



Trade liberalization and its contribution to climate change: An urgent policy dilemma

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Abstract

This concept, known as trade liberalization, has been a part of global economic policy which emerged through the reduction and or elimination of tariffs, as well as quotas which impede free exchange among parties. Proponents of free trade argue that it does lead to economic growth and that consumers have more variety options, which in turn breeds innovations as countries specialize to manufacture goods in which they are relatively better off at doing so. However, its environmental impacts, mainly about climate change, cannot go unnoticed and deserve criticism.

This paper looks into the complex interaction between trade liberalization and climate change. It acknowledges the fact that while trade is seen to be a booster for economic activities, it has also led to huge environmental problems. The rise of global trade usually translates to increased levels of greenhouse gases because of increased production, transportation, and consumption of goods. In addition, liberalized trade is likely to spur unsustainable use of natural resources, worsening environmental degradation and contributing to climate change.

In an effort to fully understand this relationship, the paper will consider various provisions in international trade agreements that intersect with environmental concerns. It will point out the role of institutions like the WTO and regional trade agreements in shaping the regulatory landscape. Relevant case laws are also analyzed to illustrate how disputes between trade obligations and environmental protections have been adjudicated, thus casting light on the legal frameworks that govern these interactions. By discussing both the pros and cons of trade liberalization, this study brings out the need for a holistic policy response to growth that is in harmony with environmental sustainability. It presents the argument that policymakers should recognize the dual role that trade liberalization can play in promoting economic development but, at the same time, can pose threats to environmental health.

The paper concludes with actionables for policymakers on how best to mitigate the adverse impacts of trade liberalization on climate change. These are strict environmental standards in trade agreements, promotion of green technologies, and establishment of international cooperation frameworks that promote sustainable development. Through such measures, one can capture the benefits of trade liberalization while conserving the environment, thus achieving a more sustainable and resilient global economy. This paper contributes to the ongoing discourse on how to reconcile economic ambitions with the imperative of environmental stewardship in an era of unprecedented climate challenges ^[1]

Keywords: Trade liberalisation, climate change, world trade organisation, sustainable development, economic growth

Introduction

The global economy has experienced dramatic revolutions over the past decades, primarily through the liberalization of trade. Unprecedented levels of international trade have been achieved through the reduction of tariffs, the elimination of trade barriers, and the creation of free trade agreements (FTAs). Supporters of liberalization believe that it enhances economic efficiency, stimulates innovation, and increases consumer welfare. The environmental impact of such policies, especially with regard to climate change, has been subject to increasing scrutiny.

The biggest global threat to ecosystems and human societies is climate change, which is primarily caused by greenhouse gas emissions. While the relationship between trade and climate change is multifaceted, trade liberalization has contributed to increased production, consumption, and transportation of goods and can exacerbate environmental degradation and climate change. This paper explores the intricate dynamics between trade liberalization and climate change by highlighting various provisions under international trade agreements, relevant case laws, and implications for future policy frameworks ^[2].

Trade liberalization: An overview

Definition and objectives

Trade liberalization refers to the process of reducing or eliminating trade barriers such as tariffs, quotas and subsidies to facilitate free trade between nations. Since the mid-20th century, various political and economic shifts have shaped trade policies worldwide. Understanding the evolution of these policies is crucial to grasping contemporary global trade dynamics and their implications for economic growth, inequality, and sustainability.

Historical context

Trade liberalization policies have undergone significant transformations over the decades, shaped by historical events, economic theories, and shifts in global power dynamics. Understanding the historical context of these policies is crucial to comprehending their current state and future trajectory.

Early foundations

The roots of trade liberalization can be traced back to the mercantilist practices of the 16th to 18th centuries, where nations sought to accumulate wealth through trade surpluses. However, the classical economic theories of the late 18th and early 19th centuries, most notably those

espoused by Adam Smith and David Ricardo, began to challenge these mercantilist ideas. Smith's concept of the "invisible hand" and Ricardo's theory of comparative advantage formed the basis for the idea that free trade promotes efficiency and economic growth^[3].

The Post-World War II Era

The post-World War II era marked the beginning of a concerted effort towards trade liberalization, culminating in the establishment of the General Agreement on Tariffs and Trade (GATT) in 1947. Subsequent rounds of negotiations led to the formation of the World Trade Organization (WTO) in 1995, which further institutionalized trade liberalization efforts. Regional trade agreements, such as the North American Free Trade Agreement (NAFTA) and the European Union (EU), have also played important roles in promoting free trade.

