**Quarterly Report** 

**APRIL 2017** 

# Commodity Markets Outlook







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The cutoff date for the data used in this report was April 21, 2017.

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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, agriculture, fertilizers, metals, and precious metals. 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: www.worldbank.org/commodities

For inquiries and correspondence, email at: commodities@worldbank.org

# **Executive Summary**

Prices for most industrial commodities strengthened further in the first quarter (q/q), while global agricultural prices remained broadly stable. Crude oil prices are forecast to rise to an average of \$55 per barrel (bbl) in 2017 from \$43/bbl in 2016. The oil forecast is unchanged since October 2016 and reflects balancing forces: upward pressure on prices from production cuts agreed by Organization of Petroleum Exporting Countries (OPEC) and non-OPEC producing countries, and downward pressure from persistently high stocks, supported by the faster-than-expected rebound of the U.S. shale oil industry. Metals prices are projected to increase 16 percent as a result of strong demand in China and various supply constraints, including labor strikes and contractual disputes in the case of copper, and environmental and export policies for nickel. Agricultural commodity prices, which gained 1 percent in the first quarter, are anticipated to remain broadly stable in 2017, with moderate increases in oils and meals and raw materials offset by declines in grains and beverages.

#### Recent trends

Energy prices rose 6 percent in the first quarter of 2017 (q/q), led by an 8 percent increase in crude oil (Figure 1). Natural gas prices in Europe and liquefied natural gas (LNG), both partly linked to oil prices, gained 16 and 7 percent, respectively, due to strong demand and a tight LNG market. U.S. natural gas prices fell 1 percent on lower demand as a result of mild weather. Coal prices fell 13 percent as supplies rebounded after China relaxed production limits.

Crude oil prices jumped 8 percent in 2017Q1, averaging nearly \$53/bbl. Prices dropped below \$50/bbl in early March on concerns over commitments to the OPEC/non-OPEC cuts, larger-than-expected U.S. crude oil inventories, and a robust recovery in U.S. shale oil activity. However, prices recovered in early April, although with continued volatility, on renewed expectations of tightening supply and an extension of OPEC/non-OPEC production agreement. Over the course of 2017, the oil market is expected to rebalance on steady growth in demand and lower production from OPEC and some non-OPEC countries. Crude oil inventories have remained high, mainly in the

United States, but are expected to start declining in the second quarter as seasonal refinery demand picks up.

Non-Energy commodity prices rose 4 percent in 2017Q1 with large variations among major groups. Agricultural prices gained 1 percent (Figure 1), but with large price movements among individual components, especially tropical commodities. Beverage prices declined nearly 7 percent due to a supply-driven collapse of cocoa prices. Raw materials prices strengthened, led by a surge in natural rubber prices following flood-related supply disruptions in Southeast Asia. Grain prices increased nearly 4 percent, mostly in response to gains in maize prices, while oils and meals prices rose a modest 2 percent on a general strengthening of edible oil prices. Metals prices surged by 10 percent, driven by strong demand and various supply constraints. Precious metals prices fluctuated widely on changing investor sentiment.

#### Outlook and risks

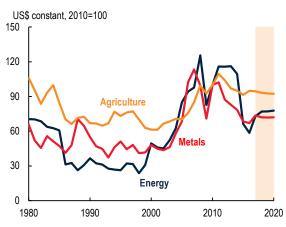
*Energy* prices are projected to increase 26 percent in 2017 and an additional 8 percent in 2018 (Figure 2,

#### Commodity price indexes, monthly



Note: Last observation is March 2017.

#### 2 Commodity price indexes, annual



Source: World Bank.
Note: Shaded area (2017-20) denotes forecast.

Table 1). Non-energy prices are expected to increase 4 percent in 2017, a 1 percent upward revision from January, and the first annual increase after five consecutive declines.

Oil prices are projected to average \$55/bbl in 2017, unchanged from the January 2017 forecast. The oil market is expected to tighten in 2017O2, mainly as a result of OPEC/non-OPEC production cuts. Prices are projected to increase to \$60/bbl in 2018 as the market regains balance, with shale production limiting larger price gains. Upside price risks include greater-than-expected compliance by OPEC/non-OPEC producers and supply outages among some exporters, notably Libya and Nigeria. On the downside, weak compliance with the OPEC agreement and rising output from elsewhere, especially the United States, could delay rebalancing, as would slower demand growth. A faster-than-expected rise in U.S. shale oil production could also affect the supply balance. Natural gas prices are projected to rise 15 percent in 2017, led by a 20 percent jump in U.S. gas prices on strong domestic demand and rising exports. Moderate price increases are expected in Europe and Japan due to higher oil prices. Coal prices are expected to average 6 percent higher in 2017 due to policy-induced supply reductions in China in 2016. Beijing's coal policy will be a key determinant for prices given that China consumes half of the world's coal output.

Agricultural prices are expected to remain stable in 2017, but there is considerable variation across commodities. Grain prices are projected to decline 3 percent this year, unchanged from the January projection, as favorable growing conditions have pushed stocks-to-use ratios (a measure of supply relative to

demand) of all key grains to 15-year highs. However, oils and meals prices are projected to increase 3 percent amid tight supplies in East Asian and South American supplies. Beverage prices are forecast to decline 6 percent in 2017, a downward revision from January, due to large cocoa supplies from West Africa. Raw materials prices are projected to gain 4 percent because of a supply shortfall in natural rubber. The end of the El Niño/La Niña cycle, which began in late 2015, limits upside risks to 2017-2018 agricultural price forecasts. Key downside risks are increased government use of agricultural support policies and energy price fluctuations, as agriculture is an energy-intensive sector. Fertilizer prices are projected to increase 1 percent, but markets remain well supplied.

Metal prices are forecast to increase 16 percent in 2017 (after dropping nearly 7 percent in 2016) on strong demand and tightening markets for most metals. The largest gains are expected in zinc (32 percent) and lead (18 percent) due to mine supply closures (resource exhaustion) and discretionary shut-ins in several countries. Copper prices are expected to increase by 18 percent as a result of various disruptions at some of the world's largest mines—strikes (Chile), export policies (Indonesia), and bad weather (Peru). Downside price risks for metals include slow growth in China and greater-than-expected production, including restart of idled capacity. Upside risks stem from stronger-than-expected demand, policy-induced supply restraints in Asia, environmental constraints, and impending labor negotiations. Precious metals prices are projected to decline by 1 percent in 2017 and a further 1 percent in 2018 as benchmark interest rates rise and safe-haven buying ebbs.

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

		Pri	ce Indexe	es (2010=	Chang	ge (%)	Revision <sup>2</sup>			
	2013	2014	2015	2016	2017f <sup>1</sup>	2018f <sup>1</sup>	2016-17	2017-18	2017f <sup>1</sup>	2018f <sup>1</sup>
Energy	127	118	65	55	69	75	25.7	8.2	0.0	0.0
Non-Energy <sup>3</sup>	102	97	82	80	84	84	4.0	0.7	0.7	0.4
Agriculture	106	103	89	89	89	90	0.1	1.2	-0.4	-0.4
Beverages	83	102	94	91	85	86	-6.4	0.6	-4.7	-4.4
Food	116	107	91	92	92	94	0.1	1.2	-0.2	-0.2
Oils and meals	116	109	85	90	92	93	2.5	1.4	-0.5	-0.5
Grains	128	104	89	82	79	81	-3.2	2.1	0.0	0.0
Other food	104	108	100	105	105	105	-0.2	0.2	0.0	0.0
Raw Materials	95	92	83	80	83	85	3.9	1.5	1.4	1.2
Fertilizers	114	100	95	75	76	78	0.8	2.2	-1.1	-1.0
Metals and Minerals	91	85	67	63	73	72	15.6	-0.8	3.0	2.3
Precious Metals <sup>3</sup>	115	101	91	97	96	95	-1.4	-1.3	5.5	5.0
Memorandum items	•	•	•						•	
Crude oil (\$/bbl)	104	96	51	43	55	60	28.5	9.1	0.0	0.0
Gold (\$/toz)	1,411	1,266	1,161	1,249	1,225	1,206	-1.9	-1.5	75.0	68.3

Source: World Bank

Notes: (1) "f" denotes forecasts. (2) Denotes revision to the forecasts from the January 2017 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.



# COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Agriculture
Fertilizers
Metals and minerals
Precious metals

#### **Energy**

The World Bank *Energy Price Index* rose 6 percent in the first quarter of 2017 from the previous quarter. Oil prices increased 8 percent on lower production by several OPEC and non-OPEC producers. Natural gas prices rose 6 percent on stronger demand and some supply constraints, and coal prices dropped 12 percent as China relaxed production curbs.

#### Crude oil

Crude oil prices rose 8 percent in the first quarter (q/q), averaging \$52.9/bbl (Figure 3), following agreements by OPEC and some non-OPEC producers to cut output in the first half of 2017. Prices traded in a narrow range near \$54/bbl for much of the quarter on expectations that output cuts would draw down stocks and rebalance the market in coming months. However, prices dropped sharply in the second week of March, as money managers liquidated sizeable long positions on futures markets. The selloff was prompted by three main concerns: perceived weak comments from Saudi Arabian and Russian officials over commitments to production cuts; the persistence of high U.S. crude oil stocks; and robust recovery in U.S. shale oil activity. Prices traded between \$50 and \$54/bbl in April, as investors await the expected decline in stocks.

With steady growth in demand, rebalancing of the oil market continues. The sharp decline in investment since the price collapse in 2014 led to a decline in non-OPEC production last year. The group is projected to record a modest gain this year, led by U.S. shale, but gains are not expected to keep pace with the growth in global demand. OPEC's imposed production limits are expected to further restrict supply.

#### 3 Crude oil prices



Source: Bloomberg.

Notes: Daily frequency. Last observation is April 21, 2017.

Crude oil stocks in the United States remained high during the first quarter, reflecting buildup at refineries due to higher imports and reduced refinery production because of seasonal maintenance. The rise in imports was partly because of a surge in OPEC production in the fourth quarter, ahead of January cuts. Much of that increased output arrived into U.S. storage in the first quarter. U.S. stocks are expected to decline in the second quarter owing to a seasonal pickup in refinery demand.

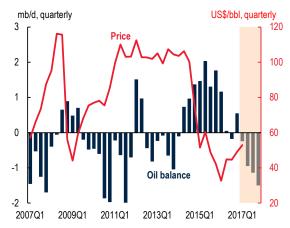
Crude oil prices are projected to average \$55/bbl in 2017, as global supplies fall short of demand. Stocks are expected to fall, especially in the second half of the year, assuming continuation of OPEC/non-OPEC production restraint (Figure 4).

#### **Demand**

World oil demand continues to grow at a relatively robust annual rate of 1.3 mb/d, although at a slower pace than the 2015 spike of 2.0 mb/d or 2.1 percent that was triggered by lower oil prices. That jump mainly occurred in members of the Organisation for Economic Cooperation and Development (OECD), where demand grew by an average 0.5 mb/d during 2015 and 2016 (Figure 5). Gains were shared between Europe and the United States. In the first quarter of 2017, OECD demand rose only marginally, with gains in Europe offset by declines in the other main OECD regions.

Oil demand growth in non-OECD countries has been comparatively stable in volume terms, rising at an average annual pace of 1.4 mb/d since 2005, with well over half of the increase in Asia. However, the rate of growth has slowed from an average of 3.6 percent (2005-14) to just 3.0 percent in 2015 and to a projected 2.7 percent in 2017. The slowdown has

#### World oil balance and oil price



Source: 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 32.0 mb/d. Shaded area (2017Q2-2017Q4) represents IEA projections.

been concentrated in oil exporting countries—notably Brazil, Russia, and Saudi Arabia—as these economies have been affected by lower oil export revenues. The growth in China's demand has also slowed as the country transitions to a more consumer-led economy. These effects have partly been offset by higher demand growth in India of 0.3 mb/d (7 percent) in 2016, and by slightly less this year.

For 2017, world oil demand is projected to increase by 1.3 mb/d (1.4 percent) to an average of 97.9 mb/d. All of the growth is expected to occur in non-OECD economies, with Asia accounting for 1.0 mb/d of the gain. China and India are projected to add a combined 0.6 mb/d, just under the 2016 increase. OECD oil demand is expected to be flat, following two years of relatively strong growth.

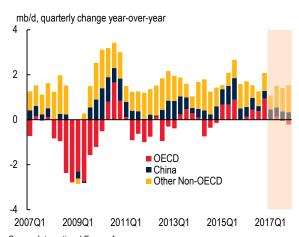
#### Supply

Although global oil supply growth has slowed significantly over the past two years, it still resulted in a surplus of 0.4 mb/d in 2016 (down from a surplus of 1.6 mb/d in 2015). Consequently oil inventories continued to climb. In 2016, non-OPEC production contracted by 0.8 mb/d (more than half of that in the United States), but this was more than offset by a 1.2 mb/d increase in total OPEC production, with the largest gains in Iraq, the Islamic Republic of Iran, and Saudi Arabia.

#### **OPEC**

OPEC abandoned its two-year market share strategy when it agreed in late 2016 to reduce production by 1.2 mb/d (from October levels) in the first half of 2017. Saudi Arabia agreed to the largest reduction, 0.49 mb/d, while Iraq accepted a cut of 0.21 mb/d. Libya and Nigeria are exempt, leaving the other eleven members with a first-half target of 29.8 mb/d.

#### World oil demand growth



Source: International Energy Agency.

Note: Shaded area (2017Q1-2017Q4) represents IEA projections.

Net compliance with pledged production cuts has been high, topping 100 percent in the latest monthly assessment. In March, the 11 OPEC countries produced 29.8 mb/d, mainly the result of Saudi Arabia cutting production more than required (Figure 6). Compliance was high for other Gulf countries, with the exception of Iraq (71 percent compliant). For the non-Gulf countries, compliance was 91 percent, owing to a larger-than-required cut by Angola. Venezuela implemented modest cuts. Production in exempt OPEC countries (Libya and Nigeria) edged lower by a combined 0.1 mb/d during the quarter, as both countries face significant geopolitical hurdles to raise output. In total, OPEC produced 31.7 mb/d in March, down 1.4 mb/d from December 2016.

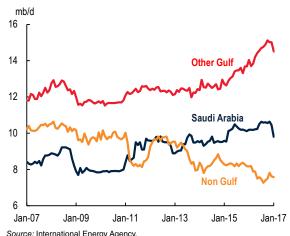
OPEC is scheduled to meet on May 25 to discuss market developments and to consider extending/amending output limits for the second half of 2017. Expectations are rising for extending the cuts.

#### Non-OPEC

OPEC's agreement to reduce production was conditional on 11<sup>1</sup> non-OPEC producers reducing output by 0.56 mb/d. The largest of the non-OPEC producers, Russia, agreed to reduce output by 0.3 mb/d, but will do so gradually, reaching its target in the second quarter. A number of other countries are using "natural production declines" to count as cuts. The IEA has provisionally estimated non-OPEC compliance in March at just under two-thirds.

Non-OPEC supply peaked in 2015 and fell 0.8 mb/d 2016, with the largest declines in the United States (0.5 mb/d), China (0.3 mb/d), and Colombia

#### 6 OPEC crude oil production



Note: Last observation is March 2017.

<sup>&</sup>lt;sup>1</sup>Azerbaijan, Bahrain, Brunei, Equatorial Guinea, Kazakhstan, Malaysia, Mexico, Oman, Russian Federation, Sudan, and South Sudan.

and Mexico (0.1 mb/d each). These reductions were partly offset by notable increases in Brazil and Russia, and by smaller increases elsewhere (e.g., Canada, Indonesia, the North Sea, and Oman).

For 2017, non-OPEC supply is projected to increase by 0.5 mb/d, with the United States accounting for 0.4 mb/d of the net gain. Other sizeable increases (Brazil, Canada, and Kazakhstan) are expected to be offset by declines in China and Mexico.

U.S crude oil output and drilling activity are rebounding faster than previously expected. After bottoming out at 8.7 mb/d in the third quarter of 2016 (down from a high of 9.6 mb/d in April 2015), U.S. crude oil production rose to 9.0 mb/d in March (Figure 7). Much of the gain reflects rising shale oil output, but there were also increases in production in the offshore Gulf of Mexico and in Alaska. The U.S. Energy Information Agency (EIA) projects that crude output will rise to 10 mb/d by the fourth quarter of 2018, and that the increase will continue to come from shale and offshore Gulf of Mexico production.

The number of active rigs drilling for oil in the United States has more than doubled from its May 2016 low to 688 wells, but is still substantially below the 2014 peak (Figure 7). More than half of the increase has been in the Permian basin due to its lower cost structure and expanding resource potential. Significant cost reductions and improved efficiency (e.g., shorter drilling/completion times, longer horizontal pipe laterals, and higher initial production rates) have enabled companies to drill profitably in the current price environment. In addition, as prices moved toward \$55/bbl, large hedging programs have locked in prices and helped secure financing for many small-to-midsize companies. While productivity improvements are expected to continue, shale companies may

face rising costs for services, supplies, and especially skilled labor.

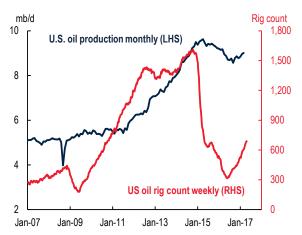
Total oil stocks (crude oil and petroleum products) in OECD countries remain high, largely concentrated in crude in the United States. U.S. crude oil stocks reached new highs in the first quarter due to higher U.S. production, rising imports, and declining refinery runs (Figure 8). Weekly data show U.S. crude stocks remained high into early April, but started to fall as refining activity picked up following refinery maintenance. Meanwhile, OECD oil product stocks are elevated in North America and Europe, but closer to their 5-year average.

#### Price projections and risks

Crude oil prices remain projected to average \$55/bbl in 2017, an increase of 26 percent over 2016. This increase reflects rising oil demand and falling stocks, and assumes an extension of the OPEC/non-OPEC agreement. Prices are projected to increase to \$60/bbl in 2018, assuming inventories returning to more typical levels.

There are significant risks to the oil 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 (e.g., Libya, Nigeria, and Venezuela). OPEC policy decisions to expand production cuts could also support higher prices, as could rising production costs. Downside price risks include weaker compliance with the OPEC agreement. Rising output from Libya and Nigeria could delay rebalancing, as could slower demand growth. A faster-than-expected rise in U.S. shale oil production—from further efficiency gains and increased profitability from potentially lower taxes—could also affect the supply balance.

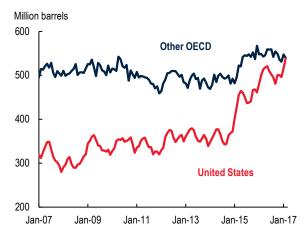
#### U.S. crude oil production and rig count



Source: International Energy Agency, Baker Hughes.

Notes: Weekly rig count: last observation is April 21, 2017. Monthly production: last observation is March 2017.

#### 8 OECD crude oil stocks



Source: International Energy Agency.

Note: Last observation is February 2017

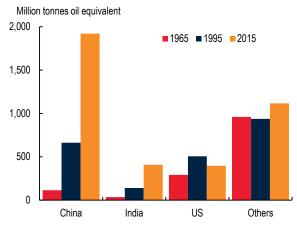
#### Coal

An easing of production restrictions in China contributed to a 12 percent drop in thermal coal prices in the first quarter (q/q), the first decline in three quarters. Nevertheless, prices of thermal coal, which is used to produce electricity, remain elevated due to strong heating demand and low inventories at China's ports and utilities. In late March, Cyclone Debbie disrupted coal production and transportation in Queensland Australia. The disruption, however, will mostly impact exports of coking coal, which is used in the manufacturing of steel.

Last year, China's National Development and Reform Commission (NDRC) ordered coal mines to produce on a 276-day basis (from 330 days) to reduce production by 16 percent. As prices spiked, China temporarily rescinded the rule on November 17. Although authorities were expected to reinstate the rule at the end of winter, they announced in March that it would not be restored as long as prices remained at a reasonable level. However, the NRDC ordered provinces to reduce overcapacity (by 150 million tons this year), ensure mine safety, and maintain supplies to domestic utilities. China also imposed stricter import inspections for coal quality at its ports, which has increased the review period from 7-15 days to 40 days, and is likely to be a restraining force on import flows. Higher prices have helped put the Chinese industry on a sounder financial footing.

Coal prices are expected to average \$70/ton in 2017 (up 6 percent from 2016) due to continued efforts by China to reduce coal supply. China's coal policy will be a key determinant of prices given that the country consumes half of the world's coal output and that coal accounts for nearly two-thirds of the country's energy consumption (Figure 9).

