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FDI, Trade and India's Integration with GVCs

This policy brief summarises key policy discussions from the ISID Policy Roundtable on "FDI, Trade and India's Integration with GVCs," held on October 5, 2023 at the National Conference "Towards Industrial Transformation of India: Building an Inclusive, Sustainable, and Competitive Manufacturing Sector to Realize the 2047 Vision," held in ISID Campus, October 4-6 2023. The key speakers were **Prof C Veeramani**, Director, CDS, Trivandrum; **Mr Sumanta Chaudhuri**, Principal Adviser, International Trade Policy, CII; **Dr B N Satpathy**, Office of PSA, Government of India; **Mr Ajay Srivastava**, Founder, Global Trade Research Initiative; and **Prof Aradhna Aggarwal**, Copenhagen Business School. **Prof Nagesh Kumar**, Director, ISID chaired the policy roundtable, which was followed by a rich discussion with the audience. The YouTube video of the policy roundtable is available here.

India cannot industrialize in isolation from the global economy. It needs to trade in a world where production has become highly fragmented, and driven by multinational companies is dominated by global value chains (GVCs) that involve internationally fragmented networks of production-sharing, covering 70% of international trade according to OECD. India's export structure, however, continues to be dominated by relatively simpler, less sophisticated products that are more price sensitive, in the nature of commodity trade, at the lower end of value addition, and except for few products like generic medicines, two wheelers and compact cars, not so dynamic in demand and margins. Very recently, through government incentivization, India has penetrated in highly dynamic and modern products, as in electronics. In mobile handsets, for instance, it has emerged as a net exporter, though still engaged in shallow, assembling activities that represent how electronics started everywhere, working backwards to deepen integration with the value chain, and eventually capture a greater share of value addition within the country, the government also trying to bring investment in other parts of the value chain, especially in semiconductors and chips. With a big India Semiconductor Mission (ISM), there may be more diversified and integrated value chains, allowing India to tap the opportunity in restructuring of value chains, by multinational companies looking for diversification possibilities in Mexico, India, Vietnam or Bangladesh on a China+1 basis, for reducing their dependence on the one source, China, or the 'the global factory.' In this context, it is important to understand the

India must tap the opportunity in restructuring of value chains, by multinational companies looking for diversification possibilities on a China+1 basis.

underlying dynamics of India's engagement with GVCs and what can be done to strengthen it? How can India enhance upgradation and deepen its integration in GVCs? What role can FDI play? What policy incentivization can the government do and what can the private sector do? What kind of policy incentivization structures can be used? Can GVC participation opportunities be used to create jobs, particularly for the relatively low-skilled, surplus labor in agriculture?

Reaping Gains from Backward Versus Forward GVC Participation

Two groups of manufacturing industries offer major, unexploited export opportunities, differing in their nature of GVC engagement: (i) traditional, labor-intensive industries such as garments, footwear, leather, toys etc., classified as buyer driven GVCs where lead firms like *Nike* and *Adidas* control the GVC but do not manufacture, rather, subcontract production to other manufacturers, only being a brand that controls the GVC, (ii) modern, capital-intensive industries such as electronics, electrical, machinery, computers, road vehicles, new sunrise industries, clubbed together as Network Product (NP) industries, classified as producer driven GVCs where lead firms like *Apple, Samsung* and *Sony* control most part of the value chain directly, their subsidiaries in different countries specializing in production of different parts and components, while final assembly is subcontracted to other companies such as *Foxconn*. Promotion of local linkages for domestic industries or participation in GVCs where linkages are globally dispersed and value addition takes place not entirely domestically but in other countries (as intermediate goods, parts and components are imported) generally depends on the impact on domestic value addition, productivity, and employment generation.

Of the two forms of GVC participation, backward versus forward, which should be prioritized to promote jobs now? Backward GVC participation involves use of imported inputs to produce for exports, e.g., India imports parts and components of mobile phones, does the final assembly, and then exports mobile phones. Forward

By enhancing labor-intensive assembly activities, India can exploit its abundant, low-skilled labor advantage to create more exports, jobs and value addition; and transition from assembly to more sophisticated forms of GVCs.

