



NAVIGATING GLOBAL TRADE SHIFTS: INDIA'S STRATEGIC ADAPTATION IN A FRAGMENTED ECONOMIC LANDSCAPE

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Abstract: This paper analyses how pandemic shocks, geopolitics, and climate risks are fragmenting global trade and how India is adapting through targeted industrial policy, diversified partnerships, and a revived FTA agenda. The contribution is threefold: (i) it synthesises recent shifts in supply chains and protectionist policy; (ii) it assesses India's policy mix—ECTA/CEPA, PLI, and critical-minerals partnerships—against capability and infrastructure constraints; and (iii) it offers an evaluative roadmap for resilient, opportunity-creating trade in a de-risking world. Findings indicate that while India has leveraged friend-shoring tailwinds to boost electronics exports and FDI, binding bottlenecks in logistics, sustainability compliance (e.g., CBAM), and MSME digitisation must be addressed to lock in durable gains.

Keywords: Global trade, supply chain resilience, India's trade strategy, protectionism, Free Trade Agreements (FTAs)

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I. INTRODUCTION

The global trade landscape is undergoing a profound transformation, moving beyond the traditional frameworks of comparative advantage that have long dominated economic theory and policy. Historically, nations

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specialised in producing goods in which they held a relative efficiency, following David Ricardo's seminal theory, fostering interdependence and mutual gains through trade (Ricardo, 1817). However, the 21st century has introduced unprecedented disruptions—ranging from pandemics and geopolitical fractures to climate crises—that have exposed the vulnerabilities of hyper-globalised supply chains. These challenges have compelled nations and corporations to rethink their reliance on centralised production models, prioritising resilience, diversification, and strategic autonomy. The COVID-19 pandemic, geopolitical rivalries, climate change, and protectionist policies have acted as critical catalysts in this shift, driving realignments in global trade networks and compelling countries like India to adopt adaptive strategies to navigate this complex terrain.

The COVID-19 pandemic laid bare the fragility inherent in global supply chains, disrupting production and trade flows through lockdowns, labour shortages, and logistical bottlenecks. These disruptions were particularly severe in critical sectors such as pharmaceuticals and semiconductors, where over-reliance on single-source suppliers proved detrimental (WTO, 2021). The pandemic underscored the risks associated with concentration in manufacturing, as exemplified by the semiconductor industry, where the dominance of East Asian producers left global automakers paralysed during a prolonged chip shortage, resulting in an estimated \$210 billion in lost revenue for the automotive sector in 2021 alone (Bloomberg, 2022). This crisis accelerated a paradigm shift, pushing nations toward prioritising supply chain redundancy and regionalisation over mere efficiency. The movement towards reshoring, near-shoring, and friend-shoring has gained traction, with governments and corporations seeking to mitigate future risks by diversifying production locations and securing alternative supply sources.

Simultaneously, escalating geopolitical rivalries, most notably the U.S.-China trade war, have fragmented the global economic order, further complicating international trade dynamics. The U.S. imposed tariffs on \$370 billion worth of Chinese goods under Section 301 of the Trade Act of 1974, triggering retaliatory measures from China and disrupting well-established trade patterns (USTR, 2018). This decoupling has led to a reassessment of supply chain dependencies, with several economies seeking to insulate themselves from geopolitical volatility. The European Union's "de-risking" strategy and the

U.S.'s emphasis on "friend-shoring" of critical industries exemplify this trend, as governments attempt to reduce their exposure to adversarial powers while safeguarding key sectors (European Commission, 2023; U.S. Department of the Treasury, 2022). The resulting shift towards bifurcated trade blocs marks a departure from the multilateral economic order that had underpinned globalisation for decades, raising concerns about the long-term implications for global economic integration.

Climate change presents yet another systemic risk, threatening agricultural output, transportation infrastructure, and energy security. Extreme weather events, such as the 2022 floods in Pakistan that severely disrupted cotton exports, highlight the increasing vulnerability of trade-dependent economies to climate-related shocks (World Bank, 2023). Rising sea levels pose a direct threat to maritime trade routes, necessitating adaptive measures to protect the sustainability of global supply chains. Moreover, the shipping industry, responsible for transporting 80% of global trade by volume, contributes nearly 3% of global CO₂ emissions, prompting regulatory bodies like the International Maritime Organisation to advocate for greener logistics and carbon-neutral supply chains (IMO, 2020). Policy initiatives such as the European Union's Carbon Border Adjustment Mechanism (CBAM), which imposes tariffs on imports based on their carbon footprint, reflect the growing intersection between trade policy and environmental sustainability, further reshaping the global trade landscape (European Parliament, 2023).

Parallel to these developments, a resurgence of protectionist policies has emerged, driven by economic nationalism and domestic job preservation agendas. The World Trade Organisation reports a tenfold increase in trade-restrictive measures among G20 nations between 2017 and 2023, with tariffs, export bans, and local content requirements becoming increasingly common (WTO, 2023). India has embraced this trend through its self-reliance campaign, implemented in 2020, which raised tariffs on electronics and automotive components to bolster domestic manufacturing (Ministry of Commerce and Industry, 2020). While such measures seek to shield local industries and promote economic self-sufficiency, they also carry the risk of igniting retaliatory trade cycles, as observed in the prolonged U.S.-China trade conflict, which ultimately stifled innovation, disrupted global value chains, and reduced consumer welfare.

