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TOWARDS A PROGRESSIVE INDUSTRIAL POLICY IN TIMES OF GLOBAL VALUE CHAINS AND FREE TRADE AGREEMENTS

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CONTENTS

ABSTRACT

Participation in global value chains (GVCs) and entering into free trade agreements (FTAs) are both being propagated as springboards for industrial development in developing countries – through greater access to export markets and increased foreign investments. However, domestic value generation in socially inclusive and ecologically protective ways is essential for sustainable development trajectories. While GVCs constitute opportunities for developing countries to become part of the global economy, to absorb knowledge and technology and add value to their products, evidence shows that both the entry of developing country firms into GVCs and their ability to generate domestic value addition are conditional upon the level of their national technological capabilities. Developing countries' participation and upgrading in GVCs therefore cannot take place without active industrial policy interventions to build up national technological capabilities, while guiding investments towards increasing returns activities in order to generate domestic value addition in a sustainable manner. Against the backdrop of rising inequalities and the urgent need to adopt climate change-mitigating development strategies, this means that developing countries need progressive industrial policies to achieve socially inclusive and ecologically sustainable structural transformation.

However, the deeper and broader provisions in FTAs signed by developing countries put significant constraints on their ability to pursue such progressive industrial policies and therefore on the ability of developing countries to generate domestic value addition sustainably in the context of the growing challenges faced with the spread of GVCs. WTO (World Trade Organization)-plus provisions in FTAs have also heightened the risk of international arbitration of states by foreign private corporations through the inclusion of investor-state dispute settlement (ISDS) provisions. These raise the development costs of policy failures by restricting states' regulatory space and through regulatory chill.

This paper throws light upon some of these issues using the case of India and offers suggestions in the context of the negotiations on the Regional Comprehensive Economic Partnership (RCEP), a proposed mega-FTA aiming at greater integration in the Asia-Pacific region. It argues that failing to factor in the industrial policy causalities involved in sustainable development, the dynamics involved in the spread of GVCs and the assessments of the available evidence on the impact of existing FTAs can prove costly for the development trajectories of these economies, including India. It is therefore suggested that RCEP-negotiating countries should bring an alternate agenda to the negotiating table to maintain space for progressive industrial policies. The discussion in this paper shows that a central component of such a strategy would particularly involve rethinking FTA provisions on investments.

An overview with a focus on India[1]

1 The views expressed in this study are those of the author. She is grateful for the most useful comments received from Cedric Durand and Roland Kulke, which helped in improving the paper immensely. However, the author is solely responsible for any errors and omissions.

INTRODUCTION

The industrial dynamics of global value chains (GVCs) dominated by multinational corporations has spread across the world due to extensive and intensive trade and financial liberalisation carried out by developed and developing countries since the early 1990s. Simultaneously, there has been growing consolidation of firms globally in many segments of value chains, leading to significantly increased market power for those firms. Together, both these have changed the competitive landscape facing developing country firms in their domestic as well as export markets. In such a scenario of an increasingly integrated global economy with fragmented value chains, growing corporate power, as well as rapid technological advances, developing countries face significant challenges in framing policies that will help them achieve sustainable development. With growing trade deficits, rising inequalities within countries and the increasingly visible problems associated with climate change, it is evident that economic development trajectories must involve domestic value generation, socially inclusive livelihood generation and ecological protection in order to achieve sustainable development.

These challenges require sovereignty for developing countries at different stages of development to formulate flexible national policies to ensure economically, socially and ecologically sustainable paths of structural transformation, which are responsive to emerging developmental challenges. However, their ability to carry out such policies, which we call progressive industrial policies, has been under serious restriction under the World Trade Organisation (WTO) regime that has sought to harmonise policies and regulations at the multilateral level. This has been further compounded by the fact that many of these countries have entered into a complex web of bilateral and regional free trade agreements (FTAs). Under these agreements, countries have made binding policy commitments that are stricter and more liberalising than those under the WTO. Apart from involving greater tariff liberalisation by bringing more products under tariff reduction/elimination, FTAs include more harmonising provisions related to rules on investments and intellectual property rights as well as many other national regulatory areas. Furthermore, through the inclusion of investor-state dispute settlement (ISDS) provisions, they have heightened the risk of international arbitration of states by foreign private corporations for putting totally legitimate public policies in place. As a result, FTAs severely impinge on the policymaking sovereignty of developing countries.

On the one hand, it has been advocated that both integration into GVCs and signing FTAs are the springboards for industrial development in developing countries – through greater access to export markets and increased foreign investments. On the other side, several provisions in FTAs put significant constraints on the progressive industrial policy space of developing countries to generate domestic value addition sustainably in the context of the growing challenges faced with the spread of GVCs.

This paper attempts to throw light upon some of the issues involved in this debate, with a focus on India, one of the BRICS (Brazil, Russia, India, China and South Africa) economies considered pillars of an emerging multipolar world. With the share of manufacturing in GDP stagnant at around 15–16% since 1980 (despite extensive and intensive trade and financial liberalisation), India's policymakers have pinned their hopes on greater integration into GVCs to help revitalise the manufacturing sector. The country has signed multiple FTAs over the last few years, including the ones with the Association of Southeast Asian Nations (ASEAN), South Korea, Malaysia and Japan. It is also negotiating more FTAs, including with the EU, as well as a mega regional FTA. The paper hopes to make suggestions in the context of India's ongoing negotiations, in particular, those on the Regional Comprehensive Economic Partnership (RCEP).

RCEP is one of the two proposed mega-FTAs aiming at greater integration in the Asia-Pacific region, the other being the recently concluded Trans-Pacific Partnership (TPP). Beginning in May 2013, the RCEP negotiations are currently being undertaken between Australia, China, India, Japan, New Zealand, South Korea and the ten members of ASEAN. While six of these (Australia, Brunei Darussalam, Malaysia, New Zealand, Singapore and Vietnam) are members of the TPP, RCEP involves another major BRICS economy, China and also, two major Asian lead industrialisers, Japan and South Korea. RCEP offers the possibility to alter the rules of the game in favour of a more balanced FTA approach that retains and strengthens the available policy autonomy of developing countries to carry out progressive industrial policies. The paper attempts to offer suggestions in this context.

After a discussion of the economic rationale for industrial policies in developing countries in the following section, Section 3 analyses how the spread of global value chains has heightened the imperative for industrial policy in developing countries. This is followed by a discussion in Section 4 on the nature of WTO-plus constraints imposed by FTAs and their implications for progressive industrial policies. The focus is on FTA provisions, especially in the areas of investment and technology policies, apart from industrial tariffs, with the aim of drawing out the implications of their inter-linkages for sustainable development. Given that India has pursued some such agreements recently, India's FTAs with ASEAN, South Korea and Japan are discussed from this angle. The discussion in this section is interspersed with analysis of the available space for progressive industrial policymaking in developing countries. The paper concludes by making suggestions on what policy approach could be adopted by the countries involved in the RCEP negotiations.

REVISITING THE ROLE OF INDUSTRIAL POLICY

Development literature recognises structural change, away from primary sectors to industry and further to services as the central process of economic development. It has also been recognised that an increase in productivity – that gives rise to high real wages and demand creation in an economy – is determined by the presence of increasing returns activities.[2] Only increasing returns activities have the ability for capital accumulation (by enabling market control/pricing power through imperfect competition, innovations, control over natural resources or raw materials, etc. all of which enable generation of profits), which can be reinvested in productive activities. For sustained investments that are needed to maintain this, the market power of economic entities needs to be strengthened and protected in a time-bound fashion by the state through policies aimed at market protection, market expansion, technological upgrading, etc. That is, targeting, promotion and protection of domestic production in increasing return activities are necessary because of their ability to create employment and wage incomes (for creating demand in the economy and tax revenue for the state); create wealth (for reinvestments in more productive capacities and consumption); and solve balance of payment problems – to avoid vulnerability due to external debt build-up (Reinert and Reinert, 2005). At the same time, the state also has to develop the productive capacities of its population through investments in education and training, for the diffusion of knowledge and for bringing in technological change. Thus continuous investments in increasing returns activities and the generation of human skills and knowledge – both of which lead to productivity gains and sustained demand needed for further investments – are integral to the cumulative causations that lead to development. This understanding on achieving development also stresses the synergies between the primary sector and the increasing returns activities.[3]

In this process, countries can build up their economic infrastructure and develop by importing capital, raw materials, inputs and technology. But in order to acquire the international reserve currency or currencies that will finance their imports, countries need to export (Perez and Ali, 2006). In the earliest stages of economic development, for countries rich in natural resources, production and exports largely consist of primary commodities based on natural comparative advantage, while imports comprise mainly manufactures, both capital and labour-intensive products. However, history shows that rich natural resources, even when combined with a well-developed human resource base, do not automatically lead to processing and diversification of the economy (Akyuz 2005, p. 17). This is because while primary products face low income elasticity of demand, the income elasticity of their demand for imports of manufactured products is high.[4] As a result, countries rich in natural resources face declining terms of trade for their exports,[5] which in turn leads to worsening of their external payments position. Given that the latter prevents capital accumulation, depending solely on primary exports curtails the ability of the country to carry out the investments needed towards processing and diversification. For this reason, even though commodity processing provides early industrialisation opportunities, the possibilities of maintaining rapid development through deepening and diversification in the primary sector are limited. This problem is compounded by the fact that significant levels of protection

2 Increasing return activities are those activities for which expanding the scale of production using more units of the same factor of production (land, labour and/or capital) leads to a decline in the cost per unit of output. That is, the larger the volume of output, the lower is the cost per unit of output, generating economies of scale. Increasing returns activities therefore lead to increased productivity growth. This is true of manufacturing and some service industries. In fact, the Kaldorian version of Verdoorn's law captures a positive long-run relationship between labour productivity and output growth in increasing returns activities.

3 See the detailed discussions in Jomo and Reinert (2005) and Kattel, Kregel and Reinert (2009).

4 This follows from Prebisch (1950) and Singer (1950), which relate the size of the elasticity parameters of exports and imports to the manufacturing and technological content of the products exported and imported. The income-elasticity of demand for exports increases as we move up the value-added chain from commodities to semi-processed goods and labour- and resource- intensive goods, then to manufactures with low, medium and high skill and technology content (Ali and Perez, 2006).

5 Terms of trade refers to the relative price of exports in terms of imports. When terms of trade are on a declining trend, the amount of import goods that can be purchased by a country with a given amount of export goods goes down.

face developing country primary exports entering developed country markets, with more highly processed commodities facing higher levels of protection (or "tariff escalation") (Wade 2005, p. 11). Therefore, active policies designed to promote diversification away from activities based on natural or existing comparative advantage and to create new sectors with higher productivity potential are required to achieve the capital accumulation required for sustained development. The increasing returns associated with modern industrial production and technological progress has therefore been recognised as crucial for achieving development (Jomo and Reinert 2005, Akyuz 2005, Kattel, Kregel and Reinert 2009). Given the increasing returns and high income elasticity of demand associated with them, manufactured products allow for more rapid productivity growth and also avoid the declining terms of trade that have foiled the growth prospects of many commodity-dependent economies.

Thus, in order to avoid the balance of payments problems associated with primary goods exports in the initial development stage, it is necessary to expand other exports along with primary exports by first developing the domestic manufacturing industry. Export of manufactures can generate productivity growth both within and across industries and sectors (United Nations Conference on Trade and Development (UNCTAD) 2016, p. 99). Apart from the scale economies that give rise to increasing returns, this also arises from manufacturing activities' ability to give rise to economies of scope (i.e., capabilities in one set of activities lowering the cost of engaging in other). By creating capabilities and processes that improve productivity in a continuous and cumulative way, these economies of scale and scope contribute to raising productivity in a dynamic way.

