The Impact of Commodity Market on the Economy of Developing Countries

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10 November 2023

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Abstract

This paper examines the impact of commodity markets on the economies of developing countries. Commodity markets play a crucial role in shaping the economic landscape of these nations by contributing to export earnings, GDP, and overall economic growth. However, the impact is not straightforward, as price volatility and fluctuations pose risks to commodity-dependent economies. Reliance on commodities hampers investment diversification, technological progress, and human capital development. Successful examples of economic transformation through diversification and innovation can guide developing countries, but challenges arise from corruption, political instability, and inadequate institutions. Factors influencing the evolution of commodity markets in developing countries include population and income growth, technological innovation, globalization, and trade liberalization. Despite challenges, opportunities exist through technological advancements, diversification, regional integration, and sustainable production practices. The impact of commodity markets on economic growth is complex, with both positive and negative effects, as exemplified by diverse outcomes among different regions and groups of countries. To promote sustained economic growth, developing countries should diversify their economies, invest in other sectors, and prioritize innovation and human capital development.

Keywords: Commodity markets; Developing countries; Economic growth; Price volatility; Diversification

Introduction

The impact of commodity markets on the economy of developing countries is a topic of immense importance and relevance. Commodity markets, which involve the exchange of raw or primary products such as agricultural goods, metals, and energy resources, play a significant role in shaping the economic landscape of these nations (Radetzki & Wårell, 2020). These markets not only contribute substantially to export earnings but also influence gross domestic product (GDP) and overall economic growth.

Developing countries heavily rely on commodity exports as a vital source of revenue and foreign exchange earnings. Commodity-dependent economies often experience unique opportunities and challenges arising from their engagement in these markets. On one hand, commodity exports can provide a substantial influx of revenue and fiscal resources, fueling economic growth and development. Increased export earnings can be channeled towards critical sectors, including infrastructure development, public services, and investment in key industries, ultimately lifting living standards and promoting prosperity (Ayoo, 2022).

However, the impact of commodity markets on developing economies is not always straightforward. These markets are characterized by price volatility and fluctuations, which can significantly impact the economic growth of commodity-dependent countries. Rapid shifts in global demand, geopolitical events, and climate conditions can trigger drastic changes in commodity prices, exposing these economies to significant risks. Price declines can lead to severe economic downturns, fiscal constraints, and contraction in GDP, as exemplified in recent instances of oil price shocks and their impact on oil-dependent nations (Olayeni et al., 2020).

Beyond export earnings, commodity markets also play a crucial role in defining the broader economic landscape of developing countries. The reliance on commodity exports can pose challenges in terms of limited investment diversification and reduced focus on other sectors of the economy. As resources and investment are predominantly allocated towards the extraction and export of commodities, there may be a neglect of other industries, including manufacturing, services, and technology-intensive sectors (Miozzo & Soete, 2001). This limited diversification hampers the potential for technological progress, innovation, and productivity growth, ultimately constraining long-term economic development.

Furthermore, developing countries heavily dependent on commodities may face hurdles in human capital development. The allocation of limited resources towards commodity production and exports often leaves education and healthcare sectors underfunded. Insufficient investment in human capital can hinder the development of a skilled workforce and limit the potential for innovation and technological advancements, stifling overall economic growth.

While the impact of commodity markets on developing economies represents a complex interplay of opportunities and challenges, it is essential to acknowledge the variations in experiences across different regions and groups of countries. Successful examples of economic transformation, such as Asian countries that transitioned from commodity-dependent to industrial powerhouses through diversification and innovation, highlight the possibilities for sustained growth and poverty reduction. Conversely, regions like Africa and Latin America have faced diverse outcomes, with some countries harnessing commodity resources effectively while others grapple with corruption, political instability, and inadequate institutions.

Literature Review

The impact of commodity markets on the economies of developing countries has been a topic of significant interest and research. Commodity markets involve the exchange of raw or primary products such as agricultural goods, metals, and energy resources, and they play a crucial role in shaping the economic landscape of these nations.

