

Executive Summary

Africa has considerable oil and gas resources that can help accelerate growth on the continent if used strategically. Although new resources are discovered progressively, they are not equally distributed; indeed, 38 out of 53 African countries are currently net oil importers. High and volatile oil prices are thus a challenge for all of Africa; they represent an opportunity to be pursued for exporting countries and an obstacle to be tackled for importing countries.

The broad objective of this report is to shed light on key issues related to the social, environmental, and economic impacts of high and volatile oil and gas prices. This includes a discussion of Africa's oil and gas status and its major challenges and opportunities in the energy sector.

Global Perspective and Status of Oil and Gas Resources in Africa

Energy is an indispensable input for economic growth and social development. Two-thirds of global energy

Executive Summary

requirements are met with oil and gas supplies. Conventional wisdom holds that energy consumption per capita is strongly correlated with the level of economic and social progress. Remarkably, the three non-renewable fossil fuels, oil, natural gas, and coal, constitute almost 90 percent of commercial energy consumed globally.

The regional composition of global energy consumption reveals a wide disparity in global use and access to commercial energy. Although Africa has about 15 percent of the world's population, it consumes only 3 percent of global commercial energy. The paradox is that Africa's share in global energy production is about 12 percent, and trending upwards.

The evolution of world energy markets in the post-1970 period has been dramatic and its impact on the world economy and politics profound. This is illustrated by the worldwide economic ripple effects caused by price volatility and occasional spectacular spikes in the prices of the dominant global energy resources—oil and gas. World oil prices have trended ever higher since 2000, and natural gas prices have tracked along. Some of the reasons for the rise in oil prices include rising demand in emerging economies, especially in China and India, declining spare capacity in major producing countries, peaking of production in several important oil-producing areas, and lack of expansion in refinery capacity.

Driven by continued high demand in the Western world, coupled with significant and accelerating new

Executive Summary

demand from emerging economies, such as China, India, and Brazil, global energy consumption is expected to grow by more than 50 percent in the first quarter of this century. Oil and natural gas are expected to be in particularly high demand by 2025, with global oil consumption (demand) projected to rise by 57 percent. It is very unlikely, even taking into account the massive investments in the energy sector around the world, that the oil and gas industry will be able to produce and deliver sufficient energy to meet global demand. By some projections, the “peak oil” production has already been reached, or will be reached in a few years. The ensuing shortages, coupled with concomitant rising energy prices, will place significant pressure on net oil-importing societies in Africa if not addressed strategically and aggressively.

Africa is endowed with vast quantities of both fossil and renewable energy resources. Furthermore, it is the main continent in the world with frequent and substantial new findings of oil and gas: In the past 20 years, oil reserves in Africa grew by over 25 percent, while gas grew by over 100 percent. Africa’s rich oil fields and the prospects for more discoveries have transformed it into an important player and a key “target” in global oil production and resource extraction. Oil production in the continent is expected to continue to rise at an average rate of 6 percent per year for the foreseeable future. The majority of oil reserves (and production) in Africa comes from Libya, Nigeria, Algeria, Angola, and Sudan, which together produce more than 90 percent

Executive Summary

of the continent's reserves. Proved natural gas reserves in Africa are mainly concentrated in four countries—Algeria, Egypt, Libya, and Nigeria—which possess 91.5 percent of the continent's proved reserves. In particular, Nigeria's undeveloped natural gas reserves are a logical target of the international giants in the sector. Furthermore, large deposits of natural gas have been identified in Tanzania; significant oil deposits found in Albertine Graben in Uganda and in the western part of Ghana (off-shore); and there are potential significant oil discoveries in South Africa, Mozambique, and Tanzania.

Considering the current uncertainties about energy supply, the key drivers of future demand, the policies of consumer countries (especially with respect to nuclear and other alternatives to oil and gas), and expected future global economic growth and technology development, there is need to clearly establish Africa's position and develop strategies for future supply adequacy. The energy crisis due to high oil prices, the environmental impacts of oil production, and the growing concern about the viability of oil-based fuels and products are leading to initiatives to find and develop alternative energy sources.

