Policy Brief No-14

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Pathways towards a Synergized Trade, Industrial and Supply-Chain Policy: India's Priorities and Challenges

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Introduction: Achieving *Viksit Bharat* in the time of Epochal Transitions

India has set itself an ambitious target. The country hopes to transform itself into a developed economy with commensurate levels of per capita income and quality of life by 2047. This vision of *Viksit Bharat* envisages a strong economy that is globally competitive and integrated into global value-chains, generating economic opportunities that bring sustained prosperity for India's workers and businesses. Integral to this vision is a diversified and technologically advanced industrial sector that is not only an engine of growth and employment creation but is also capable of meeting the needs of India's national security.

Achieving this goal would require sustained economic growth of at least 8% for well over a decade. But such economic growth would also need to generate relatively well-paying jobs that can absorb millions of working age Indians. With around 990 million people in its working age population, India currently has the world's biggest cohort of potential workers.

This is both a challenge and an opportunity. If this population is productively employed, it will create a virtuous cycle of production leading to income and consumption that will help India achieve its target of *Viksit Bharat*. Generating such productive employment would require India to rapidly expand both manufacturing and services sectors and take advantage of demand drivers in the domestic as well as the global economy. This makes India's trade and investment strategies central to India's path towards *Viksit Bharat*.

India is currently performing well below potential. Consider the following:

- India's global share of manufacturing output is currently at just 2.8%
- India's global share of manufacturing exports is just 1.8%, much lower than its share of global GDP at 3.4%. It is also a matter of concern that this share has remained largely static in the last decade.
- India employs just 11.4 % of its workforce in manufacturing[1]

India's challenge is further complicated due to the following factors:

1. Increasing adoption of robotics and automation is diminishing the competitive advantage of developing countries like India for attracting manufacturing activity that would employ large numbers of people[2]. This transition to industrialization 4.0 would mean that India will not have the advantages enjoyed by countries in East and Southeast Asia during the 1980s through the first decade of the 2000s where export led manufacturing growth supported the creation of a very significant number of relatively well-paying jobs helping these economies transit to middle and upper-middle income economy status in a relatively short time. A recent report by the World Bank[3] underlines that automation and adoption of robotics has a tendency to displace less skilled jobs-typical of the traditional factory floor occupations.

Exponential Rise in Robotics Adoption

Robot density (defined as number of robots per 10,000 human workers) more than doubled in just 7 years, from just 74 in 2017 to 162 in 2023. Global manufacturing powerhouses like Korea, China, Japan, Germany, Taiwan and USA all have 300 plus robot density numbers.

Source: World Robotics Report (2024),

[1] Press Information Bureau (PIB) press release, December 18, 2023 quoting results from Periodic Labour Force Survey (PLFS)

[2] See Acemoglu and Restropo (2020), Christiansen and Winkler (2019), and Giuntella et al. (2022) among others for in-depth discussion on the effects of increasing adoption of robotics on wages and employment

[3] Future Jobs: Robots, Artificial Intelligence, and Digital Platforms in East Asia and Pacific, World Bank (2025)

2. The so-called 'green transition' where India would be restricted from using abundantly available and cheap carbon-intense energy sources such as coal and natural gas. The transition to less carbon-intensive energy would require substantial investment and thus increasing energy costs, at least in the short-run. The longer to medium run outcomes would depend on access to technology and critical natural resources. Access to both would be subject to geopolitical alignments and thus uncertain.

Global spending on physical assets to support the green transition would amount to a total of USD 275 trillion (period 2021-2050), or about 7.5% of global GDP annually.

Source: The Net Zero Transition, A Report by McKinsey Global Institute (2022)

3. China has come to completely dominate global manufacturing across a wide range of sectors. The rise of China to the apex position in global manufacturing is unique in terms of both the speed at which this was achieved, and its scale and sectoral diversity. China went from having just 6.4% of global manufacturing in 2000 to 28.7% in 2020. It is also the first country in history of industrialization to dominate both technology intensive as well as labour intensive sectors globally[4]. China's share of labour-intensive exports is about 33%, while technology intensive exports stand at 26%. This rapid rise and dominance of China has led to erosion of the manufacturing sector in other economies and loss of jobs. It also meant that China managed to edge out other countries in the global market as it increased market share at their expense. Several reports and studies[5] contend that unfair trade practices and mercantilist trade policies of a non-market economy like China created a 'China Shock' to the global trading system. The recent backlash against globalization and rising protectionism globally is partially a result of this imbalance in global trade where China maintains large trade surpluses with most its trading partners. Finding the means to deal with such unfair trade competition has become a priority for many countries.

Across Sector Dominance

There are a total of 66 manufacturing related sectors as per the International Standards Industrial Classification (ISIC). China has at least 25% share of global output in 56 of those sectors, underlining the scale of dominance across a wide range of sectors achieved by China in just two decades

Source: Authors calculation based on HIS Markit Database published by Standard & Poor

4. There is increasing digitalization and integration of digital functionalities in goods and services. Cars, television, industrial machinery, household appliances and even shoes have become smart with the integration of digital devices or chips and such 'smart' goods are sold as a combination of goods and services. These devices generate massive amounts of data that are then used to provide value-added functionalities; everything from driverless cars to power-adjusting LED lights that save energy. Digitalization is allowing the remote provision of services that previously required on-site human presence. For example, remote maintenance of machines, online consultation with doctors, or remote security surveillance of facilities using drone cameras and other devices. Increasing use of mobile apps is adding digital layers to

[4] This author had predicted such an outcome in his 2010 co-authored book chapter (with Kenneth Reinert and Ian Goldin) "Trade, Development, and Poverty Alleviation: Considerations for India and China", appearing in B. Hahn and C. Jaeger (eds.), Trade Liberalization and Protectionism, Nova Publishers, New York, but had overestimated India's ability to assert similar dominance

[5] For more details, readers can refer to Annex B which lists the literature on the subject, as well as "Navigating the Development Divide: The Case for Policy Space in India's Industrial Policy Strategy Amid Rising Global Protectionism", CRIT Working Paper No. 85, available at https://wtocentre.iift.ac.in/workingpaper/CWS_WorkingPaper_85.pdf

consumption and production related activities. All of this creates huge opportunities for skilled Indian manpower to leverage global opportunities due to digitalization. Digitally delivered services are the fastest growing segment of trade today (*Figure 1 below*).

Figure 1: Growth of Digital vs. Other Trade (1995=100)

Source: OECD

5. Rapidly ageing societies in richer countries is leading to labour shortfalls across a number of areas[6]. But such shortages are especially acute for personalized services, especially those associated with elderly care, health, childcare, Critical shortages also exist in transport, facilities maintenance and construction. These labour demand-supply gaps provide an opportunity for Indian workers to leverage global opportunities.

> OECD members states have rapidly ageing societies that would require about 15 million new workers per year ***to maintain the current already low working age to elderly population ratios.*** This cannot be achieved without importing workers from non-OECD sources.
>
> ***Source: Smith and Hani (2020)[6]***

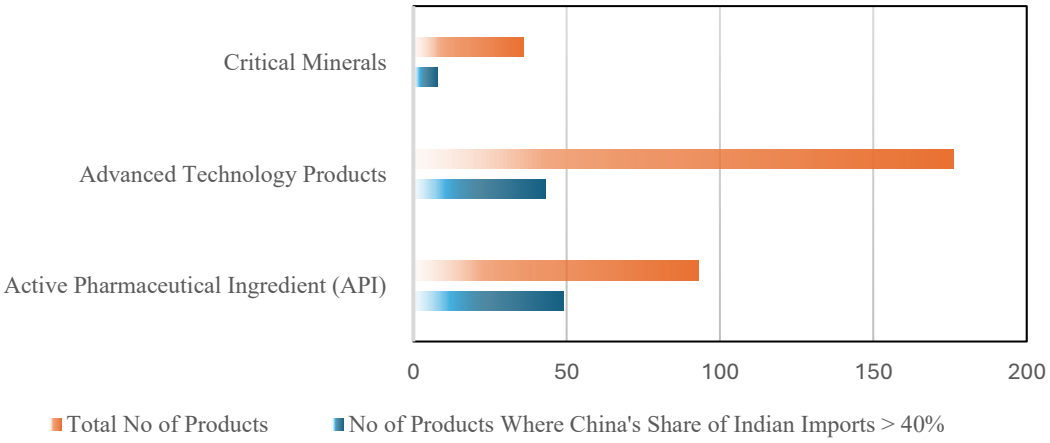
6. Countries can weaponize their global dominance in production or supply of key raw materials and industrial goods. It needs to be noted that non-market, non-democratic countries can weaponize their dominance in any supply-chain much more effectively. Private sector firms in market-oriented economies are mostly free to pursue their independent commercial priorities and their governments can exercise relatively less control on their export or commercial decisions. Even when such controls are exercised in democratic, market-oriented countries, it must be typically done through a formal law or sanctions regime. But governments in non-market, non-democratic systems can exercise much greater control on an ad-hoc basis.

