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India's Trade Performance with BRICS Countries: Evidence from Trend and Growth Analysis

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Abstract

BRICS has become a consequential geo-economic platform for India's external sector, but the India–BRICS trade story is structurally uneven: India runs persistent deficits with China and (since 2022) an exceptionally large deficit with Russia due to energy imports, while trade with Brazil and South Africa is comparatively smaller and closer to balance. This study evaluates India's merchandise trade performance with BRICS using (i) partner-wise levels and balances for calendar year 2024 from UN Comtrade-reported values (exports on FOB basis, imports on CIF basis) and (ii) an illustrative time trend of the India–China deficit over selected fiscal-year points to capture the widening imbalance. We operationalize "performance" through trend direction, growth signals, trade balance, and concentration, and we interpret results in the context of supply-chain dependence, commodity intensity, and policy frictions. The evidence indicates that the overall India–BRICS balance is dominated by China- and Russia-linked deficits, making diversification of export baskets, reduction of critical-input dependence, and deeper trade facilitation/standards cooperation essential for improving the quality of India's trade integration within BRICS.

Keywords: *India–BRICS trade, trade performance, trade deficit, trend analysis, growth analysis, bilateral trade imbalance, export composition, import dependence, industrial capability, trade policy, emerging economies*

Introduction

India's engagement with BRICS (Brazil, Russia, India, China, and South Africa) has both strategic and macroeconomic implications because these partners influence India's import bill, technology and intermediate input dependence, and export-market diversification. In standard trade theory terms, outcomes reflect relative factor endowments, comparative advantage, and the costs created by distance, frictions, and geopolitics, but in practice, bilateral trade patterns often become "path-dependent", shaped by supply chains, sanctions regimes, and commodity cycles.

From an external-sector sustainability lens, India's trade performance with BRICS is best evaluated not only by whether trade expands but also by how the expansion is composed: whether export growth is broad-based or concentrated, whether imports are productivity-enhancing capital goods or predominantly commodities, and whether deficits are financed without creating persistent vulnerabilities. Recent trade outcomes underscore this complexity. India's deficit with China reached about USD 99.2 billion in FY2024–25, driven by a surge in electronics and other imports and relatively weak exports [1]. At the same time, Russia has become a major source of India's commodity imports, especially crude oil, producing a large bilateral imbalance in recent years [2].

This study therefore asks: What do recent levels, balances, and selected trends imply about India's trade performance with BRICS, and what policy levers are most relevant if the objective is to improve the "quality" of trade (higher value-added exports, lower critical dependence, and more resilient balances)?

Data and measurement choices

This study focuses on merchandise trade values. Partner-wise exports and imports for calendar year 2024 are taken from Trading Economics' country bilateral series that explicitly attribute values to the UN Comtrade database [3].

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These values are widely used for cross-country comparability but require careful interpretation because imports are typically recorded CIF and exports FOB, which mechanically inflates import values relative to exports and can affect bilateral deficit magnitudes [4].

For the India–China deficit trend, we use selected fiscal-year points reported in a detailed discussion of the widening imbalance and FY2024–25 exports and imports with China reported in contemporaneous trade reporting based on official "detailed trade data released by the commerce ministry" [5]. The fiscal-year series is used strictly for direction and magnitude of trend, while calendar-year 2024 figures are used for consistent partner comparison across BRICS.

Methodology: trend and growth analysis framework

To operationalise "trend and growth analysis", we apply standard descriptive indicators used in applied trade literature. A linear trend specification for a trade variable Y_t (exports/imports/total trade) can be written as:

$$Y_t = \alpha + \beta t + \varepsilon_t$$

where β indicates the direction of the trend over time.

For growth, a commonly used metric is compound annual growth rate (CAGR) between two endpoints:

$$CAGR = \left(\frac{Y_T}{Y_0}\right)^{1/n} - 1$$

where n is the number of years between 0 and T. In the present study, endpoint-based growth interpretation is used cautiously because only selected points are employed for the deficit series; the emphasis is therefore on the structural direction (widening or narrowing) rather than precision estimation.

Trade balance is computed as:

$$TB = X - M$$ here X is exports and M is imports. Concentration is discussed qualitatively using the dominance of China and Russia in India's BRICS deficit profile.

