Trade Creation and Diversion Effects on Global Value Chains: A Case Study of India -UAE Trade Relations

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Abstract:

Over the past two decades, India and UAE trade relation growth increased tremendously. The total merchandise trade volume increased from 5.75 billion USD in 2003, to 68.51 billion USD in 2021. This paper intends to analyse the directional trade flows between India and UAE trade volume towards the global value chains. Firstly, the institutional changes in the interconnected production networks in trade can increase the merchandise trade flows within these countries, secondly; an increase in the merchandise trade outflows from India, and finally; an increase in the merchandise trade inflows from India. The first and third findings can be understood as trade creations due to increase in interconnected production networks between both countries, and Rules of origin as an implicit trade barrier for imports from the rest of world. The Global Value Chains are most relevant to understand the third findings on the increase in trade flows between both countries. The key determinant of the increase in trade flows is the imperative of the complementarities of value chains for imports and exports of intermediates between India and UAE.

***Key words**: F13, F15, F62, economic, global value chains.*

Introduction:

Trade creation and trade diversion are concepts associated with economic integration, particularly in the context of regional trade agreements. These effects can have implications for global value chains (GVCs). Let's understand these terms and their impact on GVCs:

In the context of India and the United Arab Emirates (UAE) have historically enjoyed strong trade relations, which have continued to strengthen over the years. The UAE is one of India's largest trading partners in the Middle East, and India is the UAE's second-largest trading partner globally. Bilateral trade between India and the UAE has witnessed significant growth. In 2020-2021, the total trade between the two countries reached approximately $40 billion. India's exports to the UAE include petroleum products, precious metals, machinery, textiles, chemicals, and agricultural products. On the other hand, the UAE primarily exports mineral fuels, pearls, precious stones, metals, and machinery to India.

Both countries have made efforts to enhance their trade relations through various initiatives. The establishment of the UAE-India High-Level Joint Task Force on Investments (JTFI) in 2012 has played a crucial role in boosting economic cooperation. The JTFI focuses on identifying and resolving obstacles faced by businesses in both countries and promoting investment opportunities.

The UAE has been a significant source of foreign direct investment (FDI) in India. UAE-based companies have invested in sectors such as energy, infrastructure, real estate, logistics, and hospitality in India. In recent years, there has been a particular focus on strengthening ties in the areas of defence, space, and technology. Furthermore, India and the UAE have signed several agreements and memorandums of understanding (MoUs) to facilitate trade and economic cooperation. These agreements cover various sectors, including energy, renewable energy, finance, agriculture, tourism, and cultural exchange.

In addition to trade in goods and services, the UAE is an essential market for Indian expatriate workers. A significant number of Indians live and work in the UAE, contributing to both economies and fostering people-to-people contacts. Overall, the trade relations between India and the UAE are robust, and both countries continue to explore opportunities for further collaboration and investment in various sectors.

India-UAE Relations: An Historical Overview

India-UAE relations have a long and rich history, marked by cultural, economic, and diplomatic ties. Here is a historical overview of the bilateral relations between India and the United Arab Emirates:

1. *Early Ties*

India and the UAE have historical connections that date back centuries. Arab traders from the Arabian Peninsula established trade links with the Indian subcontinent, fostering cultural and commercial interactions. The region that is now the UAE was once under the influence of various Indian powers, including the Mauryas, Cholas, and the Mughals. In the 19th century, many Indians, primarily from the western coastal regions, migrated to the Trucial States (which later became the UAE) for trade and employment.

2. *Formation of the UAE*

The UAE was formed as a federation of seven emirates in 1971, following the withdrawal of the British from the Gulf region. India recognized the newly formed UAE and established diplomatic relations on December 1, 1971, soon after the UAE's independence.

3. *Strengthening Economic Ties*:

Since the 1970s, economic relations between India and the UAE have grown significantly. The discovery of oil in the UAE and India's need for energy resources paved the way for closer economic cooperation. Indian companies, particularly in the fields of construction, infrastructure, and healthcare, have played a vital role in the development of the UAE. The UAE's investments in India have also increased over the years, covering sectors such as energy, real estate, hospitality, and logistics.

4. *People-to-People Contacts*

The UAE is home to a large Indian diaspora, consisting of millions of Indian expatriates working in various sectors. They contribute to the UAE's economy and maintain strong ties with their homeland. Cultural exchanges and tourism between India and the UAE have flourished. Many Indians visit the UAE for tourism, business, or religious purposes, while Emiratis and UAE residents travel to India for leisure, healthcare, and education.

