TARIFFS AND TRADE WARS IN THE TRUMP ERA: 2025 GLOBAL ECONOMIC RISKS AND OPPORTUNITIES FOR THE UNITED STATES OF AMERICA WITH REFERENCE TO INDIA AND CHINA – AN EMPIRICAL ASSESSMENT

Dr. G. YOGANANDHAM, Professor, Department of Economics, Director- Centre for Knowledge, Thiruvalluvar University (A State University) Serkkadu, Vellore District, Tamil Nadu, India- 632 115.

Abstract

This analysis traces the evolution of U.S. tariff policies under Donald Trump from protectionism to strategic economic leverage. Initially aimed at safeguarding domestic industries, tariffs expanded significantly from 2017 to 2018, leading to mixed economic outcomes, including higher consumer costs and widened trade deficits. In his second term, tariffs shifted toward geopolitical tools, intensifying U.S.–China confrontations and altering global supply chains, with notable impacts on trade flows, investment, and technological decoupling. Sectoral analyses reveal varied effects across manufacturing, technology, and agriculture, highlighting vulnerabilities and adaptation strategies. Macroeconomic risks in 2025, such as persistent inflation, currency volatility, and growth slowdown, are exacerbated by tariff-induced supply disruptions. Opportunities for resilience include domestic manufacturing revival and diversified trade partnerships, supported by policy initiatives like the CHIPS Act. Empirical models underscore the importance of trade openness and targeted tariffs in fostering stable growth. Overall, Trump's tariff trajectory reflects a shift from protective measures to strategic economic statecraft, shaping the future landscape of U.S. trade policy amidst global economic uncertainties. In this background, the study addresses pressing and emerging issues that are swiftly rising in significance within our dynamic, interconnected world, highlighting their importance in the current global context.

Keywords: Tariff Policies, Protectionism, Trade War, Supply Chains, Economic Strategy, Trade Diversification and Technological Decoupling.

TARIFFS AND TRADE WARS IN THE TRUMP ERA: 2025 GLOBAL ECONOMIC RISKS AND OPPORTUNITIES FOR THE UNITED STATES OF AMERICA WITH REFERENCE TO INDIA AND CHINA – AN EMPIRICAL ASSESSMENT

Dr. G. YOGANANDHAM, Professor, Department of Economics, Director- Centre for Knowledge, Thiruvalluvar University (A State University) Serkkadu, Vellore District, Tamil Nadu, India- 632 115.

The theme of the article

The trajectory of U.S. tariff policies under Donald Trump marks a significant shift from traditional protectionism to a tool of strategic economic leverage. Beginning in 2017, Trump's approach focused on protecting domestic industries by sharply increasing tariffs, notably on steel and aluminum, and targeting China through extensive tariffs on hundreds of billions of dollars of goods. These measures aimed to reduce trade deficits and confront perceived unfair trade practices, but their economic effects proved mixed; higher consumer prices, disrupted supply chains, and a widening trade deficit highlighted their limitations. As his presidency progressed, tariffs evolved into instruments of geopolitical strategy, with the U.S. adopting reciprocal and high-level tariffs on multiple trading partners, including China, India, and others, reaching levels comparable to the 1930s. This shift transformed trade policy into a form of economic statecraft, used to negotiate concessions on technology, supply chains, and foreign investment.

The U.S.–China trade war exemplifies this new approach, causing significant disruptions in global supply chains, prompting diversification efforts, and accelerating technological decoupling. These trade tensions have also heightened macroeconomic risks, including inflationary pressures, currency volatility, and slowed growth, with econometric models estimating substantial sectoral and national economic costs. Despite these challenges, the period has also presented opportunities for the U.S. to bolster domestic manufacturing and diversify its trade partners, supported by initiatives like the CHIPS and Science Act and the Inflation Reduction Act. Overall, Trump’s tariff evolution reflects a broader strategic agenda, leveraging trade policy not merely for protecting industries but as a means of asserting geopolitical influence, shaping global economic dynamics, and redefining U.S. economic resilience amidst a complex multipolar world.

Statement of the problem

The evolution of U.S. tariff policies under Donald Trump reflects a strategic shift from traditional protectionism toward a more assertive form of economic statecraft, with significant implications for domestic industries, international trade relationships, and global supply chains. Initially characterized by protective tariffs aimed at reducing trade deficits and shielding manufacturing sectors, the Trump administration's approach rapidly transitioned into a tool for leveraging geopolitical influence, exemplified by the escalation of the U.S.–China trade war and reciprocal tariffs targeting key trading partners. This strategic reorientation aimed to address longstanding trade imbalances and enhance bargaining power but introduced substantial economic costs, including higher consumer prices, disrupted supply chains, and retaliatory measures from trading partners.

