

The Iowa Car Crop: A Critical View of the Trade Efficiency and the Role of Protectionism

Hajoon Song

International School of Beijing, Beijing, China

Email: hjsongjoseph@gmail.com

How to cite this paper: Song, H. (2025). The Iowa Car Crop: A Critical View of the Trade Efficiency and the Role of Protectionism. *Open Journal of Business and Management*, 13, 735-748. <https://doi.org/10.4236/ojbm.2025.132038>

Received: December 9, 2024

Accepted: February 5, 2025

Published: February 8, 2025

Copyright © 2025 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

David Friedman's Iowa Car thought that experiment challenges modern perceptions of production and international trade by showing how growing wheat can, in economic sense function as technology for car manufacturing in international trade. When a country exports wheat and import cars, it effectively transforms its agricultural surplus into industrial products through greater efficiency than domestic production. This classical view raises a critical question on the trade barriers imposed by government like tariffs and quotas that limit this process, resulting in inefficacy in resource allocation by producers. This article explores why Smith's absolute advantage and Friedman's comparative advantage are too simplistic to capture the complex realities of international trade. It focuses particularly on the rationale for the government-imposed trade barriers such as tariffs and quotas that force producers to be more wasteful and less efficient. It argues that trade barriers prioritize political, environmental and social concerns over the overall economic efficiency resulting to suboptimal results for consumers and producers in the international trade. The discussion recommends a more comprehensive framework through the dynamic comparative advantage and strategic trade theory.

Keywords

Comparative Advantage, Absolute Advantage, Protectionism, Iowa Car Crop, Tariffs, Quotas, Subsidies, International Trade, Trade Efficiency, Economic Policy

1. Introduction

As David Friedman's Iowa Car Crop thought experiment suggests that international trade seemingly offers a way to produce more valuable outputs with fewer

resources, but governments impose trade barriers, thereby forcing producers to be more wasteful and less efficient. To investigate why governments impose such barriers, this paper explores why economic theories such as absolute advantage and comparative advantage are too simplistic to capture the complex realities of international trade. As that exploration will show, international trade offers a platform for interaction among countries, with some trade policies capable of influencing global prices, supply chains, and eventually, politics. While international institutions such as the World Trade Organization (WTO, 2011) have a mandate to ensure countries fairly conduct trade among themselves, individual countries use their respective trade policies to either protect national sovereignty against exploitation, hold other countries accountable, or push country-specific political policies and agendas to other nations.

2. Methodology

The current study embraces a qualitative analysis approach; hence, the review of academic literature, policy documents, and historical trade data to gain insight into the complexities of international trade and limitations that classical economic theories have brought to the fore. It has used a comparative framework to evaluate the suitability of traditional theories such as absolute and comparative advantage against more modern models including dynamic comparative advantage and strategic trade theory. The selection criteria for this study were based on relevance, credibility, and contribution to the understanding of international trade. More emphasis has been given to peer-reviewed academic articles, government policy reports, and authoritative publications from international organizations such as the World Trade Organization, WTO, and the United Nations Conference on Trade and Development, (UNCTAD, 2013). Historical data on trade was obtained from dependable sources showing various industries and different countries to conceptualize comprehensive trade practices and policies. The addition of practical case studies aimed to give realistic insights into how trade theories function in real-life situations. The cases chosen had to satisfy some criteria, including the ability to illustrate specific theoretical principles or the deficiency of existing frameworks. For example, tensions in U.S.-China trade and the European Union's CBAM were examined considering their linkage with protectionism and environmental concerns. Dynamic comparative advantage was also illustrated using data on subsidies in the cotton industry and the evolutionary development of South Korea's electronics sector. This was also done through a critical review of policy documents to identify the rationale for government-imposed trade barriers in the form of tariffs, quotas, and subsidies. The documents were selected based on the depth of policy analysis, with a particular focus on implications for economic efficiency, social equity, and environmental sustainability. This will offer a more holistic approach to the multi-faceted nature of international trade by merging theoretical critique with practical case studies and policy evaluations. It ensures that the findings

are rooted in theoretical rigor and empirical relevance for a nuanced critique of classical trade theories and proposes a more inclusive framework for modern trade analysis.

