



# Evolving Landscape of Global Value Chains

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Established in 1927, FICCI is the largest and oldest apex business organization in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A not-for-profit organization, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 250,000 companies. FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

# Foreword

Global value chains are entering a period of profound transformation. For decades, scale and efficiency defined competitiveness, but today, resilience, adaptability, and sustainability are the new imperatives. At BCG, we have had the privilege of working globally to understand these shifts and to reimagine strategies that can help firms thrive in a multipolar, uncertain environment.

At this pivotal juncture, India has the opportunity to align its strengths with the new realities of global value chains. This report seeks to chart a path that not only mitigates near-term risks but also positions the country to capture the long-term opportunities emerging from this transformation. From building resilient, digital, and green value chains to embedding India more deeply in global value chains, the choices we make today will define the nation's role in shaping the future of global trade.

We hope this work inspires leaders across business and policy to think boldly, act decisively, and position India as a resilient, innovative, and indispensable hub in tomorrow's global value chains.



**RAHUL JAIN**

Managing Director and Senior Partner,  
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FICCI, in collaboration with Boston Consulting Group (BCG), is pleased to present the report “Evolving Landscape of Global Value Chains.”

This report comes at a critical moment when global value chains and networks are being reshaped by unprecedented disruptions and emerging opportunities.

For decades, global value chains were built on efficiency and scale, optimized for cost competitiveness and just-in-time delivery. That model is now being redefined. Geopolitical shifts, tariff shocks, climate events, wars and pandemic disruptions have exposed the fragility of hyper-optimized systems. Global value chains are shifting from a model built on scale, efficiency, and low cost to one that balances these strengths with resilience, adaptability, digital integration, and sustainability compliance.

This change brings both challenges and opportunities. Businesses face new pressures, but those that stay flexible and forward-looking will be best placed to succeed.

FICCI remains committed to supporting businesses in navigating these changes and strengthening India's role in global trade. This report provides insights on the evolving nature of global value chains and highlights pathways for building competitiveness, fostering innovation, and ensuring that GVCs remain robust and sustainable in the years ahead.

This report will serve as an informative source for industry leaders, policymakers, and stakeholders as they navigate the evolving landscape. Together, we have the opportunity to ensure that India not only adapts to global shifts but also plays a central role in shaping the future of trade.



**JYOTI VIJ**

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# Executive Summary

Global value chains are undergoing a structural transformation. For decades, the focus was on scale, efficiency, and low-cost production enabled by globalization. That model is giving way to a new paradigm where resilience, adaptability, and compliance define competitiveness.

This shift reflects the need to manage uncertainty, diversify sourcing, and embed sustainability across networks. Value chains are no longer just a support system—they are now core drivers of growth, innovation, and long-term success. Companies are investing in technology-enabled visibility, regional hubs, and traceable standards to build networks that can withstand disruption while meeting evolving expectations on quality, transparency, and sustainability.

The reconfiguration of GVCs is both a challenge and an opportunity. The challenge lies in adapting to higher thresholds of compliance and efficiency, while the opportunity comes from repositioning as reliable, cost-effective, and future-ready partners in global trade.

The way forward for India rests on four imperatives:

## **Make in India for India:**

Strengthen domestic capacity to reduce import dependence and secure critical value chains.

## **Make in India for the World:**

Use trade agreements and market access to embed India deeper into global value chains especially in newer geographies.

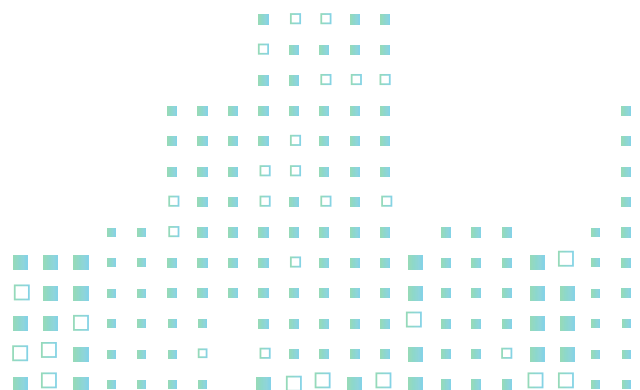
## **Move up the Value Chains:**

Invest in innovation, disaggregation, and higher-value segments across industries.

