



United Nations Conference on Trade and Development

Distr.: General
3 August 2017

Original: English

Trade and Development Board
Trade and Development Commission
Multi-year Expert Meeting on Commodities and Development
Ninth session
Geneva, 12–13 October 2017
Item 3 of the provisional agenda

Recent developments and new challenges in commodity markets and policy options for commodity-based inclusive growth and sustainable development

Note by the UNCTAD secretariat

Executive summary

This background note reviews recent developments in key commodity markets and analyses the factors that contributed to the trends in commodity prices observed in 2016. In general, 2016 marked the end of a five-year downward trend in commodity prices, which increased significantly during the year. However, given falling commodity prices in the first four months of 2017, whether there has been a real reversal is questionable. While the price increases in 2016 were beneficial for commodity-dependent developing countries, overall, commodity prices remain significantly below their peak values in 2011. This note explores some policy issues related to recent developments in global commodity markets and suggests recommendations that could help commodity-dependent developing countries achieve sustainable development and inclusive growth.



Introduction

1. The Multi-year Expert Meeting on Commodities and Development was mandated in the Accra Accord (paragraph 208) and the Doha Mandate (paragraph 17). The Nairobi Maafikiano, adopted at the fourteenth session of the United Nations Conference on Trade and Development, extended the mandate through 2020 (paragraph 100 (h)).¹ The multi-year expert meeting, as approved by the thirty-first special session of the Trade and Development Board in April 2017, will monitor the developments, challenges and opportunities in commodity markets, giving due attention to those commodity sectors that are relevant to commodity-dependent developing countries.²

2. This background note analyses commodity market developments in 2016, with a focus on price trends and the underlying causes of price fluctuations. It highlights some policy issues associated with recent market developments and draws lessons in the form of policy recommendations to assist commodity-dependent developing countries in their efforts to achieve inclusive economic growth and sustainable development. The note groups commodities into three categories, namely food and agricultural commodities (food, tropical beverages, vegetable oil seeds and oils and agricultural raw materials); minerals, ores and metals; and energy (oil, gas, coal and renewable energy).

I. Recent developments in commodity markets

A. Overview

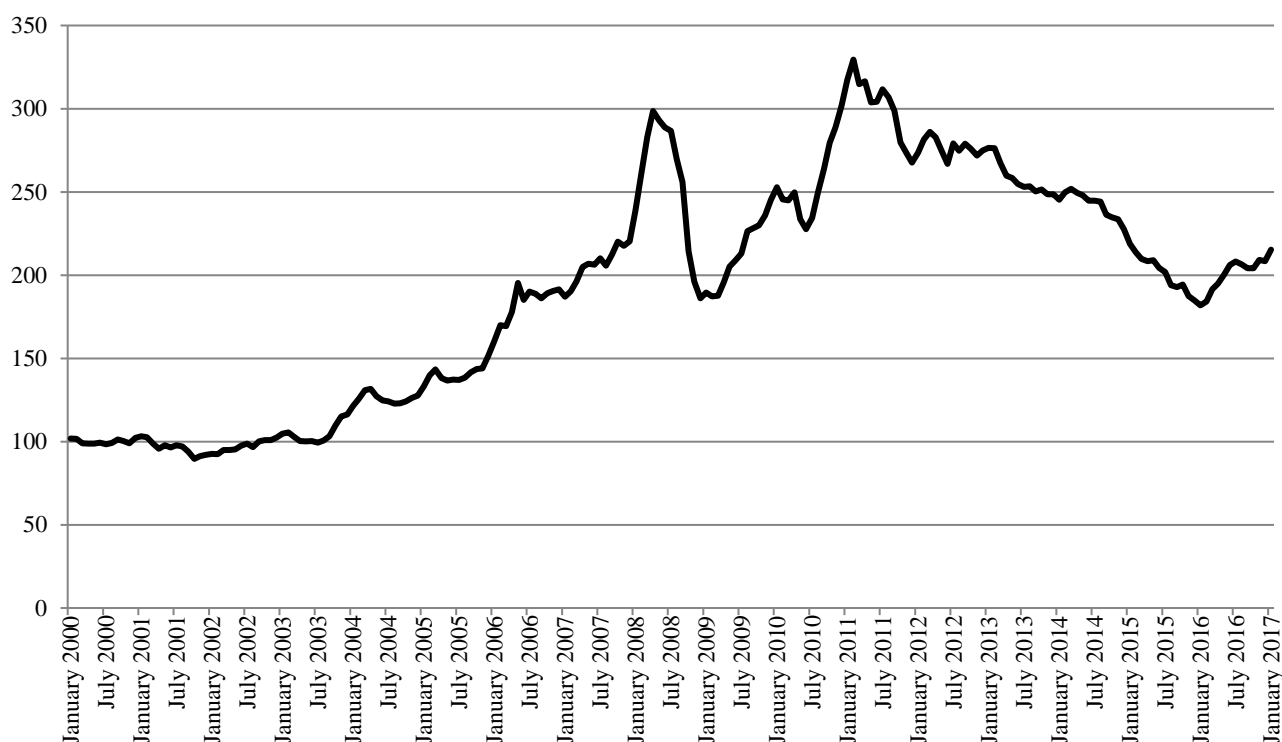
3. After reaching the bottom of a five-year slump at the beginning of 2016, commodity prices trended upward until early 2017. The UNCTAD non-oil nominal commodity price index³ reached 218.8 points in February 2017, constituting an increase of 20.4 per cent from its value in January 2016 of 181.8 points (see figure 1). However, the latest data available show that commodity prices are again receding, and the index stood at 205.2 points in April 2017. Overall, commodity prices remain significantly lower than at the peak of the last commodity boom.

¹ TD/519/Add.2.

² TD/B(S-XXXI)/2.

³ The index covers the following subgroups of commodities: all food (food, tropical beverages and vegetable oilseeds and oils); agricultural raw materials; and minerals, ores and metals.

Figure 1
UNCTAD non-oil price commodity price index, all groups,
January 2000–January 2017
(2000 = 100; current United States dollars)

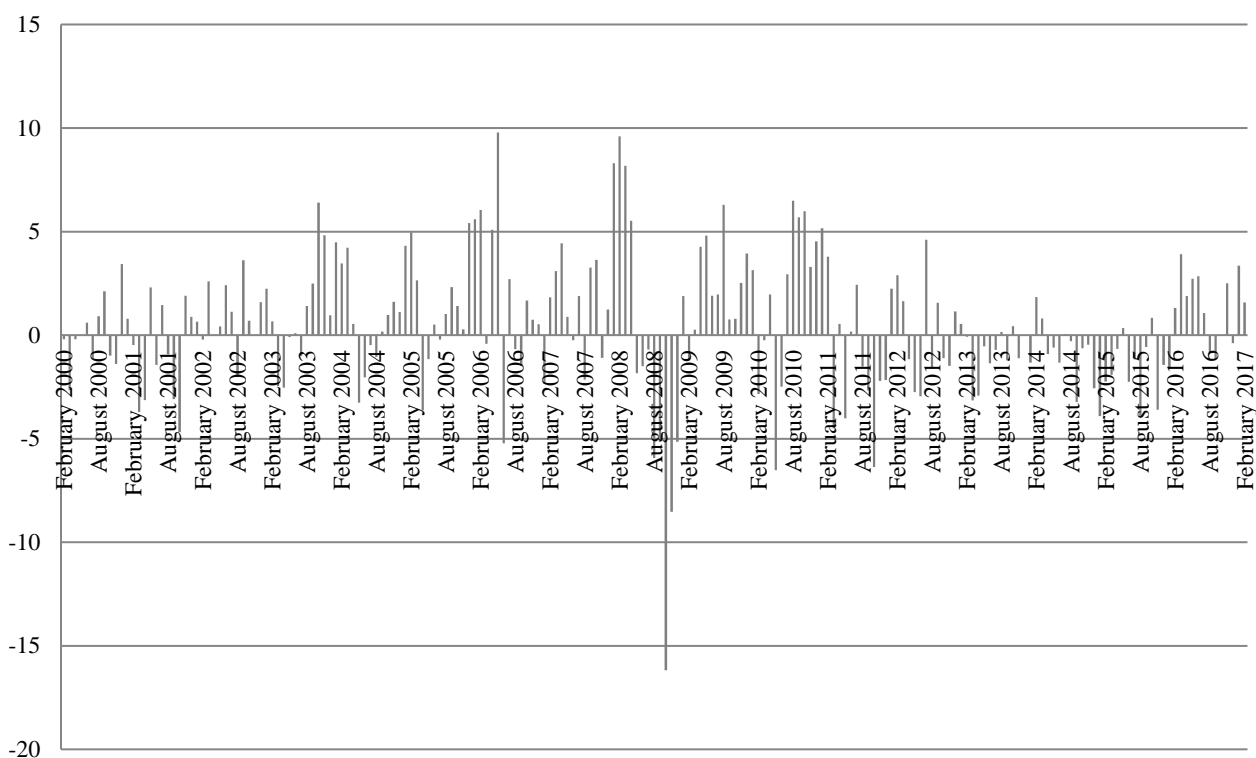


Source: UNCTAD secretariat calculations based on data from UNCTADstat.