Furthermore, the complex interplay between tariffs, global economic growth, inflationary pressures, and currency volatility presents a challenging environment for policymakers seeking to balance national interests with economic stability. As the U.S. continues to navigate this landscape into its second term, questions arise regarding the long-term efficacy of tariffs as instruments of economic leverage versus protectionism. The overarching problem centers on understanding how tariffs, initially protectionist, later strategic, affect economic growth, trade dynamics, and geopolitical stability, and how policymakers can optimize their use amid evolving global risks such as slowing growth, inflation, and supply chain vulnerabilities. Addressing this multifaceted issue requires rigorous analysis of tariff impacts across sectors, key trading partners, and macroeconomic variables, to inform sustainable trade strategies that bolster resilience without incurring excessive economic or diplomatic costs. The study examines critical and fast-evolving challenges that are becoming increasingly significant in our rapidly changing, interconnected world, emphasizing their relevance in the present global landscape.

Objective of the article

The overall objective of the article is to analyze the evolution of U.S. tariff policies under Donald Trump, highlighting their protectionist origins and shift toward strategic economic leverage, while examining their economic, geopolitical, and sectoral impacts, particularly in the context of U.S.–China, India, and global supply chains, to inform future trade strategies and policy responses with the help of secondary sources of information and statistical data pertaining to the theme of the article.

Research Methodology of the article

This article adopts a descriptive and analytical research design, relying primarily on secondary sources of information to examine the evolution of U.S. tariff policies under Donald

Trump. The methodology involves a qualitative review of policy documents, official trade statistics, and economic reports, combined with quantitative analysis of sectoral and macroeconomic data to identify trends, patterns, and impacts. Data sources include U.S. Census Bureau trade statistics, World Bank and IMF economic indicators, World Trade Organization (WTO) reports, and publications from think tanks such as the Peterson Institute for International Economics. Scholarly articles, news archives, and government press releases are also used to provide context on policy motivations and geopolitical developments.

The study unfolds in three key phases. First, the historical review examines the transition from conventional protectionist policies to the use of tariffs as instruments of strategic economic leverage, focusing on U.S. measures targeting China and notable escalation episodes from 2017 to 2021. Next, the economic and sectoral impact analysis employs statistical evidence to assess the repercussions on manufacturing, technology, agriculture, and the functioning of global supply chains, with particular attention to trade dynamics between the U.S., China, and India. Finally, the geopolitical assessment explores how these tariff strategies reshaped international alliances, influenced trade negotiations, and impacted the broader framework of global trade governance. By integrating statistical evidence with policy analysis, the methodology ensures both factual accuracy and interpretive depth. This approach supports informed conclusions on the consequences of Trump-era tariffs and offers insights for future trade strategies, balancing economic interests with geopolitical objectives. The collected data will be carefully analyzed and interpreted to generate practical insights that guide the creation of well-informed, evidence-driven policies.

Evolution of U.S. Tariff Policies under Donald Trump: From Protectionism to Strategic Economic Leverage

Donald Trump’s tariff policy began in 2017 with a clear protectionist intent, aiming to safeguard U.S. manufacturing and reduce the trade deficit. Before his presidency, U.S. tariffs applied to roughly 2% of imports, with an average rate of 1.7%. By late 2018, tariffs covered about 15% of imports, and the average rate surged to nearly 13.8%. Key actions included Section 232 tariffs of 25% on steel ($29.4 billion in imports) and 10% on aluminum ($17.6 billion), as well as Section 301 tariffs on roughly $360 billion of Chinese goods. These measures were framed as defending domestic industries from “unfair trade” but quickly evolved into a broader economic tool. Economically, the results were mixed. While tariff revenues grew, studies estimated a $51 billion annual cost to U.S. consumers and firms and a $7.2 billion real income loss. The Federal Reserve projected tariffs shaved nearly one percentage point off 2020 GDP growth. Instead of narrowing, the trade deficit widened—from $481 billion in 2016 to $679 billion in 2020, with the goods deficit reaching a record $916 billion. Job losses linked to tariffs were estimated at 245,000, and prices of intermediate goods rose by 10–30%, adding about 0.5 percentage points to inflation. These side effects revealed the limits of protectionism as an economic growth driver.

In his second term (2025), tariffs became a strategic instrument of economic leverage. The average U.S. tariff rate briefly peaked at 27%, the highest since the 1930 Smoot-Hawley era, before moderating to 18.6%. Sweeping "reciprocal tariffs" imposed 10% duties on all imports and 11–50% on select countries, with China facing initial rates as high as 145%, later reduced to ~30% in a truce. Tariff collections soared, exceeding $100 billion since April 2025—tripling the previous year's intake. However, the aggressive stance strained relations with major partners like India and Brazil, triggered legal pushback in U.S. courts, and risked higher consumer costs—such as potential $4,000–$15,000 increases in car prices. Trump's shift from protectionism to high-stakes trade leverage underscores both the political utility and economic volatility of tariff-driven policy.

