Rank</th>
<th>Percentage of Individuals using the Internet (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>51</td>
<td>76</td>
</tr>
<tr>
<td>Brazil</td>
<td>66</td>
<td>67</td>
</tr>
<tr>
<td>China</td>
<td>80</td>
<td>54</td>
</tr>
<tr>
<td>India</td>
<td>134</td>
<td>34</td>
</tr>
<tr>
<td>Indonesia</td>
<td>111</td>
<td>32</td>
</tr>
<tr>
<td>Mexico</td>
<td>87</td>
<td>64</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>54</td>
<td>82</td>
</tr>
<tr>
<td>Singapore</td>
<td>18</td>
<td>84</td>
</tr>
<tr>
<td>South Africa</td>
<td>92</td>
<td>56</td>
</tr>
<tr>
<td>Turkey</td>
<td>67</td>
<td>65</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>76</strong></td>
<td><strong>61</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Developed Countries</th>
<th>ICT Development Index 2017 Rank</th>
<th>Percentage of Individuals using the Internet (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>14</td>
<td>87</td>
</tr>
<tr>
<td>Denmark</td>
<td>4</td>
<td>97</td>
</tr>
<tr>
<td>France</td>
<td>15</td>
<td>81</td>
</tr>
<tr>
<td>Germany</td>
<td>12</td>
<td>84</td>
</tr>
<tr>
<td>Japan</td>
<td>10</td>
<td>91</td>
</tr>
<tr>
<td>New Zealand</td>
<td>13</td>
<td>91</td>
</tr>
<tr>
<td>Sweden</td>
<td>11</td>
<td>96</td>
</tr>
<tr>
<td>Switzerland</td>
<td>3</td>
<td>94</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>United States</td>
<td>16</td>
<td>75</td>
</tr>
<tr>
<td><strong>Average</strong></td>
<td><strong>10</strong></td>
<td><strong>89</strong></td>
</tr>
</tbody>
</table>

Source: ITU

### Figure 10. Net trade in total ICT goods and electronic components, developing countries, 2000-2017

Source: UNCTADstat
5. The restructuring of global production and international division of labour: is a more interdependent world also more development-friendly?

Structural change is never a purely domestic affair, indeed successful integration into the global economy through increased trade, financial and technology flows is recognized to be an integral part of any virtuous development circle. However, combining internal and external linkages is not an automatic or costless process. Nor is the right balance always an easy one to strike given the biases and asymmetries in the international division of labour. This international dimension has become even more relevant in the last two decades with the growing prominence of Global Value Chains (GVCs) and the changes in the geography of trade and production that they have brought about. Products made in one country and shipped to another for sale have been replaced by a multistage iterative process, traversing several geographic and organizational borders, each stage adding value to a semi-finished product before reaching their final market. According to the Global Value Chain Development Report 2019 more than two-thirds of world trade occurs through global value chains (GVCs), in which production crosses at least one border, and typically many borders, before final assembly. This section gives an account of this important phenomenon, discusses its impact on trade and investment flows and highlights the most critical challenges separating advanced from developing countries.

5.1 GVCs and the Changing Contours of Global Trade

Starting from the mid-1980s, trade flows accelerated with a noticeable pick-up from the turn of the century (Figure 11). Unlike during previous episodes of globalization, much of this expansion has involved exports from developing countries prompting a decline in the relative share of developed countries in world trade. The shift has become particularly noticeable since the global financial crisis with a stagnation in exports from advanced economies. While China and some other NIEs in Asia experienced a rapid increase of their manufacturing exports—based on lower unit labour costs, strong interactions between profit, investment and exports in state-targeted industrial sectors and increased regional flows among neighbouring economies—benefits to the rest of the South have come mostly from increased commodity exports, with more limited positive effects on structural change.

![Figure 11. Total gross exports, selected country groups, 1948–2016 in trillions of current of dollars.](source: TDR 2018)
The transformations unfolding during this new phase were partly driven by the fragmentation of production across national borders along emerging global value chains (GVCs). From their modest start mostly in the clothing and consumer electronics industries in the late 1960s, exchanges within international production networks have now spread to many other industries, albeit with a noticeable concentration in capital- and technology-intensive industries such as automobiles, ICT and machinery.