The main goals of trade liberalization are:

Economic Growth: Trade liberalization is expected to stimulate economic growth and increase national income by promoting competition and efficiency.

Consumer Gains: Low tariffs and trade barriers mean more goods and services available at cheaper prices for consumers.

Global Integration: Trade liberalization promotes a country's integration into the world economy and international cooperation and collaboration.

Environmental Consequences of Trade Liberalization

Positive Effects

Even though trade liberalization has been associated with higher emissions of greenhouse gases, it also presents positive environmental effects:

Technology Transfer: Trade liberalization can facilitate the transfer of environmentally friendly technologies from developed to developing countries, thus promoting sustainable practices.

Economies of Scale: Improved efficiency through increased production can reduce per-unit emissions as firms expand to serve global demand.

Global Standards: International trade agreements can promote global environmental standards, compelling countries to pursue sustainable practices.

Negative Impact

Despite these potential benefits, the negative environmental impacts of trade liberalization are significant:

Increased Emissions: The expansion of trade often results in increased transportation emissions due to the movement of goods across long distances.

Resource Exploitation: Trade liberalization can lead to the overexploitation of natural resources, as countries seek to capitalize on comparative advantages.

Regulatory Race to the Bottom: Countries may degrade environmental regulations in a move to attract foreign investment and, thus increase pollution.

Provisions in International Trade Agreements

General Agreement on Tariffs and Trade (GATT)

The GATT, which laid the foundation for the WTO, primarily focused on trade in goods. While it did not explicitly address environmental issues, Article XX provides exceptions for measures necessary to protect human, animal, or plant life or health. This provision has been invoked in various trade disputes, highlighting the tension between trade liberalization and environmental protection^[4].

World Trade Organization (WTO)

The WTO has taken steps to incorporate environmental considerations into its framework. The Doha Development Agenda includes discussions on trade and environment, emphasizing the need for sustainable development. However, critics argue that the WTO's focus on trade liberalization often undermines environmental objectives^[5].

Regional Trade Agreements

The EU's trade agreements usually contain provisions for environmental issues. For example, in the case of the EU-Mercosur agreement, there are commitments to respect the Paris Agreement and foster sustainable development. The practical effectiveness of these provisions, however is an issue that is very contentious.

There is an extremely complex and multifaceted relationship between a country's wealth and its greenhouse gas emissions. As nations grow in terms of their economy, they can either increase or reduce their emissions of greenhouse gases (GHGs). In some instances, a country might witness an increase in emissions in the early stages of economic development but later reduce them when it becomes more prosperous. This could serve to advance an argument for delaying mitigation policies until these countries develop, where they initially prioritize economic growth over concerns over the environment.

One analytical approach to this relationship is the EKC. The EKC essentially posits that the connection between a country's level of income and its levels of environmental pollution is nonlinear. Instead, it suggests a non-linear, inverted U-shaped relationship when plotted pollution levels against gross domestic product (GDP). According to this hypothesis, as a country begins to develop economically and its GDP rises from a low level, pollution levels tend to increase. This initial increase in pollution is attributed to factors such as increased industrialization, energy, and fossil fuel consumption—all common in the early development of an economy.

However, according to the EKC theory, after a given income level, economic development would result in a positive relationship between income and pollution where higher income levels lead to greater pollution. This reduction of pollution may be due to various reasons. More developed economies are more likely to be able to invest in cleaner technologies and stricter environmental regulations as well as make the shift to more environmentally friendly activities. With greater prosperity, societal attention and awareness regarding the environment tend to increase as well, raising demand for environmentally protective policies^[6].

Implications for Policymakers

The implications of the EKC for policymakers, especially those from developing economies, are tremendous. Thus, if the EKC is valid, then developing countries might prefer growth over environmental consideration during its earlier phases. And a justification of deferring strict environmental regulation until such time when economic development reaches a certain threshold can be based on this effect. However, detractors of the EKC model argue that adopting such a model may hasten severe environmental damage and climate change, as countries are likely to delay definitive action regarding their emissions in order to reap quick economic gains.