4. The recovery of commodity prices in 2016 was mainly driven by supply constraints and output uncertainties, which particularly affected metals and agricultural commodity prices in 2016. El Niño-related adverse weather conditions caused output shortfalls for agricultural commodities such as palm oil, rice and coffee. The supply of minerals, ores and metals was limited by the constriction of nickel, copper and zinc mine production. After supply conditions for several agricultural commodities and metals eased, the upward trend in commodity prices appeared to have come to a halt in early 2017.

5. Commodity price fluctuations have been moderate in the past five years (see figure 2). A monthly shift of more than 5 per cent was last recorded in the UNCTAD non-oil nominal commodity price index in October 2011. However, individual commodities have experienced substantial price fluctuations. Market developments in major commodity groups are reviewed in section B.

Figure 2
UNCTAD non-oil nominal commodity price index: Monthly fluctuations,
February 2000–February 2017
 (2000 = 100)



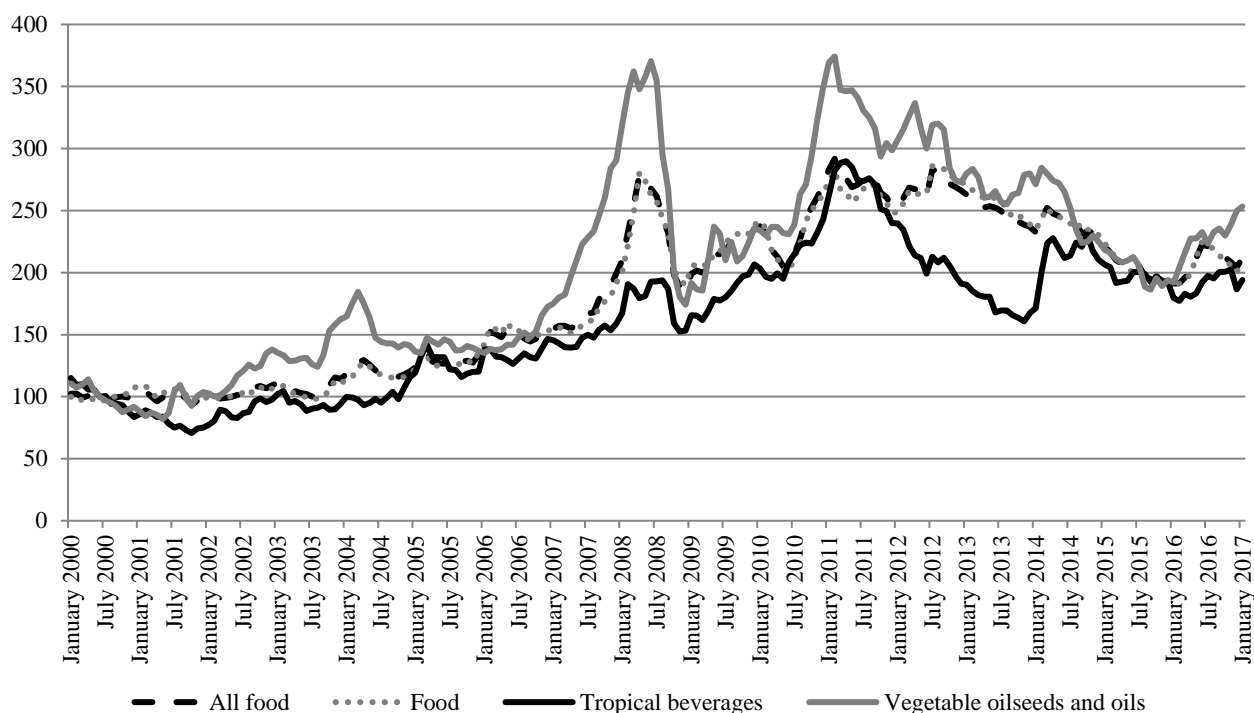
Source: UNCTAD secretariat calculations based on data from UNCTADstat.

B. Developments in key commodity sectors

1. Food and agricultural commodities

6. In January 2016, the UNCTAD food price index reached its lowest value in seven years, at 191.1 points. In the following six months, the index trended upward, mainly due to El Niño-related adverse weather conditions that caused output shortfalls and uncertainties. Since mid-2016, food prices have been declining, with brief upward swings in January and February 2017. All subindices saw marked losses in January–April 2017, with vegetable oilseeds and oils experiencing the sharpest drop, at -13.6 per cent (see figure 3).

Figure 3
Price indices of selected commodity groups, January 2000–January 2017
 (2000 = 100)

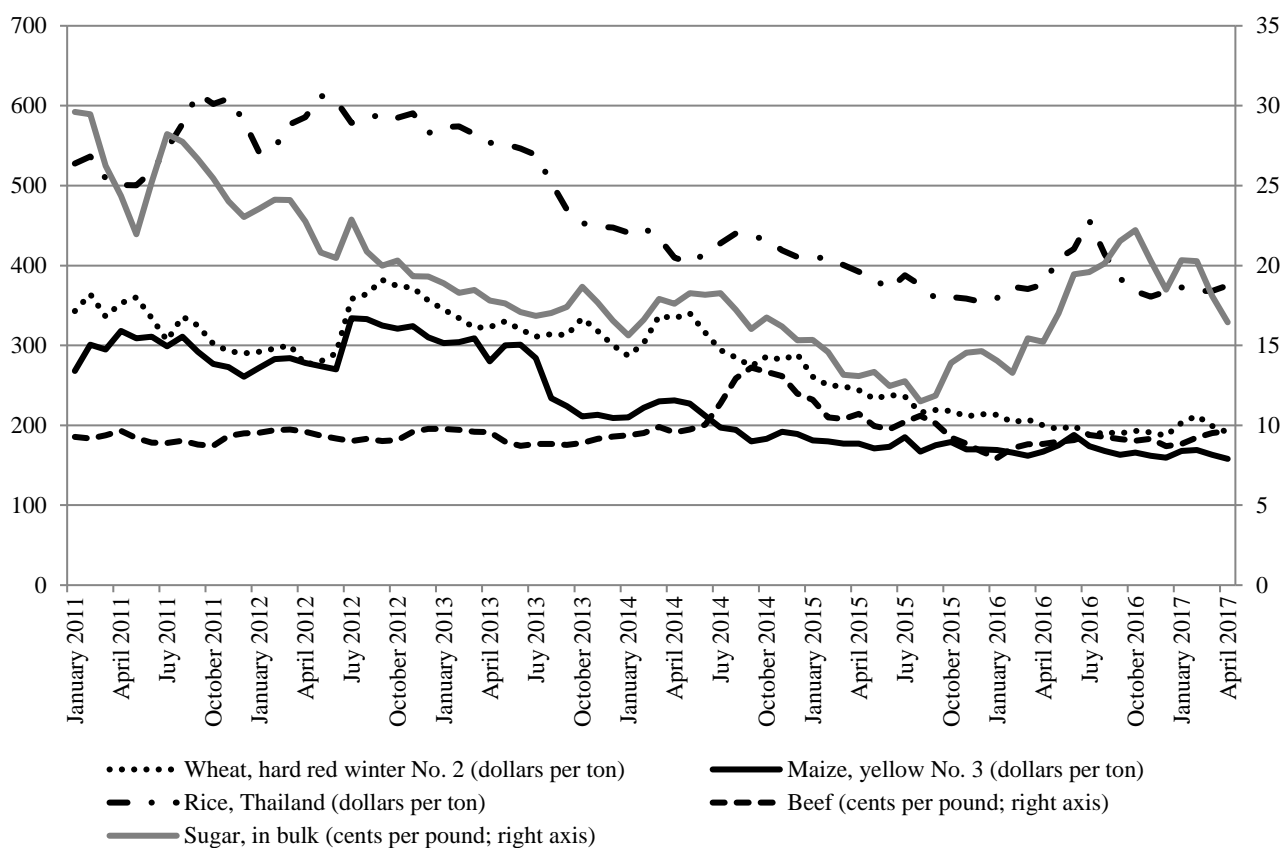


Source: UNCTAD secretariat calculations based on data from UNCTADstat.