GVC participation involves export of raw materials and intermediate inputs for further processing and export by other countries, e.g., India exports iron ore to China that is used to produce the steel that China exports. India is considered to have a comparative advantage particularly in backward GVC participation, due to its relatively abundant low-skilled labor, and unexploited opportunities in assembly that is highly labor-intensive and has the potential to create jobs for those with basic education, women in particular. Successful cases of backward GVC integration include China where high level of assembly activities has been a major driver of export growth in the initial phase (1980s-1990s); Vietnam's recent export growth that is based entirely on backward GVC participation; Bangladesh's apparel exports; and India's recent mobile phones exports.

The conceptual framework for gains from backward GVC participation rests on greater use of imported inputs or foreign value added as share of gross exports (declining domestic value addition per unit of exports) having scale and productivity effects from producing for the world market, that more than offset the low domestic value addition, such that absolute exports in dollar terms rise, as does domestic value addition and labor-intensive, low-skilled jobs, in particular. Does backward GVC participation imply being stuck at the lower end of the production process forever? It is argued that this concern is generally unwarranted, the dynamics of GVC

participation shows a number of countries transitioning from basic assembling to more sophisticated forms of GVCs. As countries develop, productivity and wages increase, comparative advantage changes, and countries move up the value chain. Can this be seen as a future opportunity, as with new technology coming in, the situation may change?

Network Products, "Wild-geese Flying Pattern," Assembly, Tariffs and Service-link Costs

Long-term data, from 1962, shows that several Asian countries, namely, China, Japan, and the early entrants, Korea, Singapore and Malaysia followed the "wild-geese flying pattern of NP exports," that is an 'inverted V' pattern in terms of world market shares. The "Wild-geese fly in orderly ranks, forming an inverse V, just as airplanes fly in formation" attributed to Japanese economist Akamatsu. In this, Japan, the lead goose, provided the capital, technology and managerial know-how to the follower geese of East and Southeast Asia in the initial stages; and its share rose from about 5% to a peak of more than 25% by the mid-1980s, upon which Japan started withdrawing from the market, and other countries, such as Korea, Taiwan, Hong Kong, Singapore, Malaysia, followed by China, came in and emerged as major exporters. Late entrants and laggards include India, Philippines, Thailand, Vietnam and Indonesia, though India has still not started expanding in this market.

Grouping network products into two categories: parts and components versus assembled end products, China is continuing in the production of parts and components and is likely to continue for some more time based on the experience of other countries. Very recently, assembly has started moving out of China, creating opportunities elsewhere. Vietnam has come in, in a major way in the absolute value of exports, domestic value added, and jobs; as also East Asian countries, whose share of NPs in their merchandise exports is high. India is a minor player, though it has an opportunity as Vietnam's small setup is likely to mature quickly, and being a small country, it cannot replace China.

In Network Products, the "wild-geese flying pattern" indicates that assembly has started moving out of China, that India can take advantage of.

By getting into assembly activities, India can reach a very large market and volumes can make up for the small proportion of domestic value added, resulting in more jobs, and value addition in absolute terms. However, though geopolitics is favoring India, with a good chance to become a hub of the value chains, this will not happen automatically. Regional Trade Agreements (RTAs) and Free Trade Agreements (FTAs) have been used by countries to integrate themselves with GVCs, having a strong, free trade arrangement with China. Though India also signed an FTA with ASEAN, it has not managed to integrate with value chains or the Asian production network, as well. Also, participating in GVCs, there cannot be a strategy that keeps China outside the value chains, as then full integration with the GVC cannot happen, as observed historically and goes against the spirit of the "flying geese" model. In terms of policy, more backward GVC integration can be achieved by splitting tariff lines: for intermediate goods used in network products, import tariff rates can be kept zero or negligible, though the issue of inverted tariffs needs to be addressed, as in network products in particular, the duty rate for overall finished goods is lower than that on component parts, making it easy to import final goods rather than assemble them domestically. Such a structure could render the relevant manufacturing process uncompetitive, though the last few budgets have tried to address the problem. Service-link costs, i.e., costs related to transportation, communication, and other tasks involved in coordinating activities in a country with those in other countries also need to be reduced.

