

OCTOBER 2016

# Commodity Markets Outlook

*OPEC in Historical Context*



WORLD BANK GROUP

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OCTOBER 2016

# Commodity Markets Outlook



**WORLD BANK GROUP**

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# Contents

Acknowledgments . . . . .	v
Executive Summary . . . . .	1
<i>Special Focus: OPEC in historical context: Commodity agreements and market fundamentals . . . . .</i>	<i>3</i>
Commodity Market Developments and Outlook	
Energy . . . . .	13
Agriculture . . . . .	17
Fertilizers . . . . .	21
Metals and minerals . . . . .	22
Precious metals . . . . .	24
Appendix A: Historical commodity prices and price forecasts . . . . .	25
Appendix B: Supply-Demand balances . . . . .	33
Appendix C: Description of price series. . . . .	65

## Figures

1	Commodity price indexes, monthly . . . . .	1
2	OPEC production, 2010 and 2016. . . . .	1
F1	OPEC oil production and quotas . . . . .	5
F2	OPEC production, 2010 and 2016. . . . .	5
F3	World oil production . . . . .	6
F4	OPEC oil production . . . . .	6
F5	Commodity price indices . . . . .	7
F6	Crude oil supply growth . . . . .	7
F7	Non-OPEC oil supply growth 2005-2015 . . . . .	8
F8	U.S. rotary rigs . . . . .	8
F9	U.S. crude oil production . . . . .	8
F10	Oil prices . . . . .	8
3	Crude oil prices. . . . .	13
4	World oil demand growth . . . . .	13
5	U.S. crude oil production . . . . .	14
6	U.S. oil rig count and oil prices. . . . .	14
7	OPEC crude oil production . . . . .	15
8	OECD crude oil stocks. . . . .	15
9	Coal consumption. . . . .	16

10	Coal and natural gas prices . . . . .	16
11	Agriculture price indexes . . . . .	17
12	Commodity price indexes, change. . . . .	17
13	Global grain supply growth. . . . .	18
14	Global production of key edible oils . . . . .	18
15	Stock-to-use ratio estimates for maize, wheat and rice . . . . .	19
16	Global biofuels production . . . . .	19
17	Coffee prices . . . . .	20
18	Cotton and natural rubber prices . . . . .	20
19	Fertilizer prices . . . . .	21
20	Global nutrient consumption . . . . .	21
21	Metal and mineral prices. . . . .	22
22	World refined metal consumption. . . . .	22
23	World metal consumption growth. . . . .	23
24	Zinc price and LME stocks . . . . .	23
25	Precious metal prices . . . . .	24
26	Global silver production . . . . .	24

## Table

1	Nominal price indexes (actual and forecasts) and forecast revisions . . . . .	2
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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. A *Special Focus* section examines current topics and issues in commodity markets. Price forecasts to 2025 for 46 commodities are presented, together with historical price data. The report also contains production, consumption, and trade statistics for major commodities. Commodity price data updates are published separately at the beginning of each month.

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

Most commodity prices continued to rise in the third quarter from their lows in early 2016. Crude oil prices are forecast to rise to \$55 per barrel in 2017 from an average of \$43/bbl this year as the market continues to rebalance and OPEC is likely to limit output. Metals prices are projected to rise more sharply in 2017 than forecast in July, as a result of faster-than-expected mine closures. Agricultural commodities prices are anticipated to rise slightly in 2017 after a minimal decline this year but with wide variations in the outlook for different commodities depending on supply conditions. This issue of the *Commodity Markets Outlook* analyzes OPEC's recent decision to limit output by examining earlier commodity agreements and assessing the implications of changing market forces over the past decades. It concludes that commodity agreements have limited ability to influence global prices over extended periods of time and eventually collapse, often with unintended consequences. The ability of OPEC, the only surviving commodity organization seeking to influence markets, will be tested in the presence of unconventional oil suppliers, notably the U.S. shale oil industry.

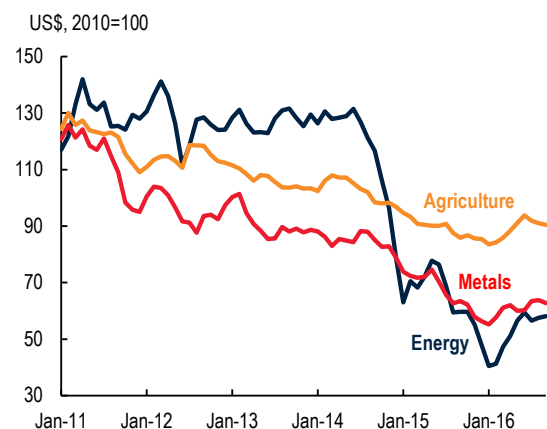
**Trends.** Energy prices rose more than 3 percent in the third quarter of 2016 from the second quarter (Figure 1). Coal prices surged 30 percent, reflecting strong import demand and tightening supply in China following restrictions on production aimed at reducing pollution. U.S. *natural gas* prices jumped more than 33 percent due to strong demand for air conditioning, falling production, lower injections into storage, and increased exports to Mexico and to South America during the southern hemisphere winter.

Crude oil prices were slightly lower in the quarter, averaging \$44.7/bbl, as supply returned to the market, notably in Canada, after wildfires in the spring. OPEC production edged up, with most of the gains coming from Iran and Saudi Arabia. Oil prices jumped in late September, when OPEC members announced a plan to limit oil output. The details of this agreement are expected to be finalized at the group's meeting in November. The Islamic Republic of Iran, Libya and, Nigeria are likely to be excluded from the agreement (Figure 2).

The *Non-Energy Commodity Price Index* rose marginally in the third quarter with large variations across individual commodities, mostly because of supply conditions. *Metals* prices increased 4 percent from the second quarter due to mine closures in a number of countries and production cuts. *Precious metals* prices jumped 8 percent in the third quarter due to strong investment demand following the U.S. Federal Reserve's delay of an expected interest rate increase, although the trend has reversed on heightened expectations of a rate rise in December. The *Beverage Price Index* rose 4 percent, led by a 10 percent increase in coffee prices as a result of drought-related crop losses. Grains prices declined 8 percent following wheat and maize price drops of 15 percent and 10 percent, respectively, attributable to record crops.

**Outlook and risks.** All main commodity price indexes are projected to decline in 2016 from the previous year, with the exception of food and precious metals, reflecting well-supplied markets (Table 1). The declines for most indexes are smaller than expected in

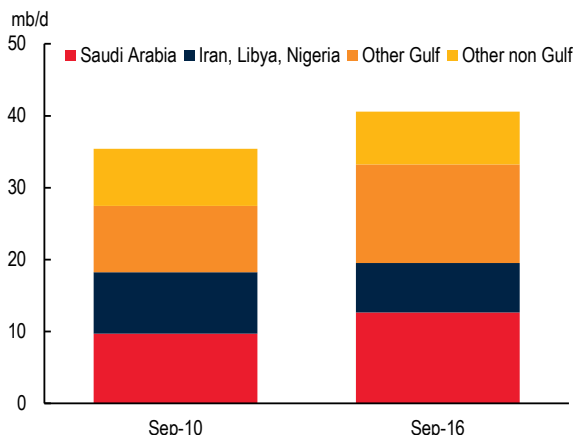
## 1 Commodity price indexes, monthly



Source: World Bank.

Note: Last observation is September 2016.

## 2 OPEC production, 2010 and 2016



Source: International Energy Agency.

Notes: Other Gulf is Iraq, Kuwait, Qatar, United Arab Emirates. Other non Gulf is Algeria, Angola, Ecuador, Gabon, Indonesia, República Bolivariana de Venezuela.

the July, with some exceptions. Prices for most commodities are expected to rise in 2017. *Energy* prices are forecast to increase 24 percent in 2017 after dropping 15 percent this year.

*Oil* prices are expected to average \$55/bbl, next year, higher than the \$53/bbl forecast in July, reflecting OPEC's intention to limit output. Upside risks to the oil price forecast include further supply disruptions among key producers and stronger-than-expected OPEC production cuts. In contrast, greater-than-expected oil output and further weakening in EMDE economic growth could lower prices.

*Non-energy* commodity prices are expected to rise 2 percent in 2017 after a 3 percent drop the previous year. *Metals* prices are forecast to rise 4 percent in 2017 after a 9 percent slide in 2016. Zinc, lead, and tin prices are projected to increase due to tightening supplies. Downside price risks for metals include a further slowdown of growth in China and higher-than-expected production, while upside risks relate to government-directed supply restraint in Asia and reluctance by producers to activate idle capacity as demand picks up. Precious metals prices are projected to decline in 2017 as benchmark interest rates rise and safe-haven buying ebbs.

Although, on average, the Agricultural Price Index is expected to remain broadly stable in 2017, the outlooks for its components vary depending on supply conditions. A small increase of 1.5 percent in the Food Price Index largely reflects an anticipated 2.9 percent rebound in grains prices. This is expected to be a correction from the price decline in 2016 that resulted from larger-than-expected crops of maize in

the United States and wheat in Australia and Central Asia. Upside risks to the agricultural price forecasts include worsening weather conditions in South America and East Asia and a larger-than-expected increase in energy prices, a key cost component. Risks of disruptions from the La Niña weather pattern are limited. Downside price risks include the possibility of increased agricultural subsidies, which would encourage greater supplies as well as diminished diversion of food commodities to the production of biofuels.

*Special Focus on OPEC production in the context of commodity agreements and market fundamentals.* On September 28, OPEC agreed to limit crude oil output to 32.5-33.0 million barrels per day, effectively ending two years of unrestrained production. This marked an important policy shift, especially for Saudi Arabia, the organization's largest producer. The details of the new plan are to be worked out and announced at the group's meeting on November 30. The Islamic Republic of Iran, Libya, and Nigeria, all OPEC members, are likely to be exempted from the production limits because of earlier production losses. The plan, if implemented, would be the first production cut since 2008. OPEC is also preparing a framework for consultations with non-OPEC producers including the Russian Federation. The *Focus* section concludes that commodity agreements have limited ability to influence the market and eventually collapse, often with unintended consequences. In the case of OPEC, the only surviving commodity organization seeking to influence markets, guiding global oil prices will be challenging in the presence of unconventional oil producers, notably the U.S. shale oil industry.

**TABLE 1 Nominal price indexes (actual and forecasts) and forecast revisions**

	Price Indexes (2010=100)						Change (%)		Revision <sup>2</sup>	
	2012	2013	2014	2015	2016f <sup>1</sup>	2017f <sup>1</sup>	2015-16	2016-17	2016f	2017f
<b>Energy</b>	128	127	118	65	55	68	-15.1	24.0	0.8	2.0
<b>Non-Energy<sup>3</sup></b>	110	102	97	82	80	82	-3.1	2.1	0.8	0.8
<b>Agriculture</b>	114	106	103	89	89	91	-0.1	1.4	0.6	0.5
<i>Beverages</i>	93	83	102	94	92	91	-2.0	-0.6	2.0	1.8
<i>Food</i>	124	116	107	91	92	94	1.7	1.5	1.2	1.1
Oils and meals	126	116	109	85	89	91	4.9	2.0	1.8	1.6
Grains	141	128	104	89	83	85	-6.7	2.9	-2.7	-2.5
Other food	107	104	108	100	105	105	4.9	-0.2	3.9	3.5
<i>Raw Materials</i>	101	95	92	83	80	82	-3.7	2.6	-1.7	-1.5
<b>Fertilizers</b>	138	114	100	95	78	80	-18.0	2.0	0.0	0.0
<b>Metals and Minerals</b>	96	91	85	67	61	63	-9.1	4.1	1.2	1.6
<b>Precious Metals<sup>3</sup></b>	138	115	101	91	97	95	7.5	-2.0	0.0	0.0
<b>Memorandum items</b>										
Crude oil (\$/bbl)	105	104	96	51	43	55	-14.6	27.5	0.3	2.0
Gold (\$/toz)	1,670	1,411	1,266	1,161	1,250	1,219	7.7	-2.4	0.0	0.0

Source: World Bank.

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



## SPECIAL FOCUS:

OPEC in historical context:  
Commodity agreements and market fundamentals



## OPEC in historical context: Commodity agreements and market fundamentals

On September 28, members of the Organization of the Petroleum Exporting Countries (OPEC) agreed to limit crude oil output to 32.5-33.0 million barrels per day, effectively ending two years of unrestrained production. This marked an important policy shift, especially for Saudi Arabia, the organization's largest producer. The details of OPEC's plan are to be worked out and announced at the group's meeting on November 30. The Islamic Republic of Iran, Libya, and Nigeria, all OPEC members, are likely to be exempted from the production limits because of earlier production losses. The plan, if implemented, would be the first production cut since 2008. OPEC is also preparing a framework for consultations with non-OPEC producers. Against this background, this Special Focus section addresses the following questions: (1) What does OPEC's new plan entail? (2) How does OPEC compare with earlier formal commodity agreements? (3) What do market forces over the past decade imply for OPEC's ability to control prices? It concludes that formal commodity agreements have limited ability to influence the market and eventually collapse, often with unintended consequences. In the case of OPEC, the only surviving commodity organization seeking to influence markets, guiding global oil prices will be challenging in the presence of unconventional oil producers, notably U.S. shale oil.

### OPEC's new plan

On September 28, 2016, OPEC members (which currently account for one-third of global production) agreed to limit output to 32.5-33.0 mb/d, but details and a final decision are being deferred until a meeting on November 30 (Figure 1).

Specifics of the plan are to be worked out by a high-level committee, which is also tasked with preparing a framework for consultations with non-OPEC producers. The Russian Federation has tentatively agreed to support OPEC's decision to limit production. The Islamic Republic of Iran, Libya, and Nigeria are likely to be given exemptions because of earlier production losses.

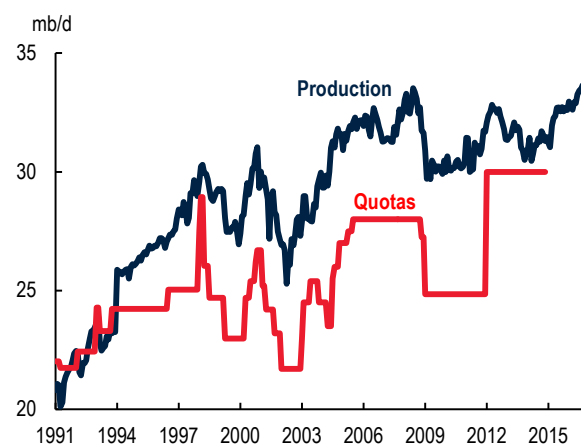
The plan, which effectively ends two years of unrestrained production, marks an important policy shift for Saudi Arabia, OPEC's largest producer.

OPEC members must agree on a number of issues, including individual member quotas, the base period for any cuts, the timing of implementation, and at what level excluded countries would cap production. A cut to 32.5 mb/d would entail a 1.0 mb/d reduction from current output, or 0.5 mb/d if the ceiling were set at 33.0 mb/d. Should the Islamic Republic of Iran, Libya, and Nigeria raise production significantly in the coming months, larger cuts would be warranted by other producers to meet their overall targets (Figure F2).

### Comparison of OPEC with earlier commodity agreements<sup>1</sup>

The decision by OPEC to abandon production quotas in favor of a market-share strategy in November 2014 and its recent decision to again limit production

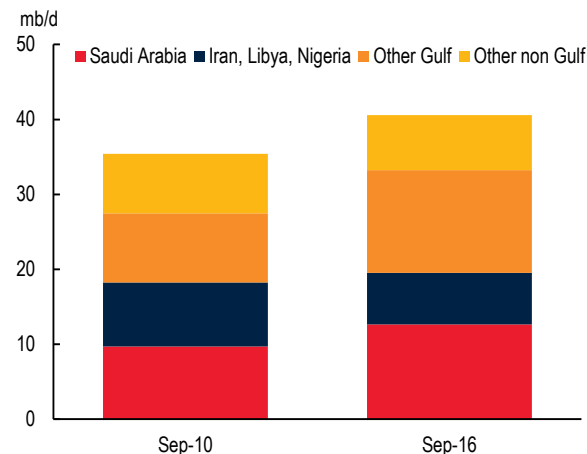
**F1 OPEC oil production and quotas**



Sources: World Bank, International Energy Agency.

Note: Last observation is September 2016. Quotas ceased after November 2014.

**F2 OPEC production, 2010 and 2016**



Source: International Energy Agency.

Notes: Other Gulf is Iraq, Kuwait, Qatar, United Arab Emirates. Other non Gulf is Algeria, Angola, Ecuador, Gabon, Indonesia, República Bolivariana de Venezuela.

have led to a debate about the effectiveness of OPEC managing markets. OPEC production has fluctuated significantly, especially in the 1980s, as it sought to first cut production to maintain high prices, and later abandoned that effort to regain market share (Figures F3 and F4).