7. Grain prices have been generally trending downward since 2012, mainly due to strong production and increasing stocks (see figure 4). The 2016/2017 season marked a record production of wheat and maize, leading to the largest-ever recorded global supply of grains. As a consequence, the wheat price (hard red winter No. 2), at \$191 per ton in April 2017, was down 4.5 per cent year-on-year, and down 21.7 per cent in relation to its level in April 2015. The price of maize (yellow No. 3) reached its lowest level in more than seven years, at \$158 per ton in April 2017. In the near future, grain markets are expected to remain fairly stable, subject to favourable weather conditions. The International Grains Council projects that wheat and maize production in the 2017/2018 season will be 736 and 1,026 million tons, respectively; slightly below the levels in the 2016/2017 season.⁴ Strong demand forecast is projected to lead to a moderate reduction of stocks, which could generate a mild increase in grain prices.

⁴ International Grains Council, 2017, Grain market report No. 476.

Figure 4
Prices of selected food and agricultural commodities, January 2011–April 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

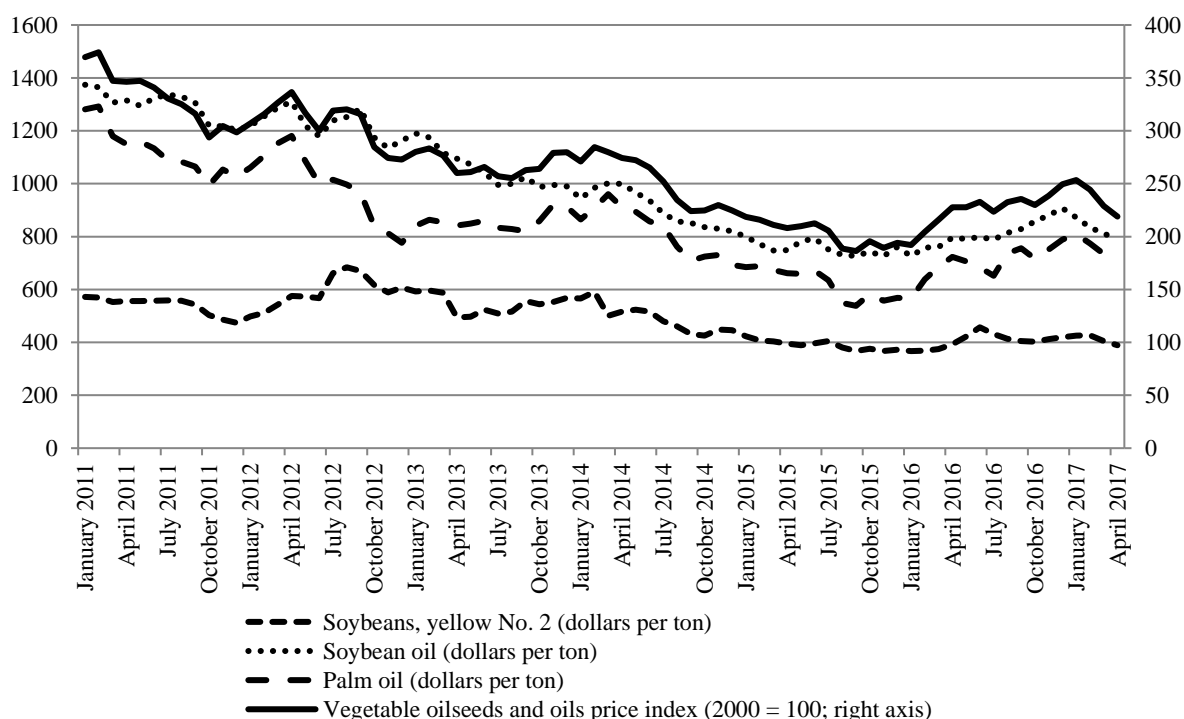
8. Rice markets saw a price rally in the first half of 2016. The price of Thailand rice increased by 26.9 per cent in January–July 2016 due to El Niño-related production losses in major producers such as India, Thailand and Viet Nam. Thereafter, forecasts of increases in world production led to a downward adjustment of prices. On a year-on-year basis, the price of Thailand rice was stable, at \$375 per ton in April 2017, compared with \$376 per ton in April 2016. The market outlook for rice remains calm, with production and demand forecasts showing no major changes in the current season.

9. The sugar market experienced turmoil in the first three quarters of 2016, when a widening supply–demand gap led to a drawdown of stocks to historically low levels. In January–October 2016, the price of sugar (average of International Sugar Agreement daily prices) rose by 58.1 per cent, from 14.05 cents per pound to 22.22 cents per pound. The price hike triggered an expansion in supply, which eventually brought the price of sugar down to 16.44 cents per pound in April 2017. Forecasts of rising global supply suggest that price increases are not to be expected in the coming season. The only upside risk for sugar prices is in potential production shortfalls, if El Niño conditions occur in 2017.

10. The price of frozen beef from Australia and New Zealand reached an all-time high in September 2014, at 272 cents per pound, due to tight supply conditions. Thereafter, rising supply and weakening demand triggered a downward trend until January 2016, when the price of beef was 159 cents per pound, constituting a 41.6 per cent drop in 16 months. In 2016, beef markets showed less volatility and a moderate upward trend in the first half of the year, followed by a mild downward trend in the second half. Strong demand caused a 9.0 per cent increase in the price of beef, from 177 cents per pound in January 2017 to 193 cents per pound in April 2017. In the near future, a moderate upward trend seems likely, based on supply and demand projections.

11. The UNCTAD vegetable oilseeds and oils price index showed a downward trend in August 2011–September 2015, losing 42.7 per cent of its value (see figure 5). In 2016, this trend somewhat reversed, owing to shortfalls in the production of oilseeds such as soybeans in South America and palm oil in South-East Asia, due to El Niño-related adverse weather conditions. Projections of a record production for soybeans for the 2016/2017 growing season led to a decline in the prices of vegetable oilseeds and oils in the first quarter of 2017. In April 2017, the index averaged 219 points, a rise of 17.5 per cent from September 2015. Forecasts for 2017/2018 show increasing demand but also rising total oilseed production, and prices are therefore expected to remain fairly stable.

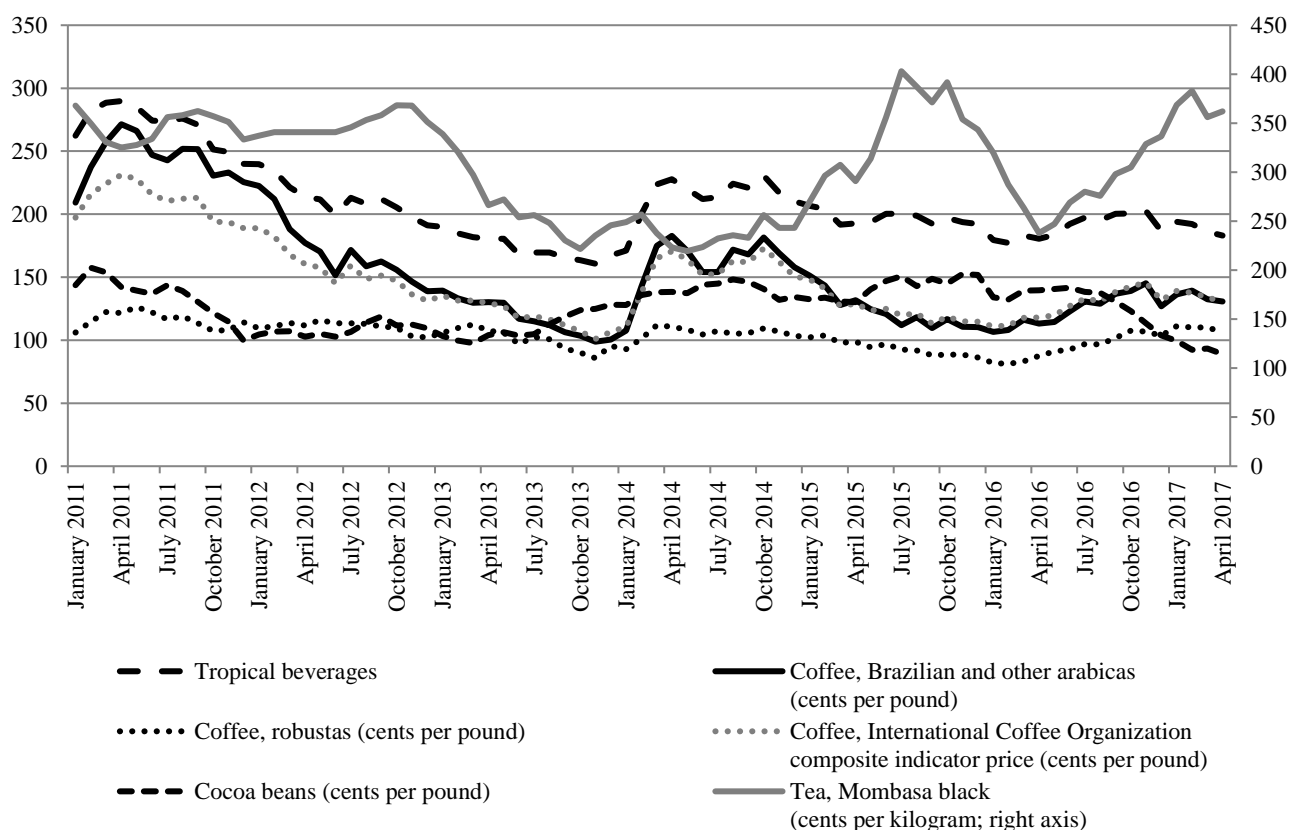
Figure 5
Prices of selected vegetable oilseed and oil commodities, January 2011–April 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