Key Attributes of GVC Operations: Lead Firm, Multi-country Production, Timer, and Worldwide Distribution

Though India has sizeable amount of merchandise and services exports,[1] only two types of GVC productions are more prominent, in pharma and automobiles. India occupies the top space in generic medicines, but the situation would be challenging if China threatens to stop the supplies of Active Pharmaceutical Ingredients (APIs). *Hyundai* has also made India a global compact car hub, but under a heavily protected market. In this context, it is noted that we need to have a welcoming mindset about the large global firms. We need them. We do not have smart large Indian firms except in petroleum refining, steel, pharmaceuticals and automobiles. Export to turnover ratio is less than 10% for the top 50 public limited companies in the food, beverages, mining, paper products, chemicals, textiles, electrical machinery, and electronics sectors. *Maruti Suzuki* did not succeed in a vacuum, as India already had more than one lakh auto component makers and forger ecosystem, only a magic touch was missing. When *Suzuki* came in 1981, the entire auto sector's productivity increased substantially, in a decade or so. India needs one or two anchor firms in most of the sectors for that magic touch to happen.

Another important aspect is time. For instance, two of the largest lead firms in fashion garments, *Zara* and *H&M*, proceed every day, in their head offices with their designer teams hosting fashion shows on Instagram, for the millions/billions of hits and on the basis of this feedback, they decide, say, what high fashion gents' shirt to introduce in their more than 20,000 global showrooms and in online shopping. Knowing that India is the best yarn maker, they contact and procure yarn from a firm in India; the yarn then moves to China that makes high quality, cheap fabric; the fabric moves to Spain for the good dying, but being a rich country, its labor costs are high; so the fabric moves to Morocco, Bangladesh or Vietnam for cutting and final transformation into a shirt, all within the span of 20-30 days, for if the shirt does not reach their global showrooms in time, all the money is wasted.

India needs to make manufacturing competitive by furthering trade facilitation and reducing service-link costs, and engage with one or two anchor firms in most sectors for that magic touch to happen.

For most of India's trade ills, not only in GVCs, poor export infrastructure is the key factor. While in Hong Kong or Singapore it is a matter of hours for a good to sail, in India, this could take days. With parts and components traveling multiple countries before assembly in another country and a bigger assembly in yet another country, custom delays at one place can cause the entire chain to break, an important reason why India is not so much into GVCs. For instance, participation in GVCs has played an important role in Bangladesh's expansion in garments. Most exporters in India, at the lower end, face a lot of pressure from Bangladesh that has leading firms in garments while India does not. Also, it is not that India does not grow the finest cotton or make better yarn, fabric or garments, but the trade issue is there, that requires world class customs and shipping and government organizations. With a 1.8% share in global merchandise exports in 2022,[2] less than 0.89% in machinery and 0.6% in electronics in 2021,[3] India could copy a model of physical working or functioning from some good countries. For small exporters, introducing a totally online system wherein exporting becomes just like selling in the domestic market could help instead of presently selling through bigger exporters, in their inability to bear with government regulations. A national

[1] US$453 bn and US$ 309 bn, in 2022 (World Development Indicators).

[2] World Development Indicators.

[3] https://atlas.cid.harvard.edu.

trade portal with the exporter at the forefront could also give the chance to upgrade the export structure towards technologically sophisticated products. Schemes like Production Linked Incentive (PLI) may help attract anchor firms, but it is important for leadership to identify, engage and negotiate with the key players of lead firms and handhold them to become their partners in success. When the GVC magic started happening in China in the late 1990s-early 2000s, they had almost no expertise but became an important part of GVCs due to sheer geopolitics, not leaving things to the market. More than 10,000 engineers of *Apple* stayed in China for 5-6 years to handhold more than 100 Chinese firms to make small components. This is how China became big, by bringing in the lead firms. *Apple* is now in India because it has barred its Japanese, Dutch, Taiwanese companies, tied to its value chain, not to help China produce chips below 16-nm and *Apple*'s iPhone 15 Pro Max is using 3-nm chips that they cannot make in China.

With changing geopolitics, there is an optimistic picture for India to become a more important link in the GVC chain, but for this the entire machinery of trade facilitation, customs, border inspection and logistics needs to be fixed.

GVC Integration, "Servicification" of Manufacturing, and Trade and Investment Linkages

Integration with GVCs is not a matter of fixing things in the manufacturing sector alone, but as manufacturing has become highly services driven, there is need to look at different components of services, including financial and other digitalized services that are embedded in manufacturing (namely, the "servicification" of manufacturing). According to OECD's TiVA database, services value added content of gross exports at the global level exceeds 50%. The entire services value chain, including procedures, interface with regulatory and tax collection authorities determines competitiveness, and while trade facilitation is one side, several other activities performed by the services industry make production processes more efficient. Altogether, the value chain becomes effective when all parts are well connected for meaningful value added, that is not manufacturing *versus* services, but manufacturing *and* services.

