

JANUARY 2017

# Commodity Markets Outlook

*Investment Weakness in  
Commodity Exporters*



WORLD BANK GROUP

Q1  
Q2  
Q3  
Q4



JANUARY 2017

# Commodity Markets Outlook



**WORLD BANK GROUP**

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The World Bank's *Commodity Markets Outlook* is published quarterly, in January, April, July, and Oc-

tober. The report provides detailed market analysis for major commodity groups, including energy, agriculture, fertilizers, metals, and precious metals. A *Special Focus* section examines current topics and issues in commodity markets. Price forecasts to 2030 for 46 commodities are presented, together with historical price data. The report also contains production, consumption, and trade statistics for major commodities. Commodity price data updates are published separately at the beginning of each month.

The report and data can be accessed at:  
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# Executive Summary

Prices for most industrial commodities continued to rise in the fourth quarter from their lows in early 2016, while most agricultural prices declined. Crude oil prices are forecast to rise to \$55 per barrel in 2017 from \$43/bbl in 2016 following agreements among some Organization of the Petroleum Exporting Countries (OPEC) producers and non-OPEC producers to limit output in the first half of 2017. Metals prices are projected to rise 11 percent as a result of supply constraints, including large lead and zinc mine closures. Agricultural commodities prices are anticipated to rise slightly in 2017, with increases in oils and meals and raw materials, offset by declines in grains following favorable weather conditions in Europe, North America, and Central Asia. This edition of *Commodity Markets Outlook* analyzes the recent investment weakness in commodity-exporting emerging market and developing economies (EMDEs) and concludes that the deceleration reflects elevated uncertainty, deteriorated terms of trade, and increased private debt burdens.

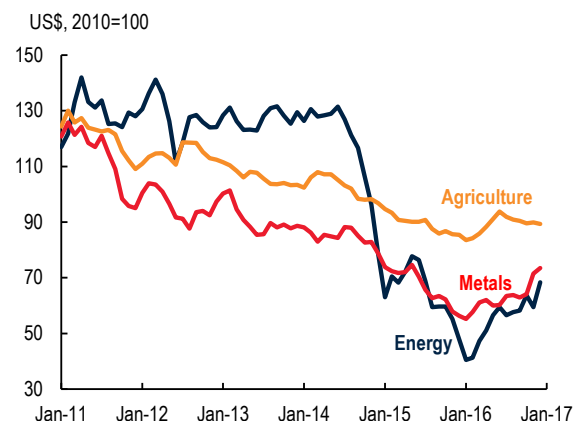
**Trends.** Energy prices rose 11 percent in the fourth quarter of 2016 from the previous quarter with strong gains in all fuels (Figure 1). Coal prices soared 38 percent on strong demand and continued supply tightness in China resulting from government efforts to reduce coal capacity. Natural gas prices rose 8 percent, with increases in all three regions due to stronger demand and a number of liquefied natural gas (LNG) production outages, notably the Gorgon project in Australia. U.S. natural gas prices were boosted in December by colder-than-normal weather and large draws from storage.

Crude oil prices jumped 10 percent in the fourth quarter, averaging \$49.1/bbl, following agreements by both OPEC and non-OPEC producers to reduce output by nearly 1.8 million barrels per day in the first half of 2017. The oil market continues to rebalance amid steady demand growth, while sharply lower investment in non-OPEC countries has led to lower production, notably in the U.S. shale oil sector. Global stocks, however, remain stubbornly high, particularly in the United States, and were a main reason for oil producers to limit production.

The Non-Energy Commodity Price Index rose 1 percent in the fourth quarter with large variations among major groups. Metals prices increased 10 percent due to strong demand in China and tightening supply, notably for zinc and lead because of the closure of several large mines in Australia, Canada, and Ireland. Precious metals prices fell 9 percent on weakening investment demand due to a rising U.S. dollar and higher real interest rates. Grains prices declined 4 percent due to record crops in rice, maize, and wheat. The increase in some edible oils prices reflects tightening supplies from East Asia producers as a result of lower palm oil yields. The Beverage Price Index declined 3 percent in response to a supply-driven drop in cocoa prices, although Robusta coffee prices rose on expectations of lower Brazilian output.

**Outlook and risks:** Energy and non-energy commodity price indexes are projected to increase in 2017 by 26 and 3 percent, respectively. Both are slight upward revisions from October (Table 1). Industrial commodities are expected to outperform other markets due to strong demand and tight supplies. Prices of beverages, grains, and precious metals are exceptions.

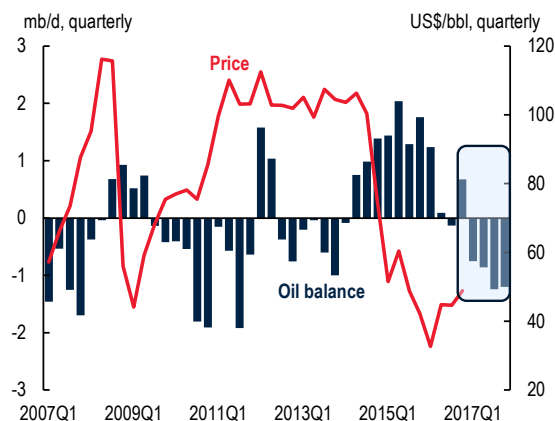
## 1 Commodity price indexes, monthly



Source: World Bank.

Note: Last observation is December 2016.

## 2 World oil balance and oil price



Sources: International Energy Agency, World Bank.

Notes: Balance is defined as the difference between world oil demand and supply. OPEC crude oil production for 2017 is assumed at 33.0 mb/d. Shaded area represents projections.

*Oil* prices are projected to average \$ 55/bbl in 2017, unchanged from the October forecast, and an increase of 29 percent from the 2016 average oil price. The increase largely reflects partial compliance (in line with historical precedent) to the recent agreement between OPEC and non-OPEC producers. The market is expected to tighten in 2017, particularly in the second half of the year, which would help reduce the large stock overhang (Figure 2). Onshore U.S. lower-48 states oil production (which includes shale) is projected to bottom out in the second quarter of 2017 and rise moderately thereafter. Prices are projected to increase to \$60/bbl in 2018 assuming a balanced market and no additional OPEC supply restraint.

*Non-energy* commodity prices are expected to increase 3 percent in 2017—the first increase in six years for both metals and agricultural prices. After dropping 6 percent in 2016, metals prices are forecast to rise 11 percent amid increasing supply tightness, particularly for lead and zinc. Downside price risks for metals include a slowdown of growth in China and higher-than-expected production, while upside risks relate to greater-than-expected government-related supply restraints in Asia, and reluctance by producers to activate idle capacity. Precious metals prices are projected to decline in 2017 as benchmark interest rates rise and safe-haven buying ebbs.

Although the *Agricultural Price Index* is expected to remain stable in 2017, the outlook for its components varies considerably, depending on supply conditions. Small increases are expected for oils and meals as well

as raw materials components (3 percent and 2 percent, respectively) due to lower supplies from East Asia as a result of adverse weather. This will be offset by a decline in grains prices (down 3 percent) on an improved supply outlook following favorable growing conditions in Central Asia, Europe, and North America. Upside risks to the agricultural price forecast include worsening weather conditions in East Asia and South America and a larger-than-expected increase in energy prices, which are a key cost component to most food prices. Risks of supply disruptions from La Niña have diminished. Downside risks include the escalation of agricultural subsidies, especially in grains, which could encourage greater production.

*Special Focus on investment weakness in commodity-exporting EMDEs.* Investment growth in commodity-exporting EMDEs has slowed substantially, from 7.1 percent in 2010 to 1.6 percent in 2015. In about two-thirds of commodity-exporting EMDEs, investment growth failed to reach its long-term average in 2015. Both public and private investment were weak. Subdued growth prospects and deteriorating terms of trade lay behind the deceleration in investment. Given the limited room for fiscal or monetary stimulus in most commodity exporters, the *Special Focus* argues that structural reforms are critical to enhance business environments, encourage economic diversification, and improve governance. These measures could boost public and private investment and attract foreign direct investment, resulting in brighter growth prospects in the longer term.

**TABLE 1 Nominal price indexes and forecast revisions**

	Price Indexes (2010=100)						Change (%)		Revision <sup>2</sup>	
	2013	2014	2015	2016	2017f <sup>1</sup>	2018f <sup>1</sup>	2016-17	2017-18	2017f	2018f
<b>Energy</b>	127	118	65	55	69	75	25.7	8.2	0.6	0.4
<b>Non-Energy<sup>3</sup></b>	102	97	82	80	83	84	3.2	0.9	1.5	0.5
<b>Agriculture</b>	106	103	89	89	90	91	0.6	1.1	-0.9	-1.2
Beverages	83	102	94	91	90	90	-1.3	0.2	-1.3	-0.6
Food	116	107	91	92	93	94	0.4	1.2	-1.1	-1.5
Oils and meals	116	109	85	90	92	94	3.1	1.4	1.2	0.6
Grains	128	104	89	82	79	81	-3.2	2.1	-5.9	-6.7
Other food	104	108	100	105	105	105	-0.2	0.2	0.1	0.6
Raw Materials	95	92	83	80	82	83	2.2	1.6	-0.2	-1.0
<b>Fertilizers</b>	114	100	95	75	77	79	2.2	2.1	0.2	-0.1
<b>Metals and Minerals</b>	91	85	67	63	70	70	10.8	0.3	6.5	4.0
<b>Precious Metals<sup>3</sup></b>	115	101	91	97	91	90	-7.0	-0.8	-4.9	-3.7
<b>Memorandum items</b>										
Crude oil (\$/bbl)	104	96	51	43	55	60	28.5	9.1	-0.2	0.1
Gold (\$/toz)	1,411	1,266	1,161	1,249	1,150	1,138	-7.9	-1.1	-69.4	-51.8

Source: World Bank.

Notes: (1) "f" denotes forecasts. (2) Denotes revision to the forecasts from the October 2016 report (expressed as change in index value except \$/bbl for crude oil, and \$/toz for gold). (3) The non-energy price index excludes precious metals. See Appendix C for definitions of prices and indexes. Figures may not match due to rounding.



## SPECIAL FOCUS

Investment weakness in commodity exporters



## Investment weakness in commodity exporters

*Investment growth in commodity-exporting emerging market and developing economies (EMDEs) has declined sharply since 2010, and was below its long-term average in about two-thirds of these economies in 2015. This slowdown reflects weak growth prospects, elevated uncertainty, deteriorated terms of trade, and increased private debt burdens, among other factors. Policymakers face weakened fiscal positions and generally above-target inflation levels and therefore have limited macroeconomic policy space to reignite investment growth.*

### Introduction

Investment growth in commodity-exporting EMDEs has also slowed substantially, falling from 7.1 percent in 2010 to 1.6 percent in 2015 (Figure F1). In about two-thirds of commodity-exporting EMDEs, investment growth was below its long-term average in 2015. Weakness in investment has been broad-based and includes both public and private sources (Figures F2).

Subdued growth prospects and deteriorating terms of trade, compounded by rising political instability, contributed to the investment slowdown. The fall in commodity prices, for instance, accounts for 1.5 percentage point of the total decline in investment growth in commodity exporters between 2011 and 2015. A 10 percent increase in VIX volatility index is associated with a 0.5 percent decline in investment growth within a year in these countries. Weakening investment occurs at a time when many of these economies have major investment needs, especially in the areas of health, education, infrastructure, and urbanization (World Bank 2017).

Despite stabilization in commodity prices over the course of 2016, a double-digit cumulative decline from early-2011 peaks created a major terms-of-trade shock for commodity-exporting EMDEs. A number of them are still struggling to adjust to the prospects

of continued low commodity prices. GDP in commodity-exporting EMDEs is estimated to have grown by 0.3 percent in 2016, well below the 5.6 percent pace of commodity-importing EMDEs.

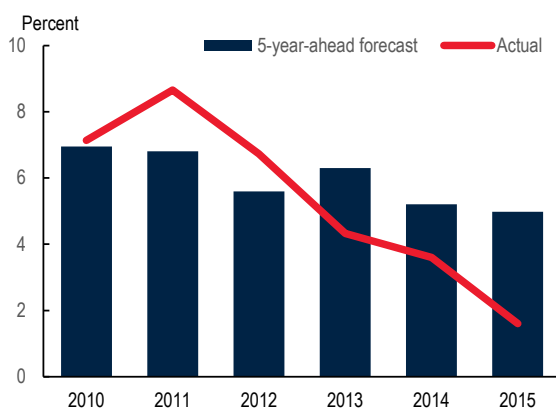
Against this background, this Special Focus section addresses the following questions: (1) How has investment growth in commodity-exporting EMDEs evolved? (2) What are the sources of the investment slowdown in commodity-exporting EMDEs? (3) Which policies can help reignite investment growth?

### How has investment in commodity-exporting EMDEs evolved?

During 2003-08, investment growth in commodity-exporting EMDEs reached historic highs, averaging 11.7 percent per year, more than twice the long-term average growth rate of 4.6 percent. The investment boom in commodity exporters reflected soaring commodity prices, which encouraged investment in resource exploration and development and, in anticipation of higher future incomes, non-resource projects (World Bank 2016).

However, investment growth in commodity exporters slowed steadily from 7.1 percent in 2010 to 1.6 percent in 2015. The deceleration was even more pronounced among energy exporters, where investment

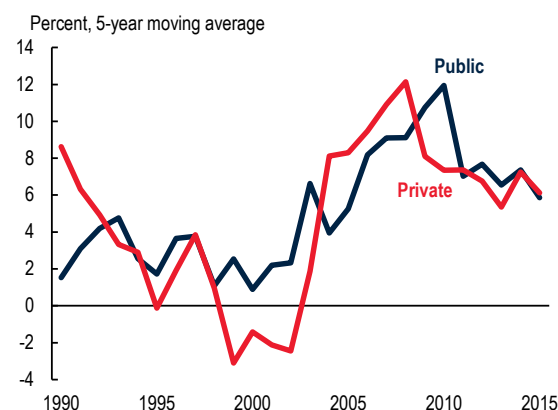
**F1 Actual and 5-year-ahead forecasts of investment growth**



Source: International Monetary Fund.

Notes: Each bar shows five-year-ahead Consensus Forecasts as of the latest available month in the year denoted. Unweighted averages of 10 commodity-exporting EMDEs.

**F2 Investment growth in commodity-exporting EMDEs**



Source: World Bank.

Notes: Weighted averages. Long-term average starts in 1991 for EMDEs due to lack of earlier data. The sample includes 83 commodity-exporting EMDEs.

eased from 8.9 percent in 2010 to 1.8 percent in 2015. Since 2013, investment growth has been well below its pre-crisis 2003-08 average rates, which were in the double digits, and below its long-term average over 1990-2008. Five-year-ahead forecasts of investment growth have also continuously declined over the last five years. The share of commodity exporters experiencing investment growth below its long-term average rose from 40 percent in 2010 to 67 percent in 2015 (Figure F3). Investment weakness has affected all types of activities, including machinery, equipment, and construction, and both public and private sources, particularly public ones. Investment in resource-intensive sectors has closely followed the decline of commodity prices, as reflected in weak oil and metal company investment in exploration and extraction globally (IMF 2015a, 2015b). Various studies have shown that commodity price movements and investment in commodity exporters are closely tied (Fornero, Kirchner, and Yany 2016; Cespedes and Velasco 2012; Kose 2002).

In commodity-exporting EMDEs, private investment during 2010-15 accounted for roughly 78 percent of total investment. Some of these countries unwound fiscal stimulus only slowly in 2008-09 as public investment growth remained positive despite a slowdown during 2010-13. Since 2013, however, public investment growth in commodity exporters has dropped sharply and shrank in 2015. In contrast, private investment growth has slowed more gradually from its post-crisis peak in 2010, a tentative stabilization in 2015 notwithstanding.

Post-crisis investment weakness in commodity-exporting EMDEs occurs against a global macroeconomic backdrop which includes stagnant trade and heightened policy uncertainty. Conditions should im-

prove, however, in light of the expected recovery in commodity prices. In addition, possible fiscal stimulus in key major economies and potential positive spillover effects to other economies represent an upside risk to the global outlook (World Bank 2017).

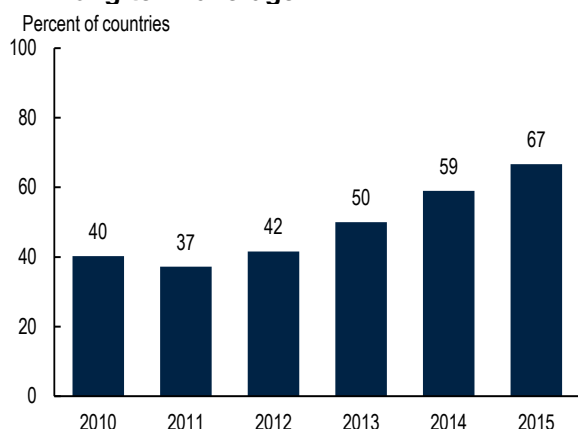
### What are the sources of investment growth slowdown in commodity-exporting EMDEs?

Headwinds to investment include weak growth prospects, severe adverse terms-of-trade shocks, rapid accumulation of private debt, and recently, heightened policy uncertainty in major economies.

### Weak GDP growth prospects

Output growth in commodity-exporting EMDEs has slowed since the financial crisis, dropping from 8.9 percent in 2011 to 0.4 percent in 2015, levels well below the pre-crisis average (2003-08) of 11.5 percent (Figure F4). Among commodity-exporting EMDEs, weak growth prospects during the last two years has been more pronounced in energy exporters (Figure F5). Decelerating output growth prospects accounted for about 1.3 percentage points of the slowdown in investment growth in commodity exporters since 2011. Growth prospects in these economies have been dampened by a deteriorating outlook for major economies that are important trading partners, as well as sluggish productivity growth and demographic factors. In particular, growth in China has slowed in the face of weak external demand and policy measures aimed at shifting economic activity from manufacturing to services. This has reduced global commodity demand and generated adverse spillovers to commodity-exporting EMDEs (World Bank 2016).

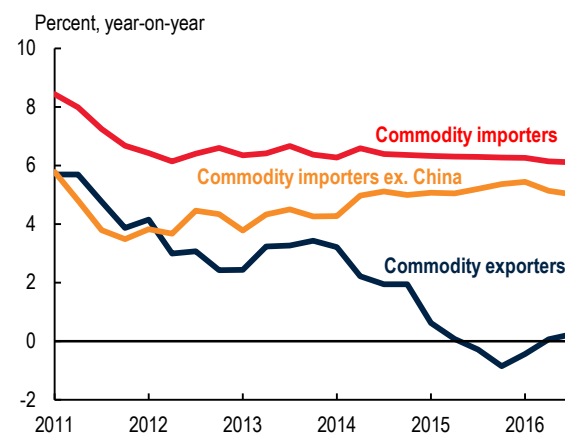
**F3 Countries with investment growth below long-term average**



Source: World Bank.

Notes: Long term averages are country-specific and refer to the period 1990-2008. The sample consists of 78 commodity exporting EMDEs.

**F4 GDP growth**



Source: World Bank.

Notes: Weighted averages of GDP growth. Last observation is 2016Q2.

## Worsening terms of trade

As a result of the sharp commodity price slide from early-2011 peaks, the terms of trade—the ratio of export prices to those of imported goods and services—of commodity exporters deteriorated by 4 percent since 2011, on average. Oil exporters experienced a 21 percent plunge (Figure F6). These terms-of-trade shocks accounted for 1.5 percentage points of the investment growth slowdown in commodity exporters between 2011 and 2015, and 3.4 percentage points in energy exporters (World Bank 2017).

## Rapid credit growth and debt overhang

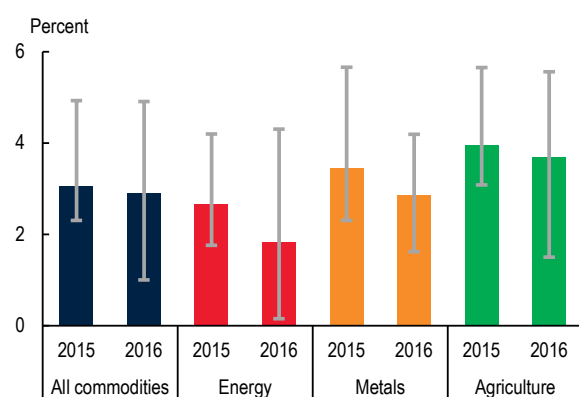
On average, private credit in commodity exporters has increased by nearly 20 percentage points of GDP from 2000 to 2015. In about half of these economies credit to the non-financial private sector (as a ratio of

GDP) grew more than 4 percentage points from 2015Q2 to 2016Q2. This is well above the long-term average yearly increase of 1 percentage point (World Bank 2016). Credit booms since 2010 have been unusually “investment-less” in commodity-exporting EMDEs (Figure F7).<sup>1</sup> Historically, when such investment-less credit booms unwind, output contracts more than when booms were accompanied by an investment surge (World Bank 2017).

## Heightened uncertainty

Political uncertainty has increased in many commodity-exporting EMDEs since the 2008-09 global financial crisis. This is a by product of geopolitical tensions in Eastern Europe, security challenges and conflicts in the Middle East, and acute domestic political tensions in several large commodity-exporting EMDEs. Deteriorated political stability in some commodity-export-

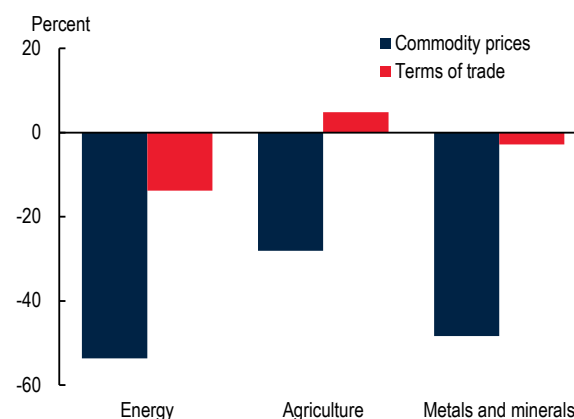
**F5 Growth in commodity-exporting EMDEs**



Source: International Monetary Fund.

Note: Growth is simple average of each country group.

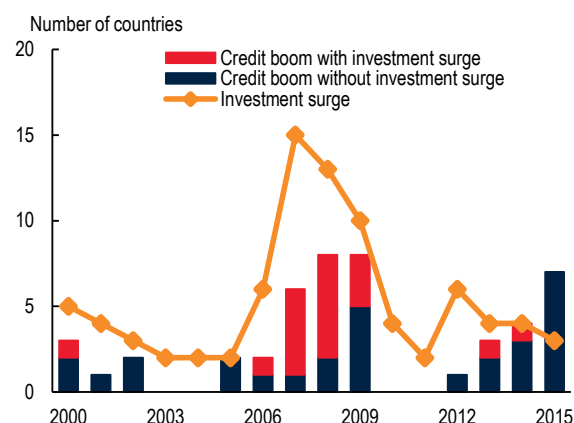
**F6 Price and TOT change: 2011Q1-2016Q3**



Source: World Bank.

Note: Change is in cumulative terms. TOT refers to Terms of Trade.

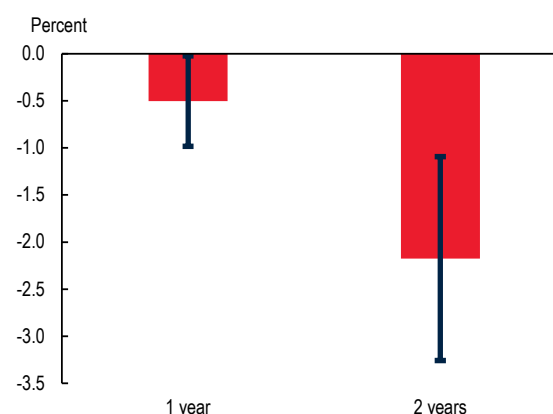
**F7 Investment surge during credit booms**



Source: World Bank.

Note: See endnote 1 for explanations.

**F8 VIX impact on EMDE investment growth**



Source: International Monetary Fund.

Notes: Refers to commodity-exporting EMDEs. For other notes and definitions see endnote 2.



ing EMDEs may have accounted for 0.7 percentage point of the total slowdown in investment growth in 2011-2015 (World Bank 2017). In addition, policy uncertainty in major advanced economies and in some major EMDEs has further weighed on investment growth in commodity-exporting EMDEs. For example, a 10 percent increase in the VIX volatility index can reduce investment growth in commodity-exporting EMDEs by 0.5 percentage point within a year (Figure F8).<sup>2</sup>

### Which policies can help reignite investment growth?

Both external and domestic factors—low commodity prices, policy and political uncertainty, and weak growth prospects—are weighing on investment in EMDEs. In the near-term, some of these headwinds are expected to diminish, but only gradually. Investment growth is likely to remain subdued. However, many commodity-exporting EMDEs have large unmet investment needs. A number require investment in health, education, and infrastructure, and are poorly equipped to keep pace with rapid urbanization and changing demands on the work force. In addition, investment in the non-resource sector is needed to smooth a transition from natural resource-driven growth to more sustainable sources. Finally, a boost to investment, particularly private investment, would help revive slowing productivity growth. Robust policy action, even in countries with limited room to mobilize domestic resources, is needed to accelerate investment growth prospects.

Although the specific policy needs depend on country circumstances, a full range of policies are needed to improve investment growth prospects. Counter-cyclical fiscal and monetary stimulus may not be effective

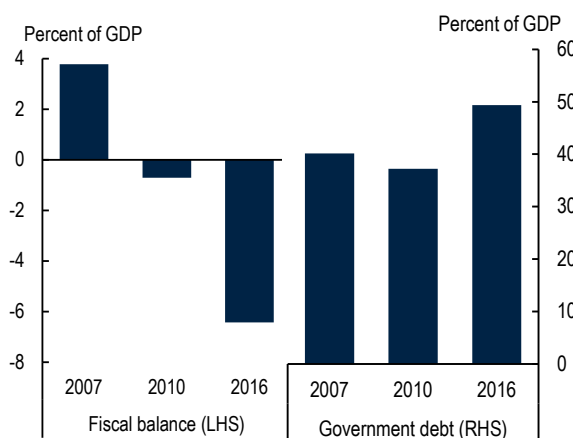
given low commodity prices, diminished government revenues, and above-target inflation rates. On the other hand, structural policies could support investment by addressing the factors holding back private investment. These include measures to improve productivity and business climate, as well measures to reduce investor uncertainty.

### Macroeconomic policies

Low commodity prices have weakened fiscal positions in commodity exporting EMDEs. Widening fiscal deficits and rapidly rising government debt levels leave only limited space for fiscal stimulus, despite the current low-interest rate environment (Figure F9). In about half of commodity-exporting EMDEs with sovereign wealth funds, assets cover less than one year of government expenditures (Figure F10). Absent fiscal space, shifting expenditures toward growth-enhancing investment or improving revenue collection, particularly in commodity exporters with low revenue-to-GDP ratios, can boost spending on public investment. Alternatively, authorities can gear policy efforts to developing private funding sources for investment. Many countries still lack adequate frameworks for effective public-private partnerships, which can improve the effectiveness of public investment (Engel, Fischer, and Galetovic 2008).

Like fiscal stimulus, monetary policy can boost growth and investment in a cyclical slowdown. However, with inflation already above target (about 3 percent on average), most commodity-exporting EMDEs have limited monetary policy space. Several commodity-exporting EMDEs have elevated external debt (Figure F11). Insofar as a large share of this debt is denominated in foreign currency, it can restrict policy makers' ability to allow currency depreciation in response to terms-of-trade shocks.

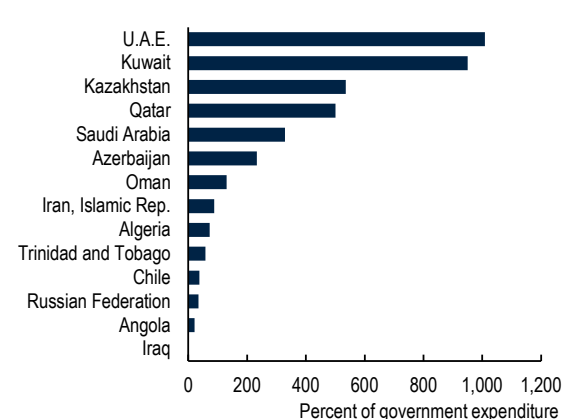
**F9 Government debt and fiscal balance**



Source: International Monetary Fund.

Notes: Balance and Debt data present unweighted averages across 89 and 86 commodity-exporting EMDEs, respectively.

**F10 Sovereign wealth fund assets, 2016**



Source: Sovereign Wealth Fund Institute, World Bank.

Note: Selected commodity-exporting EMDEs.



## Structural policies

Structural reforms are particularly important for supporting investment in commodity-exporting EMDEs with limited room to deploy fiscal and monetary policies to generate stronger growth. Improving the business climate can both stimulate investment (domestic and foreign) and amplify the crowding-in effects of public investment. It can also offer indirect benefits through higher growth, less informality, and more dynamic job creation (Didier et al. 2015). For instance, lower startup costs are associated with higher profitability of incumbent firms, greater investment in information and communications technology, and more beneficial effects of FDI for domestic investment.

Reforms to reduce trade barriers can encourage FDI and aggregate investment. Governance and financial sector reforms can improve the allocation of resources, including capital, across firms and sectors. Labor and product market reforms that increase firm profitability can encourage investment. Stronger property rights can encourage corporate and real estate investment. Improved access to power supplies can increase firm investment and productivity.

An important additional policy ingredient to strengthen prospects in commodity-exporting EMDEs is a robust fiscal framework for managing commodity price cycles that could turn commodity wealth into a steady flow of income and support long-term macroeconomic sustainability. In addition, promoting innovation and growth in non-extractive sectors, investing in research and development, and facilitating links between various industries can be effective policy options to boost investment growth. Three factors are critical for maximizing the benefits from structural policies: (i) strengthening fundamentals (stable growth and inflation, an open trade policy,

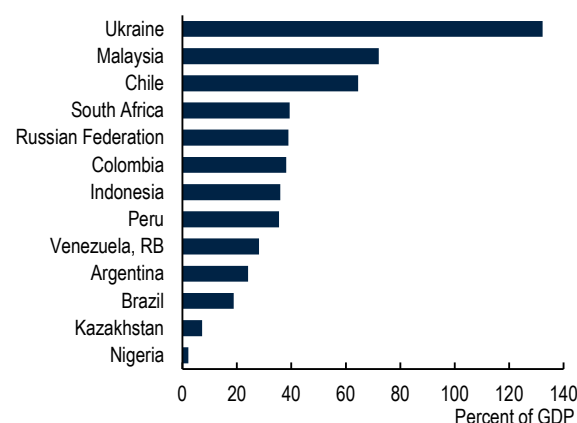
transparency and good governance, and financial stability); (ii) enhancing infrastructure (roads, communication, and access to electricity and water); and (iii) human capital (World Bank 2015).

Progress in some structural areas has slowed in commodity-exporting EMDEs in recent years. During the six years preceding 2011, policymakers cut the cost of doing business considerably. Since then, however, while improvements have continued in some EMDEs, they have proceeded at a slower pace (Figure F12).<sup>3</sup> However, large reform spurts in commodity-exporting EMDEs have historically been associated with a higher investment growth of 5.7 percent.<sup>4</sup>

## Conclusion

In line with the subdued economic activity, investment growth in commodity-exporting EMDEs has slowed sharply since 2010. Deteriorating terms of trade, rising private sector debt burdens, and growing uncertainty have contributed to this slowdown. Policies to remedy investment weakness in commodity-exporting EMDEs could include both cyclical and structural actions. However, commodity-exporting EMDEs have limited room to implement fiscal or monetary stimulus given eroded government revenues due to historically low commodity prices and above-target inflation rates. Structural reforms to enhance business environments, encourage economic diversification, and improve governance are therefore necessary to spur stronger investment public and private investment, attract foreign direct investment, and improve longer-term growth prospects.

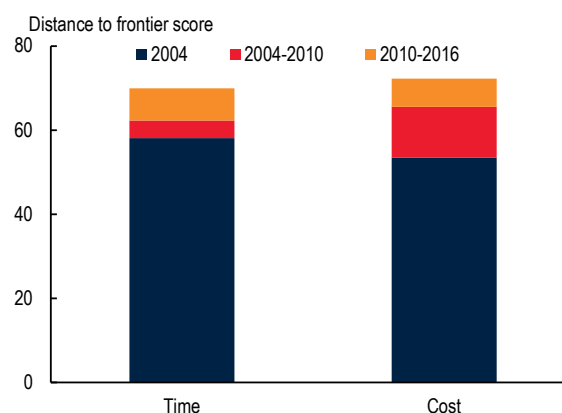
**F11** Total external debt, 2015



Source: World Development Indicators.

Note: Sample covers 13 commodity-exporting EMDEs.

**F12** Distance to frontier: Ease of doing business



Source: World Bank.

Note: See endnote 3 for explanations.

## Endnotes

1. A credit boom is defined as an episode during which the cyclical component of the nonfinancial private sector credit-to-GDP ratio is larger than 1.65 times its standard deviation in at least one year. Investment surges are defined as years when the cyclical component of the investment-to-GDP ratio is at least 1 times its standard deviation, while an investment slowdown is a year when the cyclical component of the investment-to-GDP ratio is below -1 times its standard deviation. Data covers thirty commodity exporters (Azerbaijan, Bahrain, Bolivia, Botswana, Colombia, Chile, Costa Rica, Côte d'Ivoire, Gabon, Ghana, Guatemala, Honduras, Jamaica, Kazakhstan, Kenya, Kuwait, Mongolia, Namibia, Nigeria, Oman, Panama, Paraguay, Peru, Qatar, República Bolivariana de Venezuela, Senegal, Sri Lanka, Ukraine, Uruguay, and Zambia).
2. This is estimated using a VAR model with data for 1992-2015. Investment growth in 83 commodity-exporting EMDEs, J.P. Morgan's Emerging Markets Bond Index (EMBI), MSCI's EMDE Index, and VIX are used as endogenous variables, and the U.S. 10-year bond yield and G-7 growth rate as exogenous variables.
3. Indicates proximity in score to country with the highest-ranking (best) scores for Ease of Doing Business across all time periods with available data. A rising distance to frontier score (DTF) indicates an improving business environment. Unweighted averages of commodity-exporting EMDEs. "Time" refers to the average DTF of the time to start a business, obtain construction permits, connect electricity, register property, pay taxes, and enforce contracts. "Cost" refers to the average DTF of the costs to starting a business, connect electricity, register property, and enforce contracts. Blue column denotes the DTF level in 2004. The red and orange columns denote the change in DTF over the respective periods. Each year denoted refers to June of previous year to June of current year.
4. The methodology follows Annex 3.2 of World Bank (2017) but applied to a sample of 83 commodity-exporting EMDEs instead of all EMDEs.

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# COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy  
Agriculture  
Fertilizers  
Metals and minerals  
Precious metals



## Energy

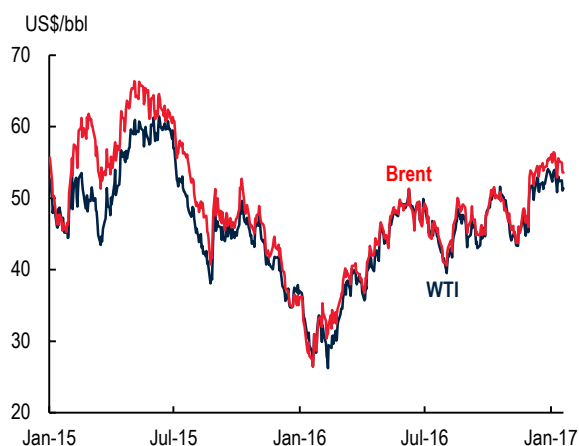
The World Bank *Energy Price Index* rose 11 percent in the fourth quarter of 2016 from the previous quarter. Oil prices jumped 10 percent on announced production cuts by several OPEC and non-OPEC producers. Coal prices surged 38 percent on government-ordered production cuts in China, while natural gas prices rose 8 percent due to stronger demand in the three main consuming regions and tightness in Asian liquefied natural gas (LNG) supply.