   Access to key technologies is also essential for national security including economic security. Therefore, identifying technology access needs and priorities, and developing a comprehensive and coordinated response to them is also essential. With this context, it is important that Indian policymakers prioritize supply-chain resilience and economic security needs.

[6] Smith, R. and Hani, F. (2020) Labor Mobility Partnerships: Expanding Opportunity with a Globally Mobile Workforce, Center for Global Development, Report of Connecting International Labor Markets Working Group. June

Recent examples of preventing exports of tunnelling equipment manufactured by Siemens, a German firm located in China, to India are just one example of such weaponization. In fact, academic and technocratic experts in China are actively pushing for such denial to India. Zhai Dongsheng, a senior academic and expert from Renmin University of China, recommended in a policy note that Chinese firms must be encouraged to invest in SE Asian and Latin American economies as labour costs increase in China due to demographics, and the country faces trade barriers in key markets due to concerns about mercantilist policies. Chinese facilities in third countries would help Chinese firms circumvent such China specific trade barriers. But the same policy note clearly warns that Chinese investment, equipment or knowhow must be prevented from reaching India to the extent possible as India has the scale and capability to pose a threat to Chinese dominance in the longer-run[7]. As *figure 2 below* shows, India has existing import dependencies on China for close to half of its active pharmaceutical ingredients (API) related products, about one-fourth of advanced technology products in engineering, electronics, precision equipment and chemicals, and about a fifth of its critical mineral related imports.

FIGURE 2: INDIA'S IMPORT DEPENDENCY ON CHINA IN KEY PRODUCT CATEGORIES



Source: Calculations from internal CWS research related to supply-chains

Under these circumstances, what are the key policy objectives that confronts the Indian policymaker? One obvious goal has to be an integrated and synergistic approach to policymaking related to trade, industrial development and supply-chain resilience geared towards achieving national priorities. This kind of coordination is not easy to achieve in a democratic federal system where decision making often gets siloed within different ministries that are each subject to the pulls of different business and socio-political interests. This is further complicated by divergent interests between different state governments. Prime Minister Narendra Modi has made the call that the next two decades leading up to 2047 requires complete dedication towards achieving the goal of Viksit Bharat. Achieving that goal would require all stakeholders to be aligned on the broad objectives. In the context of building a competitive and resilient economy these objectives include:

1. Using trade agreements to ensure stable and binding global market access for India's merchandise exports (*especially manufacturing*)
2. Pre-empting protectionism that could impede market access for India's services exports (*especially digitally delivered services*)

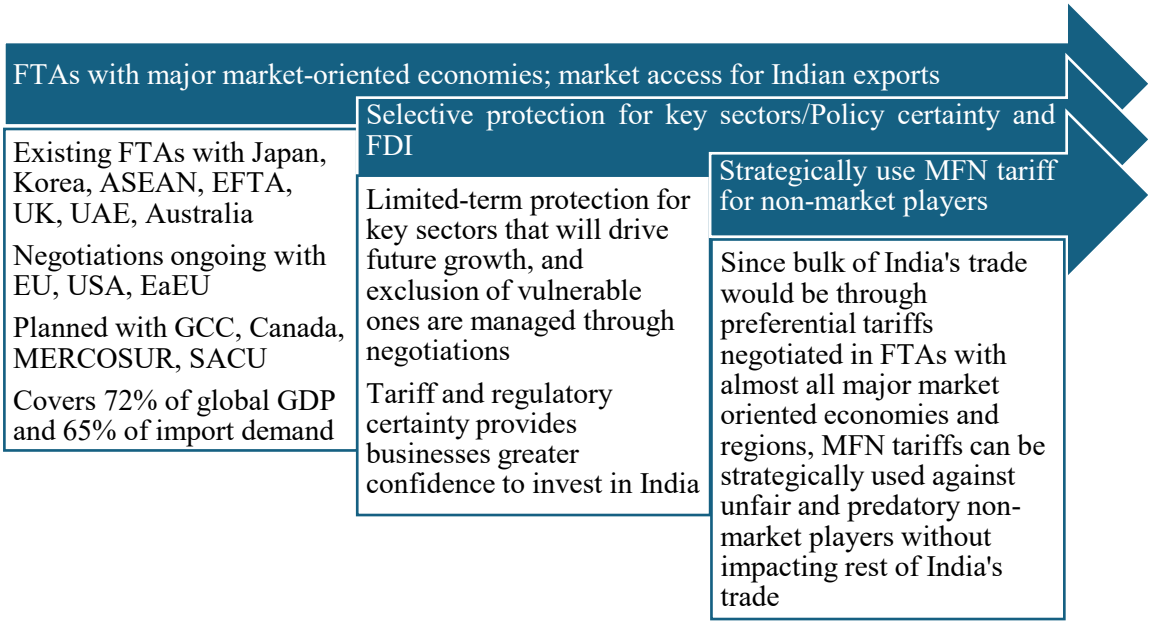
[7] Policy Note by Zhai Dongsheng, Dean of Institute of Regional and Country Studies, Renmin University, China, January 2nd, 2025

3. Using MFN tariffs strategically to protect Indian industry against unfair and predatory practices of non-market economies.
4. Ensuring global employment opportunities for Indian workers across the skill spectrum
5. Protecting strategically important sectors (but only in the short-term), thus allowing them to grow in scale and competitiveness (in the long-run)
6. Protecting socio-economically vulnerable sectors (especially in agriculture) from external shocks, and thus limiting their exposure to global markets through trade liberalization to the extent possible.
7. Leveraging the tariff and regulatory certainty achieved through binding commitments for market access and national treatment (i.e., Indian firms being treated the same as domestic firms in FTA partner country) in FTAs to attract FDI.
8. Develop economies of scale and competitiveness in key industries with the help of industrial policies best suited to Indian realities and fiscal constraints
9. Taking the lead in ideating for reforms of global trade rules related to industrial policy including state support and subsidies that are 'fit for purpose' from an Indian perspective and in the interests of large developing nations that share India's objective of lifting their large populations out of poverty into the global middle-class.
10. Develop resilient supply-chains through import diversification, coordinated global efforts with friendly countries, and developing indigenous capacities in critical industries essential to national and economic security
11. Address technology gaps in the context of national and economic security and resilience of supply-chains through policies that support technology transfer, acquisition and indigenous technology development

Let us discuss these mutually reinforcing and complementary strands of trade policy, industrial policy and supply-chain resilience that would be required to achieve the above objectives in greater detail.

Section I: Trade Policy:

Key Trade Policy Objectives

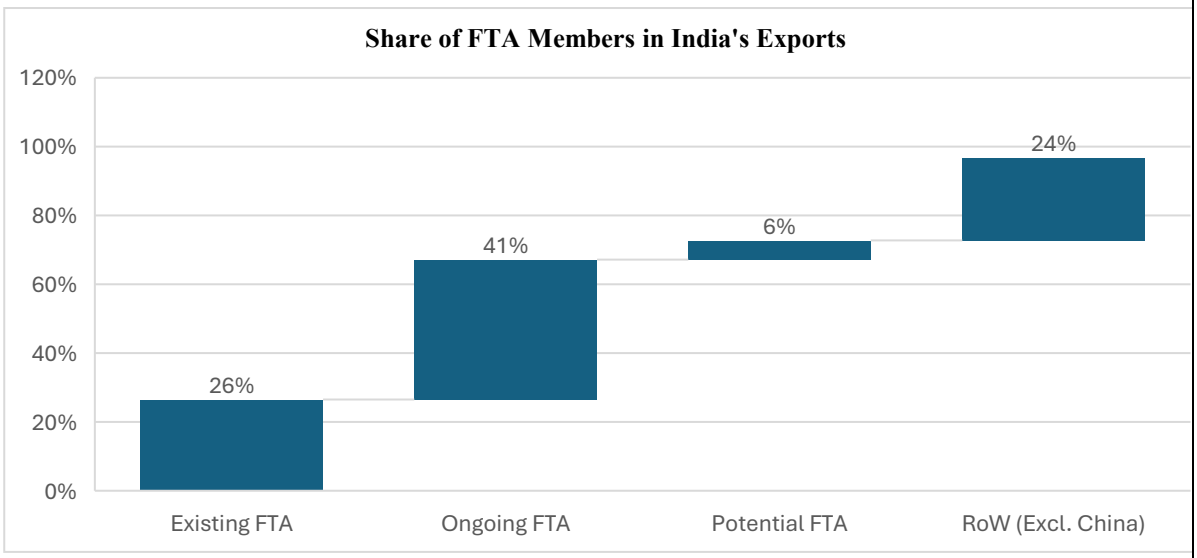


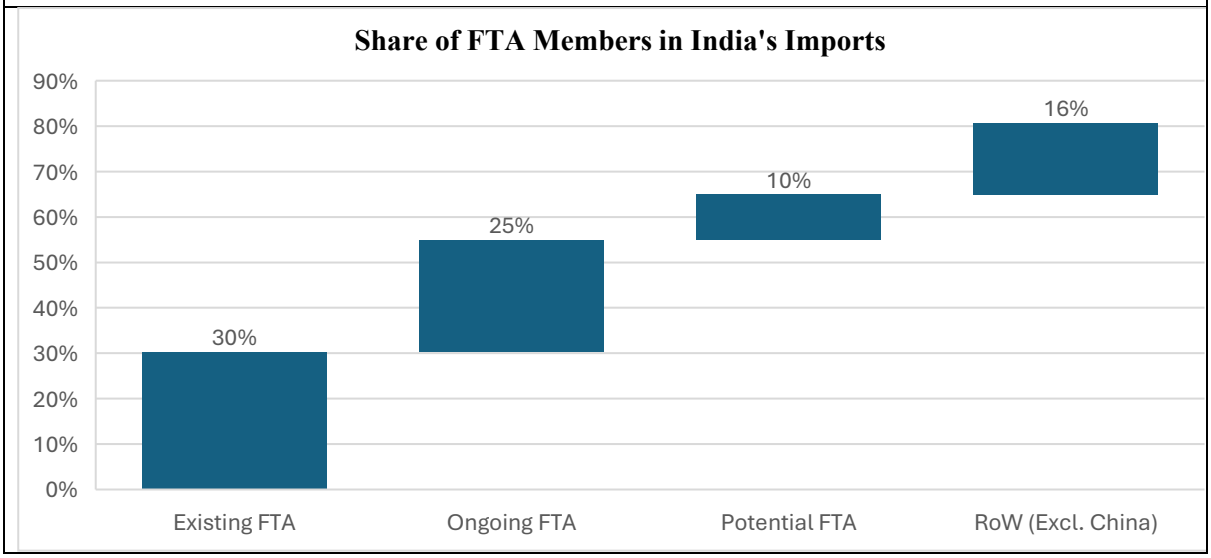
Objective #1: Integration with key market-oriented global economies and regions

Policy Goals/Concerns Negotiate FTAs with advanced industrial economies and important emerging and developing economies (EMDE) for binding market access in goods.		***Strategy Under Execution*** India is currently negotiating or already has FTAs with almost all the major advanced industrial economies (Japan, Korea, Australia, UK, EU, and US). In addition to pursuing FTAs with advanced economies, India would need to ensure market access to the fast-growing EMDEs. In that context India already has FTAs in place with ASEAN and UAE, and is negotiating or actively considering FTAs with economies in the Gulf region, Africa (Southern African Customs Union or SACU that includes South Africa), Latin America (Chile and Peru), Russian Federation etc. These countries account for 73% of Indian exports and 65% of imports (*see figure 3*) currently. ***Work in Progress*** Non-tariff barriers related to product standards, national security, consumer safety, health and environment are becoming bigger barriers to trade compared to tariffs. India would also have to ensure that such non-tariff barriers do not impede its export opportunities. In order to do so, it would have to find innovative provisions within its FTAs that focus on minimizing the cost of

		complying with these standards and regulations for India's exporters.

Figure 3: FTA (current and future) partner shares on India's Exports and Imports





Source: Author's calculation based on WITS Data

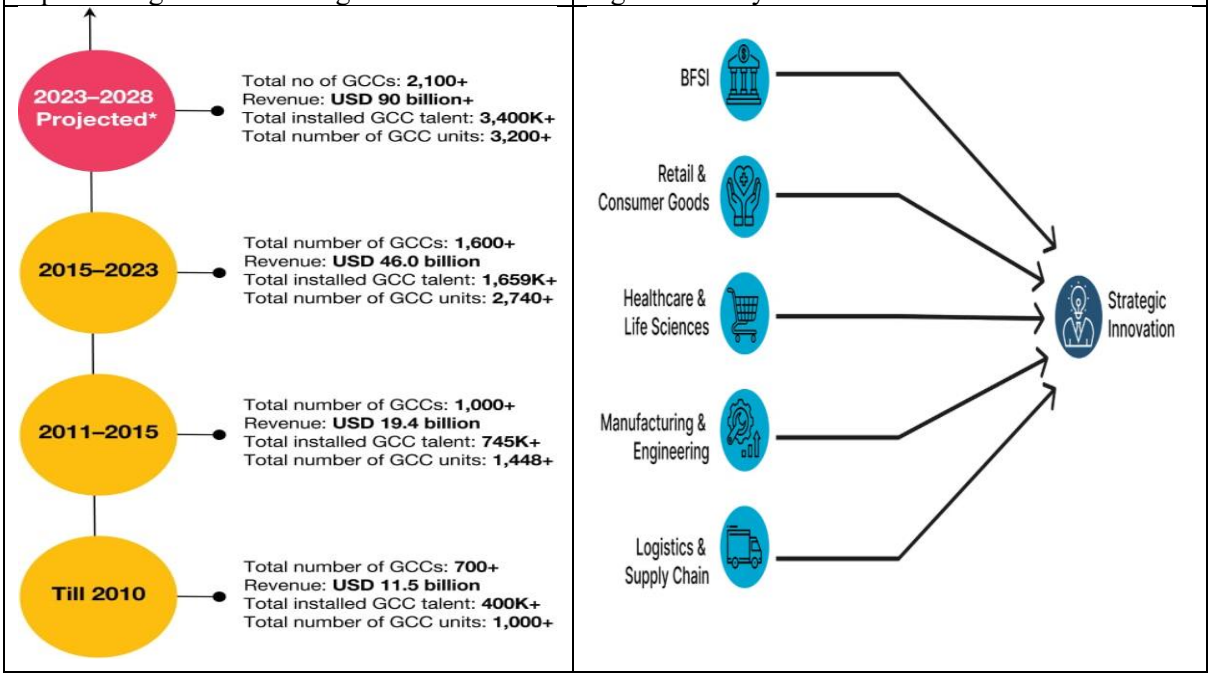
Objective #2: Market access and regulatory certainty for services exports, especially digitally delivered services (DSS)

Policy Goals/Concerns Obtain binding commitments to ensure market access for Indian services exports-especially digitally delivered services (DSS). This is especially important given that		***Strategy Under Execution*** India's FTAs, especially its newer FTAs, include comprehensive commitments on cross-border delivery of services (that covers digital delivery of services) across sectors with binding commitments on Market Access and National Treatment (*national treatment in services ensures that Indian service provider is not*

Digitally delivered services would increasingly dominate the global-value-chain of services delivery. India is the hub for Global Capability Centres or GCCs that mediate these emerging value-chains. The growth of GCCs is central to engendering the next 'middle-class' revolution in India potentially creating several million high-paying jobs in tech *(see figure 4 below)*		*discriminated vis-à-vis domestic service provider in the importing country)* ***Work in Progress*** Indian skilled workers would increasingly be a source of direct competition for their counterparts in richer countries as digital delivery allows more and more services tasks to be performed remotely. This will lead to a backlash and possible rise in protectionism. India's FTAs with key economies would need to include measure that pre-empt any protectionism in market access for Indian services exports. Many of these protectionist measures are currently not in place, so there is still some opportunity for pre-emption. CWS paper on this subject provides a detailed discussion[8].

Figure 4: Exponential rise of GCs in India and Cross-sectoral Specialization

Figure 4a: Exponential Growth of GCCs representing about 50% of global share	Figure 4b: Integration of diverse domain talent with digital delivery of services



Source: Fig 3a: PwC, Fig 3b: mroads

Objective #3: Remove impediments for global employment of Indian talent allowing it leverage opportunities arising from demographic shifts

Policy Goals/Concerns Find innovative mechanisms that allows India's workforce find global opportunities, either through FTAs (for skilled services) or through mobility		***Strategy Under Execution*** India has negotiated binding commitments for worker mobility in the services chapters in FTAs for its skilled professionals. While such binding commitments largely reflect existing national policies in partner countries, and does not extend special privileges to Indian workers,

[8] For a detailed discussion on such potential barriers to digitally delivered services see "Negotiating for Digitally Delivered Services- Framework for a Comprehensive Approach" CRIT Working Paper No. 82, available at https://wtocentre.iift.ac.in/workingpaper/CWS_WorkingPaper_82.pdf

agreements (for industrial jobs and less-skill intensive services)		having a binding commitment provides a measure of protection against any future limitations on visa access and work permits. ***Work in Progress*** India would also have to proactively explore bilateral comprehensive mobility agreements that would allow Indian industrial workers and less skilled services workers to find employment globally. India has pursued mobility agreements with a number of EU member states (Germany, Italy, Portugal) as well as Gulf economies. However, India should continue to improve upon these agreements, making them more comprehensive. Improvements would include adding provisions that provide assured quotas for different categories of workers, while also developing mechanisms that create greater trust and assurance about Indian workers. Specifically, host country governments should be assured that movement would be temporary, and Indian workers would return back to India at the end of their contracts, that worker qualifications are genuine, and that adequate background checks have taken place. This in turn would require putting in place institutional mechanisms for background checks and qualification verification in India. It would also require bringing in a system of accountability and obligations for recruitment and employment agencies that mediate such cross-border employment. These are all areas where greater deliberation and program design is needed.