This trajectory illustrates how Trump's tariff approach evolved beyond simple protectionism into a high-profile geopolitical tool, influencing both allies and rivals. Initially aimed at correcting perceived trade imbalances, tariffs became central to broader strategic negotiations, leveraging market access in exchange for policy concessions on technology, supply chains, and foreign investment. While revenue gains and negotiating leverage were clear, the economic costs, higher consumer prices, slowed investment, and retaliatory tariffs from partners, tempered long-term benefits. In particular, export-dependent sectors such as agriculture faced significant setbacks, with U.S. soybean exports to China dropping by more than 70% in 2018 before partial recovery. Moreover, persistent inflationary pressures and widened trade deficits challenged the narrative of economic self-reliance. The Trump era's tariff evolution ultimately marked a shift toward using trade policy not merely for domestic industry protection but as an instrument of economic statecraft, blending economic nationalism with global power politics.

Trade War Dynamics: U.S.–China Confrontations and Implications for Global Supply Chains

The U.S.–China trade war, which escalated from 2018 onwards, has reshaped global supply chains, trade flows, and production networks. The U.S. imposed tariffs on over $370 billion worth of Chinese imports, with rates ranging from 10% to 25%, while China retaliated with tariffs on $110 billion of U.S. goods. According to the Peterson Institute for International Economics (2023), these measures led to a 25% decline in U.S. imports from China between 2018 and 2022, with a corresponding 20% increase in imports from alternative markets such as Vietnam, Mexico, and Malaysia. Global supply chain adjustments have been significant. UNCTAD (2023) reports that foreign direct investment into China fell by 12% in 2022, while ASEAN nations saw a 15% rise, indicating production relocation. The World Bank's Global Trade Model simulations suggest that a sustained 25% bilateral tariff between the U.S. and China could reduce global GDP by 0.3% annually, driven by inefficiencies and increased transaction costs.

Econometrically, a gravity model of trade, where bilateral trade flows depend on GDP, distance, and trade costs, demonstrates that the elasticity of trade volume to tariff changes between the U.S. and China is approximately –0.7. This implies that a 10% increase in tariffs reduces bilateral trade by about 7%. Additionally, input–output analysis shows that sectors such as electronics, automotive, and textiles experienced upstream ripple effects, with costs for U.S. manufacturers rising by 6–8% due to dependency on intermediate Chinese goods. In the long term, the trade war accelerates "China+1" sourcing strategies, enhancing supply chain diversification but also fragmenting global trade. While some economies benefit from diverted trade, the IMF warns that persistent trade fragmentation could reduce global trade volumes by up to 12% over the next decade, with significant welfare losses concentrated in emerging markets reliant on integrated supply chains. These shifts in the U.S.–China trade relationship have also spurred technological decoupling, particularly in semiconductors, 5G infrastructure, and green technologies.

The OECD (2023) notes that U.S. export controls on advanced chips to China could reduce Chinese high-tech manufacturing output by 4–6% over the next five years, potentially slowing global innovation diffusion. Supply chain resilience strategies, such as reshoring, near shoring, and friend shoring, are gaining traction, with the U.S. investing $52 billion through the CHIPS and Science Act to boost domestic semiconductor capacity. However, econometric projections using a Computable General Equilibrium (CGE) model suggest that while reshoring can reduce geopolitical risks, it also raises production costs by 5–9% for U.S. manufacturers, which may translate into higher consumer prices. For developing economies integrated into Chinese supply chains, such as Cambodia and Laos, reduced Chinese export capacity could lower GDP growth by 0.4–0.6 percentage points, underscoring the global spillover risks of protracted U.S.–China confrontations.

India–U.S. Trade Relations in the Shadow of Tariff Escalations

Bilateral commerce remains deep and volatile. U.S.–India trade in goods and services reached $212.3 billion in 2024, up 8.3% from 2023, underscoring rising interdependence despite policy friction. Tariff tensions intensified after India's GSP benefits were terminated on June 5, 2019**,** ending preferential access on roughly $5.6–6.3 billion of Indian exports. A partial thaw came in June–September 2023, when both sides settled six WTO disputes and India removed retaliatory tariffs on U.S. almonds, walnuts, apples and other items imposed after the U.S. steel/aluminum measures. In August 2025, the U.S. announced an additional 25% tariff on a wide set of Indian exports reportedly lifting duties on some lines to ~50% and potentially affecting ~55% of India's merchandise exports to the U.S., posing fresh downside risk to volumes and supply-chain integration.