### Crude oil

Crude oil prices jumped 10 percent in the fourth quarter, averaging \$49.1/bbl (Figure 3). Despite the sharp rebound in 2016, the average annual price was 16 percent below 2015 levels. Prices were volatile in the fourth quarter, reflecting uncertainties surrounding OPEC policy. Prices rose following OPEC's agreement in late September to limit total output to 32.5-33.0 mb/d. They subsequently sagged on concerns that the organization might not be able to agree on the allocation of cuts at its end-November meeting. In December, prices rose again following agreements by both OPEC and non-OPEC producers to reduce output by nearly 1.8 mb/d in the first half of 2017. In January, prices traded around \$53-55/bbl as production cuts commenced, but market participants awaited confirmation of reductions in output.

The oil market continues to slowly rebalance amid steady, broad-based demand growth. On the supply side, sharply lower investment in non-OPEC countries has led to lower production, notably from the short-cycle U.S. shale oil sector. Global stocks, however, have remained stubbornly high in the past year, particularly in the United States, despite a lengthy period of low prices.

#### 3 Crude oil prices



Source: Bloomberg.

Note: Daily frequency. Last observation is January 19, 2017.

According to the OPEC communiqué, the main intent for curtailing output was to reduce the large overhang of inventories. There was no mention of intent to raise prices, although producing countries are benefiting from increased export revenues. In OPEC's view, rebalancing was not proceeding quickly enough, particularly on the supply side, because non-OPEC producers had reduced costs, improved efficiency, and sustained output at higher-than-expected levels.

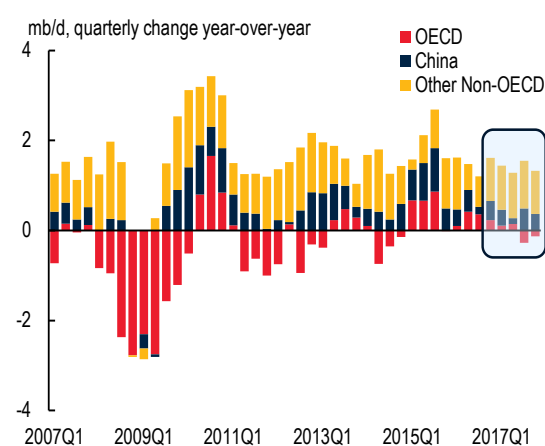
In the fourth quarter, OPEC supply continued to increase to record highs, ending the year up 1.1 mb/d compared with twelve months earlier. Part of higher output was to maximize exports ahead of curtailments. Production cuts are expected to help draw down inventories. Partial compliance is expected to impact inventories in the second half of the year, while full compliance could advance the draw into the first half of the year.

Crude oil prices are projected to average \$55/bbl in 2017, assuming partial compliance to the OPEC/non-OPEC agreement, as markets are expected to tighten, especially in the second half of the year.

### Demand

World oil demand grew by 1.6 mb/d (1.7 percent y/y) in the fourth quarter, with much of the growth coming from non-OECD economies (Figure 4). For all of 2016, demand rose by a similar amount, but less than the 1.9 mb/d (2.1 percent) gain in 2015 which was partly due to the sharp drop in oil prices. The influence of lower oil prices has diminished, particularly in advanced countries, and global demand is now trending at close to its long-term average; since 1995 annual growth averaged 1.2 mb/d (1.5 percent) per year.

#### 4 World oil demand growth



Source: International Energy Agency.

Note: Shaded area (2016Q4-2017Q4) represents IEA projections.

Non-OECD economies, especially in Asia, continue to be the main source of growth. Demand rose by 1.2 mb/d (2.5 percent) in 2016, down from a 1.5 mb/d gain in 2015, of which 1 mb/d was in Asia, with China and India adding 0.4 mb/d and 0.3 mb/d, respectively. China's growth, however, slipped from a strong increase in 2015, while demand growth in India accelerated. In contrast, OECD demand growth slowed to 0.3 mb/d (0.6 percent), with Europe providing most of the increase on industrial strength.

For 2017, world oil demand is projected to increase by 1.3 mb/d (1.3 percent) to an average of 97.8 mb/d. All of the growth is expected in non-OECD economies, and China and India are expected to again add 0.3 mb/d each. OECD oil demand is expected to be flat, following two years of relatively strong growth.

## Supply

The oil market was fairly closely balanced in the second and third quarters of 2016, but returned to a large surplus in the fourth quarter of around 0.7 mb/d—albeit lower than the 1.6 mb/d surplus for 2015. The increase mainly came from higher OPEC production, in advance of production cuts in 2017. OPEC and a group of non-OPEC countries agreed at separate meetings late last year to reduce output by a combined 1.8 mb/d for the first half of this year. The agreements may be extended for a further six months depending on market conditions.

## OPEC

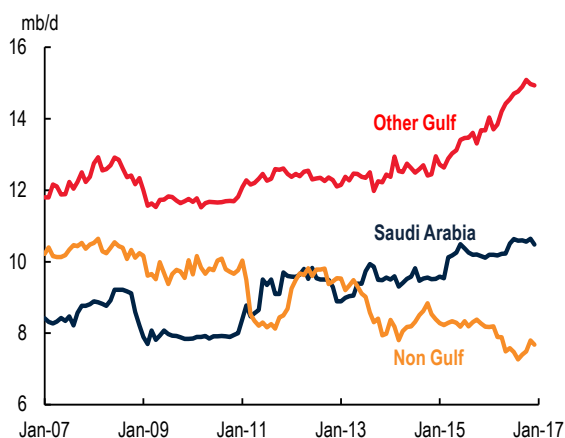
OPEC, which had abandoned production and price targets in November 2014, reversed course in the fourth quarter of 2016 and returned to managing supply in order to address a global oil imbalance and record level of stocks. In late September, OPEC

agreed to limit total production to 32.5–33.0 mb/d (which included now suspended member Indonesia), but deferred detailed apportioning until its November 30 meeting. Following two months of tense negotiations, OPEC agreed to reduce production by 1.2 mb/d from October levels for the first half of 2017. Indonesia suspended its membership at the meeting, as it is an importing country and could not agree to a cut. According to the International Energy Agency (October data), OPEC's 1.2 mb/d production cut would place its production target at 31.9 mb/d in the first half of 2017. Saudi Arabia agreed to a reduction of 0.49 mb/d, with Iraq accepting a cut of 0.21 mb/d. Kuwait, the United Arab Emirates, and República Bolivariana de Venezuela all agreed to reduce output by at least 0.10 mb/d each. Libya and Nigeria were exempt, while the Islamic Republic of Iran was granted an increase of 0.09 mb/d to take production to a pre-sanction level 3.8 mb/d. Saudi Arabia has pledged to cut further if necessary.

The agreement was conditional on key non-OPEC producers reducing output by 0.6 mb/d. On December 10, 11<sup>1</sup> non-OPEC producers—spearheaded by the Russian Federation—agreed to reduce output by 0.56 mb/d. Russia pledged a 0.3 mb/d reduction in physical production, but will do so gradually, reaching 0.2 mb/d by end-March and 0.3 mb/d by end-June. Mexico offered to cut 0.1 mb/d—although its contribution will be made through “managed natural declines,” as its output has been falling for more than 10 years. Other countries, such as Azerbaijan, will also use natural declines to count as cuts. Kazakhstan agreed to a modest reduction, but will not put limits

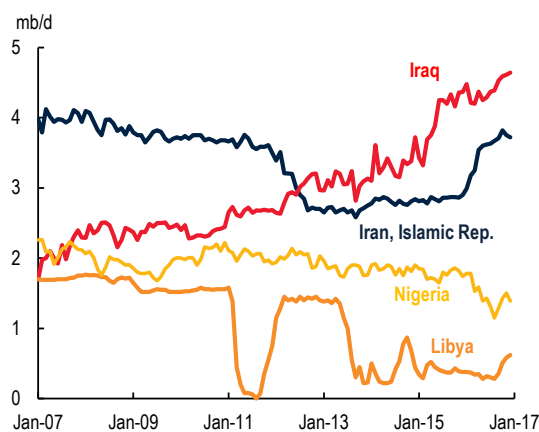
<sup>1</sup> Non-OPEC producers are Azerbaijan, Bahrain, Brunei, Equatorial Guinea, Kazakhstan, Malaysia, Mexico, Oman, Russia, Sudan, and South Sudan.

## 5 OPEC crude oil production



Source: International Energy Agency.  
Note: Last observation is December 2016.

## 6 Select OPEC oil producers



Source: International Energy Agency.  
Note: Last observation is December 2016.

on its three major fields—Kashagan, Karachaganak, and Tengiz. Instead it will delay expansion of two smaller fields and rely on natural output decline at others.

The OPEC production cut is the first since 2008, and the joint OPEC/non-OPEC curtailment is the first since 2001. The bulk of actual cuts are expected to come from OPEC Gulf Cooperation Council countries and the Russian Federation, amounting to about 1 mb/d in the first quarter. This is expected to help draw down stocks in 2017. However, the ultimate result will depend on the level of compliance, the pace of demand, and levels of production from other non-OPEC countries and OPEC members exempt from limits.

OPEC produced 33.1 mb/d in October, but increased in November (Figure 5), partly to maximize export revenues ahead of curtailments. Production fell back in December, with declines mainly in Saudi Arabia and Nigeria.

For the exempt OPEC countries, Libya's production of 0.5 mb/d in October rose to 0.7 mb/d in early January, as the country reopened two of its largest fields and last major oil-export terminal. It plans to raise production to 0.9 mb/d this year. Nigeria's production continues to be impacted, most recently by a strike by port workers and renewed sabotage. December's output of 1.4 mb/d was still up from a low of 1.1 mb/d in August following a ceasefire agreement with militants (Figure 6).

### Non-OPEC

Non-OPEC supply, which peaked in 2015Q4, began falling year-on-year in 2016, with an average reduction of 1.1 mb/d over the last three quarters of the year. For 2016, non-OPEC oil production fell 0.9 mb/d, with the largest declines in the United States

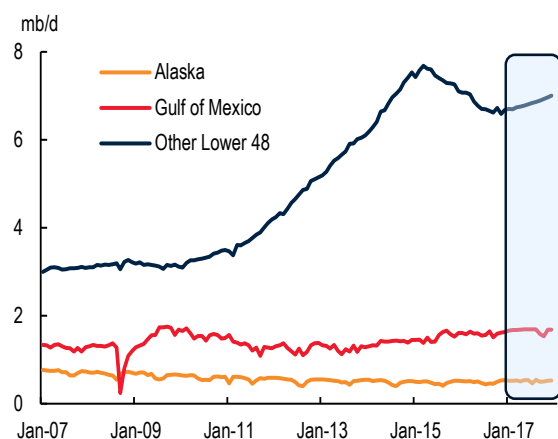
(0.5 mb/d), China (0.3 mb/d), and Mexico and Colombia (0.1 mb/d each). These were partly offset by notable increases in Russia and Brazil, as well as smaller increases elsewhere (e.g., Canada, the North Sea, and Republic of Congo).

For 2017, non-OPEC supply is projected to increase by 0.4 mb/d with sizeable increases in Brazil, China, and Kazakhstan, and smaller increases in a number of other countries, including the United States and Russia—even when accounting for the latter's pledged cuts. These will largely offset declines in China, Mexico, and the North Sea.

The responsiveness of U.S. oil production to higher prices will continue to be a key determinant of the oil market's rebalancing. U.S. crude oil output, which peaked at 9.6 mb/d in April 2015, fell to an estimated 8.8 mb/d in fourth quarter of 2016 (Figure 7). Virtually all the decline was in the on-shore lower-48 states, mainly from shale. Among the major shale oil basins, the largest drops were in Eagle Ford (south Texas 0.6 mb/d), Bakken (North Dakota 0.3 mb/d), and Niobrara (Colorado/Nebraska 0.1 mb/d). The exception was the Permian Basin (west Texas) where production has risen due to increased investment and a recovery in drilling.

U.S. drilling activity has increased by two-thirds (more than 200 wells) from its low in May, but is still substantially below its 2014 peak (Figure 8). More than half of the increase has been in the Permian basin, due to its lower cost structure and expanding resource potential. Although costs vary considerably among and within basins, activity has been expanding at prices below \$50/bbl. In the west Texas Midland Basin Wolfcamp area, breakeven costs are estimated at \$35-\$40/bbl. As prices have climbed above \$50/bbl, producers have been aggressively hedging, suggesting they are covering costs and could raise production

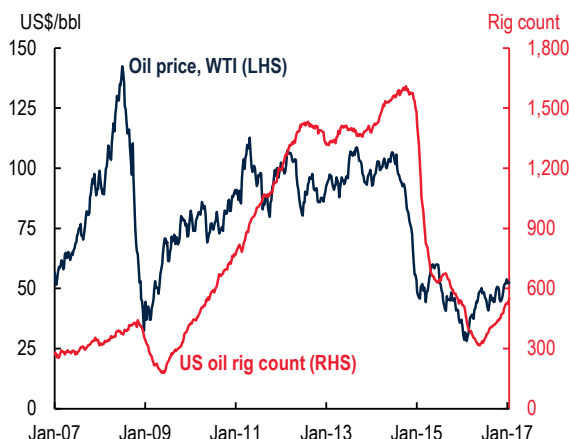
## 7 U.S. crude oil production



Source: International Energy Agency.

Note: Shaded area (Jan to Dec 2017) is based on IEA forecasts.

## 8 U.S. oil rig count and oil prices



Sources: Baker Hughes, Bloomberg.

Notes: Weekly frequency. Last observation is January 20, 2017.



in the future. Many analysts expect that prices at \$50-\$60/bbl will be sufficient to increase shale oil production, given cost reductions and productivity improvements.

Lower prices during the past two years forced companies to reduce costs, mainly through concessions by service providers (amid surplus capacity from the plunge in drilling). Higher efficiency was also achieved through improved design of wells, shorter drilling/completion times, longer horizontal pipe laterals, greater proppant use for hydraulic fracturing, and higher initial production rates.

Better management practices, increased knowledge, and innovation also helped improve productivity. For example, well productivity in the Eagle Ford and Bakken basins has risen from less than 300 barrels per well in early 2012 to more than 1,200 and 900 barrels, respectively, in late 2016. For the Permian Basin, productivity improved from 100 barrels per well to more than 600. The industry is also reducing its backlog of drilled but uncompleted wells, which can be completed at roughly two-thirds the cost of a new well.

U.S. crude oil production appears to have bottomed in the third quarter, and the U.S. Energy Information Agency (EIA) projects output to rise gradually from the fourth quarter of 2016. Production in the onshore lower-48 states—which includes the nation's shale oil production—is also now expected to grow from the fourth quarter of 2016, according to the EIA's latest assessment.

### Inventories

OECD total oil inventories (crude oil and petroleum products) remain high, particularly in the United States. But growth has slowed and stocks started to

diminish in August, with much of the recent decline in petroleum products (Figure 9). U.S. crude oil inventories remain elevated, although both crude and products are down from their May highs. In the important center of Cushing, Oklahoma—the delivery point for West Texas Intermediate crude oil futures contracts—stocks are near their peak.

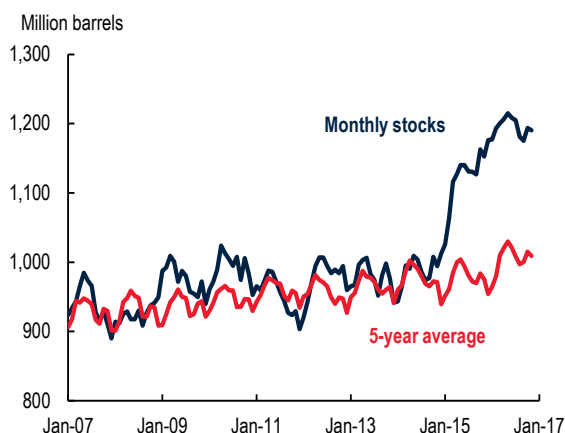
### Price projections and risks

Crude oil prices are projected to average \$55/bbl in 2017, an increase of 26 percent over 2016, reflecting expected rising non-OECD oil demand and tightening supply, under the assumption of partial compliance to the OPEC/non-OPEC agreement. The market is expected to move into deficit in 2017, particularly in the second half of the year, which would help reduce the large stock overhang (Figure 10). Prices are projected to increase to \$60/bbl in 2018, assuming a balanced market and no additional supply restraint by OPEC and non-OPEC producers.

There are significant risks to the price forecast. On the upside, stronger demand and greater compliance by OPEC/non-OPEC producers could accelerate rebalancing, as could supply outages among major exporters, notably Libya and Nigeria. A slower-than-expected rebound in U.S. shale oil production—for example, from cost inflation for drilling and labor—would also limit supply. OPEC policy decisions to extend or expand production cuts could also support higher prices.

On the downside, weak compliance to the OPEC agreement and rising output from Libya and Nigeria could delay rebalancing, as would slower demand growth. A faster-than-expected rise in U.S. shale oil production—from further improvements to costs and efficiency, and increased profitability from possible lower taxes—could also affect the supply balance.

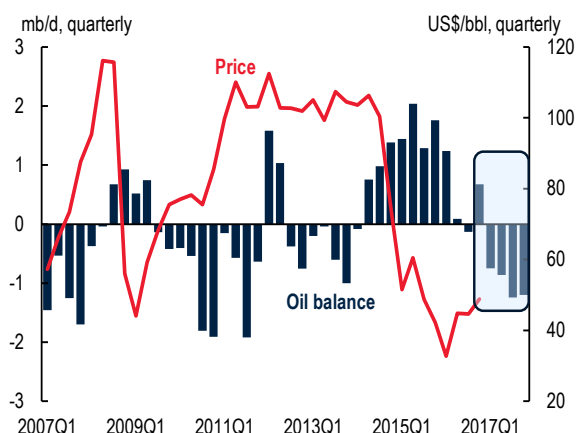
## 9 OECD crude oil stocks



Source: International Energy Agency.

Notes: Previous 5-year average for each month. Last observation is November 2016.

## 10 World oil balance and oil price



Sources: International Energy Agency, World Bank.

Notes: Balance is defined as the difference between world oil demand and supply. OPEC crude oil production for 2017 is assumed at 33.0 mb/d. Shaded area represents projections.



## Coal

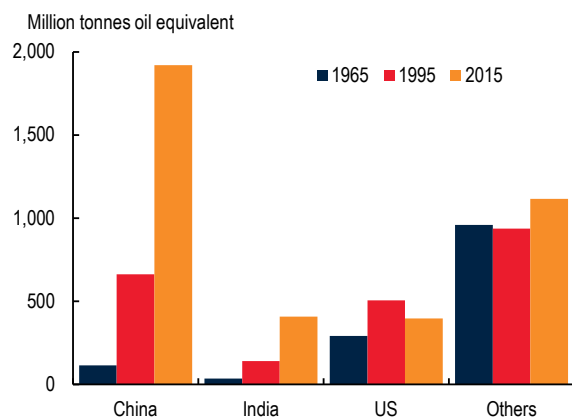
Prices for thermal coal, used for electricity generation, soared 38 percent in the fourth quarter due to strong demand and continued supply tightness in China resulting from government restrictions to reduce coal capacity. Prices peaked in mid-November above \$100/ton—double the price in January 2016—and began to fall after the government relaxed rules to allow for higher production.

Earlier this year China's National Development and Reform Commission (NDRC) ordered coal mines to produce on a 276-day basis, instead of the previous 330 days, effectively reducing production by 16 percent y/y. China's stocks fell and led to a sharp rise in imports. As prices spiked the NDRC began relaxing the new rule for some higher tier mines, and on November 17 permitted all mines meeting safety standards to revert to 330-day basis until the end of the winter season. It also relaxed a policy allowing new mines to commence operation without having it conditioned on closing old capacity. The NDRC further pushed for thermal power generators to sign supply contracts with coal producers next year at a "ceiling" price of around \$77/ton.

Although higher prices have improved the financial condition of China's coal companies, the 276-day policy also increased unit costs, as fixed costs remained largely unchanged. This would impinge on company margins if prices fell and the rule continued.

Coal prices are expected to average \$70/ton in 2017 due to supply additions and weakening import demand. China's coal policy will be a key determinant on prices given that the country consumes half of the world's coal output (Figure 11) and coal accounts for nearly two-thirds of the country's energy consumption.

### 11 Coal consumption



Source: BP Statistical Review of World Energy.  
Note: Last observation is 2015.

## Natural gas

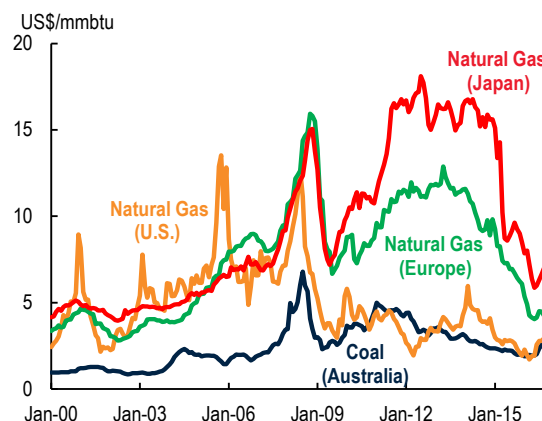
Natural gas prices rose 8 percent in the fourth quarter, with increases in all regions on stronger demand and tighter supply (Figure 12). Gains were led by an 11 percent increase in Europe (monthly import contracted gas) to \$4.9/mmbtu reflecting stronger demand for power/heating, nuclear outages in France, higher coal prices, and concerns about adequate storage for winter needs. Spot prices surged above \$7/mmbtu in December, partly a knock-on effect from supply shortfalls in Asia.

Gas delivered to Japan rose 7 percent to \$7.2/mmbtu in the fourth quarter, partly due to higher oil prices, given that contracted gas is indexed to oil prices with several months lag. However, Asian spot liquefied natural gas (LNG) prices surged above \$9/mmbtu in December due to a number of production outages, notably the Gorgon project in Western Australia.

U.S. natural gas prices rose 6 percent to \$3/mmbtu in the fourth quarter, but prices headed toward \$4/mmbtu in December on strong demand because of colder-than-normal weather and large draws from storage. In addition, U.S. gas production has declined year-on-year since March. Exports have risen for both pipeline shipments to Mexico, and LNG cargoes mainly to South America—although recent cargoes have shipped to Asia, drawn by higher Asian prices.

Natural gas prices are projected to rise 15 percent in 2017, led by a 20 percent jump in U.S. gas prices to average \$3/mmbtu on strong domestic demand, rising exports, and falling production. Moderate increases are expected in Europe (10 percent to \$5/mmbtu) and Japan (5 percent to \$7.3/mmbtu) on higher oil prices. Markets are expected to be amply supplied, owing to large increases in LNG capacity, mainly from the United States and Australia.

### 12 Coal and natural gas prices



Source: World Bank.  
Note: Last observation is December 2016.

## Agriculture

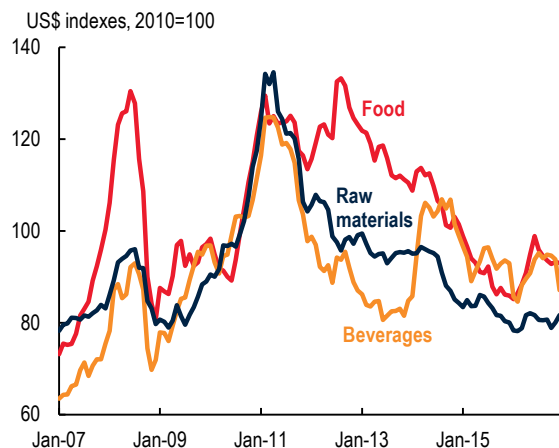
The *Agricultural Price Index* declined nearly 2 percent in the fourth quarter of 2016, led by steep declines in its beverage and food components (Figure 13). Grain prices declined more than 4 percent due to a larger-than-expected rice crop and improved prospects for wheat and maize. Beverage prices declined 3 percent in response to a supply-driven price drop in cocoa prices. Other agricultural price indexes changed very little.

Agricultural prices are expected to increase modestly in 2017, with considerable variation across commodities. Grain prices are projected to decline 3 percent this year, an upward revision from the projected decline in October. However, oils and meals prices are projected to increase 3 percent, adding to last year's 5 percent rise. Beverage prices are forecast to decline marginally in 2017. Raw materials are projected to gain 2 percent after dropping 4 percent in 2016.

There are limited upside risks for the 2016 forecasts. La Niña—a cooling of the equatorial Pacific Ocean that typically follows El Niño—was still present in December, but had no discernible impact on agricultural production. A key upside risk to the long-term forecast is increased government use of agricultural support policies. Price risks also stem from energy and fertilizer prices, since agriculture (especially grains and oilseeds) is an energy-intensive sector.

After registering substantial declines following their 2011 peaks, nominal prices of grains, oils and meals, and raw materials are projected to increase by 9, 5, and 9 percent, respectively, over the course of the next five years. This increase is much smaller than the increase registered during the 2006-11 boom years (Figure 14).

**13 Agriculture price indexes**



Source: World Bank.

Note: Last observation is December 2016.

## Food

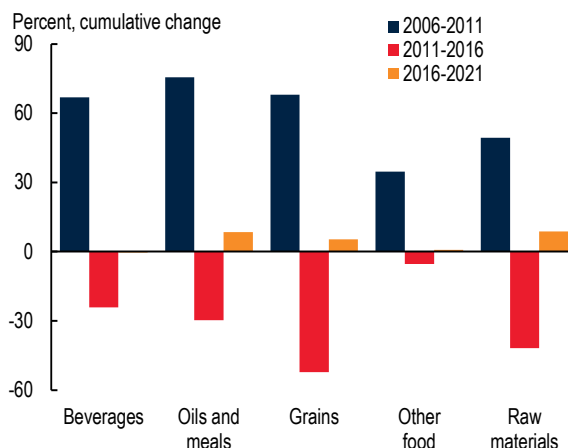
Grain prices declined more than 4 percent in the fourth quarter, which comes on top of a nearly 10 percent drop in 2016Q3. The index is now about half its early-2008 peak. The decline reflects news of a bumper rice crop in most East Asian rice producing nations and expectations for better wheat and maize crops.

The January assessments for the 2016-17 season continue to point to a favorable crop for most grains. Global production of wheat is expected to reach a new record, at 753 million metric tons (mmt), according to the U.S. Department of Agriculture (USDA). Overall, conditions for the global wheat crop are favorable in most key producing and exporting areas, including Australia, the European Union, Russian Federation, Ukraine, and the United States. As a result of the favorable crop conditions, the stock-to-use ratio (a measure of the abundance of supplies relative to demand) is anticipated to reach to 36 percent, higher than last season's ratio of 34 percent, and a 16-year high.

Production of maize is projected to increase 8 percent in 2016-17 (a one percentage point upward revision from October), reflecting good crops in India (despite earlier concerns due to less-than-average rainfall) as well as favorable crop conditions in Argentina, Canada, Mexico, South Africa, and Ukraine. Increased maize production, however, will be accompanied by a nearly 4 percent increase in consumption, implying that the stock-to-use ratio for maize at the end of the season will be only marginally higher (22 percent) compared to 2015-16 (21 percent).

Rice production is expected to increase nearly 2 percent in 2016-17, driven by favorable growing

**14 Commodity price indexes, change**



Source: World Bank.

Note: Percent changes are based on logarithmic changes to insure symmetry.

conditions in Indonesia, Thailand (the world's top rice exporter), and the Philippines. Some adverse weather conditions in Vietnam, which pushed yields below average, are unlikely to alter the global outlook. Despite increased production, the stock-to-use ratio for rice is envisaged to remain fairly stable at 25 percent due to an increase in consumption.

According to the January 2017 assessment by the USDA, combined global supplies (i.e., beginning stocks plus production) of wheat, maize, and rice are projected to reach 2,838 mmt during the 2016-17 season, nearly 5 percent higher than last season's record supplies. These projections, which are highly likely to materialize given that the season is at an advanced stage, imply that 2016-17 will be the fourth consecutive surplus year (Figure 15).

The World Bank's *Oil and Meal Price Index* declined marginally in the third quarter, but stood 16 percent higher than a year ago. A 5 percent increase in palm oil price (due to lower-than-expected crop in Malaysia and Indonesia) was balanced by a decline in soybean prices (due to favorable weather conditions in South America, notably Argentina and Brazil).

This season's outlook for edible oils remains favorable as well (Figure 16). Following last season's diminished output due to El Niño, global production of the eight most consumed edible oils is expected to reach 184 mmt in the current season, a 4 percent increase. This is the largest annual increase in two decades. Half of that increase is projected to come from palm oil (equally shared by Indonesia and Malaysia).

The oilseed supply outlook during the current season (October 2016 to September 2017) is also healthy, with global supplies for the 10 major oilseeds projected to reach 541 mmt, 30 mmt higher than the previous season. Most of the increase in supplies

is projected to come from a robust soybean crop, expected to reach 334 mmt in 2016-17, more than 7 percent higher than last season. All key producers, including Brazil, China, India, and the U.S., are expected to contribute to that increase.

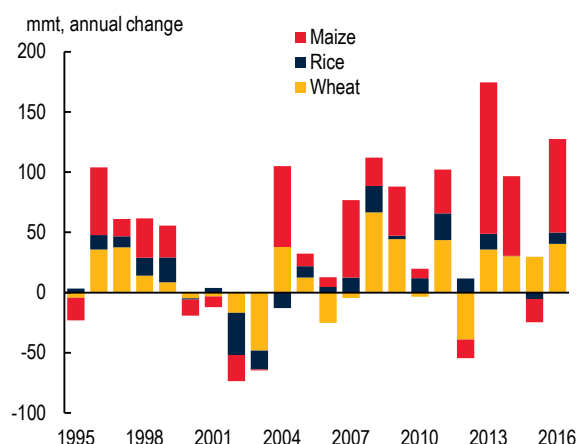
Supply conditions in most food commodity markets for the 2016-17 crop season are adequate. In the case of grains, for example, stock-to-use ratios are expected to reach 16-year highs across all three grains. In view of the ample supply conditions, together with stable fertilizer prices, the World Bank's *Food Commodity Price Index* is expected to advance only marginally in 2017 (0.4 percent). There will be some dispersion across prices that reflect commodity-specific supply conditions, such as an increase in oils and meals and a decline in grains. A larger, yet modest, gain is expected in 2018 (1.2 percent), supported by similar increases gains in grains and oils and meals.

## Risks

Main risks to the forecast for agricultural prices stem mostly from the supply side and include energy and fertilizer prices, weather patterns, and domestic and trade policies aimed at supporting prices received by farmers. A key demand-side risk is policies related to the diversion of food commodities to the production of biofuels.

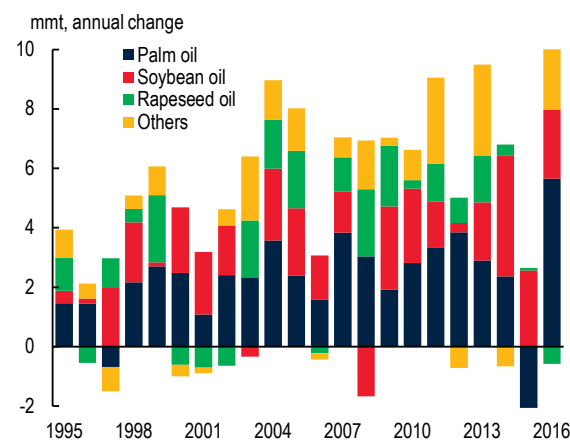
Energy prices affect most agricultural crop prices directly through fuels and other energy costs and indirectly through chemicals and fertilizers—some fertilizers are made directly from natural gas and coal, the latter almost exclusively by China. If energy prices increase more than anticipated, they could push agricultural prices up (especially grains and oilseeds, which are most sensitive to energy prices). However, such pressure could materialize only later in the year

### 15 World grain supply growth



Source: U.S. Department of Agriculture.  
Note: January 2017 update.

### 16 World edible oil supply growth



Source: U.S. Department of Agriculture.  
Note: January 2017 update.

since the current, 2016-17, season is already advanced and the crop prospects are very good.

Upside price risks to the agricultural price forecast stemming from weather have diminished compared to the October assessment. The January 16 update by the U.S. National Oceanic and Atmospheric Administration noted that while La Niña conditions, which are still present, could be effectively neutralized as early as February, thus eliminating the possibility of any adverse weather impacts. This leaves only local (unpredictable) weather patterns as a risk component. However, given the well-supplied state of most food markets, local events are unlikely to have any discernible impact on the global balance (and hence world prices).

Two policy challenges have surfaced in the current weak commodity price environment. The first stems from policies aimed at increasing farmgate prices by subsidizing agricultural production and through trade measures. For example, Egypt's Wheat Commission recommended a 7 percent increase in the prices paid to wheat producers (the recommendation is pending government approval); the Indonesian Ministry of Agriculture announced plans to provide subsidies for rice seeds; and the National Rice Policy and Management Committee in Thailand approved a US\$500 million assistance program to rice producers. On a positive note, agricultural supports by OECD countries (a key source of global agricultural market distortions in the past) have been declining by roughly 50 percent over the past three decades.

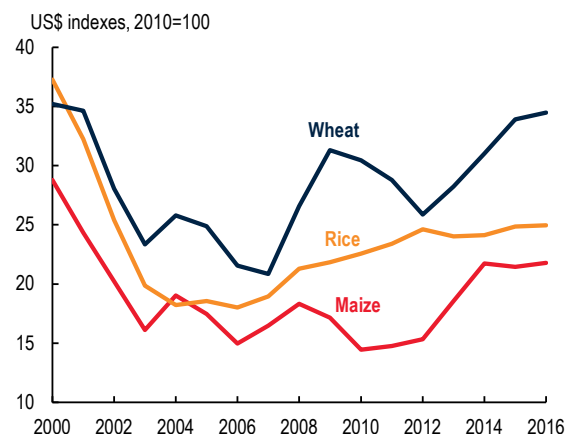
A second policy challenge relates to China's transition from stock-piling mechanisms to less price-distortionary programs. China is important because the country holds a disproportionately large amount of stocks--compared to the rest of the world--for a num-

ber of commodities (both industrial and agricultural commodities). For example, of the 20.1 mmt of cotton global stocks in the 2015-16 season, China held 11.2 mmt, a more than 50 percent share. During the past decade, China has accounted for roughly half of global stocks of maize and rice but only for 22 and 30 percent of global consumption.

Other areas (e.g., the European Union, the United States, and Mexico) went through this transition during the past two decades. While the move to less price distortionary mechanisms is a welcome trend, the transition phase could affect global markets when stocks are released into the markets, thus depressing world prices, especially in a period when global markets are well-supplied. Indeed, the stock-to-use ratios of all three grains are expected to reach 16-year highs in 2016-17 (Figure 17).

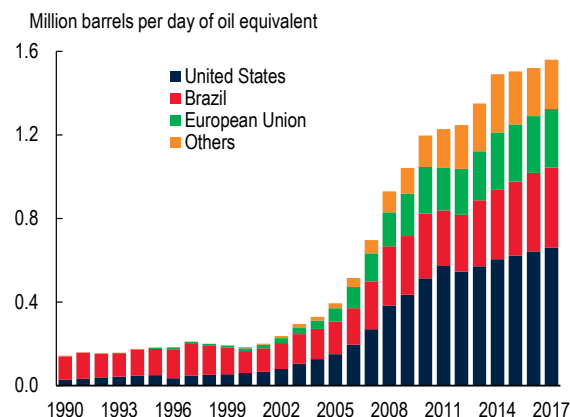
Finally, the agricultural price outlook assumes that biofuels will continue to be a source of demand for food commodities. Biofuels, which currently account for 1.5 mb/d (1.6 percent) of global liquid energy consumption, come principally from the United States (maize-based ethanol), Brazil (sugarcane-based ethanol), and from Europe (edible oil-based biodiesel). However, the role of biofuels is expected to be less important in the long term, as policy makers acknowledge the limited benefits of environmental and energy independence from biofuels policies. Indeed, on November 30, 2016, the EU Commission proposed limiting liquid biofuels to no more than 7 percent of renewable energy sources in 2021 and just 3.8 percent in 2030. Reflecting that shift, biofuel production increased only marginally during the past two years (and is forecast to increase less than 3 percent in 2017) after growing by 10 percent annually over the prior 15 years (Figure 18).

## 17 Stock-to-use ratios



Source: U.S. Department of Agriculture.  
Note: January 2017 update.

## 18 Global biofuels production



Sources: BP Statistical Review, OECD, World Bank.  
Note: Forecast for 2017.