In addition, the EKC is not a universally applicable model for all countries or types of pollution. Some countries do not follow the predicted path, and some pollutants do not show the same inverted U relationship. Governance, technological development, and international cooperation all have important roles in shaping a country's environmental outcome.

Therefore, the relationship between a country's wealth and its pollution levels is complex and has an inverted U-shape, as proposed by the Environmental Kuznets Curve. Initial economic growth may lead to increased emissions, but it is possible that pollution levels may decline as countries become richer and more capable of investing in sustainable practices. This knowledge is important in informing environmental policies and strategies, especially in the face of global climate change and in need of cooperation to abate emissions globally^[7].

Regional Trade Agreements

Regional trade agreements, for example, the EU's trade agreements, contain environmental provisions. For example, the EU-Mercosur agreement contains commitments to respect the Paris Agreement and promote sustainable development. But the effectiveness of these provisions in practice is a matter of debate.

The relationship between a country's wealth and its greenhouse gas emissions is complex and multifaceted. With economic growth, the emission of greenhouse gases may either rise or decline by nations. A country may progress with its economic development by first increasing emissions, and eventually subsequently decrease those emissions as it becomes more affluent. This might provide empirical support for the argument to delay policy intervention into developing countries' mitigation measures, as they will probably opt for economic growth over the environment first.

The EKC is a framework to grasp this link. According to the EKC, income and pollution are not correlated in any simple way across a country's development spectrum. Instead, it depicts a nonlinear, inverted U-shaped curve when plotting the levels of pollution against GDP. As this hypothesis goes, when a country starts developing economically and its GDP moves from a very low level, its levels of pollution tend to rise. This rise in emissions can be ascribed to factors like industrialization, increased energy consumption, and reliance on fossil fuels, common in the initial phases of economic growth. On the other hand, according to the EKC theory, after attaining a specific income level, economic growth further contributes to reducing the levels of pollution. Such reductions in emissions can occur due to several reasons. Wealthy countries will more likely have

available funds for more clean technologies, better environment regulations, and alternative sustainable processes. Moreover, more prosperous societies generate more concerned citizens for issues in the environment as these citizens raise the demands to have policies which are in favour of protecting the environment.

The significance of EKC is for policymakers; that is, most importantly to countries developing at the base stage. If the EKC is valid, then developing countries may need to sacrifice environmental protection for economic growth in their early stages. This would give a justification for postponing strict environmental regulations until a certain level of economic development is achieved. However, critics of the EKC argue that depending on this model may lead to great environmental degradation and climate change because in extending its use, the world could encourage countries to delay necessary actions with respect to emissions for some short-term economic benefits.

Furthermore, the EKC is not panacea in all circumstances for all nations or all types of pollutants. Many countries fail to conform to the predicted pathway, and some pollutants do not exhibit the same relationship in the form of an inverted U. Governance, technological advancement, and international cooperation are significant factors in moulding a country's overall environmental outcomes.

Hence, the relationship between a country's wealth and its pollution levels is complex and characterized by an inverted U-shape as proposed by the Environmental Kuznets Curve. Though initial economic growth may increase emissions, there is the possibility that pollution levels decline with increased richness and capability to invest in more sustainable practices. This knowledge is critical in setting up environmental policies and policies as a result of the global need to control climate change and collaborative effort in emission reduction worldwide^[8].

Does Trade Permit Rich Countries to Get Cleaner in the Expense of Poorer Ones?

The relationship between trade and environmental sustainability is complex especially when analyzing how trade liberalization may impact emissions in the rich and poor countries. Theoretically, the liberalization of trade may be able to allow both richer and poorer countries to reduce their greenhouse emissions, thus bringing down pollution levels around the world. This would imply that, in fact, trade may represent a tool for environmental amelioration, whereby countries can make use of their economic competencies to reduce emissions as well.

However, it is the comparative advantage of that country that largely determines the net effect of trade liberalization on the overall pollution level in that country. Comparative advantage is the production of certain goods more cheaply than others, a factor that often determines which products a nation specializes in and exports. Removing the trade barriers lowers the price of goods in which the country has a comparative advantage, but both the international and domestic prices increase. This shift encourages greater national resource allocation toward the production of these exported goods.

