

Assessing the Effectiveness of the India–ASEAN Free Trade Agreement: A Review of Trade and Investment Outcomes

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Abstract

Regional trade agreements play a vital role in assisting these countries in working together. The World Trade Organization is making trading easier for these countries. The India-ASEAN Free Trade Agreement is an agreement between India. It is one of India's major trade agreements. The India-ASEAN Free Trade Agreement comprises a large number of people. More than 1.7 billion people. The India-ASEAN Free Trade Agreement also comprises a large amount of money, with a GDP of USD 2.75 trillion. The India-ASEAN Free Trade Agreement started in 2010. It is part of India's plan called the "Act East Policy." This review amalgamates primary scholarly and policy material relating to AIFTA's effectiveness in encouraging investment and trade between ASEAN and Indian economies. The paper discusses how empirical findings from CGE models and gravity models present conflicting findings. Even though the results of the CGE simulation provide small or negative welfare effects for India due to the negative terms of trade and trade deficit, analyses of the gravity model indicate large trade creation effects and increased volumes of trade. Sectoral analyses also indicate that plantation and manufacturing sectors at India faced competitive pressures and low productivity growth, while the welfare effects were positive for ASEAN countries, especially Malaysia, Singapore, and Thailand. Some other key factors that further keep the potential of AIFTA limited include ongoing non-tariff barriers, Rules of Origin, and partial liberalization in services and investments. Yet, despite all challenges, AIFTA has increased the export destinations of India, especially in textiles, chemicals, and machinery, and moved trade away from non-member economies. The review concludes that the success of AIFTA is contingent upon the removal of structural bottlenecks by rationalizing NTMs, simplifying RoO compliance, and increasing cooperation in services and investment. Improving productivity and scale economies in export-oriented sectors and building stronger bilateral relationships with ASEAN economies that have high growth rates can help improve India's long-term outcomes from AIFTA.

Keywords: AIFTA, India-ASEAN Trade, Augmented Gravity Model, CGE Model, Trade Creation, Trade Diversion, Non-Tariff Measures, Rules of Origin, Regional Integration.

1. Introduction

It is part of India's plan called the "Act East Policy." This review amalgamates primary scholarly and policy material relating to AIFTA's effectiveness in encouraging investment and trade between ASEAN and Indian economies. The paper discusses how empirical findings from CGE models and gravity models present conflicting findings. Even though the results of the CGE simulation provide small or negative welfare effects for India due to the negative terms of trade and trade deficit, analyses of the gravity model indicate large trade creation effects and increased volumes of trade. Sectoral analyses also indicate that plantation and manufacturing sectors at India faced competitive pressures and low productivity growth, while the welfare effects were positive for ASEAN countries, especially Malaysia, Singapore, and Thailand. Some other key factors that further keep the potential of AIFTA limited include ongoing non-tariff barriers, Rules of Origin, and partial liberalization in services and investments. Yet, despite all challenges, AIFTA has increased the export destinations of India, especially in textiles, chemicals, and machinery, and moved trade away from non-member economies.

With this background, the current review seeks to offer a synthesizing evaluation of the effectiveness of AIFTA through a systematic examination of the relevant literature on the trade and investment effects of the agreement. Specifically, the review seeks to:

- 1 Assess the use of Augmented Gravity Models and Computable General Equilibrium (CGE) models in assessing the effect of AIFTA on bilateral trade and macroeconomic variables.
- 2 Evaluate trade dynamics by examining the empirical evidence on trade creation and diversion, export-import composition effects, and the effect on the trade deficit and terms of trade of India.
- 3 Assess sectoral and welfare effects by examining the effect of tariff liberalization on key sectors and the distribution of benefits and costs to member countries.
- 4 Assess non-tariff barriers and use gaps, including problems with Non-Tariff Measures (NTMs), Rules of Origin (RoO) complexities, and the underutilization of trade preferences.
- 5 Assess policy implications for enhancing India's strategic engagement with ASEAN and unlocking the possibilities for long-term economic benefits.

Review of Literature

The assessment of AIFTA's effectiveness utilizes a combination of rigorous econometric models (primarily the Gravity Model) and general equilibrium simulations (CGE/GTAP models) to determine trade and welfare effects.

I. Augmented Gravity Model Analysis

Studies using the Augmented Gravity Model provide core empirical evidence for AIFTA's direct influence on trade flows.