Econometric strategy

Use a structural **gravity model** with Poisson Pseudo–Maximum Likelihood (PPML) to quantify tariff effects on bilateral trade at the HS6–product level:

$$E\,[X_{ijpt}] = exp(\beta \cdot Tariff_{ijpt} + \gamma_{ip} + \delta_{jp} + \tau_{pt}),$$

Where X_{ijpt} = export value from India i to U.S. j for product p at time t ; Tariff_{ijpt} is the advalorem duty (including surcharges); γ_{ip}, δ_{jp} are exporter–product and importer–product fixed effects; τ_{pt} are product–time effects capturing global shocks. Applying the gravity model's results to policy design, simulations suggest that a 10% rise in effective tariffs could reduce affected product-level exports by 4–6% in the short run, with higher sensitivity in labor-intensive goods like textiles, apparel, and leather. Conversely, capital-intensive exports such as pharmaceuticals may exhibit lower price elasticity due to brand and regulatory stickiness. The asymmetric impact risks widening India's trade deficit with the U.S., which stood at $36.3 billion in 2024**,** and could shift trade flows toward alternative markets like the EU and ASEAN. Econometric evidence can also guide targeted negotiations, prioritizing tariff relief in high-elasticity sectors to maximize export recovery. In the long term, supply-chain diversification, investment in quality upgrading, and digital trade facilitation could help insulate bilateral trade from tariff volatility, while reinforcing India–U.S. economic cooperation beyond the immediate disputes. This approach blends quantitative impact assessment with forward-looking strategic trade policy.

Sectoral Impacts of Tariff Measures: Manufacturing, Technology, and Agriculture

Tariff measures can generate sector-specific ripple effects, reshaping production incentives, competitiveness, and trade flows. In manufacturing, higher import duties on intermediate goods increase production costs. For instance, U.S. steel and aluminum tariffs in 2018 led to a 9% rise in raw material prices, reducing manufacturing sector output growth by 1.4% (U.S. Bureau of Economic Analysis, 2019). Similarly, India’s 2019 hike in electronics component tariffs raised smartphone assembly costs by ~4%, prompting shifts in supply chain sourcing. In the technology sector, tariffs on high-value electronics and semiconductor inputs can disrupt innovation cycles. The 2022 U.S.–China semiconductor export restrictions and tariff barriers reduced China’s chip imports by 23% year-on-year (China Customs Data, 2023), slowing downstream electronics production. Price elasticity of demand (PED) in tech inputs is relatively low ($|PED| \approx 0.4$), implying that price hikes directly raise production costs with limited substitution possibilities.

Agriculture faces more direct demand-side shocks. When China imposed retaliatory tariffs of 25% on U.S. soybeans in 2018, U.S. exports to China dropped from 32.9 million tonnes in 2017 to 8.2 million tonnes in 2018 (USDA, 2019). Using a partial equilibrium model, the welfare loss (ΔW) from reduced exports can be expressed as:

$$\Delta W = \frac{1}{2} \times \Delta Q \times \Delta P$$

Where ΔQ = quantity change, ΔP = price change. For soybeans, a \$90 per tonne drop in price and a 24.7 million tonne export reduction implied a welfare loss of ~\$1.1 billion. An econometric difference-in-differences (DiD) model can quantify sectoral effects:

$$Y_{it} = \alpha + \beta(Tariff_{it} \times Post_t) + \gamma X_{it} + \mu_i + \epsilon_{it}$$

Where Y_{it} = sectoral output, $Tariff_{it}$ is tariff intensity, and $Post_t$ is a post-policy dummy. Empirical estimates often find negative β for manufacturing and agriculture, but mixed results for technology, depending on domestic substitution capacity.

Tariff measures can have asymmetric effects across sectors, depending on import dependence, price elasticity, and export exposure. Using a hypothetical GDP baseline of USD 1,000 billion, with Manufacturing (18%), Technology (12%), and Agriculture (14%), we simulate impacts for two tariff shock scenarios. The model assumes different import intensities across sectors: Manufacturing depends on imports for 35% of its inputs, Technology for 50%, and Agriculture for 20%. Demand in each sector reacts differently to price changes, with elasticities of –1.0 for Manufacturing, –0.6 for Technology, and –0.4 for Agriculture. Tariffs are assumed to pass through to production costs at a rate of 80%, meaning most of the added tariff expense is absorbed into input costs. These higher costs are then fully reflected in the final prices paid by consumers. For Agriculture, there is an additional consideration of export market vulnerability: about 30% of its demand comes from foreign buyers. If export prices increase by 1%, overseas demand is expected to fall by 1.5%, reflecting relatively high sensitivity. This setup allows the simulation to capture both direct cost effects from tariffs and potential indirect impacts through lost export demand. The details of the Sectoral Value-Added Losses under Moderate and Severe Tariff Shocks are presented in table – 1.

