

## BOX The implications of tariffs for commodity markets

*Growing trade tensions since the start of 2018, notably the imposition of tariffs by the United States on imports from a number of countries and reciprocal actions by the affected countries, have had a material impact on commodity markets. The impact of tariffs has depended on whether they were commodity-specific or imposed on a broad range of products from one or several countries. Commodity-specific tariffs have resulted in widening price differentials and diverted trade among countries. Broad-based tariffs have affected commodity markets through their impact on global trade and growth, especially for China, which is a major source of global metals and energy demand.*

### Introduction

Commodity markets have been affected by several macroeconomic developments this year, including deteriorating growth prospects in EMDEs and an appreciation of the U.S. dollar. Moreover, renegotiations of trade agreements, increased sanctions, and growing trade tensions between some countries have also had an impact on commodity markets. A key development was the imposition of import tariffs by the United States and retaliatory actions by affected countries on a wide range of products, including commodities. For example, the United States has imposed tariffs on steel and aluminum imports, while China has imposed tariffs on imports of U.S. soybeans and other food products.

The impact of tariffs on commodity markets has been mainly two-fold. First, the direct impact of commodity-specific tariffs has led to widening price differentials of the affected commodities and trade diversion. Second, the general impact of broad-based tariffs has indirectly affected global supply chains, trade, and economic growth, and therefore the demand outlook for several commodities. There have also been terms-of-trade effects given the size of the countries affected by tariffs.

Against this backdrop, this box addresses two questions.

- What has been the impact of commodity-specific tariffs on commodity markets?
- What has been the impact of broad-based tariffs on commodity markets?

### The impact of commodity-specific tariffs

**Channels of transmission.** There are a variety of ways in which commodity-specific tariffs affect commodity

markets. Commodity-specific tariffs increase domestic prices of the affected commodity relative to global prices. This can depress trade of the commodity and shift trade patterns toward countries and commodities that are not subject to the tariff (Haveman and Thursby 2000).<sup>1</sup> They can also result in changes in the production of the affected commodity, as well as of substitute commodities. These effects can vary depending on whether tariffs are applied to imports from one country (e.g., Chinese imports of soybeans from the United States) or to many countries (e.g., U.S. imports of steel and aluminum). They also depend on the relative importance of the affected countries in the global supply and demand of the commodity, and on the relative price and income elasticities of demand of the affected commodity.

**Impact of Chinese tariffs on imports of U.S. soybeans.** China's imposition of tariffs of 25 percent on imports of U.S. soybeans has contributed to substantial changes in prices and trade flows. China is the largest single consumer of soybeans in the world, the majority of which are imported (Figure B.1). Historically, these have been imported mainly from Brazil and the United States (each providing just over 40 percent). Since the announcement of tariffs, U.S. soybean prices have fallen substantially, as Chinese buyers have sought other suppliers.<sup>2</sup> As a result, prices of soybeans in Brazil have risen, reflecting increased demand from China. In turn, countries that typically purchase soybeans from Brazil, such as the European Union, have increased their imports from the United

<sup>1</sup> This is also referred to as trade diversion.

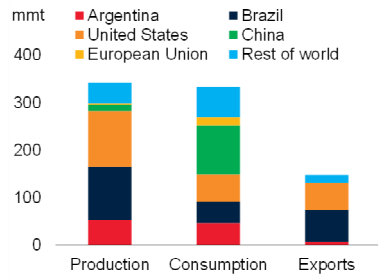
<sup>2</sup> In response to lower domestic agricultural prices, the United States government has announced its intention to purchase \$1.2 billion of domestically produced food as part of its food purchase program. This is in addition to the \$12 billion of farm aid announced in July 2018 to assist farmers affected by the tariffs.

**BOX The implications of tariffs for commodity markets (continued)**

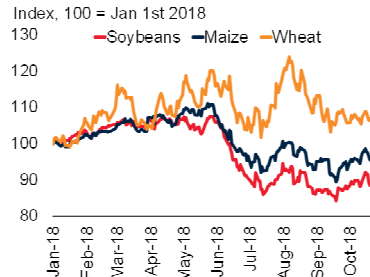
**FIGURE B.1 Commodity market developments and trade tensions**

Growing trade tensions and the imposition of import tariffs have affected commodity markets since the start of the year. Commodity-specific tariffs, including on metals and agricultural products, have led to widening price differentials and trade diversion. The broad-based rise in tariffs between the U.S. and China has affected prices of most commodities amid fears of a slowdown in trade volumes and economic growth, particularly in China.

**A. Global soybean supply and demand**



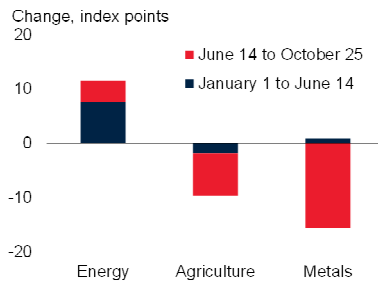
**B. U.S. agricultural prices**



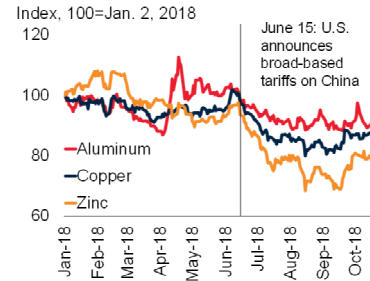
**C. U.S.-LME aluminum price differential**



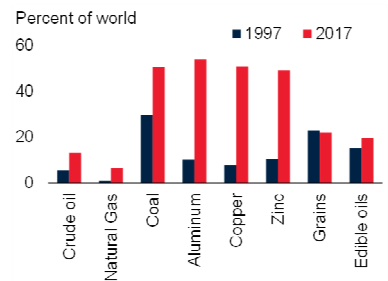
**D. Change in commodity prices year to date**



**E. Metals prices**



**F. China's share of global commodity demand**



Sources: Bloomberg, BP Statistical Review, USDA, World Bank, World Bureau of Metal Statistics.