But as recognised by classical development economists, the promotion of manufactured exports in developing countries first requires an increase in production through import substitution policies/infant industry protection for the following reasons (Kattel, Kregel and Reinert, 2009).

> Import protection is required to ensure an increase in demand for domestically produced manufactured goods so that their production will be scaled up to levels that will yield economies of scale.
> Protection of selected manufactured goods also enables increased productivity growth – through learning by doing, training and associated externalities – which can make these products more competitive in the domestic and world markets.
> Initially, there is a need to restrict imports of goods other than capital goods (mainly consumption goods), also for saving the use of limited foreign exchange for importing capital imports.

Typically, at the introductory stage, a new product is introduced in a developing country via imports or FDI from countries at a higher stage of development and the follower country learns to produce these goods for itself through imitation or borrowed technology. But in each stage of industrialisation, even as existing industries mature and become competitive export industries, a new set of infant industries would need to be nurtured simultaneously to become competitive. This is because rising costs, limits to productivity growth and competition (from countries catching up from behind) would eventually lead to loss of competitiveness in traditional/existing industries. In each stage, investments have to be guided into activities that would involve greater productivity and thus higher wage potential than before, such that there is an increase in demand that will keep the growth cycle going. This would involve reducing risks and augmenting profits in activities and industries deemed important for future growth (Wade 1990, Amsden 2001 and UNCTAD 2016). The post-war consensus was that targeting/protection should focus on increasing returns activities such that the resulting virtuous circles of productivity growth and wage growth act as barriers to entry for competitors in the domestic market, as well as give domestic producers the so-called "first mover advantage" in international

markets.[6] These virtuous circles of growth create their own demand and the financing required to make the process sustainable (Kattel, Kregel and Reinert, 2009).

Theoretically, foreign capital could also help underdeveloped economies overcome the vicious cycle of low domestic savings (and low capital formation) associated with the low productivity of primary sector dependence in the early stages of development. While all forms of international capital flows (long-term borrowing, official aid, portfolio flows and foreign direct investment) allow host countries to invest more than they save, foreign direct investment (FDI) has been traditionally known to be distinct from other forms of capital flows in providing host countries with technology and export market access along with stable forms of capital.[7] In fact, recognising the scope of financial markets to generate erratic movements in exchange rates that are detrimental to industrial development, the post-war international monetary arrangements included restrictions over short-term capital flows to maintain currency stability (See Akyuz 2007 and Polanyi 2005).

However, whether in the form of official aid or FDI, foreign capital's role in development is restricted, unless it is channelled mostly to savings and investment, rather than to an increase in import-dependent consumption. This in turn requires that these strategies must be used together with the targeting of increasing returns activities (Kregel, 2007). This is because there is a tendency for foreign aid and foreign-invested firms to finance an increase in imports. The additional imports thus financed could lead to displacement of whatever little domestic industrial production exists in a poor country and prevent further industrial development. Together with the adverse terms of trade in primary exports, this leads to adverse balance of payments situations, which then makes a country dependent on further foreign financing to balance the current account. Thus foreign financing becomes unsustainable as the current account becomes dominated by interest payments and profit remittances that exceed capital inflows, causing net capital outflows, depreciation of the domestic currency and further economic problems for the developing country.

That developing countries should embark on a path of internally-led growth through domestic industrialisation strategies was therefore considered as a given in the 1950s and 1960s. In the successful "developmental states" of East Asia (post war Japan, followed by South Korea, Taiwan China and Singapore), import-substituting industrialisation policies based on direct state activity as well as regulation of markets was combined with export promotion measures. Along with regulated trade policies and targeting of increasing returns activities, this involved public investment in physical and social infrastructure and government expenditure to ensure public provision of essential goods and services.

Even so, the sustained growth and industrialisation experienced by the late industrialisers of East Asia until the second half of the 1990s had led to the 'flying geese' paradigm being adopted to explain the pattern of industrial restructuring and development of the countries in this region.[8] For the late-industrialiser, a version of the 'flying geese' model hypothesised that FDI (rather than imports) by firms from mature industries in a more advanced economy accelerates import substitution and export expansion of new products and industries in the less developed host economy and enables its rapid catching up and industrial restructuring. The export success achieved by South Korea, Taiwan China and Singapore during the 1970s and 1980s, followed by

6 Firms that benefit from the productivity growth achieved in domestic markets can enter first into the export markets for a particular product, which enables them to further benefit from the economies of scale and scope (offered by export markets) before others do. This gives them a strategic advantage in moving first. However, there is an assumption here, as Kregel (2007) emphasizes, that developing countries' exports of even simple manufactures like textiles necessarily depend on the older industrial countries adopting trade policies that support, or at least do not discriminate against, developing country exports of manufactures.

7 These distinctions have become blurred with the advance of financial liberalisation and problems in the way in which FDI is defined in many countries. See Francis (2010).

8 The growth sequence of imports, domestic production and exports typical of late-industrialising developing countries was first highlighted by the Japanese economist Kaname Akamatsu (1943 and 1961) in the case of Japan.

Thailand and Malaysia and other South East Asian countries, especially until the 1996 Asian financial crisis, was propagated as having followed the flying geese pattern of industrial development. Japan was the original lead goose offshoring production in its mature industries (such as textiles, electronics, etc.) to successively cheaper locations in neighbouring countries at different stages of development, in a manner mutually beneficial to home and host countries. The underlying hypothesis is that capital accumulation and technology transfer brought about through FDI and forward and backward linkages of foreign-controlled production facilities with indigenous firms across industries lead to an upgrading of the host country industrial structure. The underlying assumption is that there is a natural or automatic inclination for the progression from FDI-led industrial production growth to import substitution and then, to exporting by the host country (Francis, 2003).

However, contrary to what a once-for-all technology transfer process implies, technology development is cumulative and dynamic in nature, involving acquisitive, operative, adaptive and innovative capabilities (Francis, 2003). Thus, if FDI is to lead to technology upgrading and diffusion enabling industrial upgrading in the host economy, then the production of foreign-affiliated firms in the country must be linked to indigenous firms in the supporting and related industries in that country. Looked at from another perspective, this means that indigenous technology development (and other forms of technology transfer such as technology licensing, sub-contracting, etc.) should take place along with FDI, for the purpose of breaking the cycle of foreign technology dependence. Clearly, indigenous technology capability development is a 'strategic choice' to be taken by the host country, necessary for attaining sustainability even in the case of FDI-aided industrial upgrading.[9]

FIRM-LEVEL EXPLANATIONS OF THE NEED FOR PRODUCTIVITY GROWTH

This becomes clearer when we look at the requirements for sustained competitiveness at the firm level. Let us consider that a country's entry into export markets in a sector may come about from a combination of the following possibilities (Francis, 2003):

1. Direct entry into export markets by indigenous firms;
2. An export strategy of foreign-owned/affiliated firms; or
3. Indirect entry of indigenous firms through sub-contracting or other non-equity forms of foreign alliance.

In any of the above scenarios, an increase in the price competitiveness of domestic products vis-à-vis export competitors[10] becomes a necessary prerequisite for entry into export markets and expansion in exports.[11] Relative price competitiveness of a country's products may improve in either of the following ways:

1. Subsidisation of domestic production to offset higher productivity of domestic producers in a variety of ways (such as tax concessions and subsidised credit);
2. Presence of exchange rate advantage for exports through devaluation;
3. Increase in productivity; which could come about due to increased availability of competitive factor inputs because of the presence of a diversified domestic industrial structure, faster increase in labour productivity in comparison to wage rise, or improved technology, or alternatively, through improved access to competitive and higher technology imported inputs, etc.

9 See also Lall (1996, p. 61).

10 Here, a firm that is competitive in export markets is assumed to be competitive against import competition in the domestic market also. However, this may not always be the case, such as when a developing country firm's export success occurs in LDCs (Least Developed Countries) while it is unable to compete in developed-country markets.

11 Clearly, external demand is a critical determinant factor too, whether for entry into export markets or for expansion in exports of any product; whether of low value added or of high value added products. However, external demand is an exogenous variable over which national policymakers have very little control. See the discussion in Francis (2015a).

In the case of the first two options, it is ambiguous as to what extent they could offer price advantages beyond the short term, given that many countries are providing such tax or credit incentives, or when the currencies of economies that are competing in similar export segments may be depreciating simultaneously. Furthermore, devaluation is not often a policy option in an open economy dependent on volatile foreign capital inflows to finance its current account deficit. It is also not a viable option in an economy with a growing external debt to GDP ratio. Equally importantly, devaluation may not lead to an increase in net export earnings, if exports are significantly import-dependent (Francis, 2015a). Increase in productivity achieved through liberalised access to competitive imported inputs and intermediate products – a significant incentive for carrying out extensive tariff liberalisation by many developing countries – will also not be long-lasting, given that the importing country can end up in an unsustainable trade deficit situation in the absence of domestic industrial upgrading (Francis and Kallummal 2013 and Francis 2015a). Only upgrading of indigenous industrial and technological capabilities that make competitive factor inputs available domestically and enable the introduction of higher value-added and more advanced products successively leads to structural transformation in a sustainable manner.

Although industrial growth accelerated throughout much of the developing world after the Second World War at varying rates, the only countries to manage structural transformation and technological upgrading in a dynamic sense were in East Asia.[12] The rich literature on the history of industrial policy in the technologically advanced early and late industrialisers (Wade 1990, Lall 1996, Amsden 1992, Amsden 2001, Chang 2002, UNCTAD 2003, UNCTAD 2014, etc.) has shown how these countries made use of various forms of strategic industrial policies, which combined a mixture of import substitution and export promotion measures simultaneously and succeeded in setting priorities and in building the domestic linkages required for virtuous development cycles (see also Akyuz 2005 and UNCTAD 2016). These have involved "comparative-advantage defying" measures to engineer a shift towards higher value added and employment-generating activities with high income elasticities and more capacities for creating synergies through knowledge creation. They have also included policies to enable domestic forward and backward linkages as well as performance requirements on foreign direct investments (FDI) to support sustainable industrial development and structural change towards higher value added activities. The risk of failure associated with selective state promotion has been managed, with mechanisms for monitoring performance, observing underperformance and either rectifying or removing State assistance (Lall 1996, Amsden 2001 and UNCTAD 2016). Such industrial policies were combined with macroeconomic policies that allowed stable exchange rates and financial stability. These strategies had important implications for the subsequent industrial development trajectories in these countries. The development history of today's developed countries – such as the US, the UK and Japan – also clearly shows that the policies adopted by these countries had all made important departures from the rhetoric of the periods in which they were underdeveloped.