## **Build Digital & Green Value Chains:**

Integrate traceability, compliance, and sustainability as foundations of competitiveness.

In the new era of global value chains, resilience is not the end goal but the foundation for long-term advantage.



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## 01

## INTRODUCTION

## Shifting Dynamics of GVCs

Global value chains are undergoing a structural reset. For years, globalization, open markets, and China's rise shaped value chains focused on scale and low cost. That model is now being redefined. Geopolitics, pandemics, wars and climate events have exposed the fragility of hyper-optimized value chains.

Value chains are strategic assets that shape competitive advantage for firms and countries.

Three forces define the shifting dynamics:

(a) Global Geopolitics now sets the design rules, (b) Resilience has become as critical as efficiency, and (c) Technology, Services, and Sustainability have become key imperatives alongside Cost.

This is not a one-off event but structural rewiring of GVCs. The previous efficiency-driven model,

with significant reliance on China, is evolving into a more diversified, multipolar order with multi-sourcing strategies. Value chain design now needs to integrate manufacturing, services, talent, and compliance across borders.

Decisions on carbon footprints, partnerships, and agile capabilities will shape competitiveness for decades. As per Gartner, 87% of supply chain leaders now focus on resilience, 79% have made it part of their company strategy, and 77% are strengthening supplier ties. What once prioritized efficiency now prioritizes resilience—with value chains becoming diversified and integrated by design.



### Geopolitics actively shapes trade and value chains

- Trade flows are now shaped by political alignment as much as economics
- Tariffs, export controls, and subsidies are remapping commerce
- Regional blocs (IPEF, BRICS+, ASEAN) replacing WTO-style predictability



### Resilience has become as critical as efficiency

- “Just-in-time” is giving way to “just-in-case”
- Firms are creating buffers, using dual suppliers, and regional hub
- Firms now accept higher costs to ensure continuity. Resilience has become a key differentiator