5. *Diplomatic Engagement*

High-level visits and interactions between leaders of both countries have been regular, strengthening bilateral ties. Several agreements and MoUs have been signed to promote cooperation in diverse areas, including trade, investment, defence, space, and cultural exchange.

6. *Strategic Partnership*

In 2015, India and the UAE elevated their bilateral relationship to a "Comprehensive Strategic Partnership." This designation reflects the depth and breadth of the relationship, encompassing political, economic, security, and cultural aspects. Overall, India-UAE relations have evolved from historical cultural and economic links to a comprehensive strategic partnership. The two nations share strong economic ties, people-to-people contacts, and a mutual desire to deepen cooperation across various sectors.

The Global Value Chains: An Overview

Global Value Chains (GVCs), also known as global supply chains, refer to the international production networks that span multiple countries and involve the sequential stages of production, distribution, and consumption of goods and services. GVCs represent the interconnectedness of economies worldwide, where different countries specialize in specific stages of production and trade intermediate goods and services to create final products.

Key features of Global Value Chains include:

1. *Fragmentation of Production*: GVCs involve the fragmentation of production processes across multiple countries, where each country or region specializes in specific stages of production. This allows firms

to take advantage of comparative advantages and access resources, skills, and cost efficiencies available in different locations.

2. *Global Sourcing*: GVCs rely on sourcing inputs and components from multiple countries. Firms seek the most efficient and cost-effective suppliers globally, often leading to the development of complex supplier networks.
3. *Trade in Intermediate Goods and Services*: GVCs involve significant trade in intermediate goods and services rather than just final products. Components and inputs cross borders multiple times during the production process, reflecting the interdependencies and collaboration among countries.
4. *Coordination and Governance*: GVCs require coordination and governance mechanisms to ensure smooth operation across different stages and countries. Multinational corporations (MNCs) often play a central role in coordinating activities within GVCs, establishing relationships with suppliers, and managing production networks.
5. *Technology and Knowledge Transfer*: GVCs facilitate the transfer of technology, knowledge, and skills across borders. Countries and firms involved in GVCs can benefit from technology spillovers and learn from each other's best practices.
6. *Economic Development Impacts*: GVCs can have both positive and negative impacts on economic development. They offer opportunities for countries to integrate into global markets, attract foreign direct investment (FDI), develop skills, and participate in higher value-added activities. However, the benefits may not be evenly distributed, and there can be challenges such as dependence on external demand, vulnerability to disruptions, and potential exploitation of labour.
7. *Policy Implications*: GVCs have implications for trade policy, investment policies, infrastructure development, and labour market regulations. Governments often focus on creating an enabling environment, improving trade facilitation measures, investing in infrastructure, and fostering a skilled workforce to attract GVC activities.

Understanding and participating in GVCs has become increasingly important for countries to benefit from globalization and international trade. GVCs have reshaped the global economy, influencing production patterns, trade flows, and economic interdependencies among countries.

Trade Creation and Diversion Effects on Global Value Chains

1. *Trade Creation*

Trade creation occurs when a regional trade agreement leads to an increase in overall trade between member countries. This happens when members reduce or eliminate trade barriers (such as tariffs) among themselves, leading to the creation of new trade flows.

2. ***Effects on GVCs***

Trade creation can have positive effects on GVCs. It promotes efficient allocation of resources, encourages specialization, and enables firms to access larger markets within the integrated region. This can lead to the expansion of production networks and supply chains across member countries, benefiting GVC participants.

3. ***Trade Diversion***

Trade diversion occurs when a regional trade agreement diverts trade from more efficient non-member countries to less efficient member countries. This happens when member countries impose preferential trade policies (such as lower tariffs) on each other but maintain higher barriers with non-member countries.

4. ***Effects on GVCs***

Trade diversion can have mixed effects on GVCs. While it may benefit firms located in member countries that gain a competitive advantage due to preferential treatment, it can disrupt existing supply chains that relied on non-member countries. This could result in reconfigurations of GVCs as firms seek to adjust their sourcing strategies and realign production activities.

5. ***Impact on Global Value Chains***

The effects of trade creation and trade diversion on GVCs depend on various factors, including the structure of regional trade agreements, the competitiveness of member countries, and the extent of interdependencies within GVCs.

