**International Journal of Environmental Sciences**
ISSN: 2229-7359
Vol. 11 No. 22s, 2025
https://www.theaspd.com/ijes.php

# Examining the role of international trade and monetary policies in developed and developing countries

**Parth Gupta**
Independent researcher, India, pargupta2303@gmail.com

***Abstract***

*This paper explores the dynamic and multifaceted roles of international trade and monetary policy in shaping the economic trajectories of both developed and developing nations. Drawing from empirical evidence and recent global events, the study investigates how trade liberalization, participation in global value chains (GVCs), and exchange rate management have contributed to growth, poverty reduction, and economic resilience, while also exposing structural vulnerabilities and exacerbating inequalities. In developing economies, trade integration has driven export growth and industrialization but has also increased dependence on volatile commodity markets and external monetary shocks. Meanwhile, developed nations, while benefiting from global trade through technological and market expansion, have faced rising inequality and political backlash due to deindustrialization and protectionist sentiment. The paper also examines how central banks' monetary decisions influence trade competitiveness and capital flows, particularly in the context of global crises, inflation, and currency volatility. Furthermore, the analysis incorporates the impact of geopolitical tensions, climate-related disruptions, and environmental policy shifts, which have redefined global trade dynamics and posed new challenges for coordinated economic policymaking. The paper concludes with policy recommendations emphasizing inclusive growth, sustainable trade practices, and enhanced global cooperation.*

## INTRODUCTION

In an increasingly interconnected world, international trade and monetary policy have emerged as two of the most influential levers shaping global economic trajectories. Trade liberalization, financial integration, and evolving geopolitical dynamics have fundamentally altered the way economies interact with one another. While developed nations often use these tools to maintain their competitive edge, developing countries rely on them as vehicles for growth, poverty alleviation, and structural transformation. However, the effectiveness of these instruments varies markedly depending on a country's economic structure, institutional capacity, and integration into the global economy.

International trade plays a pivotal role in fostering economic development by expanding market access, facilitating technology transfer, and promoting specialization. For developing countries, open trade regimes have often been associated with increased productivity, employment generation, and poverty reduction. Examples from East Asia and Latin America underscore how export-oriented growth can significantly uplift national incomes. However, these benefits are not without challenges—many developing nations remain overly reliant on commodity exports, making them vulnerable to price shocks and global market volatility. Conversely, developed countries leverage trade to enhance technological leadership and access new markets but also face domestic pressures from deindustrialization and job losses, prompting a resurgence of protectionist policies.

Monetary policy, traditionally aimed at ensuring price stability, has increasingly taken on broader economic roles, particularly in developing economies. Through tools such as interest rate manipulation and exchange rate adjustments, central banks influence export competitiveness, inflation, and capital flows. While developed economies maintain independent and inflation-targeting regimes, many developing countries pursue "developmental central banking"—a dual mandate that supports economic growth alongside macroeconomic stability. This often involves channeling credit to strategic sectors or using monetary tools to manage exchange rate volatility, albeit at the risk of inflationary pressures or financial imbalances.

The interplay between trade and monetary policy is particularly significant in the current global context. Exchange rate fluctuations can amplify or dampen trade competitiveness, while monetary policy decisions in

major economies (such as U.S. Federal Reserve rate hikes) have spillover effects on emerging markets through capital flow reversals and currency depreciation. These dynamics underscore the asymmetric vulnerabilities faced by developing nations and the need for coordinated global policy responses.

In recent years, the global economy has been shaken by a series of unprecedented events—including the COVID-19 pandemic, the Russia-Ukraine war, the resurgence of trade protectionism, and climate-related shocks—that have exposed deep vulnerabilities in both global trade systems and monetary frameworks. These disruptions have not only impacted cross-border commerce and financial stability but have also triggered a rethinking of globalization, supply chain resilience, and the balance between national sovereignty and international cooperation.

Moreover, the growing emphasis on environmental and sustainable policies adds another layer of complexity to the role of trade and monetary policy. While green transitions promise long-term gains, they entail short-term economic adjustments and policy trade-offs—particularly acute for developing countries with limited fiscal space and institutional capacity.

This paper aims to examine the multifaceted role of international trade and monetary policies in shaping economic outcomes across developed and developing countries. It critically explores the historical evolution, comparative impacts, and recent shifts in these policy domains while drawing attention to the interconnectedness of macroeconomic strategies, geopolitical tensions, and sustainability imperatives. Through empirical insights and policy analysis, the study seeks to offer nuanced recommendations for leveraging trade and monetary policy as engines of inclusive, stable, and sustainable economic growth.

## LITERATURE REVIEW

### International Trade and Development: A Complex Relationship

The relationship between international trade and development is complex and varies across different countries. Harrison and Rodríguez-Clare (2009) examine government interventions in developing countries, questioning the effectiveness of aggressive measures like heavy subsidies or high tariffs. They argue that "softer" approaches—such as improving infrastructure and fostering cooperation among businesses—are more likely to solve market issues without causing major disruptions.

The IMF (2001) emphasizes that trade integration has been a key factor in economic growth and poverty reduction. Countries like China and India that have opened their markets to trade have seen significant economic improvements. Between 1990 and 2017, global poverty dropped from 36% to 9%, with trade helping lift about one billion people out of poverty (World Bank, 2023). During this period, developing countries' share of global exports grew from 16% to 30%, signaling deeper integration into the global economy.

However, these benefits are not evenly distributed. While some developing nations have successfully integrated into the global market, others, particularly in Africa and the Middle East, have faced challenges due to structural issues, the legacy of colonization, weak policies, and trade barriers (IMF, 2001). Hoekman (2008) highlights that despite efforts to reduce trade restrictions, barriers like tariffs and non-tariff measures still create significant obstacles for low-income countries, limiting their competitive edge in global trade.

### Trade Dynamics Between Developed and Developing Countries

Trade relationships between developed and developing countries reveal fundamental imbalances. Many developing countries remain heavily dependent on the export of raw materials, leaving them vulnerable to price volatility and economic instability (Allais et al., 2025). On the other hand, manufactured goods, typically exported by developed nations, have more stable prices, placing developing economies at a disadvantage and constraining their growth potential.

Efforts to stabilize commodity prices and regulate production have been attempted but have not provided lasting solutions for developing economies (Allais et al., 2025). The World Trade Organization (WTO), particularly after the 1999 Seattle protests, has been criticized for supporting trade policies that undermine environmental standards, labor rights, and national sovereignty in developing countries, which further complicates the global trade landscape.

**The Role of Financial Liberalization and Monetary Policy**

The impact of financial liberalization in developing countries remains a point of contention. Obstfeld (2009) investigates the effects of capital mobility and finds that financial liberalization does not always lead to significant improvements in economic growth. He warns that opening up financial markets can expose developing countries to increased risk, as seen during the 1990s Asian financial crisis. For financial globalization to be effective, countries need strong institutions and sound policies; without these, the risks can outweigh the potential benefits.