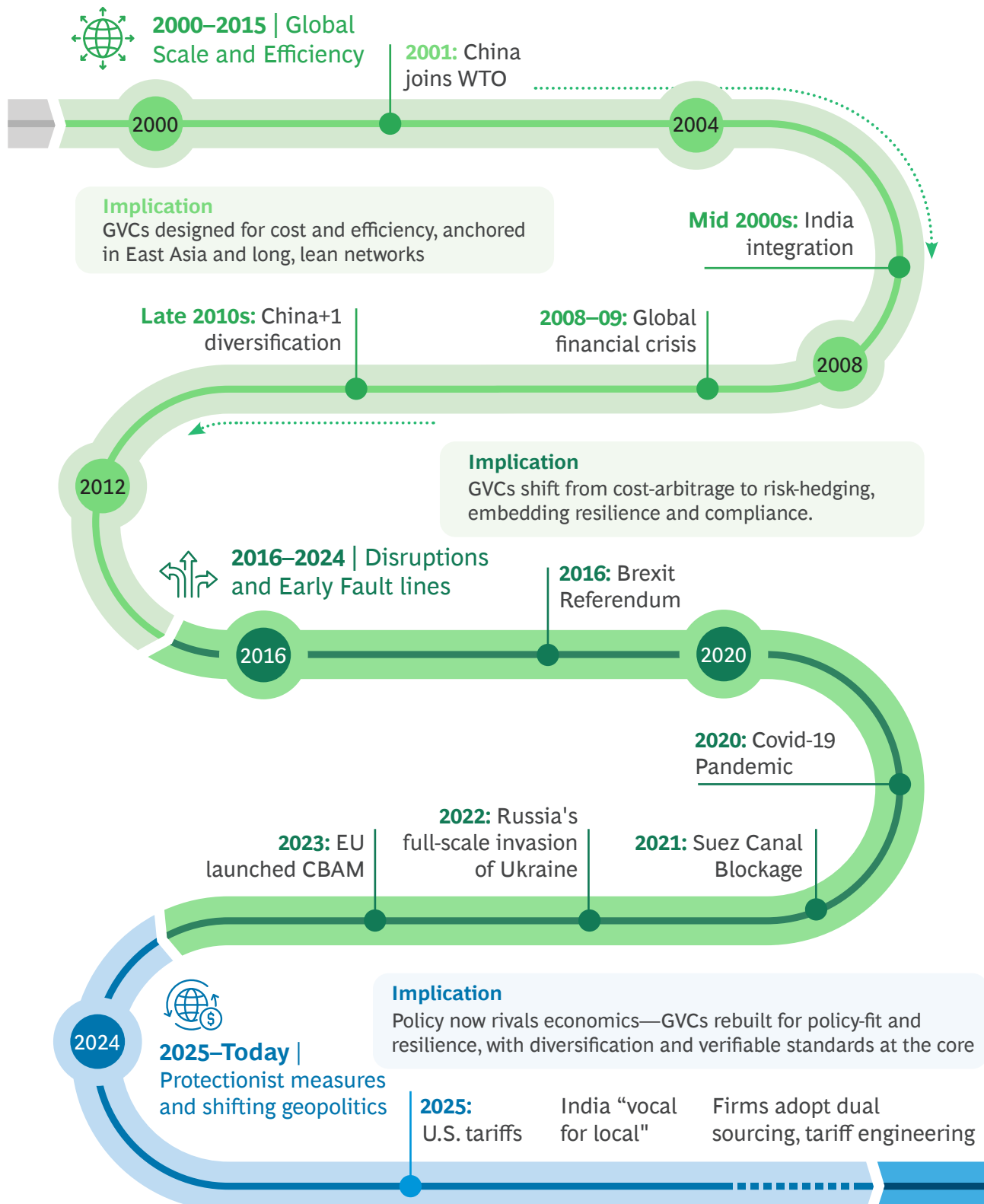
### Technology and sustainability have become imperatives rather than options

- Digital command centres, IoT, blockchain enable real-time visibility and compliance
- Automation and Industry 4.0 help offset added redundancy
- Climate-linked measures (e.g., CBAM) make traceability and verified sustainability mandatory

## 02

# THE GVC JOURNEY

## Three Decades of GVC Evolution







## 2000–2015 | Global Scale and Efficiency

China's entry into the WTO in 2001 cemented East Asia as the hub of global manufacturing. Multinationals expanded value chains across borders, optimized for just-in-time delivery, and drove costs down through scale. India participated through services and select manufacturing exports, while trade volumes rose year after year. Firms began exploring a 'China+1' approach. Even the 2008–09 financial crisis was only a temporary shock, as trade flows quickly bounced back. Firms began exploring a 'China+1' approach.

**Implication:** GVCs globalized rapidly, built almost entirely for efficiency and scale, with East Asia as the anchor and lean supply as the default model.



## 2016–2024 | Disruptions and Early Fault lines

The Brexit referendum in 2016 was the first signal that domestic politics could reshape global trade rules. By 2018, USA-China tariffs began to rewire sourcing, while technology bans turned value chains into strategic assets. Pandemic and wars exposed the fragility of just-in-time production, and the 2021 Suez Canal blockage highlighted the risks of chokepoints. Russia's full-scale invasion of Ukraine in 2022 disrupted

energy, metals, and food. The EU's Carbon Border Adjustment Mechanism in 2023 made compliance and emissions traceability as minimum conditions for market access.