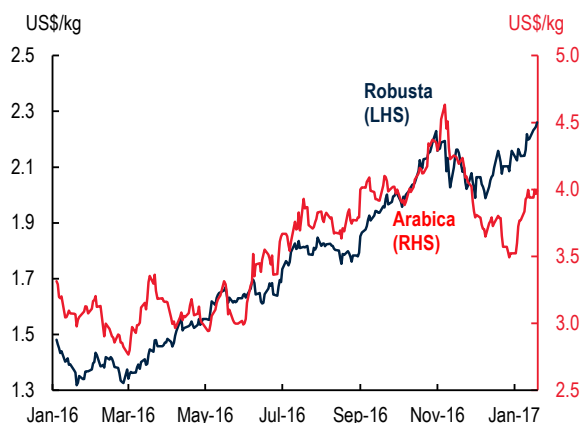
## Beverages

The World Bank's *Beverage Price Index* declined more than 3 percent in the fourth quarter as a result of a plunge in cocoa prices (-17 percent). Rising Robusta coffee (+11 percent) and tea (+7 percent) prices dampened the decline. The strength in Robusta prices stems from a market deficit in 2016-17 due to poor crops in Brazil, Indonesia, and Vietnam which resulted in an 11 percent output decline in 2016. In contrast, the Arabica market is well-supplied, with output registering a 3 percent increase in 2016 due to large crops from Brazil, Colombia, Costa Rica, and Peru. A fairly balanced Arabica market implies no change in prices for 2017, but the deficit in Robusta is expected to raise prices by 13 percent in 2017.

The plunge of cocoa prices to \$2.30/kg in December marked the sixth straight monthly decline and a 3.5-year low. The weakness reflects a nearly 11 percent increase in the global cocoa output to an estimated record of 4.4 mmt during 2016-17. Most cocoa producing countries are expected to contribute to the increase, especially Côte d'Ivoire and Ghana, world's key suppliers. With the cocoa market well-supplied, prices are projected to decline 10 percent in 2017, before increasing marginally in 2018.

Global tea prices gained almost 7 percent in 2016Q4. Prices were up 17 percent (q/q) in the Colombo auction on concerns about adverse weather. They were also up 8 percent (q/q) in the Mombasa auction due to poor crops in most tea growing regions of East Africa. But they dropped 8 percent (q/q) in the Kolkata auction in response to a large Indian crop and weak demand due to shortages of physical cash (as a result of the government's policy to eliminate large bills). Tea prices are expected to gain 6 percent in 2017 due to the market's expected tightness.

### 19 Coffee prices



Source: Bloomberg.  
Notes: Daily frequency. Last observation is January 19, 2017.

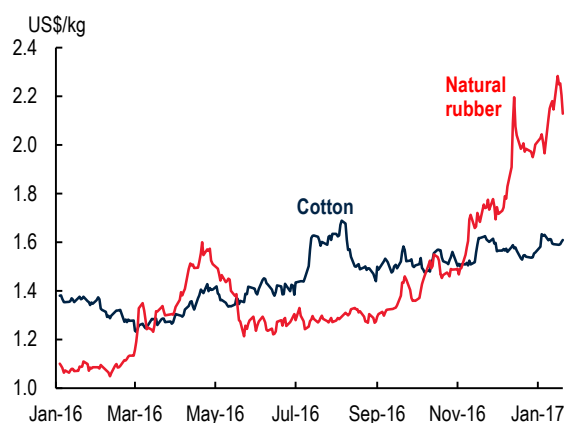
## Agricultural raw materials

The World Bank's *Raw Material Prices Index* changed very little in the fourth quarter (-0.5 percent). Underlying this, the fall in timber prices (down 6 percent) was nearly offset by a surge in natural rubber price (a surge of 22 percent); cotton prices have been broadly stable. The Agricultural Raw Material Index index was down nearly 4 percent for the year.

Cotton prices declined marginally in the fourth quarter (-1 percent). Cotton prices have exhibited a fairly stable upward path during 2016, despite weak global demand. The stability largely reflects a rebalancing in the cotton market, following a 20 percent decline in global output in the 2015-16 season (from 26.2 to 21.0 mmt). The decline not only relieved global supply pressures but also allowed China to reduce its stocks by almost 2 mmt without causing a collapse in prices. China is expected to reduce its stocks by a similar amount in the current season. Global cotton production in 2016-17 is expected to reach 22.5 mmt, up from 21 mmt in 2015-16. Thus, prices are expected to rise only modestly in 2017.

Natural rubber prices rallied to \$1.92/kg in 2016Q4, up from \$1.57/kg in the previous quarter. On the supply side, lower-than-expected yields in Malaysia were due to El Niño conditions earlier in 2016, which also delayed the start of the tapping season. Delayed tapping was also the case in some regions of Thailand. On the demand side, prices have been supported by strong buying interest from China. Key natural rubber producing countries, including Indonesia, Malaysia, and Thailand, have agreed to undertake supply control measures to sustain high prices. In view of these measures and expected strong demand growth by China, natural rubber prices are expected to average \$2.10/kg in 2017, up from \$1.61/kg in 2016.

### 20 Cotton and natural rubber prices



Source: Bloomberg.  
Notes: Daily frequency. Last observation is January 19, 2017.

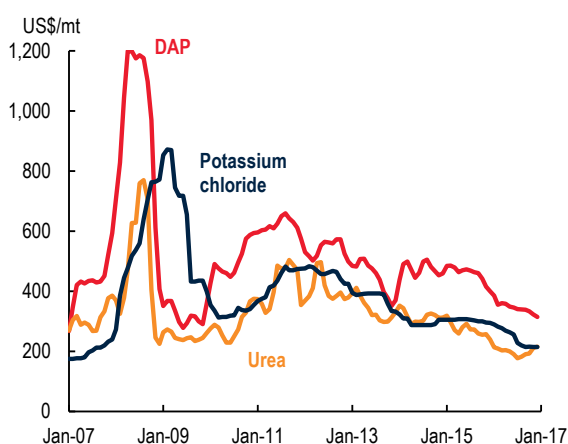


## Fertilizers

Fertilizer prices rose 2 percent in the fourth quarter (Figure 21), up for the first time in eight straight quarters. However, the only product to increase was urea, jumping 13 percent, on strong demand and a sharp drop in Chinese exports. Other products continued their extended price declines, with phosphates dropping 4-6 percent and potash declining 3 percent. Production of urea and phosphates fell in China, as higher coal and natural gas prices reduced profitability. Export taxes on fertilizers in China were eliminated on January 1, 2017, which will help improve producer netbacks. Fertilizer markets continue to face weak global demand, low crop prices, and weak currencies of key importing countries. Markets remain well supplied with high stocks, but production capacity continues to increase, in part because of falling costs and low feedstock prices.

Nitrogen (urea) prices surged 13 percent, up for the first time in nine quarters, on strong import demand in Brazil, limited export availability from China, and delayed startup of new capacity in the United States. A sharp rise in coal and natural gas prices reduced profitability of Chinese producers, contributing to a large fall in exports. The U.S. market may remain tight in the first quarter for the upcoming U.S. planting season, but significant new capacity is expected to reach market and help relieve market pressure. The outlook for Chinese exports could begin to shift now that Chinese coal production is rising and coal prices are falling. The global market is expected to remain oversupplied going forward, with new capacity expected from countries with relatively low feedstock prices, notably in the United States (where imports are expected to contract sharply), but also in Nigeria, India, Islamic Republic of Iran, and Malaysia.

### 21 Fertilizer prices



Source: World Bank.

Note: Last observation is December 2016.

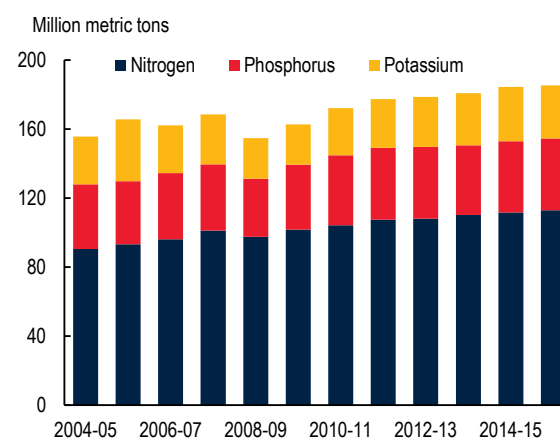
Phosphate prices all fell—phosphate rock (- 6 percent), DAP (-5 percent), and TSP (- 4 percent)—reflecting weak demand and continued oversupply. Production gains in a number of countries more than offset a significant decline in China's production and exports due to rising costs and reduced competitiveness. DAP import demand has been particularly weak in India, due to higher domestic production and large stocks, and as buyers await an agreement on phosphoric acid prices for the first quarter. Markets are expected to remain oversupplied, with further new capacity expected from Morocco and Saudi Arabia.

Potash (potassium chloride) prices fell 3 percent owing to weak demand, high stocks, and ample supply. Demand picked up in the second half of 2016, following yearly contract settlements with China and India. New capacity continued to come online, mainly in Canada, China, Russian Federation, and Uzbekistan, but production was also curtailed by a number of major producers to help stem excess supply. The market is expected to remain over-supplied with new capacity from Belarus, Canada, China, Jordan, Turkmenistan, and the United States.

Fertilizer prices are projected to rise by 2 percent in 2017 due to firmer demand, but remain well supplied as capacity continues to expand. Nutrient application, which has been on a rising trend (Figure 22), remains constrained by relatively weak crop prices. Fertilizer prices are expected to increase moderately over the medium term due to expected growth in demand, higher energy costs, and new capacity required for primary and processed supply.

Risks to the forecast are tilted to the downside on weak demand and expected increases in new production capacity. On the upside, higher agriculture prices and currency appreciation could improve farmer budgets and boost fertilizer demand and prices.

### 22 Global fertilizer consumption



Sources: Agrium Fact Book, International Fertilizer Industry Association.

Note: Fertilizer consumption is expressed in nutrient content.

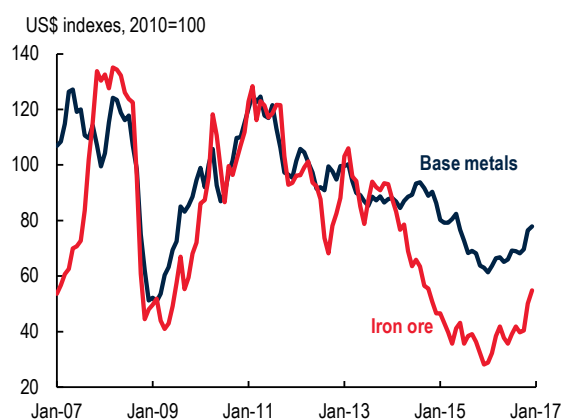
## Metals and minerals

Metals prices surged by 10 percent in the fourth quarter, the third consecutive quarterly gain (Figure 23). However, average annual metal prices were 6 percent less than 2015, the lowest level in eleven years. Prices of most metals were driven higher by strong demand—led by credit stimulus in China—as well as supply constraints and falling stocks. Prices also received a boost following the U.S. election on expectations of higher infrastructure investment and increased optimism for the global economy. Strong investor demand in China in November also pushed metal prices upward. Prices fell late in the year, as the rally appeared to advance ahead of market fundamentals, but rebounded in early January.

Markets continue to rebalance due to slowing investment, mine closures, environment constraints, and policy developments, particularly in Indonesia (ore export ban), the Philippines (environmental review), and China (closure of older, inefficient capacity). In January, the Indonesian government reversed its 2014 ore export ban (designed to promote development of a domestic processing industry) and will allow raw mineral exports, notably nickel ore and bauxite. Global supplies continue to expand from earlier investment and high prices, which are relieving pressures on companies to reduce marginal supply.

Policy efforts by China to boost commodity-intensive infrastructure and construction sectors were a key driver of demand last year. China's share of world metal consumption surpassed 50 percent in 2015 (Figure 24), and the country accounted for the bulk of global growth the past 15 years (Figure 25). China's transition to a consumption-led economy, along with industrial reform and environmental concerns, is expected to slow growth in demand for raw materials.

### 23 Metal and mineral prices



Source: World Bank.

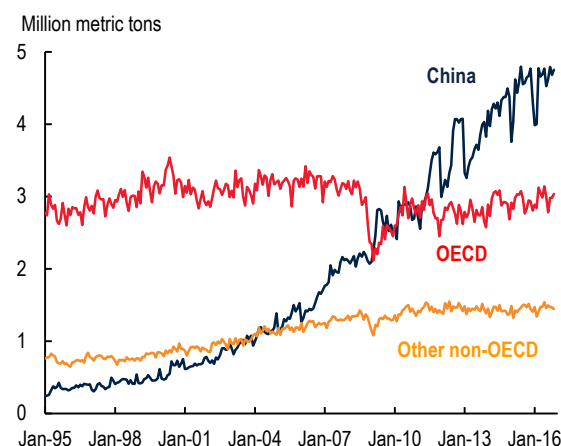
Note: Last observation is December 2016.

## Individual trends

Iron ore prices soared 20 percent, up for a fourth consecutive quarter, on strong steel demand in China, supply constraints, and low stocks. December prices of \$80/ton were nearly double those of a year earlier. However, prices softened into January, with China's inventories rising and seasonal demand expected to weaken. Prices appeared to have raced ahead of fundamentals, as iron ore exports from the major producers, Australia and Brazil, rose to record levels in November. Furthermore, new low-cost capacity is expected online this year, notably Vale's new S11D project in Brazil. These considerations, along with rising scrap supply and an expected slowdown in China's steel production, are expected to pressure prices downward and force high-cost production to close. Key uncertainties are the strength of steel demand and iron ore production in China.

Lead prices surged 14 percent, boosted by a spike in Chinese investor demand that was disproportionately geared toward lead. From an average price below \$2,000/ton in September, prices spiked above \$2,500/ton in late November, before returning below \$2,000 by year-end. The market has been tightening, as lead mine output has been affected by the closure of large zinc mines (where lead is a by-product). In addition, China's domestic mine output is contracting on intensifying environmental constraints. Battery demand has been strong due to robust auto sales and stock-building for peak winter replacement demand. However, lead demand faces threats from a maturing e-bike sector in China and greater penetration of alternate, cleaner, and more efficient battery technologies. Partly offsetting this trend is increasing demand for 'stop/start' vehicles which use batteries containing 25 percent more lead than conventional units.

### 24 World refined metal consumption



Source: World Bureau of Metal Statistics.

Note: Last observation is November 2016.

Tin prices rose 12 percent, up a fourth straight quarter, with prices in December more than 50 percent higher than last January's low. The increase has been driven by strong demand and supply constraints. Shipments from Indonesia—the world's largest exporter—have plunged because of the impact of wet weather on production and transportation, and from government regulations regarding illegal mining and reserve depletion. Exports from Myanmar continue to help replace the shortfall, and Bolivian production is set to rise. New supplies are also expected from Africa, Australia, and Brazil, and higher prices could also reactivate idled capacity.

Zinc prices rose 12 percent, also up for the fourth straight quarter, on strong demand to galvanize steel and a tightening concentrate market owing to large mine closures in recent years due to exhaustion (Australia, Canada, Ireland) and price-driven production cuts by Glencore (Australia, Kazakhstan, Peru). While prices have surged on expectations of severe market tightness, inventories have been fairly steady. Stock drawdowns may emerge in the second quarter during peak seasonal demand. However, higher prices are expected to prompt greater supply in China, and Glencore's idled capacity is expected to eventually restart. New production is expected from the large Gamsberg and Dugald River mines in 2018, while a slowing property market in China and threats of substitution may also ease demand.

Copper prices jumped 10 percent, the first double-digit quarterly gain in nearly five years, on falling inventories and expectations of higher demand. Prices retreated at year-end, however, on rising inventories and the fact that the market remains in surplus, mainly due to increases in new capacity, notably in Peru. Demand has been strong in China from the main power-grid, automotive, and construction sec-

tors. Although significant supply growth is expected in a number of countries in 2017/18, declines elsewhere and potential disruptions from upcoming wage negotiations in Chile may minimize the expected surplus.

Aluminum prices rose 6 percent due to strong demand, rising input costs of coal and alumina, and the effects of reforms that cut Chinese smelting capacity in 2016. However, the global market is expected to remain oversupplied as low-capacity comes online in China and elsewhere, and idled capacity restarts.

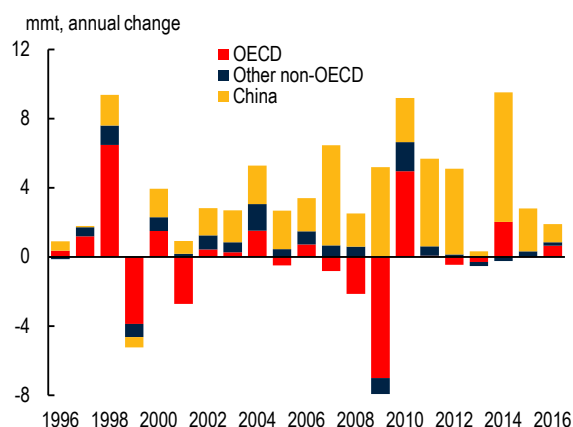
Nickel prices rose 5 percent (Figure 26) on strong stainless steel demand in China, and loss of ore output in the Philippines due to environmental audits of mines—although losses were less than initially feared. The reversal of Indonesia's export ban stipulates that any miner building a smelter for at least 30 percent of its feedstock will be allowed to export excess ore supplies. However, there is uncertainty on how much excess ore will be shipped from the country.

## Price projections and risks

Metals prices are projected to increase by 11 percent in 2017 due to tightening markets for most metals, especially those facing imminent resource constraints. The largest gains are expected in zinc (27 percent) and lead (18 percent) due to mine supply constraints brought on by permanent and discretionary closures. Double-digit gains are also expected for copper, nickel, and tin.

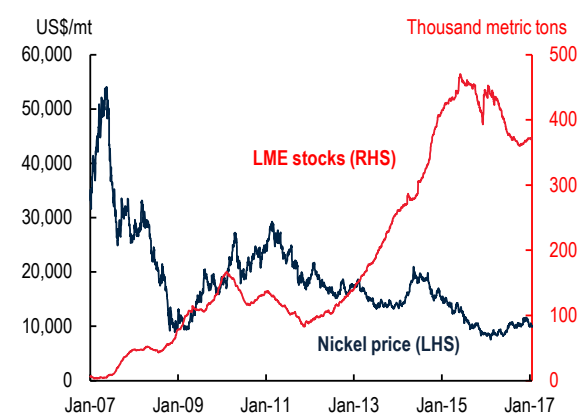
Upside risks to prices include stronger global demand, slower ramp-up of new capacity, tighter environmental constraints, and policy action that limits supply. Downside risks include slower demand in China and higher-than-expected production, including the re-starting of idled capacity.

### 25 World metal consumption growth



Sources: World Bureau of Metal Statistics, World Bank.  
 Note: 2016 estimate.

### 26 Nickel prices and LME stocks



Source: Bloomberg.  
 Notes: Daily frequency. Last observation is January 19, 2017.



## Precious metals

Precious metals prices fell 7 percent in the fourth quarter on falling investment demand in response to a rising dollar and higher interest rates (Figure 27). Platinum and silver prices dropped 13 percent while gold prices fell 9 percent. Precious metal prices peaked in the summer following the Brexit vote, but have since fallen on a strengthening U.S. dollar and substantially higher real interest rates, especially following the U.S. election. As widely expected, the U.S. Federal Reserve raised interest rates in December, with further rate increases expected in 2017 depending on economic/financial conditions.

Gold prices declined 9 percent, averaging \$1,157/toz in December, down from a monthly high of \$1,340/toz in August, on decelerating investment demand given expectations of higher real interest rates and a stronger dollar. Rising interest rates typically have negative implications for gold prices, as investors seek yield-bearing assets. Physical gold demand was very weak last year, particularly in the two largest consuming countries, India and China. The Indian government in November decided to take 500 and 1000 rupiah notes out of circulation in an effort to curb illicit stocks of cash, and to shift savings to financial products and away from physical assets, notably gold and real estate. This significantly reduced gold demand among rural, cash-driven buyers. In China, gold jewelry demand has fallen on a shift in consumer preferences among younger consumers to other goods and tourism. Gold mine supply (Figure 28) continues to be supported by costs cuts, targeting higher grade ore, and currency depreciation in producer countries.

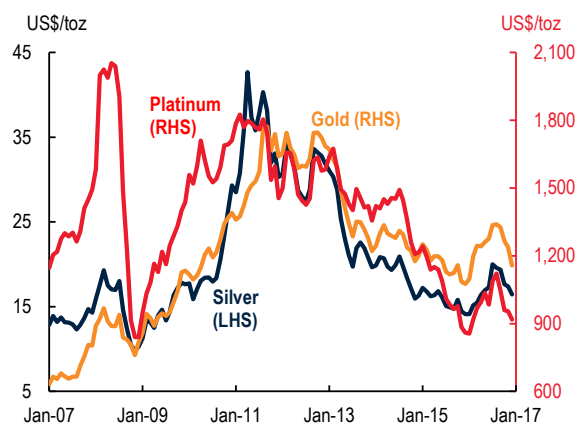
Platinum prices dropped 13 percent due to falling investment demand, but physical demand was also weak, especially in China where shifting consumer

tastes have reduced demand for jewelry toward other products. Platinum demand has also been impacted by the Volkswagen diesel emission scandal, as platinum is mostly used in diesel catalysts. Additional demand headwinds emanate from policy plans to phase out diesel vehicles in major European cities, substitution to alternate catalyst technologies, and a switch to non-combustion engines. The market remains adequately supplied, but wage negotiations in South Africa, which supplies about 70 percent of the world's platinum, poses a risk to production.

Silver prices fell 13 percent on declining investment demand and similar market sentiment toward gold. The gold/silver price ratio rose from 67.9 in the third quarter to 71.1 in the fourth quarter, but was still down from 79.2 in the first quarter (the average ratio over 1985-2016 is 66.) Demand for jewelry has been weak in China and India, but boosted by strong photovoltaic production in China. Mine supply fell last year, with declines mainly in China. Lower by-product output from declining lead/zinc production may limit near-term growth.

Precious metals prices are projected to fall 7 percent in 2017, mainly due to weak investment demand, prospects of a stronger dollar, and rising real interest rates. Gold prices are expected to decline 8 percent on weak investment demand, while silver prices are expected to fall 4 percent. Platinum prices are projected to rise marginally on likely tightness in supply. Downside risks to the forecast are stronger economic growth and faster than expected increases in U.S. interest rates. Upside risks include geopolitical tensions, stronger demand in China and India, delayed rates hikes, and mine supply shortfall.

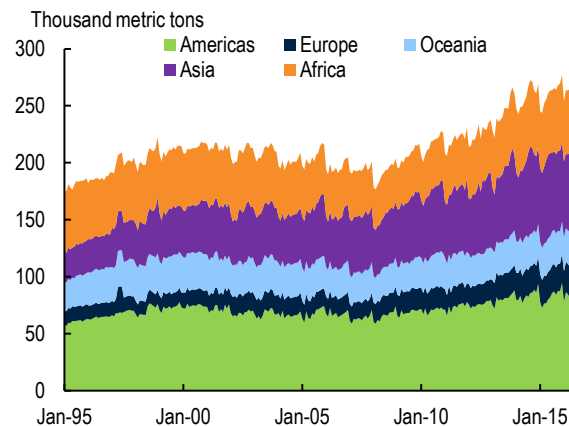
### 27 Precious metal prices



Source: World Bank.

Note: Last observation is December 2016.

### 28 Global gold mine production



Source: World Bureau of Metal Statistics.

Notes: Production of ores and concentrates. Last observation is April 2016.





## APPENDIX A

Historical commodity prices  
Price forecasts



**TABLE A.1 Commodity prices**

Commodity	Unit		2015	2016	Q4	Q1	Q2	Q3	Q4	Oct	Nov	Dec
			2015	2016	2015	2016	2016	2016	2016	2016		
Energy												
Coal, Australia	\$/mt	*	57.5	65.9	52.3	50.9	51.9	67.5	93.2	93.2	100.0	86.6
Coal, Colombia	\$/mt		52.5	57.6	48.0	42.7	44.8	57.7	85.1	78.9	86.7	89.8
Coal, South Africa	\$/mt		57.0	64.1	51.1	51.5	54.8	65.3	85.0	83.5	89.4	82.1
Crude oil, average	\$/bbl		50.8	42.8	42.2	32.7	44.8	44.7	49.1	49.3	45.3	52.6
Crude oil, Brent	\$/bbl	*	52.4	44.0	43.4	34.4	46.0	45.8	50.1	49.7	46.4	54.1
Crude oil, Dubai	\$/bbl	*	51.2	41.2	41.2	30.6	42.9	43.4	47.9	48.3	43.8	51.8
Crude oil, WTI	\$/bbl	*	48.7	43.2	42.0	33.2	45.5	44.9	49.2	49.9	45.6	52.0
Natural gas, Index	2010=100		73.3	56.6	61.4	52.2	49.5	60.0	64.7	61.1	58.5	74.5
Natural gas, Europe	\$/mmbtu	*	7.26	4.56	6.26	4.84	4.10	4.40	4.90	4.29	4.91	5.50
Natural gas, US	\$/mmbtu	*	2.61	2.49	2.11	1.98	2.13	2.85	3.01	2.95	2.50	3.58
Natural gas, Japan	\$/mmbtu	*	10.40	6.90	8.94	7.70	6.08	6.68	7.15	7.15	7.15	7.15
Non-Energy												
Agriculture												
Beverages												
Cocoa	\$/kg	**	3.14	2.89	3.30	2.98	3.10	2.99	2.50	2.71	2.48	2.30
Coffee, Arabica	\$/kg	**	3.53	3.61	3.31	3.31	3.49	3.79	3.86	3.95	4.06	3.57
Coffee, Robusta	\$/kg	**	1.94	1.95	1.79	1.65	1.84	2.05	2.27	2.29	2.29	2.25
Tea, average	\$/kg		2.71	2.64	2.76	2.36	2.57	2.72	2.91	2.81	2.97	2.93
Tea, Colombo	\$/kg	**	2.96	3.24	2.85	2.82	2.98	3.29	3.86	3.76	3.94	3.88
Tea, Kolkata	\$/kg	**	2.42	2.39	2.52	1.89	2.59	2.64	2.43	2.43	2.45	2.41
Tea, Mombasa	\$/kg	**	2.74	2.30	2.91	2.38	2.14	2.24	2.43	2.26	2.52	2.51
Food												
Oils and Meals												
Coconut oil	\$/mt	**	1,110	1,473	1,109	1,273	1,531	1,528	1,562	1,463	1,538	1,684
Copra	\$/mt		735	981	737	855	1,019	1,017	1,035	964	1,021	1,120
Fishmeal	\$/mt		1,558	1,501	1,524	1,465	1,526	1,553	1,462	1,497	1,463	1,425
Groundnuts	\$/mt		1,248	1,362	1,175	1,158	1,208	1,500	1,583	1,550	1,600	1,600
Groundnut oil	\$/mt	**	1,337	1,503	1,298	1,277	1,550	1,648	1,536	1,575	1,525	1,508
Palm oil	\$/mt	**	623	700	570	631	704	715	750	716	751	783
Palmkernel oil	\$/mt		909	1,290	831	1,032	1,283	1,358	1,486	1,331	1,476	1,650
Soybean meal	\$/mt	**	395	380	358	328	419	405	367	367	369	365
Soybean oil	\$/mt	**	757	809	743	749	795	810	883	858	880	911
Soybeans	\$/mt	**	390	406	372	370	424	417	412	403	412	421
Grains												
Barley	\$/mt	**	194	159	187	183	172	143	136	133	134	142
Maize	\$/mt	**	170	159	167	160	171	153	152	152	152	152
Rice, Thailand 5%	\$/mt	**	386	396	368	379	423	414	369	369	365	373
Rice, Thailand 25%	\$/mt		373	385	359	370	408	402	362	365	357	364
Rice, Thailand A1	\$/mt		386	380	365	373	408	392	348	350	340	354
Rice, Vietnam 5%	\$/mt		352	356	356	362	374	351	338	336	338	341
Sorghum	\$/mt		205	160	176	174	174	152	139	139	139	139
Wheat, US HRW	\$/mt	**	204	167	180	191	177	151	148	152	150	142
Wheat, US SRW	\$/mt		206	176	201	190	190	161	164	164	167	161
Other Food												
Bananas, EU	\$/kg		0.90	0.91	0.88	0.91	0.94	0.91	0.86	0.90	0.86	0.83
Bananas, US	\$/kg	**	0.96	1.00	0.93	1.03	0.99	1.02	0.96	0.97	0.96	0.96
Meat, beef	\$/kg	**	4.42	3.93	3.91	3.72	3.95	4.09	3.96	3.94	4.06	3.87
Meat, chicken	\$/kg	**	2.53	2.46	2.50	2.47	2.46	2.45	2.45	2.43	2.42	2.51
Meat, sheep	\$/kg		5.22	4.69	4.82	4.51	4.64	4.64	4.99	4.82	5.03	5.12
Oranges	\$/kg	**	0.68	0.89	0.73	0.69	0.78	0.99	1.09	1.06	1.14	1.08
Shrimp	\$/kg		14.36	11.20	10.50	10.83	10.80	10.69	12.49	12.79	12.35	12.35
Sugar, EU	\$/kg	**	0.36	0.36	0.36	0.36	0.37	0.36	0.35	0.36	0.35	0.34
Sugar, US	\$/kg	**	0.55	0.61	0.56	0.57	0.61	0.62	0.64	0.63	0.63	0.64
Sugar, World	\$/kq	**	0.30	0.40	0.32	0.31	0.38	0.45	0.45	0.49	0.45	0.41

Continued

**TABLE A.1 Commodity prices**

Commodity	Unit		2015	2016	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Q4 2016	Oct	Nov	Dec
											2016	
Raw Materials												
Timber												
Logs, Africa	\$/cum		389	387	383	386	395	391	378	386	378	369
Logs, S.E. Asia	\$/cum	**	246	274	245	258	276	291	273	287	275	256
Plywood	¢/sheets		451	503	450	474	506	533	500	526	505	470
Sawnwood, Africa	\$/cum		733	650	727	686	688	630	595	592	595	598
Sawnwood, S.E. Asia	\$/cum	**	833	739	827	780	782	716	677	673	677	680
Woodpulp	\$/mt		875	875	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.55	1.64	1.53	1.48	1.57	1.76	1.74	1.73	1.74	1.75
Rubber, RSS3	\$/kg	**	1.57	1.61	1.28	1.32	1.61	1.57	1.92	1.66	1.87	2.23
Rubber, TSR20	\$/kg		1.37	1.38	1.19	1.15	1.37	1.31	1.69	1.48	1.66	1.93
Fertilizers												
DAP	\$/mt	**	459	345	419	367	351	340	324	333	323	315
Phosphate rock	\$/mt	**	117	112	123	116	115	112	106	110	104	103
Potassium chloride	\$/mt	**	303	246	297	283	263	221	215	216	215	215
TSP	\$/mt	**	385	291	380	328	282	282	270	273	270	267
Urea, E. Europe	\$/mt	**	273	199	251	209	198	183	207	193	211	216
Metals and Minerals												
Aluminum	\$/mt	**	1,665	1,604	1,494	1,514	1,572	1,620	1,710	1,666	1,737	1,728
Copper	\$/mt	**	5,510	4,868	4,885	4,675	4,736	4,780	5,281	4,731	5,451	5,660
Iron ore	\$/dmt	**	55.8	58.4	47.0	48.3	56.0	58.7	70.7	59.0	73.0	80.0
Lead	\$/mt	**	1,788	1,867	1,682	1,738	1,718	1,873	2,138	2,024	2,181	2,210
Nickel	\$/mt	**	11,863	9,595	9,423	8,508	8,823	10,264	10,787	10,260	11,129	10,972
Tin	\$/mt	**	16,067	17,934	15,077	15,439	16,902	18,584	20,810	20,100	21,126	21,204
Zinc	\$/mt	**	1,932	2,090	1,612	1,677	1,917	2,252	2,514	2,312	2,566	2,665
Precious Metals												
Gold	\$/toz	***	1,161	1,249	1,107	1,181	1,260	1,334	1,221	1,267	1,238	1,157
Platinum	\$/toz	***	1,053	987	907	914	1,005	1,085	944	959	955	918
Silver	\$/toz	***	15.72	17.15	14.80	14.91	16.86	19.65	17.16	17.66	17.41	16.43
Commodity Price Indices (2010=100)												
Energy			64.9	55.0	54.2	43.0	55.7	57.5	63.8	63.7	59.4	68.4
Non-energy			82.4	80.3	77.6	76.0	81.0	81.6	82.7	80.8	83.5	83.8
Agriculture			89.3	89.1	85.9	84.5	91.1	91.1	89.6	89.5	90.0	89.4
Beverages			93.5	91.0	93.1	86.2	91.4	94.7	91.8	94.6	93.8	87.1
Food			90.9	92.3	86.6	86.7	94.9	94.7	93.0	92.8	93.2	93.0
Oils and Meals			85.2	89.6	79.6	79.9	93.5	92.9	92.0	89.8	92.0	94.1
Grains			88.8	82.0	84.1	84.4	87.8	79.6	76.1	76.5	76.0	75.9
Other Food			100.3	105.3	98.0	97.6	103.2	110.6	109.7	111.6	110.4	107.2
Raw Materials			83.3	80.3	80.8	78.5	81.8	80.6	80.2	78.8	80.0	81.7
Timber			96.1	89.6	95.4	92.2	93.7	88.9	83.8	84.6	84.1	82.8
Other Raw Materials			69.3	70.0	64.8	63.6	68.7	71.6	76.2	72.6	75.6	80.4
Fertilizers			95.4	75.3	92.3	81.6	76.1	71.0	72.5	71.3	72.8	73.2
Metals and Minerals			66.9	63.0	58.8	58.0	60.7	63.4	69.7	64.1	71.5	73.5
Base Metals		****	73.6	68.3	65.0	63.8	65.9	68.8	74.7	69.6	76.5	77.9
Precious Metals			90.6	97.5	86.1	90.9	97.9	105.4	95.6	99.0	97.0	90.8

Source: See Appendix C.

Notes: (\*) Included in the energy index; (\*\*) Included in the non-energy index; (\*\*\*) Included in the precious metals index; (\*\*\*\*) Metals and Minerals excluding iron ore. Monthly updates posted at [www.worldbank.org/commodities](http://www.worldbank.org/commodities).