In this context, developing countries’ gross revenues from manufacturing as a share of their total exports increased from about one third in 1980 to about three quarters in 2000, a level at which they have remained since. Indeed, from a development perspective, GVCs are often seen to present an attainable first step on the industrialization ladder and to offer a more productive integration into the global trading system (Baldwin, 2016). The underlying belief is that increased sharing of production in tandem with trade allows developing countries (or their domestic firms) integrating the world economy “on a shoestring” without investing in all the capacities required for producing goods or services from A to Z.

However, the association between participation in Global Value Chains (GVCs) and development is not a straightforward one. Along GVCs the link between the technological content of export products and production activities may be broken. Thus, the specific task that is undertaken in a given place may be characterized by low technological content (and low value addition) even if the final output of the value chain is a high-technology good. Alternatively, the task (e.g. garment design) may have high technological or human capital content (and high value addition) even if the output (in this case, apparel) is classified as a low-technology good. Therefore, those countries unable to climb the technological ladder along the chain will appropriate only a very small share of the total value added associated to the exported product.

To illustrate the difficulties experienced by many developing economies in benefitting fully from their exports, Figure 12 depicts changes in exports of manufactures against changes in manufacturing value added, both as shares of GDP, for a diverse group of developing countries over the course of nearly 20 years. Most countries are in the upper left quadrant, indicating an increase in the total value of their exports of manufactures relative to GDP, but a decline in the share of manufacturing value added in GDP (UNCTAD, 2016).

**Figure 12.** Changes in the shares of exports of manufactures and manufacturing value added in GDP between 1991–1994 and 2011–2014

[Diagram showing changes in the share of exports of manufactures and manufacturing value added in GDP, with data for Africa, Latin America, and Asia.]

Source: TDR 2018
With business-friendly legal frameworks in place and transportation and coordination costs on a downward trend, it has become increasingly profitable for exporting firms to segment production along GVCs, exploit arbitrage opportunities for minimizing labour costs and delocalize low-value adding activities in poorer countries with limited productive capacities.

This ability of TNCs to offshore plants and related low- and medium-skilled jobs, in turn, weakened the bargaining power of labour, heightened the competition among developing countries to attract FDI and ultimately biased the distribution of productivity gains in favour of private capital owners. As shown in UNCTAD (2108), at the global level, the share of capital income in manufacturing GVCs increased by 3 per cent between 2000 and 2014. Meanwhile, the income share accruing to workers at the fabrication stage, who are good proxies for low- and medium-skilled labour declined by 3.7 points in high-income countries and 1.3 points elsewhere.

Against these downward trends, the share of labour income increased in China, particularly at the post-fabrication stage. The share of mostly low- and medium-skilled workers employed at the fabrication stage increased as well. Evidence of rising income inequality in China (e.g. Galbraith, 2012) supports the hypothesis that this increase has been driven by growing employment in manufacturing assembly lines (quantity effect) rather than by an increase in the relative wage income of those workers compared to high-skilled workers and capitalists (price effect). More recently, however, rising wages in China has meant higher unit labour costs, particularly in more labour-intensive sectors, raising concerns about a middle-income trap.

That China, along with a small number of other developing countries, has been a successful manufacturing export story is not disputed. There is less consensus on how it was able to combine internal and external linkages along a sustained growth and development path, although many see a familiar pattern from the experience of other successful economies in the region (UNCTAD, 2016; Cohen and de Long, 2016). This path has helped propel China to middle-income developing country status. However, and as suggested in previous sections, as such, China’s development challenges are still ahead of it. A sense of those challenges is provided by comparing China’s growth performance with that of Korea at similar levels of income (Table 5). While China grew more quickly than Korea at lower levels of income, this has not been the case as China has entered middle-income levels.

Table 5. Growth performance in China and the Republic of Korea at different levels of income

<table>
<thead>
<tr>
<th>GDP per capita (constant 2010 US$)</th>
<th>Time Period</th>
<th>Average GDP growth (per cent)</th>
<th>Average household consumption (per cent GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Republic of Korea</td>
<td>China</td>
<td>Republic of Korea</td>
</tr>
<tr>
<td>2000-4000</td>
<td>1972-1981</td>
<td>2002-2008</td>
<td>9.0</td>
</tr>
<tr>
<td>4000-6000</td>
<td>1982-1986</td>
<td>2009-2013</td>
<td>10.2</td>
</tr>
</tbody>
</table>

Source: Akyüz and Vicente (2017).