Amidst this turbulence, India has positioned itself as a proactive player, leveraging bilateral and multilateral trade agreements to enhance its economic resilience. The India-Australia Economic Cooperation and Trade Agreement (ECTA), enacted in December 2022, exemplifies this approach. By eliminating tariffs on 96% of Indian exports to Australia, including textiles and machinery, the agreement facilitated a surge in bilateral merchandise trade from \$12.2 billion in 2020–21 to \$26 billion in 2022–23 (Press Information Bureau, 2023). Additionally, ongoing negotiations for a Comprehensive Economic Cooperation Agreement (CECA) between India and Australia seek to expand cooperation in services and digital trade, reflecting India's ambition to establish itself as a trusted alternative within global supply chains (Department of Foreign Affairs and Trade, 2022). At the domestic level, India's Production-Linked Incentive (PLI) schemes, offering \$26 billion in subsidies across 14 sectors, are designed to reduce import dependence while attracting foreign investment into key industries (Ministry of Commerce and Industry, 2021). These initiatives align with broader geopolitical strategies, such as the Quad's critical minerals partnership, which aims to secure supply chains for rare earth elements vital to renewable energy technologies (Quad Leaders' Summit, 2023).

India's renewed focus on Free Trade Agreements (FTAs) after a decade-long hiatus underscores its commitment to economic adaptation and global trade integration. Negotiations with countries such as New Zealand, the United Kingdom, and the European Union signal India's intention to diversify its export markets and integrate itself into high-value global supply chains. A potential India-UK FTA, for instance, is projected to increase bilateral trade by \$50 billion by 2030, with tariff reductions benefiting key sectors such as pharmaceuticals, apparel, and IT services (Department for International Trade, 2023). Similarly, the long-discussed EU-India FTA, which has been under negotiation since 2007, could lead to an annual increase of €32 billion in EU exports by 2035, underscoring the significant economic potential of deeper trade ties (European Commission, 2023). These agreements play a crucial role in India's export-driven growth, complementing initiatives like 'Make in India' and supporting the Micro, Small, and Medium Enterprises (MSME) sector, which contributes 30% of GDP and 45% of total exports (Ministry of MSME, 2023).

This paper explores the interplay between disruption and adaptation in shaping global trade, examining the pivotal role of economic realignments

in response to crises. The analysis examines how the COVID-19 pandemic, geopolitical tensions, and climate change have served as catalysts for supply chain restructuring, while assessing the impact of protectionist policies on global trade flows. India's strategic initiatives, including bilateral trade agreements and domestic industrial policies, highlight its efforts to fortify economic resilience amid global uncertainties. A detailed assessment of India's revived FTA negotiations sheds light on the country's broader trade strategy, which seeks to enhance its role as a global economic hub. Ultimately, this study argues that in an era defined by uncertainty, diversified, sustainable, and collaborative trade frameworks will be essential in navigating the evolving global economic landscape.

Research Question, Scope, and Method

The paper asks how India can adapt to a de-risking global trade system while sustaining export growth. It synthesises official datasets and recent policy documents (2020–2025) from WTO, World Bank, IMF, Government of India, and partner governments; uses descriptive trend comparison (trade flows, FDI, logistics) to contextualise India's choices; and confines inference to near-term policy implications rather than structural forecasting (WTO, 2021; McKinsey & Company, 2023; World Bank, 2024).

Brief Literature Review and Research Gaps

Recent work identifies a decisive shift from efficiency-first globalisation to resilience-oriented trade. The WTO (2021, 2024) synthesises how the pandemic and policy shocks reconfigured merchandise trade and services links. McKinsey & Company (2023) documents firm-level supplier diversification. The OECD (2023) highlights uneven SME readiness for digital supply chains, and the World Bank (2024) benchmarks logistics frictions for emerging economies. Against this backdrop, India-focused analyses emphasise industrial policy (PLI), selective FTAs (ECTA/CEPA), and 'China+1' production shifts. Research gaps remain on (i) India-specific costed pathways to meet sustainability-linked market access (e.g., CBAM) without eroding competitiveness; (ii) MSME integration outcomes under ONDC and cluster-level schemes; and (iii) how FTA commitments interact with domestic capability building. This paper addresses these gaps, in part, through a structured synthesis and policy-impact lens (WTO, 2024; World Bank, 2024; NASSCOM, 2024).

II. DISRUPTIONS IN GLOBAL TRADE AND SUPPLY CHAINS

The vulnerabilities embedded within global trade networks have been starkly exposed by the cascading crises of the 21st century, prompting a fundamental reconfiguration of supply chains. The combined pressures of the COVID-19 pandemic, geopolitical fractures, and climate-related shocks have eroded the foundations of hyper-globalisation, revealing the risks of overconcentrated sourcing, just-in-time production models, and excessive reliance on single-supplier economies. These disruptions have necessitated a shift in trade dynamics, compelling nations and corporations to prioritise resilience, redundancy, and regionalisation over the singular pursuit of efficiency. The pandemic, in particular, laid bare the fragility of global supply chains, with lockdowns in manufacturing hubs like China halting production and port closures compounding shipping delays. The World Trade Organisation estimated that global merchandise trade contracted by 5.3% in 2020, marking the sharpest decline since the 2009 financial crisis (WTO, 2021). Industries reliant on lean inventories, particularly automotive and electronics, suffered acute bottlenecks. Semiconductor shortages, exacerbated by pandemic-induced factory closures in Malaysia and Taiwan, resulted in a \$210 billion loss for the global automotive sector in 2021 alone (Semiconductor Industry Association, 2022). Furthermore, the pandemic exposed the strategic vulnerability of excessive dependence on a single source, as demonstrated by the over 90% concentration of global personal protective equipment (PPE) production in China prior to the crisis (World Bank, 2021). This led to an urgent push for supply chain diversification, exemplified by the European Union's "Open Strategic Autonomy" initiative, which allocated €1.5 billion to reshore pharmaceutical production (European Commission, 2022), and Japan's decision to subsidise 2,200 companies to shift production out of China to Southeast Asia and India (METI, 2021).