Trade creation can facilitate the integration of GVCs, allowing for the seamless flow of goods, services, and inputs across countries. This can lead to increased specialization, economies of scale, and productivity gains within GVCs. It may also encourage firms to locate different stages of production within the integrated region, leading to more complex GVC configurations.

On the other hand, trade diversion can disrupt existing GVCs if they were built around non-member countries that become less competitive due to preferential treatment. This could necessitate adjustments in sourcing strategies, supplier relationships, and production locations within GVCs.

Overall, the net effect of trade creation and trade diversion on GVCs depends on the specific circumstances of the regional trade agreements, the competitiveness of member countries, and the adaptability of firms operating within GVCs.

The GVC's and India-UAE Trade Relations

India-UAE trade relations have a significant impact on global value chains (GVCs) due to the interdependencies and economic linkages between the two countries. Here are some key points regarding India-UAE trade relations and their implications for GVCs:

1. ***Trade in Goods and Services***: India and the UAE have a substantial bilateral trade in goods and services. The UAE is one of India's largest trading partners, and trade between the two countries encompasses various sectors such as petroleum products, precious metals, machinery, textiles, chemicals, and agricultural products. This trade flow contributes to the global value chains by enabling the exchange of intermediate inputs and final products between the two countries.
2. ***GVC Participation***: Both India and the UAE participate in global value chains, albeit in different capacities. India has a diverse manufacturing base and is involved in several GVCs, especially in sectors such as textiles, automotive, pharmaceuticals, and information technology services. The UAE, on the other hand, plays a vital role as a regional trade hub and has a well-developed logistics and transportation infrastructure, facilitating the movement of goods and services within and beyond the Gulf region.
3. ***Interconnected Production Networks***: India and the UAE are interconnected within global value chains through their trade relationships. Indian exporters supply intermediate goods and components to UAE-based firms, which are then incorporated into final products or re-exported to other markets. This highlights the role of the UAE as a distribution and logistics centre for regional and global trade, enabling seamless integration of Indian inputs into global production networks.
4. ***Investment and Joint Ventures***: Investment flows between India and the UAE also contribute to GVC dynamics. UAE-based companies invest in various sectors in India, including energy, infrastructure, real estate, hospitality, and logistics. These investments create linkages and opportunities for collaboration along the value chains, leading to the integration of production activities and the expansion of GVC participation.
5. ***Technology Transfer and Knowledge Exchange***: GVC participation allows for technology transfer and knowledge exchange between India and the UAE. Indian companies, particularly in the information technology and software sectors, have contributed to enhancing the technological capabilities of UAE-based firms. This knowledge transfer supports the development of more advanced production processes and fosters innovation within GVCs.

6. ***Potential for Value Addition***: India and the UAE have the potential to enhance their participation in higher value-added activities within GVCs. India's strengths in technology, skilled labour, and diverse manufacturing sectors align with the UAE's logistical capabilities and strategic geographic position. Collaborative efforts can lead to the development of specialized GVCs and the expansion of value-added production in sectors such as aerospace, renewable energy, defence, and healthcare.

Overall, the trade relations between India and the UAE contribute to the functioning of global value chains. The integration of their economies within GVCs facilitates the exchange of goods, services, and technology, enhancing production efficiencies and promoting economic growth in both countries.

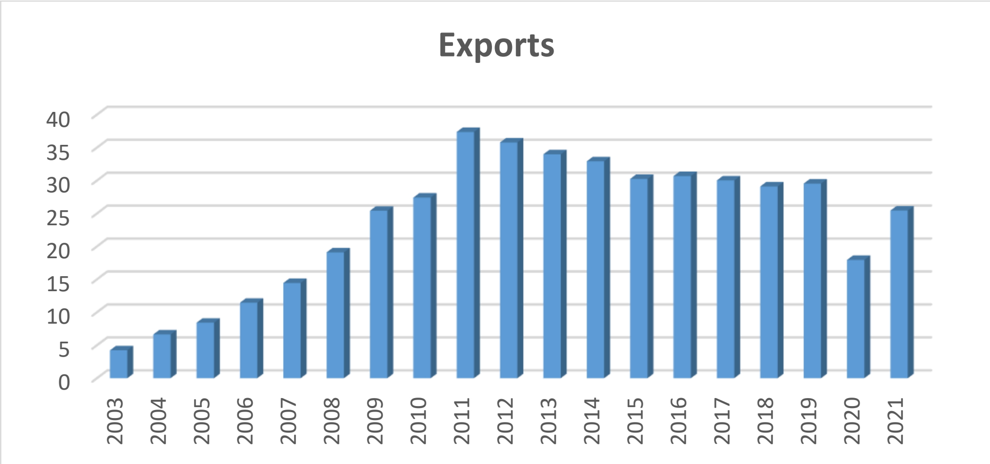

Figure 1: India's Exports Trade Relations with UAE (Values in Billion USD)