Efforts to manage world commodity markets to achieve price objectives have not been unique to the oil market. The historical record of such arrangements may offer insights about what lies in store for OPEC. A number of formal commodity agreements, often negotiated among producing and consuming nations to stabilize prices at levels deemed fair to both, were put in place after World War II. These arrangements covered coffee, olive oil, sugar, tin, and wheat (Swirling 1968). A renewed effort to establish commodity agreements took place after the 1970s price boom. Such accords were typically backed by the United Nations and were extended to other commodities, including cocoa and natural rubber (Gilbert 1996). Participants agreed to legally binding ways to manage markets, including export restrictions and inventory management. However, these laws proved to be the agreements' undoing. Over the long term, price and trade restrictions imposed by some of the agreements either encouraged the emergence of competitor products, such as aluminum for tin, or the entry of new producers, as Vietnam in the case of coffee. With the exception of OPEC, all of these agreements have collapsed.

## Tin

First negotiated in 1954 with the objective of maintaining tin prices within a desired range through the management of buffer stocks, the International Tin Agreement (ITA) collapsed in 1985 following several years of insufficient funds to maintain stocks (Chandrasekhar 1989). Because tin prices under the agree-

ment were higher and more stable than before, new tin producers outside the agreement entered the market: Brazil, for example, increased its market share from 1 percent in the 1960s to 10 percent in the 1980s. In addition, higher tin prices under the ITA encouraged the development of a substitute, aluminum, which gained market share by capturing growing demand from beverage can producers. Between the 1950s and 2000s, global tin output grew by 65 percent while aluminum output grew twice as much.

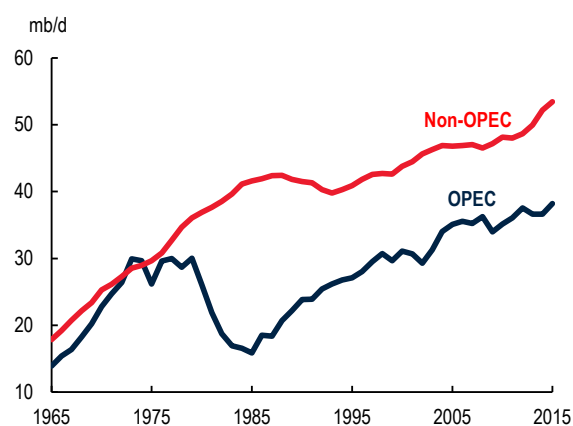
## Coffee

In 1962, coffee-producing countries accounting for 90 percent of global coffee output joined with almost all developed coffee-consuming countries to sign the International Coffee Agreement (ICA) with the objective of stabilizing world coffee prices through mandatory export quotas (Akiyama and Varangis 1990). Higher coffee prices encouraged the emergence of new producers. For example, before the agreement collapsed in 1989, two non-ICA members, the Union of Soviet Socialist Republics and the German Democratic Republic, provided Vietnam with technical and financial assistance to develop its coffee industry (Baffes, Lewin, and Varangis 2005). In 1970, Vietnam produced just 0.7 percent of the 59 million bags of annual global production. By the early 2000s, it had overtaken Colombia as the world's second-largest coffee producer after Brazil. It now accounts for 20 percent of global coffee production.

## Natural Rubber

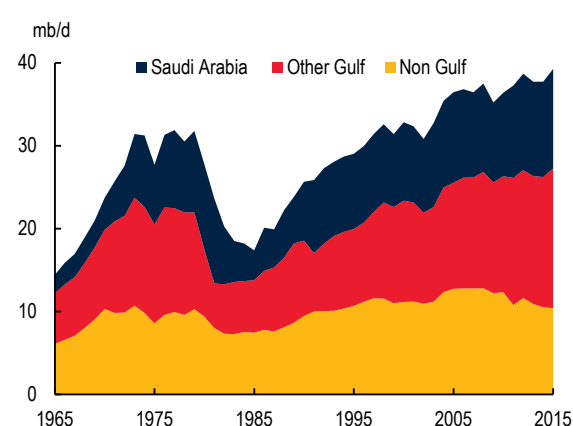
Another arrangement, covering natural rubber, collapsed during the Asian financial crisis due to currency volatility of three key producers: Indonesia, Malaysia, and Thailand. A buffer stock of rubber was used to maintain prices within a desired range. The buffer stock manager was authorized to buy or sell

**F3 World oil production**



Source: International Energy Agency.

**F4 OPEC oil production**



Source: International Energy Agency.

Note: Other Gulf is Iraq, Kuwait, Qatar, United Arab Emirates. Non Gulf is Algeria, Angola, Ecuador, Gabon, Indonesia, Libya, Nigeria, and República Bolivariana de Venezuela.

rubber when its price (indexed into the domestic currencies of these three producers) dropped or exceeded a certain level (Khan 1980). Because of weak global demand (partly due to the Asian crisis), U.S. dollar-denominated rubber prices declined and should have triggered production cuts. However, the currencies of the three main rubber-producing countries devalued sharply during the Asian crisis and raised the local-currency prices of rubber, triggering a production expansion in the rubber pricing mechanism. This inconsistency eventually led to the collapse of the agreement.

### Crude oil

The largest player in the global crude oil market is OPEC, which was founded in 1960 to “co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry” (OPEC 2016). At present, the organization consists of 14 members.<sup>2</sup> OPEC began to significantly affect the oil market in 1973 following its decision to impose an embargo on oil exports and the subsequent quadrupling of its official oil prices—from \$2.70/bbl in September 1973 to more than \$10/bbl in 1974. Following the substantial loss of Iranian oil during the 1989-90 revolution, oil prices spiked to over \$40/bbl, but OPEC decided to set its official price of Saudi Light oil at \$34/bbl. Saudi Arabia became the swing producer through 1985. But this role caused production to fall by two-thirds, leading it to abandon that role and regain its market share.<sup>3</sup>

Over the next three decades, OPEC influenced oil prices through individual member quotas, adjusting them during the ebb and flow of oil prices, oil de-

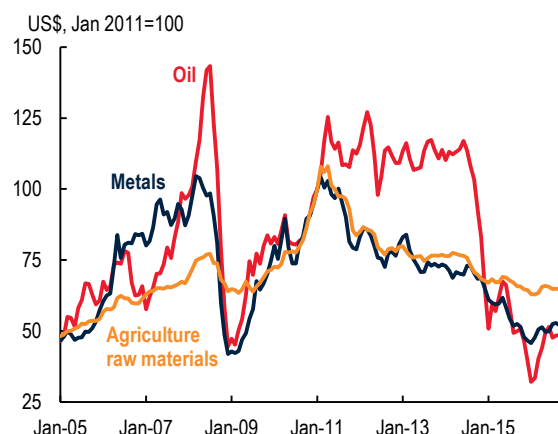
mand, and non-OPEC supply. Production cuts in 1998-99 during the East Asian financial crisis and 2008-09 during the deep global recession were instrumental in lifting oil prices. Overall, high oil prices during the commodity price boom stimulated new supplies, which again challenged the organization’s ability to influence the oil market. A key difference between OPEC and the earlier formal commodity agreements is that OPEC does not have contractual rules dictating whether and how to intervene in markets. Thus, the organization has endured and responded flexibly to changing circumstances.

### Implications of market forces over the past decade

Following two decades of relative stability, most commodity prices began increasing in the early 2000s, leading to the longest, most broad-based commodity price boom since the Second World War. Oil prices briefly approached \$150/bbl in July 2008. The causes of the boom were numerous, and included a surge in growth by emerging markets (especially China), low investment prior to the boom (partly a result of the 2-decade long low commodity prices), and abundant financial liquidity. As global demand collapsed, oil prices halved during the global financial crisis. After the financial crisis, virtually all commodity prices rebounded, led by oil due to large production cuts by OPEC and strong emerging market demand. Commodity prices reached a new peak in early 2011 (Figure F5). However, markets then began to tilt into surplus due to weaker growth prospects for emerging markets and supply that had begun to build up.

Industrial commodity prices began falling in 2011, but oil prices remained high for nearly four more years. OPEC production restraint, and outages in a number of countries—notably the Islamic Republic

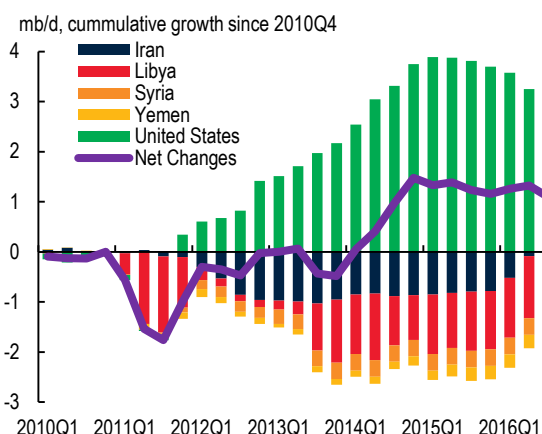
**F5 Commodity price indices**



Source: World Bank.

Note: Last observation is September 2016.

**F6 Crude oil supply growth**



Source: International Energy Agency.

Note: Last observation is 2016Q3.



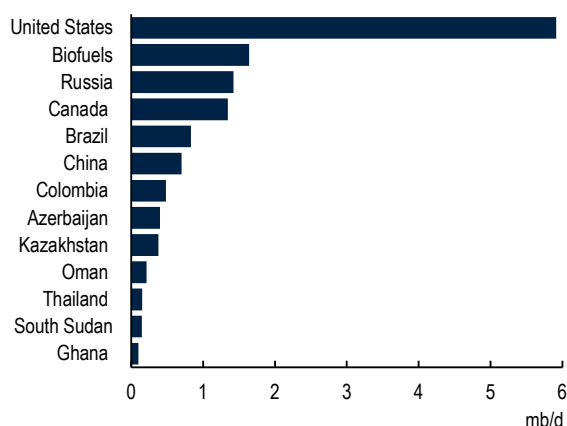
of Iran, Libya, Nigeria, and Yemen—offset the large growth in non-OPEC supply, which came mainly from U.S. shale (Figure F6). However, global oil supply was building, not only from shale, but also from other unconventional sources including biofuels, Canadian oil sands, and from non-OPEC members such as Brazil, China, and Russia (Figure F7). By 2014, global oil supplies had begun to exceed demand by nearly 1 mb/d, led by U.S. oil production growth. OPEC members faced a decision of either cutting production and preserving high oil prices, or seeking to protect market share by allowing prices to drop. They chose the latter, and prices fell to less than \$30/bbl in January 2016.<sup>4</sup>

A new development over the two decades that altered the landscape of the energy industry has been the development of U.S. shale deposits. U.S. shale technologies—the combined use of hydraulic fracturing and

horizontal drilling—were first used to develop natural gas shale deposits. Substantial growth in shale gas production led to a collapse in U.S. gas prices and eventually drilling for shale gas (Figure F8). “New” natural gas basins were developed in the U.S. northeast and elsewhere. Production has expanded to the extent that the country has begun exporting liquefied natural gas abroad, in addition to increasing pipeline exports to Mexico. Despite expanded production, the United States remains a net importer of natural gas, mainly from Canada.

Spurred by shale technologies and high prices, shale oil production grew quickly and became the main source of growth in U.S. oil production (Figure F9). It now accounts for more than 5 percent of global oil production. Production from shale wells follows a much shorter cycle than conventional development. Wells deplete rapidly and are usually 70 percent

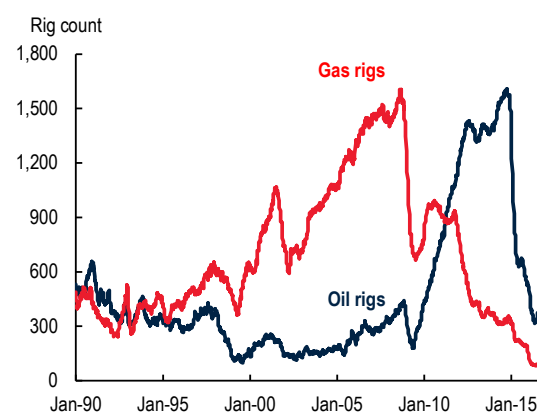
**F7 Non-OPEC oil supply growth 2005-2015**



Source: International Energy Agency.

Note: Biofuels are not included in country totals. The numbers represent cumulative additions from 2005 to 2015.

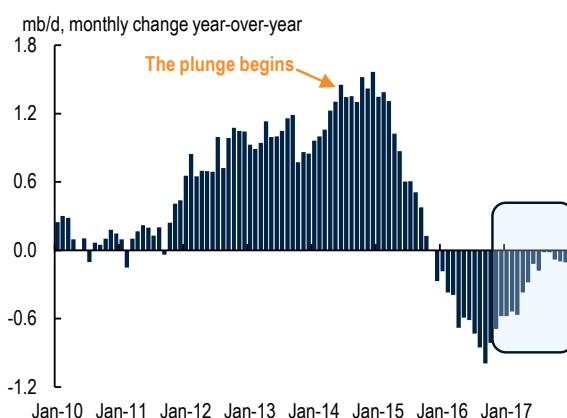
**F8 U.S. rotary rigs**



Source: Baker Hughes.

Note: Weekly frequency. Last observation is October 14, 2016.

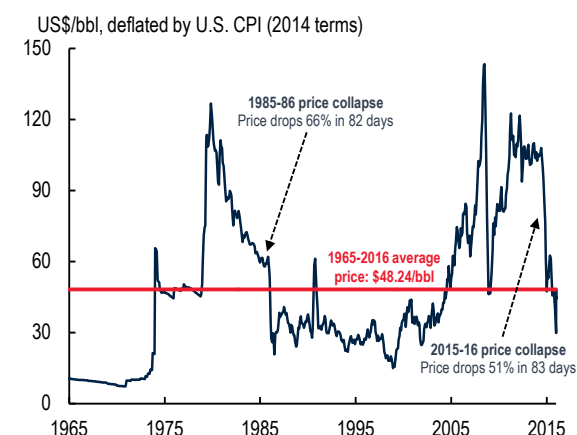
**F9 U.S. crude oil production**



Source: International Energy Agency.

Note: Shaded area (October 2016 to December 2018) represents IEA projections.

**F10 Oil prices**



Source: World Bank.

Note: Last observation is September 2016.



tapped in the first year—compared with just a few percent in conventional wells that can last decades. The shale industry is still relatively new and continues to make significant gains in productivity, technology, and operating practices.<sup>5</sup> With the collapse in oil prices over the past two years, production costs have fallen significantly. Rystad Energy (2016) reports that the average shale wellhead breakeven price decreased on average by 22 percent year-over-year from 2013 to 2016. In addition, U.S. shale oil producers benefit from the fact that they are able to hedge (sell) the bulk of their production forward on futures markets and receive a predictable revenue stream.

OPEC's decision to reinstate quotas comes as the oil market adjusts its balance of stocks and supply to a period of lower prices. The organization's decision also comes as prices are near their long term 50-year average (Figure 10). Should OPEC and other producers succeed in restraining production and lifting prices meaningfully, investment in oil production and non-OPEC supply would likely rise—especially in view of the flexible nature of shale oil production. This is likely to test OPEC's ability to lift oil prices in the medium term.

## Endnotes

1. This section draws heavily from Baffes, Kose, Ohnsorge, and Stocker (2015).
2. OPEC was created at the Baghdad Conference on September 10-14, 1960, by Islamic Republic of Iran, Iraq, Kuwait, República Bolivariana de Venezuela, and Saudi Arabia. The five founding members were later joined by nine other Members: Qatar (1961), Indonesia (1962; it suspended its membership from January 2009 to December 2015, before rejoining), Libya (1962), United Arab Emirates (1967), Algeria (1969), Nigeria (1971), Ecuador (1973; it suspended its membership from December 1992 to October 2007, before rejoining), Angola (2007), and Gabon (1975; which terminated its membership in January 1995 but rejoined in July 2016). Currently OPEC's membership consists of 14 countries.
3. Swing producer is defined as a large producer with the ability to lower and raise production to affect the level of prices.
4. The 2014-15 oil price plunge shares a number of similarities with the 1985-86 collapse. Both price collapses took place after a long period of high oil prices, in part

supported by OPEC. In both cases, high prices brought new oil supplies: North Sea, Gulf of Mexico, and Alaska prior to 1985 (accounting for about 9 percent of global oil supply in 1985) and Canadian oil sands, biofuels, and U.S. shale oil prior to 2014 (accounting for about 8 percent of global oil supply in 2014). In both cases the oil collapse was aided by OPEC's actions.

5. For example, well productivity in the Bakken shale basin in North Dakota has risen from less than 300 barrels per well to 1,000 barrels per well from 2012 to 2016. Key operating improvements include shorter drilling cycles, longer laterals, multi-well drilling pads, tighter well spacing, greater proppant use, improved geo-steering, and refracting of wells.

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# COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy  
Agriculture  
Fertilizers  
Metals and minerals  
Precious metals



## Energy

The World Bank Energy Price Index rose 3 percent in the third quarter of 2016 from the previous quarter. Oil prices were largely unchanged, as market rebalancing stalled. Meanwhile, coal prices surged 30 percent on government-ordered production cuts in China that raised import demand. Natural gas prices jumped 21 percent, largely due to developments in the United States: strong cooling demand due to warm weather, falling production, and higher exports—both by pipeline to Mexico, and via liquid natural gas (LNG), mainly to South America.