Beyond pandemic-induced disruptions, intensifying geopolitical rivalries, particularly the economic decoupling between the United States and China, have further destabilised global trade networks. The imposition of tariffs on \$370 billion worth of Chinese goods under Section 301 of the Trade Act by the United States prompted retaliatory measures from China, triggering large-scale supply chain realignments (Bown, 2023). By 2023, U.S. imports from China had declined significantly as companies sought alternative production

hubs, diversifying their sourcing to countries such as Vietnam, India, and Mexico. In response, the U.S. government committed \$52 billion in subsidies through the CHIPS and Science Act to boost domestic semiconductor production, illustrating a broader trend of reducing economic reliance on geopolitical adversaries (White House, 2022). The Russia-Ukraine war further exacerbated these trends, disrupting agricultural and energy markets. Ukraine, a key player in global food security, saw its wheat exports fall by 30% in 2022, triggering severe food shortages in Africa and the Middle East (FAO, 2023). Simultaneously, Western sanctions on Russian energy forced the European Union to dramatically reduce its dependence on Russian natural gas, slashing imports from 40% to 15% of total consumption within a year (Eurostat, 2023). These geopolitical tensions underscore the fragility of commodity-dependent supply chains and have accelerated the trend of trade fragmentation, where economic alliances are increasingly shaped by strategic and political considerations rather than purely economic efficiency.

Climate change has emerged as an equally potent disruptor of global trade, threatening infrastructure, agricultural yields, and critical shipping routes. The 2021 Suez Canal blockage, which delayed \$9.6 billion in daily trade, underscored the vulnerability of maritime chokepoints to extreme weather events and logistical disruptions (UNCTAD, 2021). Meanwhile, rising sea levels threaten major ports worldwide, with projections indicating that by 2050, an estimated \$122 billion worth of port infrastructure could face annual flooding (OECD, 2022). Agricultural supply chains are particularly susceptible to climate-related shocks, as evidenced by the 2022 Pakistan floods, which submerged a third of the country and destroyed 45% of its cotton crop, a key input for the global textile industry, causing export disruptions worth \$2.1 billion (World Bank, 2023). Similarly, prolonged droughts in Brazil, which accounts for 40% of global coffee production, slashed output and drove commodity prices to record highs, affecting global markets and consumer economies alike (FAO, 2023). These environmental disruptions have forced multinational corporations to rethink supply chain sustainability, with firms like Nestlé committing \$1.3 billion to regenerative agriculture to stabilise production networks (Nestlé, 2023).

The convergence of these disruptive forces has triggered a fundamental shift toward resilience-oriented supply chain strategies. A 2023 McKinsey

survey found that 94% of Fortune 1000 companies had diversified their suppliers post-pandemic, with 63% increasing regional sourcing to mitigate geopolitical and logistical risks (McKinsey & Company, 2023). This trend is particularly evident in Mexico's manufacturing sector, which experienced a 40% increase in foreign direct investment (FDI) inflows, reaching \$32 billion in 2023, as U.S. firms relocated production away from Asia (Secretaría de Economía, 2024). Governments, too, are actively fostering supply chain resilience through policy interventions. India's Production-Linked Incentive (PLI) scheme, which offers \$26 billion in subsidies, aims to reduce reliance on Chinese imports by bolstering domestic manufacturing in electronics and pharmaceuticals (Ministry of Commerce and Industry, 2023). Similarly, the U.S. Inflation Reduction Act (IRA) has prioritised domestic production of clean energy components, fundamentally reshaping global battery and solar panel supply chains (U.S. Department of Energy, 2023).

Technology is playing a pivotal role in mitigating supply chain disruptions and enhancing adaptability. The widespread adoption of blockchain has significantly improved supply chain transparency, with its implementation in the cocoa industry reducing ethical sourcing risks by 30% (World Economic Forum, 2023). AI-driven logistics platforms, such as Flexport's real-time tracking systems, have also proven instrumental in improving efficiency, cutting shipping delays by 25% during the 2023 port strikes in Los Angeles (Flexport, 2023). However, while advanced technologies offer promising solutions, their implementation remains uneven, as small and medium enterprises (SMEs) often lack the financial and technical resources to integrate such innovations, exacerbating the resilience gap between large and small firms (OECD, 2023).

The interplay of pandemic, geopolitical, and climate disruptions has irrevocably altered the paradigms of global trade. Nations and corporations are increasingly prioritising supply chain redundancy, localisation, and sustainability, moving away from efficiency-centric models that dominated previous decades. Yet, these adaptations come with trade-offs: reshoring and near-shoring strategies enhance supply chain security but risk increasing production costs and consumer prices. Similarly, climate resilience investments, while necessary, place additional financial burdens on firms operating in already volatile markets. As these transformations unfold, the global trade landscape is shifting toward a more fragmented but strategically diversified structure.

The following section delves deeper into the rise of protectionist policies as a response to these disruptions, analysing how economic nationalism and trade restrictions are reshaping global alliances and trade flows.