Monetary policy in developing countries also produces mixed results. Daoui (2023) notes that traditional economic models tend to focus on central banks in developed countries and neglect the unique circumstances of developing economies. Various factors—such as the financial health of central banks, their political independence, and market rigidities—determine the effectiveness of monetary policies in these countries.

Some studies suggest that monetary policy has limited impact on economic outcomes, while others indicate that it plays a crucial role in fostering growth (Daoui, 2023). This suggests that the effectiveness of monetary policy depends on the country-specific context, including the specific measures taken and the broader economic environment.

**Trade Facilitation and Domestic Policy Environment**

Domestic factors often play a more significant role in shaping trade outcomes than traditional border measures. Hoekman (2008) argues that administrative procedures, regulatory frameworks, and logistical issues can sometimes impede trade more than tariffs and quotas. Improvements in trade facilitation, such as streamlined customs procedures, better infrastructure, and clearer regulations, could have a greater impact on trade performance for developing countries than merely reducing tariffs.

Research supports the view that participation in Global Value Chains (GVCs) allows developing countries to specialize in certain production stages, leading to faster productivity growth (World Bank Group, 2023). However, to maximize these benefits, countries must adopt policies that facilitate market integration, invest in infrastructure, and ensure that trade benefits are widely distributed and sustainable.

**Synthesis and Gaps in the Literature**

The existing literature paints a complex picture of the effects of international trade and monetary policies on economic development. While trade liberalization has contributed to poverty reduction and economic growth, its benefits are unevenly distributed, with certain regions and countries reaping fewer rewards. Likewise, the impact of financial liberalization and monetary policy interventions is mixed, often depending on the country's institutional strength and policy coherence.

There are several gaps in the research that need attention. First, the role of digital technology in reshaping global trade patterns is underexplored, particularly concerning how it affects developing countries. Second, the intersection of trade policies and environmental sustainability requires more analysis, especially as global climate change increasingly influences economic decision-making. Finally, more research is needed to understand how specific combinations of trade, financial, and monetary policies can be integrated to create optimal development outcomes in diverse contexts.

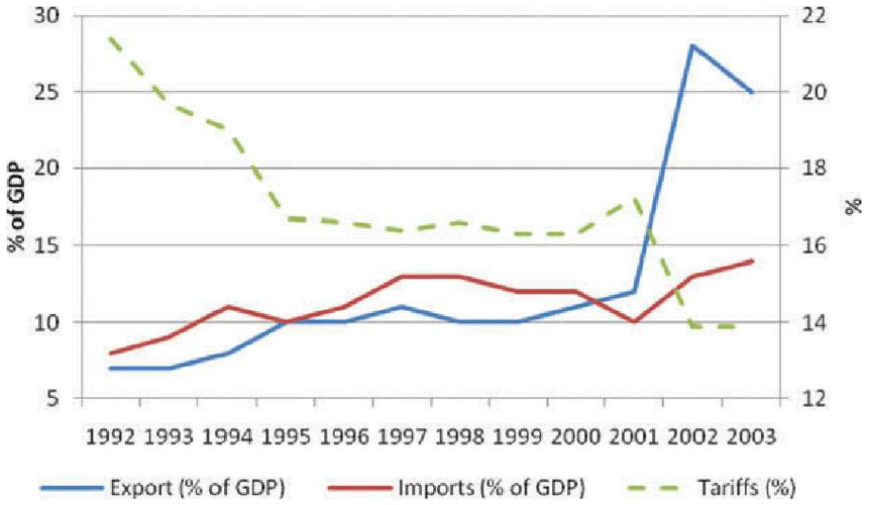
**Background**

Trade liberalization has played a key role in shaping international trade dynamics, driving productivity growth and economic expansion across regions, with lower tariffs and free trade agreements enabling access to global markets, technology transfer, and foreign investment (World Bank, 2023). This pattern has been particularly

evident in rapidly growing economies across Asia and Latin America over recent decades ("Trade and Economic Development" n.d.).

Figure 1. Trade openness (exports and imports, as a share of GDP) and average ad valorem tariff evolution. Source: Galiani and Porto (2010); World Development Indicators (2009).

The above graph shows a steady decline in tariffs from 1992 to 2003, alongside a gradual increase in imports




and a sharp rise in exports after 2001. This suggests that trade liberalization policies likely boosted international trade, with exports experiencing a significant surge as tariffs dropped.

However, the benefits of trade liberalization have not been uniformly distributed. Many developing countries remain heavily reliant on tariffs for government revenue and vulnerable to global price shocks, particularly in commodity markets (Tarawalie & Kpana, 2022). This vulnerability was starkly illustrated during the COVID-19 pandemic (2020-2022), which triggered the largest global economic crisis in decades, with global GDP falling by 3-3.4% and commercial trade dropping by 7% (Gagnon, Kamin, & Kearns, 2023). The pandemic caused major supply chain disruptions that led to shortages, price volatility, and contributed significantly to the subsequent global inflation surge of 2021-2023 ("World Bank Group", 2022).

**Global Value Chains and Development Disparities**

The emergence of Global Value Chains (GVCs) has fundamentally altered the structure of international trade, allowing developing countries to participate in specific segments of production processes. While this has enabled specialization and access to foreign technology, many developing nations remain confined to low-value exports such as raw materials and basic manufacturing components, limiting their long-term growth potential. In contrast, developed economies have used GVCs to enhance their competitiveness in high-value

sectors like technology and pharmaceuticals, though not without domestic consequences such as manufacturing job losses that have fueled protectionist sentiments (World Bank, 2023).

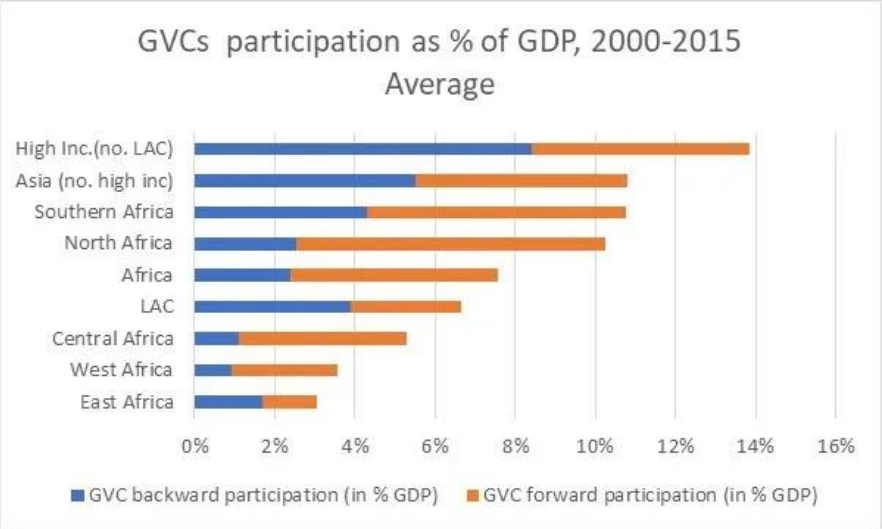



Figure 2. GVCs participation as % of GDP between 2000-2015 in different geographic and economic regions.
Source: OECD Development Matters (2022).

