Navigating Volatility: Strengthening Resilience in Commodity-Driven Economies

By

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How to mitigate the devastating impact of volatile prices and income fluctuations inherent in commodity-dependent countries’ reliance on commodities?

This pivotal inquiry calls for a thorough exploration of strategies to enhance the economic resilience of these vulnerable nations.

• Several key issues come to the forefront. CDDCs often grapple with persistent constraints, including volatile commodity prices, limited access to financial resources, a lack of market intelligence, and restricted export market entry. These elements create a complex reality that demands meticulous analysis and thoughtful solutions.

• In theory, a response could be found through economic diversification, value addition, bolstered participation in commodity value chains, and the development of robust institutions. However, transitioning from theory to practice can prove challenging.

• In practical terms, it is imperative to bolster international collaboration by providing financial and technical support to CDDCs. This could manifest as partnerships between international organizations, neighboring countries, and development agencies, aimed at offering assistance in training, technology, and capacity building.

• Furthermore, CDDCs must implement tailored domestic policies that suit their specific contexts. This might encompass the creation of sovereign wealth funds to cushion the effects of price fluctuations, investment in storage and transportation infrastructure, and the promotion of research and development to enhance agricultural productivity.

• The question of mitigating the impact of volatile prices and income in commodity-dependent countries necessitates a comprehensive and concerted approach. While the challenges are intricate, the potential solutions are tangible through international partnerships, robust national policies, and methodical execution Leveraging Expertise in Risk and Budget Management. This imperative pursuit necessitates more than just theoretical ideals – it requires actionable solutions rooted in comprehensive risk management.
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The context of Commodity-Dependant Developing Countries (CDDC)

Why to evocate Geopolitics and Corruption? Because they are fully embedded in Volatility

Source: https://www.weforum.org/agenda/2019/05/why-commodity-dependence-is-bad-news-for-all-of-us/
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Volatility impact in a selected sample of CDDCs*

**Oil-dependent countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Commodity Export in % GDP</th>
<th>Commodity Export in % of government budget</th>
<th>Energy Import % of country's total energy consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td>(40-50%)</td>
<td>(70-80%) O&amp;G</td>
<td>less than 5%</td>
</tr>
<tr>
<td>Algeria</td>
<td>(30-40%)</td>
<td>(70-80%) O&amp;G</td>
<td>less than 5%</td>
</tr>
<tr>
<td>Angola</td>
<td>(50-60%)</td>
<td>(80-90%) O&amp;G</td>
<td>40-45%</td>
</tr>
</tbody>
</table>

**Non-Oil-dependent countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Commodity Export in % GDP</th>
<th>Commodity Export in % of government budget</th>
<th>Energy Import % of country's total energy consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>5-10%</td>
<td>10-15% Agricultural exports</td>
<td>less than 5%</td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>15-20%</td>
<td>20-25% Cocoa and Coffee-related pdt</td>
<td>10-15%</td>
</tr>
<tr>
<td>Ghana</td>
<td>15-20%</td>
<td>30-40% Cocoa and Gold-related pdt</td>
<td>30-35%</td>
</tr>
</tbody>
</table>

*Please note that these percentages can fluctuate over time due to changing commodity prices, production levels, and diversification efforts. Additionally, the specific figures may vary based on the sources and data available at different points in time. [https://economicdiversification.com](https://economicdiversification.com) & [https://unctad.org/system/files/official-document/ditccom2023d3_en.pdf](https://unctad.org/system/files/official-document/ditccom2023d3_en.pdf)

Oil volatility plays a major role in economic stability of CDDCs

Insight + Process = Results

Strategic Risk Management
Why Volatility is a Crucial Concept?

“Regardless of how it is measured volatility reflects the difference between the world as we imagine it to be and the world that actually exist.”

Christopher Cole, Artemis Capital Management
Time horizon is the key point of price volatility management

Some years ago, Patrick Pouyanné, CEO of TOTAL, was asked on about the evolution of oil prices. He responded,

"Between $30/bbl and $80/bbl. For a company as financially robust as ours, it's not so much the price of oil that is crucial, but rather the management of our cash flows and, consequently, the volatility of prices over various time horizons.