For wealthier nations, this will probably be through cleaner technology and cleaner industry, as they have the capital to invest in these sectors. As these countries focus in more productive clean production methods, they will actually

reduce their emissions. Poorer countries that do not have the same technological opportunities or resources could then specialize on more polluting industries, primarily if they are not able to invest in cleaner alternatives. This may leave a cycle where the developed world captures cleaner production but poorer world suffers increased pollution.

But again, the theoretical reality of specialization and trade may have very little to do with actual events. The process of specialization tends to result in environmental degradation for those countries that don't have the wherewithal to implement clean technologies or strict environmental laws. The process of increasing specialization, whereby the wealthier countries produce less polluting goods, can inadvertently place more polluting industries in countries with weaker regulations and lack of enforcement.

The dynamics of global supply chains can also make the picture complicated. If rich countries outsource their more polluting production processes to poorer nations, they may appear to reduce their domestic emissions while still contributing to global pollution through their consumption patterns. The phenomenon is often referred to as "carbon leakage" and raises ethical questions on environmental responsibility and the impact of trade on global emissions.

This means that trade liberalization can assist in reducing emissions and promoting clean production in wealthier nations, but its impacts on poorer ones can be problematic. The relative advantages of countries determine the level at which trade influences overall pollution. If not managed carefully, trade can lead to a situation where rich countries become cleaner at the expense of poorer nations, which may end up shouldering a greater environmental burden. Policymakers must therefore consider these dynamics when crafting trade agreements and environmental regulations to ensure that the benefits of trade do not come at the cost of environmental justice and sustainability^[9].

Case Laws Analysis

United States – Import Prohibition of Certain Shrimp and Shrimp Products

This is that landmark case in which WTO Appellate Body interpreted the relationship between liberalisation of trade and protection of the environment. The US had prohibited the import of shrimp from countries that do not employ methods not lethal to sea turtles. The WTO Appellate Body upheld that while US has its right to safeguard its environment, its measures, however, were discriminatory and went against WTO rules. This case well illustrates the challenges in the balance of trade obligations with environmental concerns, showing that clearer guidelines on how trade agreements can accommodate environmental protections are needed.

European Communities – Measures Affecting Asbestos and Asbestos-Containing Products

This case involved the European Union's ban on asbestos and asbestos-containing products, which was challenged by Canada. The WTO ruled that the EU's measures were justified under Article XX(b) of the GATT, which allows for trade restrictions necessary to protect human health. This ruling reinforced the idea that environmental and health protections can coexist with trade liberalization, provided that the measures are not arbitrary or discriminatory.

Brazil – Measures Affecting Imports of Retreaded Tyres

Brazil thus imposed a ban on importing retreaded tires on the grounds of environmental concerns. In this case, the WTO found that Brazil's measures were inconsistent with its obligations on trade because they were not supported by scientific evidence and more restrictive to trade than necessary. This case highlights the necessity of ensuring that environmental measures are scientifically sound to face scrutiny under international trade law.

The Intersection of Trade Liberalization and Climate Change

Economic Growth vs. Environmental Sustainability

The core of the trade liberalization debate is economic growth versus environmental sustainability. Although liberalization can be a driving factor for economic growth, it normally does so at the expense of environmental health. Therefore, the challenge for policymakers lies in finding a balance to allow for economic development while at the same time safeguarding the environment^[10].

Climate Change as a Global Challenge

Climate change is an international issue that crosses over national borders, thus making international cooperation necessary. Free trade can both exacerbate and mitigate the impacts of climate change. For example, more trade can lead to higher emissions, but it can also spread green technologies and practices. Policymakers should take into account these double aspects when formulating policies on trade and the environment.

Policy Recommendations

Integrating Trade and Environmental Policies

To address the urgent policy dilemma posed by trade liberalization and climate change, trade and environmental policies must be integrated. This can be done through:

Sustainable Trade Agreements: The future trade agreements should involve binding commitments to environmental protection and climate change mitigation in order to ensure that environmental degradation is not the cost of liberalizing trade.

Incentivizing Green Technologies: Policymakers should encourage the development and diffusion of green technologies through trade policies and persuade countries to practice sustainability.

Strengthening Environmental Provisions: The existing trade agreements need to be reviewed and strengthened with more environmental provisions, which are effective and enforceable in the promotion of sustainability.