5.2 Export Sophistication and the Middle-Income Trap

At middle levels of income, sustaining productivity-enhancing structural transformation and economic growth becomes more challenging. On the one hand, middle income countries have reached a level of sophistication that prevents them from competing on the same grounds as low-income countries; in most cases this reflects the fact that much of the pool of underemployed rural labour has been absorbed into the modern sector, leading to a rise in real wages in urban manufacturing with further rises expected as investment continues. On the other, they still lack the institutional prerequisites and production capabilities that would allow them to diversity into a range of more sophisticated goods and to compete on international markets with advanced producers.
These dynamics partly explain why many of the countries that reach a middle-income status are unable to continue the process of income convergence with rich economies. And, indeed, while confirming the importance of export sophistication as a strong predictor of future economic growth (Haussmann et al., 2007 and Haussmann et al., 2011), recent empirical evidence also suggests that productivity-enhancing transformation and climbing the ladder of sophistication is particularly difficult nowadays (Fortunato and Razo, 2014). As transition probabilities approach their steady state, in fact, most countries get stuck in low and intermediate levels of export sophistication while only very few developing economies eventually manage to climb to the top of the sophistication ladder. These results are depicted in Figure 13, where countries are divided along 5 different groups depending on their initial level of export sophistication.

**Figure 13. Evolution of the proportion of countries in each sophistication group**

Source: Fortunato and Razo (2014)

Let us focus our attention on Group 3, 4 and 5 which include those countries at medium and low levels of sophistication and contained over the two thirds of the sample countries at the beginning of the period. The figure shows that only a small percentage of this economies, around the 9 per cent, manage to climb the ladder of sophistication while the great majority of them remain trapped in Group 4 and 5. The export sophistication is still out of the grasps of the developing countries.

Furthermore, even when developing economies manage to export relatively sophisticated and advanced technology products (APT), exports data can be misleading without considering the hierarchy and governance of GVCs illustrated above. China’s ATP exports, for example, have grown rapidly since the mid-1990s, but many Chinese companies still largely perform assembly operations that are located at the lower value-added segments of GVCs – the classic case being China’s low-end role in the global supply chain of the Apple iPhone. Moving away from this pattern depends on countries employing a full range of trade and industrial policies and by implication having as wide a policy space as possible to do so. China’s success, to date, has reflected this effective use of policies, though its size has given it additional advantages unavailable to many other developing countries who have seen their policy space diminished through a plethora of free trade agreements and bilateral investment treaties (UNCTAD, TDR 2014, 2016).
5.3 Market concentration and IPRs

Beyond the area of consumer electronics, however, China’s efforts to compete in higher value-added and technology-intensive sectors is confronted with significant market barriers and high degrees of market concentration by large corporations largely based in high-income countries (Table 6). Arguably, this trend has worsened since the global financial crisis of 2008 (UNCTAD, TDR 2017, World Economic Outlook, April 2019).

While sustained economic growth in East Asia has seen the emergence of successful international firms from this region their footprint remains comparatively much smaller and is often found in non-tradeable sectors, such as construction, and remain heavily lopsided towards the domestic market.

<table>
<thead>
<tr>
<th>Industrial sector</th>
<th>Number of firms</th>
<th>Global market share (per cent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large commercial aircraft</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>20-90 set commercial aircraft</td>
<td>2</td>
<td>75</td>
</tr>
<tr>
<td>Automobiles</td>
<td>10</td>
<td>77</td>
</tr>
<tr>
<td>Heavy duty trucks</td>
<td>4</td>
<td>89</td>
</tr>
<tr>
<td>Heavy and medium duty trucks</td>
<td>5</td>
<td>100</td>
</tr>
<tr>
<td>Fixed-line telecoms infrastructure</td>
<td>5</td>
<td>83</td>
</tr>
<tr>
<td>Mobile telecoms infrastructure</td>
<td>3</td>
<td>77</td>
</tr>
<tr>
<td>Personal Computers</td>
<td>4</td>
<td>55</td>
</tr>
<tr>
<td>Mobile handsets</td>
<td>3</td>
<td>65</td>
</tr>
<tr>
<td>Smartphones</td>
<td>3</td>
<td>75</td>
</tr>
<tr>
<td>Plasma TVs</td>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>LCD TVs</td>
<td>5</td>
<td>56</td>
</tr>
<tr>
<td>Digital cameras</td>
<td>6</td>
<td>80</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>10</td>
<td>69</td>
</tr>
<tr>
<td>Construction equipment</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>Agricultural equipment</td>
<td>3</td>
<td>69</td>
</tr>
<tr>
<td>Elevators</td>
<td>4</td>
<td>65</td>
</tr>
<tr>
<td>Soft drinks</td>
<td>5</td>
<td>&gt;50</td>
</tr>
<tr>
<td>Carbonated soft drinks</td>
<td>2</td>
<td>70</td>
</tr>
<tr>
<td>Beer</td>
<td>4</td>
<td>59</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>4</td>
<td>75</td>
</tr>
<tr>
<td>Athletic footwear</td>
<td>2</td>
<td>55</td>
</tr>
</tbody>
</table>