**TABLE A.2 Commodity price forecasts in nominal U.S. dollars**

Commodity	Unit	2014	2015	2016	Forecasts					
					2017	2018	2019	2020	2025	2030
Energy										
Coal, Australia	\$/mt	70.1	57.5	65.9	70.0	60.0	55.0	55.4	57.7	60.0
Crude oil, avg	\$/bbl	96.2	50.8	42.8	55.0	60.0	61.5	62.9	71.0	80.0
Natural gas, Europe	\$/mmbtu	10.05	7.26	4.56	5.00	5.18	5.37	5.57	6.68	8.00
Natural gas, US	\$/mmbtu	4.37	2.61	2.49	3.00	3.50	3.61	3.71	4.31	5.00
Natural gas, Japan	\$/mmbtu	16.04	10.40	6.90	7.25	7.43	7.62	7.81	8.84	10.00
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	3.06	3.14	2.89	2.60	2.63	2.66	2.69	2.84	3.00
Coffee, Arabica	\$/kg	4.42	3.53	3.61	3.60	3.58	3.57	3.55	3.48	3.40
Coffee, Robusta	\$/kg	2.22	1.94	1.95	2.20	2.18	2.17	2.15	2.07	2.00
Tea, average	\$/kg	2.72	2.71	2.64	2.80	2.81	2.83	2.84	2.92	3.00
Food										
Oils and Meals										
Coconut oil	\$/mt	1,280	1,110	1,473	1,600	1,584	1,567	1,551	1,474	1,400
Groundnut oil	\$/mt	1,313	1,337	1,503	1,500	1,515	1,529	1,544	1,620	1,700
Palm oil	\$/mt	821	623	700	750	761	771	782	839	900
Soybean meal	\$/mt	528	395	380	370	376	381	387	417	450
Soybean oil	\$/mt	909	757	809	900	907	915	922	960	1,000
Soybeans	\$/mt	492	390	406	410	418	427	435	480	530
Grains										
Barley	\$/mt	138	194	159	150	153	157	160	179	200
Maize	\$/mt	193	170	159	160	163	167	170	189	210
Rice, Thailand, 5%	\$/mt	423	386	396	385	389	393	397	418	440
Wheat, US, HRW	\$/mt	285	204	167	150	156	161	167	200	240
Other Food										
Bananas, US	\$/kg	0.93	0.96	1.00	1.01	1.02	1.02	1.03	1.06	1.10
Meat, beef	\$/kg	4.95	4.42	3.93	3.95	3.97	3.99	4.01	4.10	4.20
Meat, chicken	\$/kg	2.43	2.53	2.46	2.40	2.39	2.38	2.38	2.34	2.30
Oranges	\$/kg	0.78	0.68	0.89	0.90	0.91	0.91	0.92	0.96	1.00
Shrimp	\$/kg	17.25	14.36	11.20	12.00	12.14	12.29	12.43	13.19	14.00
Sugar, World	\$/kg	0.37	0.30	0.40	0.40	0.40	0.40	0.40	0.39	0.38
Raw Materials										
Timber										
Logs, Africa	\$/cum	465	389	387	380	385	390	395	422	450
Logs, S.E. Asia	\$/cum	282	246	274	275	280	284	289	313	340
Sawnwood, S.E. Asia	\$/cum	898	833	739	700	719	739	760	872	1,000
Other Raw Materials										
Cotton	\$/kg	1.83	1.55	1.64	1.70	1.73	1.77	1.80	1.99	2.20
Rubber, RSS3	\$/kg	1.95	1.57	1.61	2.10	2.12	2.14	2.17	2.28	2.40
Tobacco	\$/mt	4,991	4,908	4,813	4,900	4,868	4,836	4,805	4,650	4,500
Fertilizers										
DAP	\$/mt	472	459	345	330	338	346	354	399	450
Phosphate rock	\$/mt	110	117	112	105	106	108	109	117	125
Potassium chloride	\$/mt	297	303	246	250	255	260	265	291	320
TSP	\$/mt	388	385	291	280	287	293	300	338	380
Urea, E. Europe	\$/mt	316	273	199	220	225	231	236	266	300
Metals and Minerals										
Aluminum	\$/mt	1,867	1,665	1,604	1,700	1,734	1,769	1,804	1,992	2,200
Copper	\$/mt	6,863	5,510	4,868	5,400	5,509	5,620	5,733	6,335	7,000
Iron ore	\$/dmt	96.9	55.8	58.4	65.0	55.0	55.4	55.8	57.9	60.0
Lead	\$/mt	2,095	1,788	1,867	2,200	2,208	2,215	2,223	2,261	2,300
Nickel	\$/mt	16,893	11,863	9,595	11,000	11,518	12,060	12,627	15,892	20,000
Tin	\$/mt	21,899	16,067	17,934	20,000	20,216	20,435	20,656	21,796	23,000
Zinc	\$/mt	2,161	1,932	2,090	2,650	2,800	2,764	2,729	2,559	2,400
Precious Metals										
Gold	\$/toz	1,266	1,161	1,249	1,150	1,138	1,126	1,114	1,055	1,000
Silver	\$/toz	19.07	15.72	17.15	16.50	16.46	16.42	16.38	16.19	16.00
Platinum	\$/toz	1,384	1,053	987	1,000	1,032	1,064	1,098	1,283	1,500

Next update: April 2017.

**TABLE A.3 Commodity price forecasts in constant U.S. dollars(2010=100)**

Commodity	Unit	2014	2015	2016	Forecasts					
					2017	2018	2019	2020	2025	2030
Energy										
Coal, Australia	\$/mt	64.9	58.8	70.1	73.8	61.7	55.6	55.1	52.4	49.7
Crude oil, avg	\$/bbl	89.1	51.9	45.6	58.0	61.7	62.1	62.6	64.5	66.3
Natural gas, Europe	\$/mmbtu	9.30	7.43	4.85	5.27	5.33	5.43	5.54	6.07	6.63
Natural gas, US	\$/mmbtu	4.04	2.67	2.65	3.16	3.60	3.64	3.69	3.92	4.14
Natural gas, Japan	\$/mmbtu	14.84	10.64	7.34	7.64	7.65	7.70	7.77	8.03	8.29
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.83	3.21	3.08	2.74	2.71	2.69	2.67	2.58	2.49
Coffee, Arabica	\$/kg	4.09	3.61	3.84	3.80	3.69	3.61	3.53	3.16	2.82
Coffee, Robusta	\$/kg	2.05	1.99	2.08	2.32	2.25	2.19	2.14	1.89	1.66
Tea, avgerage	\$/kg	2.52	2.77	2.81	2.95	2.90	2.86	2.83	2.66	2.49
Food										
Oils and Meals										
Coconut oil	\$/mt	1,185	1,135	1,568	1,687	1,630	1,584	1,543	1,340	1,161
Groundnut oil	\$/mt	1,215	1,368	1,599	1,582	1,559	1,545	1,536	1,473	1,409
Palm oil	\$/mt	760	637	745	791	783	779	778	763	746
Soybean meal	\$/mt	489	404	404	390	387	385	385	379	373
Soybean oil	\$/mt	842	774	861	949	934	924	917	873	829
Soybeans	\$/mt	455	399	432	432	430	431	433	437	439
Grains										
Barley	\$/mt	128	199	169	158	158	158	159	163	166
Maize	\$/mt	179	174	169	169	168	169	169	172	174
Rice, Thailand, 5%	\$/mt	391	395	422	406	400	397	395	380	365
Wheat, US, HRW	\$/mt	264	209	177	158	160	163	166	182	199
Other Food										
Bananas, US	\$/kg	0.86	0.98	1.07	1.06	1.05	1.03	1.02	0.97	0.91
Meat, beef	\$/kg	4.58	4.53	4.18	4.16	4.08	4.03	3.99	3.73	3.48
Meat, chicken	\$/kg	2.25	2.59	2.62	2.53	2.46	2.41	2.36	2.13	1.91
Oranges	\$/kg	0.73	0.69	0.95	0.95	0.93	0.92	0.92	0.87	0.83
Shrimp	\$/kg	15.97	14.69	11.92	12.65	12.50	12.42	12.37	12.00	11.61
Sugar, World	\$/kg	0.35	0.30	0.42	0.42	0.41	0.40	0.39	0.35	0.31
Raw Materials										
Timber										
Logs, Africa	\$/cum	431	398	412	401	396	394	393	383	373
Logs, S.E. Asia	\$/cum	261	252	292	290	288	287	287	285	282
Sawnwood, S.E. Asia	\$/cum	831	852	786	738	740	747	756	793	829
Other Raw Materials										
Cotton	\$/kg	1.70	1.59	1.74	1.79	1.78	1.79	1.79	1.81	1.82
Rubber, RSS3	\$/kg	1.81	1.61	1.71	2.21	2.18	2.17	2.15	2.07	1.99
Tobacco	\$/mt	4,620	5,021	5,123	5,167	5,009	4,887	4,779	4,228	3,730
Fertilizers										
DAP	\$/mt	437	469	368	348	348	350	353	363	373
Phosphate rock	\$/mt	102	120	119	111	110	109	109	106	104
Potassium chloride	\$/mt	275	310	261	264	262	262	263	265	265
TSP	\$/mt	359	394	309	295	295	297	299	307	315
Urea, E. Europe	\$/mt	293	279	212	232	232	233	235	242	249
Metals and Minerals										
Aluminum	\$/mt	1,729	1,703	1,707	1,793	1,784	1,787	1,795	1,812	1,824
Copper	\$/mt	6,353	5,637	5,181	5,694	5,669	5,678	5,703	5,760	5,803
Iron ore	\$/dmt	89.7	57.1	62.2	68.5	56.6	56.0	55.5	52.6	49.7
Lead	\$/mt	1,940	1,829	1,987	2,320	2,272	2,238	2,211	2,056	1,907
Nickel	\$/mt	15,637	12,135	10,213	11,599	11,852	12,185	12,561	14,450	16,579
Tin	\$/mt	20,270	16,436	19,088	21,089	20,804	20,648	20,547	19,819	19,066
Zinc	\$/mt	2,000	1,976	2,224	2,794	2,881	2,793	2,715	2,327	1,989
Precious Metals										
Gold	\$/toz	1,171	1,187	1,329	1,213	1,171	1,137	1,108	959	829
Silver	\$/toz	17.65	16.08	18.25	17.40	16.94	16.59	16.30	14.72	13.26
Platinum	\$/toz	1,281	1,077	1,051	1,054	1,062	1,075	1,092	1,167	1,243

Sources and Notes: See Appendix C.

Next update: April 2017.



**TABLE A.4 Commodity price index forecasts (2010=100)**

Commodity	Unit	2014	2015	2016	Forecasts					
					2017	2018	2019	2020	2025	2030
Nominal US dollars (2010=100)										
Energy		118.3	64.9	55.0	69.2	74.8	76.4	78.2	88.3	99.8
Non-energy		97.0	82.4	80.3	82.9	83.7	84.8	85.9	92.1	99.0
Agriculture		102.7	89.3	89.1	89.6	90.6	91.7	92.7	98.5	104.9
Beverages		101.8	93.5	91.0	89.9	90.1	90.3	90.5	91.7	93.0
Food		107.4	90.9	92.3	92.7	93.7	94.8	95.9	101.9	108.4
Oils and meals		109.0	85.2	89.6	92.3	93.6	94.9	96.2	103.1	110.6
Grains		103.9	88.8	82.0	79.4	81.1	82.8	84.6	94.2	105.1
Other food		108.4	100.3	105.3	105.1	105.4	105.6	105.9	107.2	108.6
Raw materials		91.9	83.3	80.3	82.1	83.4	84.7	86.1	93.7	102.3
Timber		104.9	96.1	89.6	86.1	88.3	90.5	92.7	105.0	118.8
Other Raw Materials		77.7	69.3	70.0	77.6	78.0	78.5	78.9	81.4	84.2
Fertilizers		100.5	95.4	75.3	77.0	78.6	80.2	81.9	91.0	101.1
Metals and minerals *		84.8	66.9	63.0	69.8	70.0	71.2	72.4	79.1	86.7
Base Metals **		89.0	73.6	68.3	75.6	77.5	78.9	80.3	88.2	97.3
Precious Metals		101.1	90.6	97.5	90.6	89.8	89.1	88.4	84.9	81.6
Constant 2010 US dollars (2010=100), deflated by the MUV Index										
Energy		109.5	66.4	58.5	72.9	77.0	77.2	77.8	80.3	82.7
Non-energy		89.8	84.3	85.5	87.4	86.1	85.7	85.5	83.7	82.1
Agriculture		95.1	91.3	94.8	94.5	93.3	92.6	92.3	89.5	86.9
Beverages		94.2	95.7	96.9	94.8	92.7	91.2	90.0	83.4	77.1
Food		99.4	93.0	98.2	97.7	96.5	95.8	95.4	92.6	89.9
Oils and meals		100.9	87.1	95.3	97.3	96.3	95.9	95.7	93.8	91.7
Grains		96.2	90.8	87.2	83.7	83.4	83.7	84.1	85.6	87.1
Other food		100.3	102.6	112.1	110.9	108.4	106.7	105.3	97.5	90.0
Raw materials		85.1	85.2	85.4	86.5	85.8	85.6	85.7	85.2	84.8
Timber		97.1	98.3	95.4	90.8	90.8	91.4	92.3	95.4	98.5
Other Raw Materials		71.9	70.9	74.5	81.8	80.3	79.3	78.5	74.0	69.8
Fertilizers		93.0	97.6	80.1	81.1	80.9	81.1	81.5	82.7	83.8
Metals and minerals *		78.5	68.5	67.0	73.6	72.0	71.9	72.0	71.9	71.8
Base Metals **		82.4	75.3	72.7	79.8	79.7	79.7	79.9	80.2	80.6
Precious Metals		93.6	92.7	103.7	95.5	92.4	90.0	87.9	77.2	67.6
Inflation indices, 2010=100										
MUV index ***		108.0	97.8	94.0	94.8	97.2	99.0	100.5	110.0	120.6
% change per annum		-1.5	-9.5	-3.9	0.9	2.5	1.8	1.6	1.8	1.9
US GDP deflator		107.5	108.7	110.4	112.3	114.5	116.7	119.0	131.4	145.1
% change per annum		1.8	1.1	1.6	1.7	1.9	1.9	2.0	2.0	2.0

Source: See Appendix C.

Notes: (\*) Base metals plus iron ore; (\*\*) Includes aluminum, copper, lead, nickel, tin and zinc; (\*\*\*) MUV is the unit value index of manufacture exports. For other notes see Appendix C.

Next update: April 2017.





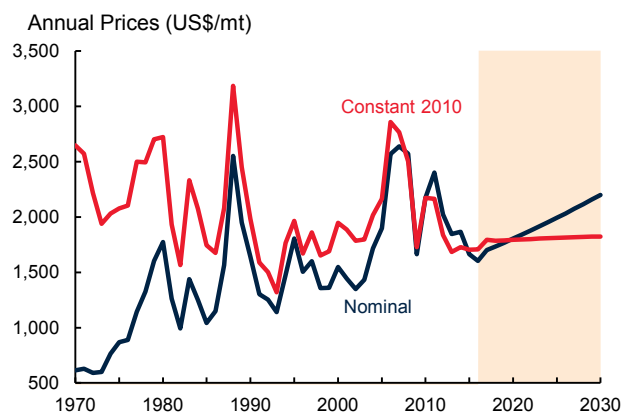
## APPENDIX B

### Supply-Demand balances

Aluminum	37	Natural gas	52
Bananas	38	Natural rubber	53
Coal	39	Nickel	54
Cocoa	40	Palm oil and Soybean oil	55
Coconut oil and Palm kernel oil	41	Platinum	56
Coffee	42	Rice	57
Copper	43	Silver	58
Cotton	44	Soybeans	59
Crude oil	45	Sugar	60
Fertilizers—Nitrogen	46	Tea	61
Fertilizers—Phosphate and Potash	47	Timber—Roundwood and Sawnwood	62
Gold	48	Timber—Wood panels and Woodpulp	63
Iron Ore	49	Tin	64
Lead	50	Wheat	65
Maize	51	Zinc	66



# Aluminum



	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Bauxite Production (thousand metric tons)</b>									
Australia	27,179	40,697	53,801	59,959	68,535	76,282	81,119	78,633	80,910
China	1,700	3,655	7,900	17,408	36,837	44,052	50,339	65,000	65,000
Brazil	4,152	9,876	14,379	22,365	32,028	34,988	33,849	35,410	31,231
India	1,785	5,277	7,562	12,385	12,662	15,320	20,421	20,688	26,383
Malaysia	920	398	123	5	124	122	220	963	22,867
Guinea	13,911	16,150	17,992	19,237	17,633	19,974	18,763	19,178	20,414
Jamaica	12,064	10,937	11,127	14,118	8,540	9,339	9,435	9,677	9,629
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,166	5,322	5,589	6,580
Kazakhstan	n/a	n/a	3,729	4,815	5,310	5,170	5,193	4,515	4,683
Greece	3,286	2,496	1,991	2,495	1,902	1,815	1,844	1,876	2,100
Saudi Arabia	0	0	0	0	0	760	1,044	1,965	1,964
Surinam	4,903	3,267	3,610	4,757	3,097	2,873	2,706	2,708	1,871
Venezuela, RB	0	786	4,361	5,815	3,126	2,285	2,341	2,316	1,770
Others	n/a	n/a	7,315	7,038	33,532	39,538	64,212	11,775	10,080
<b>World</b>	<b>93,326</b>	<b>114,835</b>	<b>138,889</b>	<b>176,807</b>	<b>228,802</b>	<b>257,685</b>	<b>296,808</b>	<b>260,291</b>	<b>285,483</b>

<b>Refined Production (thousand metric tons)</b>									
China	358	854	2,647	7,759	16,244	20,251	23,153	27,517	31,410
Russian Federation	n/a	n/a	3,258	3,647	3,947	4,024	3,724	3,488	3,524
Canada	1,075	1,567	2,373	2,894	2,963	2,781	2,967	2,858	2,880
United Arab Emirates	35	174	536	722	1,400	1,861	1,848	2,296	2,464
India	185	433	647	942	1,610	1,714	1,597	1,767	1,886
Australia	304	1,233	1,761	1,903	1,928	1,864	1,778	1,704	1,645
United States	4,654	4,048	3,668	2,480	1,728	2,070	1,948	1,710	1,587
Norway	662	867	1,026	1,376	1,090	1,111	1,155	1,331	1,241
Bahrain	126	212	509	708	851	890	913	931	961
Saudi Arabia	0	0	0	0	0	0	187	665	835
Brazil	261	931	1,271	1,498	1,536	1,436	1,304	962	773
Iceland	75	88	226	272	826	803	736	749	756
South Africa	87	157	683	851	806	665	822	745	695
Others	n/a	n/a	5,699	6,788	6,630	6,766	6,569	6,526	6,686
<b>World</b>	<b>16,036</b>	<b>19,362</b>	<b>24,304</b>	<b>31,841</b>	<b>41,559</b>	<b>46,236</b>	<b>48,701</b>	<b>53,249</b>	<b>57,342</b>

<b>Refined Consumption (thousand metric tons)</b>									
China	550	861	3,352	7,072	15,854	20,224	21,955	27,204	31,068
United States	4,454	4,330	6,161	6,114	4,242	4,875	4,632	5,250	5,325
Germany	1,272	1,379	1,632	1,758	1,912	2,086	2,083	2,289	2,126
Japan	1,639	2,414	2,223	2,276	2,025	1,982	1,772	2,034	1,779
India	234	433	601	958	1,475	1,690	1,559	1,523	1,476
Korea, Rep.	68	369	823	1,201	1,255	1,278	1,241	1,282	1,366
Turkey	45	152	211	390	703	925	867	915	952
United Arab Emirates	0	0	34	85	650	835	835	835	835
Brazil	296	341	514	759	985	1,021	988	1,027	801
Others	6,754	8,947	9,456	11,022	11,317	11,013	10,563	10,945	11,353
<b>World</b>	<b>15,312</b>	<b>19,227</b>	<b>25,007</b>	<b>31,636</b>	<b>40,419</b>	<b>45,929</b>	<b>46,495</b>	<b>53,305</b>	<b>57,080</b>

Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.

## Bananas

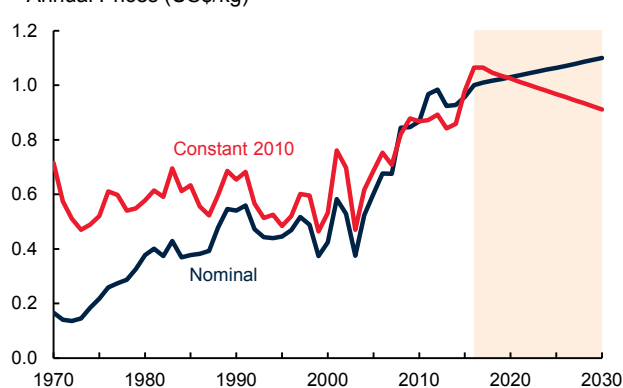
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2009	2010	2011	2012	2013
<b>Exports (thousand metric tons)</b>									
<b>Ecuador</b>	1,246	1,291	2,157	3,994	5,701	5,156	5,778	5,183	5,352
Philippines	107	923	840	1,600	1,744	1,590	2,047	2,646	3,268
Guatemala	200	371	360	802	1,479	1,388	1,457	1,866	1,950
Costa Rica	856	973	1,434	2,079	1,716	1,909	1,914	1,882	1,928
Colombia	262	692	1,148	1,564	1,838	1,692	1,828	1,733	1,549
Belgium	n/a	n/a	n/a	967	1,244	1,219	1,272	1,231	1,228
Honduras	799	973	781	375	518	471	489	583	675
United States	191	205	337	400	538	503	516	516	547
Mexico	1	16	154	81	161	176	180	309	344
Netherlands	1	7	43	49	123	136	173	217	315
Germany	5	3	29	105	391	384	367	276	305
France	0	3	26	242	237	322	253	265	283
Cameroon	50	65	78	238	255	238	237	232	256
Panama	600	504	745	489	257	271	264	247	252
Côte d'Ivoire	140	122	94	243	249	266	239	339	211
Dominican Republic	4	10	11	79	282	340	304	136	145
Peru	0	0	0	0	0	1	1	122	124
Bolivia	0	0	0	9	89	79	108	101	101
Belize	0	15	24	66	87	58	74	104	99
Brazil	204	67	53	72	144	140	110	93	98
Others	851	533	714	881	1,158	1,149	1,110	1,017	1,069
<b>World</b>	<b>5,519</b>	<b>6,772</b>	<b>9,030</b>	<b>14,336</b>	<b>18,213</b>	<b>17,491</b>	<b>18,720</b>	<b>19,099</b>	<b>20,098</b>
<b>Imports (thousand metric tons)</b>									
United States	1,846	2,423	3,099	4,031	3,580	4,115	4,123	4,353	4,548
Germany	548	614	1,232	1,115	1,358	1,234	1,288	1,199	1,344
Russian Federation	n/a	n/a	n/a	503	981	1,068	1,307	1,260	1,339
Belgium	n/a	n/a	n/a	1,027	1,315	1,351	1,340	1,287	1,275
United Kingdom	335	322	470	743	942	979	1,019	1,037	1,140
Japan	844	726	758	1,079	1,253	1,109	1,064	1,087	975
Italy	288	279	429	605	684	658	662	616	655
France	435	446	497	341	530	550	567	523	612
Iran, Islamic Rep.	2	0	50	200	650	661	616	590	595
China	29	21	48	647	575	739	910	707	583
Canada	199	246	341	399	482	496	506	513	543
United Arab Emirates	0	23	30	99	84	93	116	282	425
Netherlands	81	114	142	160	188	222	297	357	418
Kuwait	10	25	15	24	35	23	24	100	404
Argentina	164	195	73	340	344	351	395	370	392
Korea, Rep.	3	15	22	184	257	338	353	368	314
Algeria	11	n/a	n/a	n/a	180	58	245	222	274
Ukraine	n/a	n/a	n/a	60	227	152	248	243	266
Poland	3	47	8	285	225	245	223	202	265
Turkey	0	0	62	124	182	201	235	225	235
Others	787	1,184	1,608	2,473	3,161	3,290	3,183	2,774	3,061
<b>World</b>	<b>5,584</b>	<b>6,680</b>	<b>8,881</b>	<b>14,436</b>	<b>17,235</b>	<b>17,934</b>	<b>18,721</b>	<b>18,314</b>	<b>19,664</b>

Sources: Food and Agriculture Organization, Intergovernmental Group on Bananas and Tropical Fruits (May 11, 2016 update).

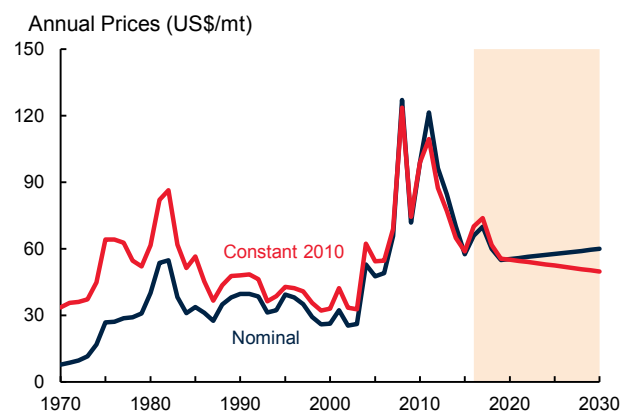
Note: n/a implies data not available. Data include re-exports.

## Coal



Source: World Bank.

Note: Last observation is December 2016.



Source: World Bank.

Note: 2017-30 are forecasts.

	1981	1990	2000	2005	2010	2012	2013	2014	2015
<b>Production (million metric tons oil equivalent)</b>									
China	311	540	707	1,242	1,665	1,874	1,895	1,864	1,827
United States	463	566	570	580	551	518	501	508	455
India	64	106	152	190	252	255	256	271	284
Australia	65	109	167	206	241	250	268	287	275
Indonesia	0	7	47	94	169	237	276	282	241
Russian Federation	n/a	186	121	136	151	168	173	177	184
South Africa	75	100	127	138	144	147	145	148	143
Colombia	3	13	25	39	48	58	56	58	56
Poland	103	100	72	69	55	58	57	54	54
Kazakhstan	n/a	57	32	37	47	52	51	49	46
Germany	149	125	61	57	46	48	45	44	43
Canada	23	40	39	35	35	36	37	36	32
Vietnam	3	3	7	19	25	24	23	23	23
Czech Republic	43	36	25	24	21	20	18	17	16
Ukraine	n/a	76	36	35	32	38	37	26	16
Mongolia	2	3	2	4	15	18	18	15	15
Turkey	7	12	12	11	18	17	15	16	12
Serbia	n/a	n/a	n/a	n/a	7	7	8	6	7
Mexico	2	3	5	6	7	7	7	7	7
Greece	3	7	8	9	7	8	7	6	6
Bulgaria	5	5	4	4	5	6	5	5	6
United Kingdom	78	56	20	13	11	11	8	7	5
Romania	8	9	6	7	6	6	5	4	5
Others	n/a	115	79	80	67	68	77	78	72
<b>World</b>	<b>1,863</b>	<b>2,274</b>	<b>2,326</b>	<b>3,034</b>	<b>3,628</b>	<b>3,930</b>	<b>3,986</b>	<b>3,989</b>	<b>3,830</b>
<b>Consumption (million metric tons oil equivalent)</b>									
China	303	526	701	1,318	1,743	1,923	1,964	1,949	1,920
India	64	110	164	211	293	330	356	389	407
United States	401	483	569	574	525	438	455	454	396
Japan	65	78	95	114	116	116	121	119	119
Russian Federation	n/a	182	106	95	91	98	91	88	89
South Africa	51	67	75	80	93	88	89	90	85
Korea, Rep.	15	24	43	55	76	81	82	85	84
Indonesia	0	3	13	24	39	53	58	70	80
Germany	144	132	85	81	77	80	83	79	78
Poland	91	78	56	55	55	51	53	49	50
Australia	27	37	48	54	51	47	45	45	47
Taiwan, China	4	11	27	35	38	38	39	39	38
Turkey	7	16	23	22	31	36	32	36	34
Kazakhstan	n/a	39	18	27	33	36	36	36	33
Ukraine	n/a	75	39	38	38	43	42	36	29
Others	n/a	381	316	346	335	354	347	349	349
<b>World</b>	<b>1,836</b>	<b>2,243</b>	<b>2,379</b>	<b>3,131</b>	<b>3,634</b>	<b>3,814</b>	<b>3,891</b>	<b>3,911</b>	<b>3,840</b>

Source: BP Statistical Review (June 2016 update).

Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

# Cocoa

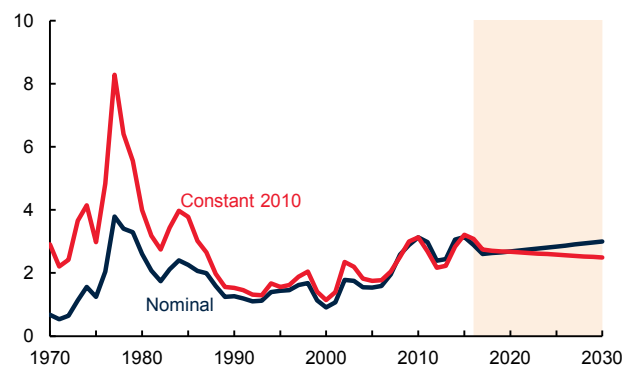
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
<b>Production (thousand metric tons)</b>									
Côte d'Ivoire	180	417	804	1,212	1,511	1,449	1,746	1,796	1,570
Ghana	406	258	293	395	1,025	835	897	740	820
Indonesia	2	12	150	385	440	410	375	325	320
Cameroon	112	117	115	133	229	225	211	232	250
Ecuador	72	87	111	89	161	192	234	250	220
Nigeria	305	156	160	180	240	238	248	195	190
Brazil	182	353	368	163	200	185	228	230	135
Peru	2	7	11	17	54	70	82	85	85
Dominican Republic	35	35	42	45	54	68	70	82	72
Colombia	21	38	52	37	35	48	49	51	53
Others	212	214	400	195	361	223	233	249	274
<b>World</b>	<b>1,528</b>	<b>1,694</b>	<b>2,507</b>	<b>2,852</b>	<b>4,309</b>	<b>3,943</b>	<b>4,373</b>	<b>4,236</b>	<b>3,989</b>
<b>Grindings (thousand metric tons)</b>									
Netherlands	116	140	268	452	540	545	530	508	520
Côte d'Ivoire	35	60	118	285	361	471	519	558	510
Germany	151	180	294	227	439	402	412	415	440
United States	279	186	268	445	401	429	446	400	410
Indonesia	1	10	32	83	190	290	340	335	370
Brazil	67	191	260	195	239	241	240	224	228
Others	783	800	1,085	1,355	1,768	1,802	1,848	1,712	1,682
<b>World</b>	<b>1,431</b>	<b>1,566</b>	<b>2,325</b>	<b>3,041</b>	<b>3,938</b>	<b>4,180</b>	<b>4,335</b>	<b>4,152</b>	<b>4,160</b>
<b>Exports (thousand metric tons)</b>									
Côte d'Ivoire	138	406	688	903	1,079	1,045	1,192	1,234	n/a
Ghana	348	182	245	307	694	601	709	586	n/a
Ecuador	46	19	56	57	136	165	197	235	n/a
Cameroon	75	96	96	102	204	186	160	205	n/a
Nigeria	216	76	142	149	219	183	192	113	n/a
Dominican Republic	29	27	36	34	52	61	68	81	n/a
Others	268	295	473	435	611	401	403	354	n/a
<b>World</b>	<b>1,119</b>	<b>1,100</b>	<b>1,737</b>	<b>1,987</b>	<b>2,996</b>	<b>2,643</b>	<b>2,920</b>	<b>2,807</b>	<b>n/a</b>
<b>Imports (thousand metric tons)</b>									
Netherlands	116	167	267	549	806	672	641	471	n/a
United States	269	246	320	355	472	428	475	445	n/a
Germany	155	187	300	228	434	273	318	343	n/a
Belgium	18	28	50	101	194	225	258	252	n/a
Malaysia	1	n/a	1	110	320	305	315	228	n/a
France	42	59	74	157	149	114	141	137	n/a
Spain	34	37	45	49	88	99	107	104	n/a
Italy	41	32	56	72	86	88	90	97	n/a
Turkey	1	2	6	39	71	78	88	88	n/a
Indonesia	n/a	7	1	25	20	30	76	87	n/a
Others	462	433	642	725	718	685	660	626	n/a
<b>World</b>	<b>1,139</b>	<b>1,198</b>	<b>1,761</b>	<b>2,409</b>	<b>3,357</b>	<b>2,996</b>	<b>3,171</b>	<b>2,877</b>	<b>n/a</b>

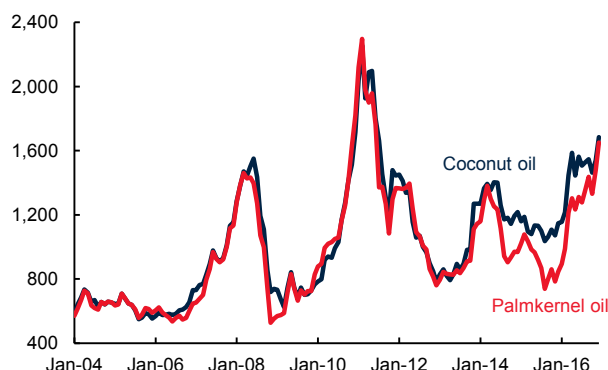
Source: Quarterly Bulletin of Cocoa Statistics (Cocoa year 2015/16 Volume XLII No. 3 update).

Notes: n/a implies data not available. Data for 1970/71 are average of 1968-1972.



## Coconut oil and Palm kernel oil

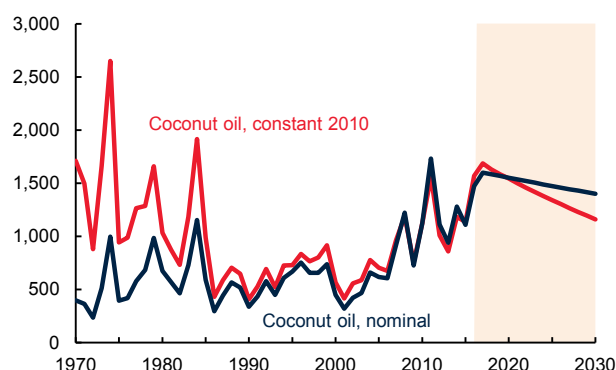
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2017-30 are forecasts.

	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16	2016/17
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### Coconut oil: production (thousand metric tons)

Philippines	1,159	1,448	1,207	1,240	1,624	1,153	1,099	909	1,000
Indonesia	677	833	825	847	850	933	937	840	911
India	228	292	442	398	380	390	377	365	371
Mexico	99	126	126	131	131	127	127	127	127
Malaysia	64	32	38	49	51	51	51	45	47
Vietnam	n/a	n/a	n/a	34	34	34	34	33	33
Thailand	n/a	n/a	n/a	27	29	29	29	28	27
Papua New Guinea	n/a	n/a	n/a	54	32	26	18	18	19
Others	596	628	606	314	322	313	312	308	312
<b>World</b>	<b>2,823</b>	<b>3,359</b>	<b>3,244</b>	<b>3,094</b>	<b>3,453</b>	<b>3,056</b>	<b>2,984</b>	<b>2,673</b>	<b>2,847</b>

### Coconut oil: consumption (thousand metric tons)

European Union	498	632	734	739	716	646	536	542	551
United States	373	400	585	474	520	518	531	470	495
India	233	301	448	411	381	392	389	367	372
Philippines	195	318	297	336	523	364	238	187	219
Indonesia	639	600	200	153	215	377	158	197	172
China	27	32	43	216	152	142	137	135	139
Mexico	115	139	139	153	135	129	130	134	133
Malaysia	4	4	32	90	57	49	80	74	82
Others	575	759	715	671	702	507	707	642	637
<b>World</b>	<b>2,659</b>	<b>3,185</b>	<b>3,193</b>	<b>3,243</b>	<b>3,401</b>	<b>3,124</b>	<b>2,906</b>	<b>2,748</b>	<b>2,800</b>

### Palmkernel oil: production (thousand metric tons)

Indonesia	36	229	709	2,534	3,022	3,264	3,538	3,434	3,672
Malaysia	250	827	1,289	2,072	2,271	2,332	2,280	2,019	2,210
Thailand	n/a	n/a	n/a	140	174	176	165	151	164
Nigeria	82	146	190	108	116	109	114	117	122
Colombia	n/a	n/a	n/a	80	90	95	105	102	109
Papua New Guinea	n/a	n/a	n/a	43	51	57	58	59	61
Ecuador	n/a	n/a	n/a	35	39	37	40	42	44
Côte d'Ivoire	n/a	n/a	n/a	40	43	42	39	42	42
Others	195	261	349	339	376	411	425	446	471
<b>World</b>	<b>563</b>	<b>1,463</b>	<b>2,537</b>	<b>5,391</b>	<b>6,182</b>	<b>6,523</b>	<b>6,764</b>	<b>6,412</b>	<b>6,895</b>

### Palmkernel oil: consumption (thousand metric tons)

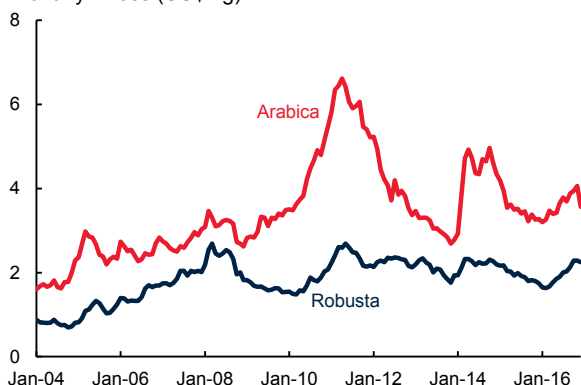
Indonesia	29	66	113	851	1,260	1,518	1,670	1,784	1,855
Malaysia	4	117	686	1,420	1,464	1,414	1,504	1,402	1,430
European Union	238	417	500	537	667	674	675	694	705
China	1	12	31	421	620	495	578	560	590
United States	69	149	224	279	267	266	274	345	335
Brazil	2	10	55	201	215	249	241	229	235
India	1	7	13	198	326	265	245	138	169
Nigeria	24	146	175	107	113	105	113	115	119
Others	147	465	708	1,214	1,326	1,406	1,407	1,362	1,406
<b>World</b>	<b>515</b>	<b>1,389</b>	<b>2,505</b>	<b>5,228</b>	<b>6,258</b>	<b>6,392</b>	<b>6,707</b>	<b>6,629</b>	<b>6,844</b>

Source: Oil World (December 16, 2016).