It is also useful to consider the combination of trade and investment. For instance, when *Hyundai* was setting up a large manufacturing facility in Chennai in the late 1990s, the export hub that developed in India not only started manufacturing cars for the domestic market, but new models entirely made for export, that also enabled the growth of component manufacturers. Another combination of trade and investment is evident when inward/outward FDI strategies are used to import/export specific intermediates, raw materials or capital goods either by a foreign anchor firm or Indian lead firm to promote India not just for assembly, but for higher value added activities. As the transition from low to high value added is not automatic, but is progressive, if these two components, manufacturing and services linkages, and trade and investment linkages can be made better, there are far greater chances of integrating into GVCs, with that much more value addition and employment creation. Further, in the geostrategic context of the relationship between trade and investment policy, there has been a revival of industrial policy, in a big way in the United States[4] and globally. Though adoption of Industry 4.0 and digitalization is unescapable, with

[4] https://globalaffairs.org/sites/default/files/2020-11/report_rebuilding-bipartisan-consensus-on-trade-policy_20190417.pdf

A manufacturing and services focus, a combination of trade and investment, improving the quality of FDI, especially in R&D is required for meaningful value addition and absorption of knowledge.

the pendulum having swung completely on the side of industrial policy, an important developmental issue is how to use policy to create employment for low-skilled, surplus workers in agriculture and the informal sector, in the short run at least, till the new technologies can be adopted on a mass scale. Should there be mass production of low quality goods that flood the market or high quality products that may not have many buyers? In this context, the medium-long term science and technology plan of China in 2006 had the same dilemma, and China went in for both.

India needs to leverage SEZ potential to attract targeted, export oriented, efficiency seeking FDI; trade and GVC integration, with a separate brand of SEZs for employment generation.

Gamut of Scope for R&D Exports, and Improving Quality of FDI in R&D is Huge

India's quantum of FDI into R&D has increased substantially in the last couple of years to reach US$ 450 mn in 2023. With this, India has achieved the target of more than doubling this inflow from the level of US$ 108 mn in 2019-20. However, the quality of FDI into R&D, in terms of access to strategic technologies or import substitution is unclear. India is one of the leading exporters of R&D services with emerging opportunities in engineering research development services, but despite being an important destination for global R&D centers by multinational companies with 1,600 Global Capability Centers (GCC), the technology intensity of these enclaves, knowledge spillovers, and integration of other firms in their value chains is unclear. The share of R&D in total FDI (equity) was 0.1% in 2019-20.[5] Also, based on the RBI sample of FDI firms in India, the R&D intensity of these firms was found to be as low as 0.2% in 2020-21.[6] FDI is rather being utilized to import technology, resulting in higher royalty payments, of almost US$ 9 bn in 2021-22. How should policy be framed so that good (or quality) FDI comes in, also with larger FDI inflows? How to balance between FDI and domestic investment, and have indigenous innovation? For improving the quality of FDI, the national Science, Technology and Innovation Policy (STIP) of India needs mechanisms to ensure more integration with the National Innovation System (NIS) and better absorption of the knowledge being generated.

GVC Integration and Leveraging Special Economic Zones (SEZs) Potential[7]

Investment from multinational companies is sometimes attracted through SEZs that are "seen as springboards for integrating the host economy into GVCs, and promote FDI and trade." India has been a pioneer in Export Processing Zones (EPZs) in Asia,[8] later transformed into SEZs in the early part of this century. Over the years, the number of countries with zones, and the number of zones have grown. By 2019, there were 5,383 zones globally, with more than 500 under planning/construction (4772 in developing countries, 4044 in Asia), and 372 in India.[9] Major SEZ countries include the US, China, India, Philippines, Thailand, Indonesia, Bangladesh, Dominican Republic, Jamaica and Costa Rica.[10] Countries in the Middle East and North Africa (MENA) region are setting up a number of SEZs, and the EU that had earlier banned government assistance to industries,

[5] Office of the PSA to the GoI (2022), "Note on FDI into R&D, Current Status and Way forward".

[6] UNIDO, and DST, GoI (2023), "Assessment of Firm-Level Innovation in Indian Manufacturing, National Manufacturing Innovation Survey 2021-22,"

[7] Aggarwal, Aradhana (2019), "SEZs and economic transformation: towards a developmental approach," *Transnational Corporations*, 26(2), 27-47.

[8] Setup in Kandla, Gujarat, in 1966.

