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Shifting Paradigms in India's Foreign Trade: A Structural Analysis of Commodity Composition and Market Diversification

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Abstract:
The foreign trade of India has witnessed an important structural shift since the advent of liberalization, and the years between 2000 and 2018 mark an important period in the same. In this regard, the paper highlights India's shifting pattern of export and import with emphasis on its shift from being dependent on the export of primary goods to engineering goods, chemicals, petroleum products, and IT services. India's efforts to diversify its export destinations from traditional destinations such as USA and EU to East Asia, Africa, and Latin America have also been explored. This study shows how diversification of both commodity composition as well as destination has become one of the shields for India to protect itself from international volatility. Although diversification has allowed India to insulate itself from external fluctuations, it continues to face certain challenges like dependency on import of crude oil and electronics, inability to compete in manufacturing sector, trade deficits, and inadequate infrastructure. Through an assessment of trade theory, structural approach, and policies, the essay demonstrates that the foreign trade strategy of India underwent a transformation from reliance on traditional industries and markets to a more flexible and diversified one. Recommendations for policies that will help improve the sophistication of exports and reduce structural weaknesses in the country's trading system have been made.

Keywords: India, foreign trade, diversification, exports, imports, structural change, commodity composition, market diversification, trade policy

1. Introduction

The rising importance of India as an influential member in the world trading network constitutes one of the principal characteristics of the post-reform period. Prior to liberalization, which occurred in 1991, India adopted an inward-looking approach towards development through import-substitution policies, strict industrial licensing, foreign exchange controls, and trade quotas. The domestic industries were shielded from competition, which hindered integration with the global market. It resulted in sluggish exports and weak productivity gains. The liberalization process marked a new era by reducing tariffs, abolishing licenses, devaluing the national currency, and integrating the nation into the international economic network. During the initial years of the 2000s decade, the impacts of the above-mentioned reform started manifesting themselves in India's trade profile. Exports of the traditional exports — textiles, agricultural commodities and gems and jewelry — were still significant, but declining relative to the growing growth of engineering goods, chemicals, petroleum products, pharmaceuticals and business services. India was more diversified in terms of its export partners. Though the US and EU remained the main markets to this day, India increasingly developed an intimate relationship with ASEAN economies, China, West Asia, Africa and Latin America. This was a strategic shift towards less reliance on the few closest commercial partners. Such structural changes were necessary due to factors that were national or global in nature. Domestic growth involved transitioning out of low productivity/price-sensitive exports into more advanced and high value export. Internationally, global crises, commodity price shocks and

inconsistent demand created exposure to concentration risk on the product or market side. In this environment, diversification was not only an economic growth option but also a force for resilience. This work focuses on reforms in composition of foreign trade commodities and market diversification in India over the period 2000 to 2018 and analyses the structural change in Indian foreign trade between 2000-2018. The fundamental premise of this paper is that although diversification has protected India against the fluctuations of a global economy due to the enlargement of the country's supply chain and business sphere, the impact of this protection is not permanent because it does not have much structure. The paper will be divided into seven sections. The first section is this introduction, while the second one will cover theories pertaining to trade and diversification. The third section will focus on changes in commodity mix. Changes in market diversification will be examined in the fourth section. Factors responsible for change both domestically and internationally will be discussed in the fifth section. Challenges will be analyzed in the sixth section.

2. Theoretical Perspectives on Trade and Diversification

Therefore, trade theories arising from both the classical and neoclassical school can provide a helpful theoretical starting point to understand trade development in India. Theory: Based on the Heckscher-Ohlin theory, such countries tend to export commodities that use intensively their factors of abundance. Labor, in the case of India, was abundant; therefore, the country enjoyed comparative advantage in exporting labor-intensive products like textiles, apparel, leather items, and even some agricultural goods. It makes sense that India's traditional exporting sectors dominated through the past decades. However, the Heckscher-Ohlin theory seems to have little explanatory power when examining India's rapid development in services, pharmaceuticals and engineering products. New Trade Theory, developed as a response to increased significance of scale economies, imperfections and product differentiation, provides a better explanation of some of India's larger export success stories. For instance, India's export successes in software and pharmaceutical industries are not just explained by factor abundance but also learning effects, first mover advantages, network externalities, agglomeration economies, and even firms' capabilities. India's success in the field of IT was based on several elements such as human capital, English language, and other favorable policies and globalization. The concept of diversification is crucial to development economics and international trade. Diversification can either be within the goods sector or within the market. Product diversification reduces the risks associated with an overly simplified basket of exports subject to price and demand shocks. Market diversification reduces the risk of economic recessions, protectionism, and geopolitical tensions in one area. Product diversification is highly correlated with high macroeconomic stability, efficient learning, and technology upgradation capabilities. The following concentration index, which is quite simple, does an excellent job of measuring the extent of product diversification:

$$HHI = \Sigma(si^2), for\ i = 1\ to\ n,$$

Where si refers to the share of goods i/market i among total exports. A small HHI value suggests higher diversification, while a large HHI value suggests lower diversification. In the case where India has more evenly spread out shares of export for various goods and markets, then the HHI value decreases, suggesting that India has less sensitivity to shocks specific to its sectors and regions. Another diversification measure is:

$$E = -\Sigma(silnsi)$$

With increased entropy, there will be greater diversification. The move towards weaker concentration and increased entropy within trade exportations within India points to more structural stability within trade designs. The relationship between trade diversification and stability may be expressed as:

$$\sigma X = f(C, M, Z)$$

where σX is export volatility, C is commodity concentration, M market concentration, and Z a vector of structural and policy factors. Expected responses are positive for the concentration variables: growing concentrations of commodity or market lead to relatively higher export volatility. So both theory and some

empirical reasoning suggest that diversification provides greater resilience, but only if it depends on competitiveness, upgrading of quality and integration with changing sectors.

3. Structural Shifts in Commodity Composition (2000–2018)

Perhaps the starkest feature of India's foreign trade from 2000 to 2018 was the shifting composition of exports away from staple primary and low-value-added goods to more diversified manufactured products and globally tradable services. Traditionally the major exports are agricultural items, textiles, tea, jute, leather and minerals, which constitute the basis for Indian exports. Textiles and garments still played a role after liberalization, given India's considerable labor resources and age-old industrial legacy. However, their share in total exports decreased, not because of their actual decrease, rather because there had been growth in other industries. Engineering products were one of the most active groups of exports – there was growth in the export of machinery and equipment, transport, iron and steel goods, industrial raw materials and components for motor vehicles. Another group of exports which showed growth were chemicals and pharmaceuticals; that is, Indian companies were able to use innovative technologies, low costs, and increased demand abroad to export these commodities. One commodity, petroleum products, and even more specifically refining, was becoming increasingly important in export structure. It became possible because of the development of refineries due to private and state investments and in a bigger scale – refineries enabled the country to buy crude oil and then export refined products. There was a new trend in goods exports which arose because of this situation. At the same time, however, there was a kind of paradox – good export performance in petroleum products was accompanied by the fact that the country imported crude oil. Growth in exports of engineering and chemical products meant higher value added production. However, the transition proved to be somewhat uneven. The Indian manufacturing exports were less firmly established in terms of participation in East Asia-type value chains compared to manufacturing exports of countries like China, Vietnam, and Thailand. So, while the increase in commodities diversity ensured higher competitiveness for manufacturing in general, this did not apply equally to the competitiveness of manufacturing in all types of sectors. Even more so, the increased importance of services was very specific. Services exports such as software development and other IT-based services became the trademark of the country's export structure. These industries, together with business processing outsourcing, financial back office processes, consulting, etc., provided India with the top rank of a service export powerhouse. It was rare for a developing country to develop a competitive services sector before achieving competitive status in manufacturing. Instead, it used to work the other way around. Nevertheless, India demonstrated an opposite example of exports that can be described with the following value added formula:

$$X = \Sigma(pi\ qi),$$

where X is total value of export and pi and qi are price and quantity per unit for the category of export i. Upgrading in structure occurs when the basket of exports shifts towards export categories that have relatively higher unit value, higher quality content, or higher aggregate demand growth rate. Increase in average content of value added in trade in engineering goods, pharmaceuticals, and software exports from India can be identified. There was some structural change on the import side too; however, the trend was more difficult. Crude petroleum was the major import throughout most of the time period, exposing India to the vagaries of international oil prices. Significant amount of gold was also being imported, signifying the underlying demand as well as economic problems within the country. There was a tremendous rise in imports in the areas of electronics and machinery, which shows India's heavy dependence on imported machinery and electronics. Rising dependency on electronics highlighted the weakness of domestic industries. This problem is captured well in the trade balance equation:

$$TB = X - M,$$

In which TB stands for the trade balance, X for exports and M for imports. But with the increase in sophistication and diversity of exports, rapid imports of oil, gold, and electronics have led to a trade balance where the deficit on merchandise is negative.

4. Dynamics of Market Diversification

Apart from the commodities that India exported, there was the aspect of geographical diversification that was quite critical in Indian foreign trade. Until liberalization, India had been exporting to economically developed nations like the US, UK, and Europe. Such areas were important in terms of foreign export after liberalization but India became more outward-looking in the early years of the twenty-first century. The implementation of the Look East policy that was initiated during the nineties (which later led to the formulation of the Act East policy) marked the paradigm shift in strategy by India. The Look East policy recognizes the growing economic importance of the East and Southeast Asia and sought to establish ties with the ASEAN nations, Japan, and South Korea as well as Asia-Pacific production hubs. India's export to ASEAN saw a rise through diplomatic measures and trade agreements. The emergence of East Asia as a production and consumer zone opened doors for India's exports, particularly intermediate goods, petroleum, chemicals, and services. With Africa and Latin America offering markets for their pharmaceuticals, automobiles, machines, refined petroleum products, and consumer goods, South-South trade took precedence. At the same time, Indian companies made investments in these two regions and participated in intra- and extra-trade within the larger context of business diplomacy. This allowed them to decrease dependency on the slow-moving Western countries and served as a symbol of a wider trade approach. The share of developing countries in India's overall trade grew as a function of the other world economies, thus mirroring the changing trends of global economic dynamics. China became India's one of the most prominent trading partners despite the existing disparity caused by India's substantial bilateral trade deficit. West Asia retained its significance in terms of energy sources and export destinations. African nations were considered one of the key receivers of projects, medications, and engineering items. These were affected by various factors, but not all, such as Regional Trade Agreements. The India-ASEAN FTA agreement and bilateral agreements between nations such as Singapore, South Korea, and Japan further contributed to reducing tariffs and increasing market access. The strategic importance of RTAs was evident in the extent to which they facilitated the integration of India into regional trade structures. However, the impact varied on a sectoral basis, and concerns existed regarding the diversion of trade flows and limited application and rising imports from the partnering nations. Gravity models are valuable tools in analyzing trade flow direction:

$$Tij = A\left(Yi^{\alpha}Yj^{\beta}\right)/Dij^{\gamma}$$

where Tij is trade between countries i and j, Yi and Yj represent their economic size, Dij represents distance, and A is the constant. The diversification of the market meant that India engaged in business not just with traditional markets but with developing markets that grew fast, had stronger political connections, or had reduced political hindrances. This diversity helped in mitigating risks while seeking opportunities in the market. However, diversification of the market does not imply the balancing of trade. Instead, new business relations might exacerbate the problem of import dependency rather than boost exports.

5. Drivers of Change: Policy and Global Environment

The development of the trade strategy in India up until 2018 was anything but random. It was the result of several changes both internally and externally, which included reforms, the implementation of new policies, and changes in economic trends across the world. Regarding the instruments used to achieve the desired effect on the country's trade strategy, the Foreign Trade Policy became a significant tool that helped boost exports with its systems of incentive schemes, streamlining procedures, market developments, and sectoral support mechanisms. The promotion of exports could be achieved through such mechanisms as export promotion councils, export duties, drawback facility, export-oriented units, and the facilitation of credit facilities. To gain a competitive edge in the international market environment, there were special economic zones established to provide an enclave with modern infrastructure and favorable financial and regulatory framework conditions. Though the impact of the project was

inconsistent, it contributed to the growth of exports in certain industries like IT services, pharma, and manufacturing.