### Crude oil

Crude prices in the third quarter were little changed, averaging \$44.7/bbl (Figure 3). Prices were volatile, however, falling from a high of \$50/bbl in early June to below \$40/bbl in early August, on weak demand and recovering supply from earlier outages, notably in Canada. Prices later rebounded on reports of a possible production freeze among major oil producers, rising above \$50/bbl in early October following an OPEC agreement to limit output.

Disruptions in Canada, Nigeria, and elsewhere curtailed global production in the second quarter. But, as supply disruptions were resolved, production again exceeded consumption in the third quarter. OECD total oil inventories remain high, particularly in the United States, but stocks started to decline in August. U.S. crude oil inventories have fallen seasonally for the past four months, but product inventories continue to rise, in part because of slowing demand.

OPEC supply continued to increase to record highs, up 1.0 mb/d over the first nine months, with higher output from the Islamic Republic of Iran, Iraq, and

Saudi Arabia. At a meeting in late September, OPEC agreed to set a new production target of 32.5-33.0 mb/d, but the details and timing were deferred to its November meeting (*Special Focus*).

The spread between West Texas Intermediate (WTI) and Brent spot crude oil prices narrowed significantly in September, tipping into a small premium for WTI. Declines in U.S. stocks helped boost WTI prices, while additional supplies from Libya and Nigeria tended to put downward pressures on Brent prices. Futures prices several years forward show the WTI discount to Brent widening to more than \$3/bbl, as the United States is expected to remain a large oil importer, and crude exports are expected to be limited despite the removal of the export ban in late 2015.

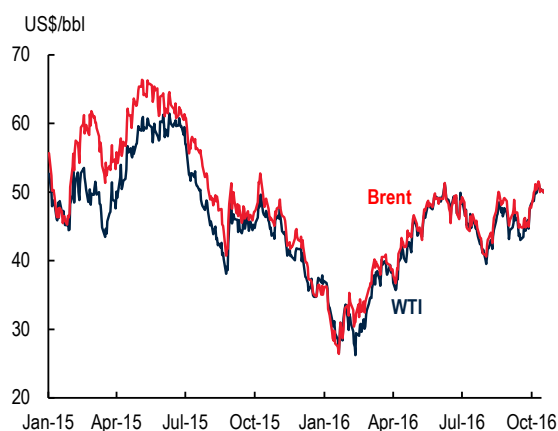
### Demand

While world oil demand is projected to increase this year, there has been a marked slowdown in its pace of growth. Demand expanded by 1.5 mb/d y/y (1.6 percent) year-on-year in the first quarter, but only 1.3 mb/d (1.4 percent) in the second (Figure 4). The slowdown occurred in both OECD and non-OECD regions. Demand growth is estimated to have slowed further to 0.8 mb/d (0.8 percent) in the third quarter, with all of the reduction in the OECD.

Non-OECD oil demand growth began the year rising 1.4 mb/d, or 3.0 percent, in the first quarter, but slowed to around 0.9 mb/d in the second and third quarters. Much of the recent weakness was in East Asia, with China recording little growth in the third quarter due to slowing industrial use and other temporary factors, such as heavy flooding that impeded transportation. India's demand remained robust, rising 0.3 mb/d, or 8 percent, year-to-date.

World oil demand for 2016 is projected to increase by

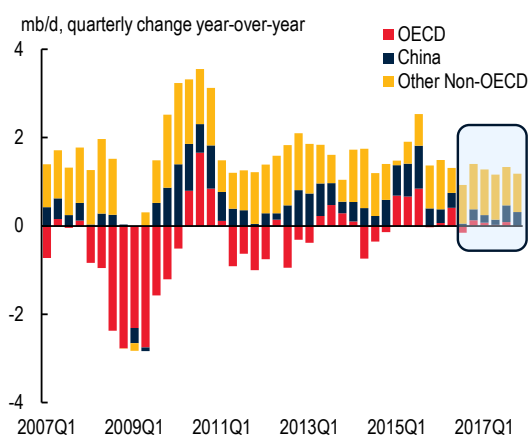
#### 3 Crude oil prices



Source: Bloomberg.

Note: Daily frequency. Last observation is October 18, 2016.

#### 4 World oil demand growth



Source: International Energy Agency.

Note: Shaded area (2016Q3-2017Q4) represents IEA projections.

1.2 mb/d (1.3 percent) to an average of 96.3 mb/d. OECD oil demand is projected to rise by 0.1 mb/d, with increases in Europe offsetting declines elsewhere. Non-OECD oil demand is projected to rise by 1.1 mb/d (2.3 percent), led by increases in China and India but at the slowest pace since 2009. In 2017, global demand growth is expected to rise by 1.2 mb/d (1.3 percent), with most of the growth projected outside the OECD, and a small increase in North America.

## Supply

Global oil production and consumption were broadly matched in the second and third quarters, compared with large surplus production of 1.2 mb/d in the first quarter, and 1.6 mb/d in 2015. Supply outages in the second quarter and continued declines in non-OPEC supply, notably in the United States, constrained production. In the third quarter, world oil supply was slightly lower compared with a year earlier, with declines in non-OPEC output nearly offset by increases in OPEC production, led by the Islamic Republic of Iran and Saudi Arabia, and biofuels.

Non-OPEC supply peaked in the fourth quarter of 2015 and began falling year-on-year in the first quarter of 2016, as the large investment cutbacks over the past two years began to curtail production. Output fell by around 1.2 mb/d (2 percent) in the second and third quarters, with most of the decline concentrated in the United States and, to a lesser extent, China. There were also notable decreases in Canada (due to spring fires in northern Alberta), Colombia, Mexico, and South Sudan (due to outages). These were partly offset by gains in Brazil, Republic of Congo, and the Russian Federation. Non-OPEC supply is expected to fall a further 1.2 mb/d in the fourth quarter, and record a decline of 0.9 mb/d (2 percent) for 2016 as a whole, with nearly three-quarters of the decrease ac-

counted for by production cuts in North America.

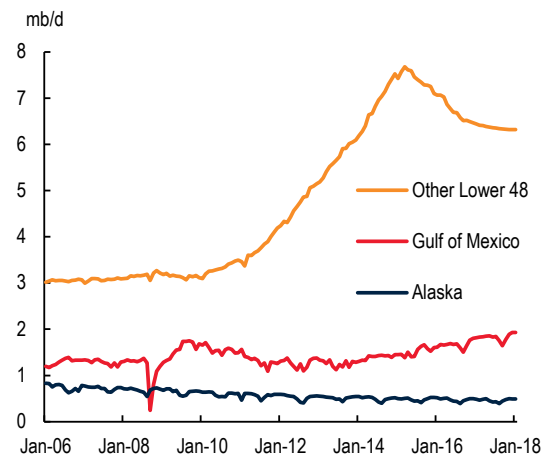
For 2017, non-OPEC supply is projected to increase year-on-year beginning in the second quarter, for an annual rise of 0.4 mb/d. Notable gains are expected in Brazil, Canada and Kazakhstan, with small increases in Ghana, Republic of Congo, Russian Federation and other countries as past investments undertaken prior to the oil price collapse come on stream. Declines are expected mainly in China, Mexico, the North Sea, and the United States where higher-cost producers are cutting back production.

U.S. oil production, which peaked at 9.7 mb/d in April 2015, fell to an estimated 8.4 mb/d in September 2016. Virtually all of the 1.3 mb/d decline over this period was in the on-shore lower 48 U.S. states, shale-oil production takes place, with output in Texas falling 0.5 mb/d. A small decline in Alaska was more than offset by a 0.1 mb/d rise in the Gulf of Mexico.

U.S. drilling activity has increased by over one-third since May after having plunged 80 percent from its peak in October 2014. Despite the increase of rigs drilling for oil to 432 between May and October 2016, the number of oil rigs in operations remains one-quarter of its October 2014 high of 1609 rigs (Figure 6). As a result, production from the main shale basins fell nearly 1 mb/d, according to the U.S. Energy Information Administration. The largest drops were high-cost production sites in Eagle Ford (Texas 0.6 mb/d), Bakken (North Dakota 0.3 mb/d), and Niobrara (Colorado/Nebraska 0.1 mb/d). An exception is the Permian Basin in Texas, where shale oil deposits are among the lowest-cost to access and where drilling has recovered as global oil prices stabilized.

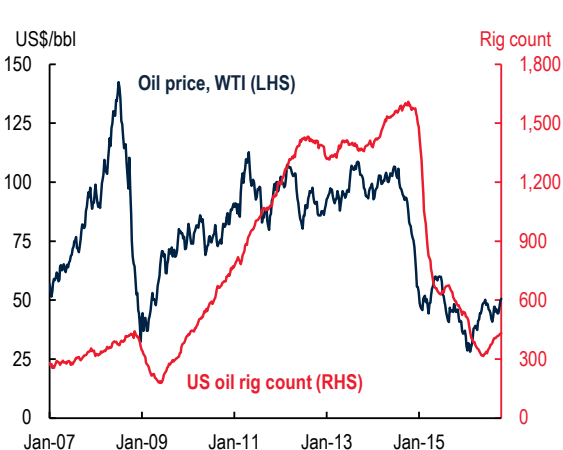
Large productivity improvements in the shale industry have supported production. Productivity in the

### 5 U.S. crude oil production



Source: International Energy Agency.

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



Sources: Baker Hughes, Bloomberg.

Note: Weekly frequency. Last observation is October 14, 2016.

Eagle Ford and Bakken basins has risen from less than 300 barrels per well in early 2012 to more than 1,100 and 800 barrels, respectively. In the Permian Basin, productivity improved five-fold from 100 barrels per well to more than 500. The industry is also reducing its backlog of drilled but uncompleted wells (DUC), from which oil can be extracted at roughly two-thirds the cost of a new well.

OPEC crude oil production averaged 33.5 mb/d in the third quarter, up 0.5 mb/d from the second, and more than 0.8 mb/d higher than a year earlier. Since the end of last year, OPEC Gulf production rose by 1.0 mb/d with increases centered in the Islamic Republic of Iran and Saudi Arabia (Figure 7). Iranian output is up nearly 0.8 mb/d to 3.7 mb/d, with exports of around 2 mb/d, compared with pre-sanctions exports of 2.2 mb/d. Meanwhile non-Gulf output dropped by 0.6 mb/d with declines in Nigeria (due to pipeline attacks), and the República Bolivariana de Venezuela (due to financial and operational difficulties). In Libya, the reopening of ports helped lift production from under 0.3 mb/d in August to 0.5 mb/d in October. The national oil company is aiming for output of 0.9 mb/d by the end of 2016. Nigeria's production is also poised to increase if a ceasefire agreement with rebel groups holds.

In late September, OPEC members agreed to limit output to 32.5-33.0 mb/d, effectively ending two years of a market share strategy and unrestrained production (*Special Focus*). This represents an important policy shift for Saudi Arabia, its largest producer. Details are to be discussed by a high-level committee, with a final decision expected at the group's meeting on November 30. The committee is also tasked with preparing a framework for consultations with non-OPEC producers. Russia has signaled support for OPEC's decision to limit production, with the possi-

bility of reducing output. The Islamic Republic of Iran, Libya and Nigeria will likely be granted exemption because of earlier production losses. If implemented, it will be the first production cut since 2008.

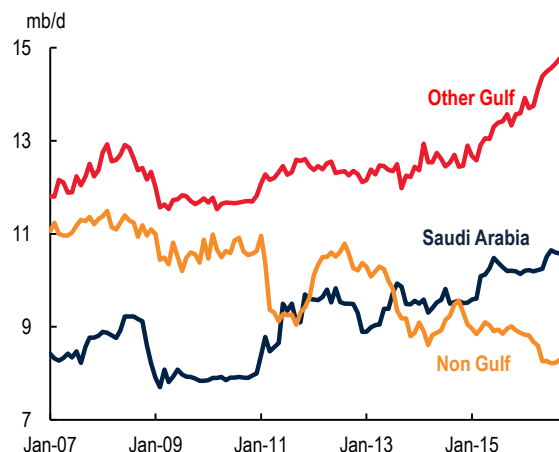
There remain important pending decisions about individual quotas, the timing of implementation, and the level at which the Islamic Republic of Iran might freeze production. A cut to 32.5 mb/d would entail a 1.0 mb/d reduction from current output, and 0.5 mb/d if the overall ceiling were 33.0 mb/d. Part of the near-term reduction would occur in any event, as Saudi Arabia usually reduces winter production by some 0.4 mb/d due to lower power generation requirements. Should the Islamic Republic of Iran, Libya, and Nigeria raise production significantly in the next few months, cuts by other producers will need to be even larger to meet their overall targets.

### Price projections and risks

Crude oil prices are projected to average \$43/bbl in 2016, a decline of 15 percent from last year, and average \$55/bbl in 2017. Consumption is expected to begin to exceed production in 2017, particularly in the second half of the year, and help reduce the large inventories. The forecast assumes OPEC will succeed in limiting global production, and that U.S. production will flatten out next year.

There are significant risks to the forecast, especially given uncertainties about the implementation of OPEC's agreement and the trajectory of inventories. Upside risks include a larger-than-expected OPEC cut, and further outages in some oil exporters (e.g., Libya, Nigeria, República Bolivariana de Venezuela). Downside risks to prices center on weak demand, earlier-than-expected return of lost production, and failure of OPEC to implement a meaningful reduction in output.

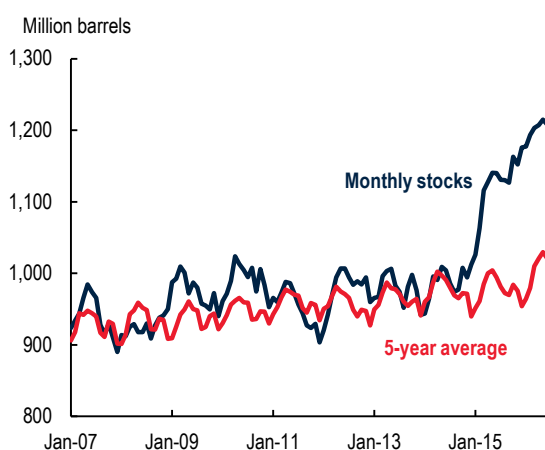
## 7 OPEC crude oil production



Source: International Energy Agency.

Note: Last observation is September 2016.

## 8 OECD crude oil stocks



Source: International Energy Agency.

Note: Previous 5-year average for each month. Last observation is August 2016.



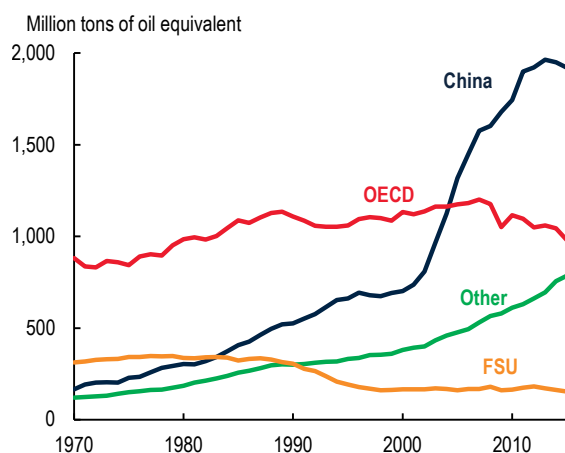
## Coal

Thermal coal prices surged 30 percent in the third quarter, reflecting strong demand and tightening supply in China due to government restrictions on production and adverse weather conditions, which induces floodings. China's production has fallen sharply since the National Development and Reform Commission (NDRC) in April ordered coal mines to produce on a 276-day basis, instead of the previous 330-days. The NDRC's goal is to reduce coal capacity by 16 percent. Consequently, stocks in China have declined and import demand has risen. Seaborne supplies have been limited due to constraints in Indonesia and elsewhere, and suppliers will need to be assured of sustained higher prices before responding with larger investment, given coal's unfavorable demand prospects going forward.

However, China's NDRC deemed the recent 30 percent price jump to be too high, and in September it allowed some mines to temporarily raise output in the fourth quarter on the 330-day working rule. It will also relax a policy for some new mines to commence operation before closure of old capacity. However it reaffirmed its intention to maintain the 276-day rule going forward. Although higher prices improved the financial condition of China's coal companies, the government is also concerned that high prices may damage supply-side reform and provide an incentive to restart idled capacity.

Coal prices are expected to average \$58/ton in 2016, similar to 2015, and \$55/ton in 2017, as supply additions and weak demand reduce prices during the year. China's coal policy will be key, given that the country consumes half of the world's coal output (Figure 9) and coal accounts for nearly two-thirds of the country's energy consumption.

### 9 Coal consumption



Source: BP Statistical Review of World Energy.

Notes: Last observation is 2015. FSU (former Soviet Union) to 1984; CIS (Commonwealth of Independent States) thereafter.

## Natural gas

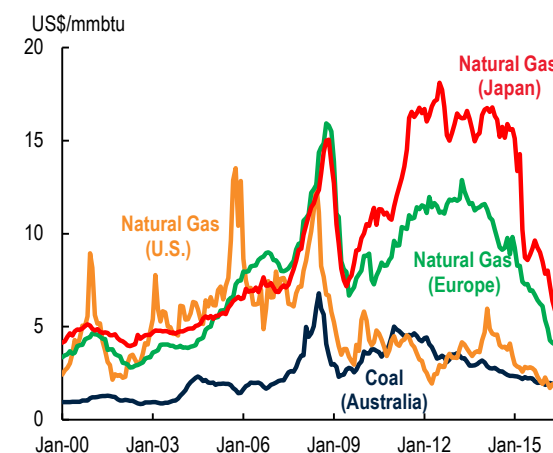
Natural gas prices jumped 21 percent in the third quarter, led by a one-third surge in U.S. prices to \$2.85/mmbtu (Figure 10). U.S. gas demand exceeded production this summer, resulting in below-average injections into storage. Warm weather that extended into September boosted cooling demand and gas-fired power generation.