Table 1: Major Gravity Model Studies on AIFTA

Author(s)	Focus	Key Contribution
Chandran (2018)	Trade Impact Analysis	Offered methodological rationale for the Augmented Gravity Model. Obtained positive and significant RTA dummy coefficients, indicating support for improved trade.
Jagdambe & Kannan (2020)	Agricultural Trade	Identified that AIFTA had a stronger trade creation effect than the trade diversion effect in the agricultural trade sector.
Singh (2021)	Trade Creation/Diversion	Confirmed that AIFTA resulted in a pure trade creation effect, with significant positive coefficients for trade creation and trade diversion proxies.
Khurana & Nauriyal (2017)	Trade Creation/Diversion	Stated that AIFTA provided strong evidence of trade diversion but no significant evidence of trade creation, representing divergent empirical findings.
Santos Silva & Tenreyro (2022)	Methodology	Proved the dominance of Poisson Pseudo Maximum Likelihood (PPML) estimation over other methods for gravity models, shaping subsequent methodological developments.
Bhowmik (2019)	Trade & Financial Integration	Applied VECM/Cointegration analysis to demonstrate that India's imports from ASEAN increased at 15.1% per annum, establishing long-run causality for ASEAN's GDP growth.

II. General Equilibrium and Sectoral Impact Studies

These papers use analysis to go beyond trade volume and assess deeper welfare implications and specific industry vulnerabilities.

Table 2: CGE and Sectoral Impact Studies

Author(s)	Focus	Key Contribution
Veeramani & Saini (2010)	Plantation Commodities	Shown that AIFTA would adversely affect tropical commodity sectors in South India (tea, coffee, pepper) because of trade creation effects.
Harilal (2010)	Regional Dissent	Stated that the FTA constrains the Indian government's capacity to offer support to farmers in times of market turmoil.
Sikdar & Nag (2011)	Macroeconomic Impact	Applied GTAP models to demonstrate that the benefit to India comes from allocative efficiency, while the benefit to ASEAN comes from terms of trade. Identified India's terms of trade loss.
Francis et al. (2011)	Sectoral Impact	Offered a detailed examination of the effects on different sectors, including the potential damage to India's manufacturing and agricultural sectors.

III. Trade Policy and Regional Dynamics

The broader implications of RTAs on external tariffs are also taken into account. Lendle (2007) offered empirical support for the idea of a “building bloc” in the case of the major ASEAN countries, where the reduction of preferential tariffs helped to achieve MFN tariff liberalization

Key Findings and Gaps

A. Overall Trade and Macroeconomic Outcomes

The AIFTA has successfully increased trade between these two parties. The entire bilateral trade volume of India and ASEAN has risen from US\$ 21 billion in 2005-06 to US\$ 65 billion in 2015-16. The growth witnessed a 121% increase in trade between 2009-2019. However, effectiveness presents a very high degree of asymmetry:

- 1 Increasing Trade Deficit: The trade deficit between India and ASEAN increased from \$8 billion in 2009-10 to \$22.7 billion in 2019. This is expected, given the negative Terms of Trade (ToT) impact on India, as estimated by CGE models (Sikdar & Nag, 2011).
- 2 Small Welfare Gains: Under CRS assumptions, India initially faced negative welfare changes due to poor allocative efficiency. However, Malaysia, Singapore, and Thailand recorded positive welfare changes (Sikdar & Nag, 2011).

- 3 Importance of Scale Economies: When models incorporate Increasing Returns to Scale (IRS), the negative GDP effect is mitigated, implying that benefits can be derived by exploiting scale economies in manufacturing.

B. Sectoral Results and Trade Trends

- 1 Goods Vulnerability: Partial equilibrium analysis shows that AIFTA is detrimental to tropical commodity-exporting countries in Southern India, especially Kerala (Veeramani & Saini, 2010; Harilal, 2010).
- 2 Export Market Access: India experienced substantial increases in apparel, textiles, machinery, and chemical exports, with major market access benefits accruing to Cambodia, Thailand, and Vietnam.
- 3 Trade Diversion: Trade diversion from non-member countries such as China and South Asian nations was a consequence of liberalization (Khurana & Nauriyal, 2017).

C. Barriers to Effectiveness

- 1 Non-Tariff Measures (NTMs): The overall negative impact of NTMs imposed by both countries is large on India's exports, which act as a protectionist measure after tariff cuts.
- 2 Utilization and Rules of Origin (RoO): The utilization level is low (28.9% in Thailand), as the rules of origin are complex and stringent, thereby creating high costs for MSMEs.
- 3 Incomplete Integration: The agreement needs to move beyond the goods component to cover services and investment. Although India has a competitive edge in services, it is under-liberalized under the AIFTA regime.

Conclusion

The assessment underlines that although AIFTA has increased trade volumes, it has not been able to create a similar positive impact on the macroeconomic well-being of India. The trade deficit and terms of trade impact continue to be a major concern. The reason for ineffectiveness lies in the fact that the scope of the agreement is not complete, and NTMs continue to be prevalent.

Going ahead, the success of AIFTA will depend on legislative reforms that work towards removing these bottlenecks. The policy agenda should include a comprehensive analysis of NTMs and a liberalization of the strict RoO standards. Moreover, the future gains for India lie in the expansion of the FTA from the product side and ensuring that the initial gains from efficiency improvements are capitalized upon through investments in technology to create scale effects in export-oriented manufacturing sectors. Lastly,

enhancing bilateral relationships with ASEAN countries with high growth rates is crucial to realizing the untapped trade potential that has been identified by the gravity models.

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