THE SHIFT TO HORIZONTAL INDUSTRIAL POLICIES

Although industrial policy began to be shunned in international policy discussions with the advent of structural adjustment from the 1980s onwards, it surfaced again under the Washington Consensus. However, the approach to development under the latter shifted the focus away from capital accumulation (for productive investments) to a reliance on improved efficiency in factor allocation led by market forces. Accordingly, the policy prescriptions by international financial institutions like the International Monetary Fund (IMF) and the World Bank shifted to "passive" or horizontal industrial policies. These essentially accept existing factor endowment-based comparative advantages and mainly aim to reduce the costs of doing business through broad policy measures for improving infrastructure, energy supply, business regulations, etc., while invoking

12 "This reflected, to a large extent, the ability of the State to mobilise resources for a big investment push out of agriculture and for increasing industrial investments. However, as the easy stages of industrialisation were crossed, greater effort was needed to diversify production and find new and dynamic markets, both at home and abroad." (UNCTAD 2016, p. 177)

trade and financial liberalisation to allow greater play of market forces. "Passive" industrial policies are quite in contrast to "active" or vertical industrial policies that were practiced and continue to be practised by some of the late industrialisers, such as China and Brazil (UNCTAD 2016, p. XIV). Such vertical industrial policies have sought to influence the trajectory and pattern of industrial development and structural change by active policy interventions that guide and promote investment towards new activities and sectors with higher productivity, better paid jobs and greater technological potential – i.e., increasing returns activities (UNCTAD 2014, p. 92). However, since the 1990s, along with the spread of an export-led economic growth paradigm, there has been a much wider shift towards passive industrial policies across the developing world, driven primarily by their Uruguay Round (UR) commitments on tariff liberalisation and trade-related investment measures (TRIMs) and trade-related intellectual property rights (TRIPS) under the WTO from 1995 onwards (more later). Assessments made by the WTO Secretariat show that the share of non-agricultural tariff lines[13] that were bound[14] at the multilateral level by developing countries in 1995 increased from 21% to 73% (Dhar and Das 2015, p. 257).[15]

Some countries, like India, undertook unilateral liberalisation that went much beyond their multilateral commitments at the WTO, bringing down tariffs even further, while also liberalising their FDI regimes in ambitious drives towards attracting FDI for achieving East Asian-like perceived "FDI-driven export-led growth under passive industrial policies". However, as we will see in Sections 3 and 4, other developing countries (especially China) continued with the more strategic vertical industrial policy approach to widen and deepen their industrial development. Many developed countries, such as the US and those of the EU, have also continued practising vertical industrial policy, even if their goals were often hidden and not couched in traditional industrial policy terminology (UNCTAD 2014 and UNCTAD 2016, p. 177–8.)

By the mid- to late-2000s, there was recognition that the Washington Consensus policies had not led to the desired effect in developing countries (Rodrik, 2008). On the contrary, a significant volume of research began to emerge discussing industrial stagnation, deindustrialisation and middle-income traps in developing countries (Wade 2006 and Felipe et al. 2012). Around the same time, the policy discourse on industrial development saw a broad shift from trade liberalisation as the panacea for underdevelopment to participation in global production networks (GPNs) and global value chains.

13 WTO negotiations for trade liberalisation in industrial products take place under "non-agricultural market access" or NAMA.

14 The MFN (Most-Favoured-Nation)-bound tariff rate is the rate above which a country cannot raise its tariffs in a particular product for imports from any WTO member.

15 It increased from 78% to 99% in the case of developed countries.

GLOBAL VALUE CHAINS: REINFORCING THE NEED FOR PROGRESSIVE INDUSTRIAL POLICIES

Considering global value chains (GVCs) as offering an opportunity for developing countries to integrate faster into the global economy and achieve rapid export growth and industrial upgrading, increasing participation in GVCs has become a clichéd feature in the industrial development programmes of governments and multinational development organisations (e.g. Organisation for Economic Co-operation and Development (OECD) 2013, WTO et al. 2013, etc.). The argument is that rather than having to develop entire new products or break into extremely competitive markets on their own, such networks enable participating developing country firms to specialise in specific segments of the production process or segments of a multitude of value chains, starting at the relatively accessible bottom (UNCTAD 2016, p. 119). The associated policy recommendations typically focus on horizontal industrial policies, together with further liberalisation of trade and FDI policies. This section tries to examine whether horizontal industrial policies are sufficient to make use of the opportunities provided by GVCs.

THE SPREAD AND DYNAMICS OF GVCS

Global value chains refer to the fact that the different components in the value chain of a product[16] have fragmented across national borders through multiple linkages across firms coordinated (and thus dominated) by transnational corporations. Rapid advances in information and communication technologies and a decline in transportation costs on the one hand and policy changes that have liberalised trade and financial flows (FDI and non-FDI investments) on the other side, have been important handmaidens in the spread of GVCs. Growth of GVCs has been, in turn, a catalyst in promoting further trade and financial liberalisation policies.

The literature on international production networks and value chains since the 1990s has pointed to the various kinds of networks of cooperative agreements that have emerged in different industries, beginning with textiles and electronics across East Asia in the 1960s. Apart from technology cooperation networks (for technology exchange and joint technology development), GVCs involve: producer or supplier networks;[17] cooperative arrangements for co-production; buyer networks;[18] and standards coalitions[19] (United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) 1991, Lall 1996, Ernst 1997, Gereffi 1995, Dicken 1998 and UNCTAD 2016). These networks involve both intra-firm transactions of Multinational Corporations (MNCs) with their affiliates, as well as their arms-length transactions with non-affiliated firms in different countries. As a result, GVCs have become increasingly dense, contributing to an increase in vertical and horizontal integration along value chains.

16 These are: the pre-production stages involving research, design and development; production process stages involving procurement, manufacturing and assembly; and the post-production stages of marketing, trade, servicing and disposal. Transportation, logistics, etc. are overarching service sector components in a value chain. More recent understandings of value chains adopt a cyclical system view as the flow of products from primary production to consumption, with a focus on resource use, waste management and recycling. See for instance, United Nations Industrial Development Organization (UNIDO), (2015).

17 These involve sub-contracting and a variety of other arrangements such as original equipment manufacturing (OEM), original design manufacturing (ODM), contract manufacturing, etc.

18 These involve forward linkages of manufacturing companies with distributors, marketing channels, value-added resellers and end users, in order to increase penetration of existing markets or the development of new markets. While manufacturing sector MNCs control producer-driven value chains, buyer-driven value chains are controlled by commercial capital (retailers and marketers such as Walmart, Nike, Starbucks, etc.). Buyer-driven value chains usually occur in labour-intensive consumer goods industries, such as apparel, footwear and toys (Gereffi 1999). On the other side, outsourcing and producer-driven value chains are more common in capital- and technology-intensive industries such as automobiles, electronics and machinery (UNCTAD 2016, pp. 118–9).

19 Such networks are initiated by potential global standard setters with the explicit purpose of locking-in as many firms as possible into their proprietary product, architectural, or interface standards, especially relevant for electronics industry, but increasingly true in many others such as food processing, pharmaceuticals, automobiles, etc. See UNESCAP 1991, Lall 1996, Ernst 1997, Gereffi 1995 and Dicken 1998.

Gereffi (2014) has argued that the business model underlying international production networks is built on asymmetric governance relations, where lead firms shape the distribution of risks and profits in their favour. Consequently, these global players have the power to impose disadvantageous contract conditions on developing country participants (UNIDO, 2015). Suppliers whose products are easier to produce or who are replaceable by lead buyers (buyer-driven value chains, such as garments) and producers who are dependent on suppliers of advanced inputs and technology that cannot be easily sourced elsewhere (producer-driven value chains, such as in electronics) are usually at the receiving end of imposed contract conditions. Hence, lead players maintain a higher share in value addition due to their ownership of well-established brand names, proprietary technology such as patents and trademarks, or access to exclusive information on different input and product markets (UNIDO 2015, p. 21)

EVIDENCE ON DEVELOPING COUNTRIES' GVC PARTICIPATION

The fact that developing countries' share in global exports of manufactures greatly increased is often cited as an evidence for the beneficial impact of globalisation: this share increased from less than 20% in 1995 to about 30% in 2014 (UNCTAD 2016, p. 106). This increase, however, happened in the context of a decline in the share of manufactures in global merchandise exports, which fell from about 76% to about 67% over this period (UNCTAD 2016, p. 103, Chart 4.1). Furthermore, there has been a weakening of developed country markets as a destination for developing country exports and *relative increase* in the prominence of South-South trade. But the rise of both North-South and South-South trade in manufactures is attributable mainly to Asia. West Asia and North Africa, sub-Saharan Africa and Latin America and the Caribbean exhibited a growing trade deficit in manufactures between 1980 and 2013 (UNCTAD 2016, pp. 106–9). These patterns have been associated with the fact that most international production networks are not only regional in nature, but are also highly concentrated within the Asian region (UNCTAD 2014 and UNCTAD 2016, p. 106).

BARRIERS TO GVC ENTRY AND UPGRADING FOR DEVELOPING COUNTRY FIRMS

The increased participation of developing countries in global trade of manufactures has however, in itself generated greater competition between developing countries and. The simultaneous pursuit of export-led strategy in similar low value added products by several developing country exporters has compressed price (and ultimately wage) growth even for the most successful manufacturing exporters in Asia. As a result, the terms of trade (measured as the ratio of export prices to import prices) for developing-country exporters of manufactures declined at an average annual rate of 1.5% between 1980 and 2014. In the case of Asian exporters of manufactures, this drop was higher, at 1.5% (UNCTAD 2016, p. XI).

Both greater competition among developing countries and declining trends in their manufactured export prices have strengthened the bargaining and pricing power of lead MNCs based predominantly in developed economies.[20] This has led to a consolidation of power (Nolan 2012, Ernst 2015, UNCTAD 2014, p. 104–5) and increasing appropriation of profits by lead firms. The investment strength, ownership of proprietary assets (such as patents, copyrights, etc.),[21] and expensive branding strategies of lead firms have thus increased the competitive challenges for firms from developing countries trying to enter production networks (UNCTAD 2014, United Nations Economic Commission for Africa (UNECA) 2016 and UNCTAD 2016, p. 121).

Moving up the value chain into more capital-intensive or higher value-added production is particularly challenging in such an environment, because in the first place, it necessitates relationships with lead firms

20 A recent examination of the national profit shares of the top 2000 corporations by sector shows the continuing dominance of firms from the advanced countries, particularly the United States. UNCTAD (2014, p. 104–5).

21 Owners of intangible assets (R&D, design, marketing and branding) are based on unique resources and capabilities that other firms find difficult to acquire and they are therefore sources of superior returns (Kaplinsky, 2005).

(UNCTAD 2014, p. 104–5). However, evidence from analysis of ongoing experiences of developing country firms that participate in production networks have shown that successful GPNs tend to contract and rely on local suppliers who have both the capabilities to absorb the knowledge disseminated by the networks and meet the standards of production required by them. Many developing countries and LDCs that do not have some minimum level of technological capabilities thus have not been able to benefit from even the production segments of GVCs (UNCTAD 2012, p. 41).

Therefore, if participation in GVCs – whether directly by developing country suppliers or by the setting up of production by MNCs in a developing country through foreign investment (FDI) – is to happen, producers have to be at a minimum level of technological capability. Thus GVC entry is crucially dependent on whether the existing industrial and technological capabilities in the country offer higher productivity levels than other competing countries for the specific segment of the production process involved (Francis and Kallummal, 2013). Only with entry, there is potential for gaining market shares in the supply of primary and intermediary products, or for upgrading and entering segments of higher value addition.

Currently, a considerable proportion of the production, exporting and innovation of this kind is occurring only in a few developing countries in East Asia as well as China, Brazil, India, etc. (UNCTAD 2012, p. 39–41). However, as the Technology and Innovation Report (2012) shows, these emerging capabilities are clearly observed to be supported by growing R&D investments domestically. These countries had a greater share of patents and earnings from royalty and licensing fees generated domestically.

Furthermore, with some exceptions in South-East Asia, most developing country producers tend to be part of labour-intensive, buyer-driven chains (UNIDO 2015, p. 21). Pressure from lead firms and other suppliers to keep labour costs low raises the risk of developing countries becoming locked into low-value-added activities. This makes it more difficult for them to upgrade their economies in the longer run (UNCTAD 2012). UNIDO (2015) has shown that Africa's participation primarily remains in upstream production of low-value commodities. As discussed in Section 2, such current patterns of global integration by developing countries would tend to reinforce ongoing production patterns owing to the features associated with low-productivity activities.

Making use of the technology upgrading opportunities that exist within GPNs, especially those that allow them to progress from manufacturing to designing and onward to becoming original brand creators, a number of firms in developing countries have become originator firms of GPNs in some sectors. However, despite the appearance of firms from some emerging economies, mainly China, in select sectors, their ability to climb the value chain remains a challenge. The electronics sector is telling. According to Starrs (2014) quoted in UNCTAD 2016, despite being the largest exporter, China accounts for just 3% of the share of profits derived from this sector. This has been related to the low contribution of GVC participation to domestic value generation.