The graph supports this argument by showing that high-income countries have significantly higher participation in GVCs, particularly through backward GVCs, where More Economically Developed Countries (MEDCs) import materials to manufacture higher-value goods. In contrast, Less Economically Developed Regions often participate in forward GVCs, exporting lower-value materials used in production elsewhere. This illustrates the limited role that developing nations play in higher-value stages of global production.

This divergence has been aggravated by the increasing use of subsidies by advanced economies to secure strategic sectors, particularly in green technologies. Such policies often disadvantage developing nations that lack the fiscal resources to implement comparable support measures, potentially widening existing economic disparities (World Bank, 2023).

**Monetary Policy and Trade Dynamics**

Central bank decisions on interest rates directly affect exchange rates, creating complex interactions between monetary policy and trade competitiveness. A stronger currency resulting from **tightening monetary policy** typically lowers import costs but harms export competitiveness, as demonstrated by trade dynamics in the Eurozone (Zorzi et al., 2020). For developing nations, exchange rate management presents a delicate balance—currency depreciation may boost exports but risks inflation and higher import costs, as observed in countries like Sierra Leone where trade balances are highly sensitive to exchange rate fluctuations (Tarawalie & Kpana, 2022).

The global financial architecture has created additional asymmetries. Monetary policies in major economies, particularly Federal Reserve rate decisions, trigger significant **capital flows and currency adjustments** in developing nations, often disrupting their trade balances independent of domestic policy choices. This phenomenon is amplified by **dominant-currency pricing**, particularly in U.S. dollars, which transmits monetary policy effects across borders (Zorzi et al., 2020).

**Recent Geopolitical Disruptions**

The global economic landscape has been further complicated by major geopolitical events in recent years. The Russia-Ukraine War (2022-present) severely disrupted global energy markets and food supply chains, contributing to inflation pressures and economic uncertainty. As major grain exporters, Russia and Ukraine's

conflict led to food insecurity in many countries and triggered a reconfiguration of global supply chains (Dieckelmann et al., 2024).

| **Major Events (Past 5 Years) Impacting the Global Economy** | |
|---|---|
| Event | Economic Impact |
| COVID-19 Pandemic | Global recession, job losses, supply chain disruptions, inflation surge |
| Russia-Ukraine War | Energy and food price shocks, global slowdown, inflation |
| Global Inflation Surge | Central bank rate hikes, cost of living crisis |
| US-China Trade Tensions | Disrupted tech/manufacturing supply chains, "decoupling" trends |
| Rise in Protectionism | Fragmented trade, slowed global trade growth |
| Climate Change Events | Agricultural disruption, infrastructure damage, rising insurance costs |
| Political Instability | Investor uncertainty, policy volatility, rise of populism |

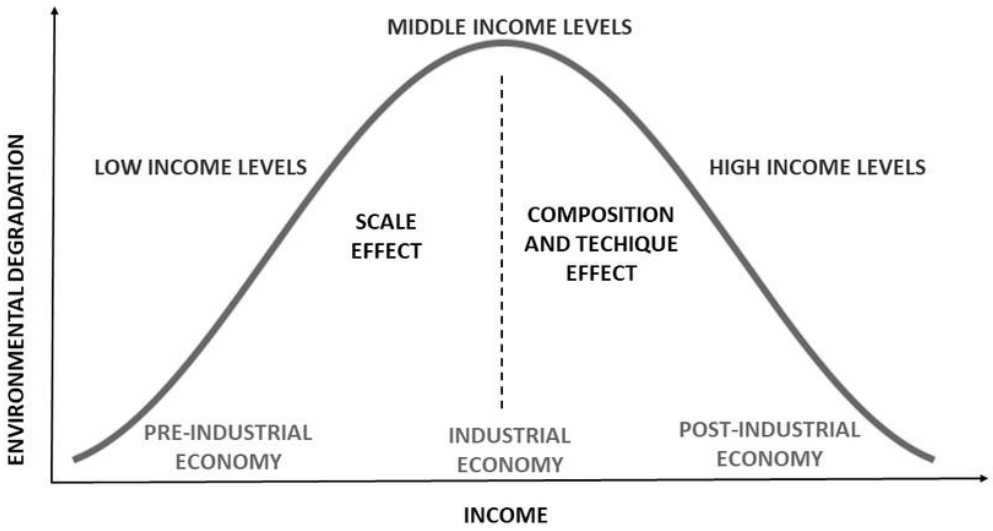
Table 1. Major Events (Past 5 Years) Impacting the Global Economy

Simultaneously, escalating US-China trade and technology tensions have disrupted established trade patterns, with both nations imposing tariffs and **export controls**, particularly in strategic sectors like semiconductors. This rivalry has accelerated the trend toward economic "decoupling" and forced businesses worldwide to adapt to new trade barriers and supply chain constraints (Council on Foreign Relations, 2025).

**Climate Change and Sustainable Policy Considerations**

Environmental and sustainable policies have emerged as additional factors influencing trade and economic growth patterns. While developed countries can generally absorb the short-term costs of transitioning to greener economies, developing nations often face sharper trade-offs between immediate economic needs and long-term sustainability goals. The **Environmental Kuznets Curve** suggests that as countries grow wealthier, they can afford cleaner technologies and stricter environmental policies (Čábelková, Smutka, Mareš, Ortikov, & Kontsevaya, 2023), but this transition presents particular challenges for developing economies with limited institutional capacity and resources ("Environmental Policy for Developing Countries," 2002).

Figure 3. Graph Illustrating Environmental Kuznets Curve




Source: Mitic et al. (2019, p. 115).

Climate change itself has become a direct economic factor through increasingly frequent and severe weather events that disrupt agriculture, infrastructure, and supply chains. These disruptions have contributed to food and energy price volatility, affecting inflation and economic stability worldwide, with disproportionate impacts on developing regions (Ludwig et al., 2007).