Promotion of International Cooperation

Climate change is in a sense international hence, there will be cooperation in this. What countries are doing to come in agreement, either through practice or norms, that aids both trading and sustainability together, that may be through multiple agreements by negotiation between the counties on similar aspects, where comprehensive negotiations bring comprehensive deals that meet requirements for issues on trading and climate together.

Capacity Building: Developed nations should support developing countries in building capacity for sustainable trade, so that all countries realize the benefits of liberalized trade without compromising their environmental goals ^[11].

The Role of Emerging Economies

Emerging economies play a very important role in the dynamics of trade liberalization and climate change. As these countries continue to industrialize and integrate into the global economy, their trade policies and practices significantly impact global emissions. The challenge lies in ensuring that their growth trajectories are sustainable. Policymakers must consider how trade agreements can support these nations in adopting cleaner technologies and practices while still benefiting from trade liberalization.

The Impact of Consumer Behavior

Consumer behavior is another significant factor in the interaction between trade liberalization and climate change. The increased environmental consciousness of consumers may translate into the preferences of a company that will encourage a firm to adopt environmentally conscious practices. Trade policies may promote this by promoting green products and services through the trade system. Educating people on the need for a sustainable consumption pattern may help improve the positive impacts of trade liberalization on the environment further.

The Need for Comprehensive Climate Policies

In order to effectively respond to the challenges of trade liberalization and climate change, there is a need for holistic climate policies. While such policies should reduce emissions, they should also help promote resilience and adaptation. It is only through consideration of climate in trade policies that economic growth will not be inimical to environmental sustainability ^[12].

The Role of Technology and Innovation

Technological innovation should be the most important catalyst in reconciling trade liberalization and climate change mitigation. Diversions to research and development can lead to breakthroughs for clean technologies that reduce associated emissions from trade. Politicians should motivate innovation, for instance, through grants and subsidies and tax breaks with companies that come up with sustainable practices and products. Collaboration between governments, the private sector, and academic institutions can speed up technology development and deployment.

The Importance of Public Awareness and Engagement

Public awareness and participation are also important in defining the terms of the debate on trade liberalization and climate change. A better-informed citizenry that demands sustainable practices will help make the public more aware of the environmental impact of trade. Grassroots movements and civil society can be effective in making the government accountable for its trade and environmental policies, thereby ensuring that sustainability is a priority in the trade agenda.

Will Trade Be Free After All?

The threat of trade measures sending shockwaves of protectionist responses makes it very important for there to be clear and defined procedures for implementation in a multilateral framework. Very likely, any conceivable trade

measures will face a challenge at the WTO. However, the WTO panel cannot rule out that climate-motivated trade measures would not be provided, and therefore, the bound rates would tempt the developing countries to raise their tariff rates on imports from the corresponding partners without facing any type of legal restraint. Not even when trade measures issue from a multilateral agreement ratified by developing countries does this exempt them from initiating a trade war. There are several technical complexities involved in the trade measures implementation that may be partially observed and misinterpreted. One of them is the problem of lack of observation of product-specific emissions, as well as the non-observable country of origin technical regulations impacting the imported goods qualification to receive a border measure (WTO-UNEP 2009). Any of these problems may cause a government to take retaliatory action when it mistakenly believes that the partner is pursuing a protectionist policy. Therefore, multilateral investigations are required for mutually accepted trade and climate policies. Careful and detailed definitions of implementation tools and procedures are important in preventing the undesirable protectionist consequences of trade policies ^[13].

Conclusion

Trade liberalization has been a significant factor in the global economy, but its implications for climate change cannot be ignored. The relationship between trade and the environment is complex, with both positive and negative consequences. As the world grapples with the urgent challenge of climate change, it is imperative that policymakers adopt integrated approaches that harmonize trade and environmental objectives. By doing this, they will ensure that trade liberalization contributes positively to sustainable development rather than worsening environmental degradation. All the recommendations that have been outlined in this paper will lay down a road map to achieve balance, with emphasis on the need for cooperation, innovation, and commitment to sustainability, in the face of this changing climate. The crossing of trade liberalization with climate change both presents challenge and opportunity. The evolution of the global economy requires that policymakers embrace an integrated approach to take into account the environmental impact of trade. Integration of trade and environmental policies, encouragement of sustainable practices, and cooperation at the international level would help to steer through the urgent policy dilemma. The future of trade must be aligned with the goals of environmental sustainability, ensuring that economic growth does not come at the cost of the health of the planet.

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