Table 1: Selected Disruptions and Indicators (2020–2024)

Indicator	Value / Change	Source (in-text style)
Global merchandise trade (2020)	-5.3% (y/y)	(WTO, 2021)
Auto sector revenue loss from chip shortage (2021)	≈ \$210 billion	(Bloomberg, 2022)
EU dependence on Russian gas (2022→2023)	≈40% → ≈12%	(Eurostat, 2024)
Mexico exports to the U.S. (2023)	≈ \$475 billion	(IMF, 2024)
India smartphone exports (FY2023–24)	≈ \$15 billion	(Bloomberg, 2024)

III. RESURGENCE OF PROTECTIONIST POLICIES AND GLOBAL SUPPLY CHAIN REALIGNMENTS

The disruptions outlined in the previous section have precipitated a fundamental recalibration of global trade strategies, with nations increasingly embracing protectionist measures to insulate domestic industries and secure economic sovereignty. The resurgence of tariffs, industrial policies, and trade barriers has reshaped supply chain configurations, compelling firms to reconsider their reliance on traditional trade routes and long-standing economic partnerships. At the heart of this shift lies a growing emphasis on economic nationalism, as governments seek to safeguard strategic industries, mitigate external dependencies, and enhance self-sufficiency in critical sectors. The reconfiguration of supply chains is also catalysing the emergence of new regional trade blocs, with countries leveraging geopolitical realignments to attract investment and expand their manufacturing bases. This section examines the drivers of these trends, analysing how protectionist policies are shaping the future of global commerce and assessing their broader economic implications.

1. Economic Nationalism and the U.S.-China Trade Decoupling

The resurgence of protectionism has been driven by mounting concerns over job losses, national security vulnerabilities, and the need for strategic autonomy in an increasingly volatile geopolitical environment. Trade restrictions reached an all-time high in 2023, with G20 economies implementing 3,084 trade-distorting measures—a 28% increase from 2022 (Global Trade Alert, 2024). The United States and China remain at the centre of this trend, with their

ongoing economic rivalry significantly influencing global trade flows. The U.S. has maintained tariffs on \$350 billion worth of Chinese imports, while China has retaliated by restricting exports of rare earth minerals and agricultural products (PIIE, 2023). This protracted trade conflict has led to the fragmentation of supply chains, as bilateral trade between the two economic giants has declined by 14% since 2020. At the same time, U.S. imports from Mexico and Vietnam have surged by 24% and 18%, respectively, as companies pivot away from Chinese manufacturing hubs (U.S. International Trade Commission, 2024).

Industrial policy has further reinforced protectionist trends, with governments deploying massive subsidies and incentives to localise production. The U.S. Inflation Reduction Act (IRA) and the CHIPS and Science Act have directed \$500 billion toward boosting domestic clean energy and semiconductor manufacturing, effectively penalising foreign firms that bypass U.S. supply chains (White House, 2023). Similarly, the European Union's Net-Zero Industry Act has earmarked \$430 billion for green technology development in response to U.S. semiconductor restrictions, illustrating the intensification of industrial competition (Reuters, 2023). These policies reflect a broader global shift toward "friend-shoring," where supply chains are realigned based on geopolitical considerations rather than cost efficiency. The repercussions of this trend are particularly evident in the technology sector, where the U.S. has imposed stringent restrictions on advanced semiconductor exports to China, crippling Chinese firms like SMIC, which saw a 22% revenue decline in 2023 due to constraints on accessing cutting-edge chipmaking technologies (Nikkei Asia, 2024). In response, China has accelerated investments in legacy semiconductor production, consolidating its dominance in mature chip markets, where it now controls 65% of global supply (South China Morning Post, 2024). This bifurcation of technological ecosystems risks entrenching parallel supply chains, with U.S.-aligned economies pursuing "China+1" strategies and China deepening its economic integration with the Global South through alternative trade mechanisms.

2. Regional Trade Realignments and the Role of Developing Economies

As geopolitical tensions reshape global trade flows, regional economic blocs are gaining prominence, fostering new investment corridors and supply chain partnerships. Mexico has emerged as one of the key beneficiaries of near-shoring,

with its exports to the U.S. reaching a record \$475 billion in 2023—surpassing China for the first time (IMF, 2024). The Biden administration’s focus on “ally-shoring” has revitalised initiatives such as the Americas Partnership for Economic Prosperity (APEP), which aims to integrate Latin American supply chains in critical sectors, including renewable energy and mineral extraction (U.S. Department of State, 2024). Meanwhile, in Asia, Vietnam and India are capitalising on supply chain diversification efforts. Vietnam’s electronics exports surged by 32% in 2023, bolstered by Samsung and Intel’s \$20 billion investments in semiconductor packaging facilities (Vietnam Ministry of Planning and Investment, 2024). India, too, has positioned itself as a major beneficiary of supply chain realignments, attracting \$67 billion in foreign direct investment in 2023–24. Apple and Tesla have established manufacturing hubs in India under the country’s Production-Linked Incentive (PLI) scheme, reinforcing India’s role as an alternative production base in global technology supply chains (Ministry of Commerce and Industry, 2024).

Europe has also witnessed a significant shift in trade alignments, with the European Union drastically reducing its reliance on Russian energy imports. In 2023, the EU cut its dependence on Russian natural gas from 40% to just 12%, replacing these imports with liquefied natural gas (LNG) from the United States and Qatar (Eurostat, 2024). However, this transition has come at a cost, with European manufacturers facing a 35% increase in energy prices, raising concerns about the region’s industrial competitiveness (Bruegel, 2024). In the developing world, supply chain diversification is creating new economic opportunities but also presenting structural challenges. Bangladesh, for instance, has seen an 11% growth in apparel exports as Western brands reduce their reliance on Chinese suppliers (World Bank, 2024). Similarly, Sri Lanka is leveraging its strategic geographic position through the Colombo Port City project, a \$1.4 billion Chinese-backed initiative designed to transform the country into a transshipment hub for Indian Ocean trade (Central Bank of Sri Lanka, 2024). However, these nations remain vulnerable to external shocks. Bangladesh’s apparel sector, which relies on cotton imports—60% of which come from the U.S. and India—is exposed to price volatility and supply disruptions (WTO, 2024), while Sri Lanka’s ongoing debt crisis complicates infrastructure financing, raising concerns about the long-term sustainability of large-scale investment projects (IMF, 2023).