Commodity-dependent economies heavily rely on commodity exports as a vital source of revenue and foreign exchange earnings. These exports not only contribute substantially to export earnings but also influence gross domestic product (GDP) and overall economic growth. Increased export earnings from commodities can be channeled towards critical sectors, including infrastructure development, public services, and investment in key industries, ultimately lifting living standards and promoting prosperity (Ayoo, 2022).

However, the impact of commodity markets on developing economies is not always straightforward. These markets are characterized by price volatility and fluctuations, which can significantly impact the economic growth of commodity-dependent countries. Rapid shifts in global demand, geopolitical events, and climate conditions can trigger drastic changes in commodity prices, exposing these economies to significant risks. Price declines can lead to severe economic downturns, fiscal constraints, and contraction in GDP, as exemplified in recent instances of oil price shocks and their impact on oil-dependent nations (Olayeni et al., 2020).

Beyond export earnings, commodity markets also play a crucial role in defining the broader economic landscape of developing countries. The heavy reliance on commodity exports can pose challenges such as limited investment diversification and reduced focus on other sectors of the economy. As resources and investment are predominantly allocated towards the extraction and export of commodities, there may be a neglect of other industries, including manufacturing, services, and technology-intensive sectors (Miozzo & Soete, 2001). This limited diversification hampers the potential for technological progress, innovation, and productivity growth, ultimately constraining long-term economic development.

Developing countries that heavily depend on commodities may also face hurdles in human capital development. The allocation of limited resources towards commodity production and exports often leaves education and healthcare sectors underfunded. Insufficient investment in human capital can hinder the development of a skilled workforce and limit the potential for innovation and technological advancements, stifling overall economic growth.

The impact of commodity markets on developing economies represents a complex interplay of opportunities and challenges. It is essential to acknowledge the variations in experiences across different regions and groups of countries. Successful examples of economic transformation, such as Asian countries that transitioned from commodity-dependent to industrial powerhouses through diversification and innovation, highlight the possibilities for sustained growth and poverty reduction. Conversely, regions like Africa and Latin America have faced diverse outcomes, with some countries effectively harnessing commodity resources while others grapple with corruption, political instability, and inadequate institutions.

Understanding the evolution of commodity markets in developing countries is crucial to comprehend their impact. Throughout history, agricultural products, metals and minerals, and energy products have played integral roles in the development and growth of these economies. The Green Revolution marked a significant turning point in the 20th century, introducing high-yielding crop varieties and improving farming techniques, leading to increased agricultural productivity among developing nations (Eliazer et al., 2019).

Simultaneously, the demand for metals and minerals surged in developing countries due to rapid industrialization and urbanization. These nations emerged as major consumers and producers of resources such as iron ore, coal, copper, and aluminum. The rise of China as a global economic powerhouse exemplifies the evolution of commodity markets in the developing world. China's increased demand for commodities, particularly iron ore, significantly impacted global trade patterns and prompted countries like Australia and Brazil to invest heavily in their mining sectors (Chowdhury et al., 2022).

The energy sector has also witnessed substantial changes in developing countries. The discovery and exploitation of oil reserves have played pivotal roles in shaping commodity markets. Countries like Saudi Arabia and Venezuela became major exporters of petroleum, transforming their economies significantly (Chowdhury et al., 2022). Additionally, the increased adoption of renewable energy sources is gradually altering the energy landscape in developing countries, aiming to reduce dependence on fossil fuels and contribute to sustainable development.

Globalization and trade liberalization have played substantial roles in shaping commodity markets in developing countries. Opening up economies to international trade led to increased competition and expanded market access. It facilitated the inflow of foreign investment, technology transfer, and knowledge sharing, ultimately boosting commodity production and consumption (Chowdhury et al., 2022). Trade liberalization also reduced average import tariffs faced by developing countries, enabling better market access and encouraging international trade (World Bank, 2018).