#### Global coal consumption



Source: BP Statistical Review of World Energy.

#### Natural gas

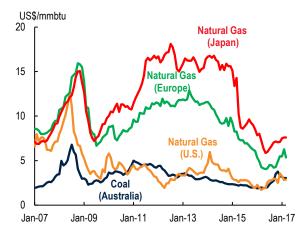
Natural gas prices rose 6 percent in the first quarter (q/q), with increases concentrated in Europe and Asia on stronger demand and tighter supply (Figure 10). Gains were led by a 16 percent increase in Europe (for imported gas) to \$5.7/mmbtu, reflecting stronger demand for power and heating, nuclear outages in France, high coal prices, and tight liquefied natural gas (LNG) supply. Spot gas prices declined from \$8.5/mmbtu in early January to below \$5/mmbtu in early April as seasonal demand ebbed.

The price of natural gas delivered to Japan rose 7 percent to \$7.6/mmbtu, partly due to higher oil prices. (Contracted gas is indexed to oil prices with a lag of several months.) However, spot LNG prices (for prompt supply) have fallen from close to \$10/mmbtu at the start of the year to under \$6/mmbtu as winter demand winds down and supplies rebound from earlier outages, notably in the Gorgon gas project in Western Australia.

In the United States, natural gas prices fell 1 percent to \$3.0/mmbtu on mild weather (and were down from \$3.7/mmbtu in December). Following the second mildest February on record, colder weather in March helped push up demand and draw down stocks, leaving end-of-winter storage 17 percent lower than last year but 15 percent above the 5-year average.

Natural gas prices are projected to rise 15 percent in 2017. The United States is expected to experience a 20 percent jump to \$3.0/mmbtu on strong domestic demand, rising exports, and falling production. More moderate increases are expected in Europe and Japan on higher oil prices. Markets are expected to be amply supplied over the next several years, owing to large increases in LNG capacity, mainly from the United States and Australia.

#### 10 Coal and natural gas prices



Source: World Bank.
Note: Last observation is March 2017.

#### **Agriculture**

The World Bank's *Agricultural Price Index* rose 1 percent in the first quarter of 2017 (q/q). Despite the modest overall gain, there were large price movements among some components, especially tropical commodities (Figure 11). Beverage prices fell more than 6 percent owing to a supply-driven collapse of cocoa prices. Raw materials prices rallied, led by a surge in natural rubber prices caused by supply disruptions in South East Asia. Grain prices increased nearly 4 percent, mostly in response to gains in maize prices. Oils and meals rose a modest 2 percent on a general strengthening of edible oil prices.

The *Agricultural Price Index* is expected to remain steady in 2017, with some variation among individual commodities. *Grain* prices are projected to fall 3 percent, unchanged from the January projection. However, oils and meal prices are expected to rise more than 2 percent, adding to last year's 5 percent increase. *Beverage* prices are forecast to drop more than 6 percent, a large revision from the projected 1 percent decline in January. *Raw materials* are projected to gain 4 percent, after a decline by the same amount last year.

There are few upside risks to the 2017 forecasts. For example, disruptive weather is not expected to pose a risk as the El Niño/La Niña cycle—warming and cooling of the equatorial Pacific Ocean—that began in late 2015 ended earlier this year. However, increased government use of agricultural support policies remains a key upside risk.

Food commodity prices are expected to increase through 2020 (Figure 12), with food and raw material prices rising more than beverages prices. However, the anticipated gains are not expected to offset the much larger declines experienced during 2011-15.

#### 11 Agriculture price indexes



Source: World Bank.

Note: Last observation is March 2017.

#### **Food**

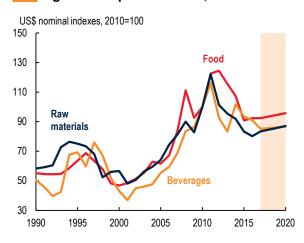
*Grain* prices increased 4 percent in the first quarter (q/q), but stand at just half their late-2012 peak. The 2017Q1 price uptick reflects shortfalls of maize and wheat output in the United States.

Overall, the April assessment 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 high of 751 million metric tons (mmt), according to the U.S. Department of Agriculture (USDA). Conditions for the global wheat crop are generally favorable in most key producing and exporting areas, including Australia, the European Union, the Russian Federation, and Ukraine. The stocks-to-use ratio (a measure of abundance of supplies relative to demand) exceeded 34 percent in the current season, a 15-year high, and is expected to stay high next season. Looking ahead, preliminary estimates for the upcoming 2017-18 season published by FAO-AMIS point to a lower global wheat crop in major producing countries, including Canada and the United States, where planted area is down.

Production of maize, which has been consistently revised upward throughout the current crop season, is projected to increase nearly 10 percent in 2016-17 on favorable crop conditions in most key suppliers, including Argentina, Canada, South Africa, Ukraine, and the United States. The stocks-to-use ratio at the end of the season is expected to reach 22 percent, a 16-year high. Preliminary estimates by FAO-AMIS tentatively put next season's crop at 1 percent above this season's, as large harvests in Argentina, Brazil, and South Africa more than offset a much smaller crop in the United States.

Rice production is expected to increase by more than 5 percent in 2016-17, driven by favorable crop

#### 12 Agriculture price indexes, forecast



Source: World Bank.

Note: Shaded area (2017-25) represents forecast.

conditions in Southeast Asia, including in Indonesia, Thailand (the world's top rice exporter), and the Philippines. Given that consumption is expected to increase by 4 percent, the stocks-to-use ratio will reach a 15-year high, as in the cases of wheat and maize, according to the USDA. The early FAO-AMIS assessment for 2017-18 indicates a favorable rice crop, and global production and consumption are expected to increase by about 1 percent each.

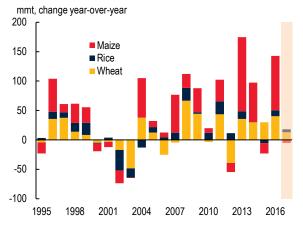
Based on the USDA's April assessment—the last for the current season—combined global supplies (i.e., beginning stocks plus production) of wheat, maize, and rice are projected to reach 2,856 mmt this season, 5 percent higher than last season. These projections, which are almost final, imply that 2016-17 will be the fourth consecutive surplus year. Furthermore, FAO-AMIS preliminary projections for 2017-18 point to yet another surplus year (Figure 13).

The World Bank's Oil and Meals Price Index increased 2 percent in the first quarter of 2017; it stands 17 percent higher than a year ago. A 3 percent increase in palm oil prices (due to supply tightness in Malaysia and Indonesia) was counterbalanced by a 5 percent drop in soybean oil prices (due to ample supplies in South America, notably Argentina and Brazil).

This season's outlook for edible oils also remains favorable (Figure 14). Following last year's diminished crop due to El Niño, global production of the 17 most consumed edible oils is expected to reach 214 mmt in 2016-17, a 6 percent increase. More than half of the growth is projected to come from palm oil (produced equally in Indonesia and Malaysia) and soybean oil (due to a shortfall in South America). Production of palm oil declined by the greatest amount on record in 2016-17 due to El Niño.

The oilseed supply outlook during the current season

#### 13 Global grain supply growth



Sources: U.S. Department of Agriculture, FAO-AMIS. Notes: April 2017 update. Years represent crop seasons (e.g., 2016 refers to 2016-17 crop season). Shaded area (2017) represents FAO-AMIS projections.

(October 2016 to September 2017) is also healthy, with global supplies for the ten major oilseeds projected to reach a new high of 552 mmt, 41 mmt higher than the previous season. Most of the increase in supplies is projected to come from a robust soybean crop, which is expected to reach 343 mmt in 2016-17, more than 10 percent higher than last season. Brazil and the United States are the major contributors to the increase. According to preliminary estimates by the International Grains Council, next season's soybean crop will be even higher.

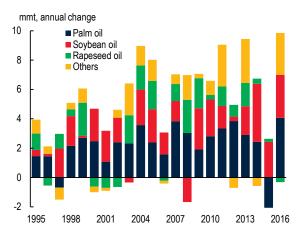
There are adequate supplies of most food commodities this season. In the case of grains, stocks-to-use ratios are expected to reach multi-year highs (Figure 15). Early assessments of the 2017-18 crop season also point to good crop conditions, suggesting that large stock levels could mitigate the impact of any unexpected production shortfalls. In view of the ample supply conditions, the World Bank's *Food Commodity* Price Index is expected to remain steady in 2017 and to rise a modest 1 percent in 2018. Commodity-specific supply conditions will cause some variation in prices—a large decline in beverages, a modest decline in grains, and an increase in oils and meals. Slightly higher grains and oils and meals prices are expected in 2018.

#### Risks

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

Energy prices affect agricultural crop prices directly through fuel use and indirectly through chemical and fertilizer use; some fertilizers are directly made from

#### 14 World edible oil supply growth



Note: April 2017 update. Years represent crop seasons (e.g., 2016 refers to 2016-17 crop season).

Source: U.S. Department of Agriculture.

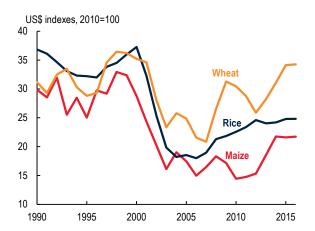
natural gas (or coal, in the case of China). If energy prices rise more than expected, prices for agricultural commodities would likely follow, especially grains and oilseeds, which are the most sensitive to energy price fluctuations. Conversely, lower energy prices could depress agricultural prices. Such risks, however, would affect the 2018-19 crop season, since most crop decisions for 2017-18 have been made.

Now that the El Niño/La Niña cycle that began in 2015 has come to an end, weather poses less upside risk to the agricultural price forecast. According to the U.S. National Oceanic and Atmospheric Administration, conditions in the equatorial Pacific Ocean—where the El Niño/La Niña cycle originates—returned to normal earlier in 2017. At a local level, however, drought conditions in East Africa have inflicted severe damage to crops, according to FEWS NET, causing a food crisis in several countries, including southeastern Ethiopia, northeastern Kenya, large areas of Somalia, and South Sudan.

Two policy challenges have surfaced in the current environment of ample agricultural supplies. The first stems from policies aimed at increasing farmgate prices through production subsidies and trade measures. For example, the Arab Republic of Egypt increased its wheat procurement price by 25 percent (effective April 15-July 15); India reinstated a 10 percent import duty on wheat; Indonesia, in an effort to promote self-sufficiency, announced the provision of fertilizer and other input subsidies for the production of maize; and the Philippines, also citing a self-sufficiency objective, announced support to the rice sector through credit and seed subsidies.

The second policy challenge relates to China's transition from stock-piling mechanisms to less price-distorting support programs. China's importance in

#### 15 Stock-to-use ratios



Source: U.S. Department of Agriculture.

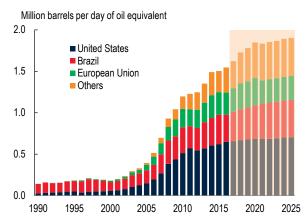
Notes: April 2017 update. Years represent crop seasons (e.g., 2016 refers to 201617 crop season).

agricultural commodity markets is reflected in its disproportionately high level of stocks for a number of important commodities, including maize, rice, and cotton. Thus far, the transition to lower stocks has taken place in an orderly fashion, as confirmed by the destocking process of China's cotton sector.

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 (in the form of maize-based ethanol), Brazil (as sugarcane-based ethanol), and from Europe (as edible-oil based biodiesel). The role of biofuels is expected to be less important in the long term, as policy makers acknowledge the limited environmental and energy-independence benefits of biofuel policies. On April 14, the European Parliament approved legislation under which first-generation biofuels should account for up to 7 percent of final energy consumption in transport by 2020. Under current legislation, EU member states must ensure that renewable energy accounts for at least 10 percent of energy consumption in transport by 2020. The European Parliament has also requested discontinuation of palm oil use in biodiesel by 2020. Along similar lines, the U.S. House of Representatives introduced legislation in March 2017 that would impose a 10 percent cap on ethanol blended into transportation fuel.

Reflecting the recent fundamental shift in attitudes toward biofuels, biofuel production has changed very little in the past two years and is forecast to increase just 5 percent in 2017, versus an annual average rate of expansion of 15 percent during the preceding 10 years. More importantly, over 2017-25, annual biofuels production is expected to grow at a rate slightly above 2 percent (Figure 16).

#### 16 Global biofuels production



Sources: BP Statistical Review, International Energy Agency, OECD, World Bank. *Note:* Shaded area (2017-25) represents IEA and OECD projections.

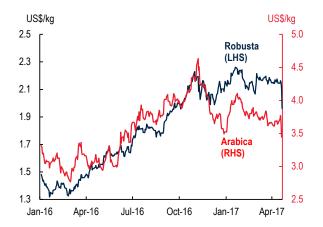
#### **Beverages**

The World Bank's *Beverage Price Index* declined by more than 6 percent in 2017Q1 (q/q). The weakening in Arabica prices reflects a well-supplied market: global output increased 15 percent in the 12-month period to March 2017 due to Brazilian bumper crop supplemented by good crops in Colombia, Honduras, and Peru (Figure 17). The relative strength in Robusta prices reflects a shortfall in global output, due to declines in production in Brazil and Vietnam, the world's key Robusta suppliers. 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.

The plunge in cocoa prices to almost \$2/kg in February 2017, down from \$3/kg in the first half of 2016, marked the eighth straight monthly decline and a 10-year low. The weakness reflects a 15 percent increase in global cocoa supply to more than 4.5 million tons in 2016-17. Most of the world's key suppliers contributed to the increase, including Côte d'Ivoire (up 26 percent), Nigeria (up 18 percent), and Ghana (up 8 percent). With the cocoa market well supplied, prices are projected to decline 25 percent in 2017 before increasing marginally in 2018.

Global tea prices changed little in 2017Q1. However, prices were up 16 percent in Mombasa and 5 percent in Colombo (q/q) due to a drought-induced production shortfall in East Africa and Sri Lanka as well as strong demand from Middle East countries. In contrast, tea prices plunged 23 percent at the Kolkata auction due to large stocks from last season, a good current year crop, and weak demand, the latter partly linked to the Indian government's demonetization campaign in late 2016. Tea prices are expected to gain 6 percent in 2017 on expected market tightness.

#### 17 Coffee prices



Source: Bloomberg.

Notes: Daily frequency. Last observation is April 21, 2017.

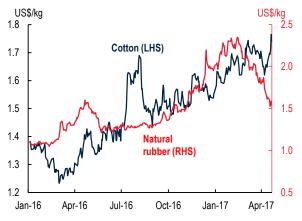
#### **Agricultural raw materials**

The World Bank's *Raw Materials Price Index* gained over 5 percent in 2017Q1 (q/q), and was up 7 percent from a year ago. The strengthening reflects a rally in natural rubber prices, accompanied by a moderate increase in cotton prices, while timber prices changed little.

Following years of relative stability around \$1.60/kg, cotton prices rose 7 percent in 2017Q1, up 27 percent from a year ago (Figure 18). The strength reflects last season's sharp drop in global production, from 26.2 mmt in 2014-15 to 21.0 mmt, most of which was accounted for by China. With consumption just above 24 mmt, the decline in production created a 3 mmt market deficit. The deficit was managed by China, drawing down its stocks from 12.9 mmt in 2014-15 to an estimated 7.5 mmt in the upcoming 2017-18 crop season. This managed stock draw created a stable price environment. Cotton prices are projected to increase 13 percent in 2017 on expected demand strengthening.

Natural rubber prices, which continued their yearlong rally well into the quarter, moderated in March and early April. Despite the easing, prices were up 30 percent in the quarter and almost double the 2016Q1 average. On the supply side, the sector suffered considerable losses due to late 2016 torrential rains in Thailand and Malaysia, the world's largest and third largest natural rubber suppliers. These losses coincided with strengthening of tire demand, including from China, the European Union, and the United States. Most natural rubber goes to tire manufacturing. Given the production losses and the ongoing demand strengthening, prices are expected to increase by more than 40 percent in 2017, with only marginal gains thereafter.

#### 18 Cotton and natural rubber prices



Source: Bloomberg.

Notes: Daily frequency. Last observation is April 21, 2017.

#### **Fertilizers**

Fertilizer prices rose 5 percent in the first quarter (q/q), up for the second straight quarter (Figure 19). Urea prices jumped 16 percent and DAP prices rose 9 percent on strong demand and tight supply. Partly offsetting these gains, phosphate rock prices dropped 7 percent as new capacity added to oversupply, while potash prices edged lower. Fertilizer markets continue to face relatively weak global demand due to low crop prices. Markets remain well supplied with adequate stocks and growing low-cost capacity.

Nitrogen (urea) prices surged 15 percent, up for the second quarter (following two years of decline) on strong import demand in the U.S., global supply constraints in key exporting regions, and limited export availability from China (the world's largest producer). Demand in the United States (the world's third largest nitrogenous fertilizer consumer after China and India) is expected to subside after the end of the spring planting season. Furthermore, significant new capacity (Iowa, Oklahoma, and Texas) is expected to come online and will discourage imports. At the same time, output is recovering from the Black Sea, and China's exports are expected to surge in the second and third quarters after domestic demand has been met. The global urea market is expected to be oversupplied going forward, with new capacity expected from countries with plentiful low-cost natural gas production, notably in the United States, but also in the Islamic Republic of Iran, Nigeria, and Malaysia.

Phosphate prices rose for the first time in eight consecutive quarters. DAP rose 9 percent and TSP 1 percent on strong demand and tight supply availability, including lower exports from China (the world's largest producer). Eight large phosphate producing companies in China have coordinated production cuts of

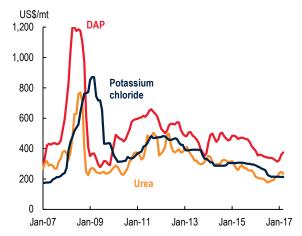
30 percent since December. Phosphate prices are expected to weaken in the near term as exports from China pick up and demand moderates. Markets are expected to remain oversupplied, with further new capacity expected in Morocco and Saudi Arabia.

Potash (potassium chloride) prices fell less than 1 percent, down for the seventh straight quarter, owing to relatively weak demand and ample supplies. Record strong imports into China in the quarter (under existing contract terms) led to high stocks which may delay settlement of a new annual contract, expected this quarter. The market is expected to remain over-supplied with new capacity expected in Belarus, Canada (the world's largest producer), China, Jordan, Turkmenistan, and the United States.

Fertilizer prices are projected to rise by 1 percent in 2017, mainly as a result of strong demand in the first quarter. The largest gain will be for urea, up 15 percent. Most other fertilizer prices are projected to decline on continued oversupply. Fertilizer application, which has been on a rising trend (Figure 20), remains constrained by relatively weak crop prices, which in turn is a reflection of well-supplied agriculture markets. Fertilizer prices are expected to increase moderately over the medium term due to expected growth in demand and higher energy costs. Higher prices will induce investment in required capacity for primary and processed fertilizer supply.

Risks to the forecast are tilted to the downside on weaker-than-expected demand, stronger-than-expected increases in new capacity, and the restart of idle production. On the upside, higher agriculture prices could improve farmers' profitability and boost the demand for fertilizer. Higher fertilizer input costs (especially energy) could also support higher fertilizer prices.

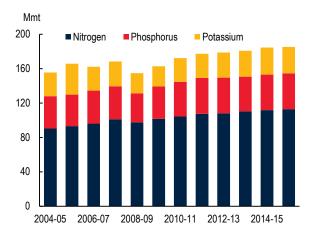
#### 19 Fertilizer prices



Source: World Bank.

Note: Last observation is March 2017.

#### 20 Global fertilizer consumption



Sources: Agrium Fact Book, International Fertilizer Industry Association.

Note: Fertilizer consumption is expressed in nutrient content.

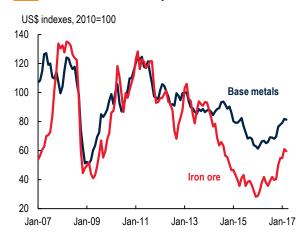
#### **Metals and minerals**

Metals prices surged by 10 percent in the first quarter (q/q), the fourth consecutive quarterly rise (Figure 21). Prices were driven higher by strong demand—particularly in China's property, infrastructure, and manufacturing sectors—as well as various supply constraints. Iron ore posted the largest gains rising more than 20 percent for the second consecutive quarter on strong steel demand and low stocks in China. Other metals posted solid price increases, with the exception of tin and nickel.