Africa's vast reserves of critical minerals are also gaining strategic importance, with major economies vying for control over resource extraction and processing. The Lobito Corridor, a U.S.-EU-backed rail project linking Zambia's copper mines to Angola's ports, is positioned as a counterbalance to China's dominance in battery metal supply chains (U.S. Department of Commerce, 2024). However, resource nationalism is on the rise, with governments in the region seeking greater control over mineral wealth. Namibia, for example, has introduced regulations mandating a minimum 15% local ownership in mining ventures, a move reminiscent of Indonesia's controversial nickel export ban (African Development Bank, 2024). These trends suggest that while protectionist policies and realignments create new trade opportunities, they also introduce complexities, particularly for resource-rich developing economies navigating shifting geopolitical alliances.

The resurgence of protectionist trade policies reflects a world increasingly prioritising economic security over the efficiency-driven globalisation model that characterised previous decades. However, this transition is fraught with contradictions. While regional realignments offer emerging economies new avenues for economic growth, they also risk deepening global economic fragmentation and reinforcing geopolitical divides. The costs of protectionism are substantial: the World Trade Organisation estimates that post-2023 trade restrictions could reduce global GDP by \$1.4 trillion annually by 2025 (WTO, 2024). Retaliatory measures have also driven up costs for consumers, with India's tariffs on U.S. agricultural products increasing domestic prices for almonds and apples by 18% (Reserve Bank of India, 2024). Even within advanced economies, reshoring efforts remain prohibitively expensive—semiconductor manufacturing plants established under the U.S. CHIPS Act, for instance, are estimated to be 40% more costly than their Asian counterparts (Boston Consulting Group, 2024). Meanwhile, environmental policies such as the EU's Carbon Border Adjustment Mechanism (CBAM), designed to promote green trade, have triggered friction with major exporters, with India and China formally challenging the initiative at the WTO (Financial Times, 2024).

The current wave of protectionism and supply chain realignments signals a paradigm shift in global trade, emphasising resilience and strategic autonomy at the expense of integration and efficiency. While this shift presents

opportunities for select economies, it also threatens to entrench economic disparities and geopolitical divisions. The next section explores how India's strategic trade initiatives, including bilateral agreements and industrial policies, exemplify attempts to balance these competing imperatives in an increasingly fragmented global economy.

IV. INDIA'S STRATEGIC TRADE INITIATIVES AND PARTNERSHIPS

Building on the global realignments and protectionist trends analysed in the previous section, India has positioned itself as a key player in reshaping trade dynamics through a combination of proactive policy frameworks and strategic partnerships. The country has sought to leverage bilateral agreements, domestic industrial incentives, and multilateral alliances to establish itself as a resilient node in global supply chains while advancing its geopolitical and economic objectives. These efforts are evident in initiatives such as the India-Australia Economic Cooperation and Trade Agreement (ECTA), the Production-Linked Incentive (PLI) scheme, and India's active participation in the Quadrilateral Security Dialogue (Quad), all of which have been designed to enhance trade diversification and economic security. At the same time, India's trade engagement with ASEAN and the Gulf has been strengthened under its "Act East" and "Link West" policies, reflecting a broader strategy of deepening regional economic integration. This section examines India's major trade initiatives and the structural challenges that could impact its ability to sustain long-term growth in an increasingly fragmented global economy.

1. Bilateral Agreements and the Role of Strategic Alliances

The India-Australia Economic Cooperation and Trade Agreement (ECTA), enacted in December 2022, serves as a cornerstone of India's strategy to reduce dependency on adversarial markets like China while fostering deeper economic ties with trusted partners. By eliminating tariffs on 96% of Indian exports to Australia—including textiles, engineering goods, and pharmaceuticals—bilateral trade between the two countries surged from \$12.2 billion in 2020–21 to \$26 billion in 2022–23 (Department of Foreign Affairs and Trade, 2023). A significant portion of imports under the agreement, amounting to 38%, now consists of Australian coal and critical minerals, which are essential for India's steel and renewable energy sectors (Ministry of Commerce and

Industry, 2023). With negotiations underway for a Comprehensive Economic Cooperation Agreement (CECA), expected to conclude by 2025, India and Australia are exploring further integration in services, digital trade, and education. Australia's commitment to allocate \$15 million for joint research in clean energy and critical minerals processing underscores the partnership's strategic depth (Australian Government, 2023). For India, the CECA aligns with its broader goal of securing stable supplies of lithium and cobalt for its \$2.5 billion Advanced Chemistry Cell (ACC) battery manufacturing program, aimed at reducing reliance on Chinese-dominated supply chains (NITI Aayog, 2023).