3. Absolute Advantage & Comparative Advantage

Absolute advantage is the concept developed by Adam Smith to describe how countries or regions can produce more of a good or service, or produce it more cheaply, than their competitors. According to Smith, a country would achieve maximum economic benefit if it produced the goods most efficiently and traded with other nations for its remaining needs. The theory of comparative advantage by David Ricardo refined this notion to indicate that, even when a country has an absolute advantage in producing several goods, it gains by specializing in the production of commodities with lower opportunity costs and trading them for others. Specialization enables countries to utilize resources more efficiently and hence produce better quality goods at lower prices, which raises overall economic welfare. These classical theories, while underlining the grounds for free trade, present an idealistic view of international exchange while neglecting the realism induced by artificial and other similar constraints. For example, tariffs, quotas, or subsidization on the part of governments against natural comparative advantages on which all these theories lean result in inefficiency within world trade. Trade barriers can prevent the full realization of gains that come from a comparative advantage by a nation, saving domestic industries, often at the expense of their consumers who will have to face higher prices with limited choices. John Stuart Mill expanded Ricardo's theory with his terms of trade, which considered the idea of how reciprocal demand affects the way in which gains to trade are divided between countries. As Mill said, the ability of a country to negotiate good terms of trade depends on the worldwide demand for its exports. But trade barriers distort these terms, shifting the relative gains toward countries that have the economic power to protect themselves. For example, farm tariffs in the developed world distort world markets and make it more difficult for developing nations to compete in sectors where they may have a comparative advantage. Friedrich List's critique of free trade underlines the intrinsic disadvantages of developing countries. According to him, protectionism is necessary to nurture the growth of industries before exposing them to international competition. The list's argument supports the thesis of the paper. It shows how trade barriers can be used as a means of economic development, especially for countries that do not have mature industries. However, this paper will demonstrate, that such measures often compromise global economic efficiency for national or political interests and exacerbate inequalities in international trade.

Tying together the concepts of absolute and comparative advantage with the notion of trade barriers, it can be realized that, although the former two theories aim to promote free trade, the complexities involved in international trade demand more tailored frameworks that would ideally reconcile economic, political, and social issues.

4. World Trade Organization Mandate on Fair Trade and Its Relationship of Absolute and Comparative Advantage

One of the core objectives of WTO is trade liberalization through reduction of tariffs, quotas and barriers that prevent countries from engaging in trade using their production efficiencies. The WTO's principle of most favored nation (MFN) and national treatment makes it possible for nations to import from the most efficient supplier as per the principle of comparative advantage. MFN treatment requires members of the WTO to accord the most favorable tariff and regulation treatment given to a particular product of any member to all other members with "like products." In other words, if country A provides favorable treatment to country B, it must extend the same favor to all member countries. It is meant to remove exclusive clubs among trading partners and ensure members treat each other equally regardless of their level of development or economic size.

Under the WTO framework, nations with absolute advantage in certain goods and services can export their surplus without undue barriers, increasing global productivity. However, trade barriers like tariffs and subsidies can protect less efficient domestic producers hence negating the efficiency benefit of absolute advantage. A clear illustration is the case of cotton industry where the US, China and the subsidies provided to cotton farmers allow them to sell their produce at a lower price than that of cotton producing developing countries with absolute advantage in the product such as C-4 County Mali, Burkina Faso, Chad and Benin. According to Hopewell (2024), the global power shift with emerging economic powers like China which provides large subsidies, has distorted global trade and production of cotton. In 2022/2023, China had 6,684,000, US 3,150,000 metric tons of cotton production. The Chinese 6.7 million metric tons of cotton is attributed to \$41 billion of subsidy-driven production which accounts for 75% of cotton subsidies globally. The Chinese production is greater than Mali, Burkina Faso, Chad and Benin which had 300,000, 280,000, 50,000 and 320,000 tons respectively in 2022/2023 (ICAC, 2022). Cotton represents between 8 and 12 percent of GDP and 40 percent of revenues from exports among the C-4 countries. The C-4 countries have demanded the reduction of cotton subsidies in developing countries citing low international prices and inefficiencies in the sector (FAO, 2022).

