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Trade Openness in China's Economy: A Review Study

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ABSTRACT

Trade openness has been established and documented to foster economic growth and development. However, this is coupled with problems. In this light, this paper employs a qualitative approach to examine how trade openness relates to Foreign Direct Investment (FDI) inflow, Economic growth and carbon dioxide (CO₂) emissions using China as the case study. The study revealed that trade openness has its benefits as well as its problems. That is, trade openness significantly influences economic growth, FDI, and the emission of CO₂ in the atmosphere in China. Consequently, CO₂, FDI, and economic growth are significantly influenced by China's level of trade openness. For instance, in China, trade openness augments economic growth and influences foreign direct investment inflow positively. However, it increases the amount of carbon dioxide in the atmosphere. It is therefore important for policymakers to

carefully consider these relationships when designing policies aimed at reducing carbon emissions and promoting sustainable economic growth.

Key words: Trade openness, China, Economic growth, Carbon emissions, Foreign Direct Investment.

1. INTRODUCTION

Is it always the case that countries that open up to trade with other countries suffer consequential losses or experience growth which is faster than the closed or semi-closed countries? Most research on the subject is biased toward confirming that trade openness has a favorable effect on economic growth. For example, Chengsi et al., (2015) investigates the effect of trade and financial openness on Chinese financial development and concludes that provinces that are more open record a positive relationship between openness and financial competition and development, whereas the closed provinces

record otherwise. They state categorically that "the effect of openness on financial efficiency and competition is positive for the most open provinces but negative for the least open regions." Perhaps the researchers already partially conformed to the idea even before the research or other factors come into play. Again, the partiality in favor of trade openness might partially conform to the assumptions and findings of ample empirical studies, which stand on the grounds that open economies reliably have better growth rates than closed economies. In addition, the business may be due to the fundamental trade theories produced by Adam Smith's Absolute Advantage theory and David Ricardo's theory of Comparative advantage, all fearing that trade increases world output and world GDP. All these attest that trade liberalization as a theory is oversold, and in the same line, its advantages or expectations are overstated. In line with this, Rodrik et al. (2002) stipulate that just as the merits of import-substitution strategies were overelaborated in the early days of trade liberalization, nowadays and in the same notion, the merits of trade openness are being overpraised habitually in most policy-relevant literature and publications of the IMF and the World Bank. The unnecessary pressure to conform

to the norms and advice or policies of IMF and the World Bank probably is the prime result of this prejudiced thinking. Economies across the globe see IMF and the World Bank as the "modern" economics think tank whose advice, when followed, will help improve the standard of living or improve their GDP and economic growth, for that matter. But is that always the case?

It's possible to note that how openness is measured is the main issue with the relationship between openness and economic growth. Scholars use different variables such as trade in services exports or imports while others use trade in goods exports or imports or both. Others, however, use the net of trade in goods and services, whereas some rely on the ratio of exports and imports to the percentage of GDP. All these indices give researchers different figures to work with and thus a diverse range of outcomes. There is no need to be fascinated by the contradictory results and manifestations of the connection that exists between openness and economic growth besides how trade influences economic growth. As awkward as it may be, we try to follow past literature on the connection between trade openness and economic growth but with a neutral mindset, trying to interpret data and see where it will

lead us to in the quest to establish this relationship and also add our voices to the topic. To this end, we strive to explain the relationship between trade openness and its effect on economic growth (GDP), FDI, and CO₂ emission in China.

2. LITERATURE REVIEW

This segment converses the literature on Trade Openness and its effect on economic growth, FDI inflow activities, and CO₂ emission in China. Further, grounded on the literature, we develop a framework for the study accordingly.

2. 1 Trade Openness

According to the World Bank, "trade openness is the sum of a country's exports and imports as a share of that country's GDP." In that, the net export is expressed as a percentage of the country's total GDP. Trade openness and recently non-traditional influencers like corporate governance has been established and documented to foster economic growth and financial development, among others (Boohene et al., 2023; Agbokah et al., 2022; HO et al., 2020; Zhang et al., 2019). But is this always the case?

