

## Special Feature: Commodity Market Developments and Forecasts

Commodity prices have decreased sharply since the release of the October 2019 *World Economic Outlook* (WEO), hit hard by the COVID-19 outbreak in late January. This reversed a previous upward trend supported, in part, by better economic prospects. Since the outbreak, energy and metal prices have fallen sharply as measures to contain the pandemic—first in China, then worldwide—substantially reduced travel and dented global industrial activity.<sup>1</sup> Oil prices collapsed further in March as the OPEC+ coalition broke down, unable to reach agreement on how to react to the weak oil demand outlook.<sup>2</sup> The price impact has varied significantly across commodities, depending on the specific end-use sectors and regions affected by the outbreak and on the storability and supply elasticity of the commodity (Figure 1.SF.1, panel 1, and Figure 1.1). Flight to safety has supported gold prices. The outbreak has reduced demand for some agricultural raw materials and animal feed; price support was, however, provided by cereals (such as wheat) following consumer stockpiling in regions affected by COVID-19.

### Energy Prices Plummeted

Oil prices declined 7.3 percent between August 2019 and February 2020, falling from \$57.60 to \$53.40, before further declining by 39.6 percent in March to \$32.30 as the COVID-19 outbreak abruptly reversed a positive trend as containment measures directly hit the transportation sector, which accounts for more than 60 percent of oil demand.<sup>3</sup> Confronting a weak demand environment, the OPEC+ coalition

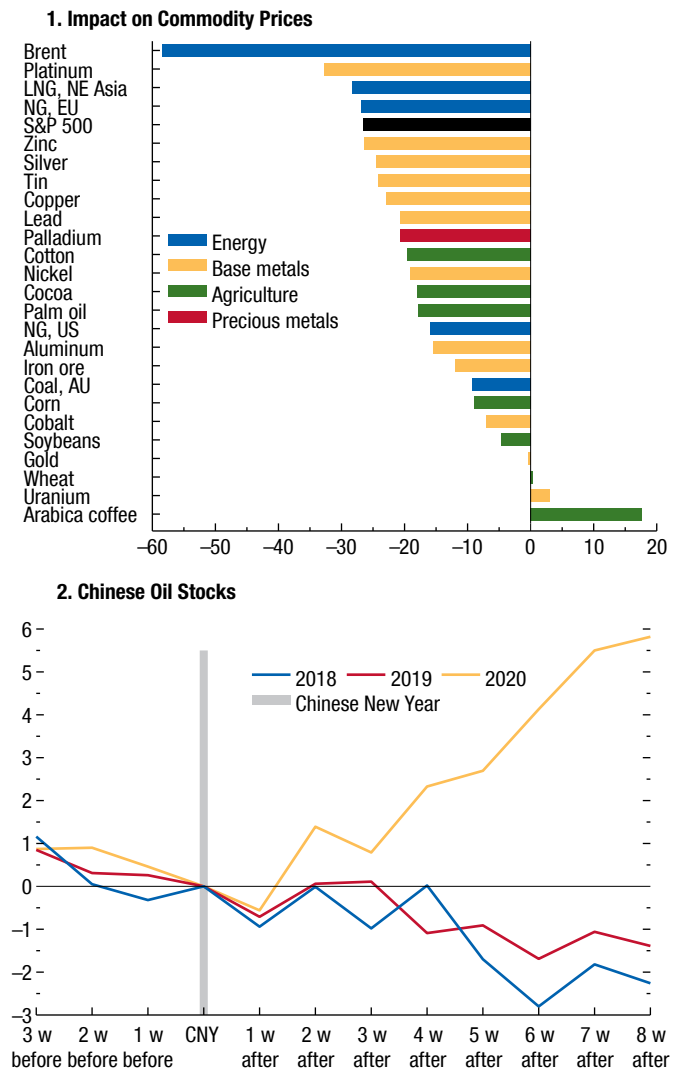
The authors of this special feature are Christian Bogmans, Lama Kiyasseh, Akito Matsumoto, Andrea Pescatori (team leader), and Julia Xueliang Wang, with research assistance from Lama Kiyasseh and Claire Mengyi Li.

<sup>1</sup>The IMF's Primary Commodities Price Index decreased by 1.5 percent between August 2019 and February 2020, the reference periods for the October 2019 WEO and the April 2020 WEO, respectively (Figure 1.SF.1, panel 1), driven by energy and base metals, which fell by 6.7 percent and 5.5 percent, respectively, while food prices increased by 3.3 percent. Most of the decline in commodity prices occurred in March, outside the reference period.

<sup>2</sup>OPEC is the Organization of the Petroleum Exporting Countries; OPEC+ includes Russia and other non-OPEC oil exporters.

<sup>3</sup>"Oil price" in this document refers to the IMF average petroleum spot price, which is based on UK Brent, Dubai Fateh, and West Texas Intermediate, equally weighted, unless specified otherwise.