This approach is aligned with earlier policy and research discussions on India–BRICS trade that emphasise persistent deficits and asymmetric partner roles, including India Exim Bank's analytical work and gravity-model studies of India–BRICS trade flows [6].

Results: partner-wise levels and balances (calendar year 2024)

Table 1. India's merchandise trade with BRICS partners (2024, US$ billion)

(Values attributed to UN Comtrade via Trading Economics; exports and imports are presented as reported in those series.)

BRICS Partner	Exports (2024)	Imports (2024)	Total Trade (2024)	Trade Balance (X−M)
Brazil	6.44	5.5	11.94	0.94
Russia	4.84	67.15	71.99	−62.31
China	14.9	126.96	141.86	−112.06
South Africa	8.14	12.47	20.61	−4.33

Sources: partner pages for India exports/imports (UN Comtrade attribution) [7].

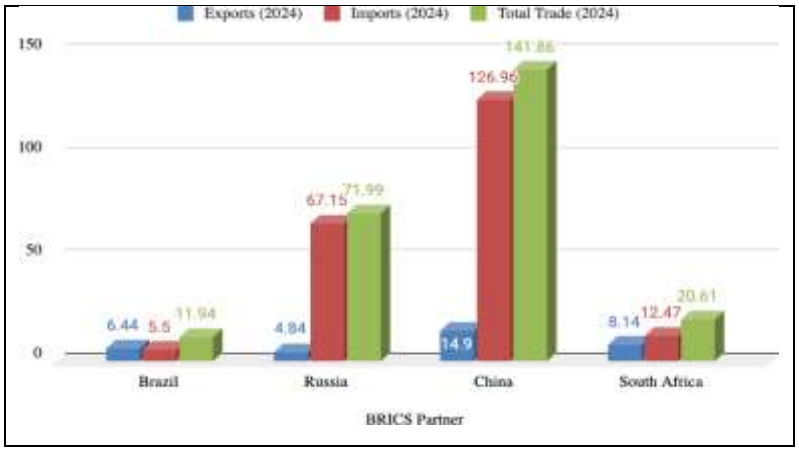

Figure 1: (BRICS 2024 exports vs imports)

The 2024 snapshot shows an immediately interpretable hierarchy. India's trade with China is the largest among BRICS partners in value terms and also produces the deepest deficit. Russia is the second major deficit contributor, with imports overwhelmingly dominating exports. South Africa remains mid-sized with a moderate deficit. Brazil is comparatively balanced and slightly positive for India in 2024.

Two structural inferences follow. First, India's aggregate trade performance with BRICS is not meaningfully "averaged" across partners; it is dominated by the China and Russia bilateral balances. Second, where deficits are driven by commodity-heavy imports (notably Russia), the trade balance is likely to be sensitive to global price cycles and substitution constraints, whereas China-related deficits reflect deeper production-network dependence in electronics, machinery, and intermediates that are harder to compress quickly without industrial capability deepening. These interpretations are consistent with reporting that highlights electronics and components as major drivers of rising China imports and persistent deficit pressure [8].

Results: trend evidence from India–China deficit trajectory (selected fiscal-year points)

Table 2. India–China trade deficit (selected FY points, US$ billion)

FY	Deficit
2014–15	48.45
2017–18	63.05
2021–22	73.01
2024–25	99.21

Source: reported historical deficit points and FY totals discussion [9].

The deficit series indicates a clear monotonic widening over the selected fiscal-year points. FY2024–25 is particularly salient because it combines record-high imports with subdued exports, yielding a deficit of about USD 99.2 billion [10]. The macro implication is that even when India's overall exports perform credibly in some years, the China channel can dominate deficit dynamics due to import elasticity in fast-growing sectors (electronics, batteries, solar components) and limited near-term domestic substitution capability.