While the WTO has a mandate to promote free trade, its principle of fairness and inclusivity is likely to conflict with pure economic efficiency. Developing countries cannot compete with developed nations even in products and services in which they hold a comparative advantage forging WTO to facilitate trade agreements to address this problem. The WTO has also come to the realization that trade agreements must factor in the social, political and environmental considerations showing that trade efficiency requires broader goals like sustainability. It is therefore important to note that WTO framework goes beyond the absolute advantage and comparative advantage to address fairness, inclusivity, sustainability and equitable and ethical outcomes.

5. Assumptions and Gaps in the Classical Theories

5.1. Immobility of Factors of Production

The theories of comparative advantage and absolute advantage assume an international trade where labor, capital and production factors are restricted within a nation's border and cannot happen across countries. This was a realistic assumption in the 18th century but globalization has caused countries such as China, Germany and the United States to move their factories abroad. In a global economy, the factors of production are highly mobile. For instance, BMW, Daimler and Volkswagen have in recent past expanded their presence in Europe by having factories in Poland, Hungary, Czech Republic and Romania. As of 2021, Volkswagen Group operations expanded to 114 locations globally with 70 plants for manufacturing of cars producing approximately 40,000 units each day (Volkswagen Group, n.d.). The BMW Group has 8 plants in Germany and other facilities in USA, China and Mexico (BMW, n.d.). Daimler, currently known as Mercedes-Benz Group AG has extended its operations to the United States in Vance Alabama (WTXL). China responded to its trade tension with the United States by moving its manufacturing to Vietnam, Mexico and Cambodia. According to a report by the Financial Times (2024), China announced 41 manufacturing and logistics projects for Mexico and 39 for Vietnam in the year up to March 2024, which is the highest number compared to FDI data recorded since 2000.

Immigrants move across borders with high skills from developing countries to the developed ones despite the stringent immigration policies because of the rising global demand for their skills. According to Word Bank Group Policy Research Working Paper 7852, there were approximately 28 million highly skilled migrants living in The Organization for Economic Cooperation and Development (OECD) countries in 2010, which was a 130% rise since 1990. Immigration laws, visa restrictions and economic cost of migration limit the mobility of labor while economic nationalism limits the mobility of capital. Countries limit foreign ownership of their assets and resources to protect national interests. The classical theories fail to account for the barriers and immobility that causes disruption in modern trade.

5.2. Global Village & National Economic Autonomy

Fundamental logical fallacies exist in Ricardo's and Smith's ideas about economic theory: they fail to consider the nature of economic globalization and integration. Alongside technological advancement, the movement of commodities across borders has led to a "global village," a metaphorical term to describe an interconnected global economy (Fan et al., 2014). Countries cannot be considered in isolation but rather serve as parts of a larger system consisting of a complex web of interconnections between trading participants.

Yet the interconnectedness and interdependence of national economies pose several concerns for governments, businesses, and citizens. The global economy's complex network can increase domestic economies' susceptibility to foreign influences,

such as a trading partner's policy change, undermining national economic autonomy (Whitman, 1977). A prime example is the 2010 China-Japan geopolitical dispute, where China's temporary restriction on rare earth exports disrupted Japan's supply chain, increasing production costs and slowing economic growth (Gholz, 2019). This incident underscores how global economic interconnectedness can impede a nation's ability to meet domestic macroeconomic goals, such as high employment, price stability, and sustainable growth (Whitman, 1977). Furthermore, the openness of economies can weaken the effectiveness of domestic economic stimulus, including fiscal and monetary policies, aimed at promoting national prosperity (Whitman, 1977). Economic integration is often linked with a higher marginal propensity to import (MPM), leading to higher economic leakage.

5.3. Social and Political Unity

International trade should ideally unite countries and improve life standards for people worldwide. After all, market expansion allows for the exchange of goods, services, and ideas through global value chains and digital platforms. In the real world, however, political and social factors—such as differences in trade policies, global poverty, and political philosophy—lead to imbalances in international trade. These differences make an unconstrained free market unfeasible. As Director-General Pascal Lamy notes, “Open markets need social and political cohesion to work, [... but] free markets, left unconstrained, soon undermine this cohesion” (WTO, 2011). Free markets prioritize profit over people and social equality (Depersio, 2022). While free markets encourage innovation, efficiency, and competition, these aspects come at the cost of social equality and community. Workers and capital migrate to regions where the rate of profit is higher, not where productivity flourishes or where people feel at home (WTO, 2011). Some individuals may benefit from the opportunities created by a free market, but others may be excluded, creating social tensions. Those who are adversely affected often respond by supporting protectionist policies or voting for populist leaders, both of which further undermine social and political cohesion (WTO, 2011).