EU alone needs:

- 4 million health sector workers and caregivers
- 745k truckdrivers
- 1.5 million construction workers

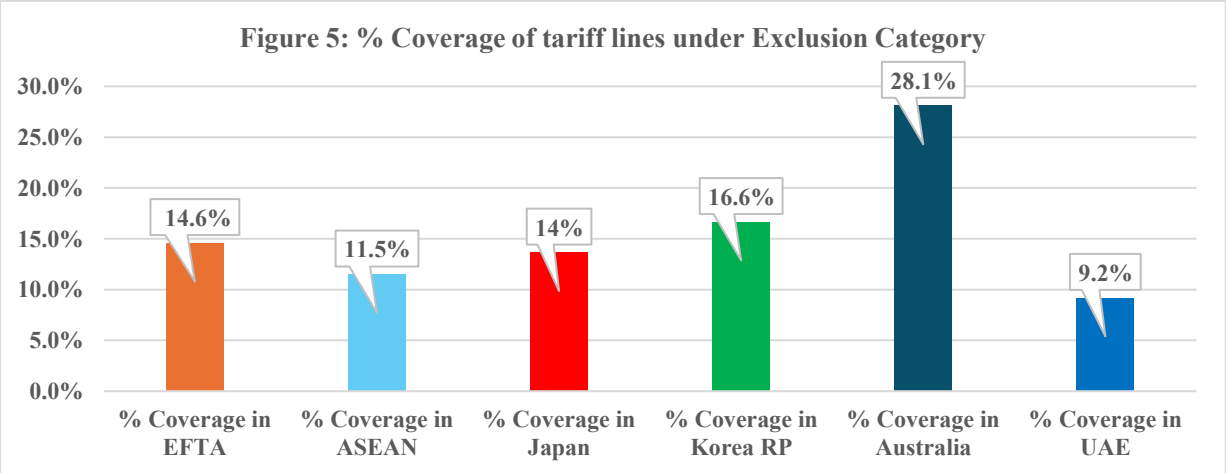
Or close to 6.5 million new workers, underlining the massive demand for workers in ageing economies

Source: See footnote[9]

[9] For health workers: Response to Parliamentary Question (ref no: E-001566/2024), EU Parliament, dated 29/08/2024
For truck drivers: Short note by Girteka Group "The critical role of test drives in tackling Europe's drivers shortage" Feb, 2025, available at https://www.girtekagroup.com/the-critical-role-of-test-drives-in-tackling-europes-drivers-shortage/#:~:text=Test%20drive%20assessments%20are%20not,of%20logistics%20services%20in%20Europe.
For construction workers: Short note by International Trade Union Confederation (ITUC) "More than two million workers will be needed in the construction sector in Europe by 2030" June, 2023, available at https://www.ituc-csi.org/more-than-two-million-workers-will-be-needed-in-the-construction-sector-in-europe-by-2030

Objective #4: Provide strategic protection to key sectors and protect vulnerable ones

Policy Goals/Concerns	***Strategy Under Execution***
To ensure that it emerges as a player in key industrial sectors that will dominate global merchandise trade in the future (*this includes electronics, advanced engineering, chemicals, pharmaceuticals, precision engineering included robotics, renewable energy etc.*), India would need to allow domestic industrial scale and competence to develop before exposing these sectors to foreign competition. In other words, ensure delayed tariff liberalization in these sectors to buy time when negotiating FTAs. This is the key element of the trade policy-industry policy synergy India will need to protect its vulnerable sectors (where foreign competition can cause huge unemployment and socio-economic issues), especially agriculture. This would mean not exposing them to foreign competition. This would mean excluding such sectors or key products in such sectors from FTA led tariff reduction	India has so far managed to exclude from market liberalization or obtain significantly long transition periods before it opens up its markets for key strategic sectors that are part of its longer-term industrial policy strategy. This will provide some breathing space before such sectors are exposed to foreign competition as tariffs come down. India will have to use this limited time available to leverage domestic market size and grow scale and competence in these important sectors. To do that it would need to proactively use industrial policy and attract investment *(see discussion under industrial policy and investment and technology)* India has also largely succeeded in keeping out is key sensitivities, especially in agriculture from its FTA commitments on market liberalization (i.e., reduction of tariffs) *Figure 5 below* shows that India has managed to protect 10% plus tariff lines representing its key strategic sensitivities by excluding them from the FTA, i.e., India will not have to reduce duties on these products



Source: Author's calculations based on FTA goods schedules. Note that the FTA with Australia is only partially negotiated, and the percentage of lines that would be excluded from liberalization commitments would come down

Objective #5: Minimize impact on competitiveness from aggressive use of environment, labour and other such socio-economic issues as a tool of trade policy

Policy Goals/Concerns Excessively stringent labour or environmental standards that go beyond the reasonable benchmarks required for India to meet its sustainable development goals can increase the cost of production and lead to delays in projects. Overall, they will add transaction costs and reduce India's competitiveness, while negatively impacting FDI inflows[10]. India needs to avoid binding commitments in trade agreement in areas like environment, labour, and other concerns driven by an agenda that is the result of political activism in industrialized countries. This is not to say that India should ignore genuine issues of workers rights and safety and environmental sustainability.		***Strategy Under Execution*** India's strategy has been to avoid having provisions in FTAs related to environment, labour and other issues emanating and from largely western sensitivities related to rising inequities in their societies. Source of such inequities include regional disparities and inter-community differences in socio-economic attainment. With increasing pressure to include such provisions, India's fall-back option has been to ensure that such provisions do not lead to hard obligations which will reduce India's ability to develop policies in these areas independently at its own pace with its own developmental priorities in mind.

Objective #6: Put in place policies to optimize FDI leveraging market opportunities through FTAs

Policy Goals/Concerns Ensure that such FTAs lead to investment growth and technology transfer *(also see discussion under industrial policy)*		***Strategy Under Execution*** India's innovative approach to link market access to India's large and growing market in the longer run to investment (FDI) commitments by advanced industrial countries is seen as a radical innovation in trade policy (see Box No. 1 below) ***Work in Progress*** Leveraging FTAs to develop GVC linkages, attracting FDI and technology would require concerted efforts across policy domains *(see discussion under industrial policy and supply-chain resilience).* India would also need to reconsider its approach to Bilateral Investment

[10] Laget et al. (2021) show that there is an inverse relationship between FDI and binding commitments in labour and environmental provisions in FTAs between developed and developing countries. For more details, please see Laget et al. (2021) Deep Trade Agreement and Foreign Direct Investments, World Bank Policy Research Working Paper No. 9829 (https://openknowledge.worldbank.org/server/api/core/bitstreams/5303bf87-373e-58c0-8ef3-d3806d783559/content)

		Treaties (*See Box 2 in the following section on industrial policy*)

Box No. 1: Linking Market Access to Investment

Advanced economies would like to maintain their dominance in global-value chains and technology. Large developing countries would like to move-up the value-chain and close or eliminate the gap in technology. The firms in advanced economies need the large rapidly growing markets in countries like India for their growth, while developing economies need investment and technology from advanced countries and access to their markets to achieve their development goals. There are no easy fixes to this tension between this competition and simultaneous need for co-operation. This is where the success of the India-European Free Trade Association (EFTA) Trade and Economic Partnership Agreement (TEPA) comes in. This agreement provides a model that complements the desired outcomes for both developed and developing economies and represents a radical innovation and a potential template for other North-South FTAs