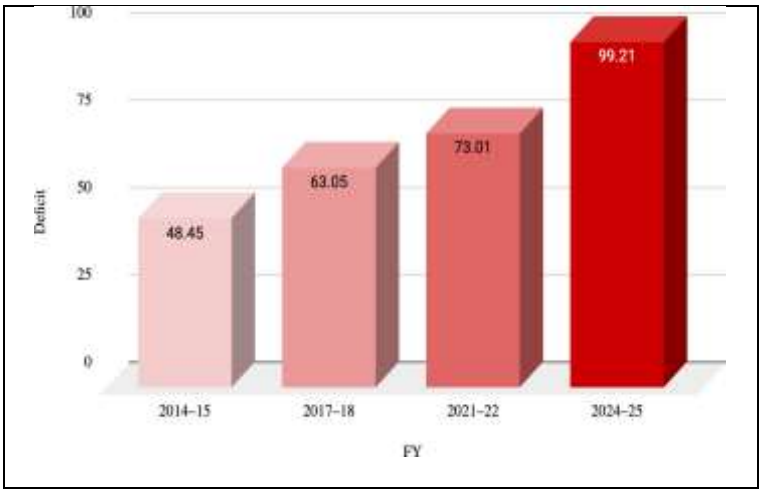

Figure 2: (India–China deficit trend, selected FY points)

Discussion: interpreting "trade performance" in the BRICS context

A narrow reading of trade performance might treat higher total trade as unambiguously positive. However, a growth-with-imbalance pattern can create persistent external vulnerabilities, especially when deficits are concentrated in a small number of partners and driven by product categories that are strategically sensitive (electronics, advanced intermediates, energy). The 2024 partner-wise evidence shows that China and Russia are precisely such concentration points [11].

From a structural transformation perspective, India's performance challenge is less about "trade with BRICS" per se and more about the composition of trade with each BRICS partner. With China, the deficit reflects entrenched intermediate-input and capital-goods dependence across manufacturing value chains, which trade reporting links to components and tooling used even when final assembly shifts to India [12]. With Russia, the scale of imports relative to exports (in 2024 calendar year) is consistent with a commodity-dominated import basket, especially energy, which typically raises the import bill sharply during price spikes [13].

Trade statistics methodology also matters for performance interpretation. Since imports are generally reported CIF and exports FOB, bilateral deficit measures computed directly from these can overstate imbalance by embedding freight and insurance in imports. This does not reverse the sign of the China/Russia deficits, but it is relevant for precise magnitudes and for comparing deficits across datasets [14].

The broader empirical literature on India–BRICS trade using gravity models typically finds that market size, distance, openness, and policy frictions jointly shape trade flows, implying that improving export performance is not only a tariff question but also a trade facilitation, logistics, standards, and production capability question [15].

Policy implications

If the policy objective is to improve India's trade performance with BRICS in a durable and structurally sound manner, the evidence presented in this study suggests that the focus must shift from headline deficit numbers to the *quality, composition, and concentration* of trade. The empirical pattern clearly indicates that India's overall BRICS trade balance is not the outcome of uniform bilateral relationships but rather the aggregation of a few highly asymmetric relationships. Consequently, policy responses must be differentiated, partner-specific, and sector-sensitive rather than generic.

The first and most critical implication relates to India's trade relationship with China, which accounts for the largest share of India's BRICS trade deficit and exhibits a persistent widening trend. The concentration of the deficit suggests that policy should prioritise what may be described as "deficit-quality reduction" rather than an immediate or mechanical pursuit of deficit elimination. A substantial portion of India's imports from China consists of intermediate goods such as electronic components, semiconductors, active pharmaceutical ingredients, speciality chemicals, capital goods, and industrial machinery that are deeply embedded in domestic manufacturing value chains. Abrupt compression of these imports is neither feasible nor desirable without undermining domestic production. Therefore, the appropriate policy response lies in targeted capability-building in precisely those high-deficit intermediate categories. This includes strengthening domestic ecosystems for electronics manufacturing, critical minerals processing, chemical intermediates, and precision engineering, supported by sustained investments in research and development, technology acquisition, and skill formation.

Equally important is the development of standards, testing, and conformity assessment infrastructure, which often constitutes an invisible but binding constraint on India's ability to substitute imports and penetrate Chinese markets with higher-value exports. Without internationally credible certification systems, Indian firms face barriers both in upgrading domestic supply chains and in accessing export markets. The sharp expansion of the India–China trade deficit in FY2024–25 highlights the urgency of such structural interventions, as continued reliance on imports for technologically intensive intermediates risks locking India into a dependent position within regional and global production networks [16]. In this sense, improving trade performance with China is inseparable from India's broader industrial and technological policy agenda.