As demonstrated, contrary to the popular connection between free trade and laissez-faire, free trade can only exist in the confines of the rule of law, order, and equity, all of which are enacted and developed through governmental intervention in different factors of the economy that regulate trade (Kindleberger, 1978). The early 1800s Britain, for example, demonstrates the complex relationship between open economy and government regulation (Kindleberger, 1978). During that time, the nation seemed to be moving toward free and open trade with a series of trade restrictions, such as the Corn Laws and Navigation Acts, being repealed. However, this economic liberalization was accompanied by greater government involvement in other aspects of the economy, such as the conditions of employment and employee welfare.

Ultimately, the functioning of international trade depends on law and order.

States thus play a fundamental role in promoting cross-border trade by adopting relevant measures and cooperating with regional and international trade organizations—such as the Common Market for Eastern and Southern Africa, the European Union (EU), and the WTO—to provide a conducive but regulated environment for businesses to thrive (Soprano, 2014).

6. Function of Trade Barriers

Governments implement trade barriers for various reasons. However, the most notable reason is protectionism, an economic policy that aims to control the level of international trade in a country to protect domestic industries from foreign competition (Carter, 2015). Protectionism can be achieved through tariffs, quotas, and subsidies. It is motivated by national security, supply chain resilience, economic growth, goal to nurture new industries, correcting trade imbalances, protection of strategic industries and environmental or ethical considerations.

6.1. Domestic Industry and National Security

The United States, in a bid to protect its manufacturing industry and national security, in 2018 imposed tariffs on steel and aluminum imports from China, under Section 232 of the Trade Expansion Act of 1962 (Morgan, 2022). The United States further instituted sanctions on Chinese companies Huawei and Semiconductor Manufacturing International Corporation (SMIC) in 2020 to protect U.S. technology and intellectual property rights and to enhance national security measures since semiconductors are important in military infrastructure. In the semiconductor industry, protectionism has taken three forms; export controls, subsidies and investment screening. The United States has restrictions on the advanced chip exports to China. The US Creating Helpful Incentives to Produce Semiconductors for America (CHIPS) Act provides government funding through subsidies. The US government also implemented investment screening to limit foreign acquisition of domestic semiconductor companies. Without the U.S. trade bans and sanctions, companies that rely on Chinese semiconductors would help perpetuate Chinese tech companies' unfair edge in the global market (Zhu, 2022).

In renewable energy-solar panels industry, China dominates this market due to low-cost manufacturing and economies of scale. The US focuses on innovative production of the solar panels using high efficiency cells. US has imposed tariffs to protect domestic manufacturers. However, this has led to the increased cost for consumers impacting the adoption of renewable energy.

In the automotive industry, Germany and Japan have been dominating in engineering and manufacturing of high-quality vehicles. The US has majored on Sports Utility Vehicles (SUVs) and trucks with low-cost assembly happening in Mexico. The US government created the North American Free Trade Agreement (NAFTA) and the United-States-Mexico-Canada USMCA to balance cost efficiencies with domestic interest of preserving jobs (Columbia Law School, 2022). The example of the automotive industry highlights the tension between

maintaining efficiency in the global trade and the political pressure to protect national interest.

As seen in these examples, strategic industries like semiconductors, solar panels and automotive industry often require protectionism for national security reasons. National security is the defense of a sovereign state including its economy, institutions, and citizens. Comparative advantage assumes perfect markets which are undermined by state-driven policies aimed at protecting citizens, economy and domestic institutions. Policies like CHIPS Act show the constant attempt by governments to provide a hybrid strategy that combines protectionism with long-term comparative advantage. While it boosts the US economy by maintaining manufacturing of semiconductors onshore, the CHIPS ACT also offers cost efficient opportunities to bolster a resilient supply chain and gain competitive advantage.