| | Short Term Impact | | Long Term Impact | |
|---|---|---|---|---|
| **Aspect** | **Developed Countries** | **Developing Countries** | **Developed Countries** | **Developing Countries** |
| Economic Growth | - Often experience slower growth or higher costs as industries adjust to new regulations (e.g., higher production costs, compliance expenses).<br>- Some sectors (like fossil fuels) may shrink, leading to job losses. | - Face even greater short-term economic strain due to limited resources and institutional capacity.<br>- Higher costs can slow industrialization and poverty reduction efforts.<br>- Immediate needs (jobs, food, infrastructure) are often prioritized over environmental goals. | - Environmental policies can drive innovation, leading to new industries (e.g., renewables, green tech) and long-term growth.<br>- Healthier environment reduces healthcare costs and increases productivity.<br>- The Environmental Kuznets Curve (EKC) suggests that after a certain income level, | - Long-term benefits depend on successful integration of sustainability into development (e.g., sustainable agriculture, forestry).<br>- Can reduce vulnerability to climate change and disasters, supporting stable growth.<br>- If policies are well-designed and supported (e.g., with international |

| | | | | |
|---|---|---|---|---|
| | | | growth and environmental quality can improve together. | aid, technology transfer), they can help break the cycle of poverty and environmental degradation. |
| Business Response | - Firms may initially resist, but often begin investing in cleaner technologies to comply with regulations. | - Businesses may struggle to afford new technologies or processes, risking closure or reduced competitiveness. | - Firms that adapt early may become global leaders in green technology.<br>- New markets and export opportunities in sustainable products. | - With support, local businesses can access new markets (e.g., certified sustainable products).<br>- Risk of being left behind if lacking investment or capacity-building. |
| Social Impact | - Potential for job losses in polluting industries, but some job creation in green sectors.<br>- Public may face higher prices for goods and energy. | - Higher costs can lead to increased poverty or unemployment if not managed with social support.<br>- Vulnerable populations may be most affected by rising costs or reduced economic activity. | - Improved public health and quality of life.<br>- More resilient economies and communities. | - Better disaster preparedness and adaptation reduce long-term human and economic losses.<br>- Sustainable development can improve livelihoods, especially in rural areas (e.g., agroforestry, efficient water use). |

Table 2. Short-Term vs. Long-Term Impact of Environmental and Sustainable Policies on Developed and Developing Countries
Sources: Čábelková et al. (2023); Ludwig et al. (2007); Issues (2002)

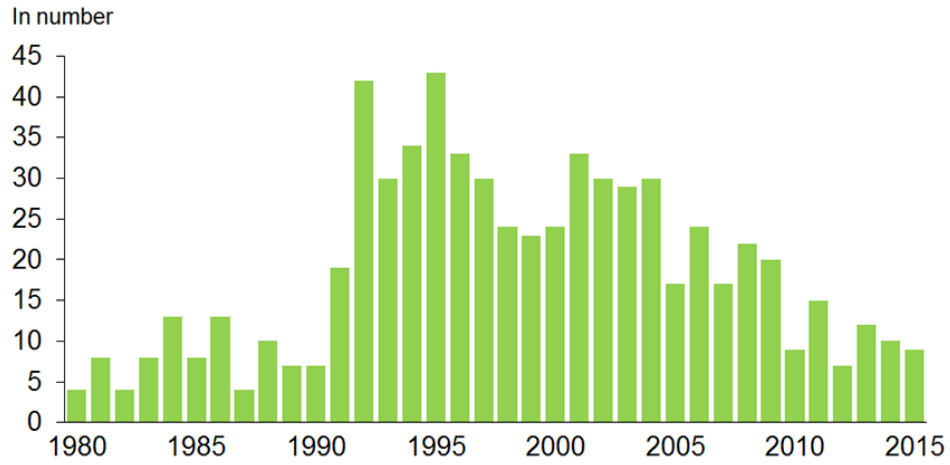
Table 3. The effect of environmental regulations on economic performance—two opposing views.

| Environmental regulations decrease economic performance | Environment protection measures do not decrease economic performance |
|---|---|
| A 1% increase in environmental tax revenue *per capita* reduces carbon emissions by 0.03% for OECD countries Hashmi and Alam (2019). | The adoption of environmentally adapted technologies is not opposed to economic growth Cordero et al. (2005) |
| Environmental regulations increase adaptation and compliance costs which negatively influence competitive advantage Nikolaou et al. (2021); Trevlopoulos et al. (2021) | Renewable energy consumption and economic growth are financial development driven in the long run, and there is bidirectional causality between renewable energy consumption Eren et al. (2019) |
| Severe environmental regulations have a negative impact on the creation of new firms Dean et al. (2000) | In the short term, foreign direct investment cannot significantly cause renewable energy consumption change; but in the long run, a modest slowdown in gross domestic product growth and targeted foreign direct investment will generate a significant boost in renewable energy in China Fan and Hao (2020). |
| Stricter regulations incur high firms' expenditures for pollution abatement Becker (2005). | Economic development declines energy intensity and improves energy efficiency Sarkodie et al. (2019) |
| The impact of regulations on firms' operations is differentiated between large and small firms. Large firms seem to have an advantage in relation to the small firms, though both firms are damaged Heyes (2009) | Environmental regulations reduce operational costs and create intellectual capital Nikolaou et al. (2021); Trevlopoulos et al. (2021) |
| The environmental regulatory risks reduce willingness to invest in firms to avoid additional costs from fees or penalties Demertzidis et al. (2015); Nikolaou et al. (2014) | Environmental regulations could help firms create competitive advantages and new innovations Porter and Van der Linde (2000) |
| In the short run, environmental regulations negatively influence innovation, and innovation negatively influences economic performance in industrial sectors Ramanathan et al. (2010) | Directive 53/2000EC (EC 2000) forced automotive industries to integrate eco-design and circular economy principles (e.g., disassembly, reuse, and recycling practices Smith and Crotty (2008). |
| Tighter environmentally based water regulation lowers profitability by increasing costs conditioned on a given level of sales Rassier and Earnhart (2010). | Environmental regulations affect firms' innovations Rennings and Rammer (2011). |
| Environmental regulation's have strong significant negative effect on productivity Gray and Shadbegian (2003). | The European Union Emissions Trading System had no significant impact on profits and employment and increased regulated firms' revenues and fixed assets Dechezleprêtre et al. (2022). |
| Environment regulations cause a decline in productivity in every sector following more stringent abatement requirements [10%–50%, Barbera and McConnell (1990)]. | On the firm level, better environmental performance can increase revenues via better access to particular markets, differentiating products, and selling pollution-control technology Ambec and Lanoie (2008). |
| There is a negative correlation between profits and environmental regulations Filbeck and Gorman (2004). | Better environmental performance can reduce costs via better risk management and relations with stakeholders, lower cost of material energy and services, and lower cost of capital and labor Ambec and Lanoie (2008). |

Source: Čábelková et al. (2023)

**The Rise of Protectionism**

Figure 4. Number of new free trade agreements per year




Source: "Protectionism: A brake on economic growth," (n.d.)

Recent years have witnessed a resurgence of protectionist policies across both developed and developing economies. Major economies have imposed new tariffs and trade barriers, leading to retaliatory measures that have slowed global trade growth and increased costs for businesses and consumers (Deutsche Bundesbank, 2020). This trend has been accompanied by a shift toward regional trade blocs and "friend-shoring" supply chains to politically aligned nations, further fragmenting the global trading system established in previous decades (EAF Editors 2022).