Fourthly, the Make in India strategy initiated in 2014 was intended to enhance manufacturing capacity, attract foreign investments, and ensure the country fulfills its role in international value chains. While it took four years for this strategy's impact to be realized, one thing was certain: sustainable development could not solely depend on the country's excellence in the services sector. Some of the other factors considered were the exchange rate system, capital mobility, facilitation of international trade and investment through infrastructure. Investments in infrastructure such as ports, roads and customs clearance processes, as well as digitization systems, slowly began to improve the trade environment. Nonetheless, the degree of improvement failed to mitigate structural constraints. Other exogenous factors came into play too. The global economic crisis that hit the world in 2008 was a landmark. Besides reducing foreign demand, the event brought to light the perils of dependence on western markets and how necessary diversification would be. Thus, India started marketing itself more in new markets. Additionally, the global recession proved the necessity of internal demand and flexible policies to mitigate the adverse effects of externalities. Oil price fluctuations heavily impacted India's trade flows. Since it is one of the leading net consumers of oil, the increase in prices significantly increased imports and widened the trade deficit. At the same time, exports of refined petroleum products partly compensated the effect. The combination of using crude and petroleum products in export as well as import flows made India's trade patterns highly susceptible to global energy cycles. The policy-growth-export connection could be formulated in the following way:

$$X = f(P, ER, G, D)$$

Where "X" is exports, "P" is policy support, "ER" is exchange rate competitiveness, "G" represents global demand, and "D" indicates domestic productive capability. This model underscores the point that success in exporting depends not only on market conditions abroad but also on readiness within.

6. Critical Challenges and Comparative Advantages

Despite clear successes in efforts for diversification, some obstacles remained, which affected India's bilateral trade with other countries despite the obvious achievements. One of them is the question of competitiveness. Logistics costs in India were relatively higher than in most other Asian export-oriented countries. Many of these problems were blamed on port congestion, logistics inefficiencies, supply chain fragmentation, complicated regulations, and so on. Though the reforms contributed to creating a more favorable business climate, their execution seemed mostly ineffective. Secondly, the infrastructure constraints limited India's ability to leverage its exporting capacity. Other considerations that affected India's performance included electricity supply, warehousing, multimodal logistics, and customs. For small businesses the situation was worse: few ever had the means to cover high logistics costs, which made the problem even worse. Third, India faced the trade deficit paradox. Market diversification did not equate to an improved trade balance, however. Some of India's extended trade relationships did create huge import spikes, especially in electronics, machinery and intermediate goods, indeed. The problem here is exemplified in trade with China. While India diversified its geography, it frequently imported vastly more than it sold in important bilateral relations. An example of this is the import elasticity of trade imbalance:

$$\partial TB/\partial M < 0.$$

If growth in imports in new diversified markets outpaces growth in exports, such market diversification can continue to occur alongside deteriorating levels of trade deficit. So the quantity may be as important as the quality of diversification. Fourth, development of export quality was uneven. Services exports were strong, whereas manufacturing exports remained highly concentrated in medium-technology or low-cost businesses or cost-competitive markets and not in the deep innovation-driven sectors. India also had a more limited entry in global value chains relative to its competitors in the East Asian context. This limited

the breadth and pace of structural change. India did maintain some important comparative advantages, though. It had a well-resourced labour force, an expanding domestic market, considerable entrepreneurialism and capabilities in pharmaceuticals, automotive parts, engineering services, IT, and outsourcing for business operations. Its strong English fluency, the presence of a large diaspora and institutional exposure to global business practices contributed to India's service exports competitiveness. Process capabilities and generic drug production have given industrial countries an important global niche in terms of pharmaceuticals. In software and digitally deliverable services, India cemented a strong global standing. Balassa's Revealed Comparative Advantage index is a useful measure of comparative advantage:

$$RCAi = (Xi/X)/(Xwi/Xw)$$

where Xi is India's exports of product i, X is India's total exports, Xwi is world exports of product i and Xw is total world exports. Where $RCAi > 1$, India is considered to have a revealed comparative advantage in product i, as it has consistently realized high RCA values in sectors including pharmaceuticals, textiles, gems and jewelry and software, while the latter is harder to be represented in merchandise based calculations. The problem, as a result, was not the lack of comparative advantage but its expansion, modernization and implementation into more areas of industry.