Beyond bilateral trade, India's participation in the Quad has expanded beyond security cooperation to include trade-centric collaborations, particularly in the domain of critical minerals. The Quad's 2023 Critical Minerals Security Partnership (CMSP) is aimed at diversifying supply chains for rare earths, lithium, and graphite—resources that are indispensable for defence industries and green technologies. China currently controls 60% of global rare earth mining and 85% of processing capacity, making it a dominant force in these markets and creating supply chain vulnerabilities for Quad nations (U.S. Department of Energy, 2023). To mitigate these risks, India and Australia have launched a \$6 million joint venture to explore lithium reserves in Karnataka, while Japan and the U.S. have pledged \$2 billion to develop India's mineral processing infrastructure (Quad Leaders' Summit, 2023). These efforts align with India's National Mineral Policy 2023, which encourages private-sector mining leases and export incentives for processed minerals. However, the initiative faces challenges, as only 10% of India's 5.9 million tonnes of lithium reserves are currently considered commercially viable, necessitating sustained foreign investment to develop extraction and processing capabilities (Ministry of Mines, 2024).

2. Domestic Policy Levers, Regional Trade Expansion, and Infrastructure Challenges

At the domestic level, India's \$26 billion Production-Linked Incentive (PLI) scheme, launched in 2020, has catalysed domestic manufacturing across 14 strategic sectors, from semiconductors to textiles. By offering subsidies of 4–6% on incremental sales, the scheme has attracted \$55 billion in foreign

direct investment (FDI) and generated 600,000 jobs as of 2023 (Ministry of Electronics and Information Technology, 2024). The impact is particularly evident in the electronics sector, where smartphone exports surged by 400% to reach \$15 billion in 2023–24, with Apple assembling 25% of its iPhones in India under the program (Bloomberg, 2024). The scheme's success in pharmaceuticals is equally significant, as India has reduced its dependency on Chinese Active Pharmaceutical Ingredient (API) imports by 28% since 2021, with PLI-funded facilities like Aurobindo Pharma's Hyderabad plant playing a crucial role in bridging the supply gap (FICCI, 2024). However, certain sectors, particularly solar modules, have struggled to achieve similar success, facing stiff competition from Southeast Asian economies such as Vietnam and Malaysia, which offer lower production costs (World Bank, 2023).

Regionally, India has pursued an aggressive trade expansion strategy under its “Act East” and “Link West” policies. Trade with ASEAN, which accounts for 11% of India's global trade, has been revitalised through the 2023 India-ASEAN Free Trade Agreement (AITIGA) review, which eliminated non-tariff barriers on 85% of traded goods. This has led to an increase in bilateral trade to \$131 billion in 2023–24 (Ministry of External Affairs, 2024). India's key exports to ASEAN include refined petroleum (\$12 billion) and machinery (\$8 billion), while key imports focus on palm oil and electronics (ASEAN-India Centre, 2024). Simultaneously, the India-UAE Comprehensive Economic Partnership Agreement (CEPA), operational since May 2022, has led to a 22% increase in trade, reaching \$88 billion in 2023 (Indian Embassy in UAE, 2024). The UAE's \$2 billion investment in Indian food parks and renewable energy projects aligns with India's ambition to become a global green hydrogen hub, with a targeted production capacity of 5 million tonnes by 2030 (NITI Aayog, 2024).

Despite these advances, India faces structural constraints that could hinder its ability to sustain trade growth. The World Bank's Logistics Performance Index ranks India 38th globally, citing inefficiencies in ports, warehousing, and transportation as key bottlenecks (World Bank, 2024). The government's ambitious \$1.3 trillion National Infrastructure Pipeline (NIP), aimed at modernising ports and highways by 2030, has only achieved 45% of its targets due to bureaucratic delays and funding shortfalls (Economic Survey 2023–24). Additionally, India's trade competitiveness is being tested by global rivals such as Vietnam, which received \$36 billion in FDI in 2023—dwarfing India's

inflows relative to GDP size (IMF, 2024). The European Union’s Carbon Border Adjustment Mechanism (CBAM), set to impose tariffs on carbon-intensive imports from 2026, also poses a threat to India’s \$8 billion steel and aluminium exports (Centre for Social and Economic Progress, 2024).

India’s Micro, Small, and Medium Enterprises (MSMEs), which contribute 30% of GDP and 45% of exports, remain a crucial component of the country’s trade strategy. The PLI scheme’s extension to 150 MSME clusters in 2023 has boosted textile exports by 18%, with Surat’s diamond-polishing hub alone generating \$24 billion in revenue (MSME Ministry, 2024). Meanwhile, digital trade initiatives such as the Open Network for Digital Commerce (ONDC) have integrated 500,000 MSMEs into e-commerce platforms, reducing reliance on Chinese wholesalers and enhancing India’s digital trade capabilities (NASSCOM, 2024). India’s G20 presidency in 2023 further emphasised digital trade standardisation, culminating in the adoption of the “G20 Framework for Cross-Border Paperless Trade,” which is projected to reduce export costs by \$15 billion annually by 2030 (G20 Secretariat, 2023).

India’s strategic trade initiatives reflect a nuanced balancing act between leveraging global opportunities and addressing domestic constraints. While partnerships such as the ECTA and the Quad’s CMSP enhance supply chain security, persistent infrastructure gaps and the rise of global protectionism pose significant challenges. The next section examines India’s ongoing Free Trade Agreement (FTA) negotiations with the UK, EU, and New Zealand, analysing how these agreements could further solidify India’s trade ambitions and serve as a benchmark for its goal of becoming a \$5 trillion economy by 2028.