12. The price index of tropical beverages has been fairly stable since early 2015, averaging 183 points in April 2017, up by 1.3 per cent on a year-on-year basis (see figure 6). However, the stability of the composite index masks substantial fluctuations in markets of individual tropical beverages. Fuelled by droughts in Brazil and a strong Brazilian real, the International Coffee Organization composite indicator price showed a steep increase of 31.4 per cent, from 111 cents per pound in January 2016 to 145 cents per pound in November 2016. Thereafter, the price rally reversed, in line with a reversal in underlying drivers, as weather prospects and supply forecasts for major producing countries improved and the Brazilian real depreciated. In April 2017, the price averaged 130 cents per pound, up by 10.6 per cent on a year-on-year basis, but down 10.6 per cent from November 2016. Forecasts of healthy production for the 2017/2018 growing season indicate that price increases are unlikely in the medium term unless unfavourable weather conditions affect harvests.

Figure 6
Prices of selected tropical beverage commodities, January 2011–April 2017



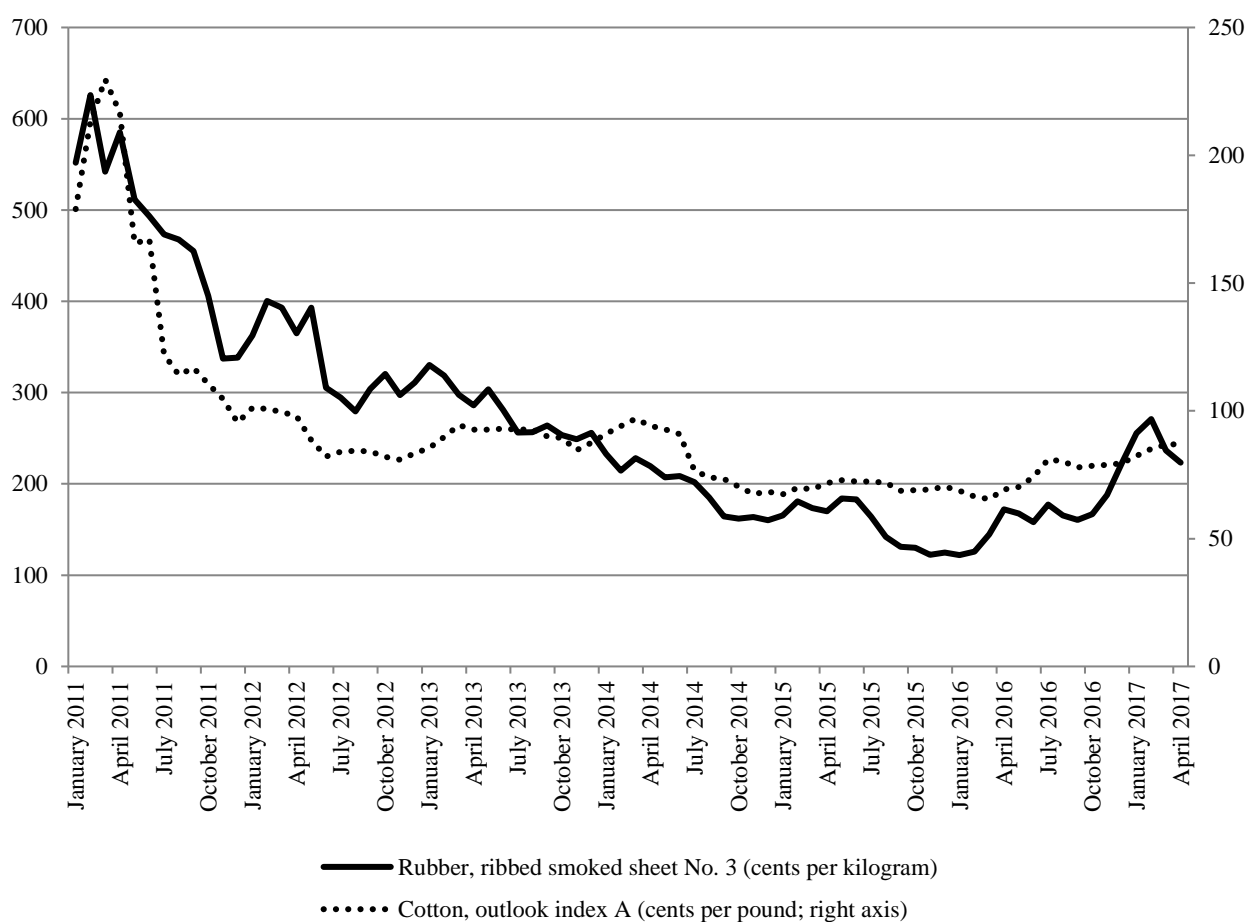
Source: UNCTAD secretariat calculations based on data from UNCTADstat.

13. Cocoa bean prices started to trend downward in July 2016 amid predictions of increasing production in West Africa and a forecast supply surplus in the 2016/2017 season. In April 2017, the price of cocoa beans averaged 89 cents per pound, its lowest level in almost a decade, and down by 41.6 per cent from 152 cents per pound in November 2015. This negative price trend was fuelled by expectations of significant production increases in Côte d'Ivoire and Ghana, and a record supply surplus. In the near future, strong production is not likely to be outpaced by growing demand, and cocoa bean prices are therefore expected to remain low.

14. The markets for tea have been characterized by a high degree of variability in the past two years. In July 2015, the price of Mombasa black tea reached an all-time high average of 403 cents per kilogram. Thereafter, the price fell to 238 cents per kilogram in April 2016, a drop of 41 per cent in nine months. This trend was mainly driven by surplus supply. After another trend reversal in mid-2016, the price of Mombasa black tea averaged 362 cents per kilogram in April 2017, up by 52.1 per cent from April 2016. The price of tea is expected to remain volatile, as weather-related risks in the main growing regions make supply forecasts difficult.

15. Agricultural raw material prices followed a steep downward trend between the peak of the commodity boom in 2011 and 2015 (see figure 7). For instance, the price of rubber (ribbed smoked sheet No. 3) fell from 626 cents per kilogram in February 2011 to 165 cents per kilogram in January 2015, a decrease of 73.6 per cent. After rubber prices declined further in the second half of 2015, major producers, including Indonesia, Malaysia and Thailand, set in force an export quota scheme in March 2016. This induced a trend reversal and a 54.2 per cent price increase, from 145 cents per kilogram in March 2016 to 223 cents per kilogram in April 2017. Global rubber demand growth is expected to outpace production increases, and a continuation of the upward price trend seems likely.