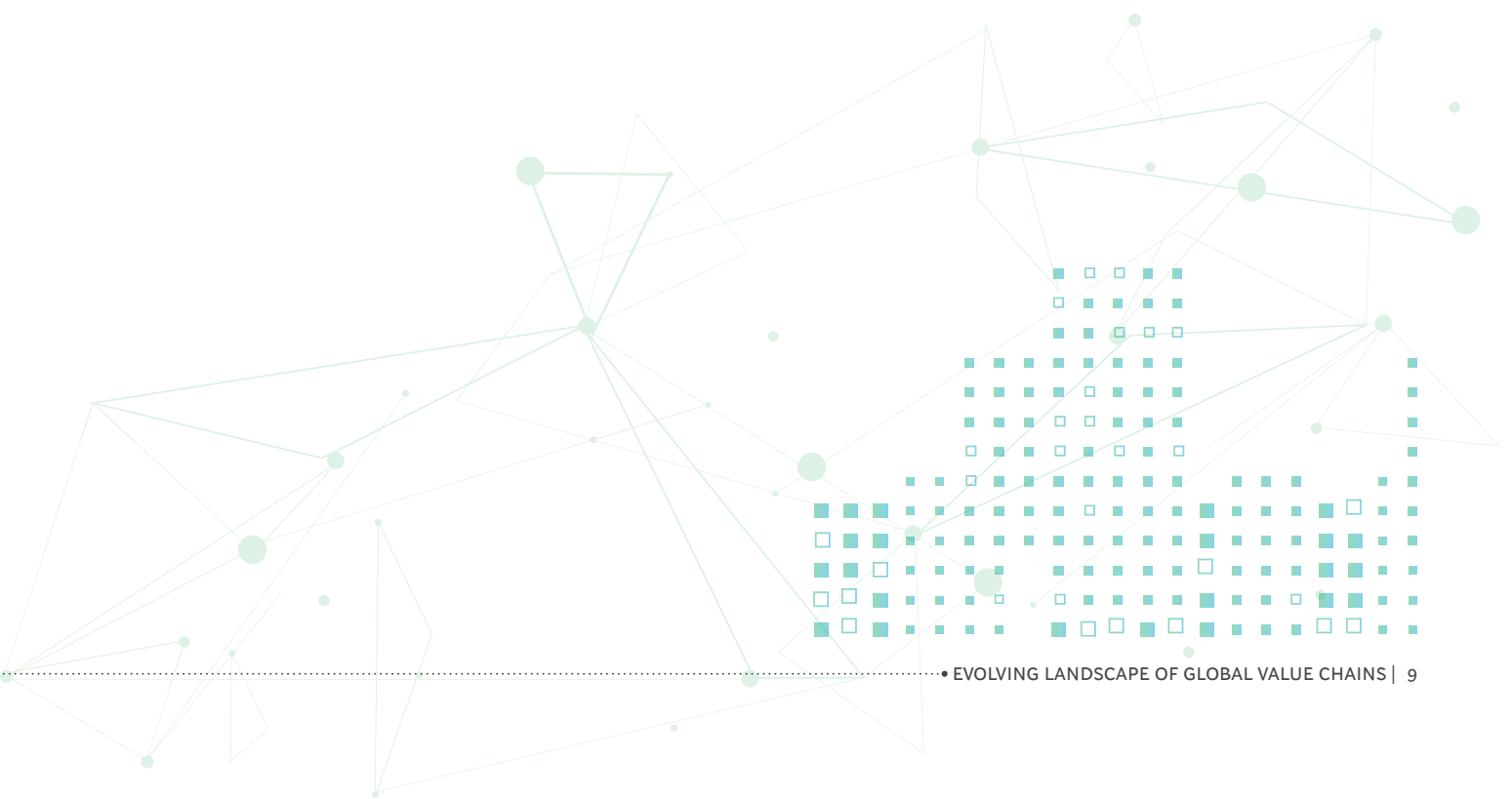
**Implication:** GVCs moved from efficiency-first models to resilience-first models, prioritizing diversification and compliance even at higher cost



## 2025–Today | Protectionist Measures and Shifting Geopolitics

USA trade-weighted tariffs have risen to levels not seen in a century, marking a step change. At the same time, non-tariff measures from digital trade restrictions to AI governance rules are gaining ground. Countries, including India, are responding in three ways: pushing "vocal for local" through industrial policies, using FTAs to secure market access, and pursuing selective decoupling to reduce dependence on single geographies. Firms are adjusting by redesigning a value network with tariff planning, dual sourcing, and forming regional hubs to manage risk.