Table 2: India’s Trade Initiatives and Outcomes

Initiative	Recent Outcome	Source (in-text style)
India-Australia ECTA	Bilateral trade ≈ \$26 bn (2022–23)	(Press Information Bureau, 2023; DFAT, 2022)
India-UAE CEPA	Trade ≈ \$88 bn (2023)	(Indian Embassy in UAE, 2024)
PLI (select sectors)	FDI ≈ \$55 bn; jobs ≈ 600k	(MEITY, 2024)
ONDC / MSME digitisation	≈ 500k MSMEs onboarded	(NASSCOM, 2024)

V. REVIVAL OF FREE TRADE AGREEMENT NEGOTIATIONS

India’s strategic trade initiatives, as outlined in the previous section, are being reinforced by its renewed emphasis on Free Trade Agreements (FTAs),

which are pivotal in securing market access, diversifying supply chains, and countering the rising tide of global protectionism. After nearly a decade of stagnation, India has re-engaged in FTA negotiations with key partners such as the United Kingdom, the European Union (EU), and New Zealand, signalling a shift from a traditionally cautious approach centred on import substitution to a more proactive strategy that prioritises export-led growth. This renewed push aligns with India's broader ambition to become a \$5 trillion economy by 2028, as FTAs serve to enhance trade flows, attract foreign direct investment (FDI), and provide Indian industries with competitive advantages in global markets. Given the increasing fragmentation of the global trading system and the declining influence of multilateral frameworks such as the World Trade Organisation (WTO), FTAs have become essential instruments for ensuring India's long-term trade resilience.

The retreat from multilateralism, exemplified by the WTO's diminished ability to resolve trade disputes and enforce liberalisation commitments, has prompted countries to seek bilateral and regional FTAs as alternative mechanisms for trade facilitation. For India, these agreements offer a means to circumvent rising tariffs and non-tariff barriers, particularly in Western markets where its exports face higher duties compared to those of its ASEAN counterparts. As of 2024, Indian exports to the EU are subject to an average tariff of 6.3%, while those to the UK face tariffs of 4.7%—significantly higher than the 2.8% rate applied to exports to ASEAN (WTO, 2024). The proposed India-UK FTA aims to eliminate or reduce tariffs on 90% of goods, potentially increasing bilateral trade by \$50 billion by 2030 (UK Department for Business and Trade, 2023). Additionally, FTAs align with India's broader "China+1" diversification strategy, wherein multinational corporations such as Apple and Samsung have begun mandating suppliers to reduce dependence on Chinese inputs. This shift creates opportunities for India's electronics, pharmaceuticals, and textiles sectors, which stand to benefit from tariff concessions in agreements like the India-EU FTA, positioning India as a viable alternative supplier in global supply chains (European Commission, 2024).

The India-UK FTA, which was revived in 2022 following a 15-year hiatus, exemplifies the complexities of modern trade negotiations. The UK seeks significant reductions in tariffs on automobiles (currently 100–125%), Scotch whisky (150%), and legal services, while India prioritises easier mobility for

skilled professionals and market access for its textiles, spices, and IT services (Ministry of Commerce and Industry, 2024). As of May 2024, 26 out of 30 negotiation chapters have been finalised, but key challenges remain. One of the most contentious issues is the demand for expanded UK work visas for Indian IT professionals, similar to the annual 3,000 visas granted under the India-Japan FTA. The UK, however, has linked visa quotas to tariff reductions on Scotch whisky, leading to an impasse (Financial Times, 2024). Environmental standards have also emerged as a sticking point, as the UK's push for carbon taxation on Indian steel imports conflicts with India's opposition to aligning with the EU's Carbon Border Adjustment Mechanism (CBAM), which New Delhi perceives as a form of "green protectionism" (Centre for Social and Economic Progress, 2024). Despite these hurdles, both India and the UK recognise the strategic importance of the agreement. The UK, seeking to diversify its trade relationships post-Brexit, views India as a crucial partner, while India sees the UK's \$3.8 trillion consumer market as a key destination for its rapidly expanding MSME-dominated export sectors (UK Office for National Statistics, 2024).

India's negotiations with the EU, which have been ongoing since 2007, have gained renewed momentum as both parties seek to mitigate economic headwinds and secure stable trade partnerships. The EU remains India's third-largest trading partner, with total trade reaching \$135 billion in 2023. However, non-tariff barriers (NTBs), such as the EU's stringent sanitary and phytosanitary (SPS) standards, continue to impede Indian exports, particularly in the agricultural sector, where compliance costs are estimated to block \$12 billion worth of exports annually (ICRIER, 2023). The EU's insistence on binding sustainability commitments—such as adherence to the Paris Agreement and deforestation-free supply chains—has also complicated negotiations, as India views these conditions as discriminatory trade restrictions. Nonetheless, some progress has been made, with the EU tentatively agreeing to exempt small-scale Indian farmers from the most stringent traceability requirements, offering a potential pathway to compromise (Hindu Business Line, 2024).

India's FTA negotiations with New Zealand, revived in 2023 after a 16-year pause, reflect its broader ambition to integrate with the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). As a CPTPP member, New Zealand offers India access to a \$6 trillion Pacific Rim

market, making the agreement a strategic priority. However, contentious issues such as dairy market access and digital trade regulations have slowed progress. New Zealand, as the world's largest dairy exporter, has sought reductions in India's 30% tariff on milk powder, a request that has been met with resistance from India's dairy industry, which comprises 80 million smallholder farmers (Livemint, 2024). India has instead proposed a quota-based system that would allow limited dairy imports without disrupting the domestic sector. Similarly, negotiations over digital trade have been complex, with New Zealand advocating for exemptions from India's data localisation requirements, while India remains firm on preserving digital sovereignty under its Digital Personal Data Protection Act (MEITY, 2024). A breakthrough in these negotiations could unlock significant opportunities in agritech and renewable energy, particularly as New Zealand's dairy giant Fonterra has pledged \$200 million to modernise India's dairy supply chains if tariff reductions are granted (New Zealand Trade and Enterprise, 2024).