Reflecting the rise of China in global trade and finance, the number of Chinese top TNCs has increased over the past two decades from zero to about 200. Although they are taking a growing share the profits of top 2000 TNCs (17 per cent in 2015), it is less than half the share of the top TNCs headquartered in the United States (Starrs, 2014). And the same holds for market capitalization; the average capitalization of a Chinese big-tech company, for example, is around half that of an American counterpart. Furthermore, TNCs headquartered in other developing countries accounted for less than 10 per cent of top TNCs profits in 2015, much the same
share as it was before the decade long commodity boom. Even within this, it should be borne in mind that an unknown fraction of the small profit share accruing to top Southern TNCs actually accrued to Northern investors owning shares in these companies.

Another noteworthy indicator from a commercial perspective is global brand ranking, which shows the very wide gap between developed and developing countries in terms of the capability of reaping commercial benefits globally. The Brand Consulting Group of Omnicom Group produces a such ranking, Interbrand. And according to the latest available list of Interbrand, among top 100 brand globally, 99 are owned by the corporates based in OECD members. Only one brand, Huawei, is owned by a Chinese private company. Either Fortune 500 or Interbrand just provide certain commercial angle, which may not reflect the macroeconomic status or overall social advancement.

The high degree of concentration of economic activities in developed economies is reflected also in the data on royalties from IPRs. While the receipt of royalties of developing countries has been increasing over the past 25 years, these economies typically also pay royalties for intellectual property embedded in foreign technologies used in the domestic economy (payments). In this regard, a more insightful indicator would be to examine trends in net royalty receipts of IPRs rather than in absolute terms.

Figure 14, provides trends in net receipts of IPRs by country income categories, confirming the clear divide between developed countries with strong positive net receipts of IPRs and developing countries with negative net receipts of IPRs of varying degrees. Due to their relatively more sophisticated economies that are likely more reliant on use of foreign technologies, it is no surprise that upper-middle income and middle-income countries have larger negative net receipts of IPRs than that of lower-middle income and low-income countries.

Nonetheless, the overall distinction between developed countries and developing countries still holds, as only high-income countries receive positive net royalty payments of IPRs.

**Figure 14. Net Receipts of Intellectual Property, By Country Income Categories, 1995-2017**

These observations are reinforced by examining trends in net royalty receipts of IPRs for selected developed and developing countries. As seen in Figure 15, while developed countries such as the United States, Japan, and Germany have positive net IPR royalty receipt positions (particularly the United States), the same cannot be said for developing countries such as China, Brazil and India, which have negative net IPR royalty receipt positions (particularly in the case of China).
The trends explored above are consistent with data from the United States Patent and Trademark Office for the number of patents granted in the United States’ economy, the largest in the world. Similar to Figure 16, patents granted to developed countries far outpace those granted to developing countries. By this measure, Republic of Korea has attained the same level as Germany, but China has only recently surpassed the levels of India and Brazil and remains far below the number of US patents granted to United States entities.

5.4 Foreign Direct Investment

While global value chains, intellectual property and branding remain very much under the control of large international corporations from the North, a potential compensation for developing countries integrating into a global economy dominated by these same firms is that they are also the major source of FDI. The expectation is that this not only brings additional capital but a whole package of other benefits that can help boost productivity and competitiveness.
Over the last three decades, against a backdrop of expanding global FDI flows and the proliferation of trade and investment agreements, attracting FDI has become a singular policy aim for many developing countries. However, some caution is required when using FDI stocks and flows as criteria to discriminate among developing countries.

