

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Commodities and Development Report 2017

Commodity Markets,
Economic Growth and Development

OVERVIEW



Food and Agriculture
Organization of the
United Nations

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT
FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

Commodities and Development Report 2017

**Commodity Markets,
Economic Growth and Development**

OVERVIEW



UNITED NATIONS



Food and Agriculture
Organization of the
United Nations

Copyright © 2017, United Nations and Food and Agriculture Organization
of the United Nations

All rights reserved worldwide

The findings, interpretations and conclusions expressed herein are those of the authors and do not necessarily reflect the views of the United Nations or the Food and Agriculture Organization of the United Nations or their officials or Member States.

The designations employed and the presentation of material on any map in this work do not imply the expression of any opinion whatsoever on the part of the United Nations or the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

This publication has been edited externally.

UNCTAD/SUC/2017/1 (Overview)

ACKNOWLEDGMENTS

The *Commodities and Development Report 2017* is a joint publication prepared by UNCTAD and the FAO. The UNCTAD team was led by Samuel K. Gayi, Head, Special Unit on Commodities (SUC), until his retirement in June 2017, and by Janvier D. Nkurunziza, Chief, Commodity Research and Analysis Section. The SUC team that worked on the Report consisted of Taro Boel, Rodrigo Carcamo, Milasoá Chérel-Robson, Stefan Csordas, Mario Jales, Alexandra Laurent, Romain Perez and Kris Terauds.

The FAO team was led by Boubaker Ben-Belhassen, Director, Trade and Markets Division, and George Rapsomanikis, Senior Economist in that Division. The FAO team that worked on the Report consisted of Katherine Baldwin, Friederike Greb, Emily Carroll and Clarissa Roncato Baldin.

FAO and UNCTAD wish to thank the following external researchers and experts who contributed with background papers and technical inputs to this work: Marijke Kuiper, Hans van Meijl, Lindsay Shutes, Andrej Tabeau, and Monika Verma (Wageningen Economic Research), Eduardo Bianchi and Carolina Szpak (Instituto Universitario Escuela Argentina de Negocios), David Hallam (former Director, FAO Trade and Markets Division), Gustavo Filipe Canle Ferreira (United States Department of Agriculture, Economic Research Service), Jeffrey Vitale (Department of Agricultural Economics, Oklahoma State University), Juan Pablo Canle Ferreira (Canle, Gonçalves & Grilo LDA), Marcella Vigneri (Centre of Excellence for Development Impact and Learning, London School of Hygiene and Tropical Medicine), Khan Murshid and Mohammad Yunus (Bangladesh Institute of Development Studies), Pablo Antonio Garcia Fuentes (Midwestern State University) and Shashi Kolavalli (International Food Policy Research Institute). Valuable comments and inputs were also provided by Adriana Herrera (Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación of Mexico) and Christopher Gilbert (SAIS Bologna Center, Johns Hopkins University).

The structure of the Report was developed at a peer review meeting organized jointly by UNCTAD and the FAO from 30 June to 1st July 2016. In addition to SUC staff members, external experts who participated in the meeting were: Eduardo Bianchi, Christopher Gilbert, Gustavo Ferreira, Marijke Kuiper, George Rapsomanikis, Clarissa Roncato Baldin, Marcella Vigneri, and Jeffrey Vitale. Patrick

Osakwe participated on behalf of the Africa, Least Developed Countries and Special Programmes Division of UNCTAD. The discussions were based on presentations of three thematic papers and ten case studies. Internal comments were received in writing and discussed at the internal peer review meeting organized on 14 July 2017. Three divisions of UNCTAD provided comments through Bruno Casella (Division on Investment and Enterprise), Pilar Fajarnes-Garces (Division on Technology and Logistics) and Jörg Mayer (Division on Globalization and Development Strategies).

Secretarial support was provided by Danièle Boglio and Catherine Katongola-Lindelof. The cover was designed by Magali Studer, and the text was edited by Praveen Bhalla.

OVERVIEW

The majority of developing countries are commodity dependent. Commodity-export-dependent developing countries (hereafter referred to as CDDCs) derive the bulk of their export earnings from primary commodities such as minerals, ores, metals, fuels, agricultural raw materials and food. Countries that have a high ratio of commodity imports to total merchandise trade are considered commodity-import-dependent. Both forms of commodity dependence may cause potentially harmful impacts and affect all dimensions of sustainable development. Most of the developing countries that depend on commodity exports and/or imports are characterized by low human development.