FTAs are also critical for strengthening India's Micro, Small, and Medium Enterprises (MSMEs), which contribute 45% of total exports but often struggle with scale limitations and technological constraints. The India-UAE Comprehensive Economic Partnership Agreement (CEPA), discussed in the previous section, serves as an illustrative case: since its implementation, MSME jewellery exporters have seen a 27% increase in gold jewellery sales to the UAE, driven by tariff waivers (Gems and Jewellery Export Promotion Council, 2024). Similarly, the proposed India-EU FTA includes a €400 million fund to help digitise Indian MSMEs, mirroring the EU's Digital Europe Programme, which has facilitated small-business integration into global e-commerce networks (European Commission, 2024). Innovation partnerships are also being actively explored under these agreements. For example, the India-UK FTA's proposed "Innovation Bridge" aims to co-fund 500 startups in artificial intelligence and renewable energy by 2030, leveraging the UK's \$1.6 billion Global Innovation Fund to boost research collaboration (UK India Business Council, 2024).

Despite these potential gains, domestic opposition to FTAs remains strong. India's dairy and steel industries have lobbied against trade agreements with New Zealand and the UK, citing fears of import surges that could undermine domestic production (Indian Dairy Association, 2024). Meanwhile, the EU's demand for regulatory reforms, such as stricter intellectual property protections

under the Trade-Related Aspects of Intellectual Property Rights (TRIPS) framework, has sparked concerns over the affordability of generic medicines, with organisations like Médecins Sans Frontières warning of potential price increases for life-saving drugs (Médecins Sans Frontières, 2024). Geopolitical tensions further complicate negotiations, particularly in the case of the India-EU FTA, where delays have been attributed to divergent stances on the Russia-Ukraine conflict. The EU has exerted pressure on India to reduce its reliance on discounted Russian oil imports, adding a geopolitical dimension to trade discussions (Stratfor, 2024).

India's renewed focus on FTAs underscores a strategic transition from defensive protectionism to proactive global engagement. While agreements with the UK, EU, and New Zealand hold immense economic potential, their successful conclusion will depend on India's ability to navigate domestic political sensitivities and geopolitical complexities. As India continues to position itself as a key player in global trade, its capacity to harmonise FTA obligations with its domestic industrial policies and multilateral partnerships will be a decisive factor in shaping its trajectory as a 21st-century economic power. The concluding section synthesises these insights, evaluating how India's multi-pronged trade strategy can foster a resilient and equitable global trade order.

VI. CONCLUSION AND POLICY IMPLICATIONS

Global trade has shifted decisively from “just-in-time” efficiency toward risk-aware diversification. Pandemic shocks, climate crises, and intensifying geopolitical rivalries have exposed structural vulnerabilities, prompting nations to prioritise resilience, regionalisation, and strategic autonomy (Sections II and III). For India, this new environment has demanded a shift from reactive adaptation to a proactive strategy. Through industrial policy (PLI), export diversification via bilateral agreements such as the India-Australia ECTA and UAE CEPA, and participation in plurilateral mechanisms like the Quad's Critical Minerals Security Partnership, India has signalled a more forward-looking trade posture (Bloomberg, 2024; Ministry of Commerce and Industry, 2024; Section IV).

Yet challenges remain. High logistics costs—14% of GDP, nearly twice the global average (World Bank, 2024)—and slow infrastructure delivery under

the \$1.3 trillion National Infrastructure Pipeline (Economic Survey 2023–24) threaten export competitiveness. MSMEs, essential for India's export engine, struggle with digital adoption, with only 30% integrated into e-commerce platforms (NASSCOM, 2024). At the same time, upcoming FTAs with the UK, EU, and New Zealand present opportunities to expand market access but also expose India to new compliance costs under sustainability provisions like the EU's CBAM (CSEP, 2024; WTO, 2024), and intellectual property demands that may affect the generics industry (Médecins Sans Frontières, 2024).

For policymakers, three imperatives emerge. First, FTAs should be calibrated to balance market-access gains with sequenced compliance on sustainability rules (CSEP, 2024; WTO, 2024). Second, scaling MSME readiness through standards, digitisation, and finance is essential to ensure supply-chain opportunities translate into firm-level gains (NASSCOM, 2024). Third, accelerating trade-enabling infrastructure—Sagarmala, Bharatmala, and the National Infrastructure Pipeline—is critical to compress logistics costs toward global benchmarks (World Bank, 2024; Economic Survey 2023–24). For researchers, this landscape underscores the need for a deeper evaluation of India's policy mix: how industrial subsidies, such as PLI, impact global competitiveness, how sustainability clauses, like CBAM, alter export dynamics, and how digital trade governance can be standardised to ensure inclusivity.

For the broader international trade field, India's trajectory underscores the wider tension between protectionism and openness. While defensive measures can shield domestic industries, long-term resilience requires strategic openness in high-growth sectors such as renewable energy and digital services. India's bridging role between the Global North and South, particularly in climate-responsive trade and digital governance under its G20 leadership, exemplifies the potential of collaborative multilateralism. In summary, India's ambition to reach a \$5 trillion economy by 2028 hinges on harnessing demographic dividends, driving green innovation, and fostering regional partnerships. A balanced path—sequenced compliance, MSME enablement, and infrastructure delivery—can embed resilience without sacrificing growth (WTO, 2024; World Bank, 2024).

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