On the supply side, U.S. gas output has declined year-on-year since March, and exports have risen—both pipeline shipments to Mexico, and liquefied natural gas (LNG) cargoes mainly to South America during its winter season.

The price of gas delivered to Japan rose 7 percent to \$6.5/mmbtu. Spot prices in Asia also rose due to increased import demand to secure supplies for winter needs. European gas prices rose 7 percent to \$4.4/mmbtu, reflecting stronger demand in the power sector and some supply tightening (including a government decision to reduce production from October in Netherlands's Groningen field—Europe's largest) heading into winter. In the United Kingdom, spot prices jumped in September amid low storage levels. The low levels stem from the halting of operations in summer at the Rough offshore field, which accounts for as much as 70 percent of the country's gas storage capacity.

Natural gas prices are projected to fall 31 percent in 2017, led by large declines in Europe (-39 percent to \$4.4/mmbtu) and Japan (-35 percent to \$6.7/mmbtu) as production cutbacks are resolved and demand remains subdued. Natural gas prices in the United States are expected to decline 4 percent to \$2.5/mmbtu in 2017, mostly reflecting ample supply conditions.

### 10 Coal and natural gas prices



Source: World Bank.

Note: Last observation is September 2016.



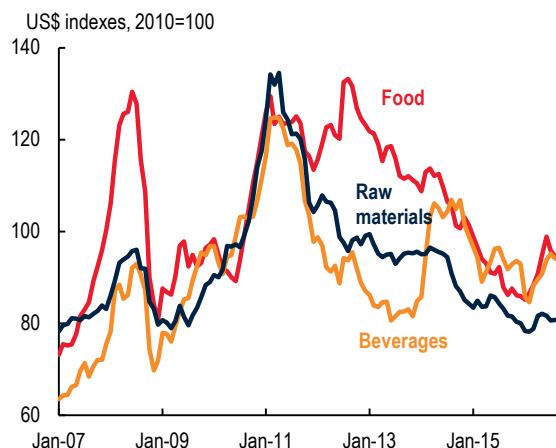
## Agriculture

Although the agricultural price index remained virtually unchanged in the third quarter, components of the index varied considerably depending largely on their respective supply and demand conditions (Figure 11). Grain prices declined more than 9 percent due to larger-than-expected crops of wheat in Australia and Central Asia and of maize in the United States. Beverage prices, on the other hand, gained 4 percent in response to a surge in coffee prices.

Agricultural prices are expected to recover modestly in 2017, mostly in response to higher projected energy prices, with some exceptions. Grain prices are projected to increase by 3 percent next year, a slightly larger increase than projected in July, and oils and meals prices by 2 percent, on top of the 5 percent rise this year. Beverage prices are forecast to decline marginally in 2017. Raw materials are expected to gain 3 percent after dropping a projected 4 percent in 2016.

Upside risks for the 2016 forecasts is an intensification of La Niña—a cooling of the Equatorial Pacific Ocean that typically follows El Niño. However, even if La Niña materializes, its impact is expected to be limited. The main upside risk over the longer term is increased government use of agricultural commodity support policies. Price risks also stem from energy prices, since agriculture is energy intensive, and bio-fuel policies (see the *Special Focus* section on how OPEC could affect energy policies and the July *Commodity Markets Outlook* on the links between energy and agricultural prices). Over the course of the next five years, prices of grains, meals and oils, and raw materials are projected to increase by a little more than 10 percent each, considerably less than the post-2011 declines (Figure 12).

**11 Agriculture price indexes**



Source: World Bank.

Note: Last observation is September 2016.

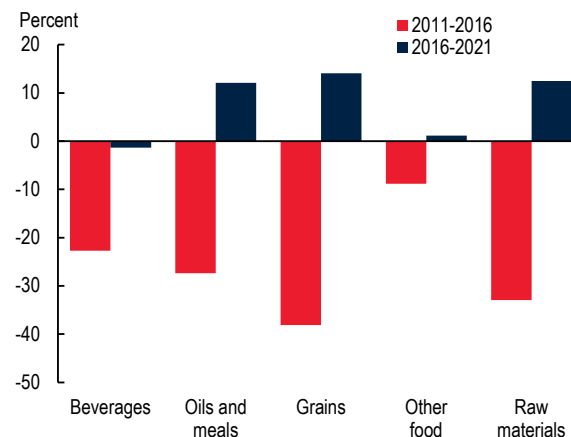
## Food

Grain prices declined 9 percent in the third quarter of 2016. Most of the decline took place in the latter part of the quarter, reflecting news of bumper crops for maize in the United States and wheat in Australia and Central Asia. Grain prices are nearly 25 percent lower than their early 2011 peaks.

The October 2016 assessments for the 2016-17 season point to a favorable crop. Global production of wheat is expected to reach a new record, at 745 million metric tons (mmt), according to the U.S. Department of Agriculture (USDA). Overall, conditions for the global wheat crop are favorable in most key producing and exporting countries, including Argentina, Australia, the European Union, the Russian Federation, and the United States. Minor weather problems (e.g., wet conditions in Western Canada and dry soil in Ukraine) are unlikely to alter current wheat production. As a result of the favorable crop conditions, the stock-to-use ratio (a measure of the abundance of supplies relative to demand) is anticipated to reach 34 percent, marginally higher than last season's ratio of 33.8 percent, and a 17-year high. Trade volume is also projected to increase on stronger import demand in the European Union and Thailand.

Production of maize is projected to increase 7 percent in 2016-17, reflecting good crop conditions in the United States, the world's top maize supplier, as well as the European Union and Mexico. Some weather-related problems in key maize producers (notably Canada and China) do not appear severe enough to change the global outlook at this stage. Increased global maize production, however, will be accompanied by a 3 percent increase in consumption, implying that the stock-to-use ratio for maize at the end of the season will remain at 21.5 percent, the same as in

**12 Commodity price indexes change**



Source: World Bank.

Note: Price changes are based on annual averages.

2015-16. The volume of maize traded is not expected to change much in 2016-17.

Rice production is projected to increase 4 percent in 2016-17, driven by production increases in Asia—particularly China, India, Pakistan, and Thailand. The expected uptick follows last year's poor crop due to an El Niño-related shortfall in some producing countries in Asia, especially Thailand, where rice output declined by approximately 16 percent from 2014-15 to 2015-16 seasons. Despite increased production, the stocks-to-use ratio of rice is envisaged to rise marginally, due to a 3 percent boost in global consumption. Trade volume in rice is projected to change little as higher exports by India will be offset by reduction in Thailand and Vietnam.

According to the October 2016 assessment by the USDA, global supplies (i.e., beginning stocks plus production) of wheat, maize, and rice combined are projected to reach 2,819 mmt during the 2016-17 season, 3 percent higher than last season's record supplies. If projections materialize, 2016-17 will be the fourth consecutive surplus crop year (Figure 13).

The World Bank's oil and meal price index declined marginally in the third quarter but stood 12 percent higher than a year ago. A 2 percent gain in palm oil price (due to lower output in Malaysia and Indonesia) was balanced by proportional decline in the price of soybeans.

This season's outlook for edible oils remains favorable (Figure 14). After last season's diminished output due to the El Niño-related shortfall in palm oil production—only the second shortfall during the past two decades, both related to El Niño—global production of the eight most consumed oils during 2016-17 is expected to rise 4 percent to reach 183.2 mmt. This is

the third largest annual increase of the past two decades.

The oilseed supply outlook during the current season (October 2016 to September 2017) is also healthy, with global supplies for the 10 major oilseeds projected to reach 701.1 mmt, 34 mmt higher than the previous season. Most of the increase in supplies is projected to come from a robust soybean crop, expected to reach 53.7 mmt in 2016-17, up from last season's 51.7 mmt.

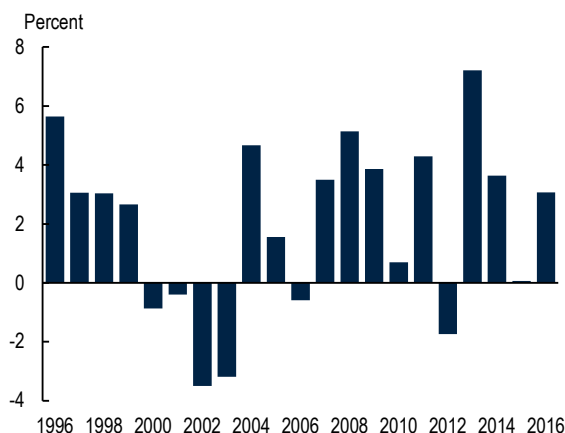
Supply conditions in most food commodity markets for 2016-17 crop season are adequate. In the case of grains, for example, the stock-to-use ratios for the current season are projected higher (rice) or similar (maize and wheat) to the 2014-15 season. More importantly, these ratios are much higher than their 10-year historical average (Figure 15). In view of the adequately supply conditions, together with stable energy and fertilizer prices, the World Bank's food commodity price index is expected to advance only marginally in 2016, with large dispersion among various prices (an increase in oils and meals and other food items and decline in grains). A modest gain (slightly less than 2 percent) is expected in 2017 as well, to be supported by similar gains in both oils and meals and grain prices.

## Risks

Chief among the risks to the forecast for agricultural prices are the evolution of energy prices, weather patterns, trade policies aimed at supporting farmgate prices, and biofuel policies.

Energy prices affect most agricultural commodities prices directly through fuel and other energy costs and indirectly through various chemicals and fertilizers,

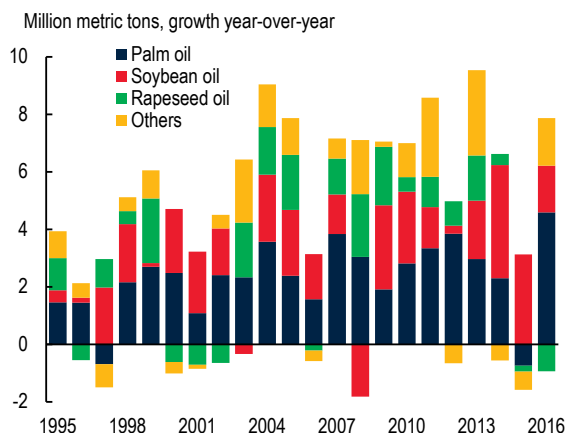
### 13 Global grain supply growth



Source: U.S. Department of Agriculture.

Notes: Grains include maize, wheat, and rice. Data is year-to-year change.

### 14 Global production of key edible oils



Source: U.S. Department of Agriculture.

Note: Data is based on USDAs October 2016 update.

some of which are made directly from natural gas. A key reason for the recent decline in agricultural prices has been the reduction in energy costs. Oil prices are expected to rise to \$55/bbl in 2017 from an average of \$43/bbl in 2016. Fertilizer prices are also projected to rise slightly in 2017. These projections imply a relatively small upside price risk to food commodities prices. However, a greater-than-expected rise in energy prices would put upward pressure on food prices.

Weather risks to the agricultural price forecast appear muted. An October U.S. National Oceanic and Atmospheric Administration update put the chance of La Niña, the successor of last year's El Niño, at about 70 percent during the Northern Hemisphere fall season of 2016, with a 55 percent probability of persisting during the winter of 2016-17. Typically through, the impact of even a strong La Niña on commodity markets is much less than El Niño. And while last year's El Niño negatively affected the production of a few commodities in the Southern Hemisphere, including rice and palm oil, it did not disrupt global food markets. This suggests that La Niña may have local impacts but is unlikely to affect global markets.

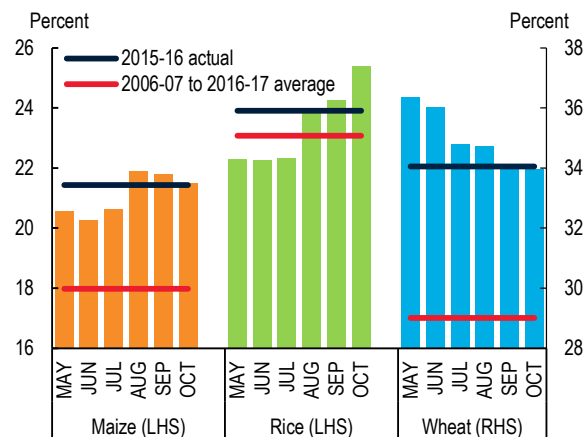
Two policy challenges have surfaced in the current weak commodity price environment. One is that governments are increasingly shifting from policies aimed at reducing consumer prices to those supporting higher farmgate prices. Indonesia, for instance, has set reference prices for food commodities including rice, maize, and soybeans for the next four months. For each item, a minimum price was set to protect farmers from price declines along with a ceiling to protect consumers from large price increases. Similarly, other countries have announced support measures, including a duty on wheat and a minimum price on rice in India, an import duty on wheat in South Africa, and

subsidies for machinery and improved access to input credit in Nigeria. In contrast, agricultural support for Organisation for Economic Co-operation and Development (OECD) countries as a whole has declined by roughly 50 percent over the past three decades and now accounts of 17 percent of gross farm receipts.

The second policy challenge relates to China's decision to end cotton and maize stockholding programs in 2015 and 2016. China's stockpiling mechanisms are expected to be replaced by less price-distortionary programs, which are anticipated to resemble programs introduced in the past by the European Union, Mexico, the United States, and others. The policy shift in China is important because the country holds a disproportionately large amount of stocks compared to the rest of the world. Also, it comes as commodity markets are well supplied, with stock-to-use ratios well above the 10-year historical average (Figure 15). Any destocking action by China, even though it is intended towards a less price-distortionary program, is likely to depress world prices.

Finally, the agricultural price outlook assumes that biofuels will continue to be a source of demand for food commodities. Biofuels, which currently account for nearly 3 percent of global arable land and 1.5 mb/d (1.6 percent) of global liquid energy consumption, come principally from three major sources: maize-based ethanol from the United States, sugarcane-based ethanol from Brazil, and edible oil-based biodiesel from Europe (Figure 16). The role of biofuels is expected to be less important in the long run, as policymakers acknowledge the limited benefits of environmental and energy independence from biofuels policies. Reflecting that shift, biofuel production grew only marginally during 2014-25 after growing 10 percent annually over the prior 15 years.

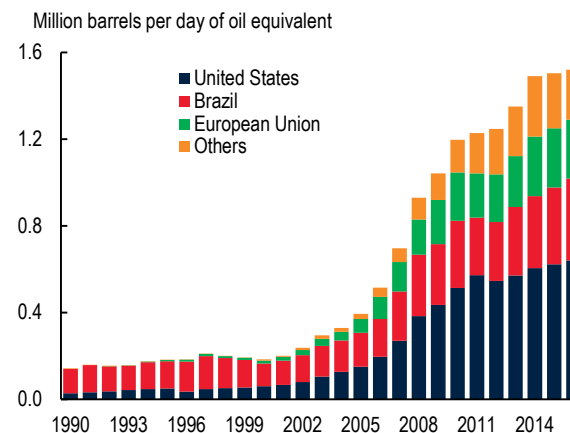
### 15 Stock-to-use ratios



Source: U.S. Department of Agriculture.

Note: Bars denote USDA stock-to-use projections for the 2016-17 crop year.

### 16 Global biofuels production



Sources: BP Statistical Review of World Energy and World Bank.

Note: Last observation is 2016.

## Beverages

The World Bank's beverage price index rose nearly 4 percent in the third quarter of 2016, driven by strong gains in coffee (arabica and robusta rose 9 and 12 percent, respectively) and tea (up 6 percent) but balanced by a 4 percent drop in cocoa prices. The strength in coffee prices (Figure 17), which reached a two-year high in October, reflects a significant drought-related output decline in Brazil and Vietnam, the two largest global suppliers of arabica and robusta, respectively. The arabica surplus was smaller than expected, while the robusta market remains in deficit resulting in an estimated 2 percent increase in arabica prices and a 2 percent drop in robusta prices in 2016. Easing supply constraints into next year are expected to leave coffee prices little changed in 2017.

Cocoa prices declined 4 percent in the third quarter and are 8 percent lower than a year ago. The weakening in of cocoa prices reflects expectations of a significant surplus in the 2016-17 crop season, which is in addition to a 0.3 mmt surplus in the current season as West African production recovers and Latin America output expands. Next season's global production is expected to increase by more than 10 percent, resulting in a stock-to-use ratio of 38 percent, up from last season's 33 percent. With the cocoa market well supplied, prices are expected to decline 2 percent in 2017.

Global tea prices gained 6 percent in the third quarter with prices up 11 percent (Colombo auction), 5 percent (Mombasa auction), and 2 percent (Kolkata auction). The gain in tea prices reflects robust demand and, to a lesser extent, lower-than-expected supplies due to crop losses in Kenya, the world's largest tea exporter. Tea prices are, however, expected to decline 4 percent in 2016 and gain 2 percent in 2017 due to the market's expected tightness next season.