The emergence of monetary policy mandates in developing countries presents additional complexity. Some central banks, such as those in Nigeria and India, combine traditional price stability objectives with developmental goals, including directing credit to priority sectors. While potentially addressing specific development needs, these approaches risk financial instability if poorly implemented (Ybrayev, 2021).

The current global economic environment presents a complex interplay of trade liberalization benefits, monetary policy constraints, geopolitical disruptions, climate challenges, and protectionist pressures. Developing and developed nations navigate these forces with different capabilities and constraints, often leading to divergent outcomes. Understanding these dynamics is essential for formulating effective policy recommendations that can promote inclusive economic growth while addressing the specific challenges faced by countries at different stages of development.

**Description**

Trade liberalization has been a major force in transforming global commerce, particularly since the late 20th century. The reduction of tariffs and formation of free trade agreements opened up new opportunities for countries to grow through exports, foreign investment, and technology exchange (World Bank, 2023). These changes accelerated development in many parts of Asia and Latin America, as seen in the sharp post-2001 export surge (Galiani & Porto, 2010), but exposed deep inequalities in how benefits were distributed.

The rise of Global Value Chains (GVCs) exemplifies this imbalance. High-income countries have leveraged GVCs to dominate high-value sectors like pharmaceuticals and advanced tech, while many developing countries remain stuck supplying raw materials or low-value components (OECD Development Matters, 2022). Simply participating in global trade isn't enough to guarantee sustainable growth. There needs to be greater support for countries trying to move up the value chain, especially when wealthy nations use subsidies to shield their strategic industries (World Bank, 2023).

Similarly, the interaction between monetary policy and trade highlights another power gap. When central banks in the U.S. or EU adjust interest rates, the ripple effects hit developing economies hard—affecting exchange rates and trade balances (Zorzi et al., 2020). It's unfair that these countries absorb shocks from decisions made far away. Dominant-currency pricing, especially in USD, amplifies this problem.

The last few years have further tested the resilience of the global economy. COVID-19's supply chain collapse (Gagnon, Kamin, & Kearns, 2023), the Russia-Ukraine war's disruption of food and energy flows (Dieckelmann et al., 2024), and inflation shocks remind us of the fragility of interconnected systems. These crises are symptoms of an unbalanced global economic system, where vulnerable countries often pay the highest price.

Environmental sustainability adds another layer. Developed nations may afford the transition to green economies, but for developing countries, it feels like a catch-22. They're told to adopt clean technologies yet lack the resources or support to do so effectively ("Environmental Policy for Developing Countries," 2002; Čábelková et al., 2023). International cooperation should be stronger—not just in words, but in funding, technology sharing, and policy design.

Finally, protectionism—whether tariff wars or rising regional blocs—challenges globalization. While these policies might offer short-term political wins, they risk undoing decades of progress. More importantly, smaller economies are caught in power struggles they didn't choose.

**Analysis: Responses and Implementations**

This section examines key policies implemented by various nations in response to evolving international trade and monetary dynamics, comparing historical approaches with current initiatives to evaluate their potential impacts. By analyzing existing policy examples from both developed and developing economies, we identify patterns that inform predictions about the direction of emerging policies.

**Trade Liberalization**

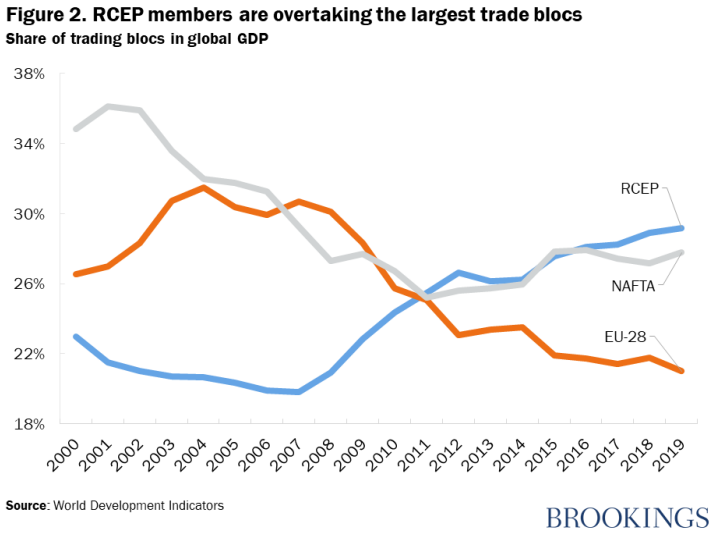
**Past Policies:** Traditional trade liberalization has produced mixed results across the globe. NAFTA, for example, increased trade in North America by 258% from 1993 to 2016 (USTR, 2020), but the benefits were not evenly distributed. While large corporations thrived, some regions of the US saw manufacturing job losses (Autor et al., 2016). Similarly, China's entry into the WTO in 2001 spurred export growth, lifting nearly 800 million people out of poverty (Lardy, 2021), but the gains were unevenly spread around the world.

**Current Policies and Future Trends:** The USMCA (2020) shifts from NAFTA's broad approach toward more controlled trade, with stronger labor provisions and rules of origin. Early evidence suggests this approach may reduce trade imbalances and protect domestic manufacturing, possibly setting a new model for "managed liberalization" where markets are selectively opened. For developing nations, the Regional Comprehensive Economic Partnership (RCEP, 2022) covers a substantial portion of global GDP and offers flexibility to less developed members. Early data shows that this model may lead to more inclusive growth and potentially increase intra-regional trade by 10-20% by 2030, allowing developing countries to retain policy space for key sectors.

**Global Value Chains**

**Past Policies:** Global Value Chains (GVCs) in the past largely focused on cost advantages. Malaysia's Industrial Master Plans (1986-2020) helped raise the share of medium and high-tech exports from 36% in 1990 to 58% in 2018 (Rasiah, 2017). However, Ethiopia's Industrial Parks Development initiative (2014-present) has seen limited success, focusing mainly on low-skill, low-wage segments in the global apparel chain (Whitfield & Staritz, 2021).

Figure 5. Share of Trading Blocs in Global GDP

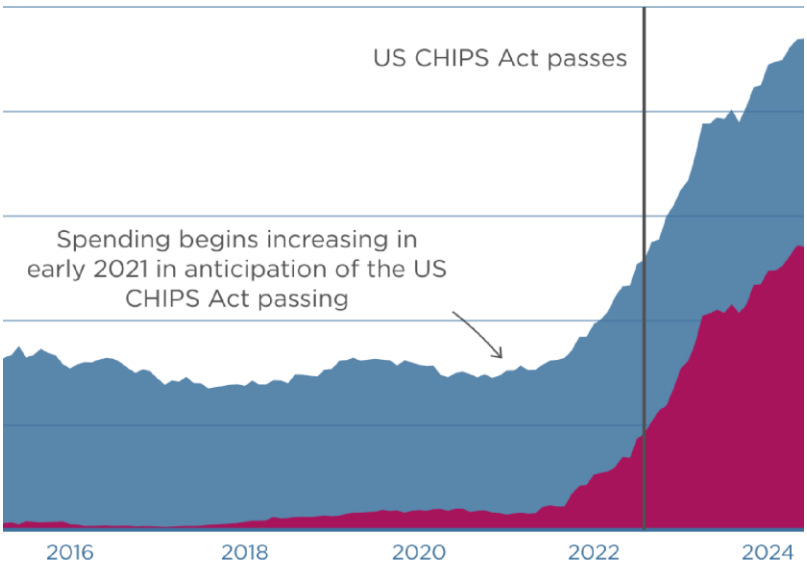



Source: Cali (2020)

**Current Policies and Future Trends:** The US CHIPS and Science Act (2022), which allocated $52.7 billion to semiconductor production, reflects a shift from efficiency-driven supply chains to resilience-focused policies. This approach has already attracted over $200 billion in private investment (Commerce Department, 2023) and suggests that rebuilding critical manufacturing capacities could succeed by 2030.