The composition of inward flows has certainly shifted towards developing countries during recent decades and developing countries have also become more visible as home countries. However, that rising share has largely occurred in the period since the global financial crisis as the flow to advanced economies has dropped sharply and the stock of inward FDI in developing countries remains well below that of advanced economies; indeed, if China (including Hong Kong, China) is excluded the stock figure for all developing countries is less than that of the United States (Figure 17). In the case of China, flows increased rapidly in the 1990s and early 2000s but have levelled off since the crisis, averaging less than half the inflows to the US in the period since the crisis. Overall, China’s share of total developing country inflows has reached the 20 per cent in 2017.

Rising flows have been heavily concentrated in terms of location and sectors. US and EU accounted for the almost a half of global FDI inflows in 2017 while Africa, Latin America and transition economies altogether do not even reach the 15 per cent. Furthermore, although in 2017 investment in project activity picked up in some manufacturing industries, such as chemical products and electronics, overall greenfield announcements in the manufacturing sector remain relatively depressed in a long-term perspective. This is especially true for developing economies; investment project activity in manufacturing has been consistently lower during 2013–2017 than during the previous five-year period across Africa, Latin America and the Caribbean, and developing Asia. The bulk of greenfield investment takes place in the services sector (especially finance and utilities) which explains over the 50 per cent of global flows. This trend is even more evident when we look at cross-border M&As; the 60 per cent of purchases accrue to services and the absolute majority of this figure is explained by the financial sector alone (UNCTAD, 2018b).

![Figure 17. Inward FDI Stock, Selected Countries and Groupings, 1995-2017](image)

A further note of caution should be made about inward FDI statistics. First, as seen in Figure 18, four Caribbean countries (Bermuda, Bahamas, Cayman Islands, and British Virgin Islands) have a higher level of inward FDI stock than Germany, Sub-Saharan African countries, and Republic of Korea. A recent paper from the IMF has described these as “phantom” investment flows and estimated them at 40 per cent of total flows (2018). Further, recent studies such as that by the Peterson Institute for International Economics (PIIE)\(^{15}\), have provided

a warning about the reliability of official measures of FDI flows, considering a surprisingly high degree of correlation between quarterly FDI inflows and outflows. The study suggests that a large proportion of officially measured FDI inflows are simply flows going in and out of the country on their way to a destination, with the final stop related in part to favourable corporate tax treatment. Moreover, officially measured FDI flows appear to behave like volatile portfolio debt flows, which are more responsive to short-term movements in US interest rates rather than to medium-run fundamentals of the host country.

China has not only become the largest recipient of inflows but also the most important source of outward FDI from the South.\textsuperscript{16} Still, the distance from advanced economies is even greater; China’s outward stock is still smaller than the Netherlands, an economy one fifteenth its size.

More importantly, however, caution is needed in assessing the connection between inward FDI, both stocks and flows, and the level of development, or indeed development potential. This is in part because of huge statistical problems surrounding the definition and measurement of FDI\textsuperscript{17} but also because the impact of FDI (on employment, capital formation, the balance of payments, growth, etc) is difficult to determine but can be both positive or negative. The empirical evidence makes generalizations difficult; as shown in Figure 19, for

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\textsuperscript{16}A certain portion of those flows appear to involve “round tripping” as domestic investors channel funds through Hong Kong, China to take advantage of various benefits from doing so

\textsuperscript{17}See Vernon (1984).
example, ASEAN countries as whole have received more inward FDI stock than China, but it is questionable if economic catch-up in ASEAN countries is further advanced than in China’s case. Moreover, of the selected developing countries in Figure 19, Republic of Korea is the most technologically advanced, but has received the lowest amount of inward FDI stock. What seems to matter, in the end, is what policy tools are available to developing countries to make sure the positives from hosting FDI outweigh the negatives (Akyuz, 2018).

6. Conclusions

This paper has examined the economic gaps that continue to divide developed from developing countries and has argued that these remain significant despite the gains in some countries over the past 25 years. The fact that some gaps have closed (and some widened) more than others does not provide the basis for removing the designation ‘developing’ as a useful way of examining the persistent gaps, biases and asymmetries in the global economy and the daunting policy challenges those countries are facing in the 21st century.

Aggregating these trends into a single composite measure of development is impossible since development is a multi-dimensional challenge, including economic, social and environmental areas, as also noted in the 2030 Agenda for Sustainable Development. The analyses undertaken in the paper shows that the number of people living below poverty lines has in fact increased, with 64% of total number of poor in the world residing in South Asia and Sub-Saharan Africa. Trends in the human development index (HDI) also confirms the widening gap between developing countries and developed countries and even the large developing countries like China and India rank 86 and 130 among 189 countries in HDI. The absolute income gap between China and the US continues to remain wide and on some measures is widening and the chances of catching- up with developed countries, i.e., moving from lower to middle - and from middle to higher income groups has become even more difficult in the recent period of globalization.