### 17 Coffee prices



Source: Bloomberg.

Note: Daily frequency. Last observation is October 18, 2016.

## Agricultural raw materials

The World Bank's raw materials price index declined 1 percent in the second quarter of 2016. Underlying this, the fall in timber and natural rubber prices (down 5 percent and 2 percent, respectively) was nearly offset by an increase in cotton prices (up 12 percent). The raw materials index is down 3 percent from a year earlier and is almost 40 percent lower than its early 2011 peak. This decline is similar to the other two industrial commodity price indexes (metals and energy) and reflects weak economic activity of the EMDEs and a scaling back in the large investments that flowed to the sectors during the post-2005 price boom years.

Cotton prices rose to near \$1.80/kg earlier in the quarter, a 26-month high (Figure 18). This strength reflects a drop in global production in 2015-16 to 21.1 mmt, a decline of 7 percent from 2014-15. World cotton production is expected to change little next season as gains in productivity offset reductions in allocated land. Despite the recent rally in cotton prices, the sector is still mired in unusually high stocks, with China holding more than half of those stocks. Cotton prices are expected to average \$1.66/kg in 2016 and are projected to rise 4 percent next year.

Natural rubber prices declined 2.3 percent in the third quarter, a small downward correction following the large rally of 22 percent during the previous quarter. Relative price stability in the third quarter reflects some supply shortages from Thailand owing to unseasonal rains, balanced by increased production elsewhere in East Asia, and large stocks in Indonesia. Demand, on the other hand, weakened following falling tire production in China. Natural rubber prices are expected to average \$1.50/kg this year, down from last year's \$1.57/kg, but are projected to gain as much next year.

### 18 Cotton and natural rubber prices



Source: Bloomberg.

Note: Daily frequency. Last observation is October 18, 2016.

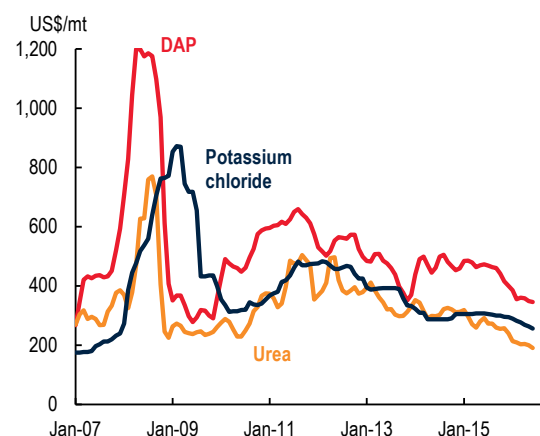
## Fertilizers

Fertilizer prices fell 7 percent in the third quarter of 2016 (Figure 19), down for a seventh consecutive quarter and nearly 75 percent below their 2008 highs. Excess supply, high stocks, and weak global demand for imports contributing to the continued weakness. Potash (potassium chloride) prices led the decline by dropping 16 percent, with urea (nitrogen) down 8 percent and DAP falling 3 percent. Demand weakness continues to stem from poor farmer profitability, low crop prices, and weak currencies of key importing countries. Despite cuts to production, the excess supply remains considerable due to falling costs, low feedstock prices, and new low-cost capacity.

Potash prices plunged 16 percent owing to weak demand, high stocks, and ample supply. Production has been curtailed by a number of producers to help stem the oversupply. Demand has been weak, in part because farmers can defer application without a significant loss to yield and quality, unlike nitrogen application. New contracts signed with India and China in June/July following sharply lower prices are expected to dampen the downward trend, but global demand is due to contract nevertheless this year. The market is expected to remain over-supplied with new capacity coming online over the next couple of years. This includes less-expensive brownfield expansions in several countries and new greenfield projects concentrated in Canada and the Russian Federation/Belarus region.

Urea prices dropped 8 percent in July, reaching the lowest level in 12 years before rising in August/September following strong demand in Brazil and supply outages. Urea fertilizers account for more than two-fifths of total global nutrient consumption. Its demand profile is more stable than other nutrients because it is typically applied every year at stable rates.

### 19 Fertilizer prices



Source: World Bank.

Note: Last observation is September 2016.

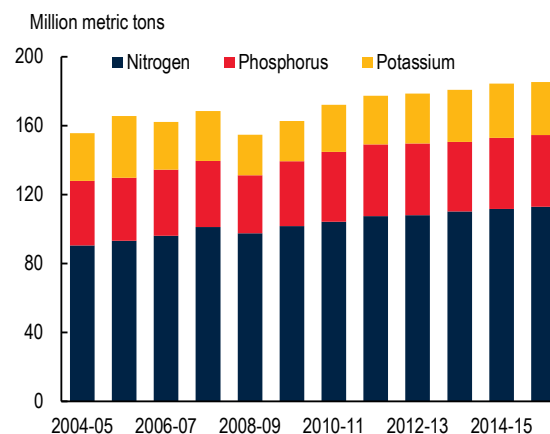
The market continues to be impacted by new capacity and low input prices (natural gas globally, and coal in China), although the latter rose somewhat during the quarter following supply tightness. The market is expected to remain oversupplied and capacity is expected to grow in a number of countries, including the United States, where imports are expected to contract sharply and further bloat seaborne supply.

As for phosphate, DAP prices fell by 3 percent and TSP by less than 1 percent due to oversupply and weak demand in India, which continued to weigh on these markets. Although demand has been strong in South America this year, India's imports for the current fertilizer year (which began in April) are down by a quarter. The reasons include high stocks, weaker-than-expected monsoon, rising domestic production, and government policy delays on nutrient subsidies and maximum retail prices. Markets are expected to remain oversupplied, with new capacity expected from Morocco in December and Saudi Arabia in 2017.

Fertilizer prices are expected to decline by 22 percent in 2016 due to weak demand, high stocks, and rising supply capacity. Nutrient application, which has been on a rising trend (Figure 20), remains constrained due to low farmers' profitability. But there has been a modest increase in crop prices which, along with depreciating currencies of some key exporters, may provide some market relief. Prices are generally expected to increase moderately over the medium term due to expected growth in demand and higher energy costs.

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

### 20 Global nutrient consumption



Source: Agrium Fact Book, International Fertilizer Industry Association.



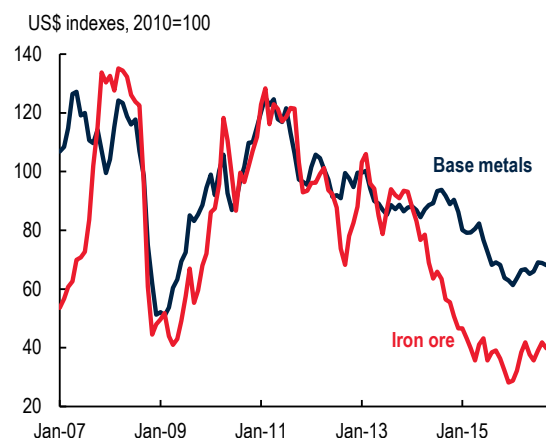
## Metals and minerals

Metals prices rose by 4 percent in the third quarter, the second consecutive quarterly gain (Figure 21). Prices continued to rebound from first-quarter lows on supply constraints, rising demand, and falling stocks. Iron ore, nickel, tin, and zinc have risen by more than 20 percent over the past two quarters on various supply shortfalls, while the two largest consumed metals—aluminum and copper—have seen more modest gains following ample supply. Zinc prices have recorded the strongest gains this year, up 50 percent from January to September, due to ongoing supply tightness from mine closures and voluntary production cuts, amid strong steel demand.

The impact from mine closures and production cuts continued to propel zinc prices higher in the third quarter, while the Philippine government's possible suspension of mines for environmental violations boosted nickel prices. There are also reports that Indonesia may relax an ore export ban planned for January 2017 for such metals as copper, iron ore, lead, and zinc. The objective is to give companies more time to build value-added domestic processing capacity—the major intent of the law. An ore export ban in January 2014 continues to impact global supply and export flows for nickel and bauxite.

China's policy efforts to boost the commodity-intensive infrastructure and construction sectors has been a key driver of demand this year. Its share of world metal consumption rose above 50 percent in 2015 (Figure 22), and the country accounted for the majority of global growth over the past 15 years (Figure 23). However the transition to a consumption-led economy, along with industrial sector reform and environmental concerns, is expected to slow demand growth for raw materials.

### 21 Metal and mineral prices



Source: World Bank.

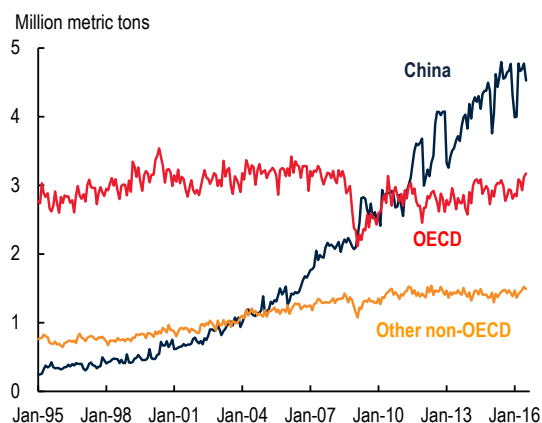
Note: Last observation is September 2016.

## Individual Metal Trends

Zinc prices soared 17 percent due to tightening in the zinc concentrate market. Behind the tightening are large mine closures in recent years due to exhaustion (Australia, Canada, Ireland) and price-driven production cuts by Glencore (Australia, Peru, Kazakhstan) and Nyrstar (Tennessee). The latter will restart in the first quarter of 2017. London Metal Exchange (LME) stocks are steady (Figure 24) on subdued refined metal imports into China; there is an unknown amount of inventory off-exchange, particularly in China. Demand for zinc to galvanize steel has increased, which has helped drive the zinc market into deficit. Two large mine projects, Gamsberg and Dugald River, are planned for 2017/18. Supply could rise from numerous small mines in China—although the government wants to curtail polluting and small-scale mining. Idled capacity could also be brought back on line.

Nickel prices surged 16 percent on strong stainless steel demand and potential loss of Philippines ore output due to environmental mine audits. In late September, the government recommended suspending 55 percent of the country's nickel production, or more than 10 percent of global supply. Companies have seven days to respond, and a final decision is expected by end October. Nearly all of Philippine exports are shipped to China to feed its nickel pig iron (NPI) production. The nickel market had already moved into deficit with falling production output in the Philippines due to depletion, and declining NPI production in China. Meanwhile, Indonesia intends to revisit its January 2014 ore export ban (designed to encourage value-added domestic processing capacity), and may allow companies to export ore that are in the process of constructing smelter/refining operations. Inventories remain high, but key drivers will be policy developments in the Philippines and Indonesia.

### 22 World refined metal consumption



Source: World Bureau of Metal Statistics.

Note: Last observation is July 2016.

Tin prices jumped 10 percent on strong demand, falling stocks, and supply constraints. China's refined production fell during the summer due to government-enforced environmental shutdowns, with some closures continuing into September. In addition, production in Indonesia, the world's largest exporter of tin, has declined because of price-related closures earlier in the year, and as the government limits export quotas to deal with illegal mining and reserve depletion. Shipments from Myanmar continue to help fill the gap, with output doubling this year, although some of the higher exports may be from stocks. While supply growth remains constrained near term, new supplies are expected from Africa, Australia, and Brazil, and higher prices could reactivate idled capacity.

Lead prices rose 9 percent in the quarter due to strong seasonal demand for batteries and reduced supply from large zinc mine closures; lead is often a by-product of zinc ore mining. About 60 percent of lead supply is from secondary sources, recycled batteries (40 percent) and scrap (20 percent), making lead less vulnerable to mine closures. Lead faces demand threats from a maturing e-bike sector in China and greater penetration of alternate, cleaner, and more efficient battery technologies. Partly offsetting this threat is the increasing demand for stop/start vehicles, which have batteries containing 25 percent more lead than conventional units.

Iron ore prices increased 5 percent, up for the second straight quarter, on supply reductions, low stocks, and strong steel demand in China for infrastructure and construction. Iron ore supply is building and steel demand slowing, which is expected to lead to lower iron ore prices going forward. New low-cost capacity is expected over the next 2-3 years, which will pressure high-cost capacity to close. A key uncertainty is the level of steel demand and production in China.

Aluminum prices rose 3 percent in the quarter on falling LME inventories, strong demand, and production cuts in China. The country closed high-cost capacity this year, and has limited restarts and the commissioning of new capacity. However, the global market is expected to remain oversupplied, as new capacity is expected to ramp up in China and elsewhere. Further closures of high-cost capacity are required to balance the market and reduce the large inventory overhang.

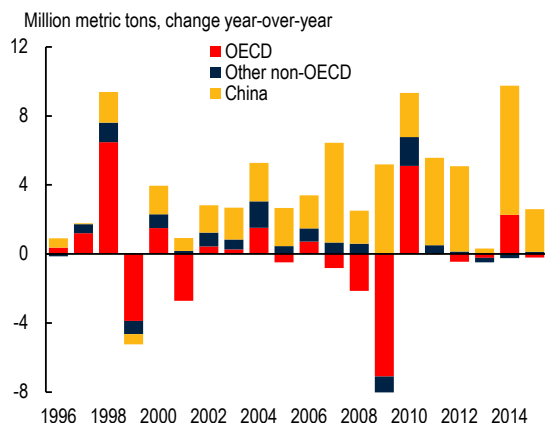
Copper prices rose 1 percent, despite rising inventories. Strong demand from China's construction sector and the power grid provided support. However, the market is expected to remain oversupplied as new capacity comes online in the next 2-3 years.

### Price projections and risks

Metals prices are projected to decline by 9 percent in 2016 due to surplus capacity in most markets. Despite a rebound in prices from January lows, average prices will be lower than last year. The largest declines are for nickel, down 22 percent, due to high stocks, and copper (down 15 percent) on continued excess supply. Moderate decreases are projected for iron ore and aluminum. These are expected to be partly offset by moderate gains in zinc and tin as markets tighten on supply constraints. In 2017, metals prices are projected to increase by 4 percent as most markets continue to rebalance. The largest gain is for zinc, which is projected to rise more than 20 percent on continued supply tightening from large mine closures.

Downside risks to the forecast include slower demand in China and higher-than-expected global production, including restart of idled capacity. Upside risks include stronger global demand, further closure of high-cost capacity, greater environmental constraints, and policy action that could limit supply.

## 23 World metal consumption growth



Source: World Bureau of Metal Statistics.

## 24 Zinc price and LME stocks



Source: Bloomberg.

Note: Daily frequency. Last observation is October 18, 2016.

## Precious metals

Precious metals prices rose 8 percent in the third quarter on strong investment demand and safe-haven buying, amid continued low interest rate policies (Figure 25). This marked the third straight quarterly gain, placing the index up more than 20 percent this year. Silver led the way, surging 16 percent, on strong investor and industrial demand, followed by platinum, up 8 percent, on South African rand appreciation and tightening physical supply. Gold prices lagged these increases, but nevertheless rose 6 percent to average \$1,335/toz. The investor-driven gains were partly the result of tepid U.S. economic data and the U.S. Federal Reserve decision to delay raising policy interest rates. However, prices started to slip in late September and fell sharply in early October as investors responded to news that the European Central Bank may taper their bond-buying program, and on growing expectations that the U.S. Federal Reserve will raise rates in December.

Silver prices surged 16 percent on strong investment demand, with record flows into exchange-traded funds. The gold/silver price ratio fell from a 23-year high of more than 80 in March to 67 in September. (The average ratio since 1985 is 66.) Physical demand has been boosted by strong photovoltaic production in China, but consumer silver consumption has been weak in China and India. Mine supply continues to rise, but lower by-product output from declining lead/zinc production may limit growth (Figure 26).

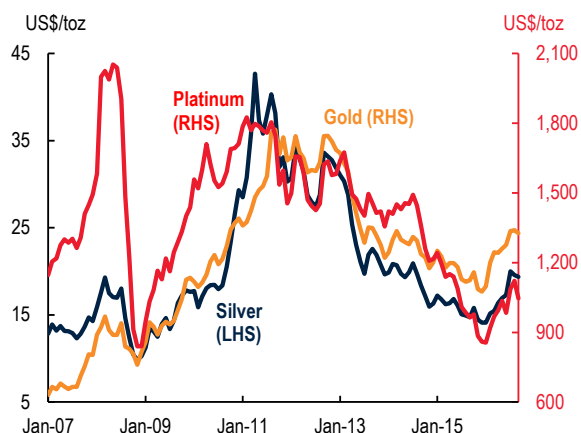
Platinum prices jumped 8 percent in the quarter largely due to appreciation of the South African rand. Platinum is linked to the value of the rand, as more than 70 percent of the world's platinum is produced in South Africa. The country's mine output edged lower due to increasing safety-related stoppages this

year. However, wage negotiations in South Africa are expected to be smoother than in 2014 when a five-month strike caused large disruptions in the industry. Auto-catalyst demand has been strong in Europe and China. Unlike other precious metals, however, investment demand has been weak.