[9] Bost, F., (2019), "Special economic zones: methodological issues and definition," *Transnational Corporations*, 26 (2), 141-153.

[10] Bangladesh had eight zones earlier, now 100 zones are being established.

including SEZs has now relaxed the norms.[11] Following the tightening of international laws on export subsidies, SEZs are increasingly seen to achieve diversified objectives. For instance, Poland is focusing on employment generating FDI; Thailand is strategically seeking to attract Industry 4.0 in advanced areas and promote employment in backward areas; Italy and Indonesia are seeking regional development; Bangladesh, having overemphasized on textiles and being at risk, is seeking diversification and sustainable growth; Philippines' main focus is foreign exchange, employment generation, and promotion of selected industries (medical tourism, agro centers, IT in addition to manufacturing). Also, realizing the limitations of continuing with textiles, Costa Rica is shifting to high-tech industries by inviting lead firms. Panama is looking for skill spillovers through migration of labor from outside.

After the Chinese success in leveraging SEZs to support industrialization, most anchor companies are looking to SEZs to do their business without hindrances. From the industrial policy perspective, the case for SEZs lies in offering good investment climate, overcoming issues of cost, quality and timing, as competitive locations that can attract targeted, export oriented, efficiency seeking FDI, and trade. Though Indian exporters face the problems of governance, customs, and logistics, India's experience with first generation SEZs has been rather mixed, for contributing at the sectoral not national level.

[11] 30 SEZs have been set up south of Italy, with corporate incentives.

To realize FDI-GVC benefits including innovation, productivity and spillovers, leadership can play an active role in moving beyond PLI to a combination of reforms and a GVC-oriented policy.

Santa Cruz SEZ facilitated the growth of gems and jewellery industry, and those in Santa Cruz, Kandla and Noida of electronics. The second generation SEZs were written off due to policy flip flop and the new bill also had little promise. What can be done to make SEZs more effective in delivering their objectives, including one of integrating with GVCs? With skill intensive industries giving a competitive advantage, attracting more investments and trade, India has to leverage SEZ potential, with a separate brand of SEZs for employment generation.

Need for GVC-oriented Policies

In sum, leadership can play an active role in improving the perception of investing in India, in SEZs or in the rest of the country. The quality of FDI matters, and SEZs can be leveraged for attracting targeted investment. In a market driven system however, where GVC players are free to pursue backward or forward linkages, there is also need to create a conducive environment for GVC production (that involves considerable movement of intermediate imports and exports) to realize GVC benefits that include innovation, productivity, and spillovers. Currently, industrial subsidy or incentive schemes such as PLI, that attempt to indirectly neutralize the rigidities and high cost of manufacturing (due to higher taxes, interest rates, freights, and turnaround times etc.) are having some positive impact, but there are limitations as these are not permanent solutions. Instead of a sequential move, a combination of reforms and definitive actions that prioritize infrastructure and logistics to reduce cost of operations, ease end to end supply chain problems, increase efficiency, facilitate trade and further ease of doing business for more competitiveness need to be undertaken, so lead firms are naturally attracted to India for a thriving business, and the balance is favorable to the country and the company. Focusing on few products (as Bangladesh focused on garments) may help. For technology diffusion, some reciprocity, such as joint ventures in China, local content requirements in automobiles in India have been used previously with a highly successful

example of *Suzuki*.[12] In trying to make FDI more beneficial, a carrot and stick approach can be part of the package. As a recent *Harvard Business Review* argued that given the highly dynamic Indian economy (in size of population, GDP, domestic market or labor-force), "every multinational must have an India strategy, or else it will miss out on one of the most promising market opportunities in the world today." In network products assembly, especially, India has unexploited export potential and is very rightly placed, because the "flying geese" are now moving from China to other countries.

[12] In an FDI targeting approach, the joint venture with *Suzuki* proved favorable for India, as with one single investment, the auto industry became completely vertically integrated, and the government's well-defined parameters of expanding from 100,000 cars to a million, with the foreign partner ensuring 75% of value addition within the country by the fifth year, delivered, and all of *Suzuki*'s vendors were brought from Japan to invest in joint ventures with Indian companies including micro, small and medium enterprises (MSMEs). With 60% of sales and 80% of profits originating in India, *Suzuki* became a global company because of India.

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ISID Institute for Studies in Industrial Development
An institution of Indian Council of Social Science Research (Ministry of Education)
4 Vasant Kunj Institutional Area, New Delhi - 110070, India