6.2. Geopolitics and Global Trade

Trade barriers can also serve as political tools, used to state their displeasure with the conduct of other countries or to initiate economic hardship in the country, thereby limiting its aggression capabilities. For example, in response to the continued Russian aggression toward Ukraine, various countries have imposed sanctions on Russian products. In 2014, when Russia annexed Crimea, the EU and the US imposed sanctions, upheld by the Court of Justice of the European Union (CJEU) as necessary for maintaining international peace and security. These sanctions targeted key sectors of the Russian economy, including energy, finance, and defense, while Ukraine and other countries-imposed trade restrictions on Russian products, such as food and agricultural products. These combined measures sought to apply economic pressure, signal disapproval of Russia's actions, and isolate Russia economically and politically.

Following Russia's recent invasions of Ukraine, the EU, US, and other countries have imposed various sanctions on Russia (Biden, [Executive Order 14068](#)). These sanctions fall into six categories: asset freezes targeting individuals like president Putin and Russian business and political elites; blocking Russian financial institutions and limiting their transactions with foreign financial institutions; measures against the Russian energy sector, including a US ban on oil imports from Russia; limitations on the supply of essential commodities and technologies to curb Russia's military build-up; travel bans on Russian airlines; and the suspension of operations by multinational corporations such as Apple, McDonalds, and Mastercard. These sanctions have led to job losses, reduced income, and limited access to commodities, and significant revenue loss for the Russian government.

6.3. Environmental Concerns

Certain situations, especially those involving finite resources, highlight the need for these measures. Unchecked exploitation, for instance, can lead to resource depletion. The international black market exemplifies this, being a major driver of illegal

activities (e.g., poaching) that threaten endangered species. The Asian rhino horn market, contributing largely to the decline of African rhino populations, is a prime example. Environmental degradation may also occur when a foreign country depletes minerals from the host country without offering an equitable share of the ensuing profits. A good example is the case of *Nauru v. Australia*. In 1989, Nauru accused Australia of allowing phosphate mining without proper environmental safeguards (*Nauru v. Australia* 240). The International Court of Justice (ICJ) agreed, ruling that Australia, as the former colonial power, had breached its fiduciary duty to prevent environmental harm, leaving 80% of Nauru inhabitable and unsuitable for agriculture. Many countries, especially in the Caribbean and Africa, face similar situations due to overexploitation by former colonial powers, underscoring the need for international trade guidelines for free and fair international trade.

EU CBAM

Another situation that highlights the need for stringent measures, includes global warming. For example, the European Union Carbon Border Adjustment Mechanism (CBAM) was established to analyze the environmental cost of imports and encourage sustainable production across the globe. The CBAM is a policy tool aimed at reducing the carbon emissions while improving competitiveness in of EU products. It is the first carbon border adjustment implemented using the legal framework of the international market hence affecting products from the entire globe. The incorporation of environmental economics in trade policies leads to sustainable trade that mitigates the adverse effects of globalization omitted in classical economic theories.

The EU CBAM potential impact on developing countries is the challenge of export dependency. Developing countries export CBAM-covered good like cement and steel hence are likely to face higher cost and reduced competitiveness position the global market. The policy is likely to reduce market access for developing countries since EU importers may be discouraged by carbon tariffs. Developing countries often lack Measurement, Reporting and Verification (MRVs) resources for emissions, hence are likely to face trade barriers because of non-compliance (*Magacho, Espagne, & Godin, 2024*). Moreover, the additional cost of compliance and decarbonization could be unattainable for small-scale producers competing with larger and more efficient exporters in the developed nations.

The developing countries can counter these disadvantages by promoting green industry, strengthening institutional capacity and engaging in negotiations through cooperation (*Magacho, Espagne, & Godin, 2024*). Developing nations can shift focus from raw material exports to less carbon-intensive goods and services. This can happen through green industries such as renewable energy, sustainable agriculture and green manufacturing to reduce overreliance on carbon-intensive exports. Promoting green industries involves leveraging the already existing Green Climate Fund to promote cleaner production. Partnerships with developed countries can help developing nations adopt low-carbon production or manufacturing. Developing countries also need robust MRV systems to help in integration

with CBAM which can be obtained through regional and global corporations. Corporations help to push for support such as financial aid and technical assistance needed to comply with CBAM.