Gold prices increased 6 percent in the quarter, reaching a three-year monthly high of \$1,340/toz in August. The gains were driven by record investor demand via exchange-traded funds and the fallout from the Brexit vote. However, prices fell sharply in early October on comments by the ECB that it may taper its bond buying program, and by the U.S. Federal Reserve that the economy is sound enough to absorb a rate increase—now expected in December. Rising interest rates typically have negative implications for gold prices, as investors seek yield-bearing assets. Physical gold demand has been very weak this year, and fell in the two largest consuming countries—India and China. Jewelry demand in India should improve in the fourth quarter during the festival and wedding seasons.

Precious metals prices are projected to rise 7 percent in 2016, mainly due to stronger investment demand. Silver and gold prices are expected to rise 8 percent in 2016, but decline going forward on expectations of U.S. monetary policy tightening and a stronger dollar. Physical demand for gold is expected to recover and remain robust in India and China, while mine production is expected to expand. Platinum prices are projected to decline 5 percent on a continued large stock overhang. Downside risks to the forecast include stronger-than-expected monetary tightening, dollar strengthening, and weaker demand. Upside risks include rising inflation, macro-economic concerns, adverse geopolitical events, and stronger physical demand from consumers, central banks and investors.

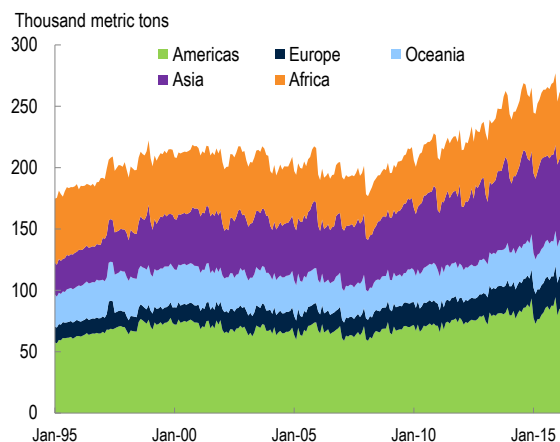
### 25 Precious metal prices



Source: World Bank.

Note: Last observation is September 2016.

### 26 Global silver production



Source: World Bureau of Metal Statistics.





## APPENDIX A

Historical commodity prices  
Price forecasts



**TABLE A.1 Commodity prices**

Commodity	Unit		2014	2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Jul 2016	Aug 2016	Sep 2016
<b>Energy</b>												
Coal, Australia	\$/mt	*	70.1	57.5	57.5	52.3	50.9	51.9	67.5	62.3	67.4	72.9
Coal, Colombia	\$/mt		65.9	52.5	50.4	48.0	42.7	44.8	57.7	54.2	57.9	61.0
Coal, South Africa	\$/mt		72.3	57.0	54.3	51.1	51.5	54.8	65.3	62.5	66.0	67.4
Crude oil, average	\$/bbl		96.2	50.8	48.8	42.2	32.7	44.8	44.7	44.1	44.9	45.0
Crude oil, Brent	\$/bbl	*	98.9	52.4	50.0	43.4	34.4	46.0	45.8	45.1	46.1	46.2
Crude oil, Dubai	\$/bbl	*	96.7	51.2	49.9	41.2	30.6	42.9	43.4	42.6	43.7	43.7
Crude oil, WTI	\$/bbl	*	93.1	48.7	46.4	42.0	33.2	45.5	44.9	44.7	44.8	45.2
Natural gas, Index	2010=100		111.7	73.3	72.2	61.4	52.2	49.5	59.9	59.6	59.6	60.5
Natural gas, Europe	\$/mmbtu	*	10.05	7.26	6.86	6.26	4.84	4.10	4.40	4.51	4.47	4.21
Natural gas, US	\$/mmbtu	*	4.37	2.61	2.75	2.11	1.98	2.13	2.85	2.79	2.79	2.97
Natural gas, Japan	\$/mmbtu	*	16.04	10.40	9.23	8.94	7.70	6.08	6.51	6.32	6.60	6.60
<b>Non-Energy</b>												
<b>Agriculture</b>												
<b>Beverages</b>												
Cocoa	\$/kg	**	3.06	3.14	3.25	3.30	2.98	3.10	2.99	3.05	3.03	2.89
Coffee, arabica	\$/kg	**	4.42	3.53	3.36	3.31	3.31	3.49	3.79	3.79	3.69	3.89
Coffee, robusta	\$/kg	**	2.22	1.94	1.87	1.79	1.65	1.84	2.05	2.00	2.02	2.13
Tea, average	\$/kg		2.72	2.71	2.85	2.76	2.36	2.57	2.72	2.73	2.69	2.74
Tea, Colombo	\$/kg	**	3.54	2.96	2.83	2.85	2.82	2.98	3.29	3.10	3.27	3.52
Tea, Kolkata	\$/kg	**	2.58	2.42	2.78	2.52	1.89	2.59	2.64	2.80	2.63	2.49
Tea, Mombasa	\$/kg	**	2.05	2.74	2.95	2.91	2.38	2.14	2.24	2.31	2.18	2.22
<b>Food</b>												
<b>Oils and Meals</b>												
Coconut oil	\$/mt	**	1,280	1,110	1,067	1,109	1,273	1,531	1,528	1,507	1,529	1,547
Copra	\$/mt		854	735	708	737	855	1,019	1,017	1,008	1,018	1,025
Fishmeal	\$/mt		1,709	1,558	1,472	1,524	1,465	1,526	1,553	1,550	1,574	1,535
Groundnuts	\$/mt		1,296	1,248	1,193	1,175	1,158	1,208	1,500	1,400	1,550	1,550
Groundnut oil	\$/mt	**	1,313	1,337	1,332	1,298	1,277	1,550	1,648	1,673	1,650	1,620
Palm oil	\$/mt	**	821	623	574	570	631	704	715	652	736	756
Palmkernel oil	\$/mt		1,121	909	802	831	1,032	1,283	1,358	1,277	1,360	1,436
Soybean meal	\$/mt	**	528	395	398	358	328	419	406	441	403	373
Soybean oil	\$/mt	**	909	757	736	743	749	795	810	788	814	829
Soybeans	\$/mt	**	492	390	385	372	370	424	417	432	413	405
<b>Grains</b>												
Barley	\$/mt	**	138	194	200	187	183	172	143	155	138	136
Maize	\$/mt	**	193	170	169	167	160	171	153	162	150	148
Rice, Thailand 5%	\$/mt	**	423	386	374	368	379	423	414	442	415	384
Rice, Thailand 25%	\$/mt		382	373	362	359	370	408	402	424	403	378
Rice, Thailand A1	\$/mt		425	386	376	365	373	408	392	418	394	366
Rice, Vietnam 5%	\$/mt		407	352	337	356	362	374	351	362	347	343
Sorghum	\$/mt		207	205	190	176	174	174	152	174	141	141
Wheat, US HRW	\$/mt	**	285	204	183	180	191	177	151	152	149	151
Wheat, US SRW	\$/mt		245	206	196	201	190	190	161	167	159	158
<b>Other Food</b>												
Bananas, EU	\$/kg		1.04	0.90	0.90	0.88	0.91	0.94	0.91	0.93	0.90	0.91
Bananas, US	\$/kg	**	0.93	0.96	0.95	0.93	1.03	0.99	1.02	1.01	1.05	1.00
Meat, beef	\$/kg	**	4.95	4.42	4.55	3.91	3.72	3.95	4.09	4.14	4.09	4.03
Meat, chicken	\$/kg	**	2.43	2.53	2.55	2.50	2.47	2.46	2.45	2.46	2.45	2.43
Meat, sheep	\$/kg		6.39	5.22	5.07	4.82	4.51	4.64	4.64	4.41	4.67	4.83
Oranges	\$/kg	**	0.78	0.68	0.65	0.73	0.69	0.78	0.99	0.97	0.96	1.05
Shrimp	\$/kg		17.25	14.36	15.43	10.50	10.83	10.80	10.69	10.69	10.69	10.69
Sugar, EU	\$/kg	**	0.43	0.36	0.36	0.36	0.36	0.37	0.36	0.36	0.37	0.37
Sugar, US	\$/kg	**	0.53	0.55	0.54	0.56	0.57	0.61	0.62	0.62	0.63	0.62
Sugar, World	\$/kg	**	0.37	0.30	0.27	0.32	0.31	0.38	0.45	0.43	0.44	0.47

**TABLE A.1 Commodity prices**

Commodity	Unit		2014	2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Jul 2016	Aug 2016	Sep 2016
<b>Raw Materials</b>												
<b>Timber</b>												
Logs, Africa	\$/cum		465	389	389	383	386	395	391	387	392	392
Logs, S.E. Asia	\$/cum	**	282	246	244	245	258	276	291	286	294	292
Plywood	¢/sheets		517	451	447	450	474	506	533	525	539	536
Sawnwood, Africa	\$/cum		789	733	743	727	686	688	630	630	628	630
Sawnwood, S.E. Asia	\$/cum	**	898	833	845	827	780	782	716	717	715	717
Woodpulp	\$/mt		877	875	875	875	875	875	875	875	875	875
<b>Other Raw Materials</b>												
Cotton	\$/kg	**	1.83	1.55	1.56	1.53	1.48	1.57	1.76	1.79	1.77	1.72
Rubber, RSS3	\$/kg	**	1.95	1.57	1.48	1.28	1.32	1.61	1.57	1.59	1.55	1.57
Rubber, TSR20	\$/kg		1.71	1.37	1.34	1.19	1.15	1.37	1.31	1.28	1.30	1.36
<b>Fertilizers</b>												
DAP	\$/mt	**	472	459	464	419	367	351	340	341	340	339
Phosphate rock	\$/mt	**	110	117	117	123	116	115	112	115	111	110
Potassium chloride	\$/mt	**	297	303	303	297	283	263	221	228	220	215
TSP	\$/mt	**	388	385	380	380	328	282	282	285	283	277
Urea, E. Europe	\$/mt	**	316	273	268	251	209	198	183	177	182	191
<b>Metals and Minerals</b>												
Aluminum	\$/mt	**	1,867	1,665	1,592	1,494	1,514	1,572	1,619	1,629	1,639	1,589
Copper	\$/mt	**	6,863	5,510	5,267	4,885	4,675	4,736	4,778	4,865	4,752	4,716
Iron ore	\$/dmt	**	96.9	55.8	55.0	47.0	48.3	56.0	58.7	57.0	61.0	58.0
Lead	\$/mt	**	2,095	1,788	1,717	1,682	1,738	1,718	1,870	1,835	1,836	1,939
Nickel	\$/mt	**	16,893	11,863	10,579	9,423	8,508	8,823	10,258	10,263	10,336	10,176
Tin	\$/mt	**	21,899	16,067	15,230	15,077	15,439	16,902	18,574	17,826	18,427	19,468
Zinc	\$/mt	**	2,161	1,932	1,843	1,612	1,677	1,917	2,250	2,183	2,279	2,288
<b>Precious Metals</b>												
Gold	\$/toz	***	1,266	1,161	1,124	1,107	1,181	1,260	1,334	1,337	1,340	1,327
Platinum	\$/toz	***	1,384	1,053	986	907	914	1,005	1,085	1,088	1,122	1,047
Silver	\$/toz	***	19.07	15.72	14.91	14.80	14.91	16.86	19.65	19.99	19.59	19.36
<b>Commodity Price Indices (2010=100)</b>												
Energy			118.3	64.9	62.7	54.2	43.0	55.7	57.4	56.6	57.6	58.1
Non-energy			97.0	82.4	80.7	77.6	76.0	81.0	81.6	82.2	81.7	81.0
Agriculture			102.7	89.3	88.1	85.9	84.5	91.1	91.1	91.9	91.0	90.5
Beverages			101.8	93.5	94.0	93.1	86.2	91.4	94.7	95.2	94.1	94.9
Food			107.4	90.9	88.8	86.6	86.7	94.9	94.7	95.8	94.5	93.6
Oils and Meals			109.0	85.2	83.1	79.6	79.9	93.5	92.9	93.8	93.3	91.6
Grains			103.9	88.8	85.7	84.1	84.4	87.8	79.6	83.6	78.7	76.5
Other Food			108.4	100.3	99.2	98.0	97.6	103.2	110.6	109.6	110.5	111.7
Raw Materials			91.9	83.3	83.2	80.8	78.5	81.8	80.7	80.6	80.7	80.6
Timber			104.9	96.1	96.9	95.4	92.2	93.7	88.9	88.6	89.0	89.0
Other Raw Materials			77.7	69.3	68.2	64.8	63.6	68.7	71.7	71.9	71.7	71.5
Fertilizers			100.5	95.4	94.4	92.3	81.6	76.1	71.0	71.1	70.7	71.2
Metals and Minerals			84.8	66.9	63.9	58.8	58.0	60.7	63.3	63.5	63.8	62.8
Base Metals		****	89.0	73.6	70.0	65.0	63.8	65.9	68.7	69.1	68.9	68.1
Precious Metals			101.1	90.6	87.4	86.1	90.9	97.9	105.4	105.9	105.8	104.6

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.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	84.6	70.1	57.5	58.0	55.0	55.6	56.2	56.8	60.0
Crude oil, avg, spot	\$/bbl	104.1	96.2	50.8	43.3	55.2	59.9	62.7	65.6	82.6
Natural gas, Europe	\$/mmbtu	11.79	10.05	7.26	4.40	4.70	5.03	5.37	5.74	8.00
Natural gas, US	\$/mmbtu	3.73	4.37	2.61	2.50	3.00	3.50	3.68	3.88	5.00
Natural gas, Japan	\$/mmbtu	15.96	16.04	10.40	6.80	7.10	7.41	7.73	8.07	10.00
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.44	3.06	3.14	3.00	2.94	2.88	2.82	2.77	2.50
Coffee, Arabica	\$/kg	3.08	4.42	3.53	3.60	3.58	3.55	3.53	3.51	3.40
Coffee, robusta	\$/kg	2.08	2.22	1.94	1.90	1.91	1.92	1.93	1.94	2.00
Tea, average	\$/kg	2.86	2.72	2.71	2.60	2.65	2.70	2.76	2.81	3.10
Food										
Oils and Meals										
Coconut oil	\$/mt	941	1,280	1,110	1,470	1,408	1,349	1,293	1,239	1,000
Groundnut oil	\$/mt	1,773	1,313	1,337	1,520	1,539	1,558	1,578	1,598	1,700
Palm oil	\$/mt	857	821	623	700	710	721	732	743	800
Soybean meal	\$/mt	545	528	395	380	390	400	411	422	480
Soybean oil	\$/mt	1,057	909	757	790	811	832	855	877	1,000
Soybeans	\$/mt	538	492	390	405	416	428	440	453	520
Grains										
Barley	\$/mt	202	138	194	160	164	168	172	177	200
Maize	\$/mt	259	193	170	160	166	172	178	184	220
Rice, Thailand, 5%	\$/mt	506	423	386	400	401	402	403	404	410
Wheat, US, HRW	\$/mt	312	285	204	170	179	188	198	209	270
Other Food										
Bananas, EU	\$/kg	0.92	0.93	0.96	1.00	0.99	0.98	0.97	0.96	0.92
Meat, beef	\$/kg	4.07	4.95	4.42	3.90	3.93	3.96	4.00	4.03	4.20
Meat, chicken	\$/kg	2.29	2.43	2.53	2.50	2.46	2.43	2.40	2.36	2.20
Oranges	\$/kg	0.97	0.78	0.68	0.85	0.86	0.87	0.88	0.89	0.95
Shrimp	\$/kg	13.84	17.25	14.36	10.70	10.93	11.17	11.42	11.67	13.00
Sugar, World	\$/kg	0.39	0.37	0.30	0.40	0.40	0.40	0.39	0.39	0.38
Raw Materials										
Timber										
Logs, Africa	\$/cum	464	465	389	390	401	412	424	436	500
Logs, S.E. Asia	\$/cum	305	282	246	280	286	292	299	305	340
Sawnwood, S.E. Asia	\$/cum	853	898	833	750	774	800	825	852	1,000
Other Raw Materials										
Cotton A	\$/kg	1.99	1.83	1.55	1.60	1.66	1.72	1.78	1.84	2.20
Rubber, RSS3	\$/kg	2.79	1.95	1.57	1.50	1.57	1.65	1.73	1.81	2.30
Tobacco	\$/mt	4,589	4,991	4,908	4,800	4,766	4,732	4,698	4,664	4,500
Fertilizers										
DAP	\$/mt	445	472	459	349	358	367	377	387	440
Phosphate rock	\$/mt	148	110	117	113	113	112	112	112	110
Potassium chloride	\$/mt	379	297	303	245	251	258	265	272	310
TSP	\$/mt	382	388	385	292	299	306	313	320	360
Urea, E. Europe	\$/mt	340	316	273	195	203	211	220	229	280
Metals and Minerals										
Aluminum	\$/mt	1,847	1,867	1,665	1,575	1,626	1,679	1,734	1,790	2,100
Copper	\$/mt	7,332	6,863	5,510	4,700	4,913	5,135	5,367	5,610	7,000
Iron ore	\$/dmt	135.4	96.9	55.8	54.0	50.0	51.7	53.4	55.2	65.0
Lead	\$/mt	2,140	2,095	1,788	1,800	1,850	1,901	1,953	2,007	2,300
Nickel	\$/mt	15,032	16,893	11,863	9,300	10,126	11,025	12,004	13,070	20,000
Tin	\$/mt	22,283	21,899	16,067	17,250	17,723	18,208	18,707	19,219	22,000
Zinc	\$/mt	1,910	2,161	1,932	2,025	2,500	2,600	2,570	2,541	2,400
Precious Metals										
Gold	\$/toz	1,411	1,266	1,161	1,250	1,219	1,190	1,160	1,132	1,000
Silver	\$/toz	23.85	19.07	15.72	17.00	16.89	16.77	16.66	16.55	16.00
Platinum	\$/toz	1,487	1,384	1,053	1,000	1,046	1,094	1,145	1,197	1,500