**Implication:** Tariff now shapes value chains as much as economics. GVCs are being rebuilt for resilience and policy-fit, with diversification, backup capacity, and verifiable standards at the core.



## 03

# THE NEW RULES OF TRADE

## Implications for GVC Design

Global trade has entered a new phase. Tariffs and non-tariff controls are spreading across sectors, and value chains are no longer designed only for cost and speed. Resilience, diversification, and policy alignment are now at the core of global value chains strategy.

Firms that build resilience and compliance protect margins and access, while those that lag lose share. Four shifts are defining this transformation:



### Just-in-time to Just in case

Constant shocks are pushing decision-making to move from cost-only models to include service, risk, and policy fit as well. Companies are securing reliability through dual sourcing and diversification to manage shocks along with re-aligning focus on sectors which have govt support. India's PLI scheme is drawing \$20 Bn+ investment in sectors like electronics, IT, and pharma etc, generating \$191 Bn output.

**Impact:** Value chains are moving from cost-only decisions to multi-variable design, balancing cost, risk, service, and policy.



### The Rise of Regional Alliances

Global trade flows are shifting from single-country dependence to multi-region networks. Blocs like IPEF, BRICS+, and ASEAN are pushing near/friendshoring alliances to reduce

dependence on other countries. USA import cuts from China (~\$150 Bn) reshaped regional trade, with India gaining ~\$23 Bn in new exports.

**Impact:** GVCs are shifting from single-country hubs to diversified, regional networks, driven by reshoring and friendshoring.



### Dynamic Export Strategy

Companies are moving from isolated setups to agile and integrated trade command centers. These centers balance supply, finance, policy, and compliance giving companies agility, international market access, and growth without heavy capex input. The India-UK and India-EFTA FTAs are prompting exporters to build integrated trade hubs to access potential markets.

**Impact:** Companies are moving from reactive setups to integrated, institutionalized models that continuously re-optimize for market access.





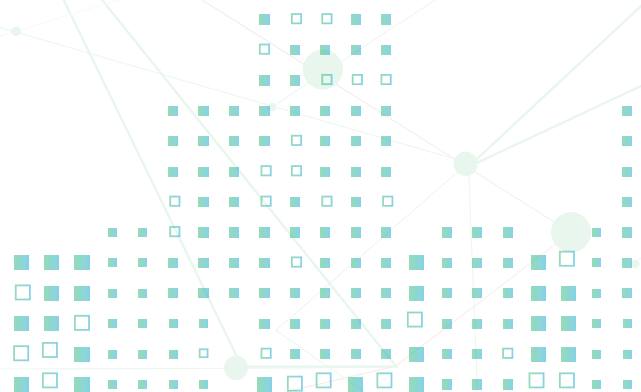
## Proof and Compliance based Market Access

Market access is being decided by certifications, ESG disclosures, and traceability standards. Carbon intensity is becoming a cost to trade, with CBAM adding new compliance levers. Countries are treating green value chains as strategic assets.

India is building tech-enabled traceable value chains while committing to 40% non-fossil capacity and pushing companies toward cleaner technologies.

**Impact:** Quality standards are moving from paper-based checks to digital traceability and carbon accounting, embedding sustainability into GVC design.

Globalization has brought many benefits, helping industries to grow and reduce costs. But as tariffs, compliance measures, and policy shifts reshape trade, countries are now building their own value chains. To stay competitive, they need to mirror global cost structures and strive for efficiency. At the same time, resilience and localization bring added costs that must be managed carefully. The way forward is to balance the efficiency of globalization with the security of resilience and localization.