Findings

Evolution of Commodity Markets in Developing Countries

The evolution of commodity markets in developing countries has been shaped by a multitude of factors throughout history. Agricultural products, metals and minerals, and energy products have played integral roles in the development and growth of these economies (Meinhold et al., 2022). A comprehensive understanding of the historical background, data, and examples is crucial to fully grasp the transformations in commodity production and consumption in these regions.

Historically, developing countries heavily relied on agricultural products for their sustenance and economic development. The Green Revolution marked a significant turning point in the 20th century, as it introduced high-yielding crop varieties, improved irrigation systems, and modern farming techniques. This revolution led to increased agricultural productivity and played a vital role in reducing food scarcity among developing nations.

For example, India's experience with the Green Revolution is a notable case study. During the 1960s, India faced severe food shortages, and its agricultural sector struggled to meet the growing population's demands. However, with the introduction of high-yielding varieties of wheat and rice, India's agricultural output skyrocketed. By the 1980s, it had transformed from a food-deficient country to a surplus producer, ensuring food security for its population and even exporting agricultural products (Eliazer et al., 2019)

Simultaneously, the demand for metals and minerals surged in developing countries due to rapid industrialization and urbanization. These nations emerged as major consumers and producers of resources such as iron ore, coal, copper, and aluminum. China's rise as a global economic powerhouse exemplifies the evolution of commodity markets in the developing world.

In the late 20th century, China experienced unprecedented economic growth, fueling an immense appetite for commodities to support its industrial expansion. The nation's demand for iron ore, for instance, increased exponentially, leading to a surge in prices and a shift in global trade patterns. In response to China's growing demand, countries like Australia and Brazil invested heavily in their mining sectors to cater to this newfound market.

The energy sector has witnessed substantial changes in developing countries as well. The discovery and exploitation of oil reserves have played pivotal roles in shaping commodity markets. Countries like Saudi Arabia and Venezuela became major exporters of petroleum, transforming their economies significantly (Chowdhury et al., 2022) Additionally, the increased adoption of renewable energy sources, such as wind and solar power, is gradually altering the energy landscape in developing countries, aiming to reduce dependence on fossil fuels and contribute to sustainable development.

Globalization and trade liberalization have also played substantial roles in shaping commodity markets in developing countries. Opening up economies to international trade led to increased competition and expanded market access. It facilitated the inflow of foreign investment, technology transfer, and knowledge sharing, ultimately boosting commodity production and consumption (Chowdhury et al., 2022).

For instance, the liberalization of India's economy in the 1990s resulted in increased foreign direct investment and technological innovation in the agricultural sector. This led to improved farming techniques, the introduction of genetically modified crops, and increased export opportunities for agricultural commodities.

Factors Influencing the Evolution of Commodity Markets in Developing Countries

Population and Income Growth

According to the United Nations, the global population is projected to reach 9.7 billion by 2050, with a significant portion of this growth occurring in developing countries. This population increase directly translates to a growing demand for commodities in these regions. The World Bank reports that between 2000 and 2017, the number of people living in extreme poverty (defined as living on less than $1.90 per day) decreased from 1.9 billion to 689 million. This reduction in poverty levels has been accompanied by an increase in incomes, further driving the demand for commodities.

Technological Innovation

The Food and Agriculture Organization of the United Nations estimates that technological advancements have led to a global increase in agricultural productivity by approximately 2.6% annually between 2000 and 2017. This increased productivity has allowed developing countries to diversify their agricultural production and expand the range of commodities they offer. The International Energy Agency reports that technological advancements in renewable energy have led to a rapid increase in its deployment. From 2009 to 2019, global renewable power capacity rose by over 300%, providing opportunities for developing countries to produce and export renewable commodities such as solar panels and wind turbines.