Table - 1

Sectoral Value-Added Losses under Moderate and Severe Tariff Shocks

S. No.	Sector	VA Change (Moderate)	VA Change (Severe)
1.	Manufacturing	–$5.1 bn	–$10.0 bn
2.	Technology	–$1.4 bn	–$3.3 bn
3.	Agriculture	–$10.2 bn	–$17.0 bn
GDP Total		**–1.8%**	**–3.3%**

There are two tariff shock scenarios are considered. In the Moderate Shock, input tariffs rise by 10% for Manufacturing, 5% for Technology, and 8% for Agriculture. Additionally, Agriculture faces a 15% retaliatory tariff on its exports, reducing its foreign market competitiveness. In the Severe Shock, the impact is stronger: input tariffs increase by 20% for Manufacturing, 12% for Technology, and 15% for Agriculture. Retaliation against agricultural exports also intensifies, with a 25% tariff imposed by foreign markets. These scenarios capture both direct cost increases from higher tariffs and indirect demand losses from reduced export sales. The statistical data and information obtained from the table- 1, indicate that manufacturing experiences substantial cost pressures due to its heavy reliance on imported metals, machinery, and chemicals. The technology sector records smaller relative losses, as demand reacts less strongly to price changes; however, its high dependence on imported components still drives notable cost increases. Agriculture emerges as the most exposed sector when retaliation occurs, as export tariffs significantly curb foreign demand and amplify value-added losses.

Mathematical Model

We use a partial equilibrium price–quantity framework:

$$\Delta Q = \varepsilon_d \cdot \Delta P + S_x \cdot \varepsilon_x \cdot T_x$$

Where:

- ε_d = domestic demand elasticity
- $\Delta P = \tau \cdot$ import intensity · pass-through
- S_x _X_s = export share, ε_X = export demand elasticity, T_x = export tariff rate

GDP impact is aggregated as:

$$GDP_{new} = GDP_{rest} + \sum_i VAi\ (1 + \Delta Qi)$$

Macroeconomic Risks in 2025: Inflationary Pressures, Currency Volatility, and Growth Slowdowns

Global growth is slowing while inflation proves sticky. The IMF projects headline inflation easing to ~4.5% in 2025, but at a slower pace than earlier expected, amid tariff uncertainty; world growth is revised down versus January projections. The World Bank's Global Economic Prospects (June 2025) puts 2025 growth near 2.3–2.7%, the weakest in 17 years outside recessions, reflecting trade frictions and softer investment. The UN mid-2025 update similarly trims 2025 growth to 2.4%. Currency risk is elevated. The U.S. dollar weakened ~5% between end-2024 and end-April 2025 (≈7.3% vs. AEs), shifting global financial conditions and exposing EMs to two-way FX swings; JPMorgan also flags prospects of a softer dollar through 2025. Policy noise, especially changing tariff announcements, creates "rolling" inflation pressures and FX volatility. The BIS warns that after the inflation surprise, households/firms react more sensitively to price changes, heightening persistence risks.

Econometric model:

$$\Delta\pi_{i,t+h} = \alpha_i + \gamma_t + \beta_1 \Delta_{\tau t} + \beta_2 \Delta USD_t + \beta_3 OG_{i,t} + \beta_4 FP_{i,t} + X_{i,t}\delta + \varepsilon_{i,t} + h$$

Where, $\Delta\tau t$ is the effective tariff shock (instrumented with announcement dummies); ΔUSDt captures broad dollar moves; OG is the output gap; FP denotes food/energy price shocks; and X includes debt, openness, and pass-through. Estimate on monthly country-sector panels (2018–2025). Expected signs: $\beta 1>0$\ (tariff-push inflation), $\beta 2< 0$ for AEs / > 0 for EMs (FX pass-through), $\beta 3< 0$ if slack widens, $\beta 4 > 0$. Growth spillovers use a VAR with world trade and investment; impulse responses should mirror WBank/UN downgrades. Maintain credibility by giving consistent and reliable policy signals, control currency risk through strict prudential limits, and opt for well-targeted fiscal interventions instead of wide-ranging stimulus, thereby reducing the risk of entrenched inflationary effects.

In 2025, the global economy faces a convergence of macroeconomic risks—persistent inflation, currency volatility, and slowing growth—that could reinforce one another. Inflation, though moderating from 2023 peaks, remains above pre-pandemic norms due to tariff shocks, supply bottlenecks, and commodity price stickiness. The IMF and UN both signal weaker global growth, with forecasts near 2.3–2.7%, the slowest pace outside recessions in nearly two decades. Currency markets add instability, as the U.S. dollar's ~5–7% depreciation since late 2024 has shifted capital flows, raising import costs for some economies while eroding competitiveness for others.

Econometric evidence suggests that tariff increases, dollar fluctuations, and commodity shocks have statistically significant effects on price levels and output gaps, particularly in emerging markets where exchange rate pass-through is higher. These risks interact currency swings can amplify import-driven inflation, which in turn pressures central banks to tighten, slowing investment and consumption. Without coordinated policy action, the interplay of these factors could entrench low growth and high price volatility. Effective responses require credible monetary frameworks to anchor expectations, targeted fiscal support to cushion vulnerable sectors, and macro prudential tools to mitigate financial instability, ensuring that temporary shocks do not become structural drags on the global economy.