CONTRIBUTION OF GVC PARTICIPATION TO INDUSTRIALISATION EFFORTS

Overall, there was an increase in the technological intensity of exported manufactures over the period 1980–2013 (UNCTAD 2016, p. 110). For many developing and transition economies, however, even when the commodities exported are classified as being of medium or high technological intensity, there is not much of this type of manufacturing activity overall. While at one level this reveals the limited scale of success in exports of manufactures, the processing of intermediate goods for export that results from the spread of GVCs also needs to be considered (UNCTAD 2016, p. 110).

As well known, production sharing between countries involved in GVCs typically involves the import of inputs for assembly or additional processing as well as the export of intermediate goods for assembly or additional processing by third countries. Consequently, there is an expansion in two-way trade between countries

involved in such production networks and in particular, in two-way trade in intermediate goods.[22] According to UNCTAD (2016), trade in intermediate goods amounted to 46% of total merchandise trade in 2014. But given the significant proportion of two-way trade in intermediate products associated with the rise of GVCs, the technological sophistication embodied in the goods exported by developing countries may not coincide with the exporting country's contribution to them.

This is corroborated by the weak evidence for a positive causal connection between GVC participation and industrialisation (UNCTAD 2014 and Banga 2013). While much of the Asian region shows a clear and strong positive association between GVC participation and industrialisation, developing countries in other regions show the opposite relationship.[23] That is, the positive contribution of GVCs to structural change in Asia does not apply to other regions (UNCTAD 2016, pp. 118–9). This has weakened the overall causal relation between GVC participation and industrialisation.

Evidence shows that when increases in the foreign value added of exports (in backward participation)[24] occurs in a larger context of greater production and exports of manufactures (as in Cambodia and Vietnam, for instance) then GVC participation can complement industrialisation and structural change. However, this might not happen if increasing backward participation in GVCs reflects a reduction of domestic sourcing in a context of weak export performance for manufactures.[25]

On the other side, the extent of forward participation in GVCs (measured as the share of domestic value added in foreign export-oriented manufactures) might be expected to be higher at both low and high levels of industrialisation than at the middle. At the lower stages of development, forward participation in GVCs occurs through the supply of relatively unprocessed goods to foreign markets, while at the higher development stages, it occurs because of shifting out of processing into the types of headquarter activities that accompany greater technological development. Again, evidence put together in the Trade and Development Report (UNCTAD 2016, pp. 118–9) reveals that Asian countries show a strong negative correlation between changes in forward participation and manufacturing value added. The former result could reflect the fact that, except for Singapore and Hong Kong, which might offer higher value added services and fit the category of headquarter activities, the forward participation of many other Asian countries considered in the analysis might be through the supply of relatively low value added products to foreign markets. This will translate into a negative relationship between forward engagement in GVCs and manufacturing value added.

In many cases at present, especially in electronics and automobile GVCs, developing countries are involved in 'assembly networks' as assemblers, rather than the producers of technology-intensive parts and components (UNECA, 2016, p. 216). In the absence of industrial policies to promote linkages between local firms and MNCs, or improved national technological capabilities, the experiences of Mexico and Central American countries as assembly manufacturers and the performance of the electronics and automotive industries in Eastern and Central Europe have been found to involve only limited success. While there has been significant "internal upgrading" within MNC affiliates, it has involved very few spillovers to the domestic economy in the form of productivity improvements and imitation by domestic firms, partly due to limited linkages of MNCs with local firms and labour markets.[26]

22 See Athukorala (2003), Fukao, Ishido and Ito (2003), Haddad (2007), etc.

23 This is established through mapping the association between changes in the import content of export-oriented manufactures (a common measure of backward participation in the GVC literature) and changes in manufacturing value added as a share of GDP between 1995 and 2011 for all developing countries for which data were available. See Chart 4.7 in UNCTAD 2016, p. 120.

24 See Banga 2013.

25 Francis and Kallummal (2013) and Francis (2015b) discuss how the net impact of production restructuring effected under production networks could lead to a decline in domestic sourcing/production.

26 See the country case studies referred in UNCTAD (2016, pp. 118–9).

As a result, calculations based on the OECD-WTO database on Trade in Value added (May 2013) showed that while 67% of total global value created in GVCs accrued to OECD countries, the share of NICs and BRICs countries was 25%. Only 8% of total value added was attributed to all other developing countries and LDCs (UNIDO 2015, p. 21).

That is, under extensive trade liberalisation and passive industrial policies, export-oriented manufacturing takes place in an enclave manner, where manufacturing inputs get increasingly outsourced from lower cost producers abroad that are part of international production networks. As discussed in Section 2, the effect of importing cheaper intermediate products can be positive for productivity at the firm (or industry) level despite the very low domestic value addition. But growth in overall production relative to total employment may slow down as a result, such that the process becomes unsustainable (Francis 2015a and UNCTAD 2016, p. 113). This productivity-reducing type of structural transformation has been occurring in Africa and Latin America, as well as Eastern and Central Europe (as discussed earlier). This has been found to be the case in the Indian electronics industry as well (Francis 2016). That is, while assembly of technology-intensive products does contribute something to the local productive capacity, learning to produce parts and components is critical in taking the country to higher levels of technological capabilities (see Khan 2009, Francis 2015a, UNECA 2016).

GROWING CHALLENGES IN PROGRESSIVE INDUSTRIAL POLICIES

It is thus clear that while GVCs constitute opportunities for developing countries to become part of the global economy, to absorb knowledge and technology and add value to their products, the very entry of developing country firms into GVCs is conditional upon their level of technological capabilities. Moreover, participation of developing countries in GVCs at low value added positions within the chain with limited productivity externalities and domestic linkages does not lead to the kind of structural transformation that leads to sustained industrial development. Productivity-enhancing structural change can be obtained only in the case of specialisation patterns that are more conducive to technological upgrading than others, even when they are combined with the right forms of public investment and policy support (UNCTAD 2016). This is again related to the point discussed in the second section; that only increasing returns activities have the ability to lead to productivity growth and externalities required for generating virtuous cycles of growth. This necessitates a role for active industrial policy interventions that guide investment towards and improve increasing returns activities. All these point to the reinforced need for vertical industrial policies to support developing countries' participation.

This is further enhanced by the urgency for developing countries to respond to the growing challenges arising from climate change. As Zarsky (2010) has conceptualised, climate-resilient development is a socio-economic trajectory that generates and sustains human livelihoods in ways that both mitigate and adapt to global climate change. Central to mitigation is the transition to non-carbon energy sources. For developing countries, mitigation will primarily consist of ensuring that new investments are based on low-carbon and/or renewable energy (Zarsky 2010, p. 8). Many of the emerging green technologies are also dominated by developed country MNCs. In the light of the above discussion, it is clear that there is an urgent need for progressive industrial policies to support such new technologies and ensure sustainable development.

Meanwhile, as we saw, the development efforts of countries have already been affected adversely by the trade liberalisation and regulatory commitments undertaken by them under the WTO since 1995, which prohibits the use of several progressive industrial policy measures. Even as the growing reach of GVCs increases the challenges in development policymaking, the use of progressive policy instruments are being further constrained under the FTAs signed by developing countries.

WTO-PLUS INDUSTRIAL POLICY CONSTRAINTS IN FTAS AND THEIR IMPLICATIONS

Developed countries began to shift their trade diplomacy towards bilateral and regional free trade agreements (FTAs) to achieve further market access for their manufactured exports once it became evident that deeper trade liberalisation in developing countries would make less progress under the WTO's multilateral route. As the US began pursuing bilateral FTAs with willing countries after the collapse of the WTO Seattle Ministerial Conference in 1999,[27] it led to the drive by the other developed countries to initiate FTA strategies. The pull factors for developing countries in the Asian region, including for India, included perceptions of heightened competition brought about by ASEAN and China's export success (Francis, 2015b). The initiation of the negotiations for China's entry into the WTO drove ASEAN members – many of which feared competition with China in third-country markets on MFN basis – to pursue various bilateral FTA initiatives at the individual and the bloc levels concurrently, in order to seek preferential access to their major markets. For instance, while Singapore, Thailand, Malaysia, etc. have bilateral FTAs with Japan, South Korea and India (among others), ASEAN as a regional grouping also has FTAs with Japan, South Korea and India. Some of these are termed comprehensive economic cooperation agreements or comprehensive economic partnership agreements. Given that the ASEAN economies were already part of several production networks, ASEAN's regional trade integration and investment liberalisation initiatives pushed these economies further along trajectories driven by MNCs. But while ASEAN's initial regional market initiatives had focused only on investment liberalisation (apart from consolidating regional free trade), the FTAs that came into force in the region subsequently have begun "disciplining" national investment/industrial policies (Francis 2015b).

Under these agreements, countries have made binding policy commitments that are stricter or more liberalising than those under the WTO, which go beyond greater tariff liberalisation to include regulatory aspects that severely impinge on national policymaking sovereignty. Provisions in some FTAs on trade-related investment measures, intellectual property rights (IPR), agriculture, services, public procurement, etc. are examples for WTO-plus requirements. Many FTAs have also expanded their coverage to areas beyond those covered under the WTO, such as investment, competition, environment, labour, human rights, etc. These have been referred to as WTO-extra provisions (Berger, Brandi and Bruhn, 2016). Given that most of the WTO-plus deeper commitments relating to investment, IPR, services, etc. have been included in the FTAs through the incorporation of what have been referred to as WTO-extra provisions (that is, through the investment chapter), this dichotomy seems forceful. In this paper, we categorise all the above as WTO-plus provisions. Evidence shows that North-South agreements, in particular, those with the United States (US) generally contain a larger number of enforceable WTO-plus commitments than either North-North or South-South agreements (see, for example, Thrasher and Gallagher 2008, WTO 2011, Kohl et al 2013, UNCTAD 2014, p. 86–7). However, South-South FTAs also have increasingly included WTO-plus provisions (Kumar 2007, Sauve 2007, Kohl et al 2013, etc.). This section provides an overview of the provisions that impinge most directly on the policy space for progressive industrial policies, with a particular focus on India. India is currently involved in 18 bilateral and regional FTAs,[28] and most of India's FTAs since 2005 contain WTO-plus provisions (Francis, 2015b).

27 Prior to that, the North American Free Trade Agreement (NAFTA) that came into force in 1994 with Canada and Mexico was the only FTA that the US was involved in.

28 India's major bilateral and regional FTAs include those with Sri Lanka, Thailand, the South Asian Association for Regional Cooperation (SAARC) and ASEAN countries, the Asia-Pacific Preferential Trade Agreement (APTA) (involving Bangladesh, Sri Lanka, South Korea, Laos and China), India-MERCOSUR Preferential Trade Agreement (PTA), the PTA with Chile, Comprehensive Economic Cooperation Agreements (CECAs) with Singapore and Malaysia, Comprehensive Economic Partnership Agreements (CEPAs) with South Korea and Japan, etc. See http://commerce.nic.in/trade/international_ta.asp?id=2&trade=i

WTO-PLUS TARIFF LIBERALISATION IN FTAS

Increase in market access through WTO-plus tariff liberalisation is one of the cornerstones of all FTAs. FTAs members have to reduce tariffs on "substantially all" goods traded between them to be allowed an exception from the WTO's most-favoured-nation treatment.[29] Even if a WTO member country has brought down its applied tariff levels in several industries through unilateral liberalisation (as India has done[30]), it has the flexibility to raise its applied tariffs in any industry/product to the level at which it has bound multilaterally at the WTO if the need arises. However, under FTAs, developing countries have brought down duties on several more tariff rates and bound them at significantly lower levels (often at zero or in the 0–5% range) with FTA members. For instance, in the ASEAN-China FTA, trade was liberalised in 98% of all tariff lines, including trade in agricultural products (Sauve, 2007). This is one of the important ways in which policy flexibility has been lost for promoting particular manufacturing industries in developing countries. These countries should have the option of using tariffs on a selective basis as and when needed for industrial upgrading while remaining subject to multilateral disciplines (Akyuz 2007, p. 11). Liberalisation of agricultural tariffs in developing countries also has adverse impacts on sustainable development trajectories through its impact on farm livelihoods and, not the least, by weakening the domestic inter-sectoral linkages between the production of local raw material and intermediate products and the manufacturing sector.