Next update: January 2017.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	79.7	66.2	54.4	53.9	50.3	50.0	49.8	49.5	48.1
Crude oil, avg, spot	\$/bbl	98.1	90.9	48.0	40.2	50.5	53.9	55.5	57.1	66.3
Natural gas, Europe	\$/mmbtu	11.11	9.49	6.87	4.09	4.30	4.52	4.75	5.00	6.42
Natural gas, US	\$/mmbtu	3.52	4.13	2.47	2.32	2.74	3.15	3.26	3.38	4.01
Natural gas, Japan	\$/mmbtu	15.04	15.15	9.85	6.32	6.49	6.66	6.85	7.03	8.02
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.30	2.89	2.97	2.79	2.69	2.59	2.50	2.41	2.01
Coffee, Arabica	\$/kg	2.90	4.18	3.34	3.34	3.27	3.20	3.13	3.06	2.73
Coffee, robusta	\$/kg	1.96	2.09	1.84	1.77	1.75	1.73	1.71	1.69	1.60
Tea, average	\$/kg	2.70	2.57	2.56	2.42	2.42	2.43	2.44	2.45	2.49
Food										
Oils and Meals										
Coconut oil	\$/mt	887	1,209	1,050	1,366	1,287	1,214	1,145	1,079	802
Groundnut oil	\$/mt	1,672	1,240	1,265	1,412	1,407	1,402	1,397	1,392	1,363
Palm oil	\$/mt	808	776	589	650	649	649	648	647	642
Soybean meal	\$/mt	514	499	374	353	356	360	364	367	385
Soybean oil	\$/mt	996	859	716	734	741	749	757	764	802
Soybeans	\$/mt	508	464	370	376	381	385	390	394	417
Grains										
Barley	\$/mt	191	130	184	149	150	151	153	154	160
Maize	\$/mt	245	182	161	149	151	154	158	161	176
Rice, Thailand, 5%	\$/mt	477	399	365	372	367	362	357	352	329
Wheat, US, HRW	\$/mt	294	269	194	158	164	169	176	182	217
Other Food										
Bananas, EU	\$/kg	0.87	0.88	0.91	0.93	0.91	0.88	0.86	0.84	0.74
Meat, beef	\$/kg	3.84	4.67	4.19	3.62	3.59	3.57	3.54	3.51	3.37
Meat, chicken	\$/kg	2.16	2.29	2.39	2.32	2.25	2.19	2.12	2.06	1.76
Oranges	\$/kg	0.91	0.74	0.64	0.79	0.79	0.78	0.78	0.78	0.76
Shrimp	\$/kg	13.05	16.29	13.59	9.94	9.99	10.05	10.11	10.17	10.43
Sugar, World	\$/kg	0.37	0.35	0.28	0.37	0.36	0.36	0.35	0.34	0.30
Raw Materials										
Timber										
Logs, Africa	\$/cum	437	439	368	362	366	371	375	380	401
Logs, S.E. Asia	\$/cum	288	266	233	260	261	263	264	266	273
Sawnwood, S.E. Asia	\$/cum	804	848	789	697	708	719	731	743	802
Other Raw Materials										
Cotton A	\$/kg	1.88	1.73	1.47	1.49	1.51	1.54	1.58	1.61	1.76
Rubber, RSS3	\$/kg	2.63	1.84	1.49	1.39	1.44	1.48	1.53	1.58	1.84
Tobacco	\$/mt	4,327	4,714	4,646	4,459	4,356	4,256	4,159	4,065	3,609
Fertilizers										
DAP	\$/mt	419	446	434	324	327	331	334	337	353
Phosphate rock	\$/mt	140	104	111	105	103	101	99	97	88
Potassium chloride	\$/mt	357	281	287	228	230	232	235	237	249
TSP	\$/mt	360	367	364	271	273	275	277	279	289
Urea, E. Europe	\$/mt	321	299	258	181	186	190	195	200	225
Metals and Minerals										
Aluminum	\$/mt	1,741	1,764	1,576	1,463	1,486	1,510	1,535	1,560	1,684
Copper	\$/mt	6,913	6,482	5,216	4,367	4,490	4,619	4,752	4,889	5,614
Iron ore	\$/dmt	127.6	91.6	52.8	50.2	45.7	46.5	47.3	48.1	52.1
Lead	\$/mt	2,018	1,979	1,692	1,672	1,691	1,710	1,729	1,749	1,845
Nickel	\$/mt	14,173	15,955	11,228	8,640	9,254	9,917	10,628	11,390	16,041
Tin	\$/mt	21,010	20,683	15,207	16,026	16,197	16,378	16,562	16,749	17,645
Zinc	\$/mt	1,801	2,041	1,828	1,881	2,285	2,339	2,276	2,215	1,925
Precious Metals										
Gold	\$/toz	1,331	1,195	1,099	1,161	1,114	1,070	1,027	986	802
Silver	\$/toz	22.49	18.01	14.88	15.79	15.43	15.09	14.75	14.42	12.83
Platinum	\$/toz	1,402	1,307	997	929	956	984	1,013	1,044	1,203

Sources and Notes: See Appendix C.

Next update: January 2017.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Nominal US dollars (2010=100)										
Energy		127.4	118.3	64.9	55.1	68.6	74.4	77.8	81.4	102.6
Non-energy		101.7	97.0	82.4	79.7	81.4	83.2	85.0	86.8	97.3
Agriculture		106.3	102.7	89.3	89.2	90.5	91.9	93.3	94.7	103.0
Beverages		83.3	101.8	93.5	91.7	91.1	90.6	90.2	89.7	87.7
Food		115.6	107.4	90.9	92.4	93.8	95.2	96.7	98.2	106.8
Oils and meals		115.9	109.0	85.2	89.3	91.1	93.0	94.9	96.9	107.7
Grains		128.2	103.9	88.8	82.8	85.2	87.8	90.4	93.2	108.8
Other food		103.9	108.4	100.3	105.2	105.0	104.8	104.6	104.5	103.8
Raw materials		95.4	91.9	83.3	80.2	82.2	84.4	86.6	88.9	101.7
Timber		102.6	104.9	96.1	91.1	93.8	96.6	99.5	102.5	118.8
Other Raw Materials		87.6	77.7	69.3	68.2	69.5	70.9	72.4	73.9	82.9
Fertilizers		113.7	100.5	95.4	74.8	76.7	78.7	80.7	82.8	94.4
Metals and minerals *		90.8	84.8	66.9	60.8	63.3	65.9	68.4	71.0	86.0
Base Metals **		90.3	89.0	73.6	66.4	70.1	73.0	75.8	78.7	95.6
Precious Metals		115.1	101.1	90.6	97.4	95.4	93.5	91.7	89.9	81.6
Constant 2010 US dollars (2010=100), deflated by the MUV Index										
Energy		120.1	111.7	61.4	51.2	62.7	66.9	68.9	71.0	82.3
Non-energy		95.9	91.6	78.0	74.1	74.4	74.8	75.2	75.6	78.1
Agriculture		100.2	97.0	84.5	82.9	82.7	82.6	82.6	82.6	82.6
Beverages		78.5	96.1	88.5	85.2	83.3	81.5	79.8	78.2	70.3
Food		109.0	101.4	86.0	85.9	85.7	85.6	85.6	85.6	85.7
Oils and meals		109.3	103.0	80.6	83.0	83.3	83.6	84.0	84.4	86.4
Grains		120.9	98.1	84.0	76.9	77.9	79.0	80.1	81.2	87.3
Other food		98.0	102.4	94.9	97.8	96.0	94.3	92.6	91.0	83.2
Raw materials		90.0	86.8	78.8	74.5	75.1	75.9	76.6	77.4	81.6
Timber		96.7	99.0	90.9	84.7	85.8	86.9	88.1	89.3	95.3
Other Raw Materials		82.6	73.4	65.6	63.4	63.5	63.8	64.1	64.4	66.5
Fertilizers		107.2	94.9	90.3	69.5	70.1	70.8	71.5	72.1	75.7
Metals and minerals *		85.6	80.1	63.4	56.5	57.9	59.3	60.6	61.9	69.0
Base Metals **		85.2	84.1	69.7	61.6	64.0	65.7	67.1	68.6	76.7
Precious Metals		108.5	95.5	85.8	90.5	87.2	84.1	81.2	78.3	65.4
Inflation indices, 2010=100										
MUV index ***		106.1	105.9	105.7	107.6	109.4	111.2	112.9	114.8	124.7
% change per annum		-1.4	-0.2	-0.2	1.9	1.7	1.6	1.6	1.6	1.7
US GDP deflator		105.4	106.9	108.5	110.7	113.0	115.3	117.6	120.0	132.6
% change per annum		1.5	1.3	1.6	2.0	2.0	2.0	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: January 2017.







## APPENDIX B

### Supply-Demand balances

Aluminum	35	Natural gas	50
Bananas	36	Natural rubber	51
Coal	37	Nickel	52
Cocoa	38	Palm oil and Soybean oil	53
Coconut oil and Palm kernel oil	39	Platinum	54
Coffee	40	Rice	55
Copper	41	Silver	56
Cotton	42	Soybeans	57
Crude oil	43	Sugar	58
Fertilizers—Nitrogen	44	Tea	59
Fertilizers—Phosphate and Potash	45	Timber—Roundwood and Sawnwood	60
Gold	46	Timber—Wood panels and Woodpulp	61
Iron Ore	47	Tin	62
Lead	48	Wheat	63
Maize	49	Zinc	64



# Aluminum

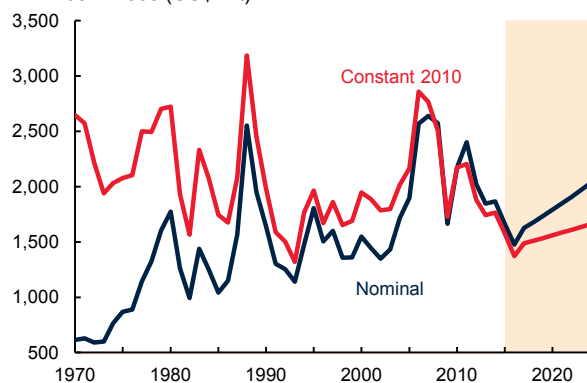
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2016-25 are forecasts.

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

## Refined Production (thousand metric tons)

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

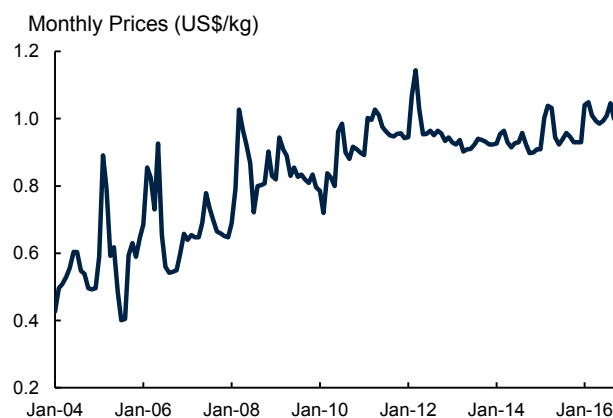
## Refined Consumption (thousand metric tons)

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

Source: World Bureau of Metal Statistics.

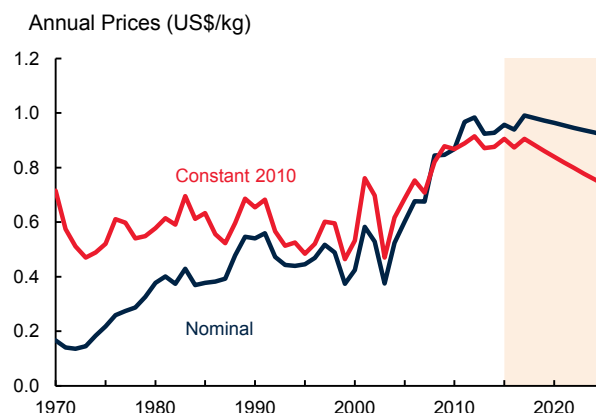
Note: n/a implies data not available.

# Bananas



Source: World Bank.

Note: Last observation is September 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2009	2010	2011	2012	2013
<b>Exports (thousand metric tons)</b>									
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
Brazil	204	67	53	72	144	140	110	93	98
Others	851	533	714	881	1,158	1,149	1,110	1,017	1,069
<b>World</b>	<b>5,519</b>	<b>6,772</b>	<b>9,030</b>	<b>14,336</b>	<b>18,213</b>	<b>17,491</b>	<b>18,720</b>	<b>19,099</b>	<b>20,098</b>
<b>Imports (thousand metric tons)</b>									
United States	1,846	2,423	3,099	4,031	3,580	4,115	4,123	4,353	4,548
Germany	548	614	1,232	1,115	1,358	1,234	1,288	1,199	1,344
Russian Federation	n/a	n/a	n/a	503	981	1,068	1,307	1,260	1,339
Belgium	n/a	n/a	n/a	1,027	1,315	1,351	1,340	1,287	1,275
United Kingdom	335	322	470	743	942	979	1,019	1,037	1,140
Japan	844	726	758	1,079	1,253	1,109	1,064	1,087	975
Italy	288	279	429	605	684	658	662	616	655
France	435	446	497	341	530	550	567	523	612
Iran, Islamic Rep.	2	0	50	200	650	661	616	590	595
China	29	21	48	647	575	739	910	707	583
Canada	199	246	341	399	482	496	506	513	543
United Arab Emirates	0	23	30	99	84	93	116	282	425
Netherlands	81	114	142	160	188	222	297	357	418
Kuwait	10	25	15	24	35	23	24	100	404
Argentina	164	195	73	340	344	351	395	370	392
Korea, Rep.	3	15	22	184	257	338	353	368	314
Algeria	11	n/a	n/a	n/a	180	58	245	222	274
Ukraine	n/a	n/a	n/a	60	227	152	248	243	266
Poland	3	47	8	285	225	245	223	202	265
Turkey	0	0	62	124	182	201	235	225	235
Others	787	1,184	1,608	2,473	3,161	3,290	3,183	2,774	3,061
<b>World</b>	<b>5,584</b>	<b>6,680</b>	<b>8,881</b>	<b>14,436</b>	<b>17,235</b>	<b>17,934</b>	<b>18,721</b>	<b>18,314</b>	<b>19,664</b>

Sources: Food and Agriculture Organization, Intergovernmental Group on Bananas and Tropical Fruits.

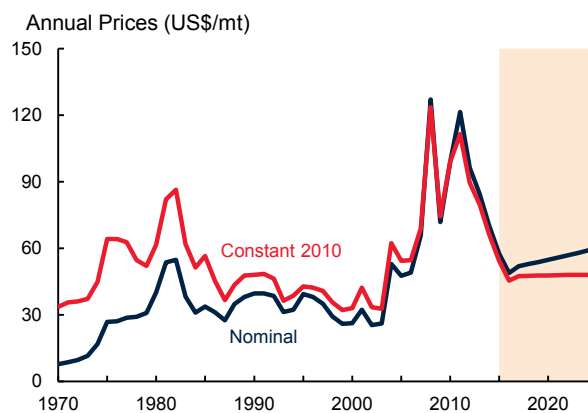
Note: n/a implies data not available. Data include re-exports.

## Coal



Source: World Bank.

Note: Last observation is September 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

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

Source: BP Statistical Review.

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

# Cocoa

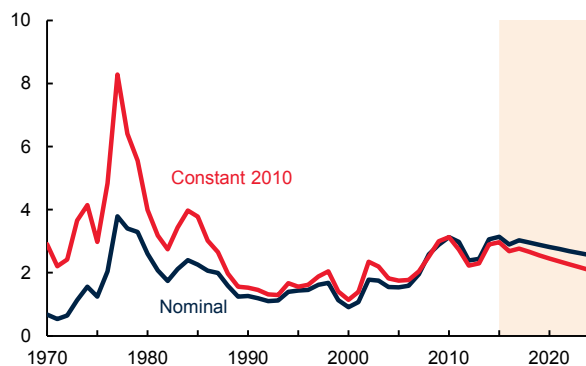
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/kg)



Source: World Bank.