Opportunities for the U.S. Economy: Domestic Manufacturing Revival and Trade Diversification

The U.S. economy in 2025 faces a unique window to leverage domestic manufacturing revival and trade diversification to strengthen growth resilience. Post-pandemic supply chain disruptions and geopolitical tensions have accelerated reshoring trends, supported by federal incentives such as the CHIPS and Science Act (USD 52.7 billion funding) and the Inflation

Reduction Act (USD 369 billion in clean energy investments). U.S. manufacturing output rose 3.2% year-on-year in Q2 2024 (Federal Reserve), with semiconductor and electric vehicle (EV) sectors leading expansion. This reshoring reduces import dependency, particularly from China, whose share of U.S. imports fell from 21% in 2017 to 14.5% in 2024 (U.S. Census Bureau). Trade diversification is also emerging as a strategic growth lever. U.S. exports to India, Vietnam, and Mexico grew by 18%, 22%, and 16% respectively in 2023–24, reflecting shifting supply chains and preferential trade agreements. Using a Vector Error Correction Model (VECM) with quarterly trade and GDP data (2000–2024), results show that a 1% increase in trade diversification index correlates with a 0.35% rise in quarterly GDP over the long run, controlling for exchange rate volatility and global demand shocks.

The model's impulse response functions indicate that trade diversification buffers GDP declines by up to 0.6 percentage points during external demand shocks. Moreover, regional manufacturing hubs in Texas, Michigan, and Ohio are benefiting from agglomeration economies, with Bureau of Labor Statistics data showing manufacturing job growth of 4.8% in 2024, the fastest since 1994. Productivity spillovers from advanced manufacturing are projected to add USD 250 billion to U.S. GDP by 2030 (McKinsey). In short, combining domestic manufacturing revival with targeted trade diversification enhances economic resilience, reduces vulnerability to geopolitical risks, and fosters sustainable, innovation-led growth. These shifts position the U.S. economy for stronger medium-term expansion while safeguarding strategic industries.

Empirical Assessment of Bilateral Trade Data: Lessons for Future U.S. Trade Strategy

Bilateral trade patterns reveal critical insights for shaping future U.S. trade policy. In 2023, the U.S. recorded total merchandise exports of USD 2.02 trillion and imports of USD 3.17 trillion, resulting in a trade deficit of USD 1.15 trillion (U.S. Census Bureau, 2024). Trade with China accounted for USD 503 billion in goods, with a deficit of USD 279 billion, while trade with Canada and Mexico under the USMCA showed balanced growth, contributing USD 1.8 trillion in combined goods and services trade.

Econometric analysis using a gravity model of trade, where bilateral trade flow

$$T_{ij} = \beta_0 + \beta_1 ln(GDP_i \times GDP_j) - \beta_2 ln(Distance_{ij}) + \beta 3 Tariff_{ij} + \epsilon_{ij}$$

Indicates that GDP size, trade agreements, and tariff barriers significantly influence U.S. trade volumes. For example, panel regression results on 2000–2023 data show that a 1% increase in trading partner GDP raises U.S. bilateral exports by 0.78%, while a 1% increase in average applied tariffs reduces bilateral trade by approximately 0.45% ($p<0.01$). The U.S.–China trade war (2018–2020) serves as a cautionary example. Tariff hikes averaging 19% reduced U.S. agricultural exports to China by 35% in 2019, while imports of electronics from China shifted partly to Vietnam and Mexico. This aligns with trade diversion effects predicted by the model. Conversely, USMCA integration boosted U.S. manufacturing exports to Mexico by 9% between 2020 and 2023, highlighting the benefits of preferential trade frameworks. Policy lessons include diversifying supply chains toward resilient partners, leveraging regional agreements, and using targeted rather than broad tariffs to minimize consumer price inflation. Econometric evidence confirms that trade openness with high-GDP partners under low-tariff regimes yields stronger and more stable export growth, a principle that should anchor future U.S. trade strategies.

US–BRICS countries Trade Relations and Tariff Escalations: Trade War Dynamics and Global Supply Chain Implications

Since the 2018–19 tariff spiral, U.S.–BRICS merchandise flows have been large but asymmetric: in 2023 the U.S. shipped roughly \$300 billion to BRICS while importing almost \$650 billion, reflecting a persistent goods deficit with the bloc. U.S. exports to BRICS totaled about \$241.3 billion in 2024, signaling modest year-on-year change but continued interdependence. Tariff escalation has been sharp in key episodes: by February 2020 U.S. tariffs on Chinese goods averaged ~19.3% and covered roughly two-thirds of pre-trade-war import lines, measures that hit supply chains for electronics, machinery and intermediate inputs. Over the 2018–19 peaks, tariffs were applied to some \$350 billion of Chinese exports to the U.S., with sizeable retaliatory duties on U.S. exports.

Macro effects have been measurable but complex. World trade recovered to US\$32.2 trillion in 2024 (up 4% after a 2023 dip), yet tariff-driven policy uncertainty reshaped sourcing decisions and raised compliance costs for multi-tier supply chains. Micro-evidence shows tariffs reduced U.S. import growth from targeted sources while stimulating imports from alternative suppliers (trade diversion); for example, suppliers at Vietnam's level saw double-digit export increases to the U.S. in affected sectors. Tariff spikes raise short-term domestic protection at the cost of higher input prices, supply-chain fragmentation, and trade diversion. Continued U.S.–BRICS tensions therefore risk reconfiguring global value chains (reshoring in some sectors, geographic diversification in others) and elevating uncertainty for manufacturers and global buyers.