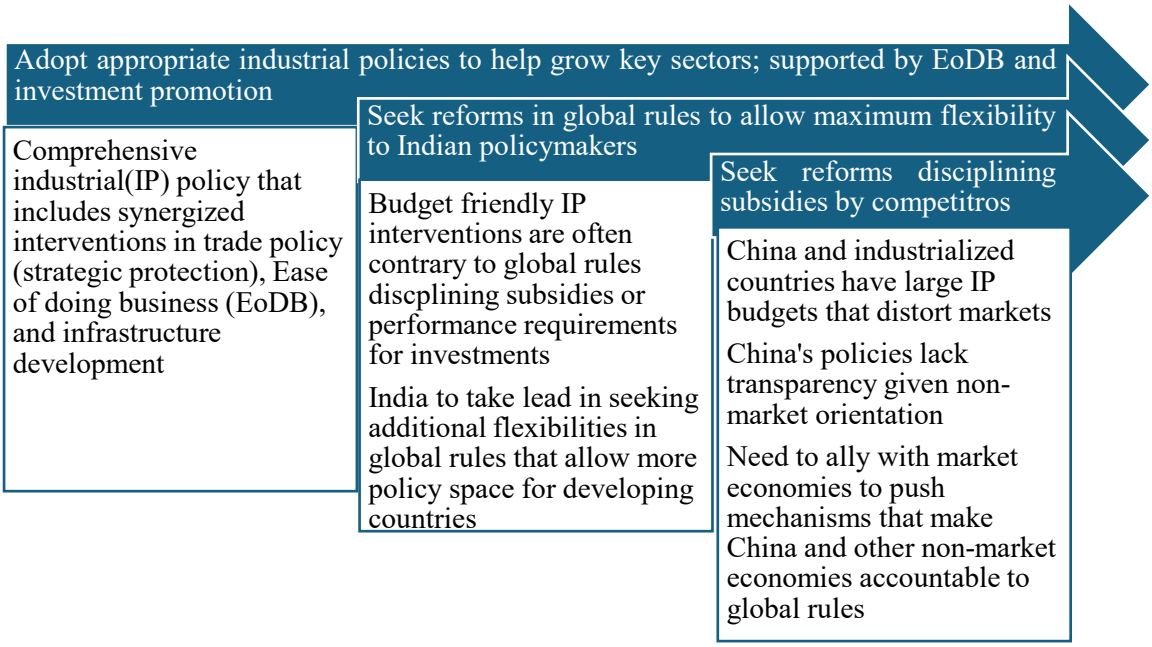
The EFTA member states have taken on the obligation for investing 100 billion USD in India over the next 15 years. Portfolio investments are not included in this obligation and refer to actual investment in economic activity leading the creation of 1 million jobs. India's retains the right to respond by withdrawing market access commitments made in the FTA if the investment obligations are not met. This linkage between providing market access to rapidly growing developing societies with investment obligations from ageing, slow-growing rich countries is based on a fundamental complementarity of needs. Rich country firms need developing country consumers to sell to and its workers to produce with.

Source: Article by author in "Die Volkswirtschaft", an economic policy magazine published by the by the State Secretariat for Economic Affairs (SECO), Government of Switzerland[11]

[11] Banerjee, Pritam (2024). Freihandel aus der Sicht Indiens. Die Volkswirtschaft, 10. September (https://dievolkswirtschaft.ch/de/2024/09/freihandel-aus-der-sicht-indiens/)

Section II: Industrial Policy (IP)

Key Industrial Policy Objectives



Objective # 1: Implementing Reforms and Industrial Policy that is fit for purpose for India and is fully synergized with its Trade Policy and Supply-Chain resilience objectives

Policy Goals/Concerns	***Strategy Under Execution***
India's global share in relatively low-tech, labour-intensive exports is just 2.7%, while its share in high-tech sectors is just 0.7%. Increasing India's share of global manufacturing and exports would require significant efforts towards EoDB reforms and general logistics and industrial infrastructure development. It will also require sector specific state support often targeted at a few specific firms.	Prioritized infrastructure development linked to logistics efficiency and industrial facilities (including ready to move in factories that are leased at competitive rates). PM Gati Shakti Master Plan[12] is a first step. But state governments need to play a much bigger role in both ease of doing business and infrastructure management. Union budgets have tried to incentivize states to raise their game, but with limited success so far. Government has brought sustained focus on EoDB reforms that has reduced the cost and complexity of doing business in India and made India much more attractive to foreign investors.

[12] PM Gati Shakti Master Plan, launched in 2021, is an integrated multi-modal logistics planning and execution eco-system that helps fast track logistics infrastructure projects and ensures optimal alignment of projects to actual economic and social needs.

India needs to become globally competitive in sectors that will define the future of the global economy, i.e., in robotics, renewable energy, sustainable transportation, digital goods and equipment, biotech, advanced materials and chemicals etc This would require attracting FDI from leading firms in these sectors that are mostly headquartered in North America, Europe and East Asia		India has been successfully attracting FDI, especially from lead firms in sectoral GVCs. India has brought in some innovation in FTA design (*see Box 1*). But revisions of India's Bilateral Investment Treaties (BIT) need to be considered to address investor concerns *(see Box No.2 on Rethinking BIT)* Production Linked Incentive (PLI) schemes are providing targeted industrial support programs to help develop India's presence in global value-chains in key industries of the future. But success of the scheme has been uneven across different sectoral schemes, ***Work in Progress*** While a lot of progress on this has been made in EoDB related to Central government related regulations and processes, State level administrations are the key since they are the interface with business in most cases at the operational level. Reforms at the state level have been uneven across states and much more needs to be done. Such reforms are critical for ensuring that Indian investors, industrialists, and start-ups do not move out of India for their expansion plans IP interventions beyond PLI that require lesser fiscal obligations by government are needed. This includes better utilization of existing industrial parks or landbanks, tax incentives that forego taxes instead of financial contribution, credit guarantees reducing cost of borrowing, and viability gap funding using zero or reduced interest loans. Policies for local content requirements and technology transfer agreements should also be considered. Large government procurement contracts can be leveraged to encourage technology transfer in key sectors. Urgent need for reforming the industrial parks ecosystem in India so that they can develop holistically into industrial towns or cities that provide housing and social infrastructure. High cost of housing for workers can inflate wage costs and in the longer-run impede skill development and productivity related investments. Same is true for highly priced social amenities linked to education and health. Recent budget initiatives[13] have taken a few initial steps towards addressing some of these challenges in the development of urban ecosystems linked to industrial facilities.

[13] Budget 2024-25 announced budget outlays for twelve plug and play industrial parks, and even more importantly development of rental dormitory housing for industrial workers in PPP mode. Much more needs to be done for the development of genuine industrial townships with appropriate but affordable amenities for workers and businesses.

Box 2: Rethinking Indian Approach to Bilateral Investment Treaty (BIT)

India's model BIT limits the scope of Investor State Dispute Settlement (ISDS) and requires parties to exhaust to disputes through domestic courts first prior to seeking international arbitration. Given that legal processes in India can take a very long time, critics of the model BIT argue that this makes investors wary of investing in India. The model BIT also excludes tax related disputes from arbitration. This means that foreign investors will be open to the risk of unexpected changes in tax policy, including changes that have retrospective effect without having any recourse to international arbitration. While the objective of the Model BIT was to balance state and investor rights and limit the use of ISDS arbitration which might have a pro large MNC bias, some critics like Ranjan and Anand (2016) have argued that several provisions in the Model BIT suffer from imprecision which in turn can actually provide significant discretion to ISDS arbitral tribunals. The Model BIT worldview is that of a host state that is an investment recipient. As Indian firms increasingly become foreign investors, they would require protection from unfair state action and prefer the use of more neutral international arbitration as opposed to domestic legal systems. All of these reasons require a serious re-look at India's approach to BITs

Sources: Ranjan and Anand (2016) and Hodgson and Sharma (2022)[14]

Objective # 2: Seeking reforms on global rules governing industrial policy interventions which might become an impediment and a source of trade disputes[15]

Policy Goals/Concerns		***Work in Progress***
India's pursuit of industrial policies discussed under Objective # 1 can be challenged under the current rules governing global trade under Agreement on Subsidies and Countervailing Measures (ASCM) and Trade Related Investment Measures (TRIMS). Such rules prevent or can impede use of budget-friendly industrial policy interventions preferred by developing countries. These include incentives rewarding exports, use of local content and other performance requirements (PRs) for investment such as export obligations, technology transfer, or skill development.		India needs to develop an effective coalition to influence the discussions around reforms of global rules governing issues related to subsidies and industrial policy. The upcoming WTO Ministerial Conference (MC14) presents an opportunity for India to play a leadership role in clearly articulating a developing country perspective, underlining that bulk of the global poor still reside in large developing countries like India. India will have to take the lead in developing an alliance of developing countries that does not include China and thus distances itself from the mercantilist and trade distorting industrial policies of China. This will have to include most of the large market-oriented democracies in the developing world, i.e., Indonesia, South Africa, Nigeria, Ethiopia, Brazil, Philippines, Colombia etc. In order to establish a distinct interest group representing market oriented developing democracies, India will have to find multiple ways to legitimize and mainstream an evidence-based narrative that stresses that such flexibilities are important for longer-term global socio-

[14] Ranjan, P, and Anand, P (2016) The 2016 Model Indian Bilateral Investment Treaty: A Critical Deconstruction, Northwestern Journal of International Law and Business, Vol 18, No.1, and Hodgson, M, and Sharma, S. (2022) The Aftermath of India The Aftermath of India's 2016 Model BI s 2016 Model BIT: Safeguarding Present and Future Investments, National Law School Business Law Review, Vol 8, No.1

[15] For a detailed discussion on this topic, "Navigating the Development Divide: The Case for Policy Space in India's Industrial Policy Strategy Amid Rising Global Protectionism", CRIT Working Paper No. 85, available at https://wtocentre.iift.ac.in/workingpaper/CWS_WorkingPaper_85.pdf

Subsidies that reducing borrowing costs, lower factor (land, labour) costs can also be subject to countervailing measures. Some advanced industrial countries want to deny any special flexibilities on global rules to large developing countries like India, let alone consider demands for new flexibilities. Such special flexibilities for developing countries, i.e., Special and Differential treatment (SDT) forms the basis of the linkage between development and trade policy. All such moves to deny or dilute SDT is an attempt to de-legitimize inequity as represented by the massive development and economic gap between wealthy and developing countries as a factor in global rule making		economic and political stability, and essential for sustainable growth. Global inequity and unmet aspirations of the majority of the world's poor would lead to political unrest, illegal migration, conflicts and environmental depredation. Current groupings such as the BRICS includes non-market economies that are majorly responsible for trade distortion and global imbalances, and therefore this grouping has limitations as an appropriate alliance for this particular purpose, while being relevant otherwise on issues of broader geopolitics Making a genuine case for Special and Differential Treatment would also require that India takes the lead in developing a consensus among developing countries on pushing forward an objective criterion for developmental gaps basis which countries qualify instead of current practice of 'self-identification' as a developing country. Such self-designation will be increasingly challenged given that some of these self-designated developing countries have dominant shares of global exports and manufacturing across wide array of industrial products, and they are above the global average when it comes to per-capita income levels.