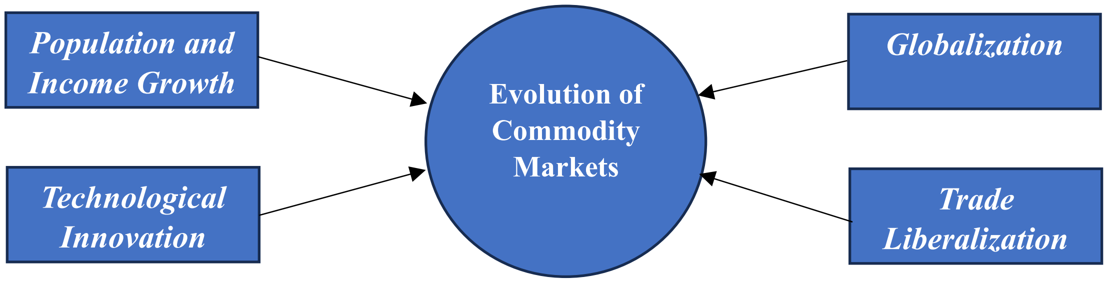

Figure 1. Factors Influencing the Evolution of Commodity Markets

Globalization

The World Trade Organization indicates that merchandise exports from developing countries grew from $2.1 trillion in 2000 to $8.7 trillion in 2018, reflecting the increased integration of these countries into the global economy (Chowdhury 2018). This expansion in exports highlights the enhanced market reach for commodity producers in developing countries. A study conducted by the International Monetary Fund suggests that participation in global value chains has led to higher productivity levels for developing countries, contributing to their overall economic development. This increased productivity translates into greater competitiveness in commodity markets.

Trade Liberalization

World Bank data reveals that average import tariffs faced by developing countries decreased from 19.2% in 2000 to 10.2% in 2018[1]. This reduction in trade barriers has facilitated greater market access for developing country commodities and encouraged international trade. The World Trade Organization estimates that between 1980 and 2017, the volume of world merchandise exports increased almost seven-fold. These increased trade volumes, made possible by trade liberalization, have greatly influenced the growth and development of commodity markets in developing countries.

These statistics demonstrate the significant influence of population and income growth, technological innovation, globalization, and trade liberalization on the evolution of commodity markets in developing countries.

Challenges and Opportunities in Commodity Markets for Developing Countries

Factors contributing to the challenges faced by developing countries in commodity markets:

Dependence on commodity exports: Developing countries heavily rely on commodity exports as a major source of revenue, making them vulnerable to price volatility and market fluctuations.

Lack of market access and infrastructure: Inadequate transportation infrastructure, logistical barriers, and complex trading regulations limit developing countries' access to international commodity markets, hindering their export potential.

[1] https://data.worldbank.org/indicator/TM.TAX.MRCH.WM.AR.ZS

Financial constraints and price formation: Insufficient financial resources and lack of investment in commodity value chains restrict developing countries' ability to capture value-added benefits and negotiate favorable prices in the global market.

Climate change and environmental sustainability: Developing countries, often more vulnerable to climate change, face challenges in adapting agricultural practices and maintaining sustainable production methods, affecting their commodity markets.

Factors contributing to opportunities for developing countries in commodity markets:

Technological advancements: Developing countries can leverage technological advancements such as precision agriculture, biotechnology, and blockchain-based supply chain management to improve production efficiency, increase yield, and enhance value addition.

Diversification and value addition: By diversifying commodity exports and investing in manufacturing industries, developing countries can create stable and higher-paying jobs, contribute to economic growth, and reduce dependence on volatile commodity prices.

Regional integration and trade agreements: Participating in regional trade agreements and economic blocs expands market access for developing countries, enabling better terms of trade and promoting regional cooperation to address common challenges in commodity markets.

Sustainable production practices: Growing global demand for sustainably produced commodities provides an opportunity for developing countries to attract consumers and buyers by implementing sustainable agricultural and extraction practices.

Developing countries face challenges in commodity markets due to factors such as dependence on commodity exports, lack of market access, financial constraints, and climate change impacts (Chowdhury & Reza, 2014). However, they also have opportunities through technological advancements, diversification, regional integration, and sustainable production practices to overcome these challenges and improve their participation and competitiveness in commodity markets.