Figure 7
Prices of selected agricultural raw material commodities, January 2011–April 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

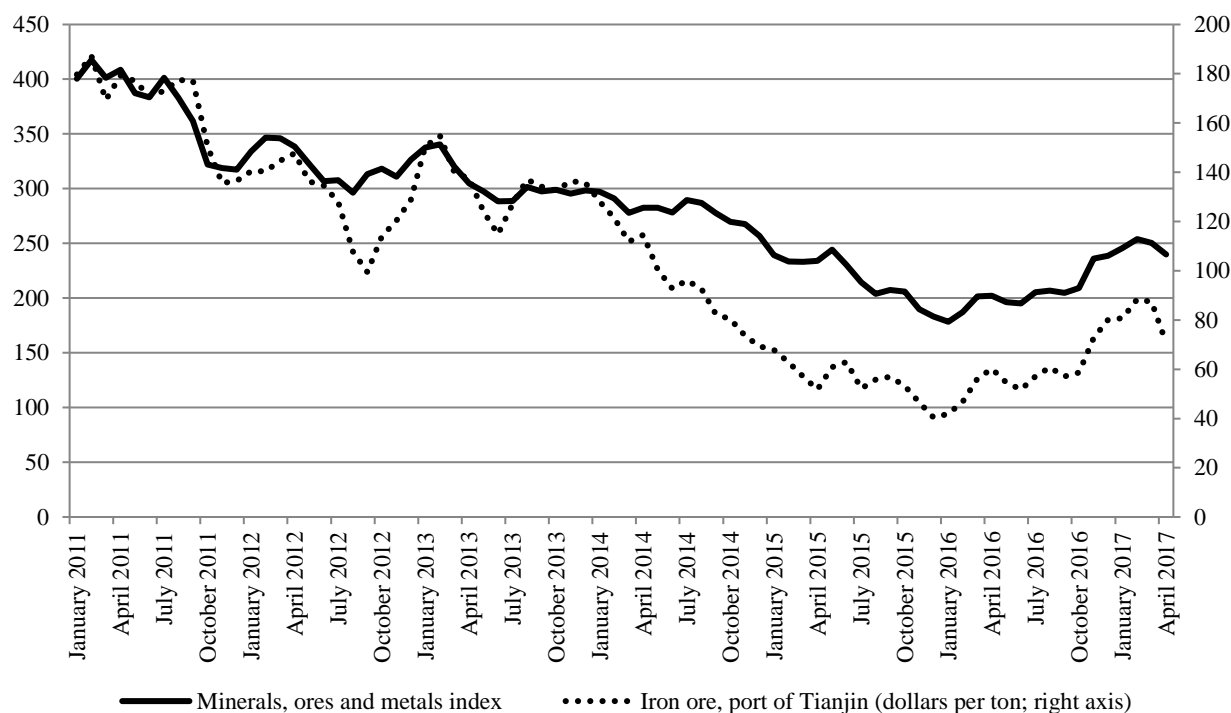
16. The price of cotton (cotton outlook index A) declined by 70.7 per cent, from 230 cents per pound in March 2011 to 67 cents per pound in January 2015. Thereafter, prices remained essentially flat through March 2016, when an upward trend set in. In April 2017, the index was at 87 cents per pound, constituting a 25.6 per cent increase on a year-on-year basis. The market outlook for cotton tentatively predicts an increase in production as well as a continuation of auctions of stockpiles by the Government of China, which will likely moderate the upward price trend in 2017.

2. Minerals, ores and metals

17. Mineral, ore and metal prices trended downward for almost five years following their peak in early 2011. In February 2011–January 2016, the UNCTAD minerals, ores and metals price index fell from 418 points to 178 points, corresponding to a loss of 57.3 per cent.⁵ The downward trend was reversed in 2016, with the price index reaching 239 points in December 2016. This price rally was mainly driven by supply cuts and uncertainties, in particular in the markets for nickel, copper and zinc. On a year-on-year basis, the index rose by 37.8 per cent in January 2017. This upward trend ended at the end of the first quarter of 2017 and the index fell by 5.5 per cent, from 254 points in February 2017 to 240 points in April 2017 (see figure 8). The main driver of this downward movement was a sharp decline in iron ore prices due to expectations of lower iron ore demand from China.

⁵ The index covers copper, aluminium, iron ore, nickel, lead, zinc, tin, phosphate rock, manganese ore and tungsten ore. Gold is not included.

Figure 8
Price indices of minerals, ores and metals; and iron ore nominal prices,
January 2011–April 2017
 (2000 = 100)

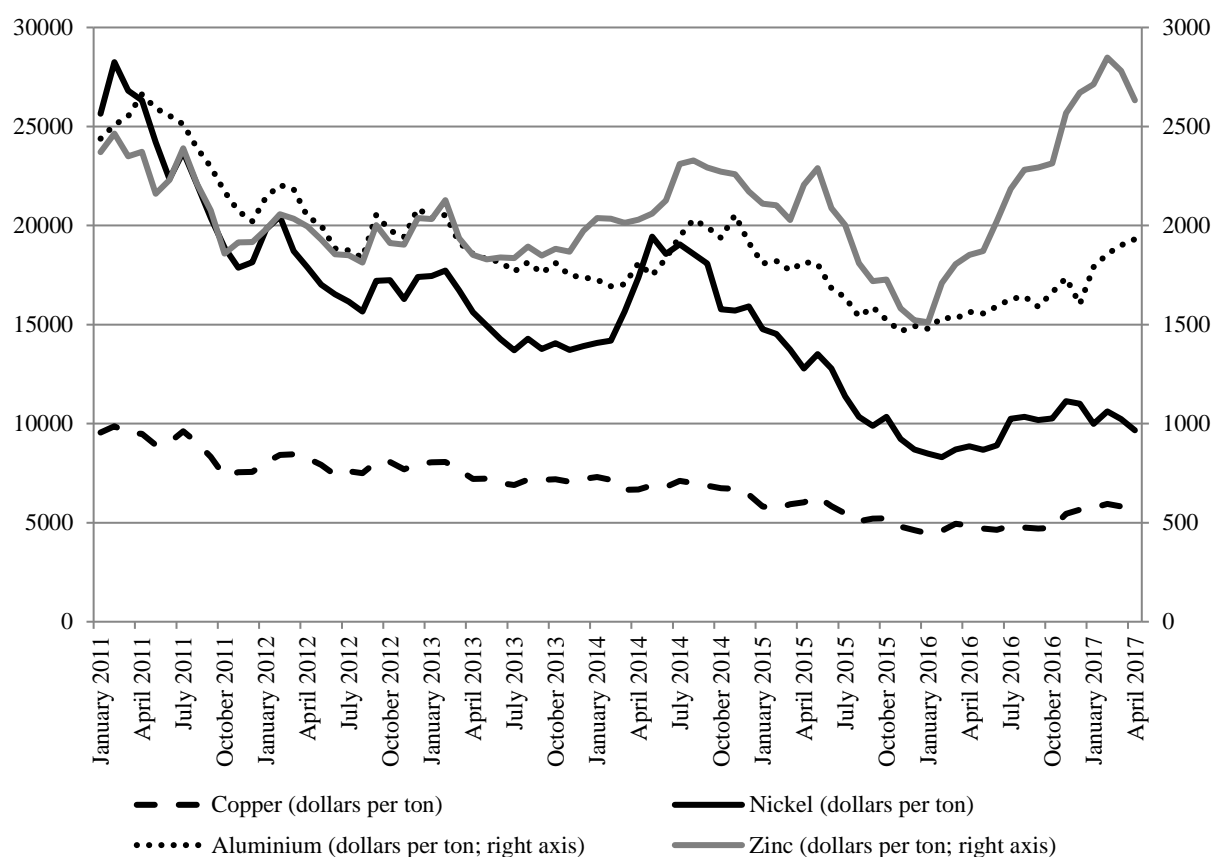


Source: UNCTAD secretariat calculations based on data from UNCTADstat.

18. The price of iron ore is strongly driven by consumption in China, as the country imports more than two thirds of total seaborne iron ore. In particular, steel production in China is an important indicator of the demand for iron ore. As growth in steel production in China slowed in 2014 and turned negative in 2015, the price of imported iron ore at the port of Tianjin lost 70.3 per cent of its value, from \$136 per dry ton in December 2013 to \$40 per dry ton in December 2015. Thereafter, prices for iron ore picked up and almost doubled in January–December 2016, based on recuperating demand from China and a reduction of output in high-cost mines. In April 2017, weakening demand for steel in China and oversupply concerns caused a drop in iron ore prices, to \$71 per dry ton. Favourable supply conditions make substantial price increases unlikely in the near future.

19. In February 2011, the price of copper at the London Metal Exchange reached its highest level ever recorded, at \$9,867 per ton. Thereafter, an extended downward trend brought prices down to just over half of their peak level in January 2016, at \$4,458 per ton (see figure 9). In June–December 2016, copper prices rallied by 21.9 per cent despite strong supply growth based on expanded operations in existing mines and new mine production in Mexico and Peru. The price increase was attributed to several factors, including a pick-up in demand in China and increased speculation following the presidential election in the United States of America. With the supply forecast of the International Copper Study Group showing a reduction of 1 per cent for 2017, a further increase in copper prices seems likely.