International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 22s, 2025
https://www.theaspd.com/ijes.php

Figure 6. US construction finances, billions of dollars, 2006–24



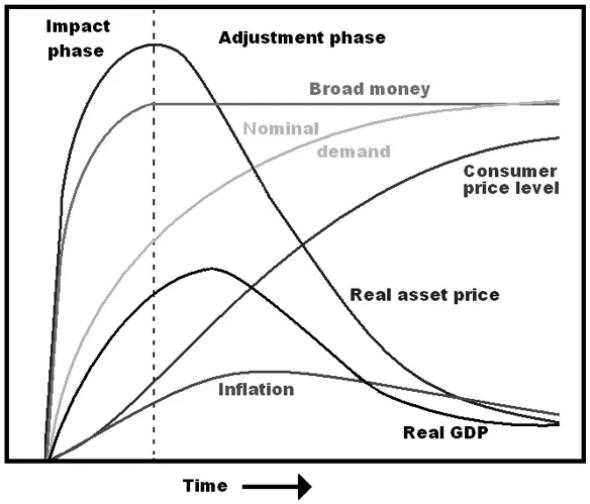

Source: Chorzempa (2024)

For developing countries, Vietnam's Strategic Framework for Industrial Development (2020-2030) is targeting high-tech segments in electronics, textiles, and automotive value chains, leading to a 40% increase in high-tech exports since 2020 (Vietnam Ministry of Industry and Trade, 2023). This strategic positioning in fragmented supply chains offers promising growth for developing economies.

**Monetary Policy**

**Past Policies:** Traditional monetary policies like the Plaza Accord of 1985, which devalued the dollar by 40% over two years, showed the power of coordinated action, but also contributed to Japan's asset bubble (Frankel, 2016). Similarly, the US Federal Reserve's quantitative easing (2008-2014 and 2020-2022) demonstrated how policies in large economies can create global ripple effects, complicating economic management for developing countries.

Figure 7. Qualitative Economic Impact of Quantitative Easing




Source: CFI Team (n.d.)

**Current Policies and Future Trends:** Central Bank Digital Currencies (CBDCs), being developed by over 20 major economies, could fundamentally change how countries manage their monetary systems. China's e-CNY, in particular, could reduce global reliance on the US dollar for trade, potentially decreasing dollar dominance by 15-20% by 2030 (IMF, 2023). Additionally, India's "calibrated liberalization" approach (2021) has shown success in reducing volatility in the Indian rupee amid global economic tightening (Reserve Bank of India, 2023).

The OECD's global minimum corporate tax agreement may also reduce tax competition and promote fairness by leveling the playing field for businesses. It also contributes to more stable economic conditions and enhances tax revenue, as countries will have a more predictable tax revenue.

**Geopolitical Disruptions**

**Past Policies:** The US's enforcement of Section 301 tariffs on Chinese goods in 2018 signaled a more confrontational trade stance. While this policy aimed to address trade imbalances and intellectual property concerns, it raised costs for US consumers by an estimated $38-61 billion annually (USTR, 2023) and had limited success in resolving the underlying issues.

**Current Policies and Future Trends:** The US's "small yard, high fence" strategy (2023) focuses on limiting trade in critical technologies while maintaining broader economic ties. Early evidence shows that this focused method is better at stopping technology transfer without the high costs that come with wider restrictions. Similarly, the EU's Strategic Autonomy framework (2023) demonstrates how middle powers can manage competition from major powers by using a variety of economic tools without fully dissociating from global trade.

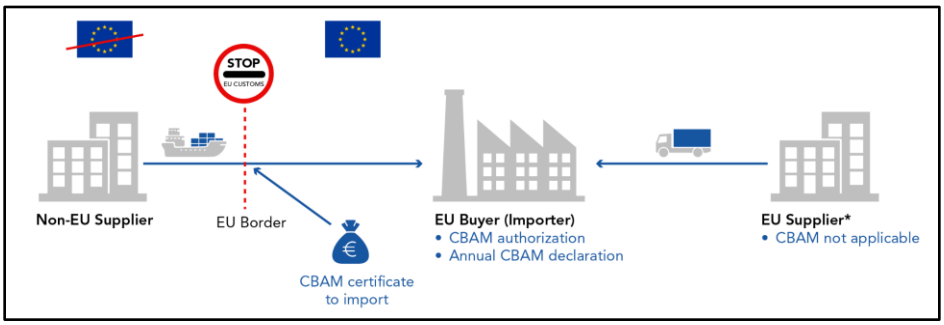
Indonesia's Global Maritime Fulcrum strategy (2021-2025) shows how developing countries can strategically balance their relationships with major powers. By offering targeted investment opportunities to both China and Western nations, Indonesia has seen a 35% increase in foreign direct investment since 2021 (Investment Coordinating Board, 2023). This strategic balance provides a model for maintaining autonomy in an increasingly fragmented global system.

**Climate Change and Sustainable Development**

**Past Policies:** Climate change policies have historically been disconnected from trade and economic strategies. For example, the UK's Climate Change Act (2008) established carbon budgets but did not integrate these goals with trade policies.

**Current Policies and Future Trends:** The EU's Carbon Border Adjustment Mechanism (CBAM), introduced in 2023, integrates climate and trade policy by imposing carbon tariffs on imported goods. Initial data shows that this has led to investments in low-carbon production methods among trading partners, reducing the carbon intensity of steel imports by 12% (European Commission, 2024). By 2030, the CBAM is projected to reduce carbon leakage by up to 45%.

Figure 8. EU Carbon Border Adjustment Mechanism Simplified Illustration




Source: "CBAM: The EU's Carbon Border Adjustment Mechanism" (n.d.)

The US Inflation Reduction Act (2022), which allocated $369 billion for climate-related initiatives, aims to build domestic clean energy supply chains. This policy has already attracted over $110 billion in private investments (US Treasury, 2023), positioning the US to play a leading role in emerging clean energy sectors. In developing countries, India's Production-Linked Incentive Scheme for solar manufacturing (2022) has attracted $7 billion in investments (Ministry of New & Renewable Energy, 2023), suggesting that support for green industries could position developing economies within the global clean energy value chain. This is particularly valuable when considering many developing countries have the opportunity to imbed sustainable practices into their growth strategies from the ground up, avoiding the costly environmental mistakes made by industrialized nations.