On the supply side, labor strikes (Chile, Peru) and contractual disputes (Indonesia) at large copper mines curtailed output. China introduced a new law that will also require certain aluminum smelters to cut output 30 percent in winter to reduce pollution. The partial lifting of Indonesian's 2014 ore export ban, on the other hand, is expected to boost exports. Designed to promote development of a domestic processing industry in Indonesia, the easing of the ban raises prospects of greater raw mineral exports (notably nickel ore and bauxite) and has depressed nickel prices. Overall, global supplies will expand this year as a result of earlier investment. Furthermore capital expenditures by mining companies are expected to rise this year for the first time since 2012.

On the demand side, China's transition to a consumption-led economy, along with industrial reform and environmental concerns, is expected to slow growth in metals demand. China's efforts to boost its commodity-intensive infrastructure and construction sectors have been a key driver of metal demand. China's share of world metal consumption surpassed 50 percent in 2015 (Figure 22), and the country has accounted for the bulk of the global growth in metals consumption over the past 15 years (Figure 23).

#### 21 Metal and mineral prices



Source: World Bank.

Note: Last observation is March 2017.

#### Individual metal trends

Iron ore prices soared 21 percent in 2017Q1 (q/q), the fifth consecutive quarterly increase, on strong steel demand and restocking in China. Prices peaked near \$95/ton during February but fell below \$70/ton in early April on expectations of weakening demand due to record high inventories at Chinese ports, rising supply, and credit tightening in China that is expected weigh on steel demand. Exports from the major iron ore producers, Australia and Brazil, rose to record levels in the quarter; production in China is rising from the restart of higher cost capacity. New low-cost capacity is expected to come online this year, notably from Vale's S11D project in Brazil. This is expected to put downward pressure on prices and force high-cost production to close. Key uncertainties are the strength of steel demand and iron ore production in China.

Copper prices jumped 11 percent (Figure 24) on supply disruptions among the world's largest producers. A 43-day strike at Escondida in Chile, the world's largest copper mine, ended in late March without resolution, and workers will return under the current contract for 18 months before renegotiating. A threeweek strike at Peru's largest mine, Cerro Verde, ended in late March. Flooding also affected production in Peru, the world's second largest copper producer. Meanwhile, at Grasberg—the world's second largest copper mine—production was halted after the Indonesian government introduced rules in January 2017 restricting copper concentrate exports in a bid to boost its domestic refining industry. The Indonesian government issued a temporary mining license in early April allowing Freeport McMoRan to resume exports for eight months, while it discusses a longterm financial stability pact. While global mine output is expected to contract this year, prices eased in April following the end of disruptions.

#### 22 World refined metal consumption



Source: World Bureau of Metal Statistics. Note: Last observation is January 2017.

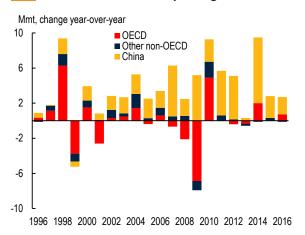
Zinc prices leapt 11 percent, rising for a fifth straight quarter and by over 70 percent during this period. The gains were fueled by strong demand to galvanize steel, and a tightening concentrate market owing to large mine closures in recent years. Higher prices are expected to prompt greater supply in China, and Glencore's idled capacity is expected to eventually restart. The large Gamsberg and Dugald River mines are expected to generate new production in 2018, while a slowing property market in China and threats of substitution may ease demand.

Aluminum prices rose 8 percent due to strong demand, restocking in China, falling London Metal Exchange stocks, and concerns about a new Chinese law that went into effect on March 1. The law requires aluminum smelters in four northern provinces to cut output by 30 percent over the winter heating season (mid-November to mid-March) to reduce pollution. Although there are operational and cost uncertainties associated with stopping and starting aluminum plants over a (relatively short) four-month period, China is poised to move to a more balanced market after several years of oversupply.

Lead prices rose 7 percent on supply constraints and strong seasonal battery demand. The market has been tightening, as lead mine output has been affected by the closure of large zinc mines (where lead is a byproduct), and intensifying environmental constraints on China's mine industry. Demand remains strong for the battery and industrial sectors, including increasing demand for "stop/start" vehicles, which use batteries containing 25 percent more lead than conventional units. However, lead demand faces threats from a maturing electric bike sector in China and alternate battery technologies (e.g., lithium).

Partly offsetting the above gains, nickel prices fell 5 percent on expectations of renewed low-grade nickel

#### 23 World metal consumption growth



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

exports from Indonesia due to the partial reversal of that country's ore export ban. Thus far the government has recommended exports of about one-third of the volume sought by the private sector. Meanwhile, in early February the Philippines announced closure of 23 of the country's 41 mines, and suspension of five others, on environmental grounds. The affected mines account for more than one third of the country's 2016 nickel production. Because companies can appeal the closures, the potential lost output is uncertain. China, the main nickel importer, is expected to offset the lost volumes from other countries, such as Guatemala and New Caledonia, as well as sulfide concentrates from the Russian Federation and Zimbabwe.

Tin prices fell 4 percent, the first decline in 5 consecutive quarters, on the prospects of rising exports from China, after the government abolished a 10 percent export tax on refined metal. Demand remains robust in the key electronics sector, and low stocks are keeping the market tightly balanced.

#### Price projections and risks

Metals prices are projected to rise by 16 percent in 2017 amid tightening markets for most metals. The largest gains are expected in zinc (32 percent) and lead (18 percent) due to mine supply constraints brought on by permanent closures due to resource exhaustion, as well as discretionary closures (Glencore). Copper is also expected to increase by 18 percent on mine disruptions, while double-digit gains are also expected for aluminum, iron ore, and tin.

Upside risks to the price forecasts include stronger global demand, slower ramp-up of new capacity, tighter environmental constraints, and policy action that limits exports. Downside risks include slower demand from China and higher-than-expected production, including the restarting of idled capacity.

#### 24 Copper price and LME stocks



Source: Bloomberg.

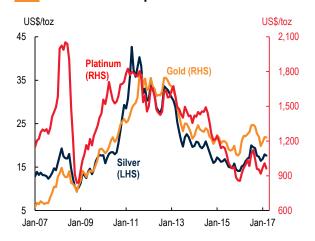
Notes: Daily frequency. Last observation is April 21, 2017.

#### **Precious metals**

Precious metals prices rose marginally in the first quarter (q/q), but fluctuated widely during the period because of swings in investor sentiment (Figure 25). Platinum prices climbed 4 percent and silver prices gained 2 percent on strong investment demand, while gold prices slipped marginally. Precious metal prices fell to a low in December after the U.S. Federal Reserve raised interest rates, but rose over the quarter as geopolitical and economic tensions heightened, and remained at elevated levels despite a further U.S. interest rate increase in March.

Gold prices fell slightly in the first quarter (q/q), averaging \$1,219/toz, but were volatile over the period. Prices reached a low of \$1,125/toz in late December, following the U.S. Fed decision to raise interest rates. They have been on an upward trend this year on strong investment demand amid geopolitical and economic uncertainty. Prices dipped before a U.S. Fed interest rate increase in mid-March, but reversed and approached \$1,300/toz in early April. A number of factors have pushed investors towards gold as a safe haven asset, notably rising global tensions surrounding Afghanistan, Syria, and North Korea; the deterioration of U.S./Russia relations; and upcoming elections in several countries amid rising populist sentiment. In addition, uncertainty about inflation, deficits, and the level of the dollar have also helped propel gold prices higher. Physical gold demand remains weak, with China facing reduced preference for gold jewelry, particularly among the millennial generation. In India, gold demand is expected to recover following the government's decision last November to take 500 and 1,000 rupiah notes out of circulation. This created a temporary liquidity crisis and pullback in gold demand. Demand in India is also rising due to

#### 25 Precious metal prices



Source: World Bank.
Note: Last observation is March 2017.

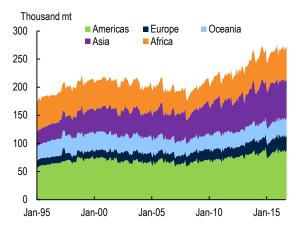
higher incomes, restocking, and marriage/festive season demand. Gold mine supply (Figure 26) continues to rise, supported by lower costs.

Platinum prices rose 4 percent on strong investment demand. Physical demand, however, remains weak amid declining consumer interest in diesel-fueled autos in the aftermath of the Volkswagen diesel emissions scandal, and policy plans to phase out diesel vehicles in major European cities. Alternate catalyst technologies and a switch to non-combustion engines also weigh against platinum demand. The market remains well supplied, and the latest wage agreements in South Africa should avoid labor disruptions in the near term.

Silver prices rose 2 percent on strong investment demand and similar market sentiment as towards gold. The gold/silver price ratio fell from 71.1 in the fourth quarter to 69.7 in the first quarter, and was down from 79.2 a year earlier (the average ratio over 1985-2016 is 66). Demand for jewelry has been weak in China and India, but strong in the photovoltaic and automotive sectors. Mine supply fell last year, with declines mainly in China. Lower by-product output from declining lead/zinc production may limit growth.

Precious metals prices are projected to fall 1 percent in 2017, but with some divergence. Gold prices are expected to decline 2 percent on expected further U.S. interest rate increases this year. Silver and platinum prices are expected to rise 1 percent, partly buoyed by strong industrial demand. Upside risks to the forecast include widening geopolitical tensions, stronger-than-expected physical demand in China, delays in anticipated central bank rate increases, and mine supply shortfall. Downside risks include stronger economic growth, faster-than-expected increases in U.S. interest rates, and weaker physical demand.

#### 26 Global gold mine production



Source: World Bureau of Metal Statistics.
Notes: Production of ores and concentrates. Last observation is January 2017.



# **APPENDIX A**

Historical commodity prices
Price forecasts

#### **TABLE A.1 Commodity prices**

Commodity	Unit				Q1	Q2	Q3	Q4	Q1	Jan	Feb	Mar
	Oilit		2015	2016	2016	2016	2016	2016	2017	2017	2017	2017
Energy												
Coal, Australia	\$/mt	*	57.5	65.9	50.9	51.9	67.5	93.2	81.6	83.7	80.4	80.6
Coal, Colombia	\$/mt		52.5	57.6	42.7	44.8	57.7	85.1	77.3	83.8	79.5	68.5
Coal, South Africa	\$/mt		57.0	64.1	51.5	54.8	65.3	84.9	80.4	85.1	81.8	74.5
Crude oil, average	\$/bbl		50.8	42.8	32.7	44.8	44.7	49.1	52.9	53.6	54.4	50.9
Crude oil, Brent	\$/bbl	*	52.4	44.0	34.4	46.0	45.8	50.1	54.1	54.9	55.5	52.0
Crude oil, Dubai	\$/bbl	*	51.2	41.2	30.6	42.9	43.4	47.9	52.9	53.4	54.2	51.2
Crude oil, WTI	\$/bbl	*	48.7	43.2	33.2	45.5	44.9	49.2	51.8	52.5	53.4	49.6
Natural gas, Index	2010=1		73.3	56.6	52.2	49.5	60.0	64.7	68.5	70.6	69.2	65.5
Natural gas, Europe	\$/mmbti		7.26	4.56	4.84	4.10	4.40	4.90	5.70	5.46	6.27	5.36
Natural gas, U.S.	\$/mmbti		2.61	2.49	1.98	2.13	2.85	3.01	2.99	3.26	2.82	2.87
Natural gas, Japan	\$/mmbti	u *	10.40	6.89	7.70	6.08	6.68	7.11	7.57	7.52	7.60	7.60
Non-Energy Agriculture												
Beverages	• "	ali. ali.	0.44	0.00	0.00	0.40	0.00	0.50	0.00	0.40	0.00	0.00
Cocoa	\$/kg	**	3.14	2.89	2.98	3.10	2.99	2.50	2.09	2.19	2.03	2.06
Coffee, arabica	\$/kg		3.53	3.61	3.31	3.49	3.79	3.86	3.64	3.72	3.67	3.54
Coffee, robusta	\$/kg	**	1.94	1.95	1.65	1.84	2.05	2.27	2.36	2.39	2.35	2.35
Tea, average	\$/kg	**	2.71	2.64	2.36	2.57	2.72	2.91	2.91	2.99	2.87	2.88
Tea, Colombo	\$/kg	**	2.96	3.24	2.82	2.98	3.29	3.86	4.05	3.98	3.96	4.21
Tea, Kolkata	\$/kg	**	2.42	2.39	1.89	2.59	2.64	2.43	1.87	2.14	1.78	1.69
Tea, Mombasa	\$/kg	***	2.74	2.30	2.38	2.14	2.24	2.43	2.82	2.85	2.86	2.73
Food Oils and Meals												
Coconut oil	\$/mt	**	1,110	1,475	1,273	1,531	1,528	1,567	1,688	1,815	1,703	1,547
Copra	\$/mt		735	982	855	1,019	1,017	1,037	1,129	1,225	1,146	1,016
Fishmeal	\$/mt		1,558	1,501	1,465	1,526	1,553	1,461	1,348	1,386	1,353	1,305
Groundnuts	\$/mt		1,248	1,362	1,158	1,208	1,500	1,583	1,650	1,650	1,650	1,650
Groundnut oil	\$/mt	**	1,337	1,502	1,277	1,550	1,648	1,535	1,548	1,520	1,545	1,578
Palm oil	\$/mt	**	623	700	631	704	715	752	773	809	774	736
Palmkernel oil	\$/mt	**	909	1,290	1,032	1,283	1,358	1,486	1,521	1,760	1,576	1,228
Soybean meal	\$/mt	**	395	380	328	419	405	367	378	382	383	369
Soybean oil	\$/mt	**	757	809	749	795	810	882	840	872	835	813
Soybeans	\$/mt	**	390	406	370	424	417	412	419	425	427	405
Grains												
Barley	\$/mt	**	194	159	183	172	143	136	137	140	135	137
Maize	\$/mt	**	170	159	160	171	153	152	161	160	163	159
Rice, Thailand 5%	\$/mt	**	386	396	379	423	414	369	371	377	367	370
Rice, Thailand 25%	\$/mt		373	385	370	408	402	362	365	369	361	364
Rice, Thailand A1	\$/mt		386	380	373	408	392	348	354	356	349	358
Rice, Vietnam 5%	\$/mt		352	356	362	374	351	338	338	337	335	344
Sorghum	\$/mt	44	205	160	174	174	152	139	141	140	141	142
Wheat US CRW	\$/mt	**	204	167	191	177	151	148	154	153	155	154
Wheat, US SRW	\$/mt		206	176	190	190	161	164	177	174	181	177
Other Food												
Bananas, EU	\$/kg		0.90	0.91	0.91	0.94	0.91	0.86	0.84	0.83	0.83	0.85
Bananas, U.S.	\$/kg	**	0.96	1.00	1.04	0.99	1.02	0.96	1.03	0.97	1.05	1.07
Meat, beef	\$/kg	**	4.42	3.93	3.72	3.95	4.09	3.96	4.05	3.91	4.06	4.18
Meat, chicken	\$/kg	**	2.53	2.46	2.47	2.46	2.45	2.45	 F 00	 F 0F	 5 40	 F 00
Meat, sheep	\$/kg	**	5.22	4.69	4.51	4.64	4.64	4.99	5.08	5.05	5.12	5.06
Oranges	\$/kg		0.68	0.89	0.69	0.78	0.99	1.09	0.92	0.94	0.90	0.92
Shrimp Sugar, EU	\$/kg	**	14.36 0.36	11.20 0.36	10.83	10.80	10.69	12.49	12.13	12.13	12.13	12.13
Sugar, EU Sugar, U.S.	\$/kg \$/kg	**	0.55	0.36	0.36 0.57	0.37	0.36	0.35	0.35 0.66	0.35 0.65	0.35 0.67	0.35 0.66
Sugar, World	\$/kg	**	0.30	0.40	0.37	0.38	0.62	0.64	0.66	0.65	0.67	0.40
Jugai, vvoliu	ψέις		0.50	0.40	0.01	0.00	0.40	0.40	0.40	0.40	0.40	0.40

Continued

### **TABLE A.1 Commodity prices**

Commodity	Unit				Q1	Q2	Q3	Q4	Q1	Jan	Feb	Mar
Commodity	Unit		2015	2016	2016	2016	2016	2016	2017	2017	2017	2017
Raw Materials Timber												
Logs, Africa	\$/cum		389	387	386	395	391	378	373	372	372	374
Logs, S.E. Asia	\$/cum	**	246	274	258	276	291	273	262	259	263	263
Plywood	¢/sheets		451	503	474	506	533	500	480	474	483	483
Sawnwood, Africa	\$/cum		733	650	686	688	630	595	593	591	598	591
Sawnwood, S.E. Asia	\$/cum	**	833	739	780	782	716	677	675	672	680	672
Woodpulp	\$/mt		875	875	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.55	1.64	1.48	1.57	1.76	1.74	1.87	1.82	1.88	1.91
Rubber, RSS3	\$/kg	**	1.57	1.61	1.32	1.61	1.57	1.92	2.54	2.56	2.71	2.35
Rubber, TSR20	\$/kg		1.37	1.38	1.15	1.37	1.31	1.69	2.12	2.16	2.23	1.97
Fertilizers												
DAP	\$/mt	**	459	345	367	351	340	324	353	325	360	375
Phosphate rock	\$/mt	**	117	112	116	115	112	106	98	99	98	98
Potassium chloride	\$/mt	**	303	246	283	263	221	215	214	215	214	214
TSP	\$/mt	**	385	291	328	282	282	270	272	269	270	278
Urea, E. Europe	\$/mt	**	273	199	209	198	183	207	241	241	247	234
Metals and Minerals												
Aluminum	\$/mt	**	1 665	1,604	1 511	1 570	1,620	1 710	1,851	1 701	1 061	1 001
Copper	\$/mt	**	1,665 5,510	4,868	1,514 4,675	1,572 4,736	4,780	1,710 5,281	5,840	1,791 5,755	1,861 5,941	1,901 5,825
Iron ore	\$/dmt	**	55.8	58.4	48.3	56.0	58.7	70.7	85.7	80.0	89.0	88.0
Lead	\$/mt	**	1,788	1,867	1,738	1,718	1,873	2,138	2,278	2,243	2,312	2,281
Nickel	\$/mt	**	11,863	9,595	8,508	8,823	10,264	10,787	10,273	9,971	10,643	10,205
Tin	\$/mt	**	16,067	17,934	15,439	16,902	18,584	20,810	20,004	20,692	19,446	19,875
Zinc	\$/mt	**	1,932	2,090	1,677	1,917	2,252	2,514	2,779	2,715	2,846	2,777
	,		,	,	, -	,-	, -	,-	, -	, -	,	,
Precious Metals Gold	\$/toz	***	1,161	1,249	1,181	1,260	1,334	1,221	1,219	1,192	1,234	1,231
Platinum	\$/toz	***	1,053	987	914	1,005	1,085	944	981	971	1,008	963
Silver	\$/toz	***	15.72	17.15	14.91	16.86	19.65	17.16	17.49	16.90	17.93	17.63
				17.13	17.01	10.00	13.03	17.10	17.43	10.50	17.55	17.00
Commodity Price Indi	ces (201	0=100	•	55.0	40.0	FF 7	F7 F	00.0	07.0	00.0	00.4	05.0
Energy			64.9	55.0	43.0	55.7	57.5	63.8	67.9	68.9	69.4	65.3
Non-energy			82.4 89.3	80.3 89.1	76.1 84.5	81.0 91.1	81.6 91.1	82.7 89.6	85.7 90.7	85.5 91.3	86.6 91.4	85.0 89.3
Agriculture			93.5	91.0	86.2	91.1	91.1	91.8	85.9	88.3	85.0	84.3
Beverages Food			90.9	92.3	86.7	94.9	94.7	93.0	94.4	95.2	95.1	92.8
Oils and Meals			85.2	89.6	79.9	93.5	92.9	92.0	93.7	96.2	94.5	90.4
Grains			88.8	82.0	84.4	87.8	79.6	76.1	78.9	79.0	79.1	78.4
Other Food			100.3	105.3	97.7	103.2	110.6	109.7	109.3	108.4	110.5	109.0
Raw Materials			83.3	80.2	78.5	81.8	80.6	80.1	84.2	83.6	85.6	83.3
Timber			96.1	89.6	92.2	93.7	88.9	83.8	82.8	82.2	83.4	82.7
Other Raw Materials			69.3	70.0	63.6	68.7	71.6	76.0	85.7	85.1	88.0	83.9
Fertilizers			95.4	75.3	81.6	76.1	71.0	72.5	76.4	76.4	77.1	75.7
Metals and Minerals			66.9	63.0	58.0	60.7	63.4	69.7	76.6	74.5	77.9	77.4
Base Metals		****	73.6	68.3	63.8	65.9	68.8	74.7	80.7	79.1	81.8	81.4
Precious Metals			90.6	97.5	90.9	97.9	105.4	95.6	95.9	93.6	97.3	96.7

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.