## 04

## INDIA'S STRATEGY

## Navigating Opportunity and Risk

India's exposure to the 2025 USA tariff shock is modest. Exports account for just 20–21% of GDP, and the USA share is only ~2%. The aggregate growth impact is limited, but the pressure is uneven. **Labour-intensive sectors**—textiles, gems and jewellery, leather, carpets, and handicrafts—face the sharpest strain, while **industrial exports** such as chemicals, metals, and machinery are also under pressure.

The task ahead is twofold: cushion vulnerable sectors from near-term shocks, and build new competitive strengths that embed India more deeply into global value chains.

## Opportunities and Headroom for Growth

### Three Key Opportunities for India to Fight Tariff Shocks



#### 1 Diversify Export Market through FTA and New Corridors

Diversify exports beyond the USA and expand into other geographies such as Europe with tariff parity and cost edge

#### 2 Drive Reforms to Strive Efficiency and Spur Demand

Reduce factor costs like logistics, power, land, etc. to sustain competitiveness beyond tariff openings

#### 3 Indigenize Critical Imports

Localize production in select sectors such as solar, electronics, etc. to cut dependence and build secure value chains





## Diversify Export Market through FTA and New Corridors

Bilateral deals, such as the recent free trade agreement with the UK, and the trade and economic partnership agreement with EFTA nations (Switzerland, Norway, Liechtenstein and Iceland), are opening new markets. The UK free trade agreement alone provides duty-free access for 99% of tariff lines, giving Indian exporters a foothold in the sixth largest national economy in the world that today imports about \$98 Bn from China and \$33 Bn from ASEAN. Similar negotiations with the EU could potentially open a combined market that currently imports nearly \$570 Bn from China and \$175 Bn from ASEAN. These new corridors are not just buffers against USA tariff shocks—they are a strategic pathway for India to expand its footprint and diversify export dependence. Indian firms are already pivoting—with Gokaldas lifting its European share, while Arvind expects its UK sales to double.



## Drive Reforms to Strive Efficiency and Spur Demand

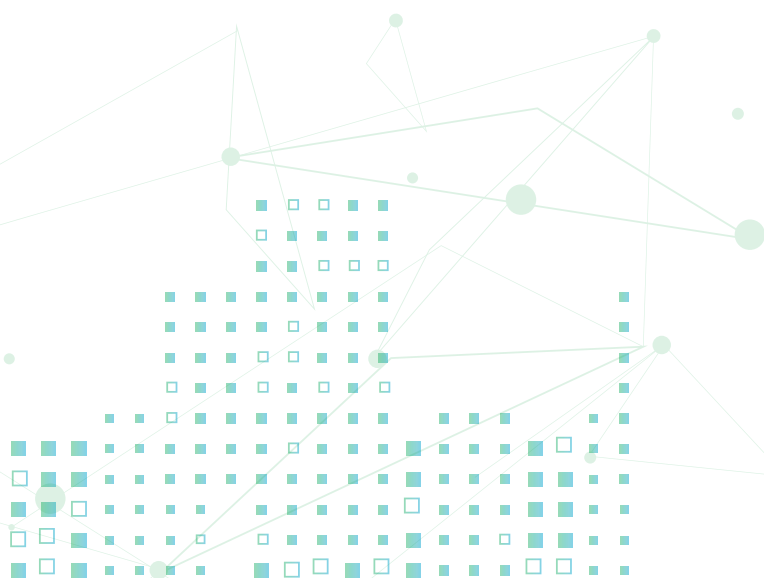
India can address structural cost pressures to build durable competitiveness. Logistics costs remain high at ~14% of GDP (vs 8–10% in advanced economies), industrial power remains expensive, and land acquisition continues to be slow and complex. Structural reforms have

been initiated and the momentum is visible: the National Logistics Policy targets lower transport costs, GST processes are being simplified for exporters, and several states have begun easing labor laws in textiles and leather. What matters now is pace and execution: **faster reforms can determine whether tariff openings translate into lasting competitiveness for Indian exporters.**