Impact of Commodity Markets on Economic Growth

Developing countries often rely heavily on commodity exports as a significant source of revenue and foreign exchange earnings. These commodities may include natural resources such as oil, minerals, metals, agricultural products, and other primary goods. Consequently, the economic growth of these nations becomes inherently intertwined with fluctuations in commodity prices.

Empirical evidence on the relationship between commodity dependence and economic growth in developing countries suggests that this link is complex and can significantly impact their economies. In some cases, commodity dependence can bolster economic growth by providing a substantial influx of export earnings and fiscal revenues. This increased revenue can be allocated towards infrastructure development, public services, and investment in key sectors, fostering economic expansion.

For instance, countries like Saudi Arabia, having a strong dependency on oil exports, experienced substantial economic growth due to increased oil prices in the mid-2000s. This led to increased government spending, improved infrastructure, and investment in sectors such as finance, real estate, and retail. These developments translated into improved economic indicators like GDP growth, employment rates, and living standards.

However, the positive impact of commodity dependence on economic growth is not uniformly experienced across all developing countries. The volatility of commodity prices poses a significant challenge as prices may fluctuate due to various factors like global demand, geopolitical events, and climate conditions. This volatility can have detrimental effects on the economies of countries heavily dependent on commodity exports (Chowdhury & Chowdhury, 2022).

A prime example is Venezuela, a nation predominantly reliant on oil exports. The recent decline in oil prices has wreaked havoc on its economy, leading to hyperinflation, rapid depreciation of the currency, and severe contraction of GDP. This highlights the vulnerability of countries with a high degree of commodity dependence and emphasizes the need for diversified economies.

The impact of commodity markets on economic growth extends beyond mere export earnings and fiscal revenues. Commodity-dependent economies often face challenges in terms of investment, productivity, and human capital development. The reliance on commodities can hinder the development of other sectors, as investment and resources are disproportionately allocated towards the extraction and exportation of commodities (Luqman, et al., 2023).

This pattern hampers the diversification of the economy and limits the potential for technological progress, innovation, and productivity growth. Additionally, countries relying heavily on commodity exports may neglect investments in human capital, such as education and training, which are vital for sustainable economic growth.

When comparing the experiences of different regions and groups of developing countries, variations in the impact of commodity markets on economic growth become evident. Asia, particularly countries like South Korea and Taiwan, successfully transitioned from being commodity-dependent to industrialized nations through focused policies aimed at diversification, innovation, and export-oriented manufacturing. These measures have propelled their economic growth and lifted millions out of poverty.

On the other hand, Africa and Latin America have experienced mixed results. Some countries in these regions, such as Botswana in Africa and Chile in Latin America, have managed to effectively harness their commodities' potential and achieve sustained economic growth. However, many others have faced challenges arising from commodity dependence, including corruption, political instability, inadequate institutions, and lack of economic diversification.

The impact of commodity markets on economic growth in developing countries is a multifaceted and nuanced topic. While commodity dependence can contribute to economic growth through increased export earnings and fiscal revenues, it also leaves their economies vulnerable to price volatility (Liu, et al., 2022). Moreover, it can hinder investment, productivity, and human capital development. The experiences of different regions and groups of developing countries, including

Asia, Africa, and Latin America, further exemplify the mixed outcomes of commodity dependence. To ensure sustained economic growth, it is crucial for developing countries to diversify their economies, invest in other sectors, and promote innovation and human capital development (Chowdhury & Begum, 2014).

Policy Implications

When it comes to commodity markets, there are several recommendations for various parties involved in order to ensure fair and transparent practices, promote sustainable approaches, and support long-term economic growth.

Governments should implement policies that encourage economic diversification by promoting investment in non-commodity sectors. This can be done through providing tax incentives, subsidies, and targeted funding for research and development. Additionally, governments should focus on strengthening infrastructure development, including transportation networks and storage facilities. This will enhance market access for commodity producers and reduce transportation costs.