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

Commercity.	1114						Foreca	sts		
Commodity	Unit	2014	2015	2016	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, U.S.	\$/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	6.89	7.25	7.43	7.62	7.81	8.84	10.00
Non-Energy Agriculture Beverages										
Cocoa	\$/kg	3.06	3.14	2.89	2.20	2.25	2.31	2.36	2.66	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	1,475	1,600	1,584	1,567	1,551	1,474	1,400
Groundnut oil	\$/mt	1,313	1,337	1,502	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	860	870	880	890	944	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, U.S., HRW	\$/mt	285	204	167	150	156	161	167	200	240
Other Food										
Bananas, U.S.	\$/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	680	700	722	743	862	1,000
Other Raw Material										
Cotton A	\$/kg	1.83	1.55	1.64	1.85	1.87	1.90	1.93	2.06	2.20
Rubber, RSS3	\$/kg	1.95	1.57	1.61	2.30	2.31	2.32	2.32	2.36	2.40
Tobacco	\$/mt	4,991	4,908	4,806	5,000	4,960	4,920	4,880	4,686	4,500
Fertilizers										
DAP	\$/mt	472	459	345	360	366	373	379	413	450
Phosphate rock	\$/mt	110	117	112	100	102	103	105	115	125
Potassium chloride	\$/mt	297	303	246	225	231	238	244	279	320
TSP	\$/mt	388	385	291	275	282	289	296	336	380
Urea, E. Europe	\$/mt	316	273	199	230	235	240	245	271	300
<b>Metals and Minerals</b>										
Aluminum	\$/mt	1,867	1,665	1,604	1,800	1,828	1,856	1,885	2,037	2,200
Copper	\$/mt	6,863	5,510	4,868	5,750	5,838	5,927	6,017	6,490	7,000
Iron ore	\$/dmt	96.9	55.8	58.4	65.0	55.0	50.0	50.8	55.2	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	10,500	11,034	11,594	12,183	15,610	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	2,750	2,600	2,583	2,566	2,481	2,400
Precious Metals										
Gold	\$/toz	1,266	1,161	1,249	1,225	1,206	1,187	1,169	1,081	1,000
Silver	\$/toz	19.07	15.72	17.15	17.25	17.15	17.05	16.95	16.47	16.00
Platinum	\$/toz	1,384	1,053	987	1,000	1,032	1,064	1,098	1,283	1,500

Next update: July 2017.

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

Commodity	Unit						Foreca			
	Offic	2014	2015	2016	2017	2018	2019	2020	2025	2030
Energy										
Coal, Australia	\$/mt	64.9	58.9	70.2	73.9	61.7	55.4	54.8	52.1	49.5
Crude oil, avg	\$/bbl	89.1	52.0	45.7	58.1	61.7	61.9	62.2	64.2	66.0
Natural gas, Europe	\$/mmbtu	9.31	7.44	4.86	5.28	5.33	5.42	5.50	6.04	6.60
Natural gas, U.S.	\$/mmbtu	4.04	2.68	2.66	3.17	3.60	3.63	3.67	3.90	4.12
Natural gas, Japan	\$/mmbtu	14.84	10.65	7.35	7.65	7.64	7.68	7.71	7.99	8.2
Non-Energy										
Agriculture Beverages										
Cocoa	\$/kg	2.83	3.21	3.08	2.32	2.32	2.33	2.33	2.41	2.4
Coffee, Arabica	\$/kg	4.10	3.61	3.85	3.80	3.69	3.60	3.51	3.14	2.8
Coffee, Robusta	\$/kg	2.05	1.99	2.08	2.32	2.25	2.18	2.13	1.88	1.6
Tea, avgerage	\$/kg	2.52	2.77	2.82	2.96	2.89	2.85	2.81	2.64	2.4
Food	. 0									
Oils and Meals										
Coconut oil	\$/mt	1,185	1,137	1,573	1,689	1,629	1,579	1,532	1,332	1,15
	\$/mt			1,602					1,465	-
Groundnut oil Palm oil	\$/mt \$/mt	1,215 760	1,369 638	747	1,583 792	1,558 782	1,541 777	1,525 773	759	1,40 74
Soybean meal	\$/mt	489	404	405	391	386	384	382	377	37
Soybean oil	\$/mt	842	775	863	908	895	887	880	853	82
Soybeans	\$/mt	455	400	433	433	430	430	430	434	43
•	ψ/111ι	400	400	433	433	430	430	430	404	40
Grains	<b>.</b>	400	400	400	450	450	450	4=0	400	40
Barley	\$/mt	128	199	169	158	158	158	158	162	16
Maize	\$/mt	179	174	170	169	168	168	168	171	17
Rice, Thailand, 5%	\$/mt	391	395	423	406	400	396	392	378	36
Wheat, U.S., HRW	\$/mt	264	209	178	158	160	162	165	181	19
Other Food										
Bananas, U.S.	\$/kg	0.86	0.98	1.07	1.07	1.05	1.03	1.02	0.96	0.9
Meat, beef	\$/kg	4.58	4.53	4.19	4.17	4.08	4.02	3.96	3.71	3.4
Meat, chicken	\$/kg	2.25	2.59	2.62	2.53	2.46	2.40	2.35	2.11	1.9
Oranges	\$/kg	0.73	0.69	0.95	0.95	0.93	0.92	0.91	0.87	0.8
Shrimp	\$/kg	15.97	14.71	11.95	12.67	12.49	12.38	12.28	11.93	11.5
Sugar, World	\$/kg	0.35	0.30	0.42	0.42	0.41	0.40	0.39	0.35	0.3
Raw Materials										
Timber										
Logs, Africa	\$/cum	431	398	413	401	396	393	390	381	37
Logs, S.E. Asia	\$/cum	261	252	293	290	287	286	285	283	28
Sawnwood, S.E. Asia	\$/cum	831	854	788	718	720	727	734	779	82
Other Raw Materials										
Cotton A	\$/kg	1.70	1.59	1.75	1.95	1.93	1.91	1.90	1.86	1.8
Rubber, RSS3	\$/kg	1.81	1.61	1.73	2.43	2.37	2.33	2.29	2.13	1.9
Tobacco	\$/mt	4,620	5,028	5,126	5,278	5,100	4,957	4,820	4,236	3,71
	Φ/1111	4,020	5,026	5,120	5,276	5,100	4,957	4,020	4,230	3,7 1.
Fertilizers										
DAP	\$/mt	437	470	368	380	377	375	374	373	37
Phosphate rock	\$/mt	102	120	120	106	105	104	104	104	10
Potassium chloride	\$/mt	275	310	262	238	238	239	241	253	26
TSP	\$/mt	359	394	310	290	290	291	293	303	31
Urea, E. Europe	\$/mt	293	280	213	243	241	241	242	245	24
Metals and Minerals										
Aluminum	\$/mt	1,729	1,705	1,711	1,900	1,880	1,871	1,862	1,841	1,81
Copper	\$/mt	6,354	5,645	5,192	6,070	6,003	5,972	5,943	5,867	5,77
Iron ore	\$/dmt	89.7	57.2	62.3	68.6	56.6	50.4	50.2	49.9	49.
Lead	\$/mt	1,940	1,831	1,991	2,322	2,270	2,232	2,195	2,044	1,89
Nickel	\$/mt	15,639	12,152	10,234	11,084	11,347	11,683	12,034	14,112	16,49
Tin	\$/mt	20,272	16,458	19,128	21,112	20,790	20,591	20,403	19,705	18,97
Zinc	\$/mt	2,000	1,979	2,229	2,903	2,674	2,603	2,534	2,243	1,98
	ψ/111c	2,000	1,070	_,	_,000	2,014	_,000	_,00→	2,240	1,00
Precious Metals										
Gold	\$/toz	1,172	1,189	1,332	1,293	1,240	1,196	1,155	977	82
Silver	\$/toz	17.65	16.10	18.29	18.21	17.64	17.18	16.75	14.89	13.2
Platinum	\$/toz	1,281	1,079	1,053	1,056	1,061	1,073	1,085	1,160	1,23

Sources and Notes: See Appendix C.

Next update: July 2017.

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

Commodity						Forecas	sts		
Commodity	2014	2015	2016	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	83.5	84.1	85.0	86.1	92.2	99.0
Agriculture	102.7	89.3	89.1	89.2	90.3	91.3	92.4	98.3	104.9
Beverages	101.8	93.5	91.0	85.2	85.7	86.2	86.7	89.6	93.0
Food	107.4	90.9	92.3	92.4	93.5	94.6	95.8	101.8	108.4
Oils and Meals	109.0	85.2	89.6	91.8	93.1	94.4	95.8	102.9	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	80.2	83.4	84.6	85.9	87.2	94.2	102.3
Timber	104.9	96.1	89.6	84.3	86.5	88.8	91.2	104.1	118.8
Other Raw Materials	77.7	69.3	70.0	82.4	82.5	82.6	82.7	83.4	84.2
Fertilizers	100.5	95.4	75.3	75.9	77.6	79.3	81.1	90.5	101.1
Metals and minerals *	84.8	66.9	63.0	72.8	72.2	72.6	73.7	79.8	86.7
Base Metals **	89.0	73.6	68.3	79.4	80.3	81.5	82.8	89.6	97.3
Precious Metals	101.1	90.6	97.5	96.1	94.8	93.6	92.4	86.8	81.6
Energy Non-energy	109.5 89.8	66.5 84.5	58.7 85.7	73.0 88.2	76.9 86.5	77.0 85.6	77.3 85.0	79.9 83.3	82.3 81.7
•									
Agriculture	95.1	91.5	95.0	94.2	92.8	92.0	91.3	88.8	86.5
Beverages	94.2	95.8	97.1	89.9	88.1	86.8	85.6	81.0	76.7
Food	99.4	93.1	98.5	97.6	96.2	95.4	94.6	92.0	89.5
Oils and Meals	100.9	87.2	95.5	96.9	95.7	95.2	94.6	93.0	91.3
Grains	96.2	90.9	87.4	83.8	83.4	83.4	83.6	85.1	86.7
Other food	100.3	102.7	112.3	111.0	108.4	106.4	104.6	96.9	89.6
Raw materials	85.1	85.3	85.6	88.0	87.0	86.5	86.1	85.2	84.4
Timber	97.1	98.4	95.6	89.0	89.0	89.5	90.1	94.1	98.0
Other Raw Materials	72.0	71.0	74.6	87.0	84.9	83.3	81.7	75.4	69.4
Fertilizers	93.0	97.7	80.3	80.1	79.8	79.9	80.1	81.8	83.4
Metals and minerals *	78.5	68.6	67.2	76.8	74.3	73.1	72.8	72.2	71.5
Base Metals **	82.4	75.4	72.8	83.8	82.5	82.1	81.8	81.0	80.2
Precious Metals	93.6	92.8	103.9	101.4	97.5	94.3	91.3	78.4	67.3
	- 00.0	02.0	100.0	101.1	01.0	01.0	01.0	7 О. Т	01.0
Inflation indices, 2010=100	400.0	07.0	00.0	04.7	07.0	00.0	404.0	440.0	101.0
MUV index ***	108.0	97.6	93.8	94.7	97.2	99.2	101.2	110.6	121.2
% change per annum	-1.5	-9.6	-4.0	1.0	2.6	2.1	2.0	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: July 2017.

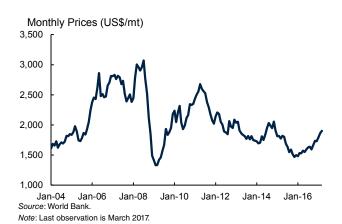


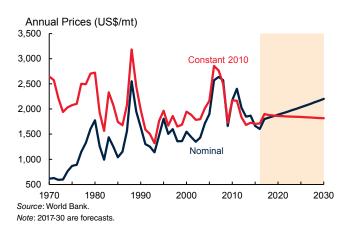
# APPENDIX B

# Supply-Demand balances

Aluminum	27	Natural gas	42
Bananas	28	Natural rubber	43
Coal	29	Nickel	44
Cocoa	30	Palm oil and Soybean oil	45
Coconut oil and Palm kernel oil	31	Platinum	46
Coffee	32	Rice	47
Copper	33	Silver	48
Cotton	34	Soybeans	49
Crude oil	35	Sugar	50
Fertilizers—Nitrogen	36	Tea	51
Fertilizers—Phosphate and Potash	37	Timber—Roundwood and Sawnwood	52
Gold	38	Timber—Wood panels and Woodpulp	53
Iron Ore	39	Tin	54
Lead	40	Wheat	55
Maize	41	Zinc	56

### **Aluminum**



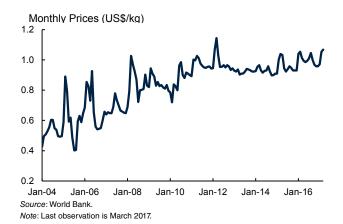


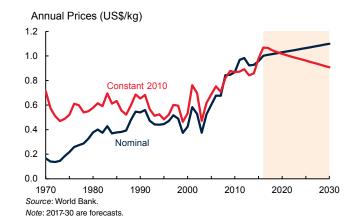
	1980	1990	2000	2005	2010	2013	2014	2015	2016
			<u> </u>	(thousar	<u>nd metric t</u>	ons)			
Bauxite Production									
Australia	27,179	40,697	53,801	59,959	68,535	81,119	78,632	80,910	81,741
China	1,700	3,655	7,900	17,408	36,837	50,339	59,212	65,000	65,000
Brazil	4,152	9,876	14,379	22,365	32,028	33,849	35,410	34,806	32,004
Guinea	13,911	16,150	17,992	19,237	17,633	18,763	19,178	18,114	27,605
India	1,785	5,277	7,562	12,385	12,662	20,421	20,688	26,383	24,219
Jamaica	12,064	10,937	11,127	14,118	8,540	9,435	9,677	9,629	8,540
Malaysia	920	398	123	5	124	220	3,266	24,187	7,664
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,322	5,589	6,580	5,432
Kazakhstan	n/a	n/a	3,729	4,815	5,310	5,193	4,516	4,683	4,802
Greece	3,286	2,496	1,991	2,495	1,902	1,844	1,876	1,832	2,100
Suriname	4,903	3,267	3,610	4,757	3,097	2,706	2,708	1,871	n/a
Saudi Arabia	0	0	0	0	0	1,044	1,965	2,174	1,660
Guyana	3,052	1,424	2,689	1,474	1,083	1,713	1,564	1,527	1,479
Others	n/a	n/a	8,986	11,380	35,576	64,840	12,116	9,371	8,119
World	93,326	114,835	138,889	176,807	228,802	296,808	256,396	287,066	270,365
Refined Production									
China	358	854	2,647	7,759	16,244	26,534	28,317	31,410	31,870
Russian Federation	n/a	n/a	3,258	3,647	3,947	3,724	3,488	3,529	3,454
Canada	1,075	1,567	2,373	2,894	2,963	2,967	2,858	2,880	3,209
United Arab Emirates	35	174	536	722	1,400	1,848	2,296	2,464	2,471
India	185	433	647	942	1,610	1,597	1,767	1,886	1,909
Australia	304	1,233	1,761	1,903	1,928	1,778	1,704	1,646	1,646
Norway	662	867	1,026	1,376	1,090	1,155	1,182	1,241	1,231
Bahrain	126	212	509	708	851	913	931	961	971
United States	4,654	4,048	3,668	2,480	1,728	1,948	1,710	1,587	818
Brazil	261	931	1,271	1,498	1,536	1,304	962	772	793
Iceland	75	88	226	272	826	736	749	735	764
Saudi Arabia	0	0	0	0	0	187	662	839	757
South Africa	87	157	683	851	806	822	745	695	701
Others	n/a	n/a	5,699	6,788	6,630	6,569	6,415	6,691	6,963
World	16,036	19,362	24,304	31,841	41,559	52,081	53,786	57,336	57,557
Refined Consumption									
China	550	861	3,352	7,072	15,854	21,955	28,003	31,068	31,615
United States	4,454	4,330	6,161	6,114	4,242	4,632	5,250	5,325	5,121
Germany	1,272	1,379	1,632	1,758	1,912	2,083	2,289	2,163	2,189
Japan	1,639	2,414	2,223	2,276	2,025	1,772	2,034	1,779	1,742
Korea, Rep.	68	369	823	1,201	1,255	1,241	1,282	1,366	1,453
India	234	433	601	958	1,475	1,559	1,523	1,476	1,378
Turkey	45	152	211	390	703	867	915	952	949
Italy	23	0	780	977	857	709	810	801	909
United Arab Emirates	0	0	34	85	650	835	835	835	835
Others	7,027	9,288	9,188	10,809	11,590	10,932	11,186	11,656	11,921
World	15,312	19,227	25,004	31,640	40,563	46,584	54,129	57,420	58,112

Source: World Bureau of Metal Statistics (March 2017 update).

Note: n/a implies data not available.

#### **Bananas**





	1970	1980	1990	2000	2009	2010	2011	2012	2013
				(thousan	id metric t	tons)			
Exports									
Ecuador	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
Others	1,056	600	767	953	1,302	1,289	1,220	1,110	1,167
World	5,519	6,772	9,030	14,336	18,213	17,491	18,720	19,099	20,098
Imports									
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
Spain	0	0	0	143	185	158	191	184	200
Others	787	1,184	1,608	2,330	2,976	3,132	2,992	2,590	2,860
World	5,584	6,680	8,881	14,436	17,235	17,934	18,721	18,314	19,664

Sources: Food and Agriculture Organization, Intergovernmental Group on Bananas and Tropical Fruits (February 9, 2017 update). Note: n/a implies data not available. Data include re-exports.

29

349

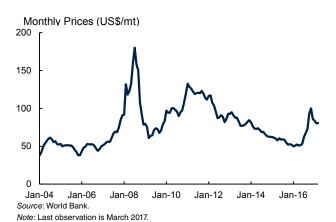
3,840

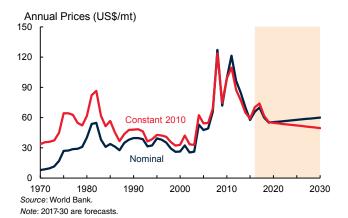
36

349

3,911

### Coal





	1981	1990	2000	2005	2010	2012	2013	2014	2015
			(mi	llion metri	c tons oil	equivalent)			
roduction									
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
World	1,863	2,274	2,326	3,034	3,628	3,930	3,986	3,989	3,830
consumption									
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

Source: BP Statistical Review (June 2016 update).

n/a

n/a

1,836

75

381

2,243

Ukraine

Others

World

Notes: n/a implies data not available. Commercial solid fuels only, i.e. bituminous coal and anthracite (hard coal), and lignite and brown (sub-bituminous) coal, and other commercial solid fuels.

39

316

2,379

38

346

3,131

38

335

3,634

43

354

3,814

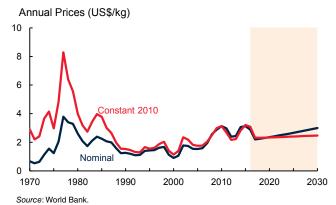
42

347

3,891

#### Cocoa





Note: 2017-30 are forecasts.

Note: Last observation	is	March 2017.	