The link between trade openness and economic development is a vastly argued subject in the growth and development

works. And seemingly, it looks like this struggle or argument is far from the end. The difference in outcomes from the researchers could be as a result of the data or the method they employ. Again, another possibility is that they could be biased towards the topic, be it for or against the relationship between the two variables. However, Zhang et al. (2015) studied the impact of trade and financial openness on financial development in China. The researchers employed dynamic panel estimation techniques and concluded that trade and financial openness are statistically significant elements of financial efficiency and competition. They added that for the open provinces, the effect of openness on financial efficiency and competition are positive, but it remains negative for the provinces with the least openness. In this light, Awokuse (2011) studied trade openness and economic growth, focusing on Argentina, Colombia, and Peru, emphasizing the role of exports and imports. The researcher uses Granger causality tests and impulse response functions to explore how trade growth stimulates economic growth. The researchers concluded that it is important not to focus only on the export-growth relationship since there exists a strong relationship also with import growth.

This unabatedly concludes that trade openness positively impacts economic growth. The short-term and long-term relationship between trade openness and economic growth cannot be overemphasized. Despite the fact that trade openness has a major short-term and long-term impact on the extent of economic growth in China, "a long-term stable co-integration relationship exists between opening-up and the quality of economic growth" (Kong et al., 2021).

Although other scholars have penned down that in most cases, trade openness does not influence economic growth in any way, that lesser trade blocks are not connected with higher growth (Ulasan, 2015), it is equally important to note that trade openness can hasten mechanical advancement of privileged industries. This, in the light, means that through trade openness, developing nations can milk the technological advancement of the developed nations to revamp their industries to be more efficient and effective. Thus, years of research and development can be transferred in no time due to free trade. There's also the probability of free trade positively affecting the quality of labor of a nation. This mainly occurs on the job or through labor transfer purposely for training and development.

Wang et al., (2020) argue that "trade openness improves capacity utilization and output levels significantly by expanding the market size, as well as significantly influencing capital deepening and driving economic growth by changing the structure of the labor force." Opening up to trade with other countries is important, but it can be detrimental for infant industries or emerging economies. In this light, Zhang et al. (2019) found a significant positive bearing of trade openness on China's economic advancement, whereas provincial openness pointedly stalled China's swift economic growth.

Nevertheless, it has not always been gloomy when it comes to research on trade openness in China, as researchers are torn between two extreme ends. For example, Zhang et al. (2019c) and Wei et al. (2019) debunked the notion that trade always impacts economic growth positively. Instead, they stressed that China, after the year 2008, the nation's opening up to trade with the world had an adverse effect on the country's economic growth. They also stated that there was a downward tendency in the impact of trade openness on economic growth.

2.2 FDI inflow

FDI location decisions are influenced mainly by trade openness Ibrahim et al.,

(2021). The ability to do business in other parts of the world largely depends on institutional factors and regulations. These regulations show how convenient is it to do business and how money invested could be recouped. In a nutshell, the ability to open up to the world and reduce trade blocs is embedded in trade openness. There are tons of literature stressing that FDI has the tendency to augment growth in the host countries and improving aggregate economic welfare (Asante Darkwah et al., 2023; Tyers and Zhou, Yixiao, 2019). China is currently the only Asian country in the top spot receiving FDI (FDI Report, 2020). China got independence in 1949, 2 years after Pakistan and India's political independence, and four years after Vietnam, yet the country has pitched far ahead of India and the rest of Asia in socio-economic development indicators. In comparison to China, where it was 8.2% of FDI flows as a percentage of Gross Fixed Capital Formation and 34.9% of FDI stocks as a percentage of GDP in that same year (Keshava, 2008), FDI in India only accounts for 3.4% of FDI flows as a percentage of Gross Fixed Capital Formation in India by 2004 and 5.9% of FDI stocks as a percentage of GDP. China has been one of the keys to the number one destination for

foreign direct investment in the developing world. According to the FDI confidence index, China at one point has even succeeded to beat the United States as the most desired country for FDI, noticeably because of the absolute size of its market.

The World Investment Report (2019) states that FDI inflows to developing Asian nations increased by 3.9% in 2018 to reach US\$512 billion. The Association of Southeast Asian Nations, China, Hong Kong, Singapore, Indonesia, and other ASEAN members, as well as India and Turkey, saw the most growth. The area continued to be the greatest FDI receiver in the world in 2018, taking in 39% more FDI than in 2017 (UNCTAD, 2018). "The prospects for FDI flows to the region in 2019 are moderately optimistic, thanks to a favorable economic outlook and ongoing efforts to improve the investment climate in several major economies," James Zhan, director of UNCTAD's investment and entrepreneurship section, stated.