7. A Multidisciplinary Approach to International Trade

A critical view of the absolute advantage and comparative advantage shows that the classical economic theories do not fully incorporate insights from other disciplines. To fully comprehend the complex realities in modern trade, economists must include insights from other disciplines including political science, sociology and environmental studies. Geopolitical dynamics show how trade happens within alliances, conflicts and power asymmetries. Trade agreements are influenced by geopolitical interests that define stability and fairness in the global market. Policy makers consider the cultural and social impacts of trade when implementing measures to mitigate inequality and displacement. Trade also affects social structures including consumption patterns and labor markets that should be factored in economic theories. Environmental studies provide tools for analyzing the ecological footprint of trade. Lobby groups interested in environmental protection call for more sustainable practices, forcing countries and economic regions to include environmental standards in their global trade agreements. The multidisciplinary approach calls for a more comprehensive framework than comparative advantage and absolute advantage.

7.1. Towards a More Comprehensive Framework

7.1.1. Dynamic Comparative Advantage

Acknowledging shifts in competitiveness of countries is the best approach in analyzing international trade. While the classical models assume a static advantage, a country's trade strength is dynamic because of evolving technological, political and educational factors. For instance, South Korea, formerly an agrarian economy transitioned to electronics and automobiles in the 1960 because of investments in technology and education. In 1960, 68.3% of the of the South Korean workforce depended on forestry, fishery and agriculture with only 1.5% on manufacturing (Chaudhuri, 1996). The government passed the Electronics Industry Promotion Law in 1969 and announced a series of basic plans for electronics industry development. The plans included set targets to be achieved, problems and weaknesses and the implementation of coordinated policies and strategies. The government formed a multiagency team including Korean Institute of Electronic Technology and Fine Instrument Centre to help in the implementation of the expansionary policies. By 2022, agriculture was 5.43%, industry 24.46 and services 70.11% of the South Korean workforce (O'Neill, 2024). The political, technological and educational factors in South Korea were responsible for the transition to electronic and mobiles leading to a shift in the country's competitiveness.

Brazil is the third largest manufacturer of civilian aircraft because of organic growth, not comparative advantage in aviation. Its emergence as an aircraft

manufacturer is based on visionary policy, investment in education and the development of “Empresa Brasileira de Aeronáutica” EMBRAER, a global leader in the aviation industry. EMBRAER was established by Decree Law 770 of August 19, 1969, after which the Brazilian president approved its charter (Maculan, 2013). The state support, a competent regulatory regime, demand for military airplane and the advancing innovative capacity of EMBRAER enabled Brazil to thrive in the aircraft manufacturing sector. Brazil did not have a pre-existing specialization in aerospace which requires advanced engineering, cutting-edge technology and high skilled labor force. It resulted from targeted government policies that built capability in a high-technology and capital-intensive industry.

The shifting competitiveness of countries in global trade gives policy makers opportunity to create policies that foster long-term industrial growth rather than depending entirely on historical strength.

7.1.2. Strategic Trade Theory

The case for a strategic trade policy arises from the fact that trade is a positive-sum game carried out for the mutual benefit of countries. It arises from industrial organization theorists who believe that firms move strategically, which means they take actions that do not directly increase profits but make aggressive competition credible to deter the potential rivals (Brander & Spencer, 1981; Spencer & Brander, 1983). The strategic trade theory considers the government’s role in nurturing industries with the potential of achieving technological leadership and economies of scale (Örgün, 2012). For instance, the US government supports its aerospace industry to help it maintain its dominance on the global market. China provides subsidies to its renewable energy industry to help it maintain the leading position in green technology. Strategic trade theory implies that government policies help countries compete in high value industries. However, the government must balance protectionism with global competitiveness in the long term.

Although strategic theory assumes that the government effectively picks industries that deserve support and design efficient policies, governments make mistakes that can lead to inefficiency. For instance, the findings of Kim (2023) on the role of trade policy in the market power of producers highlight spillover effects across destinations and times. The US semiconductor export control raises input costs of semiconductor production because of concentrated input production. Besides the interruption of trade between China and US, American producers face high delivery costs to all countries. Consequently, the government controls interrupt the technological advances of the local producers as production experience decreases.