If we have to decide on an investment with a lifespan of less than 5 years, price volatility becomes essential.

If we are considering an investment in an oil field with a 20-year lifespan, we are well aware that we will encounter multiple phases in the oil price cycle, and this is where we steer clear of relying solely on Excel spreadsheets."
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Managing Volatility under constraints

While many CDDCs depend primarily on resource exports, including energy resources, for their revenue they have to navigate complex terrain.

In this context, several key issues come to the forefront. CDDCs often grapple with persistent constraints, including volatile commodity prices, limited access to financial resources, a lack of market intelligence, and restricted export market entry. These elements create a complex reality that demands meticulous analysis and thoughtful solutions.

Shifting away from this dependence necessitates careful consideration of economic stability.

The path ahead is multifaceted. Diversifying economies, building resilience, and reducing commodity dependency are their strategies, but budget constraints and resource volatility are constant hurdles.

A complex reality that demands meticulous analysis and thoughtful solutions.
Focus on Oil Volatility: difference between Oil-dependent countries and Non-oil dependent countries

Oil-dependent countries are acutely affected by oil price fluctuations due to their heavy reliance on oil revenues.
- Today, these fluctuations impact very positively their fiscal stability, currency values, and overall economic well-being, but very often leading to significant challenges and vulnerabilities during times of oil market volatility.
- Diversification and sound fiscal policies are essential for these nations to mitigate these risks and build more resilient economies.

Non-oil-dependent countries are not directly reliant on oil revenues, but they are still impacted by oil price fluctuations through energy costs, inflation, trade balances, and global economic stability.

Effective export commodity management in a context of high volatility including energy policies, inflation management, and adaptability to changing global conditions are essential for these nations to mitigate the indirect effects of oil market volatility and maintain economic stability.

Economic Challenges and Vulnerabilities:
- **Fiscal Imbalances:** Declining oil prices can lead to budget deficits and a reliance on borrowing to bridge the gap. This can increase the national debt and reduce fiscal stability.
- **Currency Depreciation:** Falling oil prices can result in the devaluation of the national currency, leading to higher inflation and reduced purchasing power for citizens.
- **Social Unrest:** Reduced government revenues can result in austerity measures, subsidy cuts, and reduced public services, which can lead to social unrest and political instability.
- **Economic Diversification:** Many oil-dependent countries struggle to diversify their economies away from oil. Overreliance on a single commodity makes them vulnerable to price shocks.

- **Energy Costs:** As mentioned earlier, higher oil prices can lead to increased energy costs for households and businesses, potentially affecting profitability and consumer spending.
- **Inflationary Pressure:** Rising oil prices can contribute to inflation, which central banks may need to address through monetary policy, potentially impacting interest rates.
- **Trade Impacts:** Non-oil-dependent countries may see shifts in their trade balances as they import oil and petroleum products. A sustained increase in oil prices can affect the terms of trade.
- **Geopolitical Uncertainty:** Oil price volatility can be linked to geopolitical events. Non-oil-dependent countries may be affected by geopolitical tensions in oil-producing regions.

Oil volatility plays a major role in economic stability of CDDCs.
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Market Trends, Geopolitical events, and price predictability

Supply growth as shale boom gains pace Iranian oil production slumps as US, EU embargoes hit exports Jun: European debt crisis peaks after Greece gets

Oil price crashes 18 Jun: Islamic State threatens Iraqi oil fields and Baji refinery Jul: IMF cuts 2014 global growth forecast on Chinese economic slowdown 27 Nov: OPEC maintains production in bold new ‘pump at will’ policy

Scatter Trends vs Periods

Trend’s period in Days - 80% Pareto line in yellow.

Conflicts in Ukraine began on 24 February 2022

Geopolitical events make us humble when we have to forecast commodity trends
Strategies for Strengthening Resilience (Part 1): Emphasizing the importance of a long-term vision

Long-Term Horizon (5-10+ Years)

1. Economic Diversification:
   1. Start by outlining a long-term diversification plan, identifying target sectors and industries.
   2. Invest in education and training programs to develop a skilled workforce tailored to these sectors.
   3. Develop policies and incentives to attract foreign direct investment (FDI) into non-commodity sectors.