The second policy implication concerns India's trade relationship with Russia, which has become increasingly asymmetric in recent years. Unlike China, where the deficit reflects industrial and technological dependence, the India–Russia imbalance is largely driven by commodity-intensive imports, particularly energy. While access to discounted energy supplies has provided short-term macroeconomic relief, the 2024 trade balance indicates that the relationship is highly one-sided from a merchandise trade perspective. The evidence
suggests that incremental increases in exports will not materially alter the deficit unless exports scale up substantially or the composition of trade changes in a meaningful way.

Accordingly, the policy objective with Russia should be to raise export intensity and diversify the export basket, rather than merely expanding trade volumes. This involves identifying sectors where India possesses latent or emerging comparative advantages—such as pharmaceuticals, agro-processed goods, engineering products, transport equipment, and certain consumer goods—and addressing non-tariff barriers, logistics bottlenecks, and payment-settlement constraints that inhibit export expansion. At the same time, a prudent energy procurement strategy remains essential, as overdependence on a narrow range of commodity imports can expose India to geopolitical and price volatility risks. Thus, trade policy with Russia must balance short-term energy security considerations with long-term goals of reducing structural one-sidedness in bilateral trade [17].

The third policy implication emerges from India's trade relationships with Brazil and South Africa, which are characterised by smaller trade volumes and comparatively less extreme imbalances. These relationships offer India greater policy flexibility and a relatively lower-risk environment for proactive trade deepening. In these cases, the evidence suggests that India can pursue sector-specific cooperation and targeted trade facilitation without significantly exacerbating trade deficits. Areas such as pharmaceuticals, engineering goods, automotive components, agricultural processing, and complementarities in ICT-enabled services present opportunities for mutually beneficial expansion of trade.

Moreover, improvements in logistics connectivity, port efficiency, and payment mechanisms—particularly through greater use of local currency settlements and streamlined customs procedures—can lower transaction costs and stimulate trade growth. Because existing imbalances are modest, increases in bilateral trade with Brazil and South Africa are more likely to contribute to export diversification and risk mitigation rather than deficit amplification. In this sense, these partnerships can play a stabilising role within India's broader BRICS trade portfolio, even if their absolute scale remains smaller than that of China or Russia [18].

Taken together, these policy implications underscore that improving India's trade performance with BRICS requires a calibrated, partner-differentiated strategy that integrates trade policy with industrial policy, technology development, and infrastructure investment.

Conclusion

This study has provided a data-anchored and analytically grounded assessment of India's merchandise trade performance with BRICS countries by combining a partner-wise snapshot for calendar year 2024 with a trend-based illustration of the India–China trade deficit. The empirical results reveal a clear and consistent pattern of structural asymmetry within India's BRICS trade relations. China and Russia dominate both the scale of trade and the magnitude of trade deficits, while Brazil and South Africa account for relatively smaller shares of trade and exhibit more moderate and manageable balances.

The central conclusion that emerges is that India's trade-performance challenge with BRICS is concentrated rather than diffuse. Aggregate indicators can obscure this reality by masking the overwhelming influence of a small number of bilateral relationships. Consequently, policies aimed at improving overall trade outcomes must focus disproportionately on the China and Russia channels, as marginal improvements in smaller partnerships cannot offset large and persistent deficits with these two countries.

The analysis further demonstrates that improving trade performance cannot be reduced to expanding total trade volumes. Instead, it requires a

qualitative transformation of trade composition. Raising the share of value-added exports, reducing dependence on critical intermediate imports, and enhancing domestic productive capabilities are essential for achieving more sustainable trade outcomes. Strengthening trade facilitation mechanisms, standards infrastructure, and conformity assessment systems is equally important, as these institutional factors condition both import substitution and export competitiveness.

Methodological considerations, such as the CIF–FOB valuation difference between imports and exports, affect the precise magnitude of bilateral trade balances but do not alter the fundamental inference of this study. Regardless of valuation conventions, India's BRICS trade sustainability is chiefly determined by developments in its trade relationships with China and Russia. As such, future research and policy evaluation would benefit from deeper product-level and firm-level analyses to identify specific sectors where targeted interventions can yield the greatest improvement in trade quality.

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Conflicts of interest

The authors declare that there are no conflicts of interest regarding the publication of this paper

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