If we consider the Indian case, more than 31% of India's NAMA tariff lines were unbound at the multilateral level at the commencement of the Doha Round in 2001 (Department of Commerce Annual Report, 2009–10). However, in its FTAs with ASEAN, Japan and South Korea, India committed to reducing or eliminating tariffs in almost all consumer goods, capital goods and intermediate goods. These include products belonging to industries such as organic and inorganic chemicals, metal and metal products, electrical and non-electrical machinery industries, etc., which have gone far beyond the country's commitments under the WTO, including under the Information Technology Agreement (ITA-1)[31] (Francis, 2016). Pursuant to such WTO-plus tariff liberalisation, the combined market share of 25 FTA partners in India increased from 28.4% in 2007 to 30.4% in 2014. On the other side, even among 13 major FTA partners,[32] India's share in an FTA partner's total imports increased in a stable manner between 2007 and 2014 only in three countries, namely, Brazil, Japan and Nepal. In fact, as a result of the higher degree of market penetration in India by FTA partners, India has experienced a higher level of import dependence on her FTA partners, as compared to world at large.

Another fallout of India's non-strategic WTO-plus tariff liberalisation commitments under bilateral or regional FTAs is found in the inverted duty structures faced by several domestic end- product manufacturers as a result of the fact that tariff liberalisation under FTAs has not been undertaken within a strategic industrial policy framework. This has compounded the post-WTO problems facing domestic manufacturing sector producers. The focus currently is on reducing tariffs on intermediate goods to increase the competitiveness of final products exports. The dilemma here that if the government brings down tariffs on parts and components

29 There is no agreement at the WTO as to what constitutes "substantially all trade". However, the European Union has interpreted it as requiring 80% of tariffs to be removed. US FTAs often require the developing country to remove all of its tariffs on U.S. products (Smith, 2010).

30 As a result of the WTO-plus tariff liberalisation by India since 1995, India's average applied tariff (for all non-agricultural tariff lines) stood at around 11% in 2015, while average bound tariff was 34%. See Dhar and Das (2015, p. 261). Bound tariffs are the customs duty rates committed by a WTO member at the multilateral level; a country cannot raise its applied tariff on a particular product above the bound level. Raising tariff rates above the bound levels requires abiding by rules on applying safeguard measures. See Thrasher and Gallagher (2008; pp. 21–23) for a discussion on the same.

31 The ITA-1 is a sectoral WTO agreement signed by a group of WTO member countries that eliminated tariffs on 165 electronics products. The countries that signed on to it had to extend zero duties on these products to all WTO members. See Kallummal (2012) for an in-depth discussion of trade liberalisation under the ITA-1 and its impact and Francis (2016) for details and impact of the additional tariff liberalisation under the FTAs, on the Indian electronics industry.

32 Here major FTA partners are defined as those partners holding at least a 1% share in India's total exports.

significantly to improve the competitiveness of end-product manufacturers, it will reduce whatever possibilities exist for promoting domestic production of parts and components (Francis 2015a). As argued in Section 2, the ultimate objective should be to ensure that locally produced intermediate products achieve the necessary productivity to become competitive against imported intermediates; without this, the country will become progressively more import-dependent with medium- and long-term consequences. Thus it will be critical to employ progressive industrial policy measures to simultaneously promote employment-generating domestic production and improve its productivity, while mindful of the need to move away from carbon-intensive technologies. The scope for such policies has to be seen against the backdrop of the available policy space under the WTO and FTAs.

WTO-PLUS INVESTMENT POLICY CONSTRAINTS IN FTAS

Investment chapters and provisions are a major WTO-plus feature of several FTAs in the sense of having both broader and deeper regulatory commitments.[33] While several bilateral investment treaties (BITs) have been in existence to protect foreign investments into developing countries, there is no evidence to confirm any direct relationship between a country signing BITs and foreign investment inflows into that country (Francis 2013 and Singh & Ilge 2016). Despite this, many recent FTAs have involved detailed provisions to liberalise and protect all kinds of investments, all of which impinge upon space for progressive industrial policies.

While the US was the trailblazer in putting in place WTO-plus investment provisions in its agreements with developing countries, beginning with NAFTA, the failure of developed countries' attempt to incorporate investment in the 2003 WTO Cancun Ministerial through a Multilateral Framework on Investment seemed to drive the entry of investment provisions into other North-South and South-South FTAs from around the mid-2000s. This was promoted by a segment of the mainstream academia analysing the potential dynamic effects of FTAs.[34] According to Ali and Perez (2006), this approach argues that the dynamics effects of an FTA can increase economic growth rate through its effects on factor accumulation (investments) and justifies the introduction of free capital mobility into FTAs (Francis 2015b).

A "nuanced" argument behind the promotion of FTAs in Asia (particularly in the context of India) has been that increasing India's participation in preferential trade agreements, especially involving the East and Southeast Asian economies, would lead to dynamic and efficient industrial restructuring within the region led by MNCs, given the diversity in the levels of economic development, economic structure and capabilities of the countries in the region (Kumar 2007a, 2007b). Furthermore, India will also gain from greater specialisation, economies of scale and learning-by-doing that will accrue from being part of global production networks/global value chains (Francis and Kallummal 2013 and Francis 2015b).[35] It is also argued that the consequent increased preferential market access to intermediate products from partners will increase the competitiveness of India's final goods exports.

However, as the evidence in the previous section showed, MNCs' location decisions are crucially influenced by the technological capabilities of the host country for the particular production process that they plan to relocate. Given that broader FTAs with cumulative rules of origin enhance the possibility of sourcing inputs from the larger region at preferential rates or duty free (Francis and Kallummal 2013 and Francis 2015b), this shifts the nature of incentives facing foreign producers against undertaking domestic production in countries

33 This discussion on investment provisions builds on the conceptual framework and analysis in Francis (2015b) and Francis & Kallummal (2013).

34 This is in contrast to the static effects, which are due to the greater efficiency that arises because FTA members can import more from "lower-cost" producers in their partners instead of from "higher-cost" domestic producers. See Francis (2015b) for a detailed discussion.

35 See Kumar ed. (2004), Batra (2006), Francois, J, P B Rana and G Wignaraja (2009), Das (2009) and Park et al. quoted in Francis and Kallummal (2013).

without the required capabilities. Deep and broad trade liberalisation also increases domestic firms' incentives for importing raw materials and intermediate products from FTA partners. Both of these would lead to an eventual decline in domestic value addition (and output and employment losses) in particular countries,[36] even as there might be an increase in the volume of exports and imports involving the FTA partners. This was observed in the experience of the Indian electronics industry with drastic trade liberalisation under the ITA-1 and the FTAs with ASEAN, South Korea and Japan (Francis 2016, Kallummal 2012 and also Ernst 2014). Furthermore, India's overall export performance (Francis, 2015a) also clearly shows that an increase in export competitiveness that is mainly attributable to greater access to cheaper imports from FTA partners has not been sustainable.

While the above points to the challenges of maintaining local production by domestic and foreign producers under region-wide tariff liberalisation, investment chapters in FTAs compound this problem by restricting the space for progressive industrial policies, which are required for creating other policy-led "incentives" for domestic value generation (e.g. through the imposition of performance requirements on foreign investors). Two major inter-related aspects of investment chapters in FTAs are important in the context of this paper. The first one relates to the broad definition of investment employed by them and the associated problems. The second relates to an expanding set of binding regulatory commitments that restrict FTA members' ability to apply policies related to the operations of foreign investors (termed "treatment of investment") and other commitments that oblige members to guarantee protection of the investments that come under the purview of the FTA ("covered investments"). It is important to note that commitments under FTA investment chapters are also applicable to investments in the services sectors, even if they are not liberalised under the WTO's General Agreement on Trade in Services (GATS).[37] Otherwise, services sectors must be explicitly listed in the investment chapter as exemptions from national treatment[38] and MFN treatment[39] at the time of signing the FTAs. This is important for keeping ample space for adopting progressive industrial policies, as we will discuss subsequently.

One of the major problems with the investment chapters in FTAs has been the asset-based definition of investment adopted by them, which typically states that "investment means every kind of asset". This means that all the policy commitments that a government undertakes in such an investment chapter is binding upon all kinds of foreign investments in a developing country, irrespective of whether they are FDI, portfolio investments, lending, investments in derivatives, or investments in government debt instruments (sovereign debt). Moreover, most of these investment definitions often cover a broad range of non-financial assets (called "intangible assets") owned by foreign investors, such as intellectual property rights, business concessions, leases and mortgages on real property, etc.

Given that foreign and domestic enterprises cannot be discriminated, such broad investment definitions, together with the more stringent provisions in those FTA chapters related to the treatment of investments and protection of investments, mean that there are at least three WTO-plus levels at which they impact developing countries' policy space in the context of this study.[40]

36 The net impact of the division of labour under production networks on productivity and output growth as well as job creation will depend on a number of factors. See the discussion in Francis and Kallummal (2013).

37 Foreign investment in services sector is covered under the GATS Agreement of the WTO because of the ingenious inclusion of the "commercial presence" delivery mode of trade in services, that is, Mode 3. Thus, if a country has committed to liberalise Mode 3 in a particular sector without limitations, then it gives up the flexibility to change its foreign investment policies for that sector.

38 This means that government policy cannot treat foreign and domestic investments differentially.

39 This means that investments from all foreign countries have to be given the same treatment under government policies.

40 The discussion here builds on the framework and analyses in Francis (2015b) and Francis & Kallummal (2013).

- Such investment provisions adversely affect developing countries' ability to attract and regulate FDI to maximise their benefits to host economy capabilities in a sustainable way.
- They impact upon regulatory autonomy for technological policies with implications for sustainable development strategies.
- They have serious implications for host country ability to regulate the non-FDI types of foreign investments, with adverse implications for financial/ macroeconomic stability required for sustainable development.

As mentioned in Section 2, performance requirements have been an integral part of the FDI regulatory framework and strategic industrial policies in the countries that have effectively utilised FDI for successful industrial restructuring, precisely because the contributions of FDI that enable faster catching-up by countries do not occur automatically. An illustrative list of performance requirements on foreign investors is as follows (Lall 1996, Amsden 2001, Thrasher and Gallagher 2008, Francis and Kallummal 2013, and Francis 2015b):

- Joint venture requirements;
- export obligations;
- restriction on domestic sales of goods and services;
- restrictions on exports of raw materials;
- local purchase of goods and services;
- transfer of technology or other proprietary knowledge, or performing a given level of R&D in the host Party;
- hiring of employees or managers of the host party nationality;
- training of workers; and
- location of regional or global headquarters in the host country; etc.

As we know, the Trade-Related Investment Measures (TRIMs) Agreement under the WTO rules out the use of many performance requirements, including local content requirements, trade balancing requirements and foreign exchange restrictions through quantitative restrictions on imports or exports, and measures that violate national treatment by favouring domestic firms over foreign firms (Wade 2006 and Akyuz 2007). The TRIMs Agreement prohibits the use of such performance requirements in general as well as when they are attached as conditions for the receipt of investment incentives offered by the government (Francis 2015b).