**Inclusive Policies**

**Past Policies:** Historically, disparities like income inequality were treated as separate from trade policies. The US Trade Adjustment Assistance Program (1962-2022) aimed to help displaced workers, but its effectiveness was limited due to eligibility restrictions, insufficient funding, and a focus on short term support rather than long term sustainability (Department of Labor, 2021).

**Current Policies and Future Trends:** The EU's Just Transition Mechanism (2021-2027) allocates €55 billion to regions most affected by climate-driven economic transitions. Early reports show that employment in coal-dependent regions fell by only 3% despite a 65% reduction in coal production, suggesting that this approach to inclusivity can lead to better outcomes (European Commission, 2023).

The African Continental Free Trade Area's Protocol on Women and Youth in Trade (2023) shows how inclusivity can be directly incorporated into trade policy, rather than as an afterthought. Although still in early stages, this framework could provide a model for embedding inclusivity in economic decision-making.

**Synthesis: Emerging Patterns and Future Trajectories**

The trends emerging from both past and current policy frameworks suggest a global shift toward more tailored and strategic approaches in trade, monetary, and climate policies. Key patterns include:

1. **Strategic Management Over Broad Liberalization:** More countries are focusing on targeted protections for key sectors while maintaining open markets in other areas. This approach allows nations to better manage their economic relationships.
2. **Adaptation in Supply Chains:** While developed economies emphasize reshoring critical industries, developing nations are strategically positioning themselves in fragmented global supply chains to maximize growth in high-tech sectors.
3. **Monetary Policy Coordination:** With the rise of digital currencies and coordinated global frameworks like the minimum corporate tax, managing capital flows and monetary policy is becoming more complex yet more efficient, reducing reliance on the US dollar.
4. **Climate Integration:** Climate policy is increasingly integrated into trade and economic strategies, reshaping how industries operate and compete. Nations that align their climate goals with industrial policies will likely gain a competitive advantage in emerging sectors.
5. **Inclusive Economic Policies:** Distributive concerns are being integrated into the core of policy design, ensuring that the benefits of economic growth are more evenly shared.

## CONCLUSION

This paper underscores the complex interplay between international trade and monetary policy in shaping the economic destinies of both developed and developing nations. While trade liberalization and participation in global value chains have propelled growth, industrialization, and poverty alleviation in many developing economies, they have also exposed these countries to external shocks, market volatility, and deepened structural dependencies. On the other hand, developed economies have used trade and financial liberalization to sustain technological leadership and market expansion but now face increasing internal discontent stemming from deindustrialization, wage stagnation, and rising inequality.

Monetary policy, especially in an era of heightened global integration, has further complicated this landscape. Central banks in developed countries continue to influence global capital flows and exchange rates, creating

asymmetric vulnerabilities for developing nations that often lack the institutional capacity or fiscal space to cushion these external impacts. The recent wave of global disruptions—from the COVID-19 pandemic and the Russia-Ukraine conflict to escalating trade tensions and climate-induced crises—has further strained the current economic architecture, revealing both the fragility of global systems and the inadequacy of existing policy tools.

Additionally, the growing emphasis on environmental sustainability introduces both opportunities and constraints. While green transitions can stimulate innovation and long-term growth, they also pose short-term challenges, particularly for resource-constrained developing countries that must balance urgent development goals with global climate commitments.

Going forward, policy responses must be both nuanced and coordinated. For developing countries, targeted investment in trade facilitation, institutional capacity, and green infrastructure is essential to leverage global trade more equitably. Developed economies must pursue more inclusive domestic policies while supporting international frameworks that mitigate external shocks and foster sustainable development. Globally, enhanced cooperation is imperative—whether in managing financial spillovers, addressing trade imbalances, or coordinating climate policy.

In sum, international trade and monetary policy remain powerful levers of economic transformation. However, to harness their full potential, stakeholders must adopt an inclusive, sustainable, and collaborative approach that addresses not just growth, but equity, resilience, and shared global responsibility.

## BIBLIOGRAPHY

### Literature Review

1. Daoui, M. (2023). Monetary policy and economic growth in developing countries: A literature review. In arXiv.org. http://arxiv.org/abs/2303.03162
2. Harrison, A. (2009, August). Trade, Foreign Investment, and Industrial Policy For Developing Countries. National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w15261/w15261.pdf
3. IMF Staff. (2001, November 8). Global Trade Liberalization and the Developing Countries. Imf.Org. https://www.imf.org/external/np/exr/ib/2001/110801.htm
4. Nicita, A., & Hoekman, B. (2008, December). Trade policy, trade costs, and developing country trade. The World Bank. https://documents1.worldbank.org/curated/en/954661468763497343/pdf/WPS4797.pdf
5. Obstfeld, M. (2009, February). International Finance and Growth in Developing Countries: What Have we Learned? National Bureau of Economic Research. https://www.nber.org/system/files/working_papers/w14691/w14691.pdf
6. Volle, A. (2025, February 22). globalization. Encyclopedia Britannica. https://www.britannica.com/money/globalization
7. World Bank Group. (2023). Trade Has Been a Powerful Driver of Economic Development and Poverty Reduction. World Bank Group. https://www.worldbank.org/en/topic/trade/brief/trade-has-been-a-powerful-driver-of-economic-development-and-poverty-reduction
8. **Background/Description**
9. Čábelková, I., Smutka, L., Mareš, D., Ortikov, A., & Kontsevaya, S. (2023). Environmental protection or economic growth? The effects of preferences for individual freedoms. Frontiers in Environmental Science, 11. https://doi.org/10.3389/fenvs.2023.1129236
10. Consequences of Increasing Protectionism. (2020, January). Deutsche Bundesbank. https://www.bundesbank.de/resource/blob/822438/306c76bad7214946ac90075a442691ad/mL/2020-01-protektionismus-data.pdf
11. Dieckelmann, D., Kaufmann, C., Larkou, C., McQuade, P., Negri, C., Pancaro, C., & Rößler, D. (2024). Turbulent times: geopolitical risk and its impact on euro area financial stability.