7. Conclusion and Future Outlook

From 2000 to 2018, the composition of India's foreign trade underwent a significant paradigm shift in commodities and market positioning. The export basket became less dependent on traditional primary and low-value labour-intensive products and more aligned with the types of engineering products, chemicals, pharmaceuticals, petroleum products, and in particular software and IT-enabled services. As part of this trend, India also diversified its trading partners beyond the United States and Europe to East Asia, Africa, Latin America, and other regions. All these developments were regarded as a result of the country's strategy to counter globalization, reforms in India, and economic instability externally. Diversification acted as a safety net against economic shocks to the economy, especially when the country was relying heavily on certain key products and destinations. However, the 2008 financial crisis provided an example showing how important this policy was to the strategy. Reliance on imports of crude oil and electronics, high logistics cost, lopsided manufacturing competitiveness, and long-standing trade deficit remained barriers to expanding trade. There are several strategic imperatives in place for India to reinforce trade resilience so its economic resilience can support wider development needs, including its aspiration of becoming a $5 trillion economy. The first is that India needs to accelerate its upgrading of manufacturing through better technology adoption and better scale expansion and better global value chain integration. Second, logistics and infrastructure should continue to be a central focus, to minimize export transaction costs. Third, an emphasis on diversification and depth in export policy would encourage sectors with high value-added potential, such as electronics, environmentally friendly technologies, advanced chemicals, medical devices, and digital deliverables. Fourth, trade agreements should be negotiated and implemented more closely with respect to domestic industrial readiness and rules-of-origin discipline. Fifth, less reliance on import in key sectors such as energy and electronics is necessary to achieve a more balanced external account. The survival of trade transformation in India in the future will hinge on India's growth in diversifying the economy into real structural competitiveness. Thinking in this framework, resilient trade regimes require not only greater participation in the global economy but also for much more productive capabilities at home as well. An example of how India has achieved success in this regard from 2000 to 2018 is offered, but perhaps more importantly, that trade diversification is a necessary condition for resilience, not a sufficient one.

Final Summary

Between 2000 and 2018, India's foreign trade went from being a relatively traditional export structure to a more complex and diversified one. On the commodity front, exports gravitated ever more toward

engineering goods, chemicals, pharmaceuticals, petroleum products and services, particularly software. As a market matter, India reduced its relative reliance on the United States and Europe in terms of volume and trade with East Asia, Africa, Latin America and some other developing regions. These adjustments strengthened the resilience against external shocks and mirrored institutional and strategic responses of foreign policy and global adjustment alike. But chronic trade deficits, import dependency and competitiveness limits limited the full gains from diversification. The lesson is clear, and long-term: While diversification matters, its effectiveness depends on domestic industry strengthening, trade facilitation, and continued push into higher-value sectors in world trade.

REFERENCES:

1. Agarwal, M. (2015). India's foreign trade: Retrospect and prospects. *India Quarterly*, *71*(4), 323–339. https://doi.org/10.1177/0974928415602123
2. Athukorala, P. C. (2008). Singapore and ASEAN in the new regional division of labour. *The Singapore Economic Review*, *53*(03), 479–508. https://doi.org/10.1142/S021759080800305X
3. Balassa, B. (1965). Trade liberalisation and "revealed" comparative advantage. *The Manchester School*, *33*(2), 99–123. https://doi.org/10.1111/j.1467-9957.1965.tb00050.x
4. Banga, R. (2006). The export-diversifying impact of Japanese and US foreign direct investments in the Indian manufacturing sector. *Journal of International Business and Economy*, *7*(1), 1–24.
5. Bhat, T. P. (2011). Structural changes in India's foreign trade. *Foreign Trade Review*, *46*(3), 3–30. https://doi.org/10.1177/001573251104600301
6. Bhattacharya, B., & Mitra, A. (2008). India's economic growth since 1991: Trends, achievements and challenges. *Economic and Political Weekly*, *43*(9), 33–40. [suspicious link removed]
7. Chandrasekhar, C. P., & Ghosh, J. (2011). India's external liberalisation and the impact on inequality. *International Review of Applied Economics*, *25*(1), 57–73. https://doi.org/10.1080/02692171.2010.483470
8. Das, D. K. (2008). The Asian economy and Asian trade in the 21st century. *The World Economy*, *31*(12), 1510–1533. https://doi.org/10.1111/j.1467-9701.2008.01140.x
9. Government of India, Ministry of Commerce and Industry. (n.d.). *Foreign trade policy*. Directorate General of Foreign Trade.
10. Government of India, Ministry of Commerce and Industry. (n.d.). *Export import data bank*. Directorate General of Commercial Intelligence and Statistics. https://tradestat.cbic.gov.in/
11. Helpman, E., & Krugman, P. R. (1985). *Market structure and foreign trade: Increasing returns, imperfect competition, and the international economy*. MIT Press.
12. Herzer, D., & Nowak-Lehmann Danzinger, F. (2006). What does export diversification do for growth? An econometric analysis. *Applied Economics*, *38*(15), 1825–1838. https://doi.org/10.1080/00036840500426983
13. Hummels, D., Ishii, J., & Yi, K. M. (2001). The nature and growth of vertical specialization in world trade. *Journal of International Economics*, *54*(1), 75–96. https://doi.org/10.1016/S0022-1996(00)00093-3
14. Joshi, V., & Little, I. M. D. (1996). *India's economic reforms, 1991–2001*. Clarendon Press.
15. Kapur, D. (2002). The causes and consequences of India's IT boom. *India Review*, *1*(2), 91–110. https://doi.org/10.1080/14736480208404627
16. Krugman, P. R. (1980). Scale economies, product differentiation, and the pattern of trade. *The American Economic Review*, *70*(5), 950–959. [suspicious link removed]
17. Kumar, N., & Mishra, S. (2008). Impact of regional trade agreements on exports of manufactured goods: A study of India's exports to ASEAN and SAARC. *Margin: The Journal of Applied Economic Research*, *2*(3), 255–285. https://doi.org/10.1177/097380100800200302

18. Lall, S., Weiss, J., & Zhang, J. (2006). The sophistication of exports: A new trade measure. *World Development*, *34*(2), 222–237. https://doi.org/10.1016/j.worlddev.2005.09.002
19. Panagariya, A. (2004). *India in the 1980s and 1990s: A triumph of reforms* (Working Paper No. 04/43). International Monetary Fund.
20. Reserve Bank of India. (n.d.). *Handbook of statistics on the Indian economy*. https://www.rbi.org.in/scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy
21. Rodrik, D. (2006). What's so special about China's exports? *China & World Economy*, *14*(5), 1–19. https://doi.org/10.1111/j.1749-124X.2006.00038.x
22. Sahoo, P., Mathiyazhagan, M. K., & Bhunia, A. (2013). Determinants of India's merchandise exports in the post-reform period. *South Asia Economic Journal*, *14*(1), 84–105. https://doi.org/10.1177/1391561413477741
23. Sharma, K. (2000). *Export growth in India: Has FDI played a role?* (Discussion Paper No. 816). Yale University Economic Growth Center.
24. Srinivasan, T. N., & Tendulkar, S. D. (2003). *Reintegrating India with the world economy*. Institute for International Economics.
25. Veeramani, C. (2008). *Impact of imported intermediate and capital goods on economic growth: A cross-country analysis* (Working Paper No. WP-2008-011). Indira Gandhi Institute of Development Research.
26. Veeramani, C. (2009). Impact of imported intermediate and capital goods on economic growth: Evidence from India. *The International Trade Journal*, *23*(2), 146–170. https://doi.org/10.1080/08853900902781442
27. Wacziarg, R., & Welch, K. H. (2008). Trade liberalization and growth: New evidence. *The World Bank Economic Review*, *22*(2), 187–231. https://doi.org/10.1093/wber/lhn007
28. World Trade Organization. (2013). *World trade report 2013: Factors shaping the future of world trade*. WTO Publications. https://doi.org/10.30875/028488e5-en