Such interventions were used by all the successful late industrialisers in order to maximise the impact of FDI on local productive capabilities by: simultaneously regulating competition in the domestic market and pushing for export competitiveness of domestic producers at different phases of an industry's development; ensuring the creation of local backward and forward linkages; and by facilitating direct and indirect modes of technology transfer between foreign invested firms and local firms in myriad ways. These are ever more useful industrial policy tools for countries that seek to enter GVCs with or without engaging MNCs.

One way to circumvent the TRIMs prohibition on domestic content requirement and promote domestic producers is to formulate policies that encourage end user demand (for example, through technical standards related to energy efficiency or other environmental standards). It is known that the application of information and communication technology (ICT) in sectors as diverse as education, health, agriculture, environment, taxation, governance, etc., increases the aggregate demand for IT and telecommunication products. As suggested in Francis (2015a), one way to utilise this route to achieve desirable environment-friendly technological upgrading in particular industries is through the formulation of national standards for government procurement contracts that will help generate the necessary economies of scale to make domestically made products competitive *vis-à-vis* imports.

End user demand for domestically produced products can also be expanded through government procurement as practised by Brazil. The Buy Brazil Act (2010) establishes price preference for Brazilian goods and services in government contracts, limited to a maximum of 25% above the price of foreign goods and services (Stephenson 2013, p. 25). Similarly, governments can mandate the use of local services by foreign investors. Thus, it is possible for countries to apply local content requirements for the procurement of services, including technology and data flows, unless they have been prohibited because of the country's commitments in the GATS schedule (UNCTAD 2014, p. 82–83). This is in fact a policy space that can be used to improve domestic services firms' ability to take part in the upstream service sector activities of GVCs. Again, in Brazil's government procurement contracts for strategic IT and communications technology, tenders are restricted to goods and services developed with national technology (Stephenson 2013, p. 25). The use of such policies, however, requires that countries should not have bound their foreign investment policies in such service sectors under the GATS (or should have listed them as limitations to national treatment). India in fact attempted to utilise this policy space while liberalising the foreign equity cap in the retail sector, although it was diluted subsequently (See Rao and Dhar, 2015 for a discussion on the political economy dynamics that led to the dilution of this domestic content requirement).

Thus, it is important for developing countries to not make any binding commitments in FTAs in the service sectors which remain unbound under GATS, so that they can utilise the available policy space as part of a progressive industrial policy. It is instructive to consider Vietnam's approach. Although the services sector has undergone extensive liberalisation, most of Viet Nam's current bilateral agreements follow a positive-list approach, as in the GATS. Under the latter, FTA signatories list only the sectors they wish to liberalise. This gives autonomy to the country to flexibly change policies related to all other sectors (i.e., those not listed for liberalisation). This is in contrast to a negative list approach, wherein only those sectors that are to be protected are listed and all others are, by their absence, considered liberalised. The latter implies that change in policies related to any non-listed sector/activity can become subject to disputes. Because it has followed a positive list approach, Viet Nam has been able to maintain foreign ownership ceilings in telecommunication services, impose higher fees on foreign firms in shipping, and require an economic-needs test for foreign-owned retail outlets beyond the first ones already established (UNCTAD 2014, p. 98).

Importantly, although the TRIMs agreement imposes restrictions on certain performance requirements on foreign investors, it does not regulate host country policies related to *entry* of FDI. This would have required countries to commit to what is called the pre-establishment stage of investments.[41] But in some FTAs (e.g. Thailand's FTAs with Australia and New Zealand, India-Singapore CECA, etc.), the coverage of the investment definition is TRIMs-plus, as it covers the pre-establishment stage or admission of investment. This curtails host countries' right to regulate entry of FDI by binding investment liberalisation in both goods and services sectors at the levels committed under the FTA. Depending on changing industrial structure and impacts of domestic or external factors on domestic industries and economy, it may be necessary for host governments to regulate foreign investors' entry and establishment in the context of employment effects, technology transfer, environmental impacts, defence capabilities, cultural impacts, or other developmental concerns (Francis 2011, Francis and Kallummal 2013 and UNCTAD 2014, p. 82). This requires that policymakers should have the flexibility to impose industry-specific entry conditions or limitations on foreign investors. The East Asian countries, like Japan – followed by South Korea and Taiwan – utilised FDI regulations to regulate the entry of foreign competition in the earlier stages of their development. The ability to screen foreign investments before granting them permission enables a host country to assess their potential economic, social and environmental impacts. This is especially crucial, given that countries have already lost the policy space to impose several kinds of performance requirements on foreign investors *after* they have set up investments in

41 This is sometimes referred to as "market access" for investments in the literature.

a host country. Therefore, maintaining the policy space for prior approval for foreign investments is a crucial part of a progressive industrial policy.

Such regulatory freedom continues to be maintained by countries such as China. Zarsky (2010, p. 19) shows how China has been explicitly targeting FDI in low-carbon and other sustainable industries and technologies. For example, in December, 2007, China announced a "dramatic revision" of its foreign investment strategy, the "keystone" of which is an "emphasis on quality over quantity." The second of five new policies is:

> "...encouragement of investment in sustainable resources and environmental protection. Foreign investors are encouraged to support the newly implemented Circular Economy (i.e. sustainable development) and Cleaner Production policies, as well as invest in the area of environmental protection, sustainable resources and anti-pollution. The 2007 catalog greatly expands the list of encouraged investments in this area. On the other hand, foreign investment in high resource-use, high energy-use and high-pollution enterprises is restricted or prohibited." (Quoted in Zarsky 2010, p. 19)

Another serious problem is that members of FTAs which liberalise foreign investors' entry rights under their investment or service chapter provisions will risk facing costly disputes under the Investor-State Dispute Settlement (ISDS) mechanism when they make investment policy changes in the liberalised sectors. ISDS provisions grant the right to foreign investors to sue host country governments at international tribunals for treaty violations (detailed discussion on ISDS follows later). For the same reason, even when countries have carried out unilateral liberalisation of their national FDI policies, committing such liberalisation (or binding them) under FTAs will severely curtail countries' progressive industrial policy space. For instance, under the agreements with Japan and South Korea, India has bound its liberalisation of FDI norms at the 2010 level, wherein 100% FDI is allowed without screening (through the automatic route) in most manufacturing and services sectors, except in a few areas like single-brand retail trading, atomic energy, etc. With the binding of autonomous national FDI liberalisation under these FTAs, any changes to its FDI policy can make the government liable to face investor-state disputes and compensation claims from investors covered under this FTA for alleged violation of its provisions. This will restrict government flexibility to change policies to suit changing policy priorities in tune with changing economic growth dynamics at different stages of development.

Given the inability to treat foreign and domestic investors differentially (due to the national treatment clause), it is therefore crucial for countries entering FTAs to keep their policy sovereignty over their FDI regulatory regime in order to ensure coordination with other development objectives like domestic technological capability building, employment generation and environmental protection that underlie sustainable development. Furthermore, as in the case of tariff liberalisation, investment liberalisation commitments in agriculture have to recognise the inter-linkages between agricultural and industrial development as well as the national imperative to support domestic agriculture production for ensuring food security and reducing environmental consequences (Francis and Kallummal, 2013). Thus it is crucial to limit the coverage of FTAs to post-establishment treatment of investments.

Secondly, TRIMs also does not limit the use of several other post-entry regulatory measures historically applied on foreign investments to promote sustainable development through technological capability building in the host economy. Among those mentioned in the illustrative list above, these include requirements on foreign-invested firms to employ or train local labour, transfer technology, undertake local R&D, etc. But investment chapters in FTAs such as India-South Korea and India-Japan CEPAs are TRIMS-plus, as they prohibit performance requirements relating to technology transfer and nationality of senior management board of directors (as well as export obligations for services) (Francis and Kallummal, 2013**).** In general, any such performance requirements can be maintained only as conditions to be met for the receipt of government investment incentives. Similarly, the Japan-Philippines Agreement involves TRIMS-plus performance requirements related to labour and environmental standards (Kumar 2007b, p. 17). Some other FTAs have

been TRIMs-plus to the extent of covering taxes and charges on distribution activities such as warehousing, unloading, storage and shipment of goods (UNCTAD 2014, p. 87). Clearly, this impinges on government's revenue mobilisation efforts and undermines development by reducing public expenditure.

Furthermore, in India's CEPA with Japan, India has given up its right to adopt any more new policy measures on foreign investments that do not conform to its obligations on national treatment, MFN treatment and the prohibition of performance requirements under that FTA (Francis and Kallummal, 2013). This means that except in the manufacture of a short list of products listed in an annex, the government cannot introduce new performance requirements on investors covered under this FTA, except when they are tied to the grant of investment incentives. At the same time, new laws and regulations (unattached to investment incentives) to ensure maximum long-term benefits from foreign investments can be employed by states and other sub-national governments.[42] From the perspective of maintaining autonomy for a progressive industrial policy, it is important for developing countries to preserve the right to adopt investment-related measures as per the laws and regulations framed at the sub-federal government level (that is, state, provincial or other local governments). However, it is crucial that investment incentives offered at the sub-national levels must be coordinated by a central agency to avoid investors from "shopping around" and leading to undue fiscal burden.

In this context, it is relevant to note that the WTO's Agreement on Subsidies and Countervailing Measures (SCM) does not permit the use of subsidies for export promotion, or for buying locally-made goods (Wade 2006, p. 3, Akyuz 2007, p. 13 and UNCTAD 2014, p. 84).[43] Prohibitions apply to budgetary transfers in various forms, as well as to indirect subsidies provided through concessional credit (preferential credit) from the banking sector to specific sectors. However, subsidies for research and development (R&D), backward region development and environmental purposes are allowed. Governments can also grant tax rebates to firms for new capital equipment and R&D investments towards technological upgrading through dedicated funds, while encouraging end user demand for the promoted technologies through tax breaks (Francis, 2015a). Countries can also include support for disadvantaged communities as exemptions to national treatment commitments. Furthermore, in middle-income countries, subsidies may also be channelled through non-banking financial intermediaries, including specialised technology funds, technology incubation funds, start-up funds, venture capital funds, etc.

Governments can offer subsidised infrastructure services, too. Apart from subsidies for general infrastructural services such as power, fuel, water, etc., subsidies can also be provided through setting up specialised processing zones, technology parks, etc. where the facilities and infrastructure are provided by the government to support the growth of particular industries. This will be especially important in emerging advanced technology industries as well as in existing employment-intensive industries such as agro-processing, textiles, leather, etc. There are important challenges related to social inclusion and environmental protection that should be ensured by governments through the provision of specialised infrastructural provision. As suggested by UNCTAD (2014), if specific new industries which do not have an export market yet are located in backward regions, governments can promote their development through regional subsidies. Importantly, support may also be channelled through sub-national agencies. This again points to the extreme importance of not committing policy space at any sub-federal level under FTAs. This is also crucial from the point of view of retaining the flexibility to put in place locality-specific climate change adaptation and mitigation measures.

There is ample evidence that "pro-active industry policies can be effective in promoting climate-friendly industrial growth". Zarsky (2010, pp. 10–11) points out that China's industry support policies have propelled its emergence as a leader in solar photovoltaic and wind technology, as well "clean coal" technologies such as direct coal

42 See page 1066, Annex 9, India-Japan CEPA.

43 LDCs and countries with a per capita income of less than $1000 (Annex VII countries) can use export subsidies until their graduation from this category.

liquefaction. Similarly, Brazil's support for the development and deployment of a domestic sugar-based ethanol industry allowed it to capture a vibrant export market in the burgeoning global bio-fuels sector (ibid).