A. Production, consumption, and exports of soybean oilseed. October 11, 2018 update. Data show averages of 2015-18.

C. U.S.-LME price differential shows the difference between the price for aluminum quoted on the London Metal Exchange (and used in the World Bank's Pink Sheets) relative to the price quoted on the New York Mercantile Exchange. Last observation is October 25, 2018.

E. Last observation is October 25, 2018.

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States, with EU imports of U.S. soybeans increasing by more than 280 percent in July 2018 relative to the previous year, although monthly data are volatile. In aggregate, some estimates suggest U.S. total soybean exports may fall by around a quarter over the next three to five years, with half of the loss of U.S exports to China expected to be offset by increased exports to other countries (Taheripour and Tyner 2018). In contrast, Brazilian exports of soybeans are expected to rise by 15 percent, as a result of greater demand from China.

**Impact of U.S. tariffs on imports of aluminum and steel.** In contrast to the impact of a tariff on a single commodity from a single country, tariffs applied to

imports of a commodity from all countries can have global and long-lasting effects, with little scope for trade diversion. After the United States announced tariffs on imports of steel and aluminum in March, the prices of these metals in the United States relative to other countries increased sharply, reflecting the higher cost of foreign supply to U.S. buyers. U.S. steel prices have increased by around 25 percent more than steel prices in the United Kingdom since the start of 2018, and the price differential of U.S. aluminum relative to the London Metal Exchange benchmark is up 11 percentage points. While this may help encourage domestic production, the additional cost to consumers could lead to an overall welfare loss for the United States.

## BOX The implications of tariffs for commodity markets (*continued*)

### The impact of broad-based tariffs

**Channels of transmission.** Growing trade tensions between major economies can raise concerns about global growth, trade, and investment prospects, and hence worsen the outlook for demand for a range of commodities. Tariffs may depress bilateral trade, disrupt global supply chains, and increase demand for substitutes from other countries (IMF 2018; World Bank 2018b; Ossa 2014; Nicita, Olarreaga, and Silva 2018). An escalation of tariffs up to legally-allowed bound rates could translate into a decline in global trade flows of up to 9 percent, similar to the drop during the global financial crisis in 2008-09 (Kutlina-Dimitrova and Lakatos 2017). The impact of increased protectionism would be more severe in EMDEs than in advanced economies. Highly protected sectors such as agriculture and food processing would likely be among the most negatively affected. Even the threat of substantial shifts in trade policies in major economies, and associated uncertainty, could have negative consequences for financial and commodity markets.

**Impact of broad-based tariffs.** These channels of transmission were visible following the announcement of wide-ranging tariffs on \$34 billion of China's exports to the United States in June 2018, which coincided with the beginning of a broad-based decline in many industrial commodity prices. Metals prices have fallen 14 percent since June and agricultural prices by 7 percent. Industrial metals are particularly responsive to concerns about trade tensions given their many uses in the manufacture of tradeable goods, with several metals, such as nickel, experiencing a fall in prices of more than 20 percent. While trade tensions have weighed on energy prices, particularly for crude oil, these have been offset by concerns about oil supply relating to the impact of U.S. sanctions on Iran, ongoing production disruptions in Venezuela, and robust demand for coal and natural gas.

**The role of China.** The response of commodity prices to the imposition of tariffs on China, amid broader emerging growth concerns, is due in part to the increased importance of China in commodity

markets. China accounted for 80 percent of the increase in metals consumption and 50 percent of the increase in energy consumption over the past 20 years, and now accounts for roughly half of global demand for metals and coal. (Special Focus; Baffes et al. 2018; World Bank 2018a). It also has significant and increasing links with other countries through trade, confidence, and financial channels (World Bank 2016). A sharper-than-expected slowdown in China could have severe repercussions for commodity markets and commodity exporters. A 1 percentage point drop in China's growth could result in a decline in average commodity prices of about 6 percentage points after two years, although the impact is likely to be much larger for commodity markets where China is particularly prominent, such as metals, than for those where it accounts for a smaller share of global consumption, such as oil and natural gas (World Bank 2016).

### Conclusion

The imposition of both commodity-specific and broad-based tariffs has had a material impact on commodity markets. Commodity-specific tariffs have reduced and diverted trade flows and amplified price differentials for a range of commodities, including soybeans, steel, and aluminum. The increase in broad-based tariffs has led to fears of weaker global trade and potentially slower economic growth, which in turn has caused the prices of commodities to fall, particularly for metals.

If a further escalation of trade-restrictive measures between major economies were to materialize, it could lead to substantial economic losses and cascading trade costs through global value chains (Bown 2017; Erbahar and Zi 2017; Escaith 2017; Irwin 2017). A pullback in demand from major economies would result in significant negative spillovers for the rest of the world through trade, confidence, financial, and commodity-market channels (Huidrom, Kose, and Ohnsorge 2017; Kose et al. 2017). Regions with large resource wealth, such as Latin America and Sub-Saharan Africa, may be particularly affected, given their dependence on both commodity markets and China.

**BOX The implications of tariffs for commodity markets (continued)****References**

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