Objective # 3: Seek robust application of global rules on globally dominant Non-Market Economies and pursue procedural reforms that ensures their accountability for use of trade distorting policies

Policy Goals/Concerns India and other large developing countries have been the biggest victims of unfair trade practices and violation of global rules by China China's scale and dominance across sectors have created global dependencies on China *(see Figure 6 below, and Annex 1).* Such supply-chain dependencies can be weaponized, jeopardizing economic security in many countries[16].		***Work in Progress*** Industrialized economies are pushing for reform of global rules to ensure greater transparency and accountability of trade distortive government policies in non-market economies[20]. Such reforms are welcome from an Indian perspective. Making non-market economies accountable to global rules will ensure fair competition for Indian manufacturing in both its domestic and export markets. However, India has to be cautious that such rules are not framed in a manner that they add further layers of restrictions on state supported industrial policy for legitimate developmental needs in market-oriented democracies like India[21].

[16] China has been using this as a tactic increasingly more frequently, with one latest example being export controls on industrial magnets and rare-earth minerals that are essential inputs in many industries

[20] Trade Trilateral Targets China's Industrial Subsidies', January 22, 2020, Centre for Strategic and International Studies (CSIS)

[21] For a more detailed discussion on specific provisions being considered by US, EU and Japan, and concerns around them, please refer to Navigating the Development Divide: The Case for Policy Space in India's Industrial Policy Strategy Amid Rising Global Protectionism", CRIT Working Paper No. 85

China has singled out India as a major threat and is preventing transfer of manufacturing capabilities from China to India by restricting the export of capital goods and parts and components[17]. As a non-market economy, Chinese government has many more policy levers at its disposal to influence firm behaviour and control prices of factors of production[18]. Chinese government can extend state support to individual firms and projects in a manner that is difficult to identify, monitor and be made accountable to global rules[19]. It is in India's interest to push for reforms that ensure that China, and other non-market economies are held accountable to global rules and do not get away with policies that distort trade and hurt India's longer-term interests for industrial growth and development.		India therefore has to take the lead in simultaneously pushing for more rigorous rules for accountability to discipline trade distorting state support and unfair trade practices in non-market economies that have become globally dominant in terms of both production and exports, while at the same time ask for flexibilities for developing countries that have legitimate developmental gaps. This is a challenging balancing act; to simultaneously push for greater accountability in application of certain rules and disciplines on one set of actors, while seeking flexibilities for the same rules. But this would not be without precedent and would be aligned to the spirit of the Marrakesh Agreement that led to the formation of the WTO, requiring that global trade rules not only ensure trade liberalization and expansion, but also address legitimate developmental concerns and results in equitable outcomes for WTO member states[22]. In addition to actively seeking to reform global rules that addresses legitimate developmental concerns of India and other developing democracies, India needs to also consider drafting a domestic law that allows it to impose exceptional tariffs (i.e., deviate from MFN principle) due to a) national security, b) supply-chain vulnerability, and (c) due to lack of transparency and trade distortive policies of the trade partner concerned. Such a law will give effective teeth to counter unfair trade practices by China or other non-market economies. Such a law would also be crucial for addressing import overdependence that can be weaponized by adversarial countries.

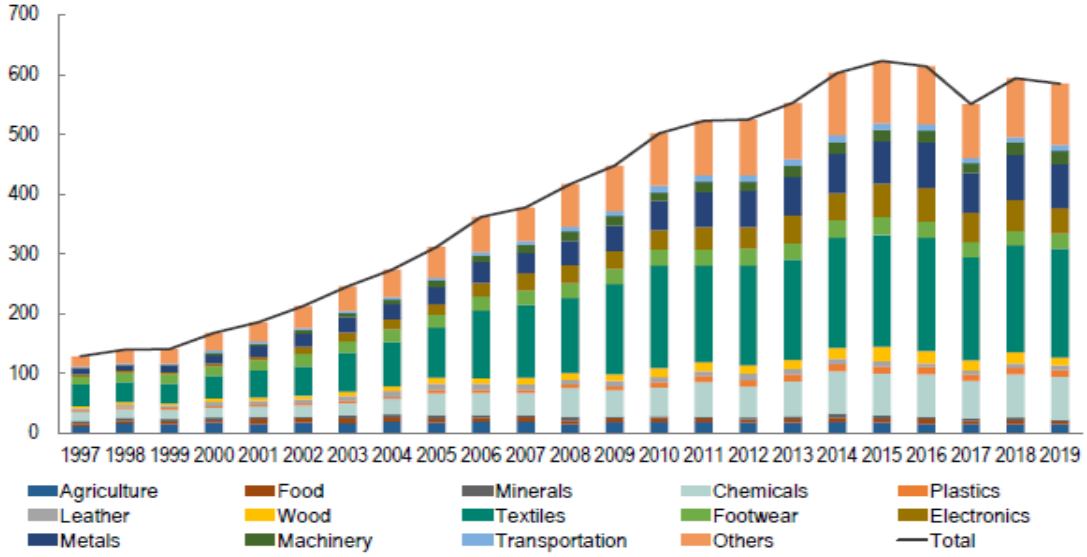
[17] Policy Note by Zhai Dongsheng, Dean of Institute of Regional and Country Studies, Renmin University, China, January 2nd, 2025

[18] The Chinese government can encourage companies to partner together, merge and consolidate, coordinate to gain market shares, raise prices, restrict access to products where they already have substantial market power, or favour domestic firms in their suppliers and client networks (Boullenois, G., Rosen, D., & Wingo, L. (2025). Far From Normal: An Augmented Assessment of China's State Support. Rhodium Group. https://rhg.com/research/far-from-normal-anaugmented-assessment-of-chinas-state-support/)
Also, Chinese government control of the Banking system and a large number of public sector firms in key industries allows manipulation of borrowing costs and input prices without any formal policy (see Wu, Mark (2016) The "China, Inc." Challenge to Global Trade Governance, Harvard International Law Journal, Vol. 5, No.2)

[19] Unlike democratic systems like India, Chinese system does not impose stringent requirements of public accountability, transparency and right to information.

[22] The preamble to the Marrakesh Agreement establishing the WTO in 1994 states "the need for positive efforts designed to ensure that developing countries, especially the least developed among them, secure a share in the growth in international trade commensurate with the needs of their economic development".

Figure 6: China Growing Product Level Dominance Across Sectors

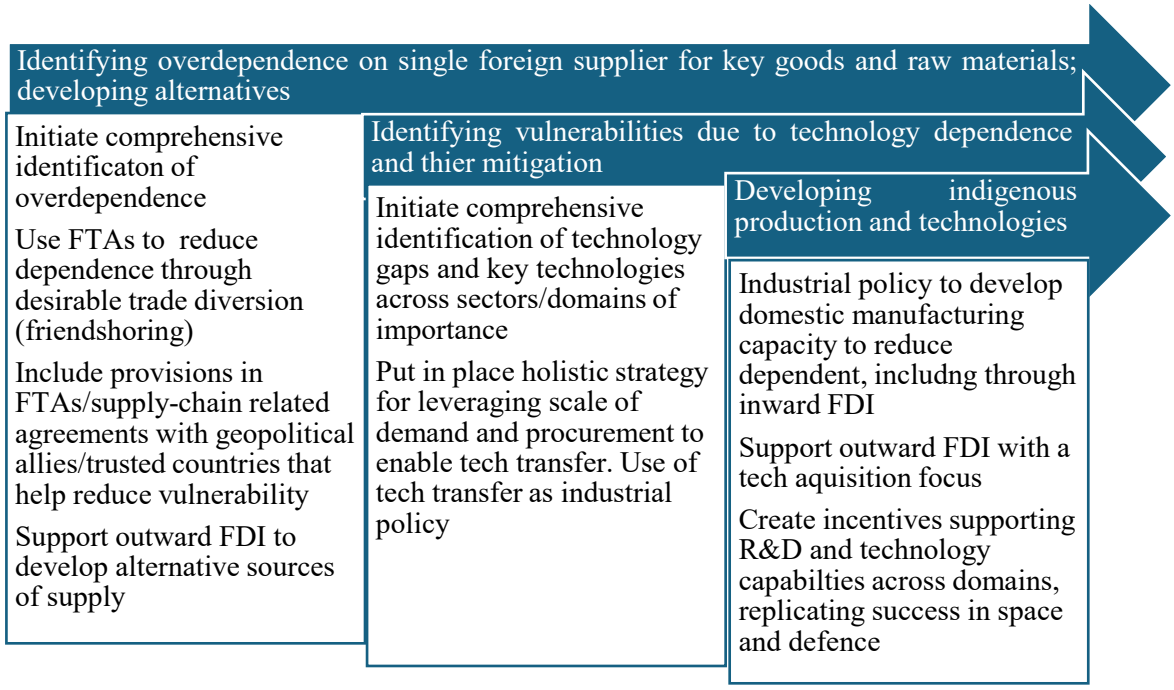


Source: Jean at al. (2023)[23], see footnote for explanation of product level dominance