Figure 9
Prices of selected mineral, ore and metal commodities, January 2011–April 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

20. The price of aluminium fluctuated around a downward trend in 2015, owing to strong supply and low demand growth. In January–December 2015, the London Metal Exchange aluminium price declined by 17.4 per cent, from \$1,808 per ton to \$1,494 per ton. Thereafter, the price increased amid higher than expected demand growth and supply cuts in late 2015. In April 2017, the price averaged \$1,931 per ton. In the near future, the recent price increase can be expected to stimulate supply, and a further strong price increase seems unlikely.

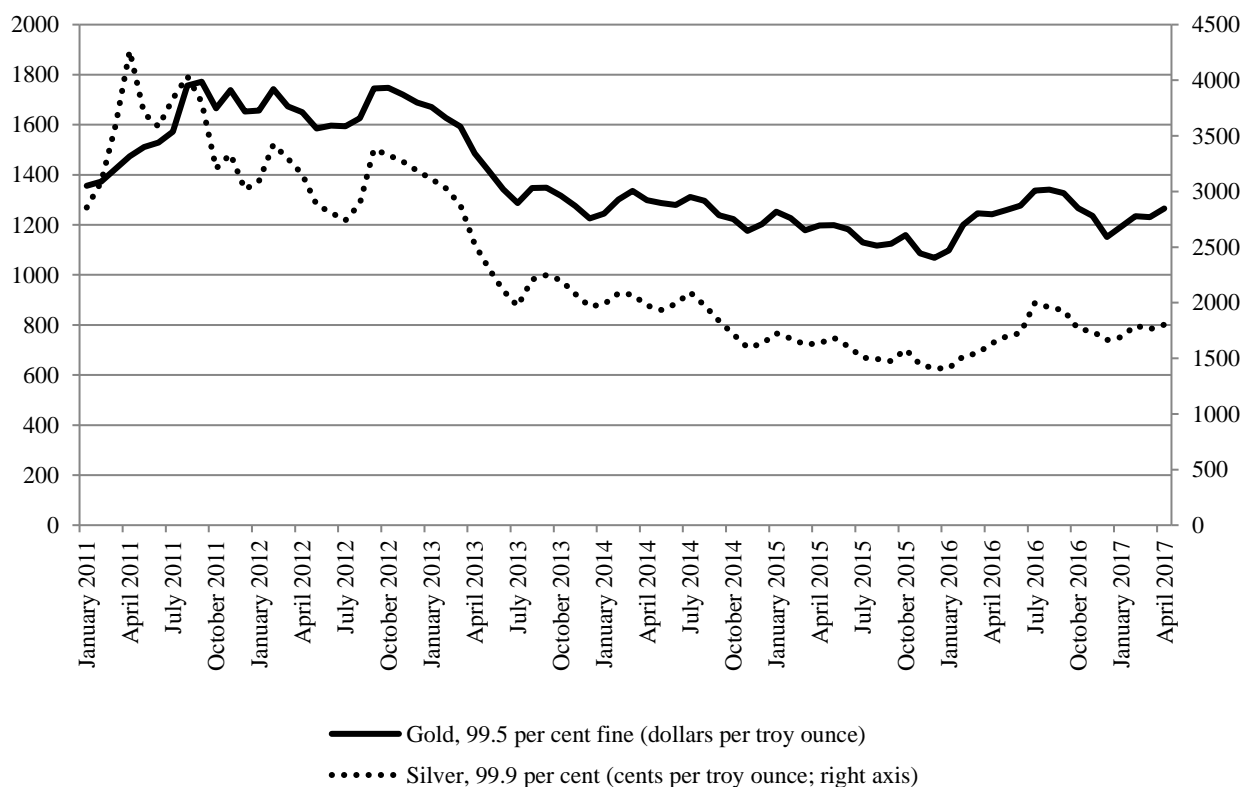
21. The price of nickel showed a brief deviation from its general downward trend in early 2014, when Indonesia implemented a ban on exports of unprocessed ore. After the Philippines increased its nickel exports, in particular to China, nickel prices resumed their downward trend, which persisted until early 2016. As a consequence, the London Metal Exchange nickel price lost 56.4 per cent of its value, from \$19,047 per ton in July 2014 to \$8,306 per ton in February 2016. Thereafter, mine closures in the Philippines due to environmental concerns drove nickel prices up to \$11,010 per ton in December 2016, before they receded to \$9,665 per ton in April 2017. With the ease on the export ban of unprocessed nickel from Indonesia, supply conditions improved, and a moderate price decrease seems probable in the near future.

22. Zinc markets have been characterized by a high degree of volatility in the past two years. In May 2015–January 2016, the London Metal Exchange zinc price lost 34.0 per cent of its value, from \$2,289 per ton to \$1,512 per ton. Weak demand and a supply surplus were the main reasons for the price fall in 2015. Thereafter, mine closures and production cutbacks led to a supply deficit that triggered a trend reversal, with the price of zinc rallying by 88.4 per cent in January 2016–February 2017, when it reached the highest level since October 2007, at \$2,848 per ton. However, in February–April 2017, the price of zinc decreased by 7.6 per cent. As the zinc supply deficit in 2016 was mainly due to output

restraint by key producers, it seems likely that high prices will at some point induce the supply to increase, and significant additional price increases do not seem likely in the near future.

23. Precious metal prices increased significantly in the first half of 2016 (see figure 10). In January–July 2016, gold prices increased by 21.9 per cent, from \$1,097 per troy ounce to \$1,337 per troy ounce. In the same period, the price of silver increased by 41.7 per cent, from 1,411 cents per troy ounce to 1,999 cents per troy ounce. Geopolitical and macroeconomic uncertainty due to several factors, including the vote on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union, and low interest rates in major economies, seem to have stimulated investments in gold and silver, thereby strengthening the price of precious metals in this period. Gold and silver prices decreased in the last quarter of 2016 amid the raising of the policy rate by the Board of Governors of the Federal Reserve System of the United States and a strengthening of the United States dollar. In April 2017, the prices of gold and silver averaged \$1,266 per troy ounce and 1,803 cents per troy ounce, respectively. In the near future, further increases in United States policy rates remain a key downside risk to precious metal prices, while upside risks include geopolitical conditions and a potentially weaker United States dollar.

Figure 10
Prices of gold and silver, January 2011–April 2017



Source: UNCTAD secretariat calculations based on data from UNCTADstat.