The effects of commodity dependence on human development are mediated through numerous direct and indirect channels that link global commodity markets with domestic economic, social and human development conditions. Understanding these links and how they affect short-, medium- and long-term development objectives is important to inform policy-making processes. This issue of the Commodities and Development Report series, produced jointly by UNCTAD and the Food and Agriculture Organization of the United Nations (FAO), seeks to contribute to an understanding of the linkages between commodity markets and development outcomes by highlighting a number of transmission channels through which commodity prices impact an economy.

In order to inform policymakers of the expected long-term effects of commodity prices on socio-economic indicators, a simulation model has been used to project the trajectory of the world economy and commodity prices to 2030. From its analyses, the Report draws a number of lessons, and proposes policy options to address commodity dependence and its effects on socioeconomic development. Several country-level commodity case studies are used to illustrate these effects.

COMMODITY DEPENDENCE AND DEVELOPMENT

The transmission channels of commodity dependence can be broadly grouped into three areas according to their point of entry into the domestic economy. First, there are impacts that emanate from the terms of trade. Second, commodity dependence presents fiscal and monetary policy challenges. Third, developments on international commodity markets can affect consumers and producers at the micro level.

The terms of trade of CDDCs are closely linked to commodity prices. Thus, a sudden drop in commodity prices generally causes a terms-of-trade shock, which in turn translates into an output shock that adversely affects growth prospects in CDDCs. Even in the absence of large shocks, commodity price volatility harms growth in CDDCs. Since growth is a prerequisite for the elimination of poverty, there is a link between price movements on global commodity markets and human development in these countries. In other words, commodity price movements transmit through the terms-of-trade channel a range of direct and indirect, short- and long-term, economic and non-economic impacts on human development.

Commodity dependence is also a potential source of stress in fiscal and monetary terms. Strong fluctuations of capital flows, such as those induced by commodity price volatility, cause economic disruption and pressure on the balance of payments. Government revenue in CDDCs is also typically closely linked to commodity prices. If commodity prices are lower than expected, this can undermine the fiscal balance and reduce policy space, causing a decline in public spending on crucial infrastructure and social programmes, thereby hindering national economic development and poverty alleviation efforts. Imported inflation is another risk faced by commodity-import dependent developing countries. In particular, in net-food-importing countries, food price hikes can erode real incomes and thus increase poverty. This was observed in several countries during the global financial and food crises of 2007 and 2008. Furthermore, commodity price shocks can compromise debt sustainability of CDDCs where public finance largely depends on revenues from commodity exports. Finally, commodity price fluctuations can also affect the exchange rates of CDDCs, with adverse impacts on long-term productivity growth, inflation and foreign currency reserves.

Commodity price shocks and volatility also have direct impacts on the livelihoods of poor households in developing countries, regardless of whether they depend on commodity exports or imports. Food commodity price shocks can have significant negative effects in developing countries with large agricultural sectors, and where food constitutes a large share of consumer expenditure, both at the macro and household levels. In particular, commodity producers such as farmers who often operate on a small-scale face considerable hardship during periods of falling prices. In many cases, credit constraints and lack of savings exacerbate financial stress for individual producers. In this context, a drop in commodity prices can directly increase poverty, or indirectly affect human development through foregone expenditures on health or education. Commodity price changes also affect the purchasing power

of consumers. In this regard, a distinction has to be made between net food sellers, who benefit from increases in food prices, and net food buyers, who lose in terms of purchasing power. Fuel prices are also linked to poverty in developing countries, since fuel is an input in the production of a broad range of goods and services, which tend to become costlier as fuel prices rise. Finally, food price hikes can threaten food security in commodity-import dependent developing countries. Malnutrition and chronic hunger can have severe long-term health impacts and erode human capital. Hence, commodity dependence is associated with a host of potential micro-level impacts that have short- and long-term effects on economic and human development.

THE BEHAVIOUR OF COMMODITY PRICES: SIMULATING LONG-TERM TRENDS AND SOCIOECONOMIC IMPACTS

The recent commodity price boom (2003–2011) was a boon for many CDDCs that registered a large increase in export revenues and, generally, in their rates of economic growth. As the boom came to an end, CDDCs were reminded that some years of strong commodity prices do not alter the long-term pattern of their terms of trade, as described in the Prebisch-Singer hypothesis; that is, the terms of trade of economies dependent on primary commodities tend to deteriorate in the long run due to the secular decline of primary commodity prices relative to the prices of manufactured goods.

Chapter II presents the results of a simulation exercise, based on the computable general equilibrium model (CGE), which shows the likely effects of variations in commodity prices on incomes per capita in different regions, on the prices of factors of production (land, unskilled labour, skilled labour and capital), and on household expenditure by 2030. The results show that, in aggregate, primary food prices would essentially remain at their 2010 level and those of non-food commodities would grow by 11 per cent. With a 50 per cent increase, crude oil will register the largest price rise, mostly due to population and economic growth. Overall, the share in global consumption of non-food commodities, manufactures and services would increase from 87 per cent in 2010 to 91 per cent in 2030.