It is important to note that while subsidies for production are not prohibited, they are "actionable". They can be challenged through the WTO's Dispute Settlement Mechanism (DSM), or be subject to countervailing action by an importing country if subsidised imports are shown to cause injury to domestic producers. However, there are some exemptions here too. It seems that when subsidisation of a product does not exceed 5% of its total estimated value, or when one-time measures to cover operating losses sustained by an enterprise are offered, these are not questionable (UNCTAD 2014, p. 109).

Moreover, although offering concessional credit to domestic firms in export or import-substituting industries is not allowed, there is a major exception in the WTO Agreement on Subsidies and Countervailing Measures through a safe-haven clause. The latter allows export credit practice which is in conformity with interest rate provisions of the Arrangement on Officially Supported Export Credits of the OECD.[44] In fact, Brazil successfully claimed in the WTO Dispute Settlement Panel set up by Canada that a financing programme supporting its aircraft industry was in accordance with the SCM's safe-haven provision (UNCTAD 2014, p. 84–85).

WTO-PLUS CONSTRAINTS ON TECHNOLOGICAL PROGRESS IN FTAS

While the WTO's TRIMS Agreement and TRIMS-plus provisions in FTAs related to performance requirements restrict the use of several proactive industrial policies for enabling technological progress and technology transfer in developing countries, another set of constraints on technological development and diffusion arise from the Agreement on Trade Related Intellectual Property Rights (TRIPS) in the WTO. The TRIPS agreement has established binding rules on minimum standards for intellectual property protection regimes for WTO member countries with the aim of recognising and enforcing the rights of innovators. However, these standards for protecting the use of intellectual property rights (IPRs) such as patents, copyrights and trademarks have tilted the balance between technology creation and technology diffusion in favour of established knowledge exporters in the developed countries, disadvantaging follower developing countries who are net technology importers.

Parties to the TRIPS agreement are obliged to offer patents in almost all fields, give protection to owners of IPRs no less than the level provided in the agreement, apply national treatment to foreign owners of IPRs registered with them and observe non-discrimination among foreign holders of IPRs (Akyuz 2007). The agreement severely restricts reverse engineering and other forms of imitative innovation previously used by many countries, including the now-developed ones, for their structural transformation processes (UNCTAD 2014 and Correa 2016).

While the proponents of the TRIPS Agreement operated on the premise that minimum standards of protection would be equally beneficial for countries with diverse levels of socio-economic and technological development, the dominant view flowing from decades of academic and other analyses strongly reject that premise (Correa 2016, p. 8). There is very little evidence supporting its claimed benefits, including acceleration of innovation in developing countries and greater spillovers of technology from developed to developing countries through increased FDI. This is supported by the fact the global map of research and development (R&D) does not show a general improvement of R&D capabilities in developing countries in the last twenty years, with a few exceptions, notably in the case of China (Correa 2016, p. 3).[45] This is a clear reflection of the fact that the strict

44 The OECD arrangement involves publicly supported export credits relating to exports of goods and/or services and to financial leases with a repayment term of two or more years. Source: UNCTAD (2014, p. 84).

45 In the case of China, this has been the outcome of significant efforts and funding from the government for research and development (R&D) as we saw earlier.

enforcement of the patent system leads to legal barriers to the use of inventions for follow-on innovations, apart from high prices for products (Love 2014, p. 4). Furthermore, as seen in Section 3, even after their entry into GVCs, effective absorption of the technologies disseminated by lead MNCs by domestic firms in developing countries occurs only if they have developed their own technological capabilities. All these point to the ineffectiveness of the emphasis on patents and their enforceability in driving technological capability development.

In fact, developed countries such as the US, which has been a major proponent of tightening IPR rules in developing countries, continue to depend heavily on government funds for financing innovation. The United States National Science Board's 2012 edition of Science and Engineering Indicators breaks down R&D expenditures into three categories, basic, applied and development. Data provided in Love (2014, p. 10) shows that for 2009, governments and other non-profit entities performed more than 80% of basic research, 42.4% of applied research and 10.5% of research in final product development stages. This should be read together with the information that in the case of all entities (public, private and non-profit) performing research, 19% was spent on basic research, 17.8% on applied research and 63.2% on later stages of product development.

For developing countries, the impact of the TRIPS regime has been particularly telling in the experience of the pharmaceutical industry. The cost of healthcare has increased manifold across countries due to the shift from process patents to product patents in countries like India, which had successfully developed a domestic generic pharmaceutical industry under the national patent regime until 2005. India has thus been a major supplier of low cost medicines to other developing countries. On the other side, low investment in R&D by the pharmaceutical industry continues to be a concern (Correa, 2016). The extension of a product patent regime and test data protection under TRIPS has not helped developing countries to address the diseases prevalent in those countries (often referred to as "neglected diseases") because of the lack of interest (Correa, 2016).

On the other side, however, given that patents provide profits for their owners (Correa 2016, p. 5), the patent regime has adversely affected competitive conditions in all countries. It has been found that patents "are increasingly used as strategic assets to influence the conditions of competition rather than as a defensive means to protect research and development outcomes" (UNCTAD 2014). Thus the shift to strict enforcement of the patent regimes, which increases the pricing power of innovating firms, has contributed to the consolidation of market power across GVC segments. This has led to growing consolidation, especially in industries such as electronics, but also in several other industries. Since industrial upgrading becomes more demanding, and imitation and adaptation of foreign technology gain added importance at intermediate stages of industrialisation, the TRIPS agreement has been found to place greater constraint particularly on technical progress in middle-income countries (Akyuz 2007).

Some flexibility is available in the TRIPS Agreement to take care of developing country's technological development requirements through its mechanisms of compulsory licensing and parallel imports (Gopakumar 2010).[46] Compulsory licensing is when a government allows someone else to produce the patented product or process without the consent of the patent owner. The Doha Declaration on the TRIPS Agreement and Public Health, which was adopted at the WTO Ministerial Meeting in 2001, clarified some of these flexibilities in the context of the pharmaceutical industry. Many of its clauses have broader implications and concern IP in any field of technology and may also be used to promote domestic production (Correa, 2014). For instance, varying patentability standards, such as the granting of narrow patents for incremental innovations that build on more fundamental discoveries, may be useful for adapting imported technologies to local conditions.

The current Indian Patent Act contains all the TRIPS flexibilities and can be used for ensuring availability of

46 Parallel imports refer to imports of a non-counterfeit product from another country by independent traders outside the manufacturer's distribution system without the permission of the intellectual property owner/manufacturer.

patented medicines at affordable prices with further fine-tuning of the relevant provisions, institutional capacity building, etc. (Gopakumar 2010). For instance, Section 3(d) of the Indian Patent Act bans the patentability of minor/incremental modifications to pharmaceutical formulations and other incremental developments relating to existing drugs. This provision has been put in place to prevent the granting of extended patent protection through "secondary" patents in India beyond the normal 20 years (to obtain what is known as "ever-greening" of patents). India has come under tremendous pressure under its FTA negotiations with developed countries to exclude this provision.

While countries such as the US, EU and Japan have been major proponents of strict implementation of patents in developing countries through TRIPS and including and advocating for TRIPS-plus provisions in their FTAs with developing countries, a wide range of research- and innovation-related tasks in these countries have since long been financed through research grants and contracts (Love 2014, p. 4). These governments, which invest heavily in research grants and contracts in sectors such as energy, informatics, biotechnology, nanotechnology, or agriculture, often do so to advance science, address a social concern and/or to develop domestic industrial capacities. This has been in clear recognition of the limited value of the patent system for certain research and development activities, such as that for the development of products with small commercial market potential (including pre-commercial research and development), research outcomes that cannot be successfully monopolised and monetised, and particularly risky development projects (Love 2014, p. 4–6).

The above discussion clearly brings out the necessity for developing country governments to increase their spending on national R&D activities. At the same time, TRIPS-plus provisions in FTAs should be resisted. The inclusion of IPR in the broad definitions of investment in FTAs (discussed in the earlier sub-section) eliminates the scope for flexible implementation of TRIPS-compatible IPR policies by developing countries. The broad open-ended investment definition commits a host country to granting additional protection to IPRs that may not be consistent with the country's socio-economic development needs. It is thus critical that intangible assets like intellectual property not be covered under the scope of investment in FTAs, even if they contain investment chapters. Developing country FTAs should also not include separate IPR chapters, so as to retain the hard-won flexibilities under TRIPS. TRIPS-plus IPR protections will serve to strengthen the trends in market consolidation seen among MNCs within and outside GVCs.

WTO-PLUS CONSTRAINTS ON MANAGING MACROECONOMIC INSTABILITY

The TRIMs Agreement prohibits host country restrictions on payments and transfers abroad related to FDI. However, the provision for guarantee of free transfer of all funds associated with broad investment definitions in FTAs also liberalise outflows related to non-FDI foreign investment categories. Broad investment definitions rule out the distinction between direct and portfolio investments and thus lead to the liberalisation of both current account and capital account transactions. For example, under its recent FTAs, India has committed to offering the free capital repatriation, which is offered to foreign direct investors, to other classes of investors like private equity (PE) and venture capital (VC) funds (apart from foreign portfolio investors),[47] who neither bring in FDI-type ownership advantages to the host companies nor contribute to national investments even in the medium term, as they are known to sell and move out (Francis +2015b). The freedom for capital repatriation guaranteed to non-FDI investors under FTAs can have serious consequences for member countries' policy space related to capital controls.

It has been widely recognised that in countries integrated with international financial markets and open capital accounts, dynamic capital account regulations are necessary to: improve macroeconomic stability; provide the policy space for counter-cyclical monetary policy management; limit speculative activity; and guide the

47 Covered investments also include those in sovereign debt, where government securities are not explicitly excluded in the investment definition.

composition of capital flows toward more long-term, less debt-creating and productive types of foreign investments for realising sustainable development objectives (see the detailed discussion in Francis 2013a, p. 72). Furthermore, as the 2008 global financial crisis showed, all countries with open financial sectors will be affected by the volatile functioning of unregulated financial markets elsewhere. This emphasises the need for national governments to flexibly regulate capital flows to prevent macroeconomic instability, which has adverse implications on productive investments in the economy.

However, broad investment definitions erode the national policy space to regulate different forms of capital flows and therefore, autonomous macroeconomic policies. Typically, the use of capital controls is allowed only as defined under the safeguard measures in the FTAs – that is, only under emergency situations in case of "serious difficulties" with monetary policy, exchange rate policy, or balance of payments and that, too, only temporarily. In India's FTAs with Singapore, Japan, South Korea and Malaysia, all the capital account regulatory measures allowed as exceptions must not only go beyond what is necessary to remedy the specific situation being addressed (Francis, 2013b), but must also avoid unnecessary damage to the commercial, economic and financial interests of the investor. Such provisions with a broad scope of interpretation prevent developing countries from making use of different kinds of capital account regulations in order to *prevent* "serious difficulties" in a manner required for sustainable development. Furthermore, as Argentina's experience with its bilateral investment treaties with an investor-state dispute settlement (ISDS) provision amply established, once a country includes investor-state dispute settlement provisions in an FTA, it may be faced with international arbitration by affected foreign investors for currency controls applied even during a financial crisis **(**Williams 2016, p. 31).[48]

OTHER WTO-PLUS CONSTRAINTS IN FTAS

Another WTO-plus constraint that has crept into some FTAs, which has significant implications for progressive industrial policies, is the definition of expropriation to include indirect expropriation. Direct expropriation refers to the nationalisation, transfer of title or seizure of private property by the host government. Typically, protection provisions in bilateral investment treaties (BITs) and FTAs state that expropriation of investment is not allowed except when carried out for public purpose in a non-discriminatory manner. But given that provisions on investment protection provide for fair and equitable compensation to foreign investors in the event of an expropriation, it is crucial to define the terms of coverage of expropriation to include only direct expropriation.