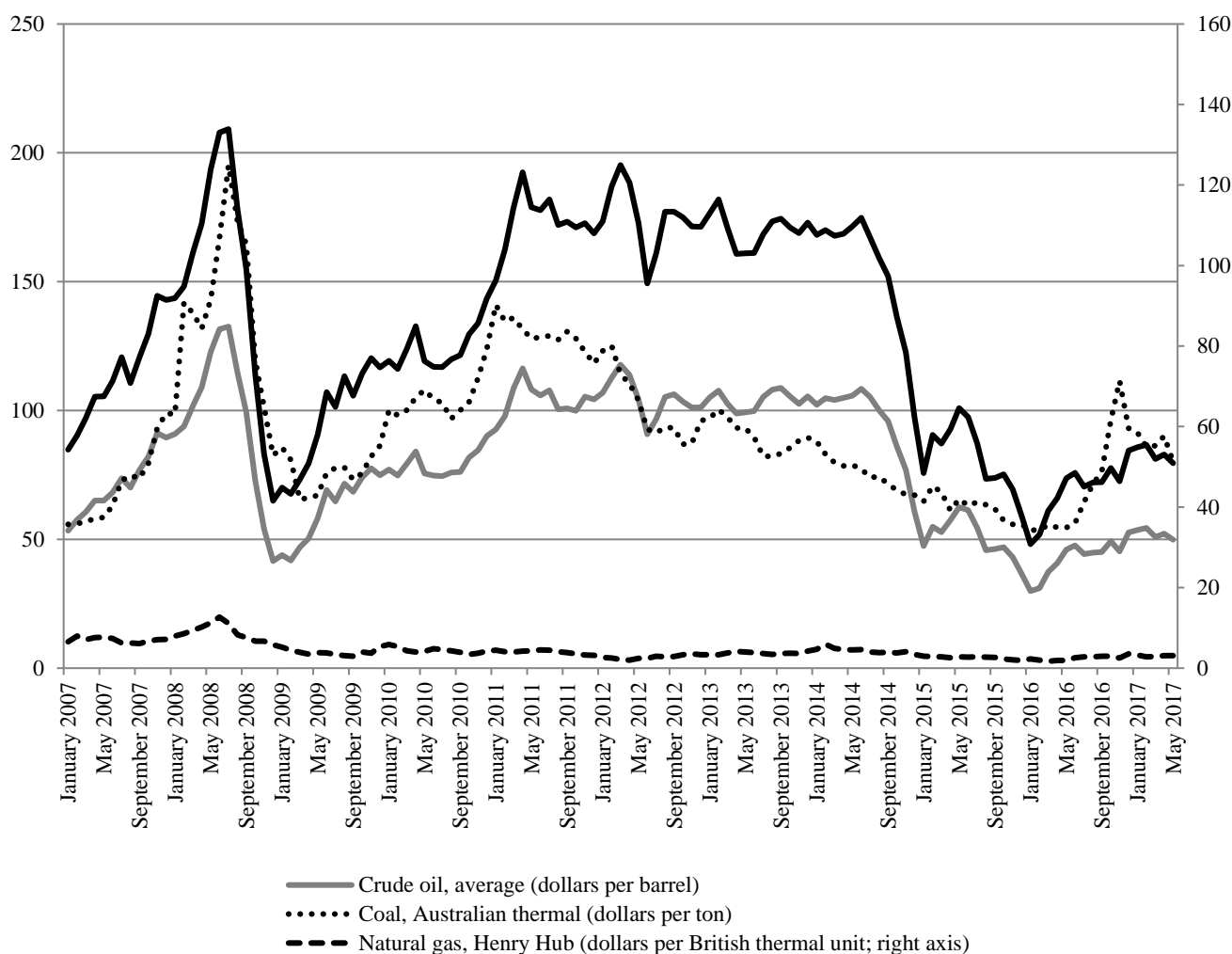
3. Energy

Crude oil

24. Crude oil prices have been characterized by a high degree of variability in the past decade. In January 2007–May 2017, the average spot price of Brent crude oil (hereafter referred to as the oil price) fluctuated between \$133.9 per barrel and \$30.8 per barrel (see figure 11). The lowest price during this period, \$30.8 per barrel, was recorded in January 2016 and constituted the lowest value since December 2003. In June 2014–

January 2015, the price dropped by 56.7 per cent, from \$107.0 per barrel to \$48.4 per barrel. The price of oil has, overall, remained at depressed levels since then.

Figure 11
Prices of crude oil (petroleum), coal and natural gas, January 2007–May 2017



Source: UNCTAD secretariat calculations based on data from International Monetary Fund international financial statistics.

25. The main driver of the price collapse in late 2014 was an oversupply in the market that had its roots in the massive increase of shale oil production in North America, increasing production in other producers not members of the Organization of the Petroleum Exporting Countries and a slowdown in crude oil demand growth. The build-up of large crude oil inventories compounded the supply–demand imbalance. According to data from the United States Energy Information Administration, global oil production increased from 93.7 million barrels per day in July 2014 to 97.5 million barrels per day in July 2015, with production by non-members of the Organization of the Petroleum Exporting Countries accounting for 46 per cent of the 3.8 million barrels per day increase in global production. Global consumption only increased by 2.6 million barrels per day in the same period, leading to a substantial increase in inventories.

26. In response to falling prices, the Organization of the Petroleum Exporting Countries decided at its ministerial conference on 30 November 2016 to cut production by 1.2 million barrels per day starting in January 2017, with Saudi Arabia implementing the largest production cut, at 486,000 barrels per day. The production cuts were the basis of a deal signed on 10 December 2016 with major producers not members of the Organization, including the Russian Federation, in which non-member producers agreed to cut production

by 558,000 barrels per day. The agreement to curtail production had a short-term impact, with oil prices rising by 20.0 per cent, from \$45.3 per barrel in November 2016 to \$54.4 per barrel in February 2017, before levelling at \$49.9 per barrel in May 2017.

27. On 25 May 2017, both the Organization of the Petroleum Exporting Countries and non-member producers decided to extend the production cuts, which had been limited to June 2017 in the original agreement, through March 2018. The impact of this decision will depend both on the degree of compliance with the agreed production cuts and the extent to which oil producers that are not party to the agreement will step up output. For instance, the United States increased production by 4.7 per cent from 14.71 million barrels per day in January 2017 to 15.4 million barrels per day in May 2017, which offset almost 40 per cent of the production cuts. While there might be technical and other limitations to further short-term production increases in the United States, the production cut agreed in May 2017 seems unlikely to be substantial enough to drive the oil price up to the levels of early 2014 on its own. In addition, inventories remain at high levels, which makes sharp increases in oil prices seem unlikely. In terms of upside risks, expectations of stronger demand growth could support a stronger oil price in the near future.

Natural gas

28. Markets for natural gas have traditionally been regionalized due to physical limits on transport and different contractual arrangements prevailing in different regions. This has led to the coexistence of various reference prices that differ markedly at times and occasionally move in opposite directions. For instance, in February 2012, the border price in Germany for one million metric British thermal units (Btu) of natural gas from the Russian Federation was \$12.22, while the price at the Henry Hub terminal in Louisiana, United States, was only \$2.53 per million metric Btu.

29. The Henry Hub natural gas price, often cited as a global benchmark, reached \$1.70 per million metric Btu in March 2016, the lowest level in more than 20 years, mainly owing to low consumption due to a mild winter. Thereafter, the Henry Hub natural gas price fluctuated around an upward trend, and the price averaged \$3.12 per million metric Btu in May 2017. The United States Energy Information Administration forecasts demand for consumption and exports to outpace supply in 2017 and 2018, leading to lower inventory levels. In the near future, further increases of the Henry Hub natural gas price seem likely.

30. In future, the rapid expansion of liquefied natural gas infrastructure and new technology are likely to lead to a higher degree of global market integration. Global liquefaction capacity was 340 million tonnes per annum in January 2017, almost double its value of 171 million tonnes per annum in 2005.⁶ With the construction of liquefaction capacity of over 100 million tonnes per annum expected in 2017, primarily in Australia and the United States, liquefaction capacity is expected to continue to grow at a rapid pace. In 2015, liquefied natural gas accounted for 32.5 per cent of global trade in natural gas.⁷ In the medium term, increased liquefied natural gas capacities could contribute to a convergence in natural gas prices.

Coal

31. Coal continues to be the primary fuel for electricity generation at the global level. In addition, coal is a key source of thermal energy for the steel and cement industries. As coal is also responsible for 45 per cent of energy-related carbon emissions, reducing its share in the global energy mix remains a key challenge in the context of climate change mitigation. According to forecasts by the International Energy Agency, the share of coal in power generation is on a downward trajectory, and is expected to drop from 41 per cent in 2014 to 36 per cent in 2021.

⁶ International Gas Union, 2010, *World Liquefied Natural Gas Report* (Barcelona, Spain); International Gas Union, 2017, *World Liquefied Natural Gas Report* (Barcelona, Spain).

⁷ Based on data from BP, 2016, *Statistical Review of World Energy* (London).