https://www.ecb.europa.eu/press/financial-stability-publications/fsr/special/html/ecb.fsrart202405_01~4e4e30f01f.en.html
12. EAF Editors. (2022, November 28). Friendshoring and onshoring: protectionism, industrial policy and geopolitical blocs by another name. East Asia Forum. https://eastasiaforum.org/2022/11/28/friendshoring-and-onshoring-protectionism-industrial-policy-and-geopolitical-blocs-by-another-name/
13. Gagnon, J. E., Kamin, S. B., & Kearns, J. (2023). The impact of the COVID-19 pandemic on global GDP growth. Journal of the Japanese and international economies, 68, 101258. https://doi.org/10.1016/j.jjie.2023.101258
14. Issues. (2002, April 1). Environmental Policy for Developing Countries. Issues in Science and Technology. https://issues.org/greenspan-environmental-policy-developing-countries/
15. Ludwig, F., Terwisscha van Scheltinga, C., Verhagen, J., Kruijt, B., van Ierland, E., Dellink, R., de Bruin, K., de Bruin, K., & Kabat, P. (2007). Climate change and the European water dimension (Study for the European Parliament, IPOL-ENVI_ET(2007)393511). European Parliament. https://www.europarl.europa.eu/RegData/etudes/etudes/join/2007/393511/IPOL-ENVI_ET(2007)393511_EN.pdf
16. Tarawalie, A. B., & Kpana, K. A. (2022). Monetary policy, exchange rate fluctuations and trade balance: The Sierra Leone experience. Modern Economy, 13(03), 425–441. https://doi.org/10.4236/me.2022.133023
17. The Contentious U.S.-China Trade Relationship. (2025, April 14). Council on Foreign Relations. https://www.cfr.org/backgrounder/contentious-us-china-trade-relationship
18. Trade and economic development. (n.d.). Kommerskollegium. Retrieved May 5, 2025, from https://www.kommerskollegium.se/en/development-and-sustainability/trade-and-economic-development/
19. World Bank Group. (2022). Chapter 1. The economic impacts of the COVID-19 crisis. World Bank Group.
20. World Bank Group. (2023). Trade Has Been a Powerful Driver of Economic Development and Poverty Reduction. World Bank Group.
21. Ybrayev, Z. (2021). Political economy of central-bank mandates in developing countries. European Journal of Economics and Economic Policies Intervention, 19(3), 1–20. https://doi.org/10.4337/ejeep.2021.0078
22. Zorzi, M., Dedola, L., Georgiadis, G., Jarociński, M., Stracca, L., & Strasser, G. (2020, June). Working Paper Series. Europa.Eu. https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2407~586c50e03f.en.pdf
23. **Analysis**
24. Autor, D. H., Dorn, D., & Hanson, G. H. (2016). The China shock: Learning from labor-market adjustment to large changes in trade. Annual Review of Economics, 8, 205-240.
25. Commerce Department. (2023). CHIPS Implementation Progress Report. United States Government.
26. European Commission. (2023). Just Transition Mechanism: First Implementation Report. European Union.
27. European Commission. (2024). Carbon Border Adjustment Mechanism: Initial Implementation Data. European Union.
28. Frankel, J. (2016). The Plaza Accord, 30 years later. Peterson Institute for International Economics.
29. IMF. (2023). Central Bank Digital Currencies: Potential Impact on International Monetary System. International Monetary Fund Special Report.
30. Investment Coordinating Board. (2023). Foreign Direct Investment Report. Republic of Indonesia.
31. Lardy, N. R. (2021). China's economic growth after WTO accession. Routledge.
32. Ministry of Industry and Trade. (2023). Export Performance and Industrial Development Report. Vietnam.

33. Ministry of New & Renewable Energy. (2023). Solar Manufacturing Capacity Development Report. Government of India.
34. Rasiah, R. (2017). The industrial policy experience of Malaysia. Oxford University Press.
35. Reserve Bank of India. (2023). Capital Flow Management Framework: Assessment Report. RBI Publications.
36. UKRI. (2023). Manufacturing Made Smarter: Progress and Impact Assessment. UK Research and Innovation.
37. US Treasury. (2023). Inflation Reduction Act: Implementation Progress Report. Department of the Treasury.
38. USTR. (2020). United States-Mexico-Canada agreement: Estimated impact on the U.S. economy and workers. Office of the United States Trade Representative.
39. USTR. (2023). Section 301 investigation: China's acts, policies, and practices. Office of the United States Trade Representative.
40. Whitfield, L., & Staritz, C. (2021). Industrial hubs and technology transfer in Ethiopia's apparel export industry. The European Journal of Development Research, 33(1), 186-205.
41. **Figures + Tables**
42. **Figure 1** - Informal Jobs and Trade Liberalisation in Argentina - Scientific Figure on ResearchGate. Available from: https://www.researchgate.net/figure/Trade-openness-exports-and-imports-as-a-share-of-GDP-and-average-ad-valorem-tariff_fig3_264711390 [accessed 30 Apr 2025]
43. **Figure 2** - Development Matters. (2022, February 22). *Value chains in Africa: what role for regional trade?* Development Matters. https://oecd-development-matters.org/2022/02/22/value-chains-in-africa-what-role-for-regional-trade/
44. **Figure 3** - Mitic, P., Kresoja, M., & Minović, J. (2019). A literature survey of the Environmental Kuznets Curve. Economic Analysis, 52, 109–127. https://doi.org/10.28934/ea.19.52.12.pp109-127
45. **Figure 4** - *Protectionism: A brake on economic growth*. (n.d.). Disnat.Com. Retrieved April 30, 2025, from https://www.disnat.com/en/learning/trading-basics/dbulletin/protectionism-a-brake-on-economic-growth?ancre=topArticle
46. **Figure 5** - Chorzempa, M. (2024, August 15). *US chip construction spending skyrocketed after US CHIPS Act passed in August 2022*. PIIE. https://www.piie.com/research/piie-charts/2024/us-chip-construction-spending-skyrocketed-after-us-chips-act-passed
47. **Figure 6** - CFI Team. (n.d.). Quantitative Easing 2 (QE2). Corporate Finance Institute. Retrieved May 7, 2025, from https://corporatefinanceinstitute.com/resources/economics/quantitative-easing-2-qe2/
48. **Figure 7** - *CBAM: The EU's Carbon Border Adjustment Mechanism*. (n.d.). ASUENE. Retrieved May 7, 2025, from https://asuene.com/us/blog/cbam-the-eus-carbon-border-adjustment-mechanism-and-its-latest-developments
49. **Table 1** - Čábelková, I., Smutka, L., Mareš, D., Ortikov, A., & Kontsevaya, S. (2023). Environmental protection or economic growth? The effects of preferences for individual freedoms. *Frontiers in Environmental Science*, *11*, 1129236. https://doi.org/10.3389/fenvs.2023.1129236
50. **Table 1** - Ludwig, F., van Scheltinga, C. T., Verhagen, J., Kruijt, B., van Ierland, E., Dellink, R., de Bruin, K., de Bruin, K., & Kabat., P. (2007, November). *Climate change impacts on Developing Countries - EU Accountability*. Europa.Eu. https://www.europarl.europa.eu/RegData/etudes/etudes/join/2007/393511/IPOL-ENVI_ET(2007)393511_EN.pdf
51. **Table 1** - Issues. (2002, April 1). *Environmental Policy for Developing Countries*. Issues in Science and Technology. https://issues.org/greenspan-environmental-policy-developing-countries/