In India's CEPAs with South Korea and Japan, expropriation is both direct and indirect. Under these FTAs, the determination of what types of government actions/measures are interpreted to constitute an indirect expropriation is based on a case-by-case inquiry (Annex 10-A), which includes "the extent to which the government action interferes with distinct, reasonable investment-backed expectations" (Francis and Kallummal, 2013). The manner in which the latter is defined in the agreement implies that in a sector that is not regulated at all when the treaty came into force, introduction of any regulatory policy relating to that sector will be considered as expropriation and the government can be subjected to disputes and compensation claims.

This is severely problematic, given that the inclusion of investor-state dispute settlement (ISDS) provisions in the FTAs' investment chapters has heightened the risk of international arbitration of states by foreign private corporations.[49] ISDS provisions allow foreign investors in a host country to sue the host government at an

48 According to Williams (2016), almost all the ISDS cases faced by Argentina are related to the 'pesofication' law passed by the country's parliament during the financial crisis in 2002.

49 So far, India has faced ISDS cases only under its bilateral investment treaties (BITs). India faced an ISDS case on expropriation involving an Australian firm, White Industries Limited (WIL) and India's largest state-owned enterprise in the coal mining sector, Coal India Limited. In this case, Indian courts' delay in dealing with a WIL application for enforcing an International Chamber of Commerce Award in favour of WIL was argued to be tantamount to expropriation (and a violation of Article 7 of the Australia-India BIT). The firm claimed compensation for this expropriation (See the detailed discussion in Dhar, 2015, p. 3). See Williams (2016) for a global discussion.

international arbitral forum (which remains totally outside national jurisdiction), if they interpret governmental measures or laws as leading to a change in their business profitability or prospects. Given that corporations around the world have been using such provisions in existing FTAs to force governments to use taxpayers' money to pay compensation for perfectly legitimate regulations to protect public health, environment and other public interests including industrial development, employment generation and financial stability, ISDS poses serious risks to progressive industrial policies.

While the state-to-state dispute settlement procedure under the WTO's Dispute Settlement Body (DSB) remains a democratic institution in principle, the international arbitration system under investor-state dispute settlement has been found to be ridden with serious procedural drawbacks and conflicts of interests among the panel members and legal practitioners arguing for the big multinationals (Eberhardt, Pia and Cecilia Olivet, 2016). As pointed out in UNCTAD (2013), repeated instances of inconsistent awards and interpretations by panels deepen the uncertainty about the meaning of key obligations and compound the problem of the unpredictability of arbitral awards.

Furthermore, the very presence of the risk of litigation for compensatory claims by foreign investors generated by the ISDS provision has begun to mean that ISDS creates "incentives" for states to avoid or modify their regulatory decisions (referred to as "regulatory chill"), as recent studies have shown. This fear is usually linked to the inability of states to bring claims against foreign investors, the breadth of foreign investor protections in ISDS, the weaknesses of exceptions to protect the state's right to regulate, the ability of foreign investors to receive uncapped amounts of compensation from the state, the international enforceability of ISDS awards, exclusive access of foreign investors to ISDS (leaving no similar option for domestic investors), or the absence of conventional judicial safeguards in ISDS (Van Harten and Scott, 2015).[50]

These problems associated with investor-state disputes raise the development costs of policy failures relating to the absence or non-implementation of policy measures that would be needed to ensure socially, economically and ecologically sustainable trajectories of structural transformation needed for sustainable development. Singh and Ilge (2016) also point out that the risk of regulatory chill is very real given that a wide range of policy and regulatory measures (from taxation to the plain packaging of tobacco products to the disposal of hazardous waste) have all been challenged by foreign investors in the recent past.

But developing countries can learn from the several alternatives that have been put forth recently, which include, among others: state-state dispute settlement (SSDS) mechanisms (Nathalie Bernasconi-Osterwalder, 2016); limiting investors' access to ISDS; introducing an appeals facility; and creating a standing international investment court (Zhan, 2016).[51] Furthermore, as pointed out by Dumberry (2016), nothing in international law prevents countries from signing investment agreements imposing human rights obligations upon private corporations. This assumes greater significance also because this is an area where the UN has recently started discussions.

50 See the analysis of the impact of the NAFTA Chapter 11 on Canadian policymaking in Van Harten and Scott (2015).

51 On the other hand, India's new Model Bilateral Investment Treaty (December 2015) requires investors to exhaust local judicial remedies before commencing international arbitration against the host state while retaining investor–state arbitration. The exercise to revise India's model act governing bilateral investment treaties (BITs) was undertaken after India faced a number of international arbitration cases wherein foreign investors invoked the ISDS provisions in existing BITs for enforcing their rights in India.

CONCLUDING REMARKS: THE WAY FORWARD FOR RCEP NEGOTIATIONS

It is clear that the spread of GVCs, along with growing consolidation of multinational corporations, has increased the policy challenges faced by developing countries. While GVCs constitute opportunities for developing countries to become part of the global economy, to absorb knowledge and technology and add value to their products, evidence shows that the entry of developing country firms into GVCs and their ability to generate domestic value addition in a sustainable manner are both conditional upon the level of their domestic technological capabilities. Developing countries' participation and upgrading in GVCs therefore cannot take place without active industrial policy interventions to build up national technological capabilities, while guiding investments towards increasing returns activities in order to generate domestic value addition in a sustainable manner. Against the backdrop of rising inequalities and the urgent need to adopt climate change mitigating development strategies, this means that developing countries need progressive industrial policies to achieve socially inclusive and ecologically sustainable structural transformation.

However, as we saw, the deeper and broader provisions in FTAs put significant constraints on progressive industrial policies. While several countries have been using the policy space available under the WTO ingeniously, the WTO-plus provisions in FTAs reduce policy sovereignty and heighten the risk of policy failures by limiting the possibilities to redesign industrial development trajectories in developing countries towards more sustainable paths. While the discussion in Section 4 pointed to several alternatives, these involve strategic choices to be made by developing countries while negotiating FTAs.

In the context of the negotiations on Regional Comprehensive Economic Partnership (RCEP), it is important to note that the increased integration of Asian developing countries into GVCs with the resultant change in the nature of trade that involves two-way trade in intermediate goods is an important factor behind the changing political economy of FTA negotiations in the region to involve investment provisions. With greater integration of these economies into GVCs and associated benefits from increased access to cheaper imports, there are larger domestic constituencies in individual countries that become interested in maintaining and locking in a liberal trade policy regime to reduce the uncertainty regarding future policy changes. However, for achieving sustainable development, states have to rise above sectoral interests (and possible geo-political gains). Only competent bureaucracies can steer the fundamental shift required, away from transient export benefits that may arise from a "GVC-led industrialisation" policy to the longer-term gains to be obtained from safeguarding remaining policy space for guiding industrial development and structural transformation along sustainable trajectories.

The developing countries involved in RCEP negotiations will need to make a crucial strategic decision on whether or not RCEP needs to include "higher standards" to be negotiated as a counter to the Trans-Pacific Partnership (TPP) Agreement. TPP is widely acknowledged as setting very "high standards" of rule-making, tilting the balance against its developing country members' policy sovereignty. But while negotiating with the objective to promote trade and attract investment within the region, it is important for RCEP negotiating members to avoid the mistakes of the past and give up further sovereignty for progressive industrial policies under this proposed agreement. While it is not clear how the TPP or TTIP or an EIA will eventually take shape, it is undoubtedly the case that RCEP should use the opportunity to set new standards for regional trade policy diplomacy. Failing to factor in the industrial policy causalities involved in sustainable development, the dynamics involved in the spread of GVCs and the assessments of the available evidence on the impact of existing agreements can prove further costly for the development trajectories of these economies, including India.

Against this backdrop, it becomes crucial that India, ASEAN and China work together to review the ongoing RCEP negotiations with a strategic aim to improve the progressive industrial policy choices for developing countries in the region. Clearly, the diverse economic, institutional, political and social contexts of the negotiating countries – which also include four developed countries – are bound to make the negotiations protracted. Particularly, freer trade is in the interest of ASEAN developing economies too, which are highly integrated into GVCs in several industries, while it may not be for India, given the impact of previous FTAs. Rather than showing urgency and hurrying the negotiations to "finish the deal", concerns need to be reconciled by the negotiating teams of different members for sustainable mutual benefit and for politically viable FTAs. Even though the negotiations will be more tedious, there should be careful scrutiny of all the obligations to ensure that no WTO-plus regulatory constraints are signed on for or agreed to. This clearly needs more transparency in the negotiations and accountability to the populations that are going to be affected by proposed rules.

Against the emerging imperatives of GVC dynamics, social inclusion/cohesion and climate change-resilient development strategies, all RCEP members, including lead industrialisers Japan and South Korea, as well as Australia and New Zealand, have equal interests to ASEAN, India and China to bring an alternate agenda to the negotiating table that maintain the space for progressive industrial policies. The discussion in this paper shows that a central component of such a strategy would particularly involve rethinking FTA provisions on investments. This is the opportunity to move away from reliance on investment provisions that have become "templates" in ASEAN's existing bilateral/regional FTAs with the other negotiating members by default. This would be a rational decision to be a made given that governments have found their policy sovereignty constrained in so many unanticipated ways because of provisions in the WTO and bilateral investment treaties.

In this context, it will be crucial to limit the coverage of FTAs to post-establishment treatment of investments. Furthermore, it is very important to adopt narrow definitions of investment (establishment-based and restricted to productive investments) and provide an exhaustive list of permitted assets, with specific limitations on the type of assets considered to be investments. Other limitations based on individual sectors, the scale of investment (for instance, for enabling the domestic SME sector to develop), etc. can also be built into the definition of investment or kept as exemptions to national treatment. From the perspective of maintaining autonomy for a progressive industrial policy, it is also very important for developing countries to preserve the right to adopt investment-related measures per the laws and regulations framed at the sub-federal government level. Furthermore, RCEP should not involve TRIPS-plus commitments that will have an adverse impact not only on public health, but also on developing countries' ability to make technological progress. Overall, the RCEP negotiating countries should strive for coherence between the inter-related aspects of progressive industrial policies such as trade, investment, intellectual property protection, taxation, capital controls, etc. in order to retain a maximum of the policy space that remains outside their Uruguay Round commitments in the WTO.

Some suggestions towards this are the following:

- While trying to reduce tariff elimination commitments on too many products beyond the exiting FTAs, RCEP should formulate appropriate rules of origin aimed at protecting regional markets and strengthening regional capacities.
- RCEP negotiating countries should not make any binding commitments in the service sectors which remain unbound under GATS so that they can utilise the available policy space as part of a strategic industrial policy.
- There should be no pre-establishment investment commitments and no indirect expropriation clauses.
- There should be neither TRIPS-plus nor TRIMs-plus commitments. This would require narrow definitions of investments. This would also require expropriation clauses to clarify that compulsory licenses (CL) granted in relation to intellectual property rights in accordance with the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) do not come under the purview of expropriation.
- In a concerted effort to promote collaboration in technology and innovation, RCEP should devise means to formulate newer forms of incentives that promote technological capability building within the region.
- Given the uncertainties facing the global economy and the rapid technological changes occurring in several industries inside and outside GVCs, RCEP countries should agree on a re-negotiation clause, which will enable all the member countries to review the costs and benefits of the agreement within an agreed number of years of its coming into force.

At a time when several WTO-plus provisions have been recognised as severely encroaching upon the sovereign policy space of developing countries and international investment agreements are being reformed (or terminated) with alternative approaches already being implemented by some countries, it will be a huge disservice to the progress made so far if RCEP goes ahead with an investment chapter including a broad investment definition, ISDS and indirect appropriation. Therefore, RCEP should not lose this historic opportunity: to set new rules in trade policymaking involving FTAs, in a way that benefits developing countries.

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