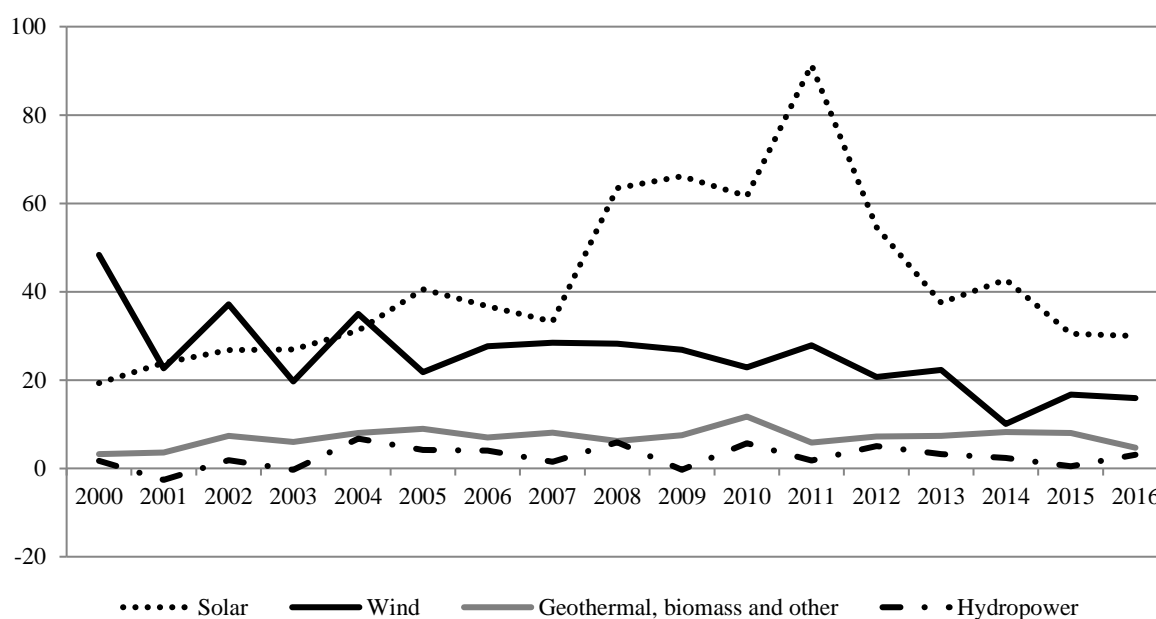
32. Coal prices fluctuated around a downward trend in early 2014–mid-2016, mainly driven by persistent oversupply and sluggish import demand from China. The reference price, Australian thermal coal, decreased by 36.1 per cent, from \$88 per metric ton in January 2014 to \$56 per metric ton in June 2016. The price then experienced a sharp increase, up to \$111 per metric ton in November 2016, based on tightened supply from Australia and increased import demand from China, where domestic production was cut to reduce oversupply and increase profitability in the coal sector. After supply conditions improved, mainly due to a partial rollback of production restrictions in China, the price of coal receded to \$80 per metric ton in May 2017. In the near future, in the light of ample supply capacity, a further downward movement in the coal price seems likely.

Renewable energy

33. Renewable energy sources are now the largest source of global electricity capacity and are expected to account for 60 per cent of global power capacity growth through 2021.⁸ Substantial capacity growth in onshore wind and solar photovoltaics contributed to a record growth in renewable electricity capacity in 2015, to 153 gigawatts.⁹ For more than a decade, solar photovoltaics have shown the highest growth rate in terms of renewable energy consumption, followed by wind (see figure 12). China continues to account for the largest share of global expansion in renewable energy sources, with large additions both in onshore wind and photovoltaic capacity. The capacity for renewables is growing in many countries and regions, including India, the United States and the European Union.

Figure 12

Annual growth rate of renewable energy consumption by type, 2000–2016



Source: UNCTAD secretariat calculations based on data from BP, 2016.

34. The growing deployment of renewable energy technologies has led to significant reductions in costs, which has enhanced the competitiveness of renewable energy sources in comparison with fossil fuels. For instance, onshore wind has become one of the cheapest sources of electricity, with a levelized cost of electricity¹⁰ in the range of \$0.06 to

⁸ International Energy Agency, 2016, Renewable energy medium-term market report, available at <https://www.iea.org/Textbase/npsum/MTrenew2016sum.pdf> (accessed 3 July 2017).

⁹ Ibid.

¹⁰ Levelized cost of electricity is a summary measure of the overall competitiveness of different generating technologies, representing the per-kilowatt-hour cost of building and operating a generating plant over an assumed financial life and duty cycle (see https://www.eia.gov/outlooks/aeo/electricity_generation.php).

\$0.09 per kilowatt hour in 2014,¹¹ lower than that from coal-fired power plants in member States of the Organization for Economic Cooperation and Development.¹² Further potential cost reductions in renewables in the medium term are substantial, with the levelized cost of electricity of solar photovoltaics, concentrated solar power and offshore wind potentially dropping by 59 per cent, 43 per cent and 35 per cent, respectively, by 2025.¹³

35. Continued expansion of renewables is a key building block in the achievement of the 2030 Agenda for Sustainable Development and the aim to keep the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels (article 2 of the Paris Agreement under the United Nations Framework Convention on Climate Change). In addition, expanding the generation of renewable energy has the potential to dramatically increase access to electricity in rural areas in developing countries, helping them to achieve Sustainable Development Goal 7, which aims to ensure access to affordable, reliable, sustainable and modern energy for all. In this context, a supportive policy environment remains crucial for renewables, in particular in the light of low fossil fuel prices.

II. Policy issues arising from recent market developments

A. Managing fluctuations and strengthening macroeconomic stability

36. Commodity price fluctuations lead to fluctuations in capital flows to commodity-dependent developing countries and are therefore linked to the balance of payments. In addition, public revenues in commodity-dependent developing countries are typically closely associated with commodity prices. In this regard, commodity-dependent developing countries face the constant challenge of managing externally induced stress and volatility through fiscal and monetary policy.

37. Countercyclical fiscal policy and precautionary savings can be tools to shield public budgets from the impacts of commodity price volatility and thereby strengthen the continuity of social programmes, infrastructure development and other components of social and economic development plans. In this context, revenue stabilization funds can help to smooth government expenditures. In addition, stabilization funds can serve as a means to transfer current revenue to future generations and thereby contribute to intergenerational fairness, in particular if commodity revenues are based on exhaustible resources. However, stabilization funds are only effective if they are well managed and if spending and saving rules are well designed and adhered to.

38. Commodity dependence is also associated with monetary policy challenges. Exchange rate volatility, inflation and the Dutch disease are phenomena that can threaten broad-based growth and development in commodity-dependent developing countries. Maintaining a sound monetary policy framework is crucial to managing these types of macroeconomic risks. This includes an independent central bank with a clear mandate and a focus on stability, to ensure an attractive business and investment climate.

B. Promoting and benefiting from sustainable energy transformation

39. Low fossil fuel prices are not only a source of economic stress for oil and gas-exporting countries, but also an obstacle to the expansion of renewable energy sources. In particular, in electricity generation, there is direct competition between natural gas and coal on the one hand, and renewable energy sources on the other. In this context, it is

¹¹ International Renewable Energy Agency, 2015, *Renewable Power Generation Costs in 2014* (Bonn, Germany).

¹² International Renewable Energy Agency, 2014, *Renewable power generation costs in Remap [road map for a renewable energy future] 2030*, available at <http://www.irena.org/remap/REmap-FactSheet-7-Cost%20Competitive.pdf> (accessed 3 July 2017).

¹³ International Renewable Energy Agency, 2016, *The Power to Change: Solar and Wind Cost Reduction Potential to 2025* (Bonn, Germany).

important to ensure a supportive policy environment for renewables, in order that momentum for a transition towards a sustainable global energy architecture can be maintained. This includes scaling back harmful and costly subsidies for fossil fuels, estimated at \$5.3 trillion in 2015.¹⁴ In addition, policies supporting the deployment of renewables, such as by setting targets for the share of renewables in the national energy mix and ensuring access to finance for investment in renewables, remain important.

40. Beyond its contribution to climate change mitigation, renewable energy expansion can also contribute to development objectives, including the achievement of the 2030 Agenda for Sustainable Development. Globally, more than 1 billion people remain without access to electricity. Renewable energy solutions can help to provide access to clean energy where it is lacking, for instance in remote areas where there is no grid connection. More generally, a transition towards cleaner and renewable energy sources can entail a number of benefits, including in terms of health, lower environmental pollution and reduced dependence on a single source of energy.

C. Lowering volatility and risk through diversification

41. The volatility of international commodity markets in the past decade highlights the importance of structural transformation for commodity-dependent developing countries. These countries are by definition characterized by a high level of concentration of their export earnings. This poses a number of risks to long-term growth and development prospects.¹⁵ Diversification and quality upgrading are crucial to reduce the risk of negative impacts of external variability induced by the high export concentration in commodity-dependent developing countries. A more diversified export structure means more stability in public revenue and generally less macroeconomic volatility.

42. Policies to support export diversification and quality upgrading need to address country-specific challenges and bottlenecks in order to successfully contribute to structural transformation. In this regard, commodity-dependent developing countries may consider measures that stimulate private sector initiative and investment, which are key drivers for the emergence of new products and industries. Such measures include stabilization of the macroeconomic environment as outlined above; improvement of the business environment, including access to finance; and investment in human capital and infrastructure. Furthermore, policies that support the creation of linkages between commodity and non-commodity sectors can also contribute to diversification. Finally, strategies for industrial diversification should focus on the inclusion of women, who face gender-specific challenges, including in access to land and credit, and social norms that constrain their effective participation.

¹⁴ International Monetary Fund, 2015, How large are global energy subsidies?, Working Paper No. 15/105.

¹⁵ The 2017 edition of the UNCTAD *Commodities and Development Report* will provide a detailed analysis of the transmission channels through which commodity dependence affects various aspects of human, social and economic development.