## Indigenize Critical Imports

India's high import dependence—23–24% of GDP compared with 15–17% in the USA and China—will require a stronger policy push to localize production. Vulnerabilities are sharp in critical sectors: pharmaceuticals still import nearly 70% of APIs, renewables depend on foreign supply for more than half of solar wafers, and electronics continues to rely on imported components for mobiles and semiconductors. The government has begun to respond with targeted schemes. The Production-Linked Incentive (PLI) program is encouraging investment in electronics, APIs, and renewables. The Approved List of Models and Manufacturers (ALMM) is boosting demand for domestically made solar modules. Similar policy tools—whether through subsidies, standards, or trade-linked requirements—can accelerate indigenization across other critical inputs. Scaling these efforts may not only reduce strategic vulnerabilities but also create competitive, resilient value chains that embed India more deeply in global value networks.



## Risks and Constraints

The opportunities are significant, but the risks are equally binding.

Global overcapacity in sectors such as chemicals, steel, and electronics is creating the risk of discounted exports being redirected into markets like Asia, Africa, and the Middle East. Such inflows could put pressure on local producers and compress margins.

Another major challenge comes from compliance and sustainability standards. Lengthy certification timelines and emerging green trade measures could slow India's export momentum. In sectors such as automotive, supplier approvals often take 18–24 months, and many smaller firms lack the testing and certification capacity to qualify quickly. Meanwhile, new frameworks like the EU's Carbon Border Adjustment Mechanism are directly linking market access to emissions traceability. Without timely upgrades in standards and capabilities, Indian exporters risk losing access to high-value markets just as new opportunities are opening.

## What this means for India

While the direct macroeconomic impact of recent tariffs on India is limited, the larger challenge lies in capturing the opportunities created by shifting global trade patterns.

New FTAs and trade corridors can help diversify export markets, while indigenization and reforms can strengthen domestic competitiveness. At the same time, risks from diversion, and rising compliance requirements highlight the need for stronger policy support and industry readiness. The task ahead is clear: **protect vulnerable sectors, accelerate capacity in resilient ones, and position India as a trusted and competitive player in global value chains.**

# 05

## THE WAY FORWARD

# Strategic Roadmap for India

India has remained resilient to recent trade shocks which is reflected in its lower export dependence. While this has provided short-term insulation, deeper integration is essential to convert resilience into long-term advantage by positioning India as a trusted hub in an era of shifting value chains. Achieving this will require progress on four fronts.

### Opportunities for India to Fight Tariff Shocks



#### Make in India for India

Localize critical inputs in new-age sectors such as solar, semiconductors, APIs, electronics, and medical devices by leveraging schemes like PLI and ALMM



#### Move up the Value Chains

Invest in innovation and technology to differentiate beyond cost. Shift into premium fabrics, specialty chemicals, etc. to secure higher margins and deeper integration



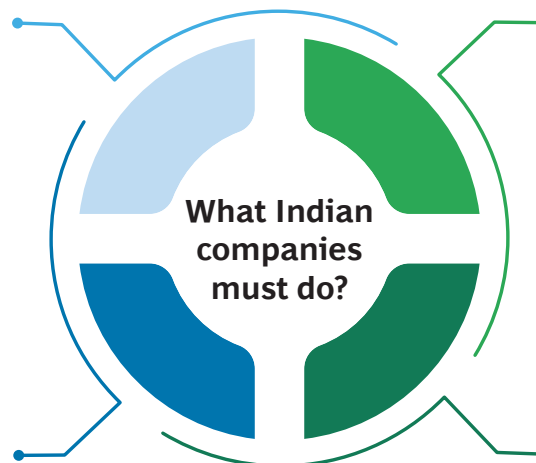
#### Expand Global Footprint

Leverage FTAs, set up overseas bases, and plug into disaggregated value chains to diversify exports and scale global presence