Maximizing the Benefits from Oil and Gas Resources

A key concern regarding the governance of oil and gas resources is that the governments of African oil- and

Executive Summary

gas-producing countries receive an inadequate share of the large rents from production. This may stem from a number of reasons, including contracts and regimes that are not designed to extract maximum rents; and oil and gas policies that are designed primarily to promote and attract investments and have not evolved with changing global dynamics and national interests. The sustainable development of oil and gas resources requires policies, principles, and practices that support the utilization of resources in a manner that does not prevent future generations from benefiting from the resources. A great challenge, particularly for oil-producing African countries, is to ensure sufficient, reliable, and environmentally responsible supplies of oil, at prices that reflect market fundamentals. To achieve this important goal, several challenges have to be addressed, including high and volatile oil prices; growing external and internal demand for oil; increasing import dependence of many African countries; and, most importantly, sustainable management of the continent's oil and gas resources for the benefit of all. The regional nature of these challenges and the growing interdependence between net importing and net exporting African countries require a strengthened partnership among all stakeholders to enhance regional energy security.

The sustainable management of oil and gas also faces the challenge that large natural resource revenues tend to replace more stable and sustainable revenue streams, exacerbating existing problems related to development, transparency, and accountability. This tends to

Executive Summary

free natural resource-exporting governments from the types of citizen demands for fiscal transparency, and accountability that arise when people pay taxes directly to the government. Thus, natural resource export earnings actually sever important links between the people and their governments—links that are related to popular interests and control mechanisms. Governance indicators such as government effectiveness, voice and accountability, political instability and violence, the rule of law, regulatory quality, and control of corruption are correspondingly markedly weaker in oil-rich African countries.

Despite the challenges and issues involved, an oil and gas resource boom can, under the right circumstances, be an important catalyst for growth and development. The often-referred-to “natural resource curse” can be avoided with the right institutions and policies. Several countries in Africa have demonstrated this and there is some reason for cautious optimism that more countries have learned hard lessons from past resource booms, and, in future, will pursue strategies and policies that will allow them to fully reap the benefits of their natural resource wealth.

Impact of Rising Oil Prices

The AfDB has developed a new open-economy macro-economic model to quantify the impact of high oil prices

xxx

Executive Summary

on oil-importing and oil-exporting African economies. The results of the model estimations suggest that high oil prices can have very harmful effects on the economies of African oil-importing countries, especially those that are heavily debt-burdened. The rising oil prices will lead to a decrease in output and consumption, and to a worsening of the net foreign asset position. For median oil-importing countries, the five-year cumulative output loss resulting from a doubling in the price of oil can be as large as 23 percent under a fixed exchange rate regime. However, this recessionary effect can be cushioned through government intervention in the form of limited pass-through of the oil price increase or through foreign aid.

Coping with high oil prices calls for a set of measures to maximize the positive impacts and mitigate the negative ones. Specific measures (approaches) that governments can implement include:

- Price-based policies (comprising full passing on of oil price increases and granting of targeted subsidies to some vulnerable end-users);
- Policies to reduce the supply costs (hedging, economies of scale, security of stocks);
- Implementing quantity-based policies (reduce demand, increase supply); and
- Achieving diversification into non-petroleum sources of energy (from oil to natural gas; and more generally from fossil fuels to renewable power sources).

Executive Summary

Coping mechanisms depend on the government to formulate policies that can work sustainably for pro-social development and secure stability, for instance, by applying cross-subsidies to specific vulnerable groups. Coping policy mechanisms can also include management of inventories, that is, securing an adequate strategic reserve as a defensive stockpile.

Challenges, Opportunities, and Policy Issues

Oil and gas resources are a principal source of public revenues and national wealth for the governments of net oil-exporting countries. As a major source of wealth and energy in Africa, oil and gas resources are critical for growth, development, and good governance. They also pose major management challenges for African governments. The issues go beyond technical management of oil and gas resources and collection of revenues. Resource control, governance, transparency in the utilization of resource wealth for development, preserving and optimizing the resource base, environmental protection, and securing equitable and intergenerational long-term benefits (especially poverty reduction) are among the many critical ingredients that should be embedded in any coherent strategy aimed at harnessing oil and gas resource wealth. In other words, achieving sustained growth from oil and gas resources entails managing and enhancing the status of a complex portfolio of natural, human, and social capital.