Source: ITC, calculations based on UN COMTRADE statistics since January, 2019. ITC calculations based on Directorate General of Commercial Intelligence & Statistics since January, 2015 and until January, 2019. ITC calculations based on UN COMTRADE statistics until January, 2015.

In the above clearly illustrated that India's exports engagement with UAE is increased from last decades. India's merchandise export in 2003 was the 4.23 Billion USD, the increased up to 19.09 Billion USD in 2008. Then also increased in the period of (2009-19) from 25.41 to 29.53 Billion USD. In the case of Covid pandemic scenario India's exports decline in 2020 up to 17.95 Billion USD, then increased 25.44 Billion USD in 2021. Due to one of India's biggest trading partners is the UAE, and trade between the two nations includes a wide range of goods, including agricultural products, equipment, precious metals, textiles, and chemicals, as well as petroleum products and other goods.

In this period (2003-08) India exported Diary Products (from 62.71 to 209.15), Carrels (from 83.93 to 704.32), Tea & Coffee Products (from 68.55 to 142.65), Edible Oil (from 47.06 to 174.31) Tabaco products (from 23.32 to 54.65), Meats products (from 25.92 to 51.01), and Fish products (from 26.14 to 47.79) Million USD increased.

In the period of (2009-19) India exported Edible Oil (from 181.17 to 252.65) Tabaco products (from 45.49 to 143.79), Meats products (from 49.24 to 155.45), and Fish products (from 47.52 to 194.39) Million USD increased. In the case of Dairy Products (from 199.05 to 294.88), Carrels (from 659.67 to 360.29), and Tea & Coffee Products (from 120.59 to 138.62) Million USD decreased due trade diversion effects from rest of the world on the basis of competition.

In the case of Covid pandemic period (2020-21), India exported Diary Products (from 261.29 to 349.31), Carrels (from 419.35 to 473.33), Tea & Coffee Products (from 192.29 to 274.53), Edible Oil (from 218.54 to 286.24) Tabaco products (from 112.77 to 122.02), Meats products (from 124.36 to 153.43), and Fish products (from 169.19 to 165.33) Million USD increased. In the peak situation year of Covid pandemic (2020), all Indian exported items are declined in sharply compare with previous year (2019) volumes.

To sum up, in India's exports increased due trade creation factors like Interconnected Production Networks on the Meat products, Fish products, Edible oil products are satisfying the rich demand in the UAE markets.

In the case of Dairy Products, Carrels, and Tea & Coffee Products are Million USD decreased due trade diversion effects from rest of the world on the basis of competition.

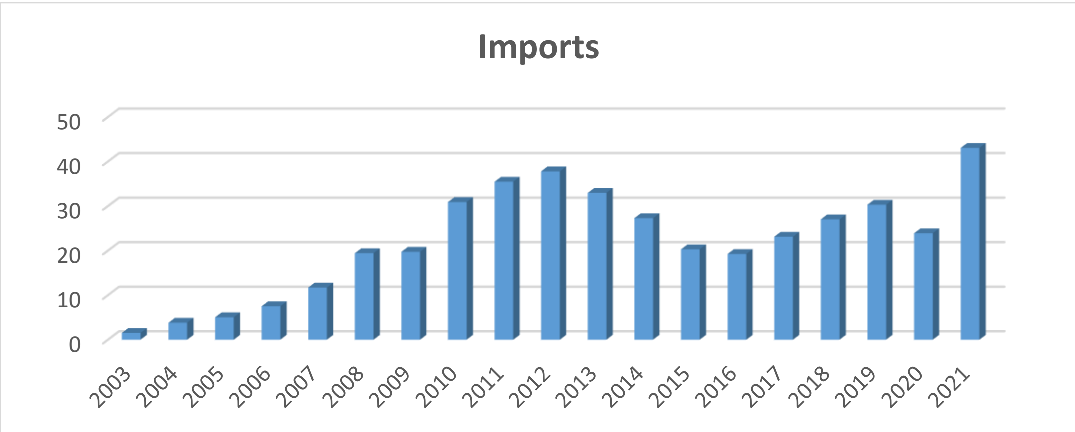

Figure 2: India's Imports Trade Relations with UAE (Values in Billion USD)

Sources: ITC calculations based on UN COMTRADE statistics since January, 2019, ITC calculations based on Directorate General of Commercial Intelligence & Statistics since January, 2015 and until January, 2019, ITC calculations based on UN COMTRADE statistics until January, 2015.