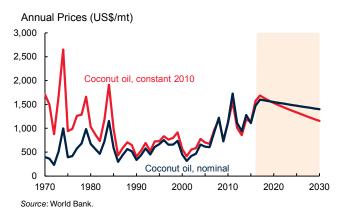
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/10
				(thousar	nd metric t	ons)			
Production									
Côte d'Ivoire	180	417	804	1,212	1,511	1,449	1,746	1,796	1,58
Ghana	406	258	293	395	1,025	835	897	740	77
Indonesia	2	12	150	385	440	410	375	325	35
Cameroon	112	117	115	133	229	225	211	232	25
Ecuador	72	87	111	89	161	192	234	259	23
Nigeria	305	156	160	180	240	238	248	195	20
Brazil	182	353	368	163	200	185	228	230	14
Peru	2	7	11	17	54	70	81	92	9
Dominican Republic	35	35	42	45	54	68	70	82	7
Others	233	252	452	233	396	271	282	297	33
World	1,528	1,694	2,507	2,852	4,309	3,943	4,372	4,248	4,03
Grindings									
Netherlands	116	140	268	452	540	545	530	503	52
Côte d'Ivoire	35	60	118	285	361	471	519	558	49
Germany	151	180	294	227	439	402	412	415	43
United States	279	186	268	445	401	429	446	400	39
Indonesia	1	10	32	83	190	290	340	335	38
Brazil	67	191	260	195	239	241	240	224	22
Ghana	48	27	30	70	212	225	234	234	20
Others	735	773	1,055	1,285	1,557	1,577	1,614	1,485	1,48
World	1,431	1,566	2,325	3,041	3,938	4,180	4,335	4,154	4,14
Exports									
Côte d'Ivoire	138	406	688	903	1,079	1,045	1,192	1,234	n/
Ghana	348	182	245	307	694	601	709	586	n/
Ecuador	46	19	56	57	136	165	197	235	n/
Cameroon	75	96	96	102	204	186	160	205	n/
Nigeria	216	76	142	149	219	183	192	113	n/
Dominican Republic	29	27	36	34	52	61	68	81	n/
Malaysia	3	40	148	17	21	39	90	71	n/
Others	265	255	326	417	590	362	313	284	n/
World	1,119	1,100	1,737	1,987	2,996	2,643	2,920	2,807	n/
mports									
Netherlands	116	167	267	549	806	672	641	471	n/
United States	269	246	320	355	472	428	475	445	n/
Germany	155	187	300	228	434	273	318	343	n/
Belgium	18	28	50	101	194	225	258	252	n/
Malaysia	1	n/a	1	110	320	305	315	228	n/
France	42	59	74	157	149	114	141	137	n/
Spain	34	37	45	49	88	99	107	104	n/
Italy	41	32	56	72	86	88	90	97	n/
Turkey	1	2	6	39	71	78	88	88	n/
Others	462	440	643	749	737	715	737	703	n/
World	1,139	1,198	1,761	2,409	3,357	2,996	3,171	2,868	n/

Source: Quarterly Bulletin of Cocoa Statistics (Cocoa year 2015/16 Volume XLII No. 4 update). Notes: n/a implies data not available. Data for 1970/71 are average of 1968-1972.

### Coconut oil and Palm kernel oil



Note: Last observation is March 2017.



Note: 2017-30 are forecasts.

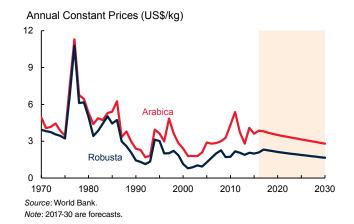
	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16	2016/17
				(thousan	d metric to	ons)			
Coconut oil: product	ion								
Philippines	1,159	1,448	1,207	1,240	1,624	1,153	1,099	874	1,009
Indonesia	677	833	825	847	850	933	937	805	847
India	228	292	442	398	380	390	377	365	371
Mexico	99	126	126	131	131	127	127	127	131
Sri Lanka	n/a	n/a	n/a	32	42	45	49	50	52
Malaysia	64	32	38	49	51	51	51	45	47
Vietnam	n/a	n/a	n/a	34	34	34	34	33	33
Others	596	628	606	363	341	323	310	306	306
World	2,823	3,359	3,244	3,094	3,453	3,056	2,984	2,605	2,796
oconut oil: consum	ption								
European Union	498	632	734	739	716	646	536	535	534
United States	373	400	585	474	520	518	531	470	490
India	233	301	448	411	381	392	389	360	367
Indonesia	639	600	200	153	215	377	160	160	184
Philippines	195	318	297	336	523	364	238	192	172
China	27	32	43	216	152	142	137	135	139
Mexico	115	139	139	153	135	129	130	136	139
Malaysia	4	4	32	90	57	49	90	70	8
Japan	78	67	45	42	57	53	54	43	4
Others	497	692	670	629	645	454	639	592	596
World	2,659	3,185	3,193	3,243	3,401	3,124	2,904	2,693	2,746
Palm kernel oil: prod	uction								
Indonesia	36	229	709	2,534	3,022	3,264	3,538	3,383	3,720
Malaysia	250	827	1,289	2,072	2,271	2,332	2,280	2,019	2,156
Thailand	n/a	n/a	n/a	140	174	176	184	171	181
Nigeria	82	146	190	108	116	109	114	117	122
Colombia	n/a	n/a	n/a	80	90	95	107	100	107
Papua New Guinea	n/a	n/a	n/a	43	51	57	58	62	63
Ecuador	n/a	n/a	n/a	35	39	37	40	42	44
Others	195	261	349	379	419	453	466	496	527
World	563	1,463	2,537	5,391	6,182	6,523	6,787	6,390	6,920
alm kernel oil: cons	umption								
Indonesia	29	66	113	851	1,260	1,518	1,670	1,773	1,843
Malaysia	4	117	686	1,420	1,464	1,414	1,504	1,401	1,414
European Union	238	417	500	537	667	674	675	699	710
China	1	12	31	421	620	495	578	560	590
United States	69	149	224	279	267	266	274	345	32
Brazil	2	10	55	201	215	249	241	229	23
India	1	7	13	198	326	265	245	138	132
Nigeria	24	146	175	107	113	105	113	114	118
Japan	15	39	64	69	73	78	87	75	80
Others	132	426	644	1,145	1,253	1,328	1,341	1,302	1,35
World	515	1,389	2,505	5,228	6,258	6,392	6,728	6,636	6,804

Source: Oil World (March 24, 2017).

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





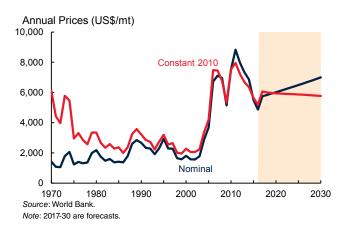
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
				(thousa	nd 60kg b	ags)			
Production				·		·			
Brazil	11,000	21,500	31,000	34,100	54,500	57,200	54,300	49,400	56,100
Vietnam	56	77	1,200	15,333	19,415	29,833	27,400	28,930	26,700
Colombia	8,000	13,500	14,500	10,500	8,525	12,075	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	0,202	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
World	59,202	86,174	100,181	117,217	141,409	160,178	154,045	152,946	156,636
	39,202	00,174	100,101	117,217	141,409	100,170	134,043	132,340	130,030
onsumption									
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
World	n/a	n/a	n/a	n/a	134,440	142,534	145,745	152,022	153,255

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

Note: n/a implies data not available.

### **Copper**





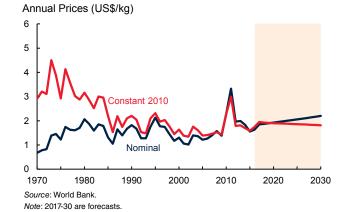
	1980	1990	2000	2005	2010	2013	2014	2015	2016
				(tnousan	d metric to	ons)			
Mine Production									
Chile	1,068	1,588	4,602	5,321	5,419	5,776	5,750	5,764	5,545
Peru	367	318	553	1,010	1,247	1,376	1,380	1,705	2,366
China	177	296	549	639	1,180	1,681	1,741	1,667	1,821
United States	1,181	1,587	1,440	1,157	1,129	1,279	1,383	1,410	1,429
Congo, Dem. Rep.	460	356	33	98	378	817	996	1,039	987
Kazakhstan	n/a	n/a	433	436	404	538	501	566	984
Australia	244	327	832	930	870	999	966	964	927
Zambia	596	496	249	441	732	752	756	758	828
Russian Federation	n/a	n/a	580	805	703	720	720	740	740
Canada	716	794	634	595	522	653	673	697	708
Mexico	175	291	365	391	270	480	515	540	689
Indonesia	59	169	1,006	1,064	871	494	366	580	664
Poland	343	370	454	523	425	429	421	426	425
Others	n/a	n/a	1,486	1,625	1,988	2,241	2,381	2,494	2,574
World	7,864	8,997	13,217	15,035	16,139	18,235	18,548	19,351	20,686
Refined Production									
China	314	562	1,312	2,566	4,540	6,667	7,649	7,964	8,436
Chile	811	1,192	2,669	2,824	3,244	2,755	2,729	2,688	2,613
Japan	1,014	1,008	1,437	1,395	1,549	1,468	1,554	1,483	1,553
United States	1,686	2,017	1,802	1,257	1,093	1,040	1,095	1,141	1,221
Congo, Dem. Rep.	144	173	29	3	254	643	742	793	944
Russian Federation	n/a	n/a	824	968	900	874	894	876	876
India	23	39	265	518	647	619	764	792	768
Germany	425	533	709	639	704	667	673	678	691
Korea, Rep.	79	187	471	527	556	604	604	604	607
Poland	357	346	486	560	547	565	577	574	539
Australia	182	274	484	471	424	480	511	473	469
Brazil	39	157	185	197	222	234	240	354	444
Spain	154	171	316	308	347	351	428	426	433
Others	n/a	n/a	3,773	4,403	4,185	4,008	3,965	4,124	3,912
World	9,390	10,809	14,761	16,635	19,214	20,975	22,426	22,970	23,509
Refined Consumption									
China	286	512	1.869	3.621	7,385	9.830	11,303	11,353	11.642
United States	1,868	2,150	2,979	2,264	1,760	1,826	1,767	1,796	1,762
Germany	870	1,028	1,309	1,115	1,312	1,123	1,162	1,219	1,263
Japan	1,158	1,577	1,351	1,229	1,060	996	1,072	997	973
Korea, Rep.	85	324	862	868	856	722	759	705	759
Italy	388	475	674	680	619	552	625	613	597
Brazil	246	129	329	332	460	395	384	434	511
Taiwan, China	85	265	628	638	532	437	465	471	507
India	77	135	246	397	514	423	434	491	499
Others	4,322	4.186	4.848	5.504	4,848	4.849	4.730	4,750	4.832
World	9,385	10,780	15,096	16,649	19,347	21,154	22,702	22,830	23,345

Source: World Bureau of Metal Statistics (March 2017 update).

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

### Cotton





Note: Last observation is March 2017.	

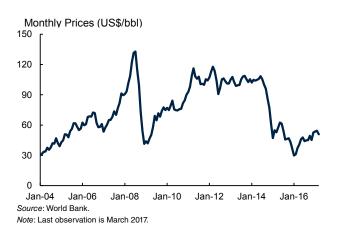
	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
				(thousa	and metric t	ons)			
Production									
India	909	1,322	1,989	2,380	5,865	6,562	5,746	5,803	5,935
China	1,995	2,707	4,508	4,505	6,400	6,500	4,753	4,737	4,806
United States	2,219	2,422	3,376	3,742	3,942	3,553	2,806	3,751	3,740
Pakistan	543	714	1,638	1,816	1,948	2,305	1,514	1,680	1,869
Brazil	594	623	717	939	1,960	1,563	1,289	1,443	1,365
Australia	19	99	433	804	898	528	579	1,019	973
Uzbekistan	n/a	1,671	1,593	975	910	885	832	789	770
Turkey	400	500	655	880	594	724	640	644	654
Burkina Faso	8	23	77	116	141	298	244	285	309
Turkmenistan	n/a	n/a	437	187	380	330	290	292	301
Mali	20	41	115	102	103	233	216	261	270
Others	n/a	n/a	3,414	3,079	2,268	2,707	2,131	2,076	2,128
World	11,740	13,831	18,951	19,524	25,408	26,188	21,040	22,780	23,120
Stocks									
China	412	476	1,589	3,755	2,087	12,917	11,160	9,269	7,475
India	376	491	539	922	1,850	2,518	2,000	2,012	2,080
United States	915	581	510	1,306	566	980	1,049	980	1,092
Brazil	321	391	231	755	1,400	1,158	795	953	959
Turkey	24	112	150	283	412	809	870	763	763
Pakistan	55	131	313	608	316	753	433	549	693
Australia	13	87	256	452	487	170	216	397	553
Others	2,489	2,882	3,171	2,532	2,345	3,054	2,651	2,927	2,935
World	4,605	5,151	6,761	10,614	9,463	22,359	19,174	17,850	16,550
Exports									
United States	848	1,290	1,697	1,467	3,130	2,449	1,993	2,874	2,883
India	34	140	255	24	1,085	914	1,255	961	987
Australia	4	53	329	849	545	520	616	800	810
Brazil	220	21	167	68	435	851	939	610	706
Uzbekistan	n/a	n/a	n/a	750	600	550	544	445	449
Burkina Faso	9	22	73	112	136	213	262	261	309
Mali	19	35	114	134	92	175	218	247	260
Others	n/a	n/a	n/a	2,401	1,694	2,031	1,760	1,652	1,656
World	3,875	4,414	5,069	5,805	7,717	7,703	7,587	7,850	8,060
mports									
Bangladesh	0	45	80	248	843	1,177	1,355	1,430	1,473
Vietnam	33	40	31	84	350	934	1,001	1,171	1,240
China	108	773	480	52	2,609	1,804	959	983	1,088
Turkey	1	0	46	381	760	800	918	831	872
Indonesia	36	106	324	570	471	728	640	685	661
Pakistan	1	0	43	410	283	223	211	219	546
Mexico	1	0	43	410	283	211	219	298	291
Others	3,907	3,591	4,172	3,610	2,158	1,904	2,234	2,233	1,889
World	4,086	4,555	5,220	5,764	7,756	7,781	7,537	7,850	8,060

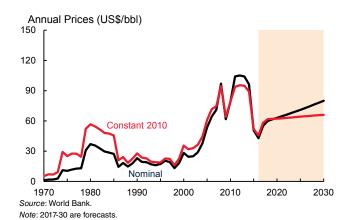
Source: International Cotton Advisory Committee (March-April 2017 update).

Note: n/a implies data not available.

APPENDIX B

### **Crude oil**



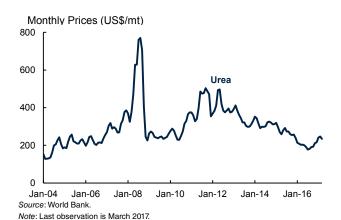


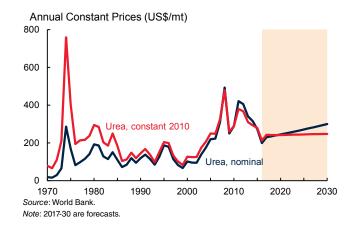
	1970	1980	1990	2000	2010	2012	2013	2014	2015
				(thousand	barrels pe	er day)			
roduction									
United States	11,297	10,170	8,914	7,732	7,550	8,883	10,059	11,723	12,704
Saudi Arabia	3,851	10,270	7,105	9,470	10,075	11,635	11,393	11,505	12,014
Russian Federation	n/a	n/a	10,342	6,583	10,366	10,639	10,779	10,838	10,980
Canada	1,473	1,764	1,968	2,703	3,332	3,740	4,000	4,278	4,38
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	4,03
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	2,620
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	2,52
Nigeria	1,084	2,059	1,870	2,155	2,535	2,430	2,321	2,389	2,35
Norway	n/a	528	1,716	3,346	2,136	1,917	1,838	1,889	1,94
Qatar	363	476	434	853	1,638	1,931	1,903	1,893	1,89
Angola	103	150	475	746	1,863	1,784	1,799	1,712	1,82
Kazakhstan	n/a	n/a	571	740	1,676	1,662	1,720	1,701	1,66
Algeria	1,052	1,139	1,347	1,549	1,689	1,537	1,485	1,589	1,58
Colombia	226	131	446	687	786	944	1,004	990	1,00
United Kingdom	4	1,676	1,933	2,714	1,361	949	867	855	96
Oman	332	285	695	961	865	918	942	943	95
India	140	193	715	726	882	906	906	887	87
Azerbaijan	n/a	n/a	254	281	1,023	872	877	849	84
Others	n/a	n/a	9,323	11,223	11,126	10,048	9,288	8,907	8,669
World	48,056	62,959	65,386	74,922	83,283	86,218	86,591	88,834	91,67
	40,000	02,333	03,300	14,522	00,200	00,210	00,001	00,004	31,07
onsumption									
Untied States	14,710	17,062	16,988	19,701	19,180	18,490	18,961	19,106	19,39
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	3,89
Brazil	516	1,134	1,454	2,066	2,721	2,905	3,106	3,242	3,15
Russian Federation	n/a	n/a	5,042	2,540	2,878	3,119	3,145	3,255	3,11
Korea, Rep.	162	476	1,041	2,260	2,370	2,458	2,455	2,454	2,57
Germany	2,765	3,014	2,685	2,746	2,445	2,356	2,408	2,348	2,33
Canada	1,472	1,898	1,747	2,043	2,324	2,372	2,383	2,371	2,32
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	1,62
France	1,860	2,220	1,895	1,994	1,763	1,676	1,664	1,617	1,60
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	29,27
Total World	45,229	61,401	66,667	76,988	88,765	90,663	92,049	93,109	95,00