Regulatory frameworks need to be enhanced by governments to ensure fair and transparent market practices. This includes enforcing environmental standards in commodity production and preventing fraudulent activities. Additionally, governments should invest in education and vocational training programs to develop a skilled workforce and promote innovation in the commodity sectors. Establishing stabilization funds and risk management mechanisms will also help mitigate the impact of commodity price volatility on the economy. For regulatory authorities, it is important to strengthen regulatory oversight and enforcement mechanisms. This will ensure compliance with market regulations and prevent fraud and market manipulation. Transparency in commodity markets can be fostered by requiring accurate reporting of production, pricing mechanisms, and supply chain information. Collaboration with international organizations and regulatory bodies is essential in order to establish global standards and best practices for commodity markets. Regular assessments and reviews of regulatory frameworks should be conducted to identify and address any gaps or emerging issues.

Chittagong Stock Exchange can contribute to the development of commodity markets by developing dedicated trading platforms for commodity futures and options contracts. Providing comprehensive information and research on commodity markets will educate investors and enable informed decision-making. Collaboration with regulatory authorities is crucial in establishing robust monitoring and surveillance systems to detect and prevent market manipulation and fraud. Promoting investor awareness and providing tailored financial literacy programs for commodity markets will further enhance the participation of investors.

For market participants such as producers, exporters, and buyers, it is important to enhance market-driven approaches to price discovery. The establishment of transparent and efficient price reporting mechanisms will facilitate this process. Encouraging the adoption of sustainable production practices will attract socially and environmentally conscious buyers. Moreover, facilitating access to finance and credit for small-scale producers will enable them to invest in technology, infrastructure, and quality improvements. Developing networks and platforms for knowledge sharing and collaboration among market participants will foster innovation and create new market opportunities.

Consumers and civil society organizations can contribute to fair and sustainable commodity markets by raising awareness about the impacts of commodity production on the environment and local communities. Promoting sustainable and responsible consumption practices and supporting fair-trade initiatives will incentivize ethical commodity production. Facilitating multi-stakeholder dialogues and partnerships will enable the addressing of social and environmental concerns in commodity markets. Engaging civil society organizations in monitoring and providing feedback on the implementation of policies related to commodity markets will ensure their active involvement and contribution.

Conclusion

The impact of commodity markets on the economy of developing countries is significant and complex. While commodity dependence can contribute to economic growth through increased export earnings and fiscal revenues, it also poses challenges such as price volatility and hindered investment and diversification. The experiences of different regions and groups of developing countries vary, with Asian countries successfully transitioning to industrialized nations through diversification and innovation, while some countries in Africa and Latin America face obstacles such as corruption and political instability. To navigate these challenges and maximize the benefits of commodity markets, developing countries should consider several strategies. Firstly, they should focus on economic diversification and invest in sectors beyond commodities. This can help reduce vulnerability to price fluctuations and foster long-term sustainable growth. Secondly, developing countries should prioritize investment in infrastructure, education, and technology to enhance productivity and human capital development. This will enable them to compete more effectively in global commodity markets. Furthermore, regional integration and cooperation can be advantageous for developing countries. By forming economic blocs and trade agreements, they can enhance market access, facilitate knowledge sharing, and collectively address common challenges in commodity markets. Additionally, sustainable production practices will be crucial in ensuring long-term viability and competitiveness. Policy measures that address commodity price volatility, such as risk management tools and stabilization funds, should also be considered. These can provide a buffer against sudden fluctuations in commodity prices and help mitigate the negative impacts on economic growth. While commodity markets have both positive and negative impacts on the economies of developing countries, it is essential for policymakers to adopt strategies that promote economic diversification, investment in human capital, regional integration, and sustainable practices. By doing so, developing countries can maximize the benefits of commodity markets and ensure long-term and inclusive economic growth.

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