Notes: All quantities are for the crop year (beginning October 1). For example, 2001/02 refers to October 2001 to September 2002. European Union includes EU-15 for 1980/8, 1990/91, 2000/01 and EU-28 for 2010-2016.

# Coffee

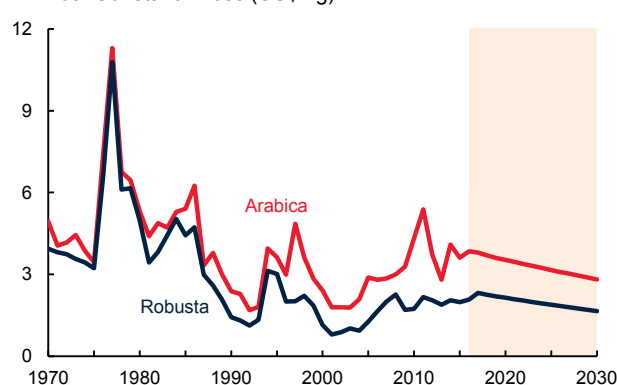
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Constant Prices (US\$/kg)



Source: World Bank.

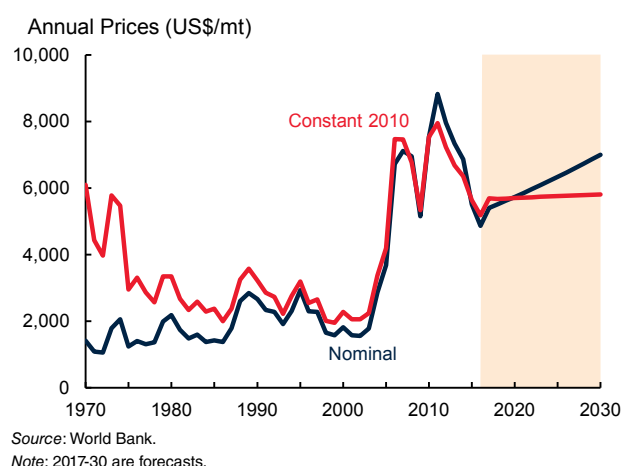
Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (thousand 60kg bags)</b>									
Brazil	11,000	21,500	31,000	34,100	54,500	57,200	54,300	49,400	56,100
Vietnam	56	77	1,200	15,333	19,415	29,833	27,400	28,930	26,700
Colombia	8,000	13,500	14,500	10,500	8,525	12,075	13,300	14,000	14,500
Indonesia	2,330	5,365	7,480	6,495	9,325	11,900	10,470	12,100	10,000
Ethiopia	2,589	3,264	3,500	2,768	6,125	6,345	6,475	6,500	6,500
Honduras	545	1,265	1,685	2,821	3,975	4,400	5,100	5,300	5,500
India	1,914	1,977	2,970	5,020	5,035	5,075	5,440	5,800	5,170
Peru	1,114	1,170	1,170	2,824	4,100	4,250	2,900	3,500	3,800
Uganda	2,667	2,133	2,700	3,097	3,212	3,850	3,550	3,650	3,700
Guatemala	1,965	2,702	3,282	4,564	3,960	3,515	3,185	3,350	3,375
China	0	0	0	0	827	1,947	2,200	2,300	2,500
Nicaragua	641	971	460	1,610	1,740	2,000	2,125	2,125	2,225
Mexico	3,200	3,862	4,550	4,800	4,000	3,950	3,180	2,000	2,200
Malaysia	66	88	75	700	1,100	1,500	2,100	2,200	2,000
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,675	1,400	1,600	1,800
Costa Rica	1,295	2,140	2,565	2,502	1,575	1,450	1,400	1,400	1,400
Tanzania, United Rep.	909	1,060	763	809	1,050	800	1,150	1,100	1,050
Thailand	19	201	785	1,692	1,000	1,000	1,000	700	1,000
Kenya	999	1,568	1,455	864	710	850	750	750	800
Others	15,897	17,241	16,741	11,618	9,635	6,563	6,620	6,241	6,316
<b>World</b>	<b>59,202</b>	<b>86,174</b>	<b>100,181</b>	<b>117,217</b>	<b>141,409</b>	<b>160,178</b>	<b>154,045</b>	<b>152,946</b>	<b>156,636</b>
<b>Consumption (thousand 60kg bags)</b>									
European Union	n/a	n/a	n/a	n/a	41,350	41,475	43,870	44,115	44,400
United States	305	297	229	183	22,383	23,811	23,568	25,114	25,299
Brazil	8,890	7,975	9,000	13,100	19,420	20,210	20,420	20,510	20,510
Japan	n/a	n/a	n/a	n/a	7,015	7,750	7,825	8,020	8,225
Philippines	496	432	810	900	2,825	3,590	4,230	6,110	5,875
Canada	n/a	n/a	n/a	n/a	4,245	4,605	4,495	4,545	4,600
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,230	4,050	4,395	4,425
Indonesia	888	1,228	1,295	1,335	1,650	2,540	2,900	3,230	3,370
China	n/a	n/a	n/a	n/a	1,106	2,181	2,416	3,006	3,125
Ethiopia	1,170	1,600	1,900	1,667	2,860	3,120	2,985	2,972	2,975
Vietnam	31	35	100	417	1,337	2,008	2,217	2,600	2,870
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	2,160	2,305	2,465	2,500
Algeria	n/a	n/a	n/a	n/a	1,815	2,300	2,195	2,230	2,280
Mexico	1,512	1,500	1,400	978	2,620	2,731	2,339	2,150	2,150
Australia	n/a	n/a	n/a	n/a	1,445	1,615	1,775	1,785	1,850
Colombia	1,349	1,825	1,615	1,530	1,120	1,300	1,400	1,515	1,600
Switzerland	n/a	n/a	n/a	n/a	1,570	1,410	1,445	1,420	1,500
India	665	887	1,224	959	1,231	1,170	1,191	1,368	1,400
Venezuela, RB	638	1,090	850	735	1,305	1,170	1,151	1,151	1,031
Others	n/a	n/a	n/a	n/a	12,878	13,158	12,968	13,321	13,270
<b>World</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>134,440</b>	<b>142,534</b>	<b>145,745</b>	<b>152,022</b>	<b>153,255</b>

Source: U.S. Department of Agriculture (January 2017 update).

Note: n/a implies data not available.

# Copper



	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
Chile	1,068	1,588	4,602	5,321	5,419	5,434	5,776	5,750	5,764
Peru	367	318	553	1,010	1,247	1,299	1,376	1,380	1,705
China	177	296	549	639	1,180	1,552	1,681	1,632	1,669
United States	1,181	1,587	1,440	1,157	1,129	1,196	1,279	1,383	1,373
Congo, Dem. Rep.	460	356	33	98	378	608	817	996	1,039
Australia	244	327	832	930	870	914	999	965	957
Zambia	596	496	249	441	732	782	839	756	754
Russian Federation	n/a	n/a	580	805	703	720	720	720	720
Canada	716	794	634	595	522	580	632	696	697
Indonesia	59	169	1,006	1,064	871	398	494	366	580
Kazakhstan	n/a	n/a	433	436	404	491	538	501	566
Mexico	175	291	365	391	270	500	480	514	540
Poland	343	370	454	523	425	427	429	421	426
Others	n/a	n/a	1,476	1,619	1,985	2,088	2,251	2,399	2,517
<b>World</b>	<b>7,864</b>	<b>8,997</b>	<b>13,207</b>	<b>15,029</b>	<b>16,135</b>	<b>16,989</b>	<b>18,311</b>	<b>18,478</b>	<b>19,308</b>
<b>Refined Production (thousand metric tons)</b>									
China	314	562	1,312	2,566	4,540	5,879	6,667	7,959	7,964
Chile	811	1,192	2,669	2,824	3,244	2,902	2,755	2,729	2,688
Japan	1,014	1,008	1,437	1,395	1,549	1,516	1,468	1,554	1,483
United States	1,686	2,017	1,802	1,257	1,093	1,001	1,040	1,095	1,135
Russian Federation	n/a	n/a	824	968	900	880	874	874	874
India	23	39	265	518	647	689	619	764	792
Congo, Dem. Rep.	144	173	29	3	254	453	643	742	775
Zambia	607	479	226	465	767	700	629	710	710
Germany	425	533	709	639	585	534	680	673	678
Korea, Rep.	79	187	471	527	556	590	604	604	604
Poland	357	346	486	560	547	566	565	577	574
Australia	182	274	484	471	424	461	480	511	489
Spain	154	171	316	308	347	408	351	428	426
Others	n/a	n/a	3,731	4,135	3,640	3,627	3,737	3,707	3,905
<b>World</b>	<b>9,390</b>	<b>10,809</b>	<b>14,761</b>	<b>16,635</b>	<b>19,094</b>	<b>20,207</b>	<b>21,112</b>	<b>22,927</b>	<b>23,097</b>
<b>Refined Consumption (thousand metric tons)</b>									
China	286	512	1,869	3,621	7,385	8,896	9,830	11,303	11,451
United States	1,868	2,150	2,979	2,264	1,760	1,758	1,826	1,767	1,792
Germany	870	1,028	1,309	1,115	1,312	1,114	1,136	1,162	1,219
Japan	1,158	1,577	1,351	1,229	1,060	985	996	1,072	993
Korea, Rep.	85	324	862	868	856	721	722	759	705
Italy	388	475	674	680	619	570	552	622	611
India	77	135	246	397	514	456	423	434	491
Turkey	33	103	248	319	369	429	453	453	475
Taiwan, China	85	265	628	638	532	432	437	465	471
Others	n/a	n/a	4,929	5,516	4,932	4,772	4,626	4,774	4,529
<b>World</b>	<b>9,385</b>	<b>10,780</b>	<b>15,096</b>	<b>16,649</b>	<b>19,340</b>	<b>20,133</b>	<b>21,002</b>	<b>22,811</b>	<b>22,736</b>

Source: World Bureau of Metal Statistics.

Notes: n/a implies data not available. Refined production and consumption include significant recycled material.

# Cotton

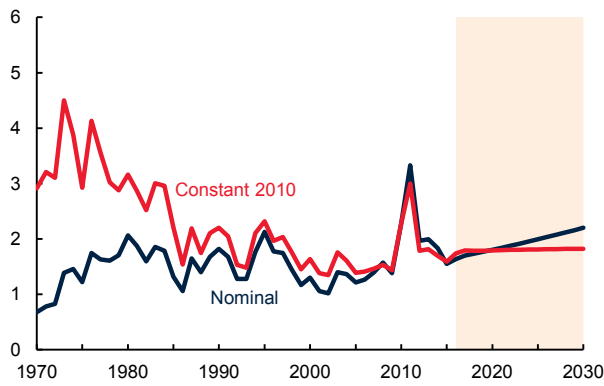
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (thousand metric tons)</b>									
India	909	1,322	1,989	2,380	5,865	6,766	6,562	5,746	5,766
China	1,995	2,707	4,508	4,505	6,400	6,950	6,500	4,753	4,553
United States	2,219	2,422	3,376	3,742	3,942	2,811	3,553	2,806	3,519
Pakistan	543	714	1,638	1,816	1,948	2,076	2,305	1,514	1,876
Brazil	594	623	717	939	1,960	1,734	1,563	1,289	1,414
Australia	19	99	433	804	898	933	528	579	876
Uzbekistan	n/a	1,671	1,593	975	910	910	885	832	818
Turkey	400	500	655	880	594	843	724	640	645
Burkina Faso	8	23	77	116	141	247	298	244	314
Turkmenistan	n/a	n/a	437	187	380	329	330	290	306
Mali	20	41	115	102	103	205	233	216	270
Greece	110	115	213	421	180	280	273	218	213
Others	n/a	n/a	3,201	2,658	2,088	2,086	2,447	1,899	1,910
<b>World</b>	<b>11,740</b>	<b>13,831</b>	<b>18,951</b>	<b>19,524</b>	<b>25,408</b>	<b>26,169</b>	<b>26,201</b>	<b>21,026</b>	<b>22,480</b>

## Stocks (thousand metric tons)

China	412	476	1,589	3,755	2,087	12,109	12,917	11,160	9,220
India	376	491	539	922	1,850	1,922	2,518	2,000	1,915
United States	915	581	510	1,306	566	651	980	1,049	1,228
Turkey	24	112	150	283	412	821	809	870	883
Brazil	321	391	231	755	1,400	852	1,158	795	827
Pakistan	55	131	313	608	316	422	753	433	458
Others	2,502	2,969	3,428	2,984	2,832	3,699	3,180	2,792	2,852
<b>World</b>	<b>4,605</b>	<b>5,151</b>	<b>6,761</b>	<b>10,614</b>	<b>9,463</b>	<b>20,476</b>	<b>22,315</b>	<b>19,099</b>	<b>17,383</b>

## Exports (thousand metric tons)

United States	848	1,290	1,697	1,467	3,130	2,293	2,449	1,993	2,580
India	34	140	255	24	1,085	2,014	914	1,255	825
Brazil	220	21	167	68	435	485	851	939	755
Australia	4	53	329	849	545	1,057	520	616	746
Uzbekistan	n/a	n/a	n/a	750	600	615	550	544	456
Burkina Faso	9	22	73	112	136	253	213	262	295
Others	n/a	n/a	n/a	2,535	1,786	2,293	2,311	1,917	1,987
<b>World</b>	<b>3,875</b>	<b>4,414</b>	<b>5,069</b>	<b>5,805</b>	<b>7,717</b>	<b>9,010</b>	<b>7,808</b>	<b>7,526</b>	<b>7,644</b>

## Imports (thousand metric tons)

Bangladesh	0	45	80	248	843	967	1,177	1,355	1,362
Vietnam	33	40	31	84	350	687	934	1,001	1,152
China	108	773	480	52	2,609	3,075	1,804	959	985
Turkey	1	0	46	381	760	924	800	918	911
Indonesia	36	106	324	570	471	651	728	640	646
Pakistan	1	1	0	101	314	463	166	490	462
Mexico	1	0	43	410	261	114	211	222	298
Thailand	46	86	354	342	383	369	320	278	274
Others	3,861	3,504	3,862	3,576	1,766	1,463	1,645	1,598	1,554
<b>World</b>	<b>4,086</b>	<b>4,555</b>	<b>5,220</b>	<b>5,764</b>	<b>7,756</b>	<b>8,712</b>	<b>7,785</b>	<b>7,461</b>	<b>7,644</b>

Source: International Cotton Advisory Committee (November-December 2016 update).

Note: n/a implies data not available.

## Crude oil

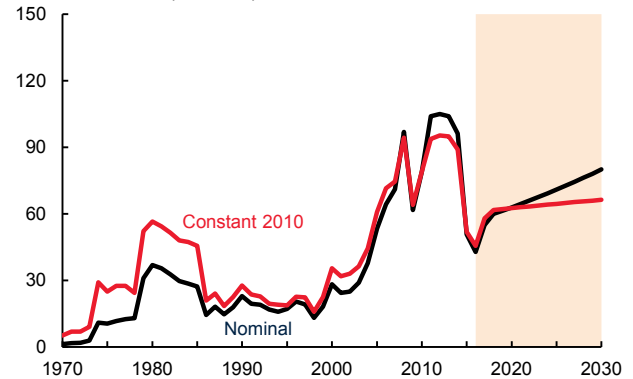
Monthly Prices (US\$/bbl)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/bbl)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
<b>Production (thousand barrels per day)</b>									
United States	11,297	10,170	8,914	7,732	7,550	8,883	10,059	11,723	12,704
Saudi Arabia	3,851	10,270	7,105	9,470	10,075	11,635	11,393	11,505	12,014
Russian Federation	n/a	n/a	10,342	6,583	10,366	10,639	10,779	10,838	10,980
Canada	1,473	1,764	1,968	2,703	3,332	3,740	4,000	4,278	4,385
China	616	2,122	2,778	3,257	4,077	4,155	4,216	4,246	4,309
Iraq	1,549	2,658	2,149	2,613	2,490	3,116	3,141	3,285	4,031
Iran, Islamic Rep.	3,848	1,479	3,270	3,852	4,420	3,814	3,611	3,736	3,920
United Arab Emirates	762	1,745	2,283	2,660	2,895	3,403	3,640	3,685	3,902
Kuwait	3,036	1,757	964	2,244	2,561	3,171	3,134	3,120	3,096
Venezuela, RB	3,754	2,228	2,244	3,097	2,838	2,701	2,678	2,685	2,626
Mexico	487	2,129	2,941	3,459	2,961	2,912	2,876	2,785	2,588
Brazil	167	188	650	1,271	2,137	2,149	2,114	2,346	2,527
Nigeria	1,084	2,059	1,870	2,155	2,535	2,430	2,321	2,389	2,352
Norway	n/a	528	1,716	3,346	2,136	1,917	1,838	1,889	1,948
Qatar	363	476	434	853	1,638	1,931	1,903	1,893	1,898
Angola	103	150	475	746	1,863	1,784	1,799	1,712	1,826
Kazakhstan	n/a	n/a	571	740	1,676	1,662	1,720	1,701	1,669
Algeria	1,052	1,139	1,347	1,549	1,689	1,537	1,485	1,589	1,586
Colombia	226	131	446	687	786	944	1,004	990	1,008
United Kingdom	4	1,676	1,933	2,714	1,361	949	867	855	965
Oman	332	285	695	961	865	918	942	943	952
India	140	193	715	726	882	906	906	887	876
Azerbaijan	n/a	n/a	254	281	1,023	872	877	849	841
Others	n/a	n/a	9,323	11,223	11,126	10,048	9,288	8,907	8,669
<b>World</b>	<b>48,056</b>	<b>62,959</b>	<b>65,386</b>	<b>74,922</b>	<b>83,283</b>	<b>86,218</b>	<b>86,591</b>	<b>88,834</b>	<b>91,670</b>
<b>Consumption (thousand barrels per day)</b>									
United States	14,710	17,062	16,988	19,701	19,180	18,490	18,961	19,106	19,396
China	554	1,707	2,297	4,697	9,436	10,229	10,732	11,201	11,968
India	390	643	1,211	2,259	3,319	3,685	3,727	3,849	4,159
Japan	3,876	4,905	5,240	5,542	4,442	4,688	4,531	4,309	4,150
Saudi Arabia	435	592	1,136	1,627	3,218	3,462	3,469	3,732	3,895
Brazil	516	1,134	1,454	2,066	2,721	2,905	3,106	3,242	3,157
Russian Federation	n/a	n/a	5,042	2,540	2,878	3,119	3,145	3,255	3,113
Korea, Rep.	162	476	1,041	2,260	2,370	2,458	2,455	2,454	2,575
Germany	2,765	3,014	2,685	2,746	2,445	2,356	2,408	2,348	2,338
Canada	1,472	1,898	1,747	2,043	2,324	2,372	2,383	2,371	2,322
Iran, Islamic Rep.	224	591	1,069	1,455	1,875	1,915	2,048	2,013	1,947
Mexico	412	1,048	1,580	1,965	2,014	2,063	2,020	1,941	1,926
Indonesia	138	395	653	1,139	1,402	1,631	1,643	1,676	1,628
France	1,860	2,220	1,895	1,994	1,763	1,676	1,664	1,617	1,606
United Kingdom	2,031	1,649	1,751	1,713	1,623	1,530	1,525	1,513	1,559
Others	n/a	n/a	20,879	23,241	27,754	28,082	28,230	28,483	29,270
<b>Total World</b>	<b>45,229</b>	<b>61,401</b>	<b>66,667</b>	<b>76,988</b>	<b>88,765</b>	<b>90,663</b>	<b>92,049</b>	<b>93,109</b>	<b>95,008</b>

Source: BP Statistical Review (June 2016 update).

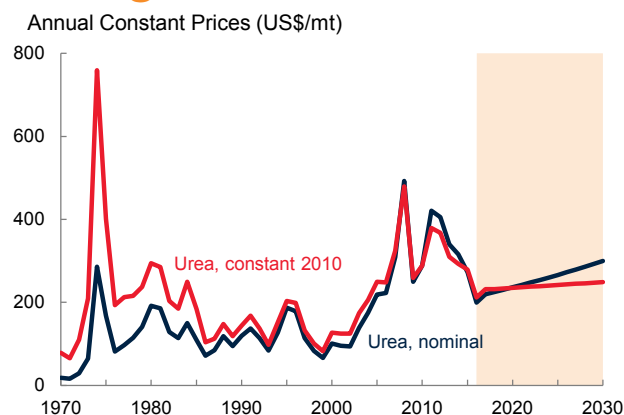
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

## Fertilizers—Nitrogen



Source: World Bank.

Note: Last observation is December 2016.



Source: World Bank.

Note: 2017-30 are forecasts.

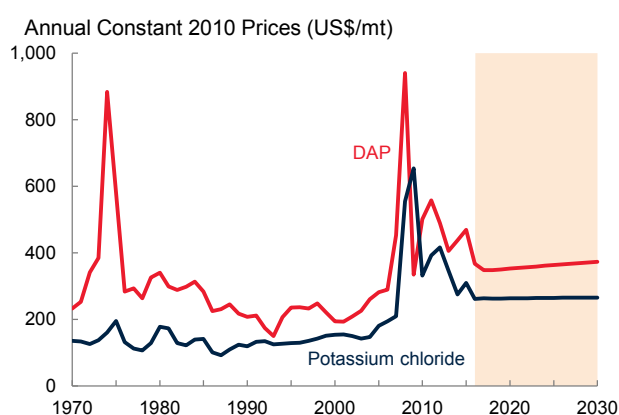
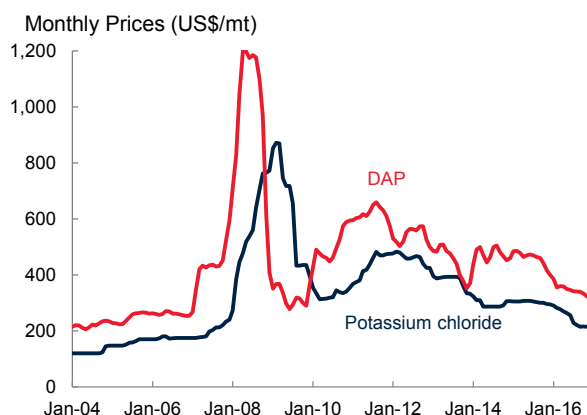
	1970	1980	1990	2000	2010	2011	2012	2013	2014
<b>Production (thousand tonnes nutrients)</b>									
China	1,200	9,993	14,637	22,175	35,678	36,323	36,056	36,810	35,540
India	838	2,164	6,993	10,943	12,178	12,288	12,237	12,409	12,435
United States	8,161	12,053	10,816	8,352	9,587	9,414	10,150	8,494	8,679
Russian Federation	n/a	n/a	n/a	5,452	6,544	6,917	6,605	6,819	6,678
Canada	726	1,755	2,683	3,797	3,364	3,565	3,344	3,225	3,432
Indonesia	45	958	2,462	2,853	3,207	3,375	3,313	3,442	3,406
Pakistan	140	572	1,120	2,054	2,629	2,534	2,232	2,589	2,647
Qatar	n/a	295	350	748	1,556	1,480	2,095	2,535	2,499
Saudi Arabia	0	138	568	1,278	1,695	1,737	1,923	1,920	2,119
Egypt, Arab Rep.	118	401	678	1,441	2,761	2,709	2,474	2,274	1,941
Ukraine	n/a	n/a	3,004	2,130	2,312	2,985	3,072	2,394	1,863
Iran, Islamic Rep.	31	72	376	726	1,524	1,904	2,058	1,975	1,784
Poland	1,030	1,290	1,233	1,497	1,509	1,445	1,529	1,466	1,404
Netherlands	957	1,624	1,928	1,300	1,175	1,322	1,293	1,321	1,322
Germany	1,900	2,380	1,165	1,558	1,289	1,275	1,326	1,316	1,316
Vietnam	0	15	18	227	479	503	861	999	1,067
Belgium	594	743	770	935	947	956	932	1,053	1,027
Belarus	n/a	n/a	747	574	740	773	832	922	964
Uzbekistan	n/a	n/a	1,113	682	911	864	875	811	925
Others	16,949	28,500	21,303	17,904	18,031	18,804	18,362	18,212	17,919
<b>World</b>	<b>32,690</b>	<b>62,951</b>	<b>71,964</b>	<b>86,624</b>	<b>108,116</b>	<b>111,170</b>	<b>111,568</b>	<b>110,987</b>	<b>108,966</b>

### Consumption (thousand tonnes nutrients)

	1970	1980	1990	2000	2010	2011	2012	2013	2014
China	2,987	11,787	19,233	22,720	32,213	32,806	33,046	33,000	32,869
India	1,310	3,522	7,566	10,911	16,558	17,300	16,821	16,731	16,816
United States	7,363	10,818	10,239	10,467	11,737	12,231	12,188	12,287	11,821
Brazil	276	886	797	1,998	2,855	3,366	3,435	3,706	3,872
Pakistan	264	843	1,472	2,265	3,143	3,209	2,853	3,179	3,315
Indonesia	184	851	1,610	1,964	3,045	2,940	3,063	2,820	2,981
Canada	323	946	1,158	1,592	1,990	2,297	2,479	2,457	2,551
France	1,425	2,146	2,493	2,317	2,337	2,020	2,140	2,178	2,163
Germany	1,642	2,303	1,787	1,848	1,786	1,640	1,648	1,675	1,823
Russian Federation	n/a	n/a	4,344	960	1,483	1,577	1,576	1,537	1,522
Mexico	406	878	1,346	1,342	1,166	1,168	1,201	1,518	1,501
Turkey	243	782	1,200	1,276	1,344	1,259	1,432	1,584	1,493
Australia	123	248	439	951	982	1,099	1,099	1,315	1,407
Vietnam	166	129	425	1,332	1,250	1,300	1,407	1,261	1,354
Bangladesh	99	266	609	996	1,237	1,122	1,112	1,133	1,321
Thailand	50	136	577	922	1,311	1,386	1,382	1,454	1,293
Ukraine	n/a	n/a	1,836	350	650	1,159	1,254	1,219	1,181
Egypt, Arab Rep.	331	554	745	1,084	1,159	1,207	1,087	1,104	1,122
United Kingdom	880	1,240	1,516	1,167	1,019	1,003	995	1,059	1,047
Others	13,351	22,157	17,386	15,609	16,815	16,692	17,205	17,968	18,255
<b>World</b>	<b>31,423</b>	<b>60,493</b>	<b>76,777</b>	<b>82,070</b>	<b>104,080</b>	<b>106,781</b>	<b>107,423</b>	<b>109,185</b>	<b>109,707</b>

Source: International Fertilizer Industry Association (<http://ifadata.fertilizer.org/ucSearch.aspx>, September 2016 update).Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see [www.fertilizers.org](http://www.fertilizers.org) for details).

## Fertilizers—Phosphate and Potash



	1970	1980	1990	2000	2010	2011	2012	2013	2014
<b>Phosphate: production (thousand tonnes nutrients)</b>									
China	907	2,607	4,114	6,759	15,998	17,631	16,387	16,545	16,576
United States	n/a	7,437	8,105	7,337	6,297	6,123	6,456	5,861	6,968
India	228	854	2,077	3,751	4,378	4,370	3,825	3,973	4,113
Russian Federation	n/a	n/a	4,943	2,320	2,926	3,070	2,940	2,929	2,858
Morocco	99	174	1,180	1,122	1,875	2,242	2,433	2,198	2,403
Brazil	169	1,623	1,091	1,496	2,004	2,011	2,183	2,100	1,990
Saudi Arabia	0	0	0	159	119	298	826	919	1,220
Indonesia	0	218	589	193	494	516	478	771	702
Others	14,279	20,764	14,319	9,607	8,605	7,999	8,044	8,120	8,163
<b>World</b>	<b>15,682</b>	<b>33,677</b>	<b>36,417</b>	<b>32,744</b>	<b>42,697</b>	<b>44,260</b>	<b>43,571</b>	<b>43,415</b>	<b>44,993</b>
<b>Phosphate: consumption (thousand tonnes nutrients)</b>									
China	907	2,952	5,770	8,664	12,100	12,300	12,400	11,480	11,400
India	305	1,091	3,125	4,248	8,050	7,914	6,653	5,695	5,976
Brazil	416	1,965	1,202	2,544	3,384	3,860	4,325	4,641	4,752
United States	4,671	4,926	3,811	3,862	3,890	3,946	4,289	4,337	4,061
Pakistan	31	227	389	675	767	633	747	881	975
Indonesia	45	274	581	263	500	584	695	963	974
Canada	326	634	578	634	723	799	831	887	937
Australia	757	853	579	1,107	817	873	803	816	909
Others	13,743	18,990	19,887	10,815	10,338	10,637	10,772	11,568	11,380
<b>World</b>	<b>21,202</b>	<b>31,912</b>	<b>35,920</b>	<b>32,812</b>	<b>40,569</b>	<b>41,546</b>	<b>41,515</b>	<b>41,268</b>	<b>41,364</b>
<b>Potash: production (thousand tonnes nutrients)</b>									
Canada	3,179	7,337	7,005	9,174	10,289	9,919	9,877	9,461	10,636
Russian Federation	n/a	n/a	n/a	3,716	6,128	6,526	5,403	6,086	7,340
Belarus	n/a	n/a	4,992	3,372	5,223	5,332	4,831	4,229	6,286
China	n/a	20	46	275	3,101	3,390	4,007	4,565	5,680
Germany	4,824	6,123	4,967	3,409	2,962	3,106	3,056	2,968	3,053
Israel	576	797	1,296	1,748	1,944	1,700	2,100	2,150	2,126
Jordan	0	0	842	1,162	1,166	1,355	1,094	1,047	1,255
Chile	21	23	41	408	850	923	1,241	1,187	1,239
Others	8,871	13,307	3,649	2,878	2,043	2,482	2,409	2,821	2,670
<b>World</b>	<b>17,471</b>	<b>27,608</b>	<b>22,838</b>	<b>26,141</b>	<b>33,706</b>	<b>34,733</b>	<b>34,019</b>	<b>34,514</b>	<b>40,285</b>
<b>Potash: consumption (thousand tonnes nutrients)</b>									
China	25	527	1,761	3,364	5,200	5,700	6,000	6,800	7,385
Brazil	307	1,267	1,210	2,760	3,894	4,431	4,844	5,094	5,395
United States	3,827	5,733	4,537	4,469	4,165	4,186	4,385	4,806	4,418
India	199	618	1,309	1,565	3,514	2,576	2,062	2,058	2,517
Indonesia	18	91	310	266	1,250	1,401	1,490	1,620	1,765
Malaysia	61	250	494	650	1,150	1,250	1,290	1,290	1,397
Belarus	n/a	n/a	986	450	660	787	720	683	609
Vietnam	38	39	29	450	400	440	552	570	600
Others	11,289	15,302	13,685	8,121	7,249	7,472	7,638	8,207	8,526
<b>World</b>	<b>15,764</b>	<b>23,826</b>	<b>24,320</b>	<b>22,095</b>	<b>27,483</b>	<b>28,243</b>	<b>28,980</b>	<b>31,128</b>	<b>32,611</b>

Source: International Fertilizer Industry Association (<http://ifadata.fertilizer.org/ucSearch.aspx>, September 2016 update).

Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see [www.fertilizers.org](http://www.fertilizers.org) for details).



# Gold

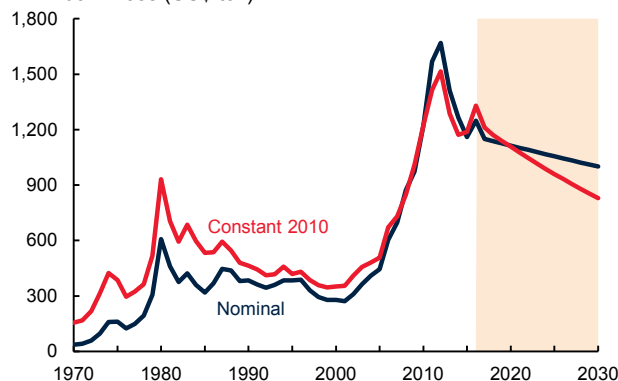
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/toz)



Source: World Bank.

Note: 2017-30 are forecasts.

	1995	2000	2005	2010	2011	2012	2013	2014	2015
<b>Production (metric tons)</b>									
China	136	175	209	351	371	411	432	478	458
Australia	247	296	263	261	259	252	268	274	276
Russian Federation	128	144	163	197	207	219	238	248	252
United States	317	353	256	230	224	232	230	209	216
Peru	56	134	206	185	190	184	188	173	176
Canada	152	156	121	104	108	108	134	152	159
South Africa	522	428	297	200	191	164	169	159	151
Indonesia	63	125	158	140	121	93	111	116	134
Mexico	20	24	30	79	89	103	120	118	125
Ghana	53	72	67	92	91	96	107	107	95
Uzbekistan	70	88	84	71	71	73	77	81	83
Brazil	64	61	38	68	67	67	80	81	81
Argentina	1	26	28	64	59	55	50	60	64
Papua New Guinea	52	73	67	70	64	57	62	56	57
Mali	8	29	44	44	44	50	48	47	49
Colombia	22	37	36	34	38	39	41	43	48
Kazakhstan	11	27	18	31	39	40	45	49	48
Tanzania	0	15	48	45	50	49	47	46	47
Philippines	30	37	38	41	37	41	40	43	47
Others	220	260	293	430	512	516	555	590	593
<b>World</b>	<b>2,174</b>	<b>2,560</b>	<b>2,464</b>	<b>2,734</b>	<b>2,829</b>	<b>2,850</b>	<b>3,042</b>	<b>3,132</b>	<b>3,158</b>
<b>Fabrication (metric tons)</b>									
India	426	704	695	783	761	736	716	771	812
China	217	213	277	523	651	698	1,058	731	668
United States	245	277	219	179	167	149	163	152	164
Turkey	126	228	303	109	136	114	178	156	112
Japan	189	161	165	158	147	126	124	119	102
Italy	458	522	290	126	103	96	92	96	94
South Korea	82	107	83	93	81	70	65	61	56
Russian Federation	n/a	34	61	61	66	72	74	70	51
Indonesia	133	99	87	40	43	48	56	49	43
Switzerland	47	54	56	41	48	48	46	44	41
Saudi Arabia	156	153	125	47	37	33	41	37	41
Canada	28	25	27	44	45	32	45	32	40
United Arab Emirates	30	50	55	33	28	28	38	36	39
Egypt, Arab Rep.	61	107	71	43	30	39	42	42	39
Malaysia	78	86	74	44	37	35	45	41	36
Germany	71	64	52	41	39	36	37	36	36
South Africa	12	14	10	25	27	27	31	25	31
Iran, Islamic Rep.	37	46	41	42	41	41	46	36	30
Singapore	22	26	30	25	24	22	25	26	26
Others	877	791	605	372	346	318	347	334	331
<b>World</b>	<b>3,294</b>	<b>3,761</b>	<b>3,325</b>	<b>2,827</b>	<b>2,858</b>	<b>2,767</b>	<b>3,269</b>	<b>2,891</b>	<b>2,790</b>

Sources: World Bureau of Metal Statistics and Thomson Reuters (March 2016 update).

Notes: n/a implies data not available. Fabrication includes the use of scrap. Fabrication of "Saudi Arabia" includes Saudi Arabia and the Republic of Yemen in 1995 and 2000.

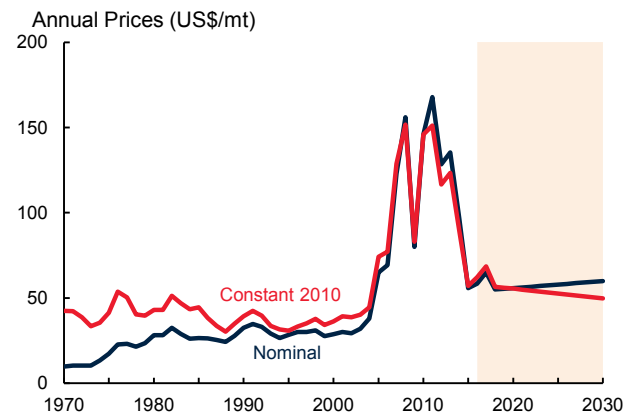


## Iron Ore



Source: World Bank.

Note: Last observation is December 2016.



Source: World Bank.