FDI to East Asia rose by 4% to \$280 billion in 2018 with inflows to China, the largest developing economy recipient, increasing by 4% to an all-time high of \$139 billion, accounting for more than 10% of the world's total. In addition, foreign investors established more than 60,000 new

companies in China in 2018 (World Investment Report, 2019). This at large signifies that China could be hit hard in an event where most overseas countries, particularly the US, withdraws their foreign direct investment from the country.

Foreign direct investments create jobs, improve the standard of living in the long run, and increase the GDP of the host nation. It tends to increase the prevailing wage rates and cause a disparity between local corporations' and overseas companies' wages. Wan et al. (2007) discuss that globalization and trade liberation considerably intensifies provincial disparity and blames this principally on the intense increase of inward foreign direct investment.

Mah (2013) examines decentralization, globalization, and income inequality in China and finds while inbound FDI has a mixed impact on income inequality, trade globalization and trade openness have large and beneficial effects on it. Lessmann (2013) studies foreign direct investment and regional inequality by comparing China with 54 nations. According to the study, inward FDI from often causes income disparity to increase in underdeveloped areas. But Wang et al. (2019) investigated the spatial spillover effect of inward FDI on the wage

gap between rural and urban areas by assembling a panel dataset spanning 30 Chinese provinces from 2000 to 2016. Their findings confirm that much blame shouldn't be given to the inward forward direct investments as they don't find a significant relationship between inward FDI in the secondary and tertiary sector while the FDI in the primary sector has a slight negative effect. They added that when they separate the FDI according to entry modes, WFE negatively affects rural-urban wage inequality. The effect was further noticeable in the long run when they conducted a period average estimation. Although the prolific growth in China cannot entirely be a result of foreign direct investments inflows into the country, it has played a significant role in the increasing importance of China to the world. Luo and Zhi (2019) stress that the Chinese economy has seen a rampant transformation over the last decade, mainly due to trade reforms and opening up for international trade. They iterate that the amendment of trade policies has advanced in the area of the creation of free trade zones, putting forward the "Belt & Road" Initiative, meaning a new stage of expansion from "bringing in" to "going out."

China is also holding import expos, which symbolizes an epoch when China's foreign

trade progress has swayed from concentrating on exports only to centering on both exports and imports. In addition, China is lowering entry restrictions of foreign capital, which denotes that the policy framework for FDI has progressively altered from a positive list to a negative list (Luo and Zhi, 2019).

Ahmad et al. (2019) examined how China's exchange rates and foreign direct investment are related to the country's economic growth. The study focused on the period from 1981 to 2013. Findings conclude that the Chinese market has been enjoying lower exchange rates in the period under study and over this period. Furthermore, both in the long run and the short term, there was a direct connection between FDI inflows and overall economic development. They conclude by saying that to stimulate sustainable economic growth in the future, China needs to focus more on raising domestic investment and human capital levels, monitoring the degree of openness, and enforcing capital controls.

2.3 Economic Growth and Quality of Life in China

Economic growth goes beyond just allowing factors of production to flow freely and especially opening the doors for donor and

overseas companies to invest in the country. Other economic variables come to play to assure the sustainable growth of a nation. Recent surveys and studies show that China's enormous growth is due to a combination of favorable human capital, innovation, density, local conditions, foreign direct investment (FDI), and city-level government institutions (Rodríguez-Pose and Zhan, 2019). Therefore, this puts a dent on the notion that the enormous growth in China is due to mainly inward FDIs. Other scholars have, however, documented the relationship between these two variables. However, economic growth should be steady and unabated. According to Kong et al. (2020), efficient growth should be continuous and constant for high-quality economic growth; "accordingly, multiple basic indexes are overall considered to construct the indexes of economic growth quality" Without consistency in growth, it will be difficult to find a model to evaluate the growth.