At the regional level, different patterns arise. For instance, in Africa, food prices are estimated to fall significantly due to production growth through intensification and expansion, while prices for processed food will rise. In South Asia, strong demand growth is projected to drive up food prices in spite of productivity gains. A similar

scenario is expected for East Asia, mainly due to demand pressure from China. In North America, prices of both primary and processed foods could increase, fuelled by economic growth. Overall, commodity price developments at the regional and national levels are driven by market fundamentals. Hence, in regions where demand growth is stronger than productivity growth, the projections show generally rising prices. The simulations show why understanding variations in the distribution of endowments, both across and within countries, matters when assessing the impact of long-run price movements on development outcomes. In terms of development policy, the results suggest that, in addition to economic diversification away from the commodity sector, targeted investments in specific factors of production, including human capital, have the potential to generate substantial benefits over the next 15 years. The simulation adds to the available knowledge on expected commodity price movements to 2030, providing information that could be valuable for the planning and assessment of policies and measures aimed at achieving the Sustainable Development Goals (SDGs) in CDDCs.

CASE STUDIES

Chapter III of this Report contains a series of case studies focusing on the policy choices pursued by different CDDCs. They illustrate the extent to which the commodities sector and the policies pursued in these countries have (or have not) contributed to inclusive economic growth and to the reduction of poverty and inequality over the past few decades. These case studies highlight the different development paths pursued by the selected CDDCs, and show the kinds of policy interventions needed to ensure that commodity dependence translates into domestic economic and human development.

Costa Rica is among the countries that have successfully transformed and diversified their economies, based almost exclusively on the export of primary commodities. During the 1950s, coffee and bananas accounted for the bulk of its export earnings, and the majority of the workforce was employed in agriculture. As a consequence, Costa Rica suffered from a range of negative impacts from volatile commodity markets, including high external debt caused by unanticipated declines in coffee prices. The Government launched several initiatives to stimulate diversification of the economy. These included the provision of financial incentives to develop non-traditional agricultural exports such as pineapples, of which Costa Rica has now become the world's largest exporter. The creation of export processing zones (EPZs) induced foreign direct investment (FDI) inflows into manufacturing and

high-tech industries. Growth of the services sector, including the establishment of a strong tourism industry, also contributed to diversification. Thanks to these successful horizontal and vertical diversification strategies, Costa Rica has been able to reduce poverty significantly.

The case study on the soybean sectors in Brazil and Argentina highlights how policies determine the way developments on global commodity markets are transmitted to the national economy. In both cases, the soybean sector contributed to poverty reduction during periods of high prices by generating growth, tax revenue and employment. In addition, a number of upstream and downstream linkages were established, including the creation of input and service providers; and inclusive growth was achieved through social protection mechanisms such as the Bolsa Família initiative in Brazil. However, the two countries adopted different approaches to taxation and regulation of their soybean sectors. In Argentina, the prolonged application of export taxes, export restrictions and an overvalued exchange rate, in conjunction with rising production costs, eroded the profitability of soybean farmers over time, and reduced producer incentives (though it is important to note that after some trade restrictive measures were revised the sector recovered). The Brazilian soybean industry did not adopt the same trade restrictive policies as Argentina and did not suffer to the same extent. These countries' experiences illustrate that policy choices are a determining factor in the sustainability and resilience of the commodity sector.

Another example of the importance of the right policy framework for the development of a commodity sector is provided by the case study on the diamond sectors in Botswana and Sierra Leone. While diamonds have contributed little to economic and human development in Sierra Leone, Botswana has moved from low-income status to an upper-middle-income country within three decades. Favourable macroeconomic and fiscal policies, including countercyclical spending and a limit on the public expenditure-to-GDP ratio, have contributed to the success of the Botswanan economy. Also, policies that have stimulated the emergence of a diamond cutting and polishing industry in Botswana have enabled a gradual move up the value chain towards more diversification. In contrast, Sierra Leone has not yet succeeded in creating the necessary institutions that would allow the country to replicate Botswana's relative success. Sierra Leone is still heavily dependent on volatile export revenues from a few unprocessed commodities. The comparison of the experiences in these two countries also illustrates how strong institutions are central to successful development in CDDCs.