2. Infrastructure Development:
   1. Initiate large-scale infrastructure projects, including transportation, energy, and digital infrastructure.
   2. Create a roadmap for phased infrastructure development, considering budgetary constraints.

3. Sustainable Practices:
   1. Develop and implement comprehensive sustainability policies and regulations.
   2. Invest in renewable energy projects and sustainable agricultural practices.
   3. Encourage businesses to adopt sustainable practices through incentives and regulations.

Transitioning from Long term strategy to Mid-term Horizon can prove challenging

Emphasizing the importance of a long-term vision

Source: https://www.economist.com/the-americas/2023/08/02/investors-are-increasingly-optimistic-about-brazils-economy
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Strategies for Strengthening Resilience (Part 2) : Exploring Tactical Approaches to Enhance Economic Stability and Growth in the Mid-Term Horizon

Mid-Term Horizon (2-5 Years)

1. Fiscal Resilience:
   1. Establish a sovereign wealth fund to save excess commodity revenues during boom periods.
   2. Begin setting aside funds in the sovereign wealth fund, even if initially in small amounts.
   3. Implement fiscal policies to smooth government budgets, reducing over-reliance on commodity revenues.

2. Risk Management and Technology:
   1. Introduce risk management strategies, such as hedging, to mitigate commodity price fluctuations.
   2. Invest in technology and innovation hubs to drive advancements in commodity-related sectors.
   3. Promote technology adoption in agriculture, mining, and oil industries for increased efficiency.

3. Education and Human Capital:
   1. Continue investing in education and vocational training programs to build a skilled and adaptable workforce.
   2. Encourage research and development initiatives to facilitate technology transfer and innovation.

Diversifying the economy, managing risks, and investing in human capital to secure long-term prosperity

Unveiling Trade and Corruption - West African Example

In West Africa, the Economic Community of West African States (ECOWAS) was established to promote intra-regional trade and reduce food insecurity. However, the proliferation of corrupt "security points" along trade corridors, fueled by bribes and time losses, has hindered progress. These illicit practices have transformed into a de facto tax on intra-regional trade, exacerbating food insecurity in the region.

- **Challenges**
  - Proliferation of corrupt "security points."
  - Illicit practices as a de facto tax on intra-regional trade.
  - Exacerbation of food insecurity.

- **Strategies to Combat Corruption**
  - Stricter sanctions.
  - Improved monitoring.
  - Banking system development to finance necessary upgrades.
  - Ensuring regular and adequate salaries for civil servants.
  - Enhancing road infrastructure.
  - Implementing joint border posts.

- **Holistic Approach**
  - Addressing corruption necessitates a holistic approach encompassing legal reforms, infrastructure investments, and salary adjustments. These efforts can streamline trade flow, discourage corruption, and improve food security across the region.

The Democratic Republic of Congo (DRC) faces a dual challenge of heavy mining dependence and the need for climate action. Volatile revenues from the mining sector underscore the importance of economic diversification and responsible governance.

Africa’s path forward integrates development funding and climate resilience. The Democratic Republic of Congo’s (DRC) mining dependence serves as a compelling example.

- **Mining Dependency and Economic Diversification**
  - Heavy reliance on mining.
  - Lack of economic diversification.
  - Volatility in mining revenues.

- **Climate Action and Carbon Credits**
  - Ambition to position the DRC as a "solution country" to the climate crisis.
  - Extensive forests as vital carbon sinks.
  - Challenges in realizing the full potential of carbon credits.

Facing the urgent need to shift from mining dependence to leveraging its forests for climate action.

Source: https://twitter.com/africaupdate/status/1188474585865445376/photo/2
The DRC's Ambition and Its Impact on Revenue Volatility

The DRC’s ambition to become a "solution country" to the climate crisis is intrinsically linked to mitigating revenue volatility from commodity-dependent sectors, such as mining. The DRC drives climate action. The IMAC highlights the potential of carbon credits, aligning with global climate objectives.