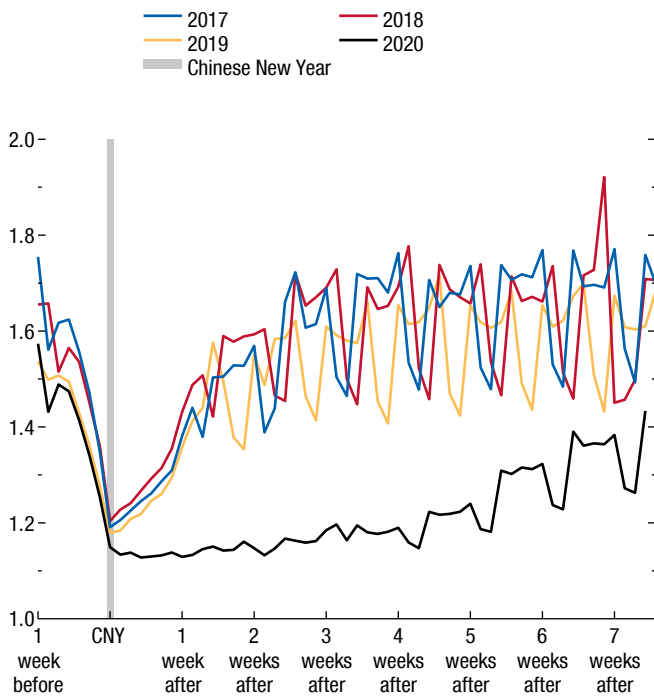
**Figure 1.SF.1. Impact of the COVID-19 Outbreak (Percent)**



Sources: Argus; Bloomberg L.P.; Thomson Reuters Datastream; URSA Space Systems; and IMF staff calculations.

Note: Panel 1 represents selected commodity price movements between January 17, 2020 (pre-outbreak), and February 7, 2020. Panel 2 represents the percentage point change in inventory fill as a share of inventory capacity, which is indexed to when the Chinese New Year began in each year. CNY = Chinese New Year; Coal, AU = coal, Australia; LNG, NE Asia = liquefied natural gas, northeast Asia; NG, EU = natural gas, Europe; NG, US = natural gas, United States; w = weeks.

**Figure 1.SF.2. China Transport Congestion Index**  
(100 cities, average)



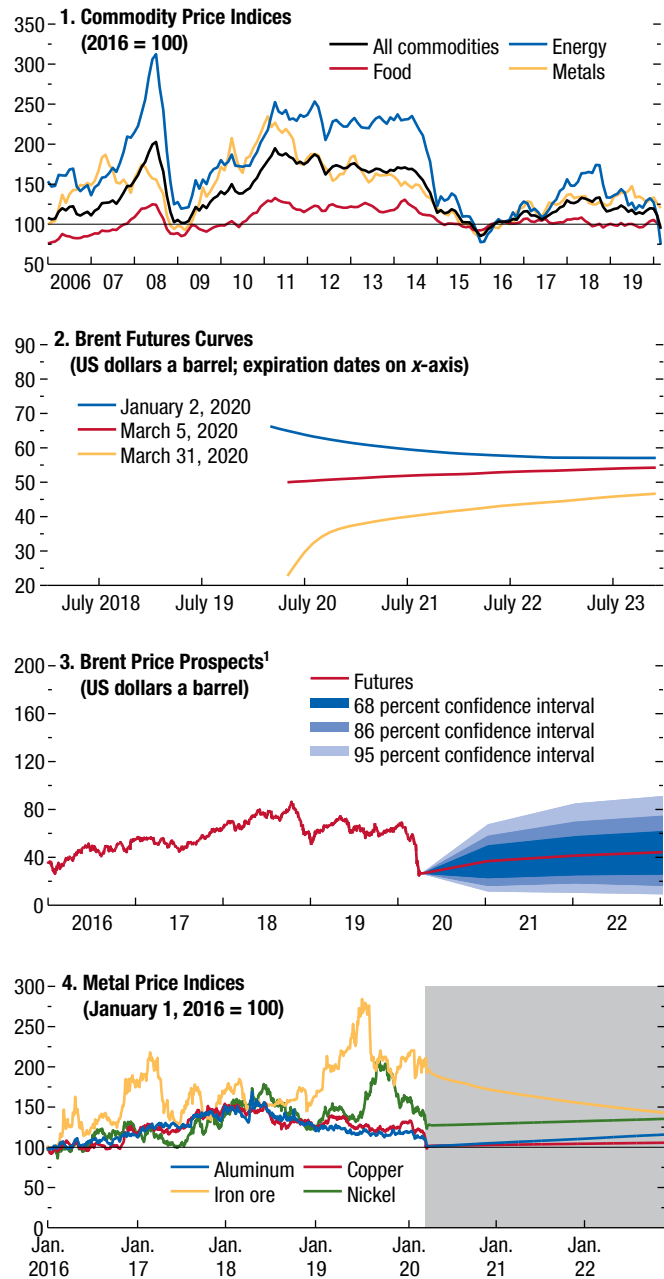
Sources: Wind; and IMF staff calculations.  
Note: CNY = Chinese New Year.

broke down on March 6, 2020, leading to the worst one-day price drop in the oil market since 1991. After trading close to \$20 toward the end of March, oil prices recovered somewhat in early April as the OPEC+ coalition resumed talks.