The case of the cocoa sector in Ghana contains valuable insights into how a commodity sector can substantially contribute to poverty reduction, and it highlights the important role of policies and reforms in this regard. Prior to the 1980s, the cocoa sector was regulated by a government-run agency in a highly centralized manner that included fixing producer prices. As a consequence, investment and production decisions by farmers were disconnected from developments in the global cocoa market. This led to severe negative shocks to the economy and to public finances during periods of low prices, while during periods of high global prices the share transmitted to producers was relatively low. Reforms undertaken in the 1980s included establishing a close link between domestic and international prices, and allowing producers to obtain a higher share of the world price and to base their decisions on market signals. As a result, the cocoa sector has contributed substantially to poverty reduction in Ghana, and has generated employment and income opportunities for 800,000 households, most of whom are smallholders.

The cotton sector in Burkina Faso is a telling example of how efficiency and competitiveness of a commodity sector can be improved through policy reforms. In a first attempt at reform in the mid-1990s the Government gave up its full control over the cotton sector, transferring parts of its ownership to the private sector and to the union of cotton producers. In a second reform, producers were given greater bargaining power in the negotiation of domestic prices. These reforms led to a higher share of international prices going to producers, and strengthened incentives to invest, expand and modernize production.

Bangladesh's experience with its rice sector illustrates how policies to modernize and strengthen a key commodity sector can support overall economic and social development. Since rice is the most important food staple, and is mostly grown by smallholder farmers, the Government made it a priority to improve productivity and the quality of output. Investments in technology and infrastructure, as well as reforms to improve the competitiveness of the rice sector, have contributed to boosting employment, small farmers' incomes, food security and rural development. In addition, productivity increases in the rice sector have kept food inflation and wages low – a comparative advantage that has enabled economic diversification beyond agriculture and reduced Bangladesh's dependence on the rice sector.

The case of sorghum in Mali underscores the importance of taking a broad perspective when designing interventions in the commodity sector. The Government introduced subsidies on imported food items such as rice and maize with the aim of protecting consumers in urban areas from high food prices. However,

competition from cheap imports put sorghum, which is a key food staple for the rural population, at a disadvantage. As a consequence, incentives to invest in and modernize this sector were distorted, adding to the income gap between rural and urban populations.

The case study on Indonesia's nickel export ban shows the risks of trade policy interventions to achieve industrial policy targets. In 2014, Indonesia applied an export ban on nickel and bauxite in order to spur the development of local processing capacities and reduce the speed of resource extraction. (This export ban has since been partially reversed.) While the policy led to some success in terms of creating a few nickel smelters, it caused substantial losses in export earnings and government revenues. Also, as a reaction to the export ban, importers of bauxite ore increasingly turned away from Indonesia towards readily available substitutes on the international market.

Nigeria's attempts to increase local content of its oil and gas industry are analysed in another case study. In 2010, the country adopted a law on local content, which required giving preference to Nigerian independent operators in the award of oil licences as well as in recruitment and training programmes. This law led to an increase of investments in national oil and gas exploitation and to substantial growth of the indigenous oil services industry. However, in terms of job creation and its overall socioeconomic impact, Nigeria's local content policy has not been a complete success. The case study suggests that for broad-based socioeconomic progress in Nigeria, a sound macroeconomic, fiscal and institutional framework is likely to be more effective than any single policy intervention.

The case study on Zambia highlights the importance of inclusive growth for socioeconomic development. The copper industry is the dominant economic sector in Zambia, accounting for 72.5 per cent of merchandise export earnings in 2011. During the commodity price boom of the 2000s, rising export earnings contributed to high GDP growth rates and favourable macroeconomic indicators. However, progress in terms of poverty alleviation and reduction of inequality was limited during this boom period. For instance, the poverty headcount ratio soared from 49.4 per cent in 2002 to 64.4 per cent in 2010, despite high levels of GDP growth. Also, inequality increased between 2003 and 2011. Thus, the Zambian experience shows that growth is a necessary but not sufficient condition for poverty eradication, which can only be achieved if mechanisms are also put in place to make growth inclusive.

The main message of this Report is that while CDDCs have benefited from high export revenues during relatively short periods of price surges, commodity dependence generally has had a negative impact on their socioeconomic development. Unless these countries engage in deep structural transformation, they will most likely continue to experience development challenges, given that commodity prices are expected to increase only marginally over the next 15 years. CDDCs will therefore need to be more proactive in driving their structural transformation processes in order to reduce their overdependence on commodities. Such processes will need to be based on comprehensive economic, fiscal, sectoral, and social policies that are compatible with overall development objectives, and they will have to tackle the channels through which commodity price volatility is transferred to national economies. Coordinating these policies will, in turn, require improvements in governance systems that underlie the process of transformation. For this process to be successful, the country experiences discussed in this Report suggest that CDDCs will not only need to adopt different approaches, but also they will require more policy space to experiment in order to find the right model for sustainable development and growth that fits each country's specific circumstances. Ultimately, structural transformation should help these countries to successfully implement the 2030 Agenda for Sustainable Development and achieve that Agenda's SDGs.