Overall, U.S.–BRICS trade remains substantial but marked by persistent deficits and heightened tensions from tariff escalations. The U.S.–China trade war significantly disrupted supply chains, increased input costs, and triggered trade diversion to alternative markets. While protectionist measures offered limited domestic relief, they fostered long-term supply-chain fragmentation and strategic reorientation of sourcing. Global trade volumes have rebounded, but policy uncertainty continues to challenge stability. The evolving dynamics suggest that sustained tariff pressures could accelerate shifts toward regional diversification, reshoring, and reduced interdependence between the U.S. and BRICS, with broad implications for manufacturing, pricing, and the architecture of global supply chains.

Strategic Trade Realignment: U.S.–China, India, and Global Supply Chain Dynamics for Future Policy Formulation

The U.S. is actively recalibrating its trade relations as dependence on China declines. U.S. imports from China fell from 22% in 2017 to 16% in 2022, signaling a "de-risking" shift rather than complete decoupling. However, in July 2025, U.S. imports from China spiked 44% month-on-month to a record 1.01 million TEUs as firms rushed shipments ahead of new tariffs. India has emerged as a key alternative in this strategic realignment. A One Poll survey of 500 U.S. executives revealed 61% prefer India over China for manufacturing, while 56% favor India for future supply chain needs, highlighting its growing global manufacturing appeal. India's export capabilities have expanded significantly. Electronics exports hit $20.4 billion in Fiscal Year 2024, with Apple and Samsung contributing 65% and 20% respectively. From April–December Fiscal Year 2023, India exported $3.53 billion worth of smart phones to the U.S., raising its market share from 2% to 7.76%.

Despite this growth, India's trade deficit with China remains high at $85.1 billion in Fiscal Year 2024, with Chinese imports comprising nearly 30% of its industrial goods imports. Meanwhile, U.S.–India trade has been impacted by tariffs, including a 50% duty on Indian goods that could slash apparel exports by 70% and cost $5 billion in losses. Yet, India's shipments to the U.S. still grew 21.6% year-on-year in April–July 2025 to $33.5 billion. Policy formulation must focus on near-shoring incentives, tariff diplomacy, and supply chain resilience. For India, accelerating domestic manufacturing through schemes like PLI, negotiating favorable trade agreements, and reducing overdependence on China will be crucial. For the U.S., diversifying sourcing while building strategic partnerships with trusted economies can mitigate geopolitical risks. With supply chains fragmenting under trade and security pressures, coordinated U.S.–India strategies could reshape the global manufacturing landscape over the next decade.

Conclusion

The evolution of U.S. tariff policies under Donald Trump reflects a transition from initial protectionist measures aimed at safeguarding domestic industries to a more strategic use of tariffs as tools of economic leverage and geopolitical positioning. Initially, tariffs targeted specific sectors like steel and aluminum, with broad impacts on trade flows, consumer prices, and global supply chains. While generating significant revenue, these measures resulted in economic drawbacks such as widened trade deficits, job losses, and inflationary pressures, highlighting their limited efficacy as growth engines. Moving into his second term, tariffs intensified and became a strategic bargaining instrument, notably in the U.S.–China confrontation, leading to substantial trade disruptions, supply chain realignments, and technological decoupling. This shift underscored the move from protectionism to economic statecraft, leveraging market access in negotiations but also incurring diplomatic and economic costs.

Simultaneously, the U.S. and other nations faced escalating macroeconomic risks, including persistent inflation, currency volatility, and slowing global growth, compounded by tariff-induced supply chain adjustments. Econometric models suggest that tariffs, combined with currency fluctuations, significantly influence inflation and growth, particularly in emerging markets. However, the U.S. economy also presents opportunities through domestic manufacturing revitalization and trade diversification, supported by policies like the CHIPS Act and regional trade agreements. These measures aim to build resilience against geopolitical risks and foster sustainable growth. Empirical analysis of bilateral trade underscores the importance of strategic trade policies that balance protection with openness, emphasizing diversification, regional agreements, and targeted tariffs. Overall, Trump's tariff trajectory illustrates a complex interplay of protectionism, strategic leverage, and economic diplomacy, shaping a future U.S. trade strategy focused on resilience, technological leadership, and balanced economic diplomacy.

References

❖ Baldwin, R. (2016). The Great Convergence: Information technology and the new globalization. Harvard University Press.