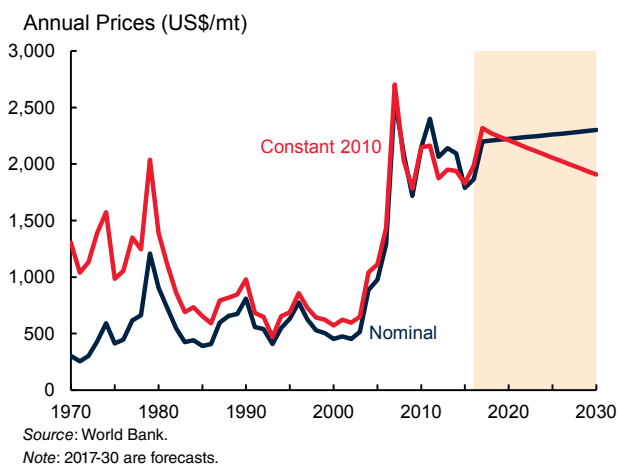
Note: 2017-30 are forecasts.

	1971	1980	1990	2000	2010	2012	2013	2014	2015
<b>Iron ore production (million metric tons)</b>									
Australia	62	99	109	176	433	520	609	746	811
Brazil	38	113	152	209	372	380	391	399	423
India	34	41	54	75	209	153	136	140	143
China	55	113	148	105	357	289	315	195	124
Russian Federation	n/a	n/a	n/a	87	99	103	102	101	102
Ukraine	n/a	n/a	n/a	56	79	81	84	82	82
South Africa	10	n/a	30	34	55	59	61	67	61
Canada	43	49	37	36	38	39	42	44	46
United States	82	71	55	63	50	54	52	54	43
Iran, Islamic Rep.	n/a	n/a	2	12	33	43	49	48	39
Sweden	34	27	20	21	25	27	27	28	25
Chile	11	9	8	8	10	12	12	13	15
Mexico	5	8	9	11	14	15	19	17	14
Mauritania	8	9	11	11	11	11	13	13	12
Kazakhstan	n/a	n/a	n/a	15	18	17	19	16	11
Venezuela, RB	20	14	20	17	14	16	8	6	8
Peru	9	6	3	4	9	11	7	7	7
Turkey	2	3	6	4	6	7	8	7	6
Mongolia	n/a	n/a	n/a	n/a	3	8	6	7	6
Liberia	23	18	4	n/a	n/a	3	4	5	4
Norway	4	4	2	0	3	3	3	4	3
Others	n/a	n/a	n/a	14	36	54	72	54	20
<b>World</b>	<b>781</b>	<b>931</b>	<b>984</b>	<b>959</b>	<b>1,874</b>	<b>1,904</b>	<b>2,039</b>	<b>2,054</b>	<b>2,006</b>
<b>Crude steel production (million metric tons)</b>									
China	21	37	66	129	639	731	822	823	804
Japan	89	111	110	106	110	107	111	111	105
India	6	10	15	27	69	77	81	87	89
United States	109	101	90	102	80	89	87	88	79
Russian Federation	n/a	n/a	n/a	59	67	70	69	71	71
Korea, Rep.	0	9	23	43	59	69	66	72	70
Germany	40	44	38	46	44	43	43	43	43
Brazil	6	15	21	28	33	35	34	34	33
Turkey	1	3	9	14	29	36	35	34	32
Ukraine	n/a	n/a	n/a	32	33	33	33	27	23
Italy	17	27	25	27	26	27	24	24	22
Taiwan, China	0	3	10	17	20	21	22	23	21
Mexico	4	7	9	16	17	18	18	19	18
Iran, Islamic Rep.	n/a	1	1	7	12	14	15	16	16
France	23	23	19	21	15	16	16	16	15
Spain	8	13	13	16	16	14	14	14	15
Canada	11	16	12	17	13	14	12	13	12
Others	n/a	n/a	n/a	143	151	147	148	155	153
<b>World</b>	<b>583</b>	<b>716</b>	<b>770</b>	<b>849</b>	<b>1,433</b>	<b>1,560</b>	<b>1,650</b>	<b>1,670</b>	<b>1,620</b>

Source: Steel Statistical Yearbook 2016.

Notes: n/a implies data not available.

## Lead



	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
China	160	364	660	1,142	1,981	2,613	2,697	2,853	2,340
Australia	398	570	678	767	712	639	711	728	689
United States	562	493	447	437	356	336	343	385	375
Peru	189	188	271	319	262	249	266	278	316
Mexico	146	174	138	134	192	238	253	250	254
Russian Federation	n/a	n/a	13	36	97	151	165	194	188
India	15	26	38	60	91	115	106	105	139
Sweden	72	84	107	61	68	64	60	71	79
Bolivia	16	20	10	11	73	81	82	76	79
Poland	48	45	51	51	48	73	74	77	77
Turkey	8	18	16	19	39	54	78	65	77
Korea, Dem. People's Rep.	125	70	26	20	27	38	59	45	48
Iran, Islamic Rep.	12	9	17	22	32	36	40	45	46
Others	n/a	n/a	610	372	396	427	384	388	352
<b>World</b>	<b>3,595</b>	<b>3,150</b>	<b>3,080</b>	<b>3,453</b>	<b>4,374</b>	<b>5,115</b>	<b>5,317</b>	<b>5,561</b>	<b>5,059</b>

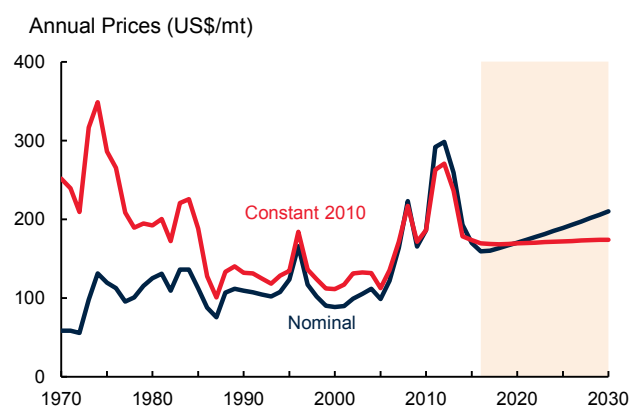
<b>Refined Production (thousand metric tons)</b>									
China	175	297	1,100	2,359	4,157	4,591	4,935	4,740	3,858
United States	1,151	1,291	1,431	1,293	1,255	1,221	1,308	1,120	1,127
Korea, Rep.	15	80	222	254	321	460	522	670	616
India	26	39	57	56	366	461	462	477	442
Germany	392	394	387	342	405	426	400	380	377
United Kingdom	325	329	328	304	301	312	296	267	351
Mexico	149	238	332	272	317	334	321	313	310
Canada	231	184	284	230	273	279	284	282	269
Japan	305	327	312	275	267	259	252	240	232
Australia	234	229	223	267	210	206	233	226	223
Italy	134	171	237	211	150	138	180	210	210
Spain	121	124	120	110	163	160	160	162	162
Brazil	85	76	86	121	115	165	152	160	160
Others	2,083	1,683	1,582	1,572	1,531	1,572	1,675	1,670	1,768
<b>World</b>	<b>5,424</b>	<b>5,460</b>	<b>6,701</b>	<b>7,665</b>	<b>9,832</b>	<b>10,585</b>	<b>11,180</b>	<b>10,917</b>	<b>10,106</b>

<b>Refined Consumption (thousand metric tons)</b>									
China	210	244	660	1,974	4,171	4,618	4,927	4,718	3,816
United States	1,094	1,275	1,660	1,490	1,430	1,360	1,750	1,670	1,608
Korea, Rep.	54	80	309	376	382	429	550	601	536
India	33	147	56	139	420	524	428	521	484
Germany	433	448	390	330	343	381	392	337	357
Japan	393	416	343	291	224	273	252	254	263
Italy	275	258	283	262	245	195	235	258	232
Spain	111	115	219	279	262	244	257	245	228
Brazil	83	75	155	189	201	238	234	229	224
Others	2,663	2,290	2,416	2,447	2,130	2,126	2,195	2,121	2,227
<b>World</b>	<b>5,348</b>	<b>5,348</b>	<b>6,491</b>	<b>7,777</b>	<b>9,807</b>	<b>10,388</b>	<b>11,222</b>	<b>10,955</b>	<b>9,976</b>

Source: World Bureau of Metal Statistics.

Notes: n/a implies data not available. Refined production and consumption include significant recycled material.

# Maize



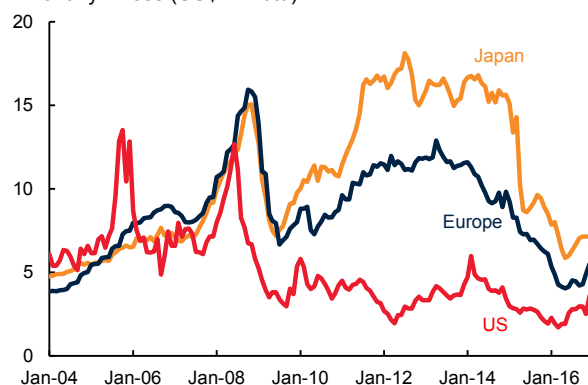
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
United States	105.5	168.6	201.5	251.9	315.6	351.3	361.1	345.5	384.8
China	33.0	62.6	96.8	106.0	177.2	218.5	215.6	224.6	219.6
Brazil	14.1	22.6	24.3	41.5	57.4	80.0	85.0	67.0	86.5
European Union	29.8	42.5	36.5	51.8	58.6	64.9	75.8	58.5	60.7
Argentina	9.9	12.9	7.7	15.4	25.2	26.0	29.8	29.0	36.5
Ukraine	n/a	n/a	4.7	3.8	11.9	30.9	28.5	23.3	27.0
India	7.5	7.0	9.0	12.0	21.7	24.3	24.17	21.8	24.5
Mexico	8.9	10.4	14.1	17.9	21.1	22.9	25.5	25.8	24.5
Russian Federation	n/a	n/a	2.5	1.5	3.1	11.6	11.3	13.2	15.5
Canada	2.6	5.8	7.1	7.0	12.0	14.2	11.5	13.6	13.2
South Africa	8.6	14.9	8.6	8.0	10.9	14.9	10.6	7.9	13.0
Indonesia	2.8	4.0	5.0	5.9	6.8	9.1	9.0	10.5	10.2
Philippines	2.0	3.1	5.1	4.5	7.3	7.5	7.7	7.5	7.9
Others	73.1	97.0	95.5	64.4	106.9	114.3	119.5	112.9	114.1
<b>World</b>	<b>297.9</b>	<b>451.3</b>	<b>518.4</b>	<b>591.7</b>	<b>835.8</b>	<b>990.4</b>	<b>1,015.1</b>	<b>961.1</b>	<b>1,037.9</b>
<b>Stocks (million metric tons)</b>									
China	8.9	42.8	82.8	102.4	49.4	81.3	100.5	110.8	106.3
United States	16.8	35.4	38.6	48.2	28.6	31.3	44.0	44.1	59.8
Brazil	2.0	1.3	0.8	2.7	6.3	14.0	7.8	5.8	6.4
Iran, Islamic Rep.	0.0	0.1	0.0	0.9	2.8	4.5	5.7	6.1	5.3
Mexico	0.5	2.0	1.8	2.8	1.1	2.6	4.1	5.2	5.2
Others	7.9	20.9	17.4	18.2	35.2	41.1	47.2	38.0	37.9
<b>World</b>	<b>36.1</b>	<b>102.5</b>	<b>141.4</b>	<b>175.2</b>	<b>123.4</b>	<b>174.8</b>	<b>209.3</b>	<b>210.0</b>	<b>221.0</b>
<b>Exports (million metric tons)</b>									
United States	12.9	60.7	43.9	49.3	46.5	48.8	47.4	48.2	56.5
Brazil	0.9	0.0	0.0	6.3	8.4	21.0	34.5	15.0	28.0
Argentina	6.4	9.1	4.0	9.7	16.3	17.1	19.0	21.7	25.0
Ukraine	n/a	n/a	0.4	0.4	5.0	20.0	19.7	16.6	18.0
Russian Federation	n/a	n/a	0.4	0.0	0.0	4.2	3.2	4.7	5.3
Serbia	0.0	0.0	0.0	0.0	2.0	1.8	3.0	1.5	2.5
Paraguay	0.0	0.0	0.0	0.6	1.6	2.4	3.3	2.2	2.3
Others	11.9	10.5	9.8	10.5	11.4	16.4	12.2	11.2	10.5
<b>World</b>	<b>32.2</b>	<b>80.3</b>	<b>58.4</b>	<b>76.7</b>	<b>91.3</b>	<b>131.6</b>	<b>142.2</b>	<b>121.1</b>	<b>148.1</b>
<b>Imports (million metric tons)</b>									
Japan	5.2	14.0	16.3	16.3	15.6	15.1	14.7	15.2	15.0
Mexico	0.1	3.8	1.9	6.0	8.3	10.9	11.3	14.0	13.8
European Union	18.9	26.6	5.7	3.7	7.4	16.0	8.9	13.8	13.1
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	10.4	10.2	10.1	9.8
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	8.7	7.8	8.8	9.0
Vietnam	0.1	0.1	0.0	0.1	1.3	3.5	5.0	8.0	7.5
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	5.5	6.1	6.6	7.0
Others	22.6	52.6	32.0	33.5	42.7	54.9	61.2	63.5	60.5
<b>World</b>	<b>47.3</b>	<b>100.9</b>	<b>64.3</b>	<b>74.9</b>	<b>92.7</b>	<b>125.1</b>	<b>125.2</b>	<b>139.9</b>	<b>135.7</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: n/a implies data not available. The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

## Natural gas

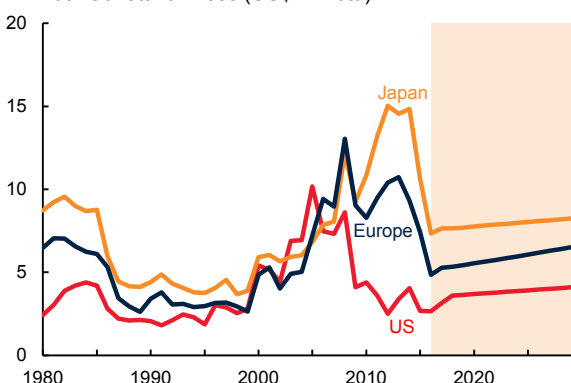
Monthly Prices (US\$/mmbtu)



Source: World Bank.

Note: Last observation is December 2016.

Annual Constant Prices (US\$/mmbtu)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
<b>Production (billion cubic metres)</b>									
United States	595	549	504	543	604	681	685	729	767
Russian Federation	n/a	n/a	590	529	589	592	605	582	573
Iran, Islamic Rep.	4	5	26	60	152	166	167	182	192
Qatar	1	5	6	25	131	157	178	174	181
Canada	57	75	109	182	160	156	156	162	164
China	3	15	16	28	99	112	122	132	138
Norway	0	25	25	50	107	115	109	109	117
Saudi Arabia	2	10	34	50	88	99	100	102	106
Algeria	3	15	49	88	80	82	82	83	83
Indonesia	1	19	44	70	86	77	76	75	75
Turkmenistan	n/a	n/a	79	43	42	62	62	69	72
Malaysia	0	2	17	47	61	61	67	67	68
Australia	2	11	20	32	53	56	58	61	67
Uzbekistan	n/a	n/a	37	51	54	57	57	57	58
United Arab Emirates	1	8	20	38	51	54	55	54	56
Mexico	11	26	27	38	58	57	58	57	53
Nigeria	0	2	4	12	37	43	36	45	50
Egypt, Arab Rep.	0	2	8	21	61	61	56	49	46
Netherlands	27	76	61	58	70	64	69	56	43
Pakistan	3	7	12	22	42	44	43	42	42
Thailand	0	0	7	20	36	41	42	42	40
United Kingdom	10	35	45	108	57	39	36	37	40
Trinidad and Tobago	2	3	5	16	45	43	43	42	40
Others	n/a	n/a	235	292	444	443	449	455	467
<b>World</b>	<b>992</b>	<b>1,435</b>	<b>1,982</b>	<b>2,421</b>	<b>3,209</b>	<b>3,363</b>	<b>3,411</b>	<b>3,463</b>	<b>3,539</b>

### Consumption (billion cubic metres)

United States	599	563	543	661	682	723	741	756	778
Russian Federation	n/a	n/a	408	360	414	416	413	412	391
China	3	15	16	25	111	151	172	188	197
Iran, Islamic Rep.	3	5	24	63	153	162	163	180	191
Japan	3	24	48	72	95	117	117	118	113
Saudi Arabia	2	10	34	50	88	99	100	102	106
Canada	36	52	67	93	95	100	104	104	102
Mexico	10	23	28	41	72	80	83	87	83
Germany	15	58	61	79	84	77	81	71	75
United Arab Emirates	1	5	17	31	61	66	67	66	69
United Kingdom	11	45	52	97	94	74	73	67	68
Italy	14	25	43	65	76	68	64	56	61
Thailand	0	0	7	22	45	51	52	53	53
India	1	1	12	26	61	58	50	51	51
Uzbekistan	n/a	n/a	36	46	41	47	47	49	50
Others	n/a	n/a	562	691	1,029	1,043	1,065	1,050	1,078
<b>World</b>	<b>979</b>	<b>1,433</b>	<b>1,956</b>	<b>2,422</b>	<b>3,201</b>	<b>3,333</b>	<b>3,393</b>	<b>3,410</b>	<b>3,469</b>

Source: BP Statistical Review (June 2016 update).

Note: n/a implies data not available.

## Natural rubber

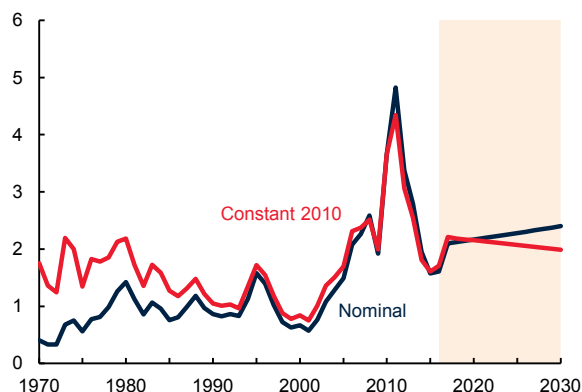
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
<b>Production (thousand metric tons)</b>									
Thailand	287	501	1,275	2,346	3,252	3,778	4,170	4,324	4,473
Indonesia	815	822	1,261	1,501	2,736	3,012	3,237	3,153	3,145
Vietnam	28	46	94	291	752	877	949	954	1,017
China	46	113	264	445	687	802	865	840	794
Malaysia	1,269	1,530	1,291	928	939	923	827	668	722
India	90	155	324	629	851	919	796	705	575
Côte d'Ivoire	11	23	69	123	231	254	289	317	351
Myanmar	10	16	15	36	128	164	177	198	212
Others	584	644	392	513	827	929	971	977	988
<b>World</b>	<b>3,140</b>	<b>3,850</b>	<b>4,985</b>	<b>6,811</b>	<b>10,403</b>	<b>11,658</b>	<b>12,281</b>	<b>12,136</b>	<b>12,277</b>
<b>Consumption (thousand metric tons)</b>									
China	250	340	600	1,150	3,622	3,890	4,270	4,804	4,680
European Union	991	1,007	1,012	1,293	1,136	1,076	1,060	1,139	1,159
India	86	171	358	638	944	988	962	1,015	987
United States	568	585	808	1,195	926	950	913	932	936
Japan	283	427	677	752	749	728	710	709	691
Thailand	8	28	99	243	487	505	521	541	601
Indonesia	25	46	108	139	421	465	509	540	579
Malaysia	20	45	184	364	458	441	434	447	475
Brazil	37	81	124	227	378	343	409	422	405
Korea, Rep.	26	118	255	332	384	396	396	402	388
Others	796	932	845	975	1,253	1,264	1,246	1,230	1,246
<b>World</b>	<b>3,090</b>	<b>3,780</b>	<b>5,068</b>	<b>7,306</b>	<b>10,759</b>	<b>11,046</b>	<b>11,430</b>	<b>12,181</b>	<b>12,146</b>
<b>Exports (thousand metric tons)</b>									
Thailand	279	457	1,151	2,166	2,866	3,175	3,752	3,729	3,776
Indonesia	790	976	1,077	1,380	2,369	2,525	2,770	2,662	2,680
Vietnam	23	33	80	273	782	1,023	1,076	1,066	1,138
Malaysia	1,304	1,482	1,322	978	1,245	1,291	1,332	1,192	1,119
Côte d'Ivoire	11	23	69	121	226	255	285	323	348
Others	413	299	263	359	558	602	672	882	1,146
<b>World</b>	<b>2,820</b>	<b>3,270</b>	<b>3,962</b>	<b>5,277</b>	<b>8,047</b>	<b>8,871</b>	<b>9,887</b>	<b>9,854</b>	<b>10,207</b>
<b>Imports (thousand metric tons)</b>									
China	178	242	340	820	2,888	3,426	3,975	4,096	4,200
European Union	1,071	1,068	1,072	1,474	1,427	1,459	1,451	1,546	1,536
Malaysia	45	43	136	548	706	871	1,005	914	955
United States	543	576	820	1,192	931	969	927	946	952
Japan	292	458	663	801	747	700	722	689	682
India	3	1	61	11	187	250	336	424	414
Korea, Rep.	26	118	254	331	388	397	396	403	388
Brazil	11	56	95	139	249	181	224	230	208
Others	641	673	1,328	1,065	1,157	1,307	1,236	1,251	1,354
<b>World</b>	<b>2,810</b>	<b>3,235</b>	<b>4,769</b>	<b>6,380</b>	<b>8,681</b>	<b>9,561</b>	<b>10,271</b>	<b>10,499</b>	<b>10,689</b>

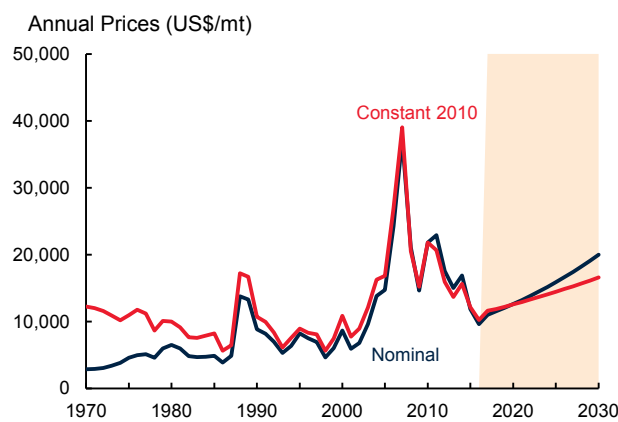
Source: International Rubber Study Group (October-December 2016 update).

## Nickel



Source: World Bank.

Note: Last observation is December 2016.



Source: World Bank.

Note: 2017-30 are forecasts.

	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
Philippines	38	16	17	27	184	318	316	411	317
Russian Federation	n/a	n/a	266	289	274	269	264	264	264
Canada	189	196	191	200	160	212	223	235	235
Australia	74	67	170	186	170	244	256	245	220
New Caledonia	87	85	129	112	130	132	150	178	186
Indonesia	41	69	117	156	216	622	811	146	106
China	11	33	51	59	80	93	93	92	92
Brazil	3	13	32	38	54	90	74	86	83
South Africa	26	30	37	42	40	46	51	55	57
Cuba	38	41	71	74	65	65	62	50	49
Madagascar	0	0	0	0	0	6	25	37	47
Guatemala	7	0	0	0	0	2	9	36	46
Colombia	0	0	28	53	49	52	49	41	37
Others	n/a	n/a	82	120	95	117	118	131	145
<b>World</b>	<b>749</b>	<b>888</b>	<b>1,191</b>	<b>1,356</b>	<b>1,518</b>	<b>2,266</b>	<b>2,504</b>	<b>2,006</b>	<b>1,884</b>

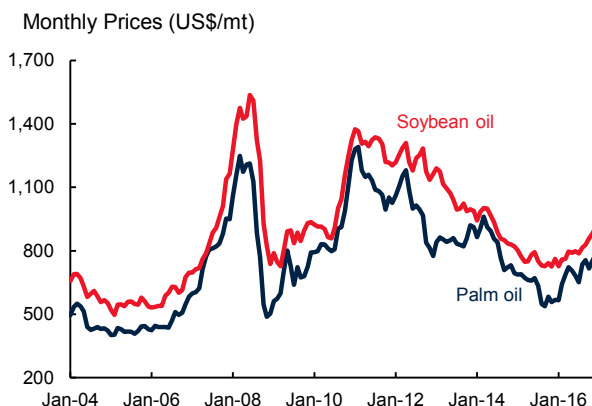
<b>Refined Production (thousand metric tons)</b>									
China	11	28	52	97	314	591	711	644	575
Russian Federation	n/a	n/a	242	264	263	254	242	239	233
Japan	109	103	161	164	166	170	178	178	193
Canada	145	127	134	140	105	152	153	151	163
Australia	35	43	112	122	102	129	142	138	128
Norway	37	58	59	85	92	92	91	91	91
New Caledonia	33	32	44	47	40	45	48	62	78
Brazil	3	13	23	30	28	59	56	73	72
Madagascar	0	0	0	0	0	6	25	37	47
Finland	13	17	54	41	49	46	44	43	43
United Kingdom	19	27	38	38	32	39	42	39	39
Korea, Rep.	0	0	0	0	23	24	28	25	37
Colombia	0	18	28	53	49	52	49	41	37
Others	n/a	n/a	164	208	174	200	194	186	181
<b>World</b>	<b>743</b>	<b>858</b>	<b>1,110</b>	<b>1,288</b>	<b>1,437</b>	<b>1,858</b>	<b>2,005</b>	<b>1,946</b>	<b>1,916</b>

<b>Refined Consumption (thousand metric tons)</b>									
China	18	28	58	197	489	805	909	761	964
Japan	122	159	192	180	177	159	159	157	159
United States	142	127	153	128	119	126	123	152	152
Taiwan, China	0	18	106	84	73	57	53	66	87
Korea, Rep.	0	24	91	118	101	108	107	100	83
Italy	27	27	53	85	62	65	59	60	60
Germany	78	93	102	116	100	89	66	62	60
India	12	14	23	16	27	33	37	27	37
Belgium	4	21	32	50	21	19	26	29	35
Others	315	330	342	344	257	275	259	285	295
<b>World</b>	<b>717</b>	<b>842</b>	<b>1,150</b>	<b>1,317</b>	<b>1,427</b>	<b>1,734</b>	<b>1,798</b>	<b>1,700</b>	<b>1,933</b>

Source: World Bureau of Metal Statistics.

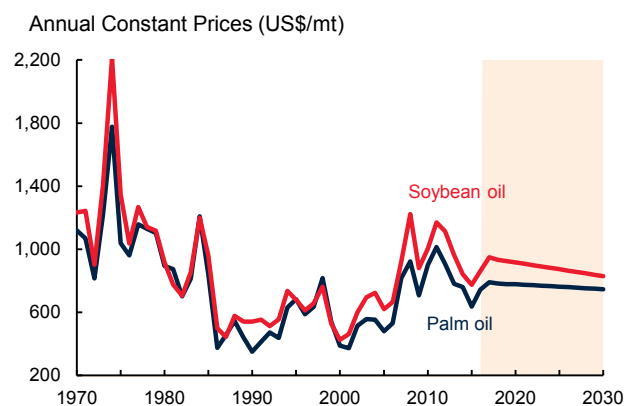
Note: n/a implies data not available.

## Palm oil and Soybean oil



Source: World Bank.

Note: Last observation is December 2016.



Source: World Bank.

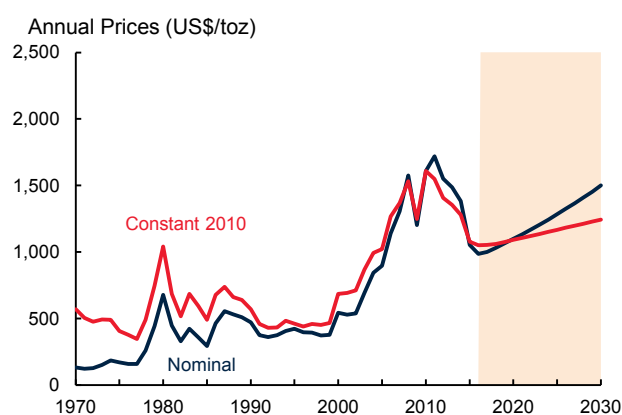
Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Palm oil: production (thousand metric tons)</b>									
Indonesia	248	752	2,650	8,300	23,600	30,500	33,000	32,000	35,000
Malaysia	589	2,692	6,031	11,937	18,211	20,161	19,879	17,700	20,000
Thailand	0	19	200	580	1,832	2,000	2,068	2,100	2,300
Colombia	36	80	252	520	753	1,041	1,110	1,273	1,280
Nigeria	432	520	600	730	971	970	970	970	970
Ecuador	5	44	150	222	380	497	477	500	560
Honduras	0	18	64	148	320	460	470	490	545
Papua New Guinea	0	45	145	336	488	500	520	580	522
Ghana	21	19	24	108	426	493	495	500	520
Guatemala	0	0	6	124	231	434	448	470	515
Others	591	707	912	1,234	1,980	2,218	2,196	2,259	2,283
<b>World</b>	<b>1,922</b>	<b>4,896</b>	<b>11,034</b>	<b>24,239</b>	<b>49,192</b>	<b>59,274</b>	<b>61,633</b>	<b>58,842</b>	<b>64,495</b>
<b>Palm oil: consumption (thousand metric tons)</b>									
India	1	431	259	3,160	5,910	8,302	9,150	9,100	10,150
Indonesia	29	561	1,330	3,263	6,269	8,750	7,520	9,520	9,470
European Union	595	607	1,509	2,790	4,750	6,630	6,770	6,620	6,700
China	53	16	1,194	2,028	5,797	5,700	5,700	4,800	5,050
Malaysia	8	420	914	1,571	2,204	2,869	2,941	2,990	3,170
Pakistan	1	231	800	1,245	2,050	2,490	2,690	2,845	3,045
Others	1,707	3,104	6,658	8,603	19,018	22,939	23,600	24,559	25,675
<b>World</b>	<b>2,394</b>	<b>5,370</b>	<b>12,664</b>	<b>22,660</b>	<b>45,998</b>	<b>57,680</b>	<b>58,371</b>	<b>60,434</b>	<b>63,260</b>
<b>Soybean oil: production (thousand metric tons)</b>									
China	181	183	599	3,240	9,840	12,335	13,347	14,569	15,501
United States	3,749	5,112	6,082	8,355	8,568	9,131	9,706	9,957	10,156
Argentina	0	158	1,179	3,190	7,181	6,785	7,687	8,433	8,600
Brazil	0	2,601	2,669	4,333	6,970	7,070	7,760	7,660	7,750
European Union	1,260	2,478	2,317	3,033	2,318	2,546	2,660	2,869	2,793
India	2	69	425	810	1,683	1,566	1,386	1,044	1,620
Mexico	52	255	330	795	648	720	745	785	830
Russian Federation	n/a	n/a	75	62	373	609	654	726	762
Others	2,215	4,197	4,406	2,996	3,850	4,481	5,365	5,833	6,190
<b>World</b>	<b>7,459</b>	<b>15,053</b>	<b>18,082</b>	<b>26,814</b>	<b>41,431</b>	<b>45,243</b>	<b>49,310</b>	<b>51,876</b>	<b>54,202</b>
<b>Soybean oil: consumption (thousand metric tons)</b>									
China	179	256	1,055	3,542	11,409	13,650	14,200	15,250	16,000
United States	2,854	4,134	5,506	7,401	7,506	8,576	8,600	9,148	9,322
Brazil	0	1,490	2,075	2,932	5,205	5,705	6,265	6,265	6,420
India	79	708	445	1,750	2,550	3,300	4,100	5,300	5,500
Argentina	0	56	101	247	2,520	2,729	2,501	2,761	2,965
European Union	1,170	1,926	1,879	2,186	2,400	1,990	2,040	2,170	2,170
Mexico	52	305	404	863	840	890	1,001	1,060	1,110
Bangladesh	40	28	235	503	388	529	650	719	828
Others	2,754	5,435	5,613	6,693	7,649	7,862	8,705	9,282	9,687
<b>World</b>	<b>7,128</b>	<b>14,338</b>	<b>17,313</b>	<b>26,117</b>	<b>40,467</b>	<b>45,231</b>	<b>48,062</b>	<b>51,955</b>	<b>54,002</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

# Platinum



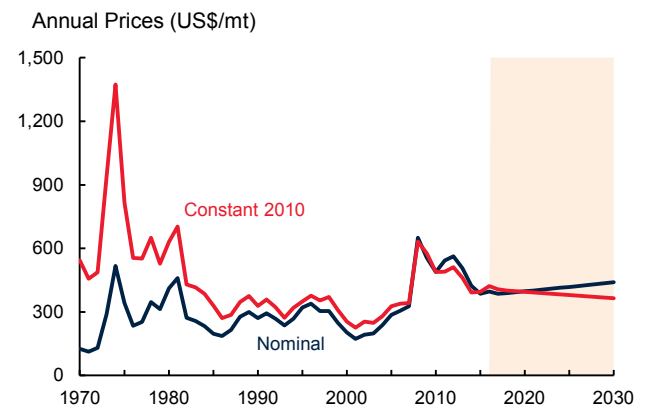
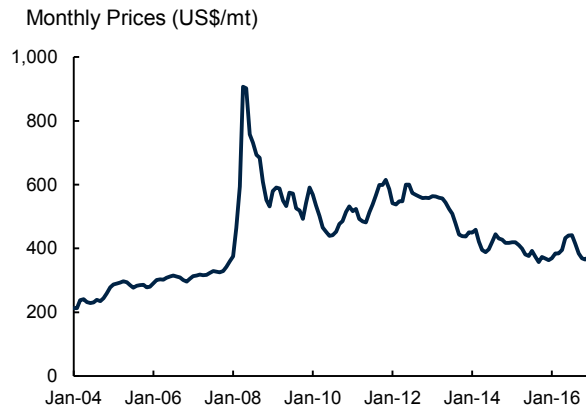
	2003	2005	2008	2010	2011	2012	2013	2014	2015
<b>Mine production (metric tons)</b>									
South Africa	146.1	157.2	145.4	147.7	147.4	130.1	135.9	100.2	140.7
Russian Federation	25.9	29.9	25.8	24.4	25.4	25.0	23.0	21.4	22.4
Zimbabwe	4.3	5.0	5.6	8.9	10.6	10.4	12.7	12.4	12.4
Canada	4.6	7.2	7.1	4.0	8.4	6.9	6.8	8.7	7.5
United States	4.2	3.9	3.6	3.5	3.7	3.7	3.7	3.7	3.8
Others	2.3	2.8	4.0	3.8	3.7	4.2	4.9	4.6	4.7
<b>World</b>	<b>187.4</b>	<b>206.0</b>	<b>191.5</b>	<b>192.3</b>	<b>199.2</b>	<b>180.3</b>	<b>187.0</b>	<b>151.0</b>	<b>191.5</b>
<b>Autocatalyst scrap (metric tons)</b>									
North America	15.1	15.6	17.3	14.0	14.8	12.8	14.4	13.2	10.9
Europe	3.9	5.4	9.2	9.3	10.8	9.7	11.6	13.4	10.1
Japan	2.1	1.7	2.1	1.9	1.7	1.8	1.8	1.9	2.0
China	n/a	0.1	0.2	0.4	0.5	0.7	0.9	1.1	1.3
Others	1.8	2.3	2.5	2.4	3.1	3.7	3.8	4.2	4.7
<b>World</b>	<b>22.9</b>	<b>25.1</b>	<b>31.3</b>	<b>28.0</b>	<b>30.9</b>	<b>28.7</b>	<b>32.5</b>	<b>33.8</b>	<b>29.0</b>
<b>Old jewellery scrap (metric tons)</b>									
China	0.9	5.1	10.4	6.7	7.5	7.3	7.3	7.8	9.5
Japan	4.0	6.0	18.0	8.7	10.7	8.0	7.3	7.6	6.7
North America	0.1	0.2	1.3	0.4	0.3	0.3	0.3	0.3	0.2
Europe	0.1	0.1	0.4	0.3	0.2	0.2	0.2	0.2	0.2
Others	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2	0.1
<b>World</b>	<b>5.2</b>	<b>11.5</b>	<b>30.1</b>	<b>16.2</b>	<b>18.8</b>	<b>15.9</b>	<b>15.3</b>	<b>16.1</b>	<b>16.7</b>
<b>TOTAL SUPPLY (metric tons)</b>	<b>215.5</b>	<b>242.6</b>	<b>252.8</b>	<b>236.6</b>	<b>248.9</b>	<b>224.9</b>	<b>234.7</b>	<b>200.9</b>	<b>237.2</b>
<b>Autocatalyst demand (metric tons)</b>									
Europe	41.3	56.1	56.2	43.9	45.0	39.0	36.8	39.4	41.9
North America	26.8	23.3	17.5	11.9	14.8	14.0	14.5	15.5	14.4
Japan	16.6	18.1	16.1	11.4	9.5	9.8	9.2	8.7	8.4
China	4.7	5.5	5.8	6.6	5.7	5.5	6.8	7.5	7.5
Others	8.0	12.5	13.9	17.0	18.0	20.5	21.1	20.9	21.5
<b>World</b>	<b>97.4</b>	<b>115.5</b>	<b>109.5</b>	<b>90.8</b>	<b>93.0</b>	<b>88.8</b>	<b>88.4</b>	<b>92.0</b>	<b>93.7</b>
<b>Jewellery demand (metric tons)</b>									
China	46.1	35.0	34.5	44.8	49.4	54.0	55.2	52.3	48.6
Japan	21.3	20.5	7.7	8.1	8.8	10.0	10.2	9.9	10.1
North America	9.9	8.1	6.4	6.6	6.8	7.0	7.3	7.6	7.7
Europe	8.5	7.9	7.4	6.8	6.7	6.6	6.6	6.4	6.4
Others	2.4	1.2	1.4	2.2	2.6	2.8	3.0	3.1	3.6
<b>World</b>	<b>88.2</b>	<b>72.7</b>	<b>57.4</b>	<b>68.5</b>	<b>74.3</b>	<b>80.4</b>	<b>82.3</b>	<b>79.3</b>	<b>76.4</b>
<b>Other demand (metric tons)</b>									
North America	15.8	15.8	15.2	11.3	12.2	14.1	13.7	13.8	14.0
Europe	11.1	9.5	10.1	9.7	9.8	10.7	10.1	11.2	11.9
China	n/a	4.7	9.1	10.1	7.6	11.3	11.0	8.5	10.4
Japan	9.9	13.2	18.2	10.4	13.7	11.0	1.7	4.2	14.3
Others	14.0	14.0	18.4	20.6	20.8	13.5	12.7	15.7	14.9
<b>World</b>	<b>50.8</b>	<b>57.2</b>	<b>71.0</b>	<b>62.1</b>	<b>64.1</b>	<b>60.6</b>	<b>49.2</b>	<b>51.8</b>	<b>65.5</b>
<b>TOTAL DEMAND (metric tons)</b>	<b>236.4</b>	<b>245.4</b>	<b>237.9</b>	<b>223.1</b>	<b>231.5</b>	<b>229.8</b>	<b>219.9</b>	<b>222.9</b>	<b>235.5</b>

Sources: Platinum & Palladium Survey, Thomson Reuters (May 2016 update).