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



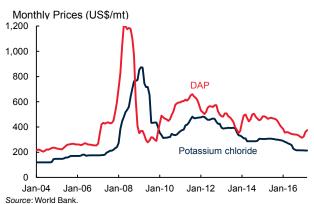


	1970	1980	1990	2000	2010	2011	2012	2013	2014
				thousand	tons nutri	ents)			
Production									
China	1,200	9.993	14,637	22,175	35,678	36.323	36,056	36,810	35,540
India	838	2,164	6,993	10,943	12,178	12,288	12,237	12,409	12,435
United States	8,161	12,053	10,816	8,352	9,587	9,414	10,150	8,494	8,679
Russian 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
World	32,690	62,951	71,964	86,624	108,116	111,170	111,568	110,987	108,966
Consumption									
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			1,010					2,020	
	323	946	1 158					2 457	2 551
France	323 1 425	946 2 146	1,158 2.493	1,592	1,990	2,297	2,479	2,457	
France	1,425	2,146	2,493	1,592 2,317	1,990 2,337	2,297 2,020	2,479 2,140	2,178	2,163
Germany	1,425 1,642	2,146 2,303	2,493 1,787	1,592 2,317 1,848	1,990 2,337 1,786	2,297 2,020 1,640	2,479 2,140 1,648	2,178 1,675	2,163 1,823
Germany Russian Federation	1,425 1,642 n/a	2,146 2,303 n/a	2,493 1,787 4,344	1,592 2,317 1,848 960	1,990 2,337 1,786 1,483	2,297 2,020 1,640 1,577	2,479 2,140 1,648 1,576	2,178 1,675 1,537	2,163 1,823 1,522
Germany Russian Federation Mexico	1,425 1,642 n/a 406	2,146 2,303 n/a 878	2,493 1,787 4,344 1,346	1,592 2,317 1,848 960 1,342	1,990 2,337 1,786 1,483 1,166	2,297 2,020 1,640 1,577 1,168	2,479 2,140 1,648 1,576 1,201	2,178 1,675 1,537 1,518	2,163 1,823 1,522 1,501
Germany Russian Federation Mexico Turkey	1,425 1,642 n/a 406 243	2,146 2,303 n/a 878 782	2,493 1,787 4,344 1,346 1,200	1,592 2,317 1,848 960 1,342 1,276	1,990 2,337 1,786 1,483 1,166 1,344	2,297 2,020 1,640 1,577 1,168 1,259	2,479 2,140 1,648 1,576 1,201 1,432	2,178 1,675 1,537 1,518 1,584	2,163 1,823 1,522 1,501 1,493
Germany Russian Federation Mexico Turkey Australia	1,425 1,642 n/a 406 243 123	2,146 2,303 n/a 878 782 248	2,493 1,787 4,344 1,346 1,200 439	1,592 2,317 1,848 960 1,342 1,276	1,990 2,337 1,786 1,483 1,166 1,344 982	2,297 2,020 1,640 1,577 1,168 1,259 1,099	2,479 2,140 1,648 1,576 1,201 1,432 1,099	2,178 1,675 1,537 1,518 1,584 1,315	2,163 1,823 1,522 1,501 1,493 1,407
Germany Russian Federation Mexico Turkey Australia Vietnam	1,425 1,642 n/a 406 243 123 166	2,146 2,303 n/a 878 782 248 129	2,493 1,787 4,344 1,346 1,200 439 425	1,592 2,317 1,848 960 1,342 1,276 951 1,332	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407	2,178 1,675 1,537 1,518 1,584 1,315 1,261	2,163 1,823 1,522 1,501 1,493 1,407 1,354
Germany Russian Federation Mexico Turkey Australia Vietnam Bangladesh	1,425 1,642 n/a 406 243 123 166 99	2,146 2,303 n/a 878 782 248 129 266	2,493 1,787 4,344 1,346 1,200 439 425 609	1,592 2,317 1,848 960 1,342 1,276 951 1,332 996	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250 1,237	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300 1,122	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407 1,112	2,178 1,675 1,537 1,518 1,584 1,315 1,261 1,133	2,163 1,823 1,522 1,501 1,493 1,407 1,354 1,321
Germany Russian Federation Mexico Turkey Australia Vietnam Bangladesh Thailand	1,425 1,642 n/a 406 243 123 166 99 50	2,146 2,303 n/a 878 782 248 129 266 136	2,493 1,787 4,344 1,346 1,200 439 425 609 577	1,592 2,317 1,848 960 1,342 1,276 951 1,332 996 922	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250 1,237 1,311	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300 1,122 1,386	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407 1,112 1,382	2,178 1,675 1,537 1,518 1,584 1,315 1,261 1,133 1,454	2,163 1,823 1,522 1,501 1,493 1,407 1,354 1,321 1,293
Germany Russian Federation Mexico Turkey Australia Vietnam Bangladesh Thailand Ukraine	1,425 1,642 n/a 406 243 123 166 99 50 n/a	2,146 2,303 n/a 878 782 248 129 266 136 n/a	2,493 1,787 4,344 1,346 1,200 439 425 609 577 1,836	1,592 2,317 1,848 960 1,342 1,276 951 1,332 996 922 350	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250 1,237 1,311 650	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300 1,122 1,386 1,159	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407 1,112 1,382 1,254	2,178 1,675 1,537 1,518 1,584 1,315 1,261 1,133 1,454 1,219	2,551 2,163 1,823 1,522 1,501 1,493 1,407 1,354 1,321 1,293
Germany Russian Federation Mexico Turkey Australia Vietnam Bangladesh Thailand Ukraine Egypt, Arab Rep.	1,425 1,642 n/a 406 243 123 166 99 50 n/a 331	2,146 2,303 n/a 878 782 248 129 266 136 n/a 554	2,493 1,787 4,344 1,346 1,200 439 425 609 577 1,836 745	1,592 2,317 1,848 960 1,342 1,276 951 1,332 996 922 350 1,084	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250 1,237 1,311 650 1,159	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300 1,122 1,386 1,159 1,207	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407 1,112 1,382 1,254 1,087	2,178 1,675 1,537 1,518 1,584 1,315 1,261 1,133 1,454 1,219 1,104	2,163 1,823 1,522 1,501 1,493 1,407 1,354 1,321 1,293 1,181 1,122
Germany Russian Federation Mexico Turkey Australia Vietnam Bangladesh Thailand Ukraine	1,425 1,642 n/a 406 243 123 166 99 50 n/a	2,146 2,303 n/a 878 782 248 129 266 136 n/a	2,493 1,787 4,344 1,346 1,200 439 425 609 577 1,836	1,592 2,317 1,848 960 1,342 1,276 951 1,332 996 922 350	1,990 2,337 1,786 1,483 1,166 1,344 982 1,250 1,237 1,311 650	2,297 2,020 1,640 1,577 1,168 1,259 1,099 1,300 1,122 1,386 1,159	2,479 2,140 1,648 1,576 1,201 1,432 1,099 1,407 1,112 1,382 1,254	2,178 1,675 1,537 1,518 1,584 1,315 1,261 1,133 1,454 1,219	2,163 1,823 1,522 1,501 1,493 1,407 1,354 1,321 1,293

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

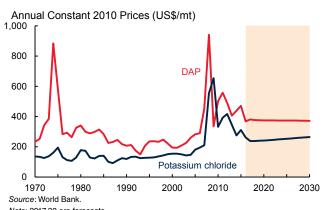
Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see www.fertilizers.org for details).

# Fertilizers—Phosphate and Potash



Note: 2017-30 are forecasts.

Note: Last observation is March 2017.



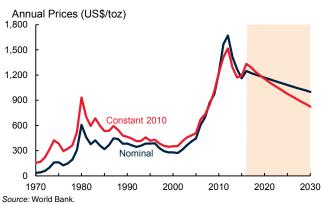
	1970	1980	1990	2000	2010	2011	2012	2013	2014
			(1	housand t	ons nutrie	ents)			
Phosphate: production									
China	907	2,607	4,114	6,759	15,998	17,631	16,387	16,545	16,576
United States	n/a	7,437	8,105	7,337	6,297	6,123	6,456	5,861	6,968
India	228	854	2,077	3,751	4,378	4,370	3,825	3,973	4,113
Russian 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
Others	14,279	20,982	14,908	9,800	9,099	8,515	8,521	8,891	8,865
World	15,682	33,677	36,417	32,744	42,697	44,260	43,571	43,415	44,993
Phosphate: consumptio	n								•
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
Vietnam	77	23	106	501	650	680	696	670	700
Others	13,666	18,967	19,782	10,314	9.688	9.957	10,076	10,898	10,680
World	21,202	31,912	35,920	32,812	40,569	41,546	41,515	41,268	41,364
Potash: production	,	•	,	•	,	,	,	•	,
Canada	3,179	7,337	7,005	9,174	10,289	9,919	9,877	9.461	10,636
Russian Federation	,	n/a	,	,	6,128	6,526	5,403	-, -	,
	n/a n/a	n/a n/a	n/a	3,716	5,223	,	4,831	6,086 4,229	7,340
Belarus China	n/a n/a	11/a 20	4,992 46	3,372 275	3,101	5,332 3,390	,	4,229	6,286
	4,824		4,967		2,962		4,007 3,056		5,680
Germany Israel	576	6,123 797	,	3,409 1,748	1,944	3,106 1,700	2,100	2,968 2,150	3,053
	0		1,296		,	,	,		2,126
Jordan		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
United States	2,259	2,052	1,008	916	941	1,017	996	1,030	916
Others	6,612	11,255	2,641	1,962	1,102	1,465	1,414	1,791	1,755
World	17,471	27,608	22,838	26,141	33,706	34,733	34,019	34,514	40,285
Potash: consumption	0-	505	4.704	0.001	E 000	E 700	0.000	0.000	7.00-
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
Others	11,328	15,341	13,714	8,571	7,649	7,912	8,190	8,777	9,126
World	15,764	23,826	24,320	22,095	27,483	28,243	28,980	31,128	32,611

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

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 for details).

# Gold





Note: 2017-30 are foreca	sts.

	1995	2000	2005	2010	2012	2013	2014	2015	2016
				(m	etric tons)				
roduction									
China	136	175	209	341	403	428	452	450	464
Russian Federation	128	144	163	201	183	230	249	256	288
Australia	247	296	263	260	252	267	274	278	285
United States	317	353	256	231	235	230	210	212	236
Canada	152	156	121	91	105	134	152	161	163
Peru	56	134	206	164	162	151	141	145	153
South Africa	522	428	297	191	154	169	152	145	142
Ghana	53	72	67	93	99	95	136	91	127
Mexico	20	24	30	79	103	120	118	125	117
Uzbekistan	70	88	84	90	93	98	102	103	102
Sudan	4	6	5	2	46	70	73	82	82
Brazil	64	61	38	62	67	80	81	81	81
Argentina	1	26	28	64	55	52	72	62	80
Kazakhstan	11	27	18	30	40	42	49	64	75
Indonesia	63	125	158	106	69	60	69	92	69
Papua New Guinea	52	73	67	67	58	63	56	55	64
Colombia	22	37	36	54	66	56	57	59	62
Mali	8	29	44	39	41	41	45	51	53
Tanzania	0	15	48	39	40	43	41	46	44
Others	246	291	326	389	442	506	574	564	537
World	2,174	2,560	2,464	2,594	2,713	2,935	3,103	3,121	3,225
abrication									
China	217	213	277	523	698	1,175	925	854	731
India	426	704	695	783	736	716	771	812	506
United States	245	277	219	179	149	163	152	165	171
Turkey	126	228	303	109	114	178	156	112	101
Japan	189	161	165	158	126	124	119	102	99
Italy	458	522	290	126	96	92	96	94	88
Korea, Rep.	82	107	83	93	70	65	61	56	52
Iran, Islamic Rep.	37	46	41	72	87	93	62	56	47
Russian Federation	n/s	34	61	61	72	74	70	52	47
United Arab Emirates	30	50	55	33	30	38	42	45	45
Indonesia	133	99	87	45	53	61	53	50	45
Canada	28	25	27	44	32	45	32	40	41
South Africa	12	14	10	25	27	31	25	31	38
Switzerland	47	54	56	41	48	46	44	41	35
Malaysia	78	86	74	45	39	49	45	41	34
Saudi Arabia	156	153	125	47	33	41	37	41	32
Germany	71	64	52	41	36	37	36	32	32
Egypt, Arab Rep.	61	107	71	43	39	42	42	39	28
Singapore Singapore	22	26	30	28	25	28	29	29	27
Others	877	791	605	384	332	362	352	353	317
World	3,294	3,761	3,325	2,878	2,840	3,459	3,148	3,044	2,515

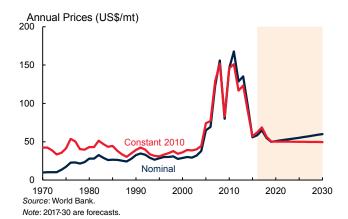
Sources: World Bureau of Metal Statistics and Thomson Reuters (March 2017 update).

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.

APPENDIX B

### **Iron Ore**





	1971	1980	1990	2000	2010	2012	2013	2014	2015
				(million r	netric tons	)			
ron ore production									
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
World	781	931	984	959	1,874	1,904	2,039	2,054	2,006
rude steel production									
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

Source: Steel Statistical Yearbook 2016.

n/a

583

n/a

716

n/a

770

143

849

151

1,433

147

1,560

148

1,650

155

1,670

153

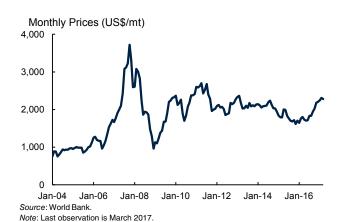
1,620

Notes: n/a implies data not available.

Others

World

#### Lead



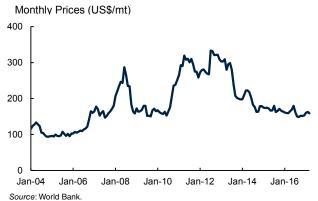


	1980	1990	2000	2005	2010	2013	2014	2015	2016
				(thousar	nd metric to	ons)			
line Production									
China	160	364	660	1,142	1,981	2,697	2,609	2,335	2,230
Australia	398	570	678	767	712	711	728	654	438
United States	562	493	447	437	356	343	381	371	347
Peru	189	188	271	319	262	266	278	316	314
Mexico	146	174	138	134	192	253	250	254	233
Russian Federation	n/a	n/a	13	36	97	162	196	196	193
India	15	26	38	60	91	106	105	139	139
Bolivia	16	20	10	11	73	82	76	75	88
Sweden	72	84	107	61	68	60	71	79	75
Kazakhstan	n/a	n/a	39	31	35	41	38	41	71
Turkey	8	18	16	19	39	77	62	76	65
Korea, Rep.	11	19	26	20	27	59	36	32	54
Iran, Islamic Rep.	12	9	17	22	32	42	44	41	49
Others	n/a	n/a	622	392	405	396	394	386	415
World	3,595	3,150	3,080	3,453	4,370	5,294	5,268	4,995	4,710
efined Production									
China	175	297	1,100	2,359	4,157	4,935	4,704	3,845	4,670
United States	1,151	1,291	1,100	1,293	1,255	1,308	1,020	1,100	1,070
Korea, Rep.	1,151	80	222	254	321	522	670	682	800
India	26	39	57	56	366	462	477	496	508
United Kingdom	325	329	328	304	301	296	267	357	375
Mexico	149	238	332	272	270	371	363	354	341
Germany	392	394	387	342	405	400	380	378	336
Canada	231	184	284	230	273	282	281	269	274
Japan	305	327	312	275	267	252	240	232	240
Australia	234	229	223	267	210	233	226	223	233
Italy	134	171	237	211	150	180	210	208	207
Brazil	85	76	86	121	115	152	160	190	192
Poland	82	65	69	81	120	145	149	155	175
Others	2,122	1,742	1,639	1,607	1,609	1,775	1,785	1,709	1,702
World	5,424	5,460	6,707	7,671	9,820	11,313	10,933	10,198	11,122
	5,424	5,460	6,707	7,671	9,020	11,313	10,933	10,196	11,122
efined Consumption									
China	210	244	660	1,974	4,171	4,927	4,682	3,804	4,660
United States	1,094	1,275	1,660	1,490	1,430	1,750	1,540	1,590	1,564
Korea, Rep.	54	80	309	376	382	550	601	602	592
India	33	147	56	139	420	428	521	539	567
Germany	433	448	390	330	343	392	337	357	366
United Kingdom	296	302	301	288	211	241	208	217	285
Japan	393	416	343	291	224	252	254	269	264
Spain	111	115	219	279	262	254	249	238	263
Mexico	85	132	288	289	201	188	221	235	252
Others	2,640	2,189	2,265	2,321	2,147	2,319	2,305	2,362	2,441
World	5,348	5,348	6,491	7,777	9,791	11,302	10,919	10,213	11,253

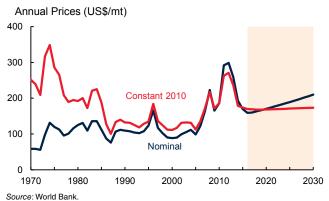
Source: World Bureau of Metal Statistics (March 2017 update).

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

# Maize



Note: Last observation is March 2017.



Note: 2017-30 are forecasts.

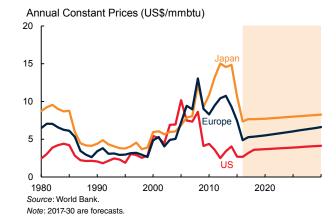
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
				(million	metric tor	ıs)			
Production									
United States	105.5	168.6	201.5	251.9	315.6	351.3	361.1	345.5	384.8
China	33.0	62.6	96.8	106.0	177.2	218.5	215.6	224.6	219.
Brazil	14.1	22.6	24.3	41.5	57.4	80.0	85.0	67.0	93.
European Union	29.8	42.5	36.5	51.8	58.6	64.9	75.7	58.4	60.
Argentina	9.9	12.9	7.7	15.4	25.2	26.0	29.8	29.0	38.
Ukraine	n/a	n/a	4.7	3.8	11.9	30.9	28.5	23.3	28.
Mexico	8.9	10.4	14.1	17.9	21.1	22.9	25.5	26.0	27.
India	7.5	7.0	9.0	12.0	21.7	24.3	24.2	22.6	26.
Russian Federation	n/a	n/a	2.5	1.5	3.1	11.6	11.3	13.2	15.3
South Africa	8.6	14.9	8.6	8.0	10.9	14.9	10.6	8.2	15.
Canada	2.6	5.8	7.1	7.0	12.0	14.2	11.5	13.6	13.
Indonesia	2.8	4.0	5.0	5.9	6.8	9.1	9.0	10.5	10.9
Philippines	2.0	3.1	5.1	4.5	7.3	7.5	7.7	7.0	8.
Others	73.1	97.0	95.5	64.4	106.9	114.4	120.6	114.5	113.
World	297.9	451.3	518.4	591.7	835.8	990.5	1,016.0	963.3	1,053.
Stocks									
China	8.9	42.8	82.8	102.4	49.4	81.3	100.5	110.8	102.
United States	16.8	35.4	38.6	48.2	28.6	31.3	44.0	44.1	58.
Brazil	2.0	1.3	0.8	2.7	6.3	14.0	7.8	6.8	8.
Mexico	0.5	2.0	1.8	2.8	1.1	2.6	4.1	5.2	6.
Iran, Islamic Rep.	0.0	0.1	0.0	0.9	2.8	4.5	5.7	6.1	6.
Others	7.9	20.9	17.4	18.2	35.2	41.1	47.7	38.9	40.
World	36.1	102.5	141.4	175.2	123.4	174.8	209.8	211.8	223.
Exports									
United States	12.9	60.7	43.9	49.3	46.5	48.8	47.4	48.2	56.
Brazil	0.9	0.0	0.0	6.3	8.4	21.0	34.5	14.0	32.
Argentina	6.4	9.1	4.0	9.7	16.3	17.1	19.0	21.7	26.
Ukraine	n/a	n/a	0.4	0.4	5.0	20.0	19.7	16.6	18.
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.
Paraguay	0.0	0.0	0.0	0.6	1.6	2.4	3.3	2.2	2.
Others	11.9	10.5	9.8	10.5	11.4	16.4	12.2	11.2	11.
World	32.2	80.3	58.4	76.7	91.3	131.6	142.2	120.0	154.
mports									
Japan	5.2	14.0	16.3	16.3	15.6	15.1	14.7	15.2	15.
Mexico	0.1	3.8	1.9	6.0	8.3	10.9	11.3	14.0	14.
European Union	18.9	26.6	5.7	3.7	7.4	16.0	8.9	13.8	13.
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	10.4	10.2	10.1	9.
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	8.7	7.8	8.8	9.
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	5.5	6.1	6.6	8.
Vietnam	0.1	0.1	0.0	0.1	1.3	3.5	5.0	8.0	8.
Others	22.6	52.6	32.0	33.5	42.7	54.9	61.2	63.3	58.
World	47.3	100.9	64.3	74.9	92.7	125.1	125.2	139.7	137.

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**



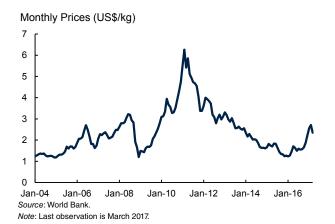


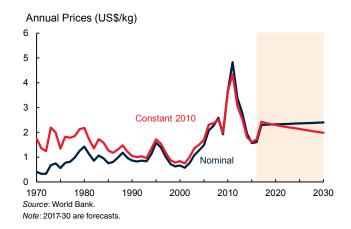
	1970 1980	1990	2000	2010	2012	2013	2014	201	5
	(billion cubic m	etres)							
roduction									
United States	595	549	504	543	604	681	685	729	767
Russian Federation	n/a	n/a	590	529	589	592	605	582	573
Iran, Islamic Rep.	4	5	26	60	152	166	167	182	192
Qatar	1	5	6	25	131	157	178	174	181
Canada	57	75	109	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
World	992	1,435	1,982	2,421	3,209	3,363	3,411	3,463	3,539
onsumption									
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
World	979	1,433	1,956	2,422	3,201	3,333	3,393	3,410	3,469

Source: BP Statistical Review (June 2016 update).

Note: n/a implies data not available.

#### **Natural rubber**

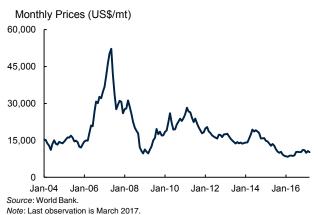


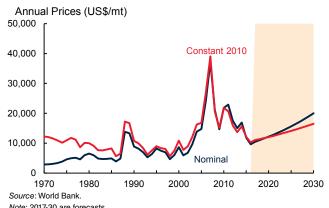


	1970	1980	1990	2000	2010	2013	2014	2015	2016
				(thousand	d metric to	ns)			
roduction									
Thailand	287	501	1,275	2,346	3,252	3,778	4,170	4,324	4,473
Indonesia	815	822	1,261	1,501	2,736	3,012	3,237	3,153	3,145
Vietnam	28	46	94	291	752	877	949	954	1,017
China	46	113	264	445	687	802	865	840	794
Malaysia	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
Brazil	42	53	78	96	136	187	193	199	206
Others	542	591	314	417	691	1,365	639	916	800
World	3,140	3,850	4,985	6,811	10,403	12,281	12,142	12,274	12,295
onsumption									
China	250	340	600	1,150	3,622	4,270	4,804	4,680	4,798
European Union	991	1,007	1,012	1,293	1,136	1,060	1,139	1,159	1,185
India	86	171	358	638	944	962	1,015	987	1,034
United States	568	585	808	1,195	926	913	932	936	932
Japan	283	427	677	752	749	710	709	691	677
Thailand	8	28	99	243	487	521	541	601	650
Indonesia	25	46	108	139	421	509	540	509	590
Malaysia	20	45	184	364	458	434	447	475	494
Brazil	37	81	124	227	378	409	422	405	428
Others	822	1,050	1,099	1,307	1,638	1,642	1,633	1,704	1,723
World	3,090	3,780	5,068	7,306	10,759	11,430	12,181	12,146	12,511
xports									
Thailand	279	457	1,151	2,166	2,866	3,752	3,729	3,776	3,922
Indonesia	790	976	1,077	1,380	2,369	2,770	2,662	2,680	2,644
Vietnam	23	33	80	273	782	1,076	1,066	1,138	1,253
Malaysia	1,304	1,482	1,322	978	1,245	1,332	1,192	1,119	999
Côte d'Ivoire	11	23	69	121	226	285	323	348	397
Cambodia	7	15	24	33	43	86	100	128	145
Myanmar	29	30	41	52	67	73	79	86	93
Others	377	254	198	274	448	513	525	498	507
World	2,820	3,270	3,962	5,277	8,047	9,887	9,676	9,772	9,960
nports									
China	178	242	340	820	2,888	3,975	4,096	4,248	4,559
European Union	1,071	1,068	1,072	1,474	1,427	1,451	1,546	1,536	1,551
United States	543	576	820	1,192	931	927	946	952	946
Malaysia	45	43	136	548	706	1,005	924	955	925
Japan	292	458	663	801	747	722	689	682	660
India	3	1	61	11	187	336	424	414	460
Korea, Rep.	26	118	254	331	388	396	403	388	383
Others	651	729	1,423	1,204	1,406	1,459	1,482	1,561	1,666
World	2,810	3,235	4,769	6,380	8,681	10,271	10,510	10,737	11,149

Source: International Rubber Study Group (January-March 2017 update).