The European Union Common Agricultural Policy (CAP) has been criticized for fostering inefficiency through its subsidies and guaranteed prices given to local producers. Overdependence of subsidies leads to complacency and inefficiency that undermines the original purpose of the subsidies. Biagini, Antonioli, & Severini, (2023) study of individual farm data from Germany, United Kingdom,

Poland, Spain, Italy and France between 2008 and 2018 confirms how CAP negatively impacts total factor productivity which is a key determinant of farm development. IMF's analysis of CAP's income distribution in 1988 found that redistributing income through price support to farmers is inefficient. The analysis shows that dismantling CAP would reduce consumer prices by 1.75%, increase the aggregate employment by 5.5% and raise the GDP by 3.5%. The study recommends moving away from price support to a market-oriented solution (*International Monetary Fund, 1988*).

8. Conclusion

The present paper has discussed various perspectives related to international trade, focusing on the interaction of classical economic theory with modern international trade realities. Key findings suggest that, whereas the classical theories of absolute and comparative advantage introduce the foundational insight into the benefits derived from trade, they are nevertheless insufficient to provide answers to more complex issues imposed by trade barriers and global economic dynamics. The study noted that trade barriers, such as tariffs and subsidies, are used to protect domestic industries, safeguard sovereignty, or promote broader policies, especially those with a political or environmental tint, but almost always undermine economic efficiency and distort world markets. Case studies like the U.S.-China trade tensions and the CBAM of the European Union illustrate that these policies represent priorities extending well beyond pure economic optimization.

The analysis also showed that dynamic comparative advantage and strategic trade theory provide a more complete paradigm against which modern trade can be analyzed. These theories encapsulate changing competitiveness due to technological, geopolitical, and environmental reasons and give policymakers instruments with which to balance short-term protectionism with long-term global competitiveness.

These findings have major implications. In so doing, for the policymakers, this multidisciplinary perspective toward trade gives them a far better understanding of protectionism and makes sure that their trade policies are equitable and sustainable, hence matching with general social objectives. From the viewpoint of global trade, it hints at international cooperation toward reducing inequities and increasing inclusiveness, balancing national interests with stability in the world economy. It therefore encourages frameworks that go beyond classical theories in a position to handle international trade complexities more realistically.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Andrew Carter (2015). Rhino Poaching and the Illegal Wildlife Trade: A Global Perspective. *Environmental Law Review*, 15, 25.

- Biagini, L., Antonioli, F., & Severini, S. (2023). The Impact of CAP Subsidies on the Productivity of Cereal Farms in Six European Countries: A Historical Perspective (2008-2018). *Food Policy*, 119, Article 102473. <https://doi.org/10.1016/j.foodpol.2023.102473>
- BMW Group (n.d.). *BMW Global Production Network: Locations*. <https://www.bmwgroup.com/en/company/locations.html>
- Brander, J. A., & Spencer, B. J. (1981). Tariffs and the Extraction of Foreign Monopoly Rents under Potential Entry. *The Canadian Journal of Economics*, 14, 371-389. <https://doi.org/10.2307/134894>
- Chaudhuri, S. (1996). Government and Economic Development in South Korea, 1961-79. *Social Scientist*, 24, 18-35. <https://doi.org/10.2307/3520100>
- Columbia Law School (2022). *International Trade Law: Research Guide*. <https://guides.law.columbia.edu/c.php?g=1221777&p=8949905>
- DePersio, G. (2022). *Command Economy: Advantages and Disadvantages*. <https://www.investopedia.com/ask/answers/032515/what-are-advantages-and-disadvantages-command-economy.asp>
- Executive Order 14068 (2022). *Prohibiting Certain Imports, Exports, and New Investment with Respect to Continued Russian Federation Aggression*.
- Fan, Y., Ren, S., Cai, H., & Cui, X. (2014). The State's Role and Position in International Trade: A Complex Network Perspective. *Economic Modelling*, 39, 71-81. <https://doi.org/10.1016/j.econmod.2014.02.027>
- FAO (2022). *The Cotton-4 (C-4) Countries in the Context of the Global Cotton Market: Situation and Short- and Medium-Term Outlook*. Food and Agriculture Organization of the United Nations.
- Financial Times (2024). Chinese Businesses Target Vietnam and Mexico as Trade Tensions with US Rise. <https://www.ft.com/content/ede919f5-0d3e-43e5-8ef9-407a17551bb9>
- Gholz, E. (2019). *Market Structure and Economic Sanctions: The 2010 Rare Earth Elements Episode as a Pathway Case of Market Adjustment*. ND International Security Center. <https://ndisc.nd.edu/news-media/news/article-market-structure-and-economic-sanctions-the-2010-rare-earth-elements-episode-as-a-pathway-case-of-market-adjustment/>
- Hopewell, K. (2024). Global Power Shifts and the Cotton Subsidy Problem: How Emerging Powers Became the New Kings of Cotton Subsidies. *Global Studies Quarterly*, 4, ksae012. <https://doi.org/10.1093/isagsq/ksae012>
- ICAC (2022). *Production and Trade Subsidies Affecting the Cotton Industry*. International Cotton Advisory Committee.
- International Monetary Fund (1988). *The Common Agricultural Policy of the European Community: Principles and Consequences*. <https://www.elibrary.imf.org/view/book/9781557750365/ch001.xml>
- Kim, H. (2023). *It's Worse than You Think: On the Consequences of the Chip Wars for US Semiconductor Production*. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4966801
- Kindleberger, C. (1978). Government and International Trade. *Essays in International Finance*, No. 129, 1-17. <https://ies.princeton.edu/pdf/E129.pdf>
- Maculan, A. M. (2013). Embraer and the Growth of the Brazilian Aircraft Industry. *International Journal of Technology and Globalisation*, 7, 41-59. <https://doi.org/10.1504/ijtg.2013.052030>
- Magacho, G., Espagne, E., & Godin, A. (2024). Impacts of the CBAM on EU Trade Partners: Consequences for Developing Countries. *Climate Policy*, 24, 243-259. <https://doi.org/10.1080/14693062.2023.2200758>