International and domestic travel restrictions throughout the world and a sharp reduction in road traffic (Figure 1.SF.2) are expected to lead to an unprecedented decline in oil demand in 2020—mostly driven by a collapse in second-quarter oil consumption that could exceed 10 million barrels a day (that is, about 10 percent of global daily oil production). The adjustment would be reflected, first, by a sharp accumulation in oil stocks and voluntary production cuts and, then, in the second half of the year, by a reduction in oil output, especially by price-elastic shale oil and other high-cost producers. The steep upward-sloping oil forward curve suggests a fast reduction in storage capacity (Figure 1.SF.1, panel 2, and Figure 1.SF.3, panel 2).

In the natural gas market, COVID-19 containment policies introduced in late January in China strongly

**Figure 1.SF.3. Commodity Market Developments**



Sources: Bloomberg Finance L.P.; IMF, Primary Commodity Price System; Thomson Reuters Datastream; and IMF staff estimates.  
<sup>1</sup>Derived from prices of futures options on March 26, 2020.

reduced demand for natural gas, leading some Chinese liquefied natural gas (LNG) buyers to halt their LNG imports as storage tanks filled. As a result, Asian LNG spot prices fell below a record low of \$3.00 per million British thermal units in February. Prices recovered

slightly in March as Chinese activity slowly resumed, but European natural gas prices declined as the pandemic moved to Europe.

As of March 27, oil futures contracts indicate rising Brent prices close to \$45 over the next five years. (Figure 1.SF.3, panel 2). Baseline assumptions, also based on futures prices, suggest average annual prices of \$34.80 a barrel in 2020—a decrease of 43.3 percent from the 2019 average—and \$36.40 a barrel in 2021 for the IMF’s average petroleum spot prices. Uncertainty is very elevated, given the unpredictable course of the pandemic (Figure 1.SF.3, panel 3). Risks are tilted to the downside in the very near term, as storage may fill up locally. Medium-term risks are balanced. Upside risks to prices include faster containment of the COVID-19 pandemic and a strengthening of the OPEC+ deal. The biggest downside risk is a sharper slowdown in global economic activity from the pandemic. Other downside risks include a collapse of the OPEC+ coalition and a stronger-than-expected resilience of US shale oil production to the lower price environment.

### **Metal Prices Decline Mitigated by Storability, Upside Risks to Food Prices**

Base metal prices declined by 5.5 percent between August 2019 and February 2020 and by an additional 9.1 percent in March, reversing a positive trend that ended in mid-January (Figure 1.SF.3, panel 1, and Figure 1.1). The shutdown of Chinese factories in February (China accounts for about half major metals global consumption) and, later, in Europe and in the United States, has weighed heavily on the demand for industrial metals. Since the outbreak, metal stocks

at warehouses approved by major metal exchanges have increased notably, buffering the impact of lower demand on spot prices and shifting the futures curve down significantly.

The IMF annual base metals price index is projected to decrease by 10.2 percent in 2020 and by a further 4.2 percent in 2021 on expectations of a sharp decline in global industrial activity. A further and more prolonged slowdown in metal-intensive sectors’ economic activity remains the most significant downside risk for metal prices, while supply stoppages present an upside.

The IMF’s food and beverage price index increased slightly, by 0.1 percent between the WEO reference periods, driven by cereals, oranges, seafood, and arabica coffee, which recorded substantial price increases, while the prices of meat, tea, wool, and cotton declined. Buoyed by strong global demand, tighter supply conditions, and news of the US–China Phase 1 trade deal, prices of many foods and beverages rose substantially until January, but the COVID-19 pandemic reversed this trend, especially for the prices of agricultural raw materials, such as cotton and wool. The recent oil price decline has put downward pressure on prices of palm oil, soy oil, sugar, and corn, and the demand outlook for biodiesel and ethanol has worsened considerably. More recently, consumer stockpiling in regions affected by COVID-19 has provided support for prices of wheat, rice, orange juice, and arabica coffee.

Food prices are projected to decrease by 2.6 percent in 2020 and increase by 0.4 percent in 2021. Supply chain disruptions, possibly due to trade restrictions or border delays, food security concerns in regions affected by COVID-19, and export restrictions in large food exporters are significant sources of upside risk for food prices.