[23] Jean et al. (2023) Dominance on World Markets: The China Conundrum, CEPII Policy Brief No. 44. Product-level dominant positions defined as products for which an exporter represents more than 50% of worldwide exports. The groups are based on the aggregation of the following HS chapters: Agriculture (01-15); Food (16-24); Minerals (25-27); Chemicals (28-38); Plastics (39-40); Leather (41-43); Wood (44-49); Textiles (50-63); Footwear (64-67); Electronics (85); Metals (72-83); Machinery (84); Transportation (86-89); Others (90-97, 68-71). Data has been taken by the authors from BACI Database (CEPII)

Section III: Supply-Chains Resilience and Economic Security

Key Supply Chain and Economic Security Objectives



Objective # 1: Identifying and mitigating vulnerabilities due to dependence on a single foreign source

Policy Goals/Concerns		***Strategy Under Execution***
There is an increasing tendency by countries to try and weaponize their dominance in production and export of key products to meet their economic or geostrategic objectives. Not having alternatives makes countries vulnerable to such supply-chain blackmail, especially when their national or economic security is being hit. Economic security covers industrial and health related supply chains, while national		Initial work of identification of import overdependence has been carried out as a part of the work-program under Indo-Pacific Economic Framework Supply-Chain Agreement[24]. A work-plan for more comprehensive identification of product wise import overdependence that can have serious implications for national and economic security and health and well-being of citizens is being put in place Securing alternative sources for key goods and raw materials has become a major factor in the context of India's FTA negotiations. FTAs are being used to apply tariffs strategically to incentivize diversion to alternative

[24] IPEF partners are collaborating to identify common sector specific supply-chain vulnerabilities, and working together towards developing sector-specific action plans for such critical sectors and key goods to enhance the resilience of their supply-chains

security covers food and energy security as well. Pre-empting such supply-chain crisis due to geostrategic weaponization of dependence would require comprehensively identifying supply-chain vulnerabilities and alternative sources of supply to mitigate over-dependence. Proactively reducing overdependence over time by diversifying supply sources, where possible would also require a layer of certainty that alternative sources can be leveraged in time of need through binding or at least in-principle guarantees in trade or supply-chain agreements		sources of supply in key goods and raw materials in areas where there is overdependence on a single import source Supply-chain specific instruments, including those focusing on specific commodities/industrial goods are being included within FTAs with countries that can help mitigate India's supply-chain vulnerabilities. FTAs also include provisions that obligates countries not to prohibit exports to FTA partners, adding a layer of certainty that supplies would not be cut-off in times of need In addition to IPEF Supply Chain Agreement, India is engaging in supply-chain specific collaboration frameworks such as the Mineral Security Partnership (MSP) ***Work in Progress*** India also needs to proactively invest in acquiring industrial and energy related raw materials resources (mines and processing) outside India. The government could also consider supporting the private sector in its efforts in this direction with instruments that reduce the cost of borrowing and provide risk mitigation through guarantees As discussed earlier, Bilateral Investment Treaties with more robust investor protection provisions are another important element of such risk mitigation. Revising India's model BITs with the understanding that India will increasingly be an important exporter of capital (much of which will be for such supply-chain related acquisitions), needs to be actively considered *(See Box 2)*

Objective # 2: Comprehensive approach for identification of critical technology gaps and their mitigation

Policy Goals/Concerns Just Like in the case of goods and raw materials, denial of access to technology and know-how can be strategically used to impede India's industrial growth and competitiveness Such access denial can also be used to compromise India's national security interests Access to appropriate technology and associated technology-intensive equipment can result in slowing down India's efforts for green and digital transitions. That		***Strategy Under Execution*** Government of India has been leveraging big-ticket government procurement as tool for technology transfer. Such strategies work best in areas where the size and scale of government spending is very substantive even by global standards, for example defence and energy. Large MNCs who own technology are more willing to transfer technology in order to win these large procurement contracts. Government procurement has also used local sourcing conditionalities, mostly in defence, that has helped transfer technology and production know-how to the Indian private sector India has also negotiated bilateral technology co-operation agreements, and is also including technology

would have serious implications for India's overall energy and economic security interests		co-operation related provisions in FTAs and bilateral defence/space/energy co-operation agreements ***Work in Progress*** There is currently no comprehensive mapping of technology gaps and access related vulnerabilities across key industries and industrial processes beyond a few areas like defence and space. Even in the case of defence, technology gaps for ancillary requirements that support defence operations, for example transport, communication, general equipment etc. needs to be more effectively mapped. Mapping of such gaps is the first step in developing strategies to mitigate such gaps A program for access to low-cost longer-term credit for Indian private sector that want to acquire key technologies, or takeover niche foreign firms that have technology and production expertise need to be considered. There is need for greater coordination among state level government procurement in areas like energy, irrigation, water management etc. The combined procurement expenditure of several Indian states are substantive amounts that can be successfully leveraged to make firms share technology and agree to increased local sourcing. leading to technology and production know-how diffusion As mentioned earlier, India should also consider performance requirements for FDI in some key sectors, leveraging the attractiveness of India's large and growing market and proactively seek reforms in global rules to avoid major backlash against such measures. Government can identify specific areas in consultation with private sector where such a strategy is most likely to be successful

Objective # 3: Developing indigenous production capabilities and technologies

Policy Goals/Concerns India is relatively behind its large-economy peers in terms of technological prowess and depth		***Work In Progress*** Fund targeted programs that lead to much greater R&D spends in key technologies. While some very positive initial steps have been taken[25], amounts are still relatively modest, and there is limited involvement of private sector. Private sector funding can be the force multiplier and its involvement would lead to technology spin-offs and diffusion will accelerate the innovation ecosystem in the country

[25] Targeted programs in the budget, for example India AI Mission (USD 320 million), Research Development and Innovation (RDI) Scheme, aiming to spur private sector investment in strategic and high-growth sectors through long-term, low-cost funding (about USD 12 billion), and development of small modular nuclear reactors (about USD 3.2 billion) are good initiatives, but funding amounts are still modest to the kind of spending being considered in similar fields in EU or China

Over the longer-term, developing indigenous production capabilities wherever this commercially and otherwise feasible is the best guarantee of supply-chain resilience		There is also need for reforms related to governance of Universities and Institutions that lead to greater industry-academia collaboration for R&D. The formation of the Anusandhan Research Foundation[26] is a good first step There is urgent need to consider PLI like schemes for key sectors with maximum technology development and diffusion possibilities taking into account factors that led to more successful implementation of PLI schemes in India and similar programs globally Appropriate steps in government procurement norms, taxation policies, and access to reduced cost borrowing opportunities for start-ups in cutting edge technology that results in a holistic program to help reduce cost and time of monetizing innovation needs to be ideated and implemented

Conclusion

As is clear from our discussion, several of the policy initiatives towards achieving India's short and longer terms goals needed for creating jobs and economic prosperity in the country, while managing key economic, technological and geopolitical transformations, are already in place. Many others are in the process of being ideated and implemented fully, and therefore represent work in progress.

The policy pathways discussed in this paper are the author's perspective and not formal government strategy. But it represents a holistic approach that is reflective of actual trajectory of policies being put in place to address the priorities of India's development while negotiating epochal transitions in technology, demography and geopolitics. These policy pathways are not cast in stone and would require adjustment to major changes in both economic and geopolitical shifts as they occur. But the synergies and linkages between the different strands in policy are essential. And it is in this pursuit of synergy where the policymaker faces some of the biggest hurdles. As a developing country which also happens to be a federal democracy, India faces four fundamental challenges that many of its rivals do not.