- **Mining Dependency and Revenue Volatility**
  - The DRC heavily relies on the mining sector, primarily exporting minerals like cobalt, copper, and gold.
  - Revenue from mining is susceptible to price fluctuations in the global commodities market. Such volatility can lead to unpredictable revenue streams, affecting the country’s financial stability.

- **Leveraging Carbon Credits and Forests**
  - The DRC aims to monetize its extensive forests through the generation and sale of carbon credits.
  - These forests act as vital carbon sinks, absorbing greenhouse gases and contributing to global climate mitigation efforts.

- **Revenue Diversification and Stability**
  - By diversifying its revenue sources to include income from carbon credit trading, the DRC can reduce its dependence on mining revenues.
  - Carbon credits provide a more stable and predictable income stream compared to the volatile earnings from mining.

Volumes and Value of the market are growing exponentially, showing an increasingly liquid source of capital to implement climate solutions.

Seeking to stabilize finances through carbon credits for climate action and mining dependence reduction

Harnessing Forests as Climate Allies

Forests as climate champions. The DRC's vast carbon-absorbing forests underscore its role as a climate solution.

- **Addressing the Dual Challenge: revenue streams that are less susceptible to global market fluctuations**
  - The DRC's pursuit of climate action aligns with the broader goal of enhancing economic resilience and reducing revenue volatility.
  - It demonstrates that commodity-dependent economies can proactively seek alternative revenue sources.

- **Challenges and Opportunities**
  - Challenges persist, including local communities' skepticism about the benefits of carbon credits, and the need for a robust regulatory framework.
  - Overcoming these challenges and effectively managing carbon credit revenues can contribute to long-term revenue stability.
  - In essence, the DRC's ambition to position itself as a climate solution country is intertwined with efforts to mitigate the volatility of revenues generated from commodity-dependent sectors. By diversifying income sources and embracing climate action, the DRC is taking steps to build economic resilience and reduce its vulnerability to the fluctuations of the global commodities market. This approach serves as a model for other commodity-dependent economies facing similar challenges.

Journey into the Congo Basin
The Lungs of Africa and Beating Heart of the World

Global voluntary carbon credit price projections average over period 2020-2050

Source: https://www.eurekalert.org/multimedia/771216

Combining climate action and revenue stability to model for commodity-dependent economies
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Transitioning from Theory to Practice

Navigating Volatility for Strengthening Resilience necessitates more than just theoretical ideals

Short-Term Horizon (1-2 Years)

Budget Stabilization:
1. Implement short-term fiscal policies to manage budget fluctuations, such as establishing stabilization funds.
2. Begin saving in these funds to create a financial buffer against immediate shocks.

Infrastructure Kick-Start:
1. Begin critical infrastructure projects that can yield quick results and provide immediate job opportunities.
2. Prioritize projects that align with long-term development goals.

Sustainable Practices and Environmental Compliance:
1. Enforce environmental regulations to curb unsustainable practices.
2. Promote responsible resource extraction and agricultural practices.
3. Attract responsible investors and promote sustainable certifications for commodities.

Investment Promotion:
1. Launch marketing campaigns to attract FDI and showcase the country’s potential in non-commodity sectors.
2. Establish a dedicated investment promotion agency to streamline processes.

We are eager to share insights and engage in collaborative discussions with you and to help you to roll on actionable solutions rooted in comprehensive risk management to make a success of each of the key points of your action plan as follows:

- Every project necessitates:
  - A defined framework and governance rules.
  - A shared diagnosis by project sponsors.
  - Identification of key stakeholders.
  - Recognition of multidimensionality and evolving perspectives.
  - A communication plan.
  - A mosaic of skills.
  - Partners within a robust governance framework.
  - Stakeholder commitment to shared objectives.
  - A concerted and shared action plan.

- Action Plan:
  - Action Plan: Secure funding from sponsors.
  - Conduct preliminary studies.
  - Select emblematic sub-projects.
  - Developing a comprehensive communication plan.

Key steps for resilience include governance, stakeholder engagement, and actionable plans.
For any question feel free to contact us either in Geneva or in Paris

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