Now economic growth is as relevant as any other economic fundamental. Almost every economy aims to improve upon the standard of living of its populist by providing social amenities, reducing unemployment, reducing poverty and increasing the GDP per capita. But as "a wheel of fortune," it

needs energy and effort, and that's where the problems start. A negative externality is engaged while trying to increase production and opening up the economy to attract investors to increase economic growth. Therefore, the main problem associated with economic growth and development goals is the uncertainties relating to the environment, energy use, and the global economy. Is it possible to increase economic growth and still keep carbon emissions down? Does reducing carbon emission mean sacrificing economic growth? Are the effects the same regardless of the type of economy, be it a high-income economy or a developing economy? These are perhaps the question baffling the policymakers. How to sturdily increase economic growth yet keeping carbon emissions at bay. Kong et al. (2020) analyzed the effect of protectionism by employing trade openness based on data at their disposal (1990-2015) on the decoupling of carbon emissions from economic growth. They concluded that "trade openness lessened carbon emissions in high-income and upper-middle-income countries, whereas having no significant impact on carbon emissions of lower-middle-income countries; even worse, for low-income countries, trade openness increased carbon emissions." This implied

that trade openness has conflicting effects on carbon emissions, demonstrating that it has favorable effects on rich countries' attempts to decouple economic growth from carbon emissions while having detrimental effects on poor countries. This, therefore, boils down to rules and institutions. Obviously, in the high-income economy, laws have been put in place to keep carbon emissions at the barest minimum. All MNCs and FDIs that decide to relocate to such zones must apply and live by these emission standards else face the law. In developing countries, however, governments are not putting any stiff rules to check the degradation of the environment.

Depleting the Ozone layer and raising sea levels is of concern to many researchers and environmentalists. As such, there are tons of peer-reviewed articles and literature on the variables affecting carbon emissions (Zhang and Da, 2015; Wang and Zhang 2020). The most popular model used to examine the factors influencing carbon emissions is the linear econometric model (Jalil and Feridun, 2011). Other scholars have also been applying time series and panel data to determine how economic development and carbon emissions are related, and to project into the future (Bhattacharya et al., 2017). Researchers incorporated variables like

population and energy consumption into the conceptual framework even though the previous research was still being developed throughout time (Lehmann and Gawel, 2013). The relationship between economic growth and carbon emissions has also been studied by others (Boohene & Darkwah, 2023; Galeotti et al., 2009; Saboori et al., 2012). The relationship between carbon emissions, economic expansion, personal incomes, population, oil prices, and trade openness, on the other hand, is the present trend.

As has already been mentioned, increased trade volume and revenue in both established and emerging economies promotes faster global economic growth. Nonetheless, this growth inclination is often pregnant with explicit environmental costs (Shahbaz et al., 2017).

Trade openness normally comes along with FDI, and with FDI comes the increased possibility of increasing the production of goods and services in China. Increasing production means expanding plant sizes or creating new and additional plants to use the aid flowing into the economy. However, with increasing production comes the negative externality aimed at degrading the environment. China has already put laws in

place to reduce the emission of carbon into the atmosphere. Further action plans are also underway to reduce carbon emissions further and protect the environment as spilled out in Chinas Fourteenth Five Year Development plan.

2.4 Conceptual Framework

Based on available research, the following framework is designed to guide the trajectory of this research further.

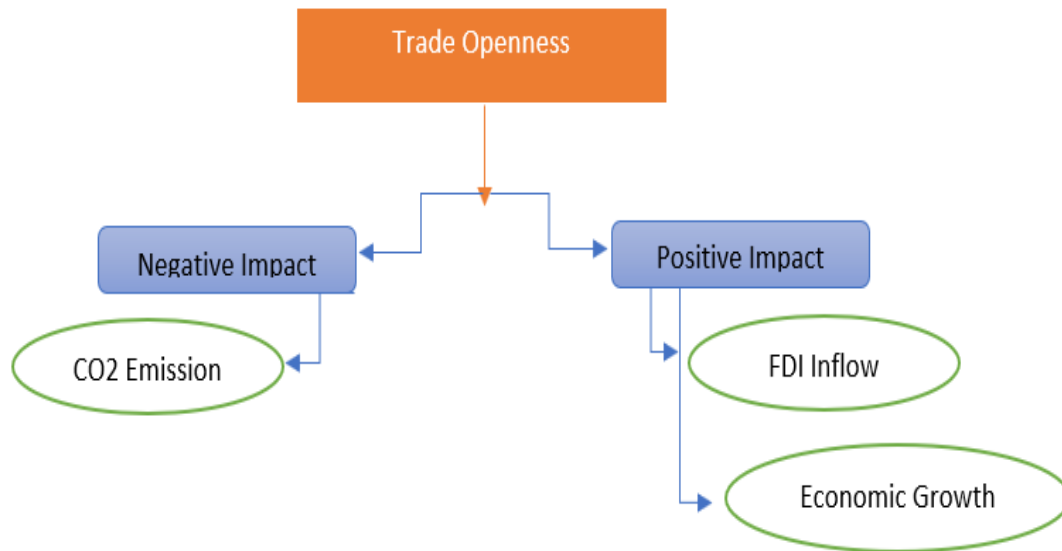
The pragmatism of the framework is in the main academic involvement of this paper in that:

(i) it offers a new viewpoint in probing the relationship between trade openness and its effect on the economy of China;

(ii) the new framework will also act as an instrument of review for matching trade openness to carbon emission levels, economic growth and FDI. Therefore, policymakers in developing countries and China can make use of the framework in gauging their level or degree of trade openness;

The following conceptual framework is therefore proposed, and consequently, it will develop the propositions for this paper.

Fig 1. Effect of trade openness on an economy



The variables were selected based on past research done in the area of study. The framework seems to illustrate the relationship and the interdependence of both the dependable and explanatory variables. It looks at how trade openness influences the economy in general. However, the influence of trade openness on a nation has been categorized under positive and negative impacts. The positive impact that most scholars penned down includes an increase in FDI inflow and a sturdy increase in economic growth. Nevertheless, trade openness has also been seen in scholarly articles to increase energy consumption and increase the emission state of its host.

3. MATERIALS AND METHODS

The articles employed to assist in the review were gotten through searches of published studies in major databases, namely SCOPUS, Google Scholar, DOAJ, Semantic Scholar, etc., using keywords such as carbon emissions, economic growth, foreign direct investment, and trade openness, as well as cross-referencing. Only articles that were published after 2000 were included in the study.

4. DISCUSSION

The study aimed to look at the effect of trade openness on economic growth, foreign direct investment and carbon dioxide emission. From the review, it is evident that

trade openness to a large extent and significantly influences economic growth, FDI and the emission of carbon dioxide in the atmosphere in China. Therefore, CO₂, FDI, and economic growth are significantly influenced by China's level of trade openness(Kong et al., 2020; Qinxi, 2021). Nevertheless, in furtherance to this Kong et al. (2020) further stressed that good economic growth should be steady and unceasing growth under efficient growth mode. In other words, a good economic growth mode should be sturdy and constant over a long period to show how efficient the growth model is. Additionally, we find out that carbon emissions and GDP per capita are positively related in China's economy. It is obvious that as the country's GDP per capita increase, so has its carbon emissions. This relationship can be attributed to the fact that economic growth requires energy consumption, which leads to carbon emissions. Also, as people become wealthier, they tend to consume more goods and services that require energy to produce and use, thereby contributing to an increase in carbon emissions. In another perspective, it is common knowledge that China has one of the biggest and sophisticated markets in Asia and perhaps in the world. This alone is an incentive for most big corporations to

relocate to China and reduce the cost of production by having access to comparably cheap labor. And probably, to enjoy economies of scale and thereby reducing the cost per output produced. Additionally, some foreign firms often have less stringent environmental regulations than domestic firms, which can lead to more carbon-intensive production methods.

5. CONCLUSION

Trade openness has its benefits and its problems. For example, in China, data analyzed suggest it augments economic growth and influences foreign direct investment inflow positively. However, it adds to the pollution elements of the country as it increases the amount of carbon dioxide in the atmosphere. Therefore, it is important to open up, but the government should manage the adverse effects of opening up by using laws and regulations to force multinational corporations to emit within accepted limits. Nevertheless, trade openness increases FDI inflow, and this, to a large extent, helps the economy. Through FDI inflow, technical know-how is transferred from one country or corporation to the other. This helps to cut years of research and development in the industry and increases efficiency. To this end, it's

equally important for China to monitor the operations of these corporate bodies because of foreign culture and probably an uncultured way of doing anything to achieve results. With trade openness, economic growth receives a sturdy growth both in the long and short run. This means that trade openness tends to improve the standard of living of the people of China and expose them to other new technologically advanced ways of improving the countries systems like architecture, transport, banking, etc. it is therefore important to note that gradually opening up the economy is a laudable

strategy that other countries and policymakers should emulate.

5.1 Implications for future studies

This study examines the relationship between trade openness and FDI inflow, Economic growth and CO₂ emissions using China as the case study. Future studies can focus primarily on the relationship between economic growth and CO₂ emission. This is because, currently, environmental degradation has become a concern of the global economy as governments across the globe try to reduce carbon emissions.

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