Executive Summary

Recommendations

The recommendations arising out of the analysis and discussion in this report cover the continental, regional, and country levels, distinguishing between oil importers and exporters.

Continental Level

At this level, it is important for continental bodies, mainly the AU and the AfDB, to become more engaged in helping African countries manage their oil and gas resources. It is likewise very important that these continental bodies, together with other international donors and stakeholders, provide technical and financial assistance to help new oil and gas producers negotiate fair and pro-development contracts where environmental, social, and revenue distribution are an integral part of the management of oil and gas.

Regional Level

The regional economic blocs can likewise play a key supporting and coordinating role and can be instrumental in advancing the following initiatives:

1. Promote regional integration in oil and gas exploitation.
2. Build regional infrastructure (such as oil and gas pipelines) for sustainable exploitation of oil and gas.

Executive Summary

3. Promote regional economies of scale in the sector, focusing especially on downstream industries (such as refineries).
4. Encourage countries to adhere to principles of good governance and transparency initiatives for revenue management.
5. Promote regional sharing of experiences.
6. Promote intra-regional trade in the oil and gas sector.
7. Support and promote the African Petroleum Fund.
8. Establish regional mechanisms for sharing experiences on oil and gas issues, especially those related to contract negotiations and technology transfer.
9. Encourage the sharing of regional expertise in the sector.

Country Level: Net Oil-Producing Countries

To maximize benefits from oil resources, net oil-exporting countries should

1. Promote knowledge of verified and potential oil and gas resources (such as geological data and resource estimation), for example, establish oil and gas information database.
2. Manage oil and gas resources sustainably and promote high standards of environmental protection, including rehabilitation.

Executive Summary

3. Secure optimal rents (royalties, taxes, shares, and other revenues) based on sound, fair negotiations (including through auctions) and “best practices” for contracts.
4. Promote good governance, accountability, and transparency in oil and gas revenue management. This also entails engaging in initiatives that can reduce corruption, such as the EITI and APRM, notably through more civil society involvement.
5. Promote revenue distribution that reaches the local and poor people in the oil fields; make revenue shares public to avoid speculations; and pursue pro-poor policies (equitable distribution of benefits).
6. Engage in social policies that promote harmony and well-being in the communities affected by oil and gas production.
7. Promote economic diversification to reduce commodity dependence (investment in the future).
8. Promote appropriate policies, notably fiscal regimes, which prevent market distortions—for example, the “Dutch disease.”
9. Strengthen human, technical, and institutional capacity.
10. Design adequate investment policies to attract investors, but also to protect the resources and the interests of the country in the long term.

Executive Summary

11. Establish mechanisms to save the excess income for future generations (intergenerational benefits), for example, by establishing sovereign wealth funds or other savings and investment funds.
12. Seek advice from regional and continental stakeholders and supporters (such as the AfDB and the AU) whenever relevant.
13. Support regional and continental initiatives that seek economic, social, and political improvements of oil, gas and energy-related initiatives, notably the African Petroleum Fund initiative.
14. Support regional infrastructure for the sustainable exploitation of oil and gas.
15. Support regional economies of scale in the downstream sub-sector.
16. Support intra-regional trade of oil and gas.
17. Share countries' experiences with regional and continental stakeholders.

Country Level: Net Oil-Importing Countries

To minimize the impact of high oil prices on their economies, net oil-importing countries should

1. Identify and recognize the direct and indirect impacts of high oil prices.
2. Develop and use alternative fuel sources such as bio-diesel.

Executive Summary

3. Find adequate mechanisms for mitigating/smoothing the effects of high oil prices.
4. Support the African Petroleum Fund, and, when it is fully established, subscribe and contribute to its operation.
5. Identify potential downstream industries where each country has a competitive advantage (for example, a refinery in an accessible location).

Finally, the report concludes that sustainable development is about a better world for all citizens, underpinned by advances in skills, knowledge, capability, and choice. Oil and gas wealth must be used to achieve higher income per capita, better education, better health, higher life expectancy, full employment, and social stability. The AfDB and the AU have complementary strategic roles to play in pursuing and supporting Africa's energy and development future.