1. Inconsistency in sticking to a policy pathway once adopted, and the levels of commitment towards its implementation due to changes in government and leadership at both the Federal (Union) and state levels. Being a federal democracy with multiple election cycles (some big and electorally important state goes to election every year), makes policy-making susceptible to constant pressure of interest groups. Many state level interest groups will have conflicting interests and will not be aligned to policy priorities. This leads to further inconsistencies in policy approach and priorities

[26] Anusandhan National Research Foundation (ANRF) has been established with Anusandhan National Research Foundation (ANRF) 2023 Act. The ANRF aims to seed, grow and promote research and development (R&D) and foster a culture of research and innovation throughout India's universities, colleges, research institutions, and R&D laboratories. ANRF will act as an apex body to provide high-level strategic direction of scientific research in the country as per recommendations of the National Education Policy (NEP). With the establishment of ANRF, the Science and Engineering Research Board (SERB) established by an act of Parliament in 2008 has been subsumed into ANRF. ANRF will forge collaborations among the industry, academia, and government departments and research institutions, and create an interface mechanism for participation and contribution of industries and State governments in addition to the scientific and line ministries

2. India simply does not have the fiscal space for the kind of massive industrial policies or technology development programs being rolled out by the governments of the other big economies, i.e., US, China, EU, and Japan. Indian policies would therefore need to be smart, focused, and efficient to make the most of the relatively limited resources. This would require much greater alignment with industry during both the design and implementation stage.
3. As a market-economy and a democracy, India cannot pursue top-down trade or industrial policy. Democratic governments have to ensure that policies meet the test of legality and transparency, as well as opinions of stakeholders. For example, it cannot forbid exports or investments by private businesses without coming up with a formal policy that is debated and deliberated and made subject to the test of public opinion. Neither can it funnel funds through banks or the exchequer to individual firms on discretionary case by case basis without being accountable to legislature or laws and regulations related to competition, as well as banking and finance related governance norms.
4. Unlike developed countries, where populations are largely wealthy, educated and middle-class, and LDCs where populations are largely poor and relatively less educated, India's transition requires addressing employment and socio-economic needs of a diverse population with large absolute numbers of people in each segment of a varied income and education/skills spectrum. India includes an Italy, a Thailand and an entire sub-Saharan Africa within itself[27].

Indian policymakers do not have the luxury of inconsistent pursuit of these policy pathways despite all of India's systemic challenges. It is also extremely important that synergies between trade, industrial, and supply-chain resilience related strategies are completely aligned towards achieving common goals that feed into each other. This would require a departure from siloed approaches with individual Ministries responsible for policymaking and goal setting. Policymaking across these domains would need to be coordinated at the very top of the government structure, with ideally the Prime Minister's Office (PMO) taking the lead. Implementation must be at the level of individual Ministries where the domain expertise resides. However, an institution like the NITI Aayog must be brought in as a 'honest and objective' monitor to audit quality and speed of implementation by various Ministries and their departments/agencies. NITI Aayog should also identify bottlenecks in implementation at the department/agency level, and at the level of state governments[28]. Our national mission of achieving *Viksit Bharat* by 2047 while we contend with multiple global transitions will require pushing our policymaking and implementation apparatus to its optimal levels of efficiency. In essence achieving a perfect trifecta in coordinated policymaking related to trade, industrial policy, and in the supply-chain resilience related domain, and implementation of such policy across multiple layers of government.

[27] See "Banerjee, Pritam (2024) WTO Ministerial: Why the world needs to pay heed to India's caution, Economic Times, February 22

[28] This monitoring role is an important function of NITI Aayog today, and this author along with Dr. Jayanta Roy had made a strong case for the same at the time when the mandate for NITI was being discussed, please refer to Jayanta Roy and Pritam Banerjee (2014) A Bottom Up Model for Planning, Business Standard, September 27

ANNEX 1: China's Share of Global Output by Sector

S.NO	Sector	China Share of Global Output
1	Textile	59%
2	Pharmaceuticals	32%
3	Iron and Steel	47%
4	Synthetic Fibre	68%
5	Communication Equipment	57%
6	Consumer Electronics	51%
7	Non-Ferrous Metals	54%
8	Furniture	30%
9	Glass and Glassware	47%
10	Basic Chemicals	38%
11	Fertilizers	57%
12	Engines and Turbines	37%
13	Agricultural Machinery	42%
14	Machine Tools	39%
15	Mining and Construction Machinery	38%
16	Wearing Apparel	36%
17	Plastic products	35%
18	Electric components & boards	46%
19	Computers and peripheral equipment	55%
20	Electric motors & electricity distribution	68%
21	Batteries & accumulators	62%
22	Wiring & wiring devices	70%
23	Electric lighting equipment	62%
24	Domestic appliances	69%
25	Other electric equipment	24%
26	Fluid power,compressors,valve	45%
27	Office equipment, power tools, oven	65%
28	Other special purpose machinery	52%
29	Motor vehicles	32%
30	Structural metal products	46%
31	Coachwork, trailers & semitrailers	13%
32	Transport equipment nec	41%
33	Synthetic resins	46%
34	Pesticides, agro chemicals	36%
35	Paints & varnishes	39%
36	Soaps, cleaning & cosmetic	27%
37	Other speciality chemicals	22%
38	Bearing, gears and driving elements	56%
39	Lifting and handling equipment	43%
40	Metallurgy, machinery, & casting	40%
41	Machinery for food beverages and tobacco	29%
42	Autoparts & accessories	40%
43	Ship building	40%
44	Railroads and equipments	50%
45	Aircraft and spacecraft	16%
46	Food products	27%
47	Beverages	36%
48	Tobacco Products	39%
49	Leather & footwear	45%
50	Wood products exluding furniture	33%
51	Paper & pulp	28%
52	Printing & reproduced recorded media	27%
53	Other durable manufacturing products	31%
54	Coke oven products	33%
55	Refined petroleun products	20%
56	Rubber products	42%
57	Pottery, Chins, Earthenware	77%
58	Cement, concrete, lime	44%
59	Other mineral products	51%
60	Weapons and ammunition	19%
61	Other fabricated metal products	23%
62	Measuring, testing, watches & clocks	36%
63	Irradication, electromedical, electrotherapeutic	23%
64	Optical & photographic	23%
65	Measuring, testing, navigating, control	38%
66	Watches & clocks	15%

Source: CWS calculations based on IHS Markit Database of Standard & Poor

ANNEX 2: Literature on Rise of mercantilist trade policies and expansive industrial policies, especially in the context of their use by non-market economies like China

1. Baldwin, R (2024). China is the world's sole manufacturing superpower: A line sketch of the rise, VOXEU Column, Centre for Economic Policy Research (CEPR)
2. Atkinson, R. D., & Tufts, I. (2023). The Hamilton Index, 2023: China Is Running Away with Strategic Industries. Information Technology and Innovation Foundation, December.
3. Bickenbach, F., Dohse, D., Langhammer, R. J., & Liu, W. H. (2024A). Foul play? On the scale and scope of industrial subsidies in China (No. 173). Kiel Policy Brief
4. Boullenois, G., Rosen, D., & Wingo, L. (2025). Far From Normal: An Augmented Assessment of China's State Support. Rhodium Group. https://rhg.com/research/far-from-normal-anaugmented-assessment-of-chinas-state-support/
5. China's industrial policy: Roundtable summary report. Stanford Centre on China's economy and Institutions. Asia Society Policy Institute, 2024
6. Jean et al. (2023). Dominance on World Markets: The China Conundrum, CEPII Policy Brief No. 44, December
7. McBride, J., & Chatzky, A. (2019, May 13). Is 'Made in China 2025' a Threat to Global Trade? Council on Foreign Relations. https://www.cfr.org/backgrounder/made-china-2025-threatglobal-trade
8. Rotunno, L., & Ruta, M. (2024). Trade Implications of China's Subsidies, International Monetary Fund (MF) Working Paper No. 24/180
9. Szamosszegi, A., Anderson, C., & Kyle, C. (2009). An Assessment of China's Subsidies to Strategic and Heavyweight Industries. Washington, DC: United States-China Economic and Security Review Commission
10. US-China Economic, & Security Review Commission. (2008). 2008 Report to Congress of the US-China Economic and Security Review Commission. US Government Printing Office.
11. World Bank (2023). Unfair Advantage: Distortive Subsidies and Their Effects on Global Trade. https://thedocs.worldbank.org/en/doc/0534eca53121c137d3766a02320d0310-0430012022/related/Unfair-Advantage-Distortive-Subsidies-and-Their-Effects-on-GlobalTrade-2023.pdf
12. Wu, Mark (2016). The "China, Inc." Challenge to Global Trade Governance, Harvard International Law Journal, Vol. 5, No.2

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About CRIT

India's Foreign Trade Policy (FTP) Statement 2015-20 suggested a need to create an institution at the global level that can provide a counter-narrative on key trade and investment issues fromthe perspective of developing countries like India. To fill this vacuum, a new institute, namelythe Centre for Research on International Trade (CRIT), was set up in 2016. The vision and theobjective of the CRIT were to significantly deepen existing research capabilities and widen them to encompass new and specialised areas amidst the growing complexity of the process of globalization and its spill-over effects in domestic policymaking. Secondly, enhancing the capacity of government officers and other stakeholders in India and other developing countriesto deepen their understanding of trade and investment agreements.

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