- Morgan, S. (2022). *Retaliatory Tariffs Reduced U.S. States' Exports of Agricultural Commodities*. Economic Research Service, U.S. Department of Agriculture. <https://www.ers.usda.gov/amber-waves/2022/march/retaliatory-tariffs-reduced-u-s-states-exports-of-agricultural-commodities>
- Nauru v. Australia (Judgment) (1992). ICJ Rep 240. <https://jusmundi.com/en/document/decision/en-certain-phosphate-lands-in-nauru-nauru-v-australia-judgment-preliminary-objections-friday-26th-june-1992>
- O'Neill A. (2024). *South Korea: Employment by Economic Sector 2020*. <https://www.statista.com/statistics/604702/employment-by-economic-sector-in-south-korea/>
- Örgün, B. O. (2012). Strategic Trade Policy versus Free Trade. *Procedia-Social and Behavioral Sciences*, 58, 1283-1292. <https://doi.org/10.1016/j.sbspro.2012.09.1111>
- Soprano, C. (2014). A Step Toward Formalization: The Charter for Cross-Border Traders. World Bank Blogs. <https://blogs.worldbank.org/en/trade/step-toward-formalization-charter-cross-border-traders>
- Spencer, B. J., & Brander, J. A. (1983). International R & D Rivalry and Industrial Strategy. *The Review of Economic Studies*, 50, 707-722. <https://doi.org/10.2307/2297771>
- UNCTAD (2013). Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries. https://unctad.org/system/files/official-document/ditctab20121_en.pdf
- Volkswagen Group (n.d.). *Volkswagen Group Production Locations*. Volkswagen Newsroom. <https://www.volkswagen-newsroom.com/en/production-and-locations-3695>
- Whitman, M. N. (1977). Sustaining the International Economic System: Issues for U.S. Policy. *Essays in International Finance*, No. 121, 1-54. <https://ies.princeton.edu/pdf/E121.pdf>
- World Bank (2016). *The Changing Dynamics of Skilled Migration and ITS Implications for Development*. Policy Research Working Paper No. 7852. <https://documents1.worldbank.org/curated/en/793861475694096298/pdf/WPS7852.pdf>
- World Trade Organization (2011). *Address by WTO Director-General*. https://www.wto.org/english/news_e/sppl_e/sppl194_e.htm
- Zhu, J. (2022). *Exclusive: China Relying \$143 Billion Package for Its Chip Firms in the Face of U.S. Curbs*. Reuters. <https://www.reuters.com/technology/china-plans-over-143-bln-push-boost-domestic-chips-compete-with-us-sources-2022-12-13>