Note: Other demand includes chemical, electronics, glass, petroleum, retail investment and other industrial demand.



## Rice



	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
China	77.0	97.9	132.5	131.5	137.0	142.5	144.6	145.8	144.9
India	42.2	53.6	74.3	85.0	96.0	106.6	105.5	104.3	106.5
Indonesia	13.1	22.3	29.0	33.0	35.5	36.3	35.6	36.2	36.6
Bangladesh	11.1	13.9	17.9	25.1	31.7	34.4	34.5	34.5	34.5
Vietnam	6.4	7.7	12.4	20.5	26.4	28.2	28.2	27.5	27.8
Thailand	9.0	11.5	11.3	17.1	20.3	20.5	18.8	15.8	18.6
Myanmar	5.1	6.7	7.9	10.8	11.1	12.0	12.6	12.2	12.5
Philippines	3.4	5.0	6.4	8.1	10.5	11.9	11.9	11.4	11.5
Brazil	3.7	5.9	6.8	6.9	9.3	8.3	8.5	7.2	7.8
Japan	11.5	8.9	9.6	8.6	7.8	7.9	7.8	7.7	7.8
United States	2.8	4.8	5.1	5.9	7.6	6.1	7.1	6.1	7.1
Pakistan	2.2	3.1	3.3	4.8	4.8	6.8	6.9	6.8	6.6
Cambodia	2.5	1.1	1.6	2.5	4.2	4.7	4.7	4.7	4.7
Others	22.9	27.6	33.3	39.4	48.3	52.2	52.0	52.3	53.1
<b>World</b>	<b>213.0</b>	<b>269.9</b>	<b>351.4</b>	<b>399.2</b>	<b>450.4</b>	<b>478.3</b>	<b>478.6</b>	<b>472.4</b>	<b>480.0</b>
<b>Stocks (million metric tons)</b>									
China	11.0	28.0	94.0	93.0	42.6	53.1	57.4	63.7	69.3
India	6.0	6.5	14.5	25.0	23.5	22.8	17.8	18.4	17.9
Thailand	1.2	2.0	0.9	2.2	5.6	12.0	11.0	8.2	7.0
Indonesia	0.6	3.0	2.1	4.6	7.1	5.5	4.1	3.5	3.6
Japan	6.1	4.0	1.0	2.6	2.9	3.0	2.8	2.6	2.5
Korea, Rep.	0.0	1.5	2.2	1.2	1.0	0.9	1.4	1.7	1.8
Others	4.0	7.6	12.0	18.0	17.3	16.6	20.1	18.4	16.5
<b>World</b>	<b>28.8</b>	<b>52.6</b>	<b>126.6</b>	<b>146.7</b>	<b>100.1</b>	<b>113.9</b>	<b>114.7</b>	<b>116.5</b>	<b>118.7</b>
<b>Exports (million metric tons)</b>									
India	0.0	0.9	0.7	1.7	2.8	10.6	12.2	10.2	10.0
Thailand	1.6	3.0	4.0	7.5	10.6	11.0	9.8	9.5	9.7
Vietnam	0.0	0.0	1.0	3.5	7.0	6.3	6.6	5.1	5.8
Pakistan	0.2	1.2	1.3	2.4	3.4	4.0	3.8	4.3	4.2
United States	1.5	3.1	2.3	2.6	3.5	3.0	3.1	3.4	3.6
Others	5.2	4.2	2.8	6.2	7.8	8.1	8.1	7.1	7.6
<b>World</b>	<b>8.5</b>	<b>12.4</b>	<b>12.1</b>	<b>24.0</b>	<b>35.1</b>	<b>43.0</b>	<b>43.6</b>	<b>39.7</b>	<b>40.8</b>
<b>Imports (million metric tons)</b>									
China	0.0	0.2	0.1	0.3	0.5	4.0	4.7	4.8	5.0
Nigeria	0.0	0.4	0.2	1.3	2.4	2.8	2.6	2.1	2.0
European Union	0.9	0.5	0.7	1.2	1.4	1.5	1.7	1.8	1.9
Saudi Arabia	0.2	0.4	0.5	1.0	1.1	1.5	1.6	1.5	1.6
Côte d'Ivoire	0.1	0.3	0.3	0.5	0.9	0.8	1.3	1.3	1.3
Philippines	0.0	0.0	0.4	1.4	1.3	1.2	1.8	1.6	1.3
Iran, Islamic Rep.	0.1	0.6	0.6	0.8	2.0	1.5	1.4	1.1	1.1
Indonesia	0.5	0.5	0.2	1.5	3.1	1.2	1.4	1.1	1.0
Others	6.5	9.4	8.7	14.2	20.5	24.1	24.7	22.7	23.5
<b>World</b>	<b>8.3</b>	<b>12.2</b>	<b>11.6</b>	<b>22.1</b>	<b>33.1</b>	<b>38.6</b>	<b>41.1</b>	<b>38.0</b>	<b>38.5</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

# Silver

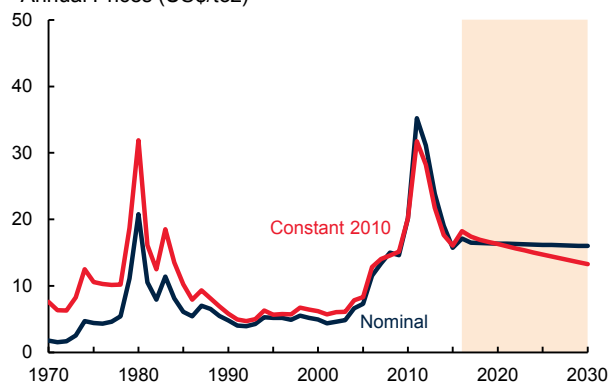
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/toz)



Source: World Bank.

Note: 2017-30 are forecasts.

	1995	2000	2005	2010	2011	2012	2013	2014	2015
<b>Production (metric tons)</b>									
Mexico	2,334	2,483	2,894	4,411	4,778	5,358	5,513	5,795	5,895
Peru	1,881	2,418	3,193	3,691	3,473	3,547	3,754	3,821	4,227
China	1,000	1,600	2,500	2,942	3,192	3,401	3,529	3,499	3,392
Russian Federation	250	400	1,350	1,145	1,198	1,384	1,429	1,434	1,572
Australia	920	2,060	2,417	1,880	1,725	1,727	1,840	1,675	1,566
Chile	1,036	1,245	1,400	1,287	1,291	1,195	1,174	1,574	1,505
Bolivia	425	434	420	1,259	1,214	1,206	1,281	1,345	1,306
Poland	1,001	1,164	1,262	1,171	1,270	1,284	1,170	1,264	1,291
United States	1,565	2,017	1,230	1,280	1,120	1,060	1,040	1,180	1,100
Argentina	48	78	264	726	708	762	774	906	1,080
Guatemala	0	0	7	195	273	205	281	858	863
Kazakhstan	371	927	883	548	547	545	611	590	539
Sweden	268	329	310	285	283	306	337	396	494
Canada	1,285	1,204	1,124	573	582	685	640	493	380
India	38	40	32	255	234	280	333	261	374
Indonesia	251	310	327	209	190	165	255	240	304
Morocco	204	290	186	326	257	258	282	274	296
Turkey	70	110	80	384	288	228	188	205	202
Dominican Republic	21	n/a	n/a	19	19	27	87	141	127
Others	1,214	1,085	819	836	921	973	1,103	1,055	1,066
<b>World</b>	<b>14,183</b>	<b>18,194</b>	<b>20,697</b>	<b>23,422</b>	<b>23,563</b>	<b>24,596</b>	<b>25,621</b>	<b>27,006</b>	<b>27,579</b>
<b>Fabrication (metric tons)</b>									
India	n/a	n/a	3,116	2,822	4,477	3,119	5,756	6,579	7,640
United States	n/a	n/a	5,891	6,754	7,130	6,407	6,424	6,972	7,510
China	n/a	n/a	4,307	6,792	7,534	7,711	8,448	7,808	6,865
Japan	n/a	n/a	3,860	3,010	3,220	2,906	2,977	2,843	2,929
Canada	n/a	n/a	126	667	813	644	1,031	1,061	1,228
Germany	n/a	n/a	1,260	1,690	1,488	1,204	1,205	1,003	1,066
Italy	n/a	n/a	1,577	1,109	886	808	820	875	885
Mexico	n/a	n/a	693	556	689	657	729	763	811
Thailand	n/a	n/a	1,150	984	835	699	829	671	769
Russian Federation	n/a	n/a	795	944	864	845	832	793	742
Korea, Rep.	n/a	n/a	794	929	941	928	895	820	685
United Kingdom	n/a	n/a	1,330	677	698	631	641	623	659
Australia	n/a	n/a	210	450	531	387	467	430	566
Taiwan, China	n/a	n/a	380	486	510	463	471	488	470
France	n/a	n/a	381	697	633	544	551	415	446
Belgium	n/a	n/a	846	577	519	487	449	447	440
Brazil	n/a	n/a	232	319	345	349	413	356	328
Indonesia	n/a	n/a	159	199	225	245	254	243	254
Austria	n/a	n/a	40	380	591	304	476	168	251
Others	n/a	n/a	2,294	2,193	1,964	1,908	1,714	1,850	1,861
<b>World</b>	<b>n/a</b>	<b>n/a</b>	<b>29,441</b>	<b>32,235</b>	<b>34,893</b>	<b>31,246</b>	<b>35,382</b>	<b>35,208</b>	<b>36,405</b>

Sources: World Bureau of Metal Statistics and Thomson Reuters (May 2016 update).

Notes: n/a implies data not available. Fabrication: jewelry and silverware including the use of scrap.

## Soybeans

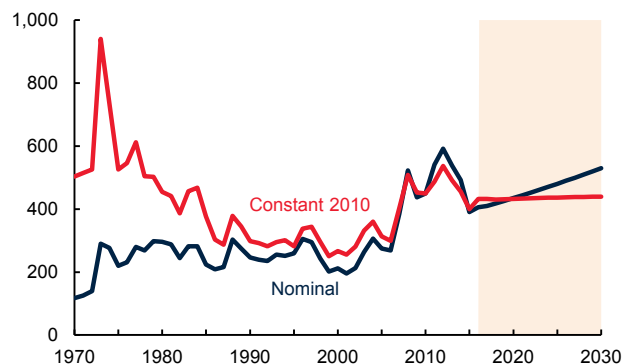
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
United States	30.7	48.9	52.4	75.1	90.7	91.4	106.9	106.9	117.2
Brazil	0.0	15.2	15.8	39.5	75.3	86.7	97.2	96.5	104.0
Argentina	0.0	3.5	11.5	27.8	49.0	53.4	61.4	56.8	57.0
China	8.7	7.9	11.0	15.4	15.1	12.0	12.2	11.8	12.9
India	0.0	0.4	2.6	5.3	10.1	9.5	8.7	7.1	11.5
Paraguay	0.1	0.6	1.3	3.5	7.1	8.2	8.2	9.0	9.2
Canada	0.3	0.7	1.3	2.7	4.4	5.4	6.0	6.4	6.5
Ukraine	n/a	n/a	0.1	0.1	1.7	2.8	3.9	3.9	4.0
Russian Federation	n/a	n/a	0.7	0.3	1.1	1.5	2.4	2.7	3.1
Uruguay	0.0	0.0	0.0	0.0	1.9	3.3	3.3	2.2	2.7
Others	2.4	3.6	7.6	6.2	7.9	8.5	9.7	10.2	9.8
<b>World</b>	<b>42.1</b>	<b>80.9</b>	<b>104.3</b>	<b>175.8</b>	<b>264.3</b>	<b>282.5</b>	<b>319.8</b>	<b>313.5</b>	<b>337.9</b>
<b>Crushings (million metric tons)</b>									
China	1.5	1.5	3.9	18.9	55.0	68.9	74.5	81.3	86.5
United States	20.7	27.8	32.3	44.6	44.9	47.2	51.0	51.3	52.5
Argentina	0.0	0.9	7.0	17.3	37.6	36.2	40.0	43.2	44.7
Brazil	0.0	13.8	14.2	22.7	36.3	36.9	40.4	39.9	40.5
European Union	7.3	14.1	13.0	16.8	12.2	13.4	14.0	15.1	14.7
India	0.0	0.4	2.4	4.5	9.4	8.7	7.7	5.8	9.0
Mexico	0.3	1.5	1.9	4.5	3.6	4.0	4.2	4.4	4.7
Russian Federation	n/a	n/a	0.4	0.4	2.1	3.4	3.7	4.1	4.3
Paraguay	0.1	0.0	0.3	0.9	1.6	3.4	3.7	3.7	3.8
Egypt, Arab Rep.	0.0	0.1	0.1	0.3	1.6	1.7	2.0	1.2	2.4
Others	12.7	23.7	24.2	15.5	17.6	19.2	23.4	26.7	27.3
<b>World</b>	<b>42.5</b>	<b>83.9</b>	<b>99.7</b>	<b>146.4</b>	<b>221.9</b>	<b>242.8</b>	<b>264.5</b>	<b>276.8</b>	<b>290.3</b>
<b>Exports (million metric tons)</b>									
Brazil	0.0	1.8	2.5	15.5	30.0	46.8	50.6	54.4	59.5
United States	11.8	19.7	15.2	27.1	41.0	44.6	50.1	52.7	55.8
Argentina	0.0	2.7	4.5	7.3	9.2	7.8	10.6	9.9	9.0
Paraguay	0.0	0.6	1.0	2.5	5.2	4.8	4.5	5.3	5.3
Canada	0.0	0.1	0.2	0.7	2.9	3.5	3.9	4.3	4.4
Others	0.5	0.4	2.1	0.7	3.4	5.1	6.5	5.6	5.9
<b>World</b>	<b>12.3</b>	<b>25.3</b>	<b>25.4</b>	<b>53.8</b>	<b>91.7</b>	<b>112.7</b>	<b>126.2</b>	<b>132.2</b>	<b>139.9</b>
<b>Imports (million metric tons)</b>									
China	0.0	0.5	0.0	13.2	52.3	70.4	78.4	83.2	86.0
European Union	7.4	13.6	13.2	17.7	12.5	13.3	13.9	15.0	13.8
Mexico	0.1	1.4	1.4	4.4	3.5	3.8	3.8	4.1	4.3
Japan	3.2	4.2	4.4	4.8	2.9	2.9	3.0	3.2	3.1
Thailand	0.0	0.0	0.0	1.3	2.1	1.8	2.4	2.8	2.7
Taiwan, China	0.5	1.1	2.2	2.3	2.5	2.3	2.5	2.5	2.6
Egypt, Arab Rep.	0.0	0.0	0.0	0.3	1.6	1.7	1.9	1.3	2.4
Others	8.8	19.0	17.6	9.1	12.3	16.8	18.4	21.2	22.7
<b>World</b>	<b>20.0</b>	<b>39.8</b>	<b>38.8</b>	<b>53.1</b>	<b>89.8</b>	<b>113.1</b>	<b>124.4</b>	<b>133.3</b>	<b>137.5</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

# Sugar

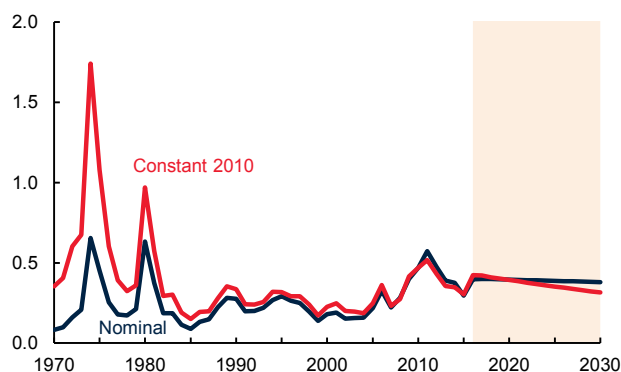
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
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## Production (million metric tons)

Brazil	5.1	8.5	7.9	17.1	38.4	37.8	36.0	34.7	37.8
India	4.5	6.5	13.7	20.5	26.6	26.6	30.5	27.5	23.9
European Union	15.4	19.0	23.2	22.1	15.9	16.0	18.4	14.3	16.2
China	2.1	3.2	6.8	6.8	11.2	14.3	11.0	8.8	9.5
Thailand	0.5	1.7	4.0	5.1	9.7	11.3	10.8	9.7	9.3
United States	5.6	5.6	6.3	8.0	7.1	7.7	7.9	8.2	8.5
Mexico	2.5	2.5	3.9	5.2	5.5	6.4	6.3	6.5	6.7
Pakistan	0.0	0.9	2.1	2.6	3.9	5.6	5.2	5.3	5.7
Russian Federation	0.0	0.0	2.6	1.6	3.0	4.4	4.4	5.2	5.6
Australia	2.7	3.3	3.6	4.2	3.7	4.4	4.7	4.9	5.1
Guatemala	0.2	0.5	1.0	1.6	2.0	2.9	3.0	3.0	3.1
Turkey	0.6	0.9	1.9	2.8	2.3	2.3	2.1	2.0	2.5
Others	46.5	54.8	60.6	55.3	33.0	36.4	37.4	35.8	37.1
<b>World</b>	<b>85.7</b>	<b>107.6</b>	<b>137.6</b>	<b>152.9</b>	<b>162.2</b>	<b>176.0</b>	<b>177.5</b>	<b>165.8</b>	<b>170.9</b>

## Stocks (million metric tons)

India	1.8	1.1	3.6	12.0	6.3	8.2	10.6	9.7	6.3
Thailand	0.0	0.2	0.2	0.6	3.0	5.3	5.3	4.6	3.2
China	0.3	0.7	1.4	1.0	1.6	8.8	7.3	4.6	2.6
Pakistan	0.0	0.1	0.3	0.4	1.5	1.3	1.3	1.6	2.5
United States	2.9	1.4	1.4	2.0	1.3	1.6	1.6	1.9	1.7
Mexico	0.7	0.7	2.4	1.5	0.8	0.9	0.9	1.1	1.3
Others	14.4	13.4	13.2	22.4	15.1	17.7	18.8	14.6	13.1
<b>World</b>	<b>20.2</b>	<b>17.6</b>	<b>22.4</b>	<b>39.9</b>	<b>29.5</b>	<b>43.8</b>	<b>45.7</b>	<b>38.0</b>	<b>30.8</b>

## Exports (million metric tons)

Brazil	1.2	2.3	1.3	7.7	25.8	26.2	24.0	24.4	27.1
Thailand	0.2	1.0	2.7	3.4	6.6	7.2	8.3	7.8	8.0
Australia	1.8	2.6	2.8	3.1	2.8	3.2	3.6	3.7	4.0
Guatemala	0.1	0.2	0.7	1.2	1.5	2.1	2.3	2.3	2.3
European Union	2.7	6.5	8.1	7.3	1.1	1.6	1.6	1.5	1.5
India	0.3	0.1	0.2	1.4	3.9	2.8	2.6	3.0	1.5
Others	17.7	22.2	26.1	21.6	12.2	14.8	12.5	11.1	11.5
<b>World</b>	<b>24.0</b>	<b>34.9</b>	<b>42.0</b>	<b>45.6</b>	<b>53.9</b>	<b>57.9</b>	<b>54.8</b>	<b>53.7</b>	<b>55.9</b>

## Imports (million metric tons)

China	0.4	1.1	1.1	1.1	2.1	4.3	5.1	6.0	6.0
Indonesia	0.1	0.6	0.2	1.6	3.1	3.6	3.0	3.6	3.4
European Union	5.4	3.8	4.1	3.3	3.8	3.3	2.9	3.0	3.3
United Arab Emirates	0.0	0.1	0.1	1.1	2.0	2.1	2.4	2.5	2.5
United States	4.8	4.4	2.6	1.4	3.4	3.4	3.2	3.0	2.4
Bangladesh	0.0	0.0	0.0	0.8	1.5	2.1	2.0	2.3	2.2
Malaysia	0.0	0.5	0.9	1.3	1.8	1.9	2.1	2.0	2.0
Korea, Rep.	0.0	0.8	1.2	1.6	1.7	1.9	1.9	1.9	1.9
Others	12.0	20.8	25.9	31.4	29.7	29.0	27.8	29.1	28.4
<b>World</b>	<b>22.7</b>	<b>32.0</b>	<b>36.2</b>	<b>43.6</b>	<b>49.1</b>	<b>51.5</b>	<b>50.2</b>	<b>53.4</b>	<b>52.1</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

## Tea

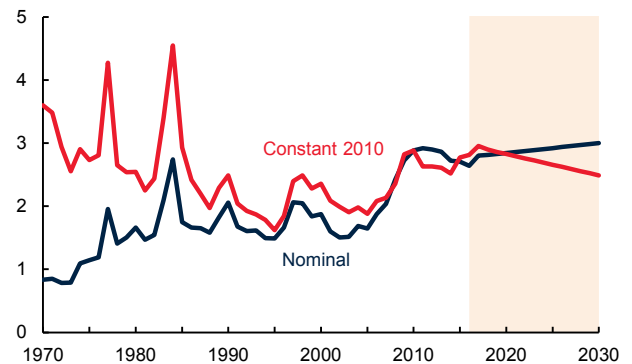
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2016.

Annual Constant Prices (US\$/kg)



Source: World Bank.

Note: 2017-30 are forecasts.

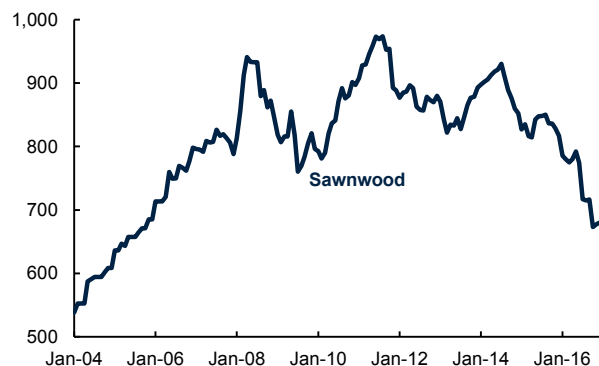
	1970	1980	1990	2000	2010	2011	2012	2013	2014
<b>Production (thousand metric tons)</b>									
China	163	328	562	704	1,467	1,640	1,805	1,939	2,111
India	419	570	688	826	991	1,095	1,135	1,209	1,207
Kenya	41	90	197	236	399	378	369	432	445
Sri Lanka	212	191	233	306	331	328	330	340	338
Vietnam	15	21	32	70	198	207	212	218	228
Turkey	33	96	123	139	235	222	225	212	227
Indonesia	64	106	156	163	150	150	143	146	154
Iran, Islamic Rep.	20	32	37	50	166	104	95	117	119
Myanmar	11	13	15	19	31	31	95	96	99
Argentina	26	36	51	74	92	93	83	80	85
Japan	91	102	90	85	85	82	86	85	84
Bangladesh	31	40	39	46	60	61	63	66	64
Uganda	18	2	7	29	49	35	58	61	61
Burundi	0	1	4	34	38	41	42	42	54
Malawi	19	30	39	42	52	47	42	46	45
Thailand	0	1	7	32	67	73	69	68	40
Others	123	235	246	159	191	188	183	191	199
<b>World</b>	<b>1,287</b>	<b>1,894</b>	<b>2,525</b>	<b>3,014</b>	<b>4,604</b>	<b>4,774</b>	<b>5,035</b>	<b>5,349</b>	<b>5,561</b>
<b>Consumption (thousand metric tons)</b>									
China	109	220	383	497	1,112	1,217	1,547	1,671	n/a
India	218	331	490	632	803	774	932	973	n/a
Brazil	90	81	133	514	419	406	478	481	n/a
Iran, Islamic Rep.	24	39	79	48	200	138	210	228	n/a
Turkey	26	91	95	137	242	228	227	214	n/a
Argentina	122	132	149	271	219	216	222	210	n/a
United States	68	81	84	145	170	167	163	166	n/a
Russian Federation	n/a	n/a	n/a	158	176	184	171	162	n/a
Japan	105	116	123	144	127	123	124	121	n/a
Pakistan	30	61	106	111	93	118	119	118	n/a
Others	710	934	1,197	1,068	1,492	1,872	1,675	1,711	n/a
<b>World</b>	<b>1,502</b>	<b>2,086</b>	<b>2,839</b>	<b>3,725</b>	<b>5,053</b>	<b>5,443</b>	<b>5,868</b>	<b>6,055</b>	<b>n/a</b>
<b>Exports (thousand metric tons)</b>									
Kenya	42	84	166	217	418	307	234	449	n/a
China	61	120	211	238	308	328	319	332	n/a
Sri Lanka	208	185	216	287	313	321	318	318	n/a
India	200	239	198	201	235	323	225	255	n/a
Vietnam	2	9	16	56	137	134	147	90	n/a
Argentina	19	33	46	50	86	87	78	77	n/a
Indonesia	41	74	111	106	87	75	70	71	n/a
Uganda	15	1	5	26	55	56	55	62	n/a
United Arab Emirates	0	8	7	12	50	25	31	45	n/a
Malawi	18	31	41	42	50	46	35	43	n/a
Others	146	200	210	229	286	283	293	309	n/a
<b>World</b>	<b>752</b>	<b>984</b>	<b>1,228</b>	<b>1,464</b>	<b>2,023</b>	<b>1,983</b>	<b>1,806</b>	<b>2,051</b>	<b>n/a</b>

Sources: Food and Agriculture Organization, Intergovernmental Group on Tea (December 13, 2016 update).

Note: Consumption includes domestic use for food, feed, waste, and other uses.

## Timber—Roundwood and Sawnwood

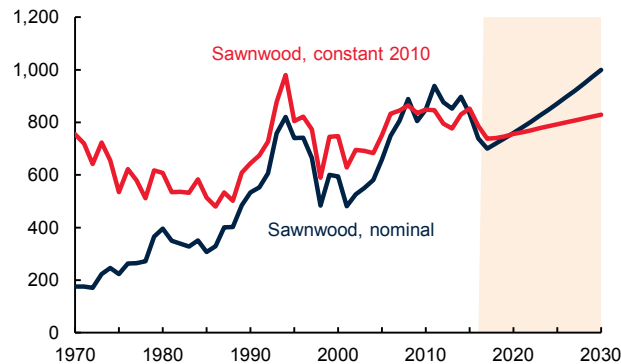
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/mt)



Source: World Bank.

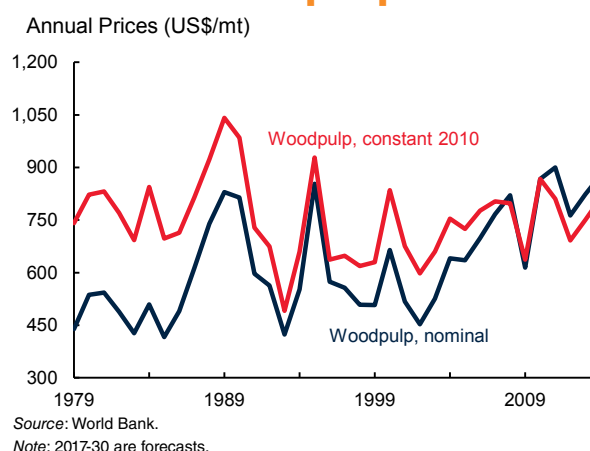
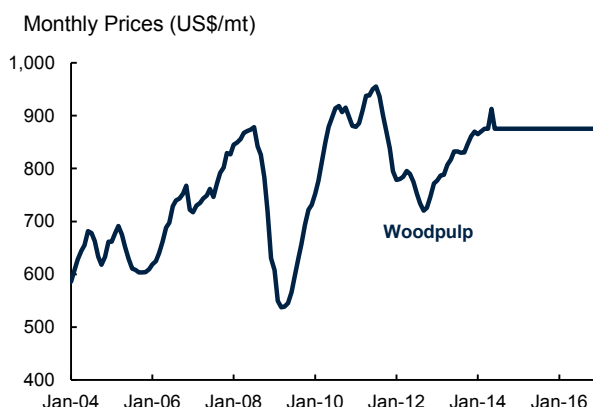
Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
<b>Industrial roundwood: production (million cubic meters)</b>									
United States	312.7	327.1	427.2	420.6	336.1	347.1	354.9	356.8	368.6
Russian Federation	n/a	n/a	n/a	145.6	161.6	177.5	180.4	188.3	190.5
China	42.2	79.2	91.2	96.0	161.8	159.6	168.7	162.5	167.2
Canada	117.5	150.8	156.0	198.9	138.8	146.7	147.8	148.8	151.4
Brazil	23.9	61.7	74.3	103.0	128.4	146.8	142.6	137.7	136.3
Sweden	56.7	44.8	49.1	57.4	66.3	63.6	63.7	67.4	67.3
Indonesia	12.7	30.9	38.4	48.8	54.1	62.6	62.6	62.6	62.6
Finland	37.5	43.0	40.2	50.1	46.0	44.6	49.3	49.2	51.4
Others	673.4	708.4	832.9	564.5	610.0	618.0	624.5	644.9	652.5
<b>World</b>	<b>1,276.4</b>	<b>1,446.0</b>	<b>1,709.2</b>	<b>1,685.0</b>	<b>1,703.1</b>	<b>1,766.5</b>	<b>1,794.6</b>	<b>1,818.3</b>	<b>1,847.7</b>
<b>Industrial roundwood: imports (million cubic meters)</b>									
China	2.0	8.3	7.2	15.7	35.4	38.7	45.8	52.3	45.2
Germany	5.2	3.8	2.0	3.5	7.7	6.6	8.4	8.4	8.6
Austria	2.0	3.7	4.4	8.5	8.0	7.3	8.2	7.2	7.7
Sweden	0.6	3.1	2.0	11.7	6.3	6.9	7.5	8.1	6.9
Finland	2.3	3.8	5.2	9.9	6.3	5.5	6.7	6.3	5.7
India	0.0	0.0	1.3	2.2	5.3	6.5	6.5	7.0	5.7
Canada	2.1	3.0	1.5	6.5	4.7	4.5	4.9	4.3	4.6
Belgium	n/a	n/a	n/a	4.0	4.2	4.3	4.5	4.5	4.4
Others	69.0	69.7	58.9	53.2	32.0	32.5	34.0	35.5	34.6
<b>World</b>	<b>83.1</b>	<b>95.4</b>	<b>82.6</b>	<b>115.3</b>	<b>109.9</b>	<b>112.7</b>	<b>126.7</b>	<b>133.6</b>	<b>123.4</b>
<b>Sawnwood: production (million cubic meters)</b>									
United States	63.7	65.3	86.1	91.1	60.0	67.5	71.1	75.8	76.9
China	14.8	21.2	23.6	6.7	37.2	55.7	63.0	68.4	74.3
Canada	19.8	32.8	39.7	50.5	38.7	40.6	42.8	43.4	47.1
Russian Federation	n/a	n/a	n/a	20.0	28.9	32.2	33.5	34.6	34.7
Germany	11.6	13.0	14.7	16.3	22.1	21.1	21.5	21.8	21.5
Sweden	12.3	11.3	12.0	16.2	16.8	16.3	16.2	17.5	18.2
Brazil	8.0	14.9	13.7	21.3	17.5	15.2	15.4	15.2	15.2
Finland	7.4	10.3	7.5	13.4	9.5	9.4	10.4	10.9	10.6
Others	251.6	252.1	265.6	149.4	145.0	146.7	149.1	151.9	153.7
<b>World</b>	<b>389.1</b>	<b>420.9</b>	<b>463.0</b>	<b>384.8</b>	<b>375.6</b>	<b>404.7</b>	<b>423.1</b>	<b>439.5</b>	<b>452.3</b>
<b>Sawnwood: imports (million cubic meters)</b>									
China	0.1	0.3	1.3	6.1	16.2	22.0	25.5	27.3	27.5
United States	10.6	17.0	22.5	34.4	16.6	17.4	20.5	22.2	24.5
United Kingdom	9.0	6.6	10.7	7.9	5.7	5.2	5.5	6.4	6.3
Japan	3.0	5.6	9.0	10.0	6.4	6.6	7.5	6.2	6.0
Egypt, Arab Rep.	0.4	1.6	1.6	2.0	4.8	4.5	4.5	5.7	6.0
Germany	6.0	6.9	6.1	6.3	4.4	4.4	4.5	4.6	5.0
Italy	4.0	5.8	6.0	8.4	6.1	4.9	4.7	4.7	4.6
Netherlands	3.1	3.2	3.5	3.7	2.8	2.6	2.5	2.5	2.7
Others	16.5	24.6	23.8	36.9	45.5	45.7	47.1	49.1	48.3
<b>World</b>	<b>52.6</b>	<b>71.5</b>	<b>84.5</b>	<b>115.6</b>	<b>108.4</b>	<b>113.2</b>	<b>122.3</b>	<b>128.8</b>	<b>130.9</b>

Source: Food and Agriculture Organization (December 14, 2016 update).

Notes: n/a implies data not available. Roundwood (which refers to Industrial roundwood), reported in cubic meters solid volume underbark (i.e. excluding bark), is an aggregate comprising sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood except wood fuel. Sawnwood, reported in cubic meters solid volume, includes wood that has been produced from both domestic and imported roundwood, either by sawing lengthways or by a profile-chipping process and that exceeds 6mm in thickness.