### **Nickel**





	1980	1990	2000	2005	2010	2013	2014	2015	2016
				thousand i	metric tons	<u> </u>			
Mine Production									
Philippines	38	16	17	27	184	316	411	465	311
Russian Federation	n/a	n/a	266	289	274	264	264	261	261
Canada	189	196	191	200	160	228	229	235	236
New Caledonia	87	85	129	112	130	150	178	186	209
Australia	74	67	170	186	170	260	269	225	194
Indonesia	41	69	117	156	216	811	146	129	171
China	11	33	51	59	80	93	101	101	90
Brazil	3	13	32	38	54	74	86	89	74
Cuba	38	41	71	74	65	56	52	54	53
South Africa	26	30	37	42	40	51	55	57	49
Finland	6	12	3	3	12	19	20	19	49
Guatemala	7	0	0	0	0	10	47	57	46
Madagascar	0	0	0	0	0	25	37	47	42
Others	n/a	n/a	107	170	133	149	173	201	192
World	749	888	1,191	1,357	1,519	2,508	2,066	2,124	1,977
Refined Production									
China	11	28	52	97	314	711	537	446	412
Russian Federation	n/a	n/a	242	264	263	242	239	232	207
Japan	109	103	161	164	166	178	178	193	196
Canada	145	127	134	140	105	153	149	163	158
Australia	35	43	112	122	102	142	138	138	116
New Caledonia	33	32	44	47	40	48	62	78	96
Indonesia	4	5	10	7	19	23	22	47	93
Norway	37	58	59	85	92	91	91	91	93
Brazil	3	13	23	30	28	56	79	72	74
Finland	13	17	54	41	49	44	43	43	54
Korea, Rep.	n/a	n/a	0	0	23	28	25	42	48
United Kingdom	19	27	38	38	32	42	39	39	45
Madagascar	0	0	0	0	0	25	37	47	42
Others	n/a	n/a	181	253	204	196	197	193	175
World	743	858	1,110	1,288	1,437	1,979	1,836	1,824	1,809
Refined Consumption	on								
China	18	28	58	197	489	909	654	836	873
Japan	122	159	192	180	177	159	157	151	162
United States	142	127	153	128	119	123	152	152	136
Korea, Rep.	0	24	91	118	101	107	100	83	104
Taiwan, China	0	18	106	84	73	53	66	60	66
Germany	78	93	102	116	100	66	62	60	58
India	12	14	23	16	27	38	27	37	57
Italy	27	27	53	85	62	59	60	60	56
South Africa	n/a	n/a	35	47	41	35	31	34	38
Others	318 35		347	236	252	277	276	317	- 00
World	717 84		1,317	1,426	1,801	1,587	1,750	1,867	

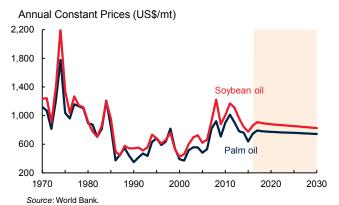
Source: World Bureau of Metal Statistics (March 2017 update).

Note: n/a implies data not available.

# Palm oil and Soybean oil



Note: Last observation is March 2017.



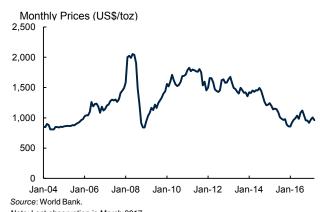
Note: 2017-30 are forecasts.

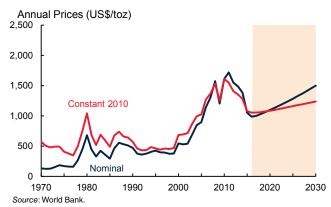
Note: Last observation is March	2017.				Note: 2017-30 a	are forecasts.			
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
				(thous	nd metric	tons)			
Palm oil: production									
Indonesia	248	752	2,650	8,300	23,600	30,500	33,000	32,000	34,000
Malaysia	589	2,692	6,031	11,937	18,211	20,161	19,879	17,700	19,500
Thailand	0	19	200	580	1,832	2,000	2,068	1,804	2,000
Colombia	36	80	252	520	753	1,041	1,110	1,275	1,143
Nigeria	432	520	600	730	971	970	970	970	970
Guatemala	0	0	6	124	231	434	510	625	740
Ecuador	5	44	150	222	380	497	484	520	556
Honduras	0	18	64	148	320	460	470	490	545
Papua New Guinea	0	45	145	336	488	500	520	580	522
Others	612	726	936	1,342	2,406	2,711	2,691	2,759	2,813
World	1,922	4,896	11,034	24,239	49,192	59,274	61,702	58,723	62,789
		4,090	11,034	24,239	49, 192	59,274	61,702	50,723	62,703
alm oil: consumption	on								
Indonesia	29	561	1,330	3,263	6,269	8,750	7,520	9,428	9,420
India	1	431	259	3,160	5,910	8,302	9,150	9,100	9,350
European Union	595	607	1,509	2,790	4,750	6,630	6,920	6,500	6,600
China	53	16	1,194	2,028	5,797	5,700	5,700	4,850	5,000
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	2,745	2,945
Thailand	0	43	208	508	1,457	1,880	1,965	1,850	1,975
Others	1.707	3,061	6,450	8,095	17,318	20,969	21,687	22,470	23,160
World	2,394	5,370	12,664	22,660	45,755	57,590	58,573	59,933	61,620
		,	•	,	,	,	•	,	,
Soybean oil: produc		400	=00	0.010		40.00=	4004=	4.4 = 0.0	4= =04
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	9,956	10,233
Argentina	0	158	1,179	3,190	7,181	6,785	7,687	8,433	8,750
Brazil	0	2,601	2,669	4,333	6,970	7,070	7,760	7,660	7,960
European Union	1,260	2,478	2,317	3,033	2,318	2,546	2,660	2,888	2,907
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	808
Paraguay	10	6	56	174	300	640	697	687	745
Others	2,205	4,191	4,350	2,822	3,550	3,836	4,554	4,875	5,203
World	7,459	15,053	18,082	26,814	41,431	45,238	49,196	51,623	54,555
Soybean oil: consun	nntion								
China	179	256	1,055	3,542	11,409	13,650	14,200	15,300	16,000
United States	2,854			7,401			8,600	9,147	9,163
Brazil	2,004	4,134 1,490	5,506	2,932	7,506	8,576			
		,	2,075	,	5,205	5,705	6,265	6,265	6,530
India	79	708	445	1,750	2,550	3,300	4,100	5,300	5,500
Argentina	0	56	101	247	2,520	2,844	2,401	2,831	3,100
European Union	1,170	1,926	1,879	2,186	2,400	1,990	2,065	2,305	2,305
Mexico	52	305	404	863	840	890	1,001	1,060	1,120
Others	2,794	5,463	5,848	7,196	8,037	8,381	9,244	9,853	10,121
World	7,128	14,338	17,313	26,117	40,467	45,336	47,876	52,061	53,839

Source: U.S. Department of Agriculture (April 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**





Note: 2017-30 are forecasts.

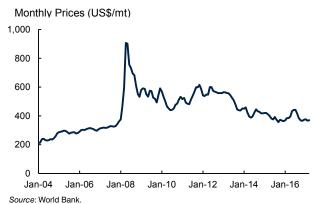
	Note: Last	observation	is March 20	17.
_				

	2003	2005	2008	2010	2011	2012	2013	2014	2015
				(me	tric tons)				
Mine production									
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
World	187.4	206.0	191.5	192.3	199.2	180.3	187.0	151.0	191.5
Autocatalyst scrap									
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
World	22.9	25.1	31.3	28.0	30.9	28.7	32.5	33.8	29.0
Old jewelery scrap									
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
World	5.2	11.5	30.1	16.2	18.8	15.9	15.3	16.1	16.7
TOTAL SUPPLY	215.5	242.6	252.8	236.6	248.9	224.9	234.7	200.9	237.2
Autocatalyst demand									
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
World	97.4	115.5	109.5	90.8	93.0	88.8	88.4	92.0	93.7
Jewelery demand									
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
World	88.2	72.7	57.4	68.5	74.3	80.4	82.3	79.3	76.4
Other demand									
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
World	50.8	57.2	71.0	62.1	64.1	60.6	49.2	51.8	65.5
TOTAL DEMAND	236.4	245.4	237.9	223.1	231.5	229.8	219.9	222.9	235.5

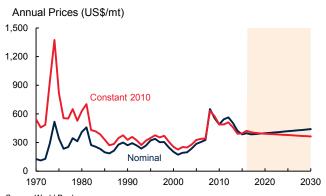
Sources: Platinum & Palladium Survey; Thomson Reuters (May 2016 update).

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

### Rice



Note: Last observation is March 2017.



Source: World Bank. Note: 2017-30 are forecasts.

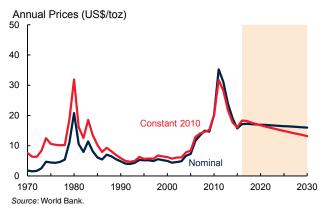
Note: Last observation is Marc	ch 2017.		Note: 2017-30 are forecasts.								
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17		
				(millio	n metric to	ons)					
Production											
China	77.0	97.9	132.5	131.5	137.0	142.5	144.6	145.8	144.9		
India	42.2	53.6	74.3	85.0	96.0	106.6	105.5	104.4	106.5		
Indonesia	13.1	22.3	29.0	33.0	35.5	36.3	35.6	36.2	37.2		
Bangladesh	11.1	13.9	17.9	25.1	31.7	34.4	34.5	34.5	34.6		
Vietnam	6.4	7.7	12.4	20.5	26.4	28.2	28.2	27.6	27.9		
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	12.4		
Philippines	3.4	5.0	6.4	8.1	10.5	11.9	11.9	11.0	11.5		
Brazil	3.7	5.9	6.8	6.9	9.3	8.3	8.5	7.2	8.2		
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	6.8		
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. <i>4</i>	48.3	52.2	52.0	52.3	53.1		
World	213.0	269.9	351.4	399.2	450.4	478.3	478.6	472.2	481.1		
Stocks											
China	11.0	28.0	94.0	93.0	42.6	53.1	57.4	63.7	69.1		
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	11.3	8.4	7.0		
Indonesia	0.6	3.0	2.1	4.6	7.1	5.5	4.1	3.5	3.5		
Japan	6.1	4.0	1.0	2.6	2.9	3.0	2.8	2.5	2.4		
Others	4.0	9.1	14.2	19.2	18.4	17.5	21.5	19.6	18.2		
World	28.8	52.6	126.6	146.7	100.1	113.9	114.9	116.1	118.1		
Exports											
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	9.9	10.0		
Vietnam	0.0	0.0	1.0	3.5	7.0	6.3	6.6	5.1	5.6		
Pakistan	0.2	1.2	1.3	2.4	3.4	4.0	3.8	4.3	4.0		
United States	1.5	3.1	2.3	2.6	3.5	3.0	3.1	3.4	3.6		
Myanmar	0.8	0.7	0.2	0.7	1.1	1.7	1.7	1.3	1.5		
Cambodia	0.0	0.0	0.0	0.0	0.9	1.0	1.2	0.9	1.0		
Others	4.3	3.6	2.6	5.6	5.8	5.5	5.2	5.3	5.4		
World	8.5	12.4	12.1	24.0	35.1	43.0	43.6	40.4	41.1		
mports											
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	1.3	1.4		
Côte d'Ivoire	0.1	0.3	0.3	0.5	0.9	0.8	1.3	1.3	1.3		
Iran, Islamic Rep.	0.1	0.6	0.6	0.8	2.0	1.5	1.4	1.1	1.1		
Iraq	0.1	0.4	0.3	1.0	1.2	1.0	1.2	0.8	1.0		
Others	7.0	9.6	8.9	16.2	23.6	25.5	26.7	24.5	24.1		
World	8.3	12.2	11.6	22.1	33.1	38.5	41.1	37.7	37.7		

Source: U.S. Department of Agriculture (April 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**





_	_		_	_		-						
Ν	o	te	:	2	01	7	-3	0	are	for	eca	sts

	4005
	1995

	1995	2000	2005	2010	2011	2012	2013	2014	2015
				(me	etric tons)				
oduction									
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
World	14,183	18,194	20,697	23,422	23,563	24,596	25,621	27,006	27,579
	14,100	10,104	20,007	20,722	20,000	2-1,000	20,02	27,000	21,010
brication	,	,	0.440	0.000	4 477	0.440	E 750	0.570	7.040
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
World	n/a	n/a_	29,441	32,235	34,893	31,246	35,382	35,208	36,405

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

 $\textit{Notes}: \textit{n/a} \ \textit{implies} \ \textit{data} \ \textit{not} \ \textit{available}. \ \textit{Fabrication}: \textit{jewelry} \ \textit{and} \ \textit{silverware}, \textit{including} \ \textit{the} \ \textit{use} \ \textit{of} \ \textit{scrap}.$ 

# **Soybeans**



Note: Last observation is March 2017.

Annual Prices (US\$/mt) 1,000 800 600 Constant 2010 400 200 Nominal 0 2000 2010 2020 2030 1970 1980 1990

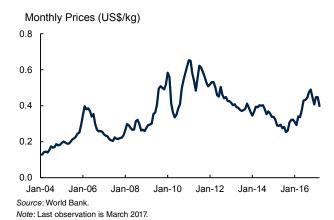
Source: World Bank.
Note: 2017-30 are forecasts.

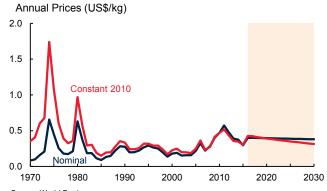
Note: Last observation is March	2017.			Note: 2	017-30 are forecas	SIS.			
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
				(millior	n metric tor	ıs)			
Production									
United States	30.7	48.9	52.4	75.1	90.7	91.4	106.9	106.9	117.2
Brazil	0.0	15.2	15.8	39.5	75.3	86.7	97.2	96.5	111.0
Argentina	0.0	3.5	11.5	27.8	49.0	53.4	61.4	56.8	56.0
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	9.2	10.1
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	4.3
Uruguay	0.0	0.0	0.0	0.0	1.9	3.3	3.1	2.2	3.3
Russian Federation	n/a	n/a	0.7	0.3	1.1	1.5	2.4	2.7	3.1
European Union	0.1	0.5	2.3	1.3	1.2	1.2	1.8	2.3	2.4
Others	2.3	3.1	5.3	4.8	6.7	7.2	7.8	7.3	7.7
World	42.1	80.9	104.3	175.8	264.3	282.5	319.6	313.0	346.0
rushings									
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	52.8
Argentina	0.0	0.9	7.0	17.3	37.6	36.2	40.0	43.2	45.3
Brazil	0.0	13.8	14.2	22.7	36.3	36.9	40.4	39.9	41.5
European Union	7.3	14.1	13.0	16.8	12.2	13.4	14.0	15.2	15.3
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	4.5
Paraguay	0.1	0.0	0.3	0.9	1.6	3.4	3.7	3.6	3.9
Others	12.7	23.8	24.4	15.8	19.3	20.8	25.0	26.6	28.5
World	42.5	83.9	99.7	146.4	221.9	242.8	264.1	275.4	291.9
xports									
Brazil	0.0	1.8	2.5	15.5	30.0	46.8	50.6	54.4	61.9
United States	11.8	19.7	15.2	27.1	41.0	44.6	50.1	52.7	55.1
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	4.9	4.5	5.3	6.2
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	5.7	6.7
World	12.3	25.3	25.4	53.8	91.7	112.8	126.2	132.2	143.3
mports	0.0	0.5	0.0	40.0	50.0	70.4	70.4	00.0	00.0
China		0.5	0.0	13.2	52.3	70.4	78.4	83.2	88.0
European Union	7.4	13.6	13.2	17.7	12.5	13.3	13.9	15.0	14.6
Mexico	0.1	1.4	1.4	4.4	3.5	3.8	3.8	4.1	4.2
Japan	3.2	4.2	4.4	4.8	2.9	2.9	3.0	3.2	3.2
Thailand	0.0	0.0	0.0	1.3	2.1	1.8	2.4	2.8	2.9
Taiwan, China	0.5	1.1	2.2	2.3	2.5	2.3	2.5	2.5	2.5
Egypt, Arab Rep.	0.0	0.0	0.0	0.3	1.6	1.7	1.9	1.3	2.4
Others World	8.8 <b>20.0</b>	19.0 <b>39.8</b>	17.6 38.8	9.1 <b>53.1</b>	12.3 <b>89.8</b>	16.8 113.1	18.4 <b>124.4</b>	21.3 <b>133.4</b>	22.3 <b>140.</b> 0

Source: U.S. Department of Agriculture (April 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





Source: World Bank.
Note: 2017-30 are forecasts.

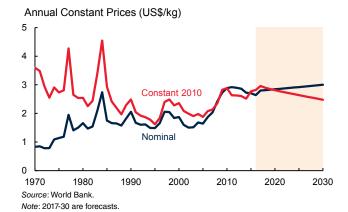
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>.</b>				(millio	n metric to	ons)			
Production									
Brazil	5.1	8.5	7.9	17.1	38.4	37.8	36.0	34.7	37.8
India	4.5	6.5	13.7	20.5	26.6	26.6	30.5	27.5	23.9
European Union	15.4	19.0	23.2	22.1	15.9	16.0	18.4	14.3	16.2
China	2.1	3.2	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
Others	47.1	55.7	62.6	58.1	35.2	38.7	39.4	37.8	39.6
World	85.7	107.6	137.6	152.9	162.2	176.0	177.5	165.8	170.9
Stocks									
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
Philippines	0.0	0.2	0.2	0.3	0.9	1.0	1.0	1.0	0.9
Others	14.4	13.3	12.9	22.0	14.1	16.6	17.8	13.6	12.2
World	20.2	17.6	22.4	39.9	29.5	43.8	45.7	38.0	30.8
Exports									
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
Mexico	0.6	0.0	0.3	0.2	1.6	2.7	1.5	1.3	1.4
Others	17.1	22.2	25.9	21.5	10.6	12.1	11.0	9.8	10.1
World	24.0	34.9	42.0	45.6	53.9	57.9	54.8	53.7	55.9
Imports									
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
Others	12.0	21.6	27.1	33.0	31.4	30.9	29.7	31.0	30.4
World	22.7	32.0	36.2	43.6	49.1	51.5	50.2	53.4	52.1

Source: U.S. Department of Agriculture (April 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



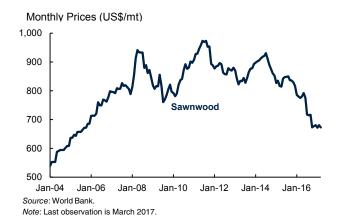


	1970	1980	1990	2000	2010	2011	2012	2013	2014
	(thousand me								
Production									
China	163	328	562	704	1,467	1,640	1,805	1,939	2,111
India	419	570	688	826	991	1,095	1,135	1,209	1,207
Kenya	41	90	197	236	399	378	369	432	445
Sri Lanka	212	191	233	306	331	328	330	340	338
Vietnam	15	21	32	70	198	207	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
Others	123	236	252	192	258	261	252	259	239
World	1,287	1,894	2,525	3,014	4,604	4,774	5,035	5,349	5,561
	1,207	1,004	2,020	0,014	-1,00-1	,	0,000	0,0-10	0,001
Consumption									
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
United Kingdom	234	186	142	133	121	129	125	116	n/a
Others	476	748	1,055	935	1,371	1,743	1,550	1,595	n/a
World	1,502	2,086	2,839	3,725	5,053	5,443	5,868	6,055	n/a
Exports									
Kenya	42	84	166	218	418	307	307	451	n/a
China	61	120	212	241	322	338	331	343	n/a
Sri Lanka	208	185	216	288	314	323	320	320	n/a
India	200	239	199	202	238	327	230	262	n/a
Vietnam	2	9	16	56	137	134	147	141	n/a
Argentina	22	39	58	90	125	124	112	113	n/a
Indonesia	41	74	111	106	88	76	71	72	n/a
Uganda	15	1	5	26	55	56	55	62	n/a
Canada	2	3	0	49	61	60	57	61	n/a
Others	179	242	257	365	514	497	524	550	n/a
World	772	996	1,240	1,641	2,272	2,242	2,154	2,375	n/a

Sources: Food and Agriculture Organization; Intergovernmental Group on Tea (February 13, 2017 update).