In the above clearly illustrated that India's imports from the UAE is increased from last decades. India's merchandise imports in 2003 was the 1.52 Billion USD, the increased up to 19.41 Billion USD in 2008. Then it was increased from 19.73 to 30.30 Billion USD (2009-19 period). In the case of Covid (2020-21) pandemic period India's imports volume 23.90 to 43.07 Billion USD. Due to one of India's biggest trading partners is the UAE, and trade between the two nations includes a wide range of goods, India imported largely on Petroleum Oil, Petroleum Gas, and Crude Oil.
In this period (2003-08) India imported from the UAE, the Petroleum Gas (from 81.42 to 320.10), Petroleum Oil (970.37 in 2008), and Crude Oil (9965.89 in 2008) are Million USD increased.

In the period of (2009-19) India imported Petroleum Gas (from 259.49 to 2510.20), Petroleum Oil (from 599.06 to 1981.52), and Crude Oil (from 5026.34 to 9750.57) are Million USD. In the case of Crude oil trade diversion effects happened due to India imports crude oil from Iran, trade diversion effects from rest of the world on the basis of competition.
In the case of Covid pandemic period (2020-21), India imported Petroleum Gas (from 2514.09 to 4861.55), Petroleum Oil (from 1162.13 to 1630.56), and Crude Oil (from 7817.22 to 11715.46) are Million USD.
The Crude Oil, Petroleum Oil, and Petroleum Gas are reason for India's trade balance increased with UAE 17.62 Billion USD in 2021. All together India Imported above petroleum and crude oil products volume is that 17 Billion USD in 2021.
In this context Governments and policymakers recognized the importance of interconnected production networks and often seek to attract foreign investment, promote innovation, and improve infrastructure to enhance their countries' positions within these networks. Policies related to trade, investment, intellectual property, and logistics can shape the functioning of production networks.
Understanding and managing interconnected production networks is crucial for businesses, policymakers, and researchers to grasp the complexity of global trade relations and to develop strategies for economic growth, sustainable development, and risk management in an increasingly interconnected world.

Conclusion

The interconnected production networks in trade relations giving the complex networks of suppliers, manufacturers, and distributors involved in the production and supply chains of goods and services between India and

UAE. These networks highlight the interdependence and trade integration among the both countries. This is often referred to as global value chains (GVCs) or international production networks through trade creation and diversion effects between both countries.
The directional trade flows between India and UAE trade volume towards the global value chains. Firstly, the institutional changes in the interconnected production networks in trade leads to increase the merchandise trade flows within these countries from 5.75 billion USD in 2003, to 68.51 billion USD in 2021.
The interconnected production networks in trade increased in the merchandise trade outflows between India and UAE (from 4.23 to 25.44) Billion USD in 2021. The India is specialized in specific stages of production based on its comparative advantages, such as access to resources, skilled labour, or technological expertise on the productions. The India has rich natural resources to exports to UAE such as like Diary Products, Carrels, Tea & Coffee Products, Edible Oil, Tabaco products, Meats products, and Fish products. In this context India's agribusiness played a remarkable role to get market access in UAE. The interconnected production networks make trade creation among these nations, which will exhibit to influences on global value chains through trade creation.
Another point is an increase in the merchandise trade inflows India to UAE on the basis of natural resources sharing. India's imports volume increased from 1.52 to 43.7 Billion USD in 2021. India dependent on UAE natural resources like Petroleum oil, Crude oil, and Petroleum Gas to satisfies India's rich energy demand.
The first and third findings can be understood as trade creations due to increase in interconnected production networks between both countries, and Rules of origin as an implicit trade barrier for imports from the rest of world. The Global Value Chains are most relevant to understand the third findings on the increased in trade flows between both countries. The key determinant of the increase in trade flows is the imperative of the complementarities of value chains for imports and exports of intermediates and interconnected production network between India and UAE.

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