## Timber—Wood panels and Woodpulp



	1970	1980	1990	2000	2010	2012	2013	2014	2015
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### Wood-based panels: production (million cubic meters)

China	0.9	2.3	3.0	19.3	109.2	149.3	177.0	191.2	200.7
United States	23.0	26.4	37.0	45.7	32.6	31.5	33.5	33.6	33.8
Russian Federation	n/a	n/a	n/a	4.8	10.1	12.8	12.7	13.2	13.6
Canada	3.3	4.8	6.4	15.0	9.9	11.1	11.7	12.3	12.8
Germany	5.8	8.3	9.6	14.1	12.6	12.1	12.2	12.3	12.2
Brazil	0.8	2.5	2.9	5.8	10.2	12.1	11.7	11.8	11.3
Turkey	0.2	0.4	0.8	2.4	6.6	8.1	8.8	9.6	9.5
Poland	1.0	2.0	1.4	4.6	8.2	8.5	9.0	9.2	9.4
Others	34.7	54.6	67.9	74.7	88.8	89.3	90.7	94.6	96.1
<b>World</b>	<b>69.8</b>	<b>101.3</b>	<b>129.0</b>	<b>186.3</b>	<b>288.3</b>	<b>334.7</b>	<b>367.3</b>	<b>387.9</b>	<b>399.4</b>

### Wood-based panels: imports (million cubic meters)

United States	2.5	2.1	4.2	13.9	8.1	9.1	9.2	10.0	12.0
Germany	1.0	2.3	3.3	4.1	4.6	5.3	5.1	5.3	5.4
Japan	0.6	0.3	3.8	6.2	4.2	4.8	5.0	4.8	4.2
China	0.1	0.3	3.2	6.6	3.0	2.8	3.0	3.4	3.5
Canada	0.2	0.2	0.5	1.5	2.8	2.9	2.9	3.0	3.3
United Kingdom	2.0	2.4	3.3	3.3	2.7	2.6	3.0	3.3	3.2
Italy	0.1	0.8	0.9	1.7	2.4	2.2	2.4	2.8	2.9
Korea, Rep.	0.0	0.0	1.2	2.1	2.6	2.3	2.5	2.3	2.4
Others	0.2	0.4	0.1	0.7	1.7	1.4	1.6	2.2	2.2
<b>World</b>	<b>10.0</b>	<b>15.7</b>	<b>30.3</b>	<b>59.9</b>	<b>67.1</b>	<b>73.1</b>	<b>74.8</b>	<b>77.7</b>	<b>79.5</b>

### Woodpulp: production (million metric tons)

United States	37.3	46.2	57.2	57.8	50.9	50.2	49.1	50.1	49.4
Brazil	0.8	3.4	4.3	7.3	14.5	14.3	15.5	16.8	17.8
Canada	16.6	19.9	23.0	26.7	18.9	17.8	18.1	17.3	17.6
Sweden	8.1	8.7	10.2	11.5	11.9	12.0	11.7	11.5	11.6
Finland	6.2	7.2	8.9	12.0	10.5	10.2	10.5	10.5	10.5
China	1.2	1.3	2.1	3.7	7.5	8.8	9.6	10.4	10.2
Japan	8.8	9.8	11.3	11.4	9.5	8.7	8.8	9.1	8.9
Russian Federation	n/a	n/a	n/a	5.8	7.4	7.7	7.2	7.7	8.1
Others	22.5	29.1	37.8	34.9	39.5	41.5	41.3	42.0	41.6
<b>World</b>	<b>101.6</b>	<b>125.7</b>	<b>154.8</b>	<b>171.3</b>	<b>170.6</b>	<b>171.4</b>	<b>171.8</b>	<b>175.3</b>	<b>175.6</b>

### Woodpulp: imports (million metric tons)

China	0.1	0.4	0.9	4.0	12.1	17.2	17.6	18.7	20.6
United States	3.2	3.7	4.4	6.6	5.6	5.2	5.5	5.8	5.4
Germany	1.8	2.6	3.7	4.1	5.1	4.8	5.0	4.9	4.8
Italy	1.4	1.8	2.1	3.2	3.4	3.3	3.5	3.4	3.5
Korea, Rep.	0.2	0.5	1.1	2.1	2.5	2.4	2.4	2.3	2.3
France	1.3	1.8	1.9	2.4	1.9	2.0	2.1	2.0	2.0
Japan	0.9	2.2	2.9	3.1	1.8	1.8	1.7	1.8	1.7
India	0.1	0.1	0.2	0.2	0.8	1.0	1.0	1.2	1.4
Others	7.5	7.5	8.1	12.1	14.5	16.0	16.9	17.3	17.1
<b>World</b>	<b>16.6</b>	<b>20.6</b>	<b>25.2</b>	<b>37.8</b>	<b>47.9</b>	<b>53.7</b>	<b>55.8</b>	<b>57.2</b>	<b>58.7</b>

Source: Food and Agriculture Organization (December 14, 2016 update).

Notes: n/a implies data not available. Wood-based panels, reported in cubic meters solid volume, is an aggregate comprising veneer sheets, plywood, particle board and fiberboard. Woodpulp, reported in metric tons air-dry weight (i.e. with 10% moisture content), is an aggregate comprising mechanical woodpulp; semi-chemical woodpulp; chemical woodpulp; and dissolving woodpulp.

## Tin

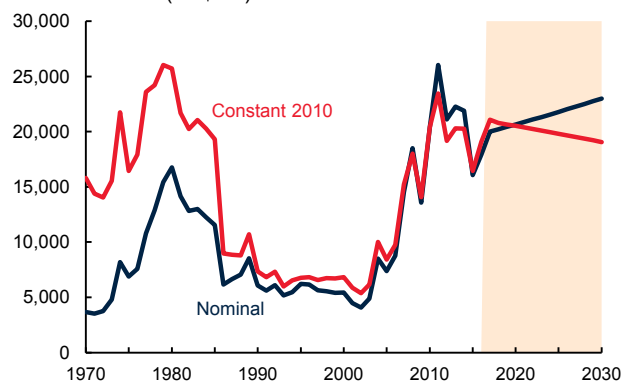
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2017-30 are forecasts.

	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
China	16.0	42.2	87.7	113.1	129.6	115.7	149.0	177.3	146.6
Indonesia	32.5	39.3	51.6	120.0	84.0	90.0	84.0	69.6	68.4
Myanmar	1.2	0.6	1.6	0.7	0.8	2.1	9.0	17.5	24.0
Bolivia	22.5	17.3	12.5	18.6	20.2	19.7	19.3	19.8	20.2
Peru	1.1	4.8	36.4	42.5	33.8	26.1	23.7	23.1	19.5
Brazil	6.9	39.1	14.2	11.7	10.4	13.7	13.8	13.8	13.8
Australia	11.6	7.4	9.1	2.7	18.6	6.2	6.5	7.2	7.1
Malaysia	61.4	28.5	6.3	2.9	2.7	3.7	3.7	3.8	3.7
Vietnam	0.4	0.8	1.8	5.4	5.4	5.4	5.4	5.4	3.6
Congo, Dem. Rep.	3.2	1.6	0.0	7.6	7.4	2.5	5.2	4.1	3.0
Nigeria	2.5	0.3	2.0	0.9	1.3	2.4	2.6	2.5	2.1
Rwanda	1.5	0.7	0.4	3.3	2.9	3.5	3.6	4.2	2.0
Lao PDR	0.6	0.3	0.4	0.6	0.4	0.6	0.5	0.8	0.8
Others	69.7	41.6	10.4	3.1	0.6	0.5	0.6	0.5	0.6
<b>World</b>	<b>231.1</b>	<b>224.5</b>	<b>234.5</b>	<b>333.1</b>	<b>318.1</b>	<b>292.0</b>	<b>326.9</b>	<b>349.6</b>	<b>315.5</b>

**Refined Production (thousand metric tons)**

China	15.0	35.8	109.9	112.2	149.0	147.9	159.6	186.9	166.9
Indonesia	30.5	38.0	46.4	78.0	64.2	79.8	63.0	64.8	67.4
Malaysia	71.3	49.0	26.2	39.2	38.7	37.8	32.7	36.7	31.2
Peru	0.0	0.0	17.4	38.3	36.4	24.8	24.2	24.5	20.4
Bolivia	17.5	13.1	9.4	15.6	15.0	14.3	14.9	15.4	15.1
Brazil	8.8	37.6	13.8	9.0	9.1	12.0	12.0	12.0	12.0
Thailand	34.8	15.5	17.2	29.4	23.5	22.8	23.0	16.3	10.5
Belgium	3.1	6.1	8.5	7.7	9.9	11.4	10.3	9.7	8.8
Vietnam	0.0	1.8	1.8	1.8	3.0	4.8	5.5	5.5	5.5
India	0.1	0.3	3.6	3.6	3.6	3.6	3.8	4.2	4.2
Poland	0.0	0.0	0.0	0.0	0.6	1.4	1.9	2.3	2.1
Japan	1.3	0.8	0.6	0.8	0.8	1.1	1.8	1.7	1.7
Nigeria	2.7	0.3	0.1	0.6	0.6	0.6	0.6	0.6	0.6
Others	59.5	49.7	7.4	4.4	2.0	1.8	0.5	0.1	0.1
<b>World</b>	<b>244.6</b>	<b>248.0</b>	<b>262.3</b>	<b>340.5</b>	<b>356.6</b>	<b>364.0</b>	<b>353.7</b>	<b>380.8</b>	<b>346.4</b>

**Refined Consumption (thousand metric tons)**

China	12.5	25.5	49.1	108.7	154.3	176.2	169.3	192.6	176.4
United States	46.5	36.8	51.0	42.3	32.0	30.7	29.2	28.8	31.3
Japan	30.9	34.8	25.2	33.2	35.7	27.7	28.3	27.1	26.8
Germany	19.0	21.7	20.7	19.1	17.4	17.6	18.0	18.8	17.9
Korea, Rep.	1.8	7.8	15.3	17.9	17.4	16.2	14.5	13.8	13.1
India	2.3	2.3	6.4	8.4	10.7	10.0	10.4	11.9	12.9
Vietnam	0.0	0.0	0.8	1.2	2.0	2.0	3.6	5.5	6.0
Netherlands	5.0	6.9	3.6	3.5	5.4	4.5	7.4	7.2	6.0
Spain	4.6	4.0	4.1	7.0	6.1	2.9	4.7	6.4	5.7
Others	100.3	97.8	100.6	97.4	87.7	70.0	69.7	66.8	67.2
<b>World</b>	<b>222.9</b>	<b>237.6</b>	<b>276.9</b>	<b>338.6</b>	<b>368.8</b>	<b>357.8</b>	<b>355.1</b>	<b>378.8</b>	<b>363.1</b>

Source: World Bureau of Metal Statistics.

Notes: n/a implies data not available. Refined production and consumption include significant recycled material. Early large refined producers (including Russian Federation, Australia, Singapore, and Argentina) are not listed.



## Wheat

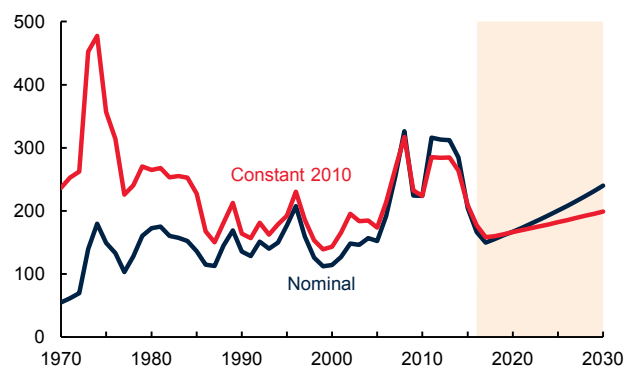
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is December 2016.

Annual Prices (US\$/mt)



Source: World Bank.

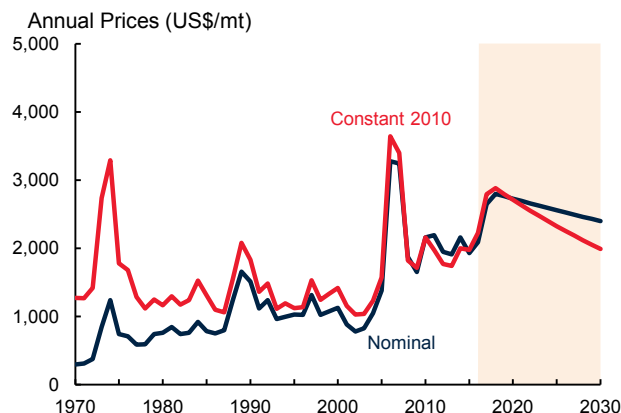
Note: 2017-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
European Union	62.5	93.3	125.0	132.7	136.7	144.6	156.9	160.0	144.3
China	29.2	55.2	98.2	99.6	115.2	121.9	126.2	130.2	128.9
India	20.1	31.8	49.9	76.4	80.8	93.5	95.9	86.5	90.0
Russian Federation	n/a	n/a	49.6	34.5	41.5	52.1	59.1	61.0	72.5
United States	36.8	64.8	74.3	60.6	58.9	58.1	55.1	56.1	62.9
Australia	7.9	10.9	15.1	22.1	27.4	25.3	23.7	24.5	33.0
Canada	9.0	19.3	32.1	26.5	23.3	37.5	29.4	27.6	31.7
Ukraine	n/a	n/a	30.4	10.2	16.8	22.3	24.8	27.3	27.0
Pakistan	7.3	10.9	14.4	21.1	23.3	24.2	26.0	25.1	25.3
Turkey	8.0	13.0	16.0	18.0	17.0	18.8	15.3	19.5	17.5
Kazakhstan	n/a	n/a	16.2	9.1	9.6	13.9	13.0	13.7	16.5
Iran, Islamic Rep.	3.8	5.9	8.0	8.1	13.5	14.5	13.0	15.0	15.5
Argentina	4.9	7.8	11.0	16.3	17.2	10.5	13.9	11.3	15.0
Egypt, Arab Rep.	1.5	1.8	4.3	6.4	7.2	8.3	8.3	8.1	8.1
Others	178.0	214.5	169.4	41.2	61.0	69.6	67.5	69.5	64.6
<b>World</b>	<b>369.1</b>	<b>529.2</b>	<b>713.8</b>	<b>582.8</b>	<b>649.5</b>	<b>715.1</b>	<b>728.1</b>	<b>735.5</b>	<b>752.7</b>
<b>Stocks (million metric tons)</b>									
China	7.2	31.7	49.9	91.9	59.1	65.3	76.1	97.0	111.6
United States	22.4	26.9	23.6	23.8	23.5	16.1	20.5	26.6	32.3
India	5.0	4.0	5.8	21.5	15.4	17.8	17.2	14.5	11.0
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.2	6.3	5.6	10.6
European Union	8.6	13.0	22.5	17.9	11.9	9.9	12.7	14.0	10.1
Australia	3.7	2.0	2.8	5.5	8.2	4.6	4.7	6.0	6.7
Others	42.3	48.0	72.6	43.9	67.1	76.1	79.8	76.8	71.0
<b>World</b>	<b>89.1</b>	<b>125.6</b>	<b>193.7</b>	<b>206.0</b>	<b>198.9</b>	<b>194.9</b>	<b>217.3</b>	<b>240.5</b>	<b>253.3</b>
<b>Exports (million metric tons)</b>									
Russian Federation	n/a	n/a	1.2	0.7	4.0	18.6	22.8	25.5	29.0
United States	20.2	41.2	29.1	28.9	35.1	32.0	23.5	21.1	26.5
European Union	6.7	17.5	23.8	15.7	23.1	32.0	35.4	34.7	25.5
Australia	9.1	9.6	11.8	15.9	18.6	18.6	16.6	16.1	24.5
Canada	11.8	16.3	21.7	17.3	16.6	23.3	24.2	22.1	21.0
Ukraine	n/a	n/a	2.0	0.1	4.3	9.8	11.3	17.4	15.7
Others	15.3	23.1	38.0	22.6	31.0	31.7	30.7	35.8	35.8
<b>World</b>	<b>63.2</b>	<b>107.6</b>	<b>127.7</b>	<b>101.3</b>	<b>132.7</b>	<b>166.0</b>	<b>164.4</b>	<b>172.8</b>	<b>178.0</b>
<b>Imports (million metric tons)</b>									
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	10.2	11.3	11.9	11.8
Indonesia	0.5	1.2	2.0	4.1	6.6	7.4	7.5	10.1	8.8
Algeria	0.6	2.3	4.4	5.6	6.5	7.5	7.3	8.2	8.2
Brazil	1.7	3.9	4.4	7.2	6.7	7.1	5.4	6.7	6.7
European Union	19.6	10.4	3.7	3.5	4.6	4.0	6.0	6.9	6.5
Japan	4.8	5.8	5.6	5.9	5.9	6.1	5.9	5.7	5.8
Others	45.3	70.8	76.9	67.0	91.2	116.3	115.8	120.5	125.2
<b>World</b>	<b>75.4</b>	<b>99.9</b>	<b>102.7</b>	<b>99.3</b>	<b>132.1</b>	<b>158.5</b>	<b>159.1</b>	<b>170.1</b>	<b>173.0</b>

Source: U.S. Department of Agriculture (January 2017 update).

Notes: n/a implies data not available. The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

# Zinc



	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
China	150	763	1,780	2,061	3,842	4,859	5,188	5,200	4,750
Australia	495	940	1,420	1,367	1,480	1,507	1,523	1,560	1,691
Peru	488	584	910	1,202	1,470	1,281	1,351	1,319	1,422
India	32	70	208	447	740	725	817	729	826
United States	349	571	829	748	748	738	784	832	810
Mexico	243	307	401	476	570	660	643	660	677
Bolivia	50	108	149	160	411	390	407	449	480
Kazakhstan	n/a	n/a	322	364	405	371	417	386	384
Canada	1,059	1,203	1,002	667	649	612	426	353	278
Sweden	167	160	177	216	199	188	177	222	247
Ireland	229	167	263	429	354	338	327	283	236
Russian Federation	n/a	n/a	132	186	214	189	193	217	236
Brazil	70	110	100	168	211	164	152	193	193
Others	n/a	n/a	1,129	1,079	1,163	1,253	1,251	1,306	1,142
<b>World</b>	<b>6,172</b>	<b>7,176</b>	<b>8,823</b>	<b>9,569</b>	<b>12,457</b>	<b>13,274</b>	<b>13,655</b>	<b>13,708</b>	<b>13,372</b>
<b>Refined Production (thousand metric tons)</b>									
China	155	552	1,957	2,725	5,209	4,881	5,280	5,827	6,155
Korea, Rep.	76	248	473	650	750	877	895	915	978
India	44	79	176	266	701	691	773	700	817
Canada	592	592	780	724	690	649	652	648	678
Japan	735	688	654	638	574	571	587	583	567
Spain	152	253	386	501	517	528	529	529	529
Australia	301	309	489	457	498	496	492	482	479
Peru	64	118	200	166	223	319	346	336	335
Kazakhstan	n/a	n/a	263	357	319	320	320	325	324
Mexico	145	199	337	334	322	324	323	321	318
Finland	147	175	223	282	307	315	312	302	306
Netherlands	170	208	217	225	264	257	275	290	291
Russian Federation	n/a	n/a	241	206	260	247	262	265	267
Others	n/a	n/a	2,757	2,587	2,275	2,086	2,012	2,030	1,930
<b>World</b>	<b>6,159</b>	<b>6,698</b>	<b>9,153</b>	<b>10,119</b>	<b>12,909</b>	<b>12,561</b>	<b>13,058</b>	<b>13,553</b>	<b>13,975</b>
<b>Refined Consumption (thousand metric tons)</b>									
China	200	369	1,402	3,040	5,350	5,396	5,962	6,420	6,487
United States	810	992	1,315	1,080	907	892	935	962	924
Korea, Rep.	68	230	419	448	540	553	578	644	633
India	95	135	224	389	538	561	640	638	612
Germany	474	530	532	514	494	474	479	477	479
Japan	752	814	674	602	516	479	498	503	457
Belgium	155	178	394	256	321	239	222	388	442
Australia	100	114	193	239	225	104	180	174	289
Russian Federation	n/a	n/a	138	166	203	222	265	242	255
Others	n/a	n/a	3,599	3,662	3,432	3,139	3,195	3,314	3,334
<b>World</b>	<b>6,131</b>	<b>6,568</b>	<b>8,889</b>	<b>10,396</b>	<b>12,526</b>	<b>12,059</b>	<b>12,954</b>	<b>13,762</b>	<b>13,911</b>

Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.



## APPENDIX C

Description of price series  
Technical notes



## Description of Price Series

### ENERGY

**Coal** (Australia). Thermal, f.o.b. piers, Newcastle/Port Kembla, 6,700 kcal/kg, 90 days forward delivery.

**Coal** (Colombia). Thermal, f.o.b. Bolivar, 6,450 kcal/kg, (11,200 btu/lb), less than .8% sulfur, 9% ash, 90 days forward delivery.

**Coal** (South Africa). Thermal, f.o.b. Richards Bay, 6,000 kcal/kg, 90 days forward delivery.

**Crude oil**. Average price of Brent (38° API), Dubai Fateh (32° API), and West Texas Intermediate (WTI, 40° API). Equally weighed.

**Natural Gas Index** (Laspeyres). Weights based on five-year consumption volumes for Europe, U.S. and Japan (LNG), updated every five years.

**Natural gas** (Europe). Average import border price with a component of spot price, including U.K.

**Natural gas** (U.S.). Spot price at Henry Hub, Louisiana.

**Natural gas** (Japan). LNG, import price, cif; recent two months' averages are estimates.

### NON-ENERGY

#### Beverages

**Cocoa** (ICCO). International Cocoa Organization daily price, average of the first three positions on the terminal markets of New York and London, nearest three future trading months.

**Coffee** (ICO). International Coffee Organization indicator price, other mild Arabicas, average New York and Bremen/Hamburg markets, ex-dock.

**Coffee** (ICO). International Coffee Organization indicator price, Robustas, average New York and Le Havre/Marseilles markets, ex-dock.

**Tea**. Average three auctions, average of quotations at Kolkata, Colombo, and Mombasa/Nairobi.

**Tea** (Colombo). Sri Lankan origin, all tea, average of weekly quotes.

**Tea** (Kolkata). leaf, include excise duty, average of weekly quotes.

**Tea** (Mombasa/Nairobi). African origin, all tea, average of weekly quotes.

#### Oils and meals

**Coconut oil** (Philippines/Indonesia). Bulk, c.i.f. Rotterdam.

**Copra** (Philippines/Indonesia). Bulk, c.i.f. N.W. Europe.

**Groundnuts** (U.S.). Runners 40/50, shelled basis, c.i.f. Rotterdam.

**Groundnut oil** (any origin). C.i.f. Rotterdam.

**Fishmeal** (any origin). 64-65%, c&f Bremen, estimates based on wholesale price.

**Palm oil** (Malaysia). 5% bulk, c.i.f. N. W. Europe.

**Palmkernel Oil** (Malaysia). C.i.f. Rotterdam.

**Soybean meal** (any origin), Argentine 45/46% extraction, c.i.f. Rotterdam.

**Soybean oil** (any origin). Crude, f.o.b. ex-mill Netherlands.

**Soybeans** (U.S.). C.i.f. Rotterdam.

### Grains

**Barley** (U.S.). Feed, No. 2, spot, 20 days to-arrive, delivered Minneapolis.

**Maize** (U.S.). No. 2, yellow, f.o.b. US Gulf ports.

**Rice** (Thailand). 5% broken, white rice (WR), milled, indicative price based on weekly surveys of export transactions, government standard, f.o.b. Bangkok.

**Rice** (Thailand). 25% broken, WR, milled indicative survey price, government standard, f.o.b. Bangkok.

**Rice** (Thailand). 100% broken, A.1 Super, indicative survey price, government standard, f.o.b. Bangkok.

**Rice** (Vietnam). 5% broken, WR, milled, weekly indicative survey price, minimum export price, f.o.b. Hanoi.

**Sorghum** (U.S.). No. 2 milo yellow, f.o.b. Gulf ports.

**Wheat** (U.S.). No. 1, hard red winter (HRW), ordinary protein, export price delivered at the US Gulf port for prompt or 30 days shipment.

**Wheat** (U.S.). No. 2, soft red winter (SRW), export price delivered at the U.S. Gulf port for prompt or 30 days shipment.

### Other food

**Bananas** (Central and South America). Major brands, free on truck (f.o.t.) Southern Europe, including duties.

**Bananas** (Central and South America). Major brands, US import price, f.o.t. US Gulf ports.

**Meat, beef** (Australia/New Zealand). Chucks and cow forequarters, frozen boneless, 85% chemical lean, c.i.f. U.S. port (east coast), ex-dock.

**Meat, chicken** (U.S.). Broiler/fryer, whole birds, 2-1/2 to 3 pounds, USDA grade "A", ice-packed, Georgia Dock preliminary weighted average, wholesale.

**Meat, sheep** (New Zealand). Frozen whole carcasses Prime Medium (PM) wholesale, Smithfield, London.

**Oranges** (Mediterranean exporters). Navel, EEC indicative import price, c.i.f. Paris.

**Shrimp** (Mexico). West coast, frozen, white, No. 1, shell-on, headless, 26 to 30 count per pound, wholesale price at New York.

**Sugar** (EU). European Union negotiated import price for raw unpackaged sugar from African, Caribbean, and Pacific (ACP), c.i.f. European ports.

**Sugar** (U.S.). Nearby futures contract, c.i.f.

**Sugar** (world). International Sugar Agreement (ISA) daily price, raw, f.o.b. and stowed at greater Caribbean ports.

## Timber

**Logs** (West Africa). Sapele, high quality (loyal and marchand), 80 centimeter or more, f.o.b. Douala, Cameroon.

**Logs** (Southeast Asia). Meranti, Sarawak, Malaysia, sale price charged by importers, Tokyo.

**Plywood** (Africa and Southeast Asia). Lauan, 3-ply, extra, 91 cm x 182 cm x 4 mm, wholesale price, spot Tokyo.

**Sawnwood** (West Africa). Sapele, width 6 inches or more, length 6 feet or more, f.a.s. Cameroonian ports.

**Sawnwood** (Southeast Asia). Malaysian dark red seraya/meranti, select and better quality, average 7 to 8 inches; length average 12 to 14 inches; thickness 1 to 2 inches; kiln dry, c. & f. UK ports, with 5% agents commission including premium for products of certified sustainable forest.

**Woodpulp** (Sweden). Softwood, sulphate, bleached, air-dry weight, c.i.f. North Sea ports.

## Other raw materials

**Cotton** (Cotlook "A" index). Middling 1-3/32 inch, traded in Far East, C/F.

**Rubber** (Asia). RSS3 grade, Singapore Commodity Exchange Ltd (SICOM) nearby contract.

**Rubber** (Asia). TSR 20, Technically Specified Rubber, SICOM nearby contract.

## Fertilizers

**DAP** (diammonium phosphate). Standard size, bulk, spot, f.o.b. US Gulf.

**Phosphate rock** (Morocco). 70% BPL, contract, f.a.s. Casablanca.

**Potassium chloride** (muriate of potash). Standard grade, spot, f.o.b. Vancouver.

**TSP** (triple superphosphate). Bulk, spot, granular, f.o.b. Tunisia.

**Urea** (Black Sea). Bulk, spot, f.o.b. Black Sea (primarily Yuzhnyy).

## Metals and minerals

**Aluminum** (LME). London Metal Exchange, unalloyed primary ingots, standard high grade, physical settlement.

**Copper** (LME). Standard grade A, cathodes and wire bar shapes, physical settlement.

**Iron ore** (any origin). Fines, spot price, c.f.r. China, 62% Fe.

**Lead** (LME). Refined, standard high grade, physical settlement.

**Nickel** (LME). Cathodes, standard high grade, physical settlement.

**Tin** (LME). Refined, standard high grade, physical settlement.

**Zinc** (LME). Refined, standard special high grade, physical settlement.

## PRECIOUS METALS

**Gold** (U.K.). 99.5% fine, London afternoon fixing, average of daily rates.

**Platinum** (U.K.). 99.9% refined, London afternoon fixing.

**Silver** (U.K.). 99.9% refined, London afternoon fixing.

## Technical Notes

### Definitions and explanations

**Constant prices** are prices which are deflated by the Manufacturers Unit Value Index (MUV).

**MUV** is the unit value index in U.S. dollar terms of manufactures exported from fifteen countries: Brazil, Canada, China, Germany, France, India, Italy, Japan, Mexico, Republic of Korea, South Africa, Spain, Thailand, United Kingdom, and United States.

**Price indexes** were computed by the Laspeyres formula. The Non-Energy Price Index is comprised of 34 commodities. U.S. dollar prices of each commodity is weighted by 2002-2004 average export values. Base year reference for all indexes is 2010. Countries included in indexes are all low- and middle-income, according to World Bank income classifications.

**Price index weights.** Trade data as of May 2008 comes from United Nations' Comtrade Database via the World Bank WITS system, Food and Agriculture Organization FAOSTAT Database, International Energy Agency Database, BP Statistical Review, World Metal Statistics, World Bureau of Metal Statistics, and World Bank staff estimates. The weights can be found in the table on the next page.

**Reporting period.** Calendar vs. crop or marketing year refers to the span of the year. It is common in many agricultural commodities to refer to production and other variables over a twelve-month period that begins with harvest. A crop or marketing year will often differ by commodity and, in some cases, by country or region.

### Abbreviations

\$ = U.S. dollar  
 bbl = barrel  
 bcf/d = billion cubic feet per day  
 cif = cost, insurance, freight  
 cum = cubic meter  
 dmt = dry metric ton  
 f.o.b. = free on board  
 f.o.t. = free on track  
 kg = kilogram  
 mb/d = million barrels per day  
 mmbtu = million British thermal units  
 mmt = million metric tons  
 mt = metric ton (1,000 kilograms)  
 toz = troy oz

### Acronyms

BREXIT British exit  
 DAP diammonium phosphate  
 DTF distance to frontier  
 EIA Energy Information Administration  
 EMBI emerging markets bond index  
 EMDE emerging market and developing economies  
 EU European Union  
 FAO Food and Agriculture Organization

FDI foreign direct investment  
 GDP gross domestic product  
 IEA International Energy Agency  
 LME London Metal Exchange  
 LNG liquefied natural gas  
 MSCI Morgan Stanley Capital International  
 MUV Manufacture Unit Value  
 NDRC National Development and Reform Commission  
 OECD Organization of Economic Cooperation and Development  
 OPEC Organization of Petroleum Exporting Countries  
 TSP triple superphosphate  
 USDA United States Department of Agriculture  
 VIX volatility index  
 WTI West Texas Intermediate

### Data sources

Agrium Fact Book  
 Baker Hughes  
 Bloomberg  
 BP Statistical Review  
 Concensus Forecast  
 Cotton Outlook  
 FAO  
 Fertilizer Week  
 INFOFISH  
 INTERFEL Fel Actualités Hebdo  
 Intergovernmental Group on Bananas and Tropical Fruits  
 Intergovernmental Group on Tea  
 International Cocoa Organization (ICCO)  
 International Coffee Organization (ICO)  
 International Cotton Advisory Committee  
 International Energy Agency (IEA)  
 International Fertilizer Industry Association (IFA)  
 International Rubber Study Group (IRSG)  
 International Tea Committee (ITC)  
 International Tropical Timber Organization (ITTO)  
 International Sugar Organization (ISO)  
 ISTA Mielke GmbH Oil World  
 Japan Lumber Journal  
 MinEx Consulting  
 MLA Meat & Livestock Weekly  
 Platinum and Palladium Survey  
 Platts International Coal Report  
 Singapore Commodity Exchange  
 Sopisco News  
 Sri Lanka Tea Board  
 Steel Statistical Yearbook  
 Thomson Reuters  
 U.S. Department of Agriculture  
 U.S. Energy Information Administration (EIA)  
 U.S. NOAA Fisheries Service  
 World Bureau of Metal Statistics  
 World Gas Intelligence

## Weights for commodity price indexes

Commodity group	Share of energy and non-energy indexes	Share of sub-group indexes
<b>ENERGY</b>	<b>100.0</b>	<b>100.0</b>
Coal	4.7	4.7
Crude Oil	84.6	84.6
Natural Gas	10.8	10.8
<b>NON-ENERGY</b>	<b>100.0</b>	
<b>Agriculture</b>	<b>64.9</b>	
<b>Beverages</b>	<b>8.4</b>	<b>100.0</b>
Coffee	3.8	45.7
Cocoa	3.1	36.9
Tea	1.5	17.4
<b>Food</b>	<b>40.0</b>	
<b>Grains</b>	<b>11.3</b>	<b>100.0</b>
Rice	3.4	30.2
Wheat	2.8	25.3
Maize (includes sorghum)	4.6	40.8
Barley	0.5	3.7
<b>Oils and Meals</b>	<b>16.3</b>	<b>100.0</b>
Soybeans	4.0	24.6
Soybean Oil	2.1	13.0
Soybean Meal	4.3	26.3
Palm Oil	4.9	30.2
Coconut Oil	0.5	3.1
Groundnut Oil (includes groundnuts)	0.5	2.8
<b>Other Food</b>	<b>12.4</b>	<b>100.0</b>
Sugar	3.9	31.5
Bananas	1.9	15.7
Meat, beef	2.7	22.0
Meat, chicken	2.4	19.2
Oranges (includes orange junice)	1.4	11.6
<b>Agricultural Raw Materials</b>	<b>16.5</b>	
<b>Timber</b>	<b>8.6</b>	<b>100.0</b>
Logs	1.9	22.1
Sawnwood	6.7	77.9
<b>Other Raw Materials</b>	<b>7.9</b>	<b>100.0</b>
Cotton	1.9	24.7
Natural Rubber	3.7	46.7
Tobacco	2.3	28.7
<b>Fertilizers</b>	<b>3.6</b>	<b>100.0</b>
Natural Phosphate Rock	0.6	16.9
Phosphate	0.8	21.7
Potassium	0.7	20.1
Nitogenous	1.5	41.3
<b>Metals and Minerals</b>	<b>31.6</b>	<b>100.0</b>
Aluminum	8.4	26.7
Copper	12.1	38.4
Iron Ore	6.0	18.9
Lead	0.6	1.8
Nickel	2.5	8.1
Tin	0.7	2.1
Zinc	1.3	4.1
<b>PRECIOUS METALS</b>	<b>100.0</b>	
Gold	77.8	
Silver	18.9	
Platinum	3.3	

Notes: Index weights are based on 2002-04 developing countries' export values. Precious metals are not included in the non-energy index.



## Commodity Markets Outlook: Special Topics, 2011-2016

Topic	Date
Investment weakness in commodity exporters	January 2017
OPEC in historical context: Commodity agreements and market fundamentals	October 2016
From energy prices to food prices: Moving in tandem?	July 2016
Resource development in era of cheap commodities	April 2016
Weak growth in emerging market economies: What does it imply for commodity markets?	January 2016
Understanding El Niño: What does it mean for commodity markets?	October 2015
Iran nuclear agreement: A game changer for energy markets?	October 2015
How important are China and India in global commodity consumption?	July 2015
Anatomy of the last four oil price crashes	April 2015
Oil price plunge in perspective	January 2015
The role of income growth in commodities	October 2014
Price volatility for most commodities has returned to historical norms	July 2014
The nature and causes of oil price volatility	January 2014
A global energy market?	July 2013
Global reserves, demand growth, and the “super cycle” hypothesis	July 2013
The “energy revolution”, innovation, and the nature of substitution	January 2013
Commodity prices: levels, volatility, and comovement	January 2013
Which drivers matter most in food price movements?	January 2013
Induced innovation, price divergence, and substitution	June 2012
The role of emerging markets in commodity consumption	June 2012
WTI-Brent price dislocation	January 2012
Metals consumption in China and India	January 2012
China, global metal demand, and the super-cycle hypothesis	June 2011

**P**rices for most industrial commodities continued to rise in the fourth quarter from their lows in early 2016, while most agricultural prices declined. Crude oil prices are forecast to rise to \$55 per barrel in 2017 from \$43/bbl in 2016 following agreements among some OPEC and non-OPEC producers to limit output in the first half of 2017. Metals prices are projected to rise 11 percent while agricultural prices are anticipated to rise slightly.

A *Special Focus* analyzes the investment weakness in commodity-exporting EMDEs and concludes that the deceleration reflects elevated uncertainty, deteriorated terms of trade, and increased private debt burdens. Given the limited room for fiscal or monetary stimulus in most commodity exporters, it argues that structural reforms are critical to enhance business environments, encourage economic diversification, and improve governance.

The World Bank's *Commodity Markets Outlook* is published quarterly, in January, April, July, and October. The report provides detailed market analysis for major commodity groups, including energy, metals, agriculture, precious metals, and fertilizers. Price forecasts to 2030 for 46 commodities are also presented, together with historical price data. Commodity price data updates are published separately at the beginning of each month.

The report and data can be accessed at:

[www.worldbank.org/commodities](http://www.worldbank.org/commodities)