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

### Timber—Roundwood and Sawnwood





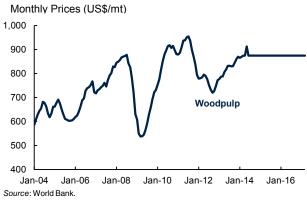
	1970	1980	1990	2000 (million	2010	2012	2013	2014	2015
				(million	cubic met	ers)			
ndustrial roundwood:	production								
United States	312.7	327.1	427.2	420.6	336.1	347.1	354.9	356.8	368.6
Russian Federation	n/a	n/a	n/a	145.6	161.6	177.5	180.4	188.3	190.5
China	42.2	79.2	91.2	96.0	161.8	159.6	168.7	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
India	12.7	19.7	35.1	41.2	48.8	49.5	49.5	49.5	49.5
Others	660.7	688.8	797.8	523.3	561.2	568.5	575.0	595.4	602.9
World	1,276.4	1,446.0	1,709.2	1,685.0	1,703.1	1,766.5	1,794.6	1,818.3	1,847.7
ndustrial roundwood:	imports								
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
Others	69.0	69.7	58.9	57.2	36.2	36.8	38.6	40.0	39.1
World	83.1	95.4	82.6	115.3	109.9	112.7	126.7	133.6	123.4
Sawnwood: production	n								
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
Japan	42.8	37.0	29.8	17.1	9.4	9.3	10.4	9.6	9.6
Others	208.8	215.2	235.8	132.3	135.6	137.4	139.0	142.4	144.2
World	389.1	420.9	463.0	384.8	375.6	404.7	423.1	439.5	452.3
Sawnwood: imports		1_010							
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 States 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
	6.0	6.9	6.1	6.3	4.8	4.5		4.6	5.0
Germany Italy	4.0	5.8	6.0	8.4	6.1	4.4	4.5 4.7	4.6	4.6
Others	19.6	27.8	27.3	40.6	48.2	48.3	49.6	51.6	50.9
World	52.6	71.5	27.3 84.5	40.6 <b>115.6</b>	108.4	46.3 113.2	49.6 <b>122.3</b>	128.8	130.9

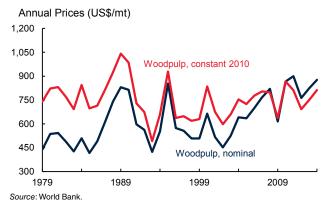
Source: Food and Agriculture Organization (December 14, 2016 update).

Notes: n/a implies data not available. Roundwood (which refers to Industrial roundwood), reported in cubic meters solid volume underbark (i.e. exclusing 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.

APPENDIX B

# Timber—Wood panels and Woodpulp





Note: Last observation is March 2017.

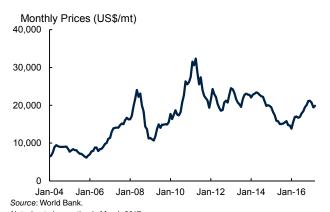
Note: 2017-30 are forecasts.

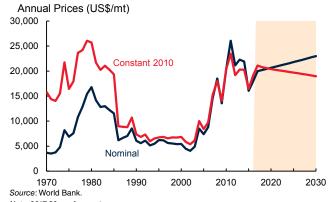
	1970	1980	1990	2000	2010	2012	2013	2014	2015
				(million o	ubic mete	rs)			
Vood-based panels: pr	oduction								
China	0.9	2.3	3.0	19.3	109.2	149.3	177.0	191.2	200.7
United States	23.0	26.4	37.0	45.7	32.6	31.5	33.5	33.6	33.8
Russian Federation	n/a	n/a	n/a	4.8	10.1	12.8	12.7	13.2	13.6
Canada	3.3	4.8	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	8.0	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
Indonesia	0.0	1.0	8.6	8.9	6.2	6.6	6.7	7.1	7.1
Others	34.7	53.6	59.3	65.8	82.7	82.7	84.0	87.5	89.0
World	69.8	101.3	129.0	186.3	288.3	334.7	367.3	387.9	399.4
Vood-based panels: im	ports								
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
Others	3.5	7.1	11.1	22.4	39.2	43.4	44.1	45.1	44.9
World	10.0	15.7	30.3	59.9	67.1	73.1	74.8	77.7	79.5
Voodpulp: production									
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
Indonesia	0.0	0.0	0.7	4.1	5.7	6.6	6.7	6.7	6.7
Others	22.5	29.1	37.1	30.8	33.8	34.9	34.7	35.3	34.9
World	101.6	125.7	154.8	171.3	170.6	171.4	171.8	175.3	175.6
Woodpulp: imports									
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
Others	7.6	7.6	8.2	12.3	15.3	16.9	17.9	18.5	18.5
World	16.6	20.6	25.2	37.8	47.9	53.7	55.8	57.2	58.7

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





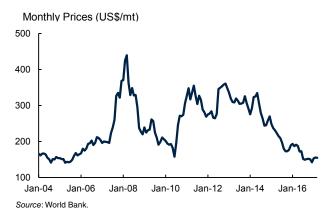
Note:	Last o	bservat	ion is	March	2017.

	1980	1990	2000	2005	2010	2013	2014	2015	2016
				(thousand	l metric to	ns)			
Mine Production									
China	16.0	42.2	87.7	113.1	129.6	149.0	174.0	146.6	153.1
Indonesia	32.5	39.3	51.6	120.0	84.0	84.0	69.6	68.4	60.0
Myanmar	1.2	0.6	1.6	0.7	0.8	9.0	17.5	28.6	47.4
Brazil	6.9	39.1	14.2	11.7	10.4	16.8	25.5	25.5	25.5
Peru	1.1	4.8	36.4	42.5	33.8	23.7	23.1	19.5	18.8
Bolivia	22.5	17.3	12.5	18.6	20.2	19.3	19.8	20.1	17.6
Australia	11.6	7.4	9.1	2.7	18.6	6.5	7.2	7.2	6.6
Vietnam	0.4	0.8	1.8	5.4	5.4	5.4	5.4	5.4	5.5
Congo, Dem. Rep.	3.2	1.6	0.0	7.6	7.4	5.2	4.1	4.4	4.1
Malaysia	61.4	28.5	6.3	2.9	2.7	3.7	3.8	4.1	4.1
Nigeria	2.5	0.3	2.0	0.9	1.3	2.6	2.5	2.4	3.8
Rwanda	1.5	0.7	0.4	3.3	2.9	3.6	4.4	3.7	2.6
Lao PDR	0.6	0.3	0.4	0.6	0.4	0.5	0.8	0.8	1.3
Others	69.7	41.6	10.4	3.0	0.5	0.6	0.6	0.5	1.3
World	231.1	224.5	234.5	333.1	318.0	329.9	358.4	337.2	351.9
Refined Production									
China	15.0	35.8	109.9	112.2	149.0	159.6	187.1	166.9	182.7
Indonesia	30.5	38.0	46.4	78.0	64.2	63.0	64.8	67.4	52.3
Malaysia	71.3	49.0	26.2	39.2	38.7	32.7	36.7	30.3	26.5
Brazil	8.8	37.6	13.8	9.0	9.1	14.7	22.3	22.2	24.4
Peru	0.0	0.0	17.4	38.3	36.4	24.2	24.5	20.4	19.4
Bolivia	17.5	13.1	9.4	15.6	15.0	14.9	15.4	15.5	16.8
Thailand	34.8	15.5	17.2	29.4	23.5	23.0	16.3	10.5	11.1
Belgium	3.1	6.1	8.5	7.7	9.9	10.3	9.7	8.8	8.5
Vietnam	0.0	1.8	1.8	1.8	3.0	5.5	5.5	5.5	5.5
Poland	0.0	0.0	0.0	0.0	0.6	1.9	2.3	2.2	2.9
Japan	1.3	0.8	0.6	0.8	0.8	1.8	1.7	1.7	1.6
Nigeria	2.7	0.3	0.1	0.6	0.6	0.6	0.6	0.6	0.6
Argentina	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Others	59.4	49.8	10.9	7.9	5.5	4.3	4.3	0.0	0.0
World	244.6	248.0	262.3	340.5	356.6	356.4	391.3	351.8	352.2
Refined Consumption	1								
China	12.5	25.5	49.1	108.7	154.3	169.3	193.9	176.4	191.4
United States	46.5	36.8	51.0	42.3	32.0	29.2	28.8	31.4	29.5
Japan	30.9	34.8	25.2	33.2	35.7	28.3	27.1	26.8	26.1
Germany	19.0	21.7	20.7	19.1	17.4	18.0	18.8	17.9	18.2
Brazil	4.7	6.1	7.2	5.7	8.7	8.8	14.9	14.8	17.3
Korea, Rep.	1.8	7.8	15.3	17.9	17.4	14.5	13.8	13.1	14.2
India	2.3	2.3	6.4	8.4	10.7	10.4	11.9	8.7	8.3
Spain	4.6	4.0	4.1	7.0	6.1	4.7	6.4	5.7	6.5
Vietnam	0.0	0.0	0.8	1.2	2.0	3.6	5.5	6.0	6.0
Others	100.6	98.6	97.0	95.2	84.3	70.6	70.3	68.5	69.3
World	222.9	237.6	276.9	338.6	368.8	357.4	391.5	369.1	386.8

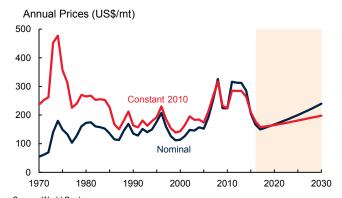
Source: World Bureau of Metal Statistics (March 2017 update).

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

### **Wheat**



Note: Last observation is March 2017.



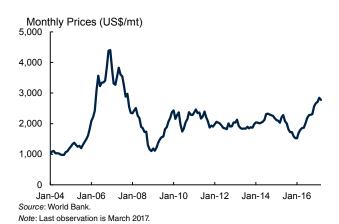
Source: World Bank.
Note: 2017-30 are forecasts

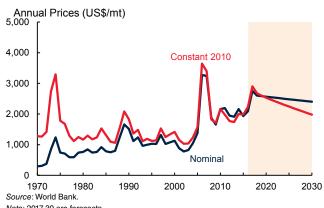
Note: Last observation is March	2017.			Note:	2017-30 are fore	ecasts.			
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
				(millio	n metric to	ons)		<u> </u>	
Production									
European Union	62.5	93.3	125.0	132.7	136.7	144.6	156.9	160.0	144.7
China	29.2	55.2	98.2	99.6	115.2	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	87.0
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	24.2	35.0
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	26.8
Pakistan	7.3	10.9	14.4	21.1	23.3	24.2	26.0	25.1	25.6
Turkey	8.0	13.0	16.0	18.0	17.0	18.8	15.3	19.5	17.3
Argentina	4.9	7.8	11.0	16.3	17.2	10.5	13.9	11.3	16.0
Others	183.3	222.2	197.9	64.8	91.4	106.2	101.8	106.4	103.1
World	369.1	529.2	713.8	582.8	649.5	715.0	728.1	735.2	751.4
Stocks									
China	7.2	31.7	49.9	91.9	59.1	65.3	76.1	97.0	111.1
United States	22.4	26.9	23.6	23.8	23.5	16.1	20.5	26.6	31.6
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.2	6.3	5.6	11.6
European Union	8.6	13.0	22.5	17.9	11.9	9.9	12.7	15.1	9.7
India	5.0	4.0	5.8	21.5	15.4	17.8	17.2	14.5	8.8
Australia	3.7	2.0	2.8	5.5	8.2	4.6	4.7	5.6	7.8
Canada	20.0	8.5	10.3	9.7	7.4	10.4	7.1	5.2	7.2
Others	22.3	39.5	62.3	34.2	59.7	65.7	73.0	72.1	64.5
World	89.1	125.6	193.7	206.0	198.9	194.9	217.6	241.7	252.3
Exports									
Russian Federation	n/a	n/a	1.2	0.7	4.0	18.6	22.8	25.5	28.0
United States	20.2	41.2	29.1	28.9	35.1	32.0	23.5	21.1	27.9
European Union	6.7	17.5	23.8	15.7	23.1	32.0	35.5	34.7	26.5
Australia	9.1	9.6	11.8	15.9	18.6	18.6	16.6	16.1	25.0
Canada	11.8	16.3	21.7	17.3	16.6	23.3	24.2	22.1	20.0
Ukraine	n/a	n/a	2.0	0.1	4.3	9.8	11.3	17.4	17.3
Argentina	1.0	3.8	5.6	11.3	9.5	2.3	5.3	9.6	10.1
Others	14.4	19.2	32.5	11.3	21.5	29.5	25.4	26.2	25.9
World	63.2	107.6	127.7	101.3	132.7	166.0	164.4	172.8	180.7
Imports									
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	10.2	11.3	11.9	11.5
Indonesia	0.5	1.2	2.0	4.1	6.6	7.4	7.5	10.1	9.0
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
India	2.9	0.1	0.1	0.4	0.3	0.0	0.1	0.5	6.0
Japan	4.8	5.8	5.6	5.9	5.9	6.1	5.9	5.7	5.9
Bangladesh	0.0	1.0	1.4	1.3	4.0	3.4	3.9	4.7	5.8
Others	62.0	80.2	79.1	68.8	91.6	116.9	117.8	122.2	123.1
World	75.4	99.9	102.7	99.3	132.1	158.5	159.1	170.0	176.2

Source: U.S. Department of Agriculture (April 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





Note: 2017-30 are forecasts.

	1980	1990	2000	2005	2010	2013	2014	2015	2016
	(thousa	nd metric	tons)						
Mine Production									
China	150	763	1,780	2,061	3,842	5,188	5,118	4,750	4,630
Peru	488	584	910	1,202	1,470	1,351	1,319	1,422	1,337
Australia	495	940	1,420	1,367	1,480	1,523	1,560	1,600	846
United States	349	571	829	748	748	784	832	808	798
Mexico	243	307	401	476	570	643	660	677	694
India	32	70	208	447	740	817	729	826	649
Bolivia	50	108	149	160	411	407	449	442	524
Kazakhstan	n/a	n/a	322	364	405	417	386	384	370
Canada	1,059	1,203	1,002	667	649	427	352	277	322
Sweden	167	160	177	216	199	177	222	247	257
Russian Federation	n/a	n/a	132	186	214	193	192	201	244
Turkey	23	35	18	19	196	195	210	185	202
Brazil	70	110	100	168	211	152	170	160	160
Others	n/a	n/a	1,366	1.488	1,336	1,390	1,423	1,288	1.198
World	6,172	7,176	8,815	9,569	12,472	13,663	13,622	13,265	12,231
Refined Production		, -	7,7	-,	,	-,	-,-	-,	, -
China	155	552	1,957	2,725	5,209	5,280	5,807	6,151	6,273
Korea, Rep.	76	248	473	650	750	895	915	935	992
Canada	592	592	780	724	691	652	649	683	687
India	44	79	176	266	701	773	700	817	612
Japan	735	688	654	638	574	587	583	567	534
Spain	152	253	386	501	517	484	501	509	510
Australia	301	309	489	457	506	498	488	478	474
Peru	64	118	200	166	223	346	336	335	342
Kazakhstan	n/a	n/a	263	357	319	320	325	324	326
Mexico	145	199	337	334	322	323	321	327	316
Finland	147	175	223	282	307	312	302	306	291
Netherlands	170	208	217	225	264	275	290	291	283
Brazil	79	150	192	267	288	245	246	231	244
Others	n/a	n/a	2,806	2,526	2,247	2,034	2,049	1,941	1,773
World	6,159	6,698	9,153	10,119	12,918	13,023	13,513	13,895	13,655
Refined Consumpti	,			,	,			,	
China	200	369	1,402	3,040	5,350	5,962	6,401	6,483	6,720
United States	810	992	1,315	1,080	907	935	962	931	789
India	95	135	224	389	538	640	638	612	672
Korea, Rep.	68	230	419	448	540	578	644	590	611
Germany	474	530	532	514	494	479	477	479	484
Japan	752	814	674	602	516	498	503	479	474
Belgium	155	178	394	256	321	222	388	450	368
Spain	91	119	195	260	206	185	222	219	273
Italy	236	270	377	373	339	245	270	258	260
Others	3,250	2,931	3,357	3,434	3,321	3,229	3,309	3,305	3,297
World	6,131	6,568	8,889	10,396	12,532	12,973	13,814	13,806	13,949

Source: World Bureau of Metal Statistics (March 2017 update).

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, NAR netback assessment effective February 13, 2017 and replaces NAR 90-day 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

AMIS	Agricultura	l Mark	et Inf	ormation Sy	/stem
AWIIS	Agricultura	i iviaik	et mi	ormanon sy	/Stem

DAP diammonium phosphate

EIA Energy Information Administration

EU European Union

FAO Food and Agriculture Organization FEWS NET Famine Early Warning Systems Network

GDP gross domestic product

IEA International Energy Agency
LME London Metal Exchange
LNG liquefied natural gas
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

WTI West Texas Intermediate

#### Data sources

Agrium Fact Book

Baker Hughes

Bloomberg

**BP** Statistical Review

Cotton Outlook

Food and Agriculture Organization (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

mmodity group	Share of energy and non-energy indexes	Share of sub-group indexe
ENERGY	100.0	100.0
Coal	4.7	4.7
Crude Oil	84.6	84.6
Natural Gas	10.8	10.8
NON-ENERGY	100.0	
Agriculture	64.9	
Beverages	8.4	100.0
Coffee	3.8	45.7
Cocoa	3.1	36.9
Tea	1.5	17.4
Food	40.0	
Grains	11.3	100.0
Rice	3.4	30.2
Wheat	2.8	25.3
Maize (includes sorghum)	4.6	40.8
Barley	0.5	3.7
Oils and Meals	16.3	100.0
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
Other Food	12.4	100.0
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
Agricultural Raw Materials	16.5	
Timber	8.6	100.0
Logs	1.9	22.1
Sawnwood	6.7	77.9
Other Raw Materials	7.9	100.0
Cotton	1.9	24.7
Natural Rubber	3.7	46.7
Tobacco	2.3	28.7
Fertilizers	3.6	100.0
Natural Phosphate Rock	0.6	16.9
Phosphate	0.8	21.7
Potassium	0.7	20.1
Nitogenous	1.5	41.3
Metals and Minerals	31.6	100.0
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
PRECIOUS METALS	100.0	7.1
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, 2011-2017**

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

Prices for most industrial commodities strengthened further in the first quarter of 2017 (q/q), while agricultural prices remained broadly stable. Crude oil prices are forecast to average \$55 per barrel in 2017 from \$43/bbl in 2016. The oil forecast is unchanged since January and reflects balancing forces: upward pressure on prices from production cuts agreed by Organization of Petroleum Exporting Countries and non-OPEC producing countries, and downward pressure from persistently high stocks, supported by the rebound of the U.S. shale oil industry.

Metals prices are projected to increase 16 percent as a result of strong demand in China and various supply constraints, including labor strikes, contractual disputes, environmental and trade policies. Agricultural commodity prices, which gained 1 percent in the first quarter, are anticipated to remain broadly stable in 2017, with moderate increases in oils and meals and raw materials balanced by declines in grains and beverages.

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