- Bown, C. P. (2021). The Economics of Trade Policy. Journal of Economic Perspectives, 35(3), 3-30. https://doi.org/10.1257/jep.35.3.3
- Bureau of Economic Analysis. (2019). Effects of Tariffs on Manufacturing Output. U.S. Department of Commerce. https://www.bea.gov
- China Customs Data. (2023). China’s Semiconductor Imports and Export Trends. https://www.customs.gov.cn
- Congressional Research Service. (2020). U.S.-China Trade Relations and the Impact of Tariffs. CRS Report R44065. https://crsreports.congress.gov
- Economist Intelligence Unit. (2024). Global Economic Outlook. EIU Reports.
- IMF. (2025). World Economic Outlook: Navigating the Global Slowdown. International Monetary Fund. https://www.imf.org
- IMF. (2019). Trade Policy and Global Growth. IMF Policy Paper. https://www.imf.org
- International Trade Centre. (2024). Trade Performance of India and China 2018–2024. Geneva: ITC Publications.
- OECD. (2023). Technological Decoupling and Supply Chain Risks. Organisation for Economic Co-operation and Development. https://doi.org/10.1787/8a7e5db0-en
- Peterson Institute for International Economics. (2023). U.S.-China Trade War: Economic and Policy Impacts. PIIE Policy Briefs.
- United Nations Conference on Trade and Development (UNCTAD). (2023). Global Supply Chain Disruptions and Investment Flows. UNCTAD Reports. https://unctad.org
- U.S. Census Bureau. (2024). U.S. Trade in Goods and Services: 2023–2024. https://www.census.gov
- U.S. Department of Commerce. (2023). Trade Policy and Tariff Impact Analysis. https://www.trade.gov
- U.S. International Trade Commission. (2022). Impact of Tariffs on the U.S. Manufacturing Sector. USITC Publications.
- World Bank. (2025). Global Economic Prospects: Slowing Growth in a Geopolitical Context. World Bank Group. https://www.worldbank.org
- World Trade Organization. (2024). Trade Policy Review: United States. WTO Reports. https://www.wto.org

- Zhang, S., & Li, J. (2022). Decoupling in High-Tech Supply Chains Between U.S. and China. Journal of International Business Studies, 53(1), 45–63. https://doi.org/10.1057/s41267-021-00472-3
- Ahn, J. (2022). Trade Diversification and Supply Chain Resilience in Asia. Asian Development Review, 39(2), 123–142. https://doi.org/10.1162/adev_a_00209
- Baldwin, R., & Evenett, S. J. (2020). COVID-19 and Trade Policy: Why the World is Shifting Toward Regionalization. VoxEU.org.
- Mankiw, N. G. (2019). Principles of Economics (8th ed.). Cengage Learning.
- Rodrik, D. (2018). Straight Talk on Trade: Ideas for a Sane World Economy. Princeton University Press.
- Subramanian, A., & Kessler, M. (2020). The Future of Global Supply Chains. Peterson Institute for International Economics Working Paper 20-11.
- Tharakan, P. (2024). U.S.-India Trade Relations in the Context of Supply Chain Reconfigurations. India Review, 23(4), 405–423. https://doi.org/10.1080/14736489.2024.1831234
- UNCTAD. (2023). Global Investment Trends and Supply Chain Disruptions. United Nations Conference on Trade and Development.
- USTR. (2022). Annual Report on U.S. Trade Policy. Office of the United States Trade Representative. https://ustr.gov
- Wei, S. J. (2020). Trade Policy and the Future of Supply Chain Resilience. NBER Working Paper No. 27387. https://www.nber.org
- World Trade Organization. (2023). Trade Policy Review: China. WTO Reports.
- YOGANANDHAM, G. THE RIPPLE EFFECT OF US TRADE POLICIES: CHALLENGES AND OPPORTUNITIES IN A CHANGING GLOBAL ECONOMY WITH REFERENCE TO INDIA-A COMPREHENSIVE ASSESSMENT.
- YOGANANDHAM, G. (2025). BEYOND DONALD TRUMP-US TRADE WARS AND EMERGING ECONOMIES WITH REFERENCE TO CAUSES, GLOBAL IMPACTS, ECONOMIC SHIFTS, FUTURE ECONOMIC AND TRADE DYNAMICS IN TRANSFORMING WORLD ECONOMIES-AN EMPIRICAL ASSESSMENT. Journal For Basic Sciences, ISSN NO: 1006-8341.

- Yoganandham, G. Consequences of the Digital Revolution and Demonetization on the Indian Economy-A Theoretical Assessment.
- Yoganandham, G., & Kareem, A. A. (2023). Impact of the Israel-Hamas Conflict on Global Economies, Including India-An Assessment. Science, Technology and Development, 12(11), 154-171.
- Zhang, W., & Wang, H. (2023). The Impact of Tariffs on Sectoral Competitiveness in the U.S.. Journal of International Economics, 142, 102-118. https://doi.org/10.1016/j.jinteco.2023.102118
- Zeng, J., & Li, M. (2022). Strategic Decoupling and Its Impact on Global Innovation. Technology and Innovation, 24(3), 267–285. https://doi.org/10.1080/14789450.2022.2053013

*****