#### Build Efficiency through Digital & Green Value Chains

Invest in digital tools and green practices to reduce costs, meet CBAM standards, and turn compliance into a competitive advantage







## Make in India for India

Industries must make decisive bets on indigenizing inputs in critical sectors to cut dependence and secure its value chains. The solar industry shows the way: firms such as Adani Solar and Waaree are scaling module capacity and moving upstream into cells and wafers. Semiconductors are the next frontier, with projects like Micron's ATMP facility and proposed fabs expected to anchor a broader ecosystem spanning design, manufacturing, and packaging. Similar urgency is required in pharmaceuticals, electronics, and medical devices, where domestic depth is still limited. By building stronger foundations at home, India can reduce vulnerabilities and create globally competitive value chains rooted in its domestic market.



## Expand Global Footprint

Indian firms must actively expand their global presence—by exporting to new markets under FTAs, by setting up overseas bases where it is economically viable, and by plugging into disaggregated value chains in high-value niches. Duty-free access under the UK and EFTA FTAs, and a potential EU deal, opens nearly a trillion dollars of trade flows. Firms are already moving: Dynamatic Technologies supplies aerostructures to Boeing and Airbus; Motherson Sumi has built a global network of auto-component plants through acquisitions in Europe, North America, and Asia; Apollo Tyres operates factories in the Netherlands and Hungary to serve local demand. These strategies show how Indian companies can diversify exports, establish bases closer to end-markets, and participate in global chains at higher-value stages, positioning themselves as preferred partners in “China+1” strategies.



## Move Up the Value Chains

Indian companies must focus on innovation and technology to differentiate beyond cost. Competing only on efficiency is no longer enough. Firms should target premium and specialized segments where design, R&D, and advanced engineering drive value. In textiles, this means premium fabrics and yarns; in chemicals, firms like Gujarat Fluorochemicals are moving into fluoropolymers and battery salts; and in autos, players like Motherson and Bharat Forge are expanding into electronics-rich, safety-critical components. By innovating and offering differentiated products, Indian firms can secure higher margins and stronger roles in global value chains.



## Build Efficiency through Digital and Green Value Chains

Going forward, competitiveness will depend on compliance and efficiency, not cost alone. Market access is now tied to traceability and emissions standards. Digital tools like automation and blockchain can streamline certification, reduce delays, and cut redundant costs. Green investments—in low-carbon technologies, energy efficiency, and circular practices—lower expenses while meeting global benchmarks. Leaders such as JSW Steel and Tata Steel are embedding ESG practices, while Infosys and Wipro provide traceability platforms to help exporters adapt. By combining compliance with efficiency, firms can reduce costs, maintain premium market access, and turn sustainability into a competitive edge.

# Conclusion

The restructuring of global value chains is not just a challenge but a generational opportunity for India. Early signals are already visible: Reliance New Energy investing upstream upto Polysilicon, Adani Green Energy commissioning wafer manufacturing plant, Dynamatic Technologies supplying Airbus and Boeing, Gujarat Fluorochemicals exporting specialty battery chemicals, and Exide Industries advancing battery manufacturing and recycling for global markets. These are not isolated wins—they are proof that Indian firms can compete in the global arena.

The years ahead will be decisive. Other economies are moving fast to secure their place in reconfigured value chains, but India enters this moment with a unique blend of advantages: a large domestic market, a strong reform agenda, rising capabilities in technology and manufacturing, and expanding access through new trade agreements.

If Indian companies execute with speed and ambition—localizing critical inputs, expand into new markets, climbing into higher-value niches, and embedding digital and green standards—they can move from resilience to leadership. The prize is clear: to shift from the margins to the center of global trade, positioning India not just as a participant but as a trusted, competitive, and indispensable hub in the global value chains of the future.



# Note to the Reader

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