This paper provides empirical evidence of widening gaps between developed and developing countries in terms of structural divide; infrastructure divide; employment divide and digital divide. A number of developing countries are suffering from “premature deindustrialization.” Infrastructure remains a persistent challenge, for example the rail coverage in the large developing countries like Brazil, India. China and South Africa at the end of 2000s was less than 50 per cent of what high income countries had in 1980 and levels of energy per capita consumed in these countries is well below those consumed by advanced countries in 1960. Along with weak infrastructure developing countries, including countries like China and India, have growing unemployment as well as rising share of informal employment in total employment, as high as 75 per cent to 85 per cent in India and 50 per cent to 74 per cent in China. Adding to the already severe development challenges are those posed by the growing digital divide.

While China is considered an emerging digital leader, in terms of its ICT Development index it ranks lower than 79 countries in the world. India has only 34 per cent internet users as compared to more than 90 per cent in most of the developed countries. While it is not disputed that China and a small number of developing countries have been successful in increasing their share in world exports, including in the digital sphere, the structure of global markets and their control by firms predominantly located in advanced economies, points to the ongoing integration challenges facing all developing economies.

Given these various trends and future challenges, and given the commitment of the entire international community, including its most advanced members, to achieving a more inclusive world by 2030, there are no grounds for changing the terms on which special and differential treatment (SDT) has been agreed for developing countries. Indeed, if anything, in light of the ambition of the 2030 Agenda, the call should be for more not less. SDT was recognised and remains a way for developing countries to align trade integration with their various development priorities including poverty alleviation, employment generation, food security, economic diversification, etc. Developing countries may be at different stages of development, but they continue to face the same biases and asymmetries in the global economy and similar development challenges.

In the specific case of the WTO, members decide for themselves if they are to be considered “developing countries”. While there are a small number of countries with unique features (city states and countries with small populations and large commodity deposits) which lend themselves to higher per capita incomes, these
countries also classify themselves as developing since they also face the challenge of a development path dictated by outside forces which brings policy challenges that are familiar to the majority of other developing countries. There seems to be no reason in the evidence to change this practice.

Since 1947 when GATT was signed, more than 100 developing economies have joined the GATT/WTO, making it a meaningful Multilateral Trading System rather than a “richman’s club”. It is widely agreed that SDT and “self-declaration” are the key factors which have encouraged developing economies to join the WTO. Without SDT, these developing countries would have been more reluctant to do so or contribute substantively to the Uruguay Round negotiations, which gave birth to the WTO. Further, there is no evidence to prove that the DDA negotiations impasse is caused by SDT or self-declaration approach. On the contrary, the impasse has reflected the fact the development deficit in the WTO has not yet been addressed.

The question of whether countries should be allowed to self-declare their development status or not brings focus on a more fundamental issue; does the WTO, which is essentially a trade-rulemaking organization with trade delegates, have the capacity to define and measure development? Unlike UN, the WTO is not a development agency. Also being classified as a “developing member” in the WTO is not associated with any resource transfer implications like lending facilities. In the WTO, developing member status allows for more flexibility to adopt the negotiated multilateral trading rules in the domestic economies. The presence of this flexibility has allowed the WTO negotiations to move forward and build confidence of developing countries that they will be able to adapt the negotiated rules to their local specificities. And only developing economies themselves have adequate knowledge of their local conditions to decide whether they should be categorized as developing members to avail SDT or not.

Further, if sustainable development goals (SDGs) are taken as a criterion to have an encompassing definition and indicators of development, then there are 17 Goals with 169 targets and 238 indicators to be considered. These include hunger, poverty, employment, health, education, gender equality, clean water, clean energy, decent jobs, etc. There will be serious challenges within the WTO to identify any criteria or a standard definition of development for deciding which members need SDT as ‘no one size fits all’.

Differentiating between developing countries on a subset of criteria is therefore a skewed exercise which may cause further problems in concluding the Doha Development Round in the WTO which needs to be prioritized if trust in the multilateral trading system is to be restored and a path to move forward is found to meet the many other challenges facing the international community in the 21st century.
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