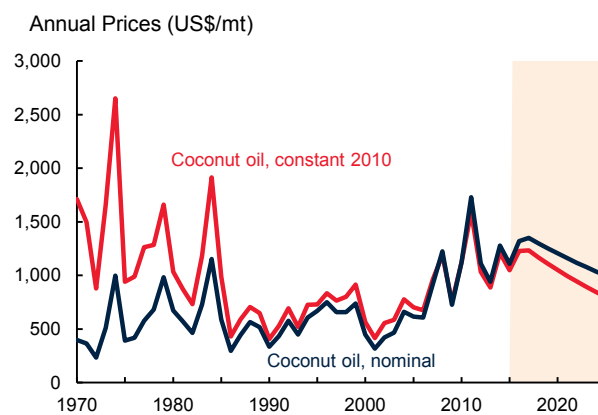
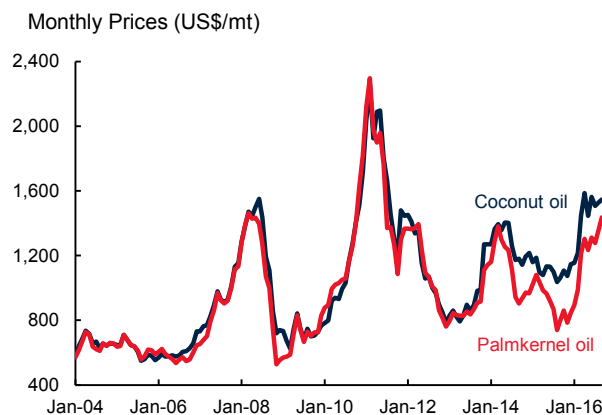
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
<b>Production (thousand metric tons)</b>									
Côte d'Ivoire	180	417	804	1,212	1,511	1,449	1,746	1,796	1,650
Ghana	406	258	293	395	1,025	835	897	740	800
Indonesia	2	12	150	385	440	410	375	325	320
Ecuador	72	87	111	89	161	192	234	250	220
Cameroon	112	117	115	133	229	225	211	232	220
Nigeria	305	156	160	180	240	238	248	195	190
Brazil	182	353	368	163	200	185	228	230	180
Peru	2	7	11	17	54	70	82	85	85
Dominican Republic	35	35	42	45	54	68	70	82	72
Colombia	21	38	52	37	35	48	49	51	53
Others	212	214	400	195	361	223	232	246	250
<b>World</b>	<b>1,528</b>	<b>1,694</b>	<b>2,507</b>	<b>2,852</b>	<b>4,309</b>	<b>3,943</b>	<b>4,372</b>	<b>4,233</b>	<b>4,040</b>
<b>Grindings (thousand metric tons)</b>									
Côte d'Ivoire	35	60	118	285	361	471	519	558	540
Netherlands	116	140	268	452	540	545	530	508	516
Germany	151	180	294	227	439	402	412	415	428
United States	279	186	268	445	401	429	446	398	390
Indonesia	1	10	32	83	190	290	340	335	370
Ghana	48	27	30	70	230	225	234	234	230
Others	801	964	1,315	1,480	1,778	1,810	1,840	1,697	1,706
<b>World</b>	<b>1,431</b>	<b>1,566</b>	<b>2,325</b>	<b>3,041</b>	<b>3,938</b>	<b>4,173</b>	<b>4,322</b>	<b>4,145</b>	<b>4,180</b>
<b>Exports (thousand metric tons)</b>									
Côte d'Ivoire	138	406	688	903	1,079	1,045	1,192	1,234	n/a
Ghana	348	182	245	307	694	601	709	586	n/a
Ecuador	46	19	56	57	136	165	197	235	n/a
Cameroon	75	96	96	102	204	186	160	205	n/a
Nigeria	216	76	142	149	219	183	192	113	n/a
Malaysia	3	40	148	17	21	39	90	71	n/a
Others	294	282	362	451	643	423	381	365	n/a
<b>World</b>	<b>1,119</b>	<b>1,100</b>	<b>1,737</b>	<b>1,987</b>	<b>2,996</b>	<b>2,643</b>	<b>2,920</b>	<b>2,807</b>	<b>n/a</b>
<b>Imports (thousand metric tons)</b>									
Netherlands	116	167	267	549	806	672	641	471	n/a
United States	269	246	320	355	472	428	475	445	n/a
Germany	155	187	300	228	434	273	318	343	n/a
Belgium	18	28	50	101	194	225	258	252	n/a
Malaysia	1	n/a	1	110	320	305	315	228	n/a
France	42	59	74	157	149	114	141	137	n/a
Spain	34	37	45	49	88	99	107	104	n/a
Italy	41	32	56	72	86	88	90	97	n/a
Turkey	1	2	6	39	71	78	88	88	n/a
Singapore	3	22	127	67	88	80	81	81	n/a
Others	460	418	516	682	649	635	656	629	n/a
<b>World</b>	<b>1,139</b>	<b>1,198</b>	<b>1,761</b>	<b>2,409</b>	<b>3,357</b>	<b>2,996</b>	<b>3,171</b>	<b>2,875</b>	<b>n/a</b>

Source: Quarterly Bulletin of Cocoa Statistics.

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

## Coconut oil and Palm kernel oil



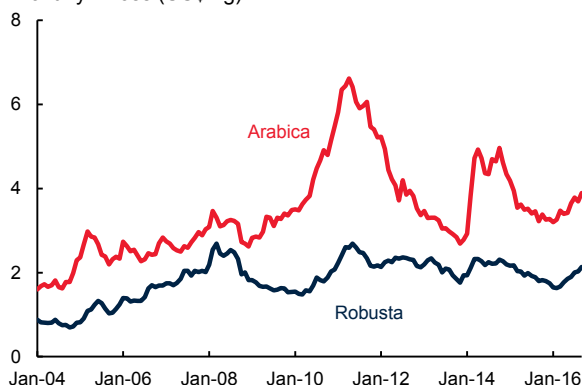
	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16	2016/17
<b>Coconut oil: production (thousand metric tons)</b>									
Philippines	1,159	1,448	1,207	1,240	1,624	1,153	1,102	937	1,076
Indonesia	677	833	825	847	850	933	937	835	907
India	228	292	442	398	380	390	377	365	371
Mexico	99	126	126	131	131	127	127	127	127
Malaysia	64	32	38	49	51	51	51	47	50
Vietnam	n/a	n/a	n/a	34	34	34	34	33	33
Thailand	n/a	n/a	n/a	27	29	29	29	28	27
Papua New Guinea	n/a	n/a	n/a	54	32	26	18	19	20
Others	596	628	606	314	322	313	312	313	313
<b>World</b>	<b>2,823</b>	<b>3,359</b>	<b>3,244</b>	<b>3,094</b>	<b>3,453</b>	<b>3,056</b>	<b>2,987</b>	<b>2,704</b>	<b>2,924</b>
<b>Coconut oil: consumption (thousand metric tons)</b>									
European Union	498	632	734	739	716	646	537	550	569
United States	373	400	585	474	520	518	531	446	486
India	233	301	448	411	381	392	389	367	372
Philippines	195	318	297	336	523	364	241	231	283
Indonesia	639	600	200	153	215	377	155	179	177
China	27	32	43	216	152	142	137	132	133
Mexico	115	139	139	153	135	129	130	133	131
Malaysia	4	4	32	90	57	49	83	72	80
Others	575	759	715	671	702	507	714	644	648
<b>World</b>	<b>2,659</b>	<b>3,185</b>	<b>3,193</b>	<b>3,243</b>	<b>3,401</b>	<b>3,124</b>	<b>2,917</b>	<b>2,754</b>	<b>2,879</b>
<b>Palmkernel oil: production (thousand metric tons)</b>									
Indonesia	36	229	709	2,534	3,022	3,264	3,538	3,498	3,656
Malaysia	250	827	1,289	2,072	2,271	2,332	2,280	2,052	2,322
Thailand	n/a	n/a	n/a	140	174	176	165	154	165
Nigeria	82	146	190	108	116	109	114	117	120
Colombia	n/a	n/a	n/a	80	90	95	105	106	110
Papua New Guinea	n/a	n/a	n/a	43	51	57	58	59	61
Ecuador	n/a	n/a	n/a	35	39	37	40	42	44
Côte d'Ivoire	n/a	n/a	n/a	40	43	42	39	41	42
Others	195	261	349	339	376	411	425	443	467
<b>World</b>	<b>563</b>	<b>1,463</b>	<b>2,537</b>	<b>5,391</b>	<b>6,182</b>	<b>6,523</b>	<b>6,764</b>	<b>6,512</b>	<b>6,987</b>
<b>Palmkernel oil: consumption (thousand metric tons)</b>									
Indonesia	29	66	113	851	1,260	1,518	1,670	1,738	1,780
Malaysia	4	117	686	1,420	1,464	1,414	1,504	1,383	1,442
European Union	238	417	500	537	667	674	675	705	738
China	1	12	31	421	620	495	578	610	640
United States	69	149	224	279	267	266	274	324	318
Brazil	2	10	55	201	215	249	241	226	237
India	1	7	13	198	326	265	245	125	169
Nigeria	24	146	175	107	113	105	113	115	118
Others	147	465	708	1,214	1,326	1,406	1,423	1,507	1,450
<b>World</b>	<b>515</b>	<b>1,389</b>	<b>2,505</b>	<b>5,228</b>	<b>6,258</b>	<b>6,392</b>	<b>6,723</b>	<b>6,733</b>	<b>6,892</b>

Source: Oil World.

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 1980/81, 1990/91, 2000/01 and EU-28 for 2010-2016.

# Coffee

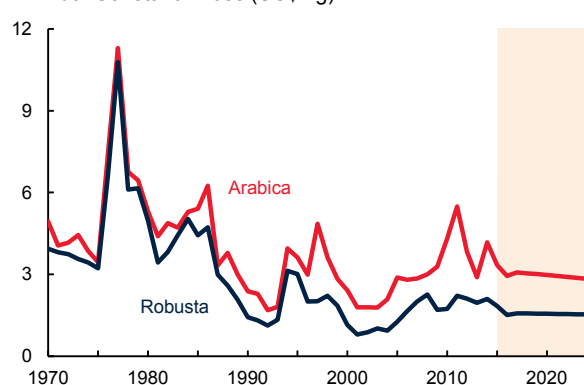
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Constant Prices (US\$/kg)



Source: World Bank.

Note: 2016-25 are forecasts.

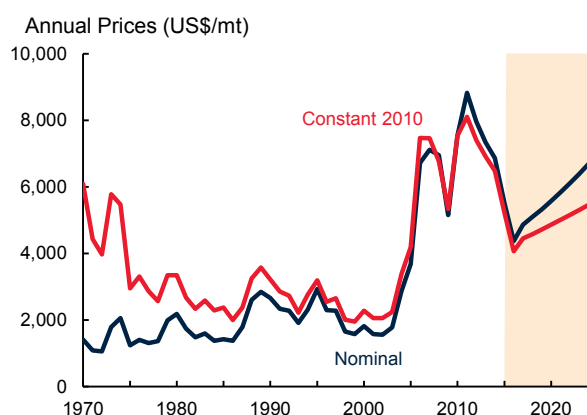
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (thousand 60kg bags)</b>									
Brazil	11,000	21,500	31,000	34,100	54,500	57,200	54,300	49,400	55,950
Vietnam	56	77	1,200	15,333	19,415	29,833	27,400	29,300	27,275
Colombia	8,000	13,500	14,500	10,500	8,525	12,075	13,300	13,600	13,300
Indonesia	2,330	5,365	7,480	6,495	9,325	9,500	10,470	11,750	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	5,700	6,100
India	1,914	1,977	2,970	5,020	5,035	5,075	5,440	5,300	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	4,500	3,700
Guatemala	1,965	2,702	3,282	4,564	3,960	3,515	3,185	3,350	3,375
Mexico	3,200	3,862	4,550	4,800	4,000	3,950	3,180	2,500	2,300
China	0	0	0	0	827	1,947	2,000	2,100	2,300
Nicaragua	641	971	460	1,610	1,740	2,000	2,125	2,025	2,125
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,675	1,400	1,650	1,700
Malaysia	66	88	75	700	1,100	1,500	1,500	1,500	1,500
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	1,250	1,050
Thailand	19	201	785	1,692	1,000	1,000	1,000	1,000	1,000
Papua New Guinea	401	880	964	1,041	865	855	810	750	750
Others	16,495	17,929	17,232	11,441	9,480	6,558	6,570	6,217	6,402
<b>World</b>	<b>59,202</b>	<b>86,174</b>	<b>100,181</b>	<b>117,217</b>	<b>141,409</b>	<b>157,778</b>	<b>153,255</b>	<b>153,292</b>	<b>155,697</b>
<b>Consumption (thousand 60kg bags)</b>									
European Union	n/a	n/a	n/a	n/a	41,350	41,475	43,820	43,100	43,900
United States	305	297	229	183	22,383	23,811	23,573	24,767	25,150
Brazil	8,890	7,975	9,000	13,100	19,420	20,210	20,420	20,500	20,520
Japan	n/a	n/a	n/a	n/a	7,015	7,750	7,825	8,285	8,325
Philippines	496	432	810	900	2,825	3,630	4,320	5,475	4,775
Canada	n/a	n/a	n/a	n/a	4,245	4,605	4,495	4,200	4,400
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,230	4,050	4,450	4,375
Indonesia	888	1,228	1,295	1,335	1,680	2,750	3,040	2,750	3,110
China	n/a	n/a	n/a	n/a	1,059	2,195	2,463	2,850	3,000
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	2,868
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	2,160	2,305	2,370	2,450
Mexico	1,512	1,500	1,400	978	2,620	2,731	2,364	2,315	2,350
Algeria	n/a	n/a	n/a	n/a	1,815	2,300	2,195	2,230	2,280
Australia	n/a	n/a	n/a	n/a	1,445	1,615	1,775	1,810	1,800
Switzerland	n/a	n/a	n/a	n/a	1,570	1,410	1,445	1,500	1,550
Colombia	1,349	1,825	1,615	1,530	1,120	1,300	1,400	1,425	1,475
India	665	887	1,224	959	1,231	1,170	1,270	1,350	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	13,156	12,874	12,990	13,072
<b>World</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>	<b>134,423</b>	<b>142,796</b>	<b>145,987</b>	<b>149,090</b>	<b>150,806</b>

Source: U.S. Department of Agriculture (October 2016 update).

Note: n/a implies data not available.



# Copper



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

Source: World Bureau of Metal Statistics.

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

# Cotton

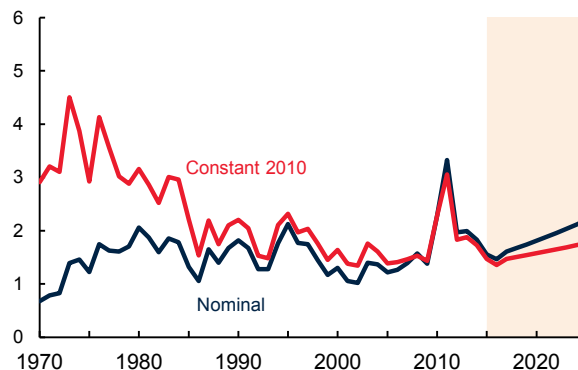
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/kg)



Source: World Bank.

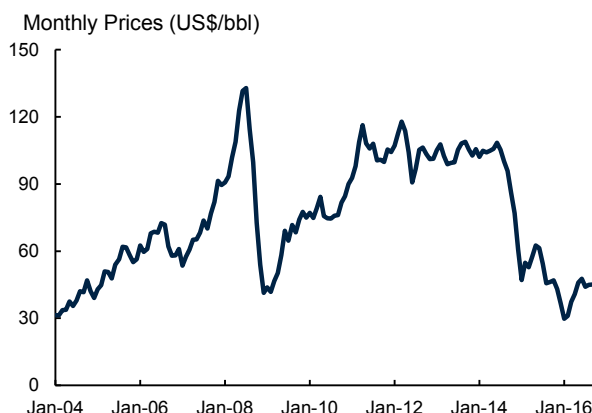
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (thousand metric tons)</b>									
India	909	1,322	1,989	2,380	5,865	6,766	6,562	5,746	5,766
China	1,995	2,707	4,508	4,505	6,400	6,950	6,500	4,753	4,553
United States	2,219	2,422	3,376	3,742	3,942	2,811	3,553	2,806	3,514
Pakistan	543	714	1,638	1,816	1,948	2,076	2,305	1,514	1,910
Brazil	594	623	717	939	1,960	1,734	1,563	1,348	1,447
Uzbekistan	n/a	1,671	1,593	975	910	910	885	832	816
Turkey	400	500	655	880	594	843	722	630	664
Australia	19	99	433	804	898	933	937	579	846
Turkmenistan	n/a	n/a	437	187	380	329	327	290	306
Burkina Faso	8	23	77	116	141	247	254	244	314
Greece	110	115	213	421	180	280	308	218	213
Mali	20	41	115	102	103	205	199	216	270
Others	n/a	n/a	3,201	2,658	2,088	2,086	2,081	1,929	1,918
<b>World</b>	<b>11,740</b>	<b>13,831</b>	<b>18,951</b>	<b>19,524</b>	<b>25,408</b>	<b>26,169</b>	<b>26,196</b>	<b>21,105</b>	<b>22,537</b>
<b>Stocks (thousand metric tons)</b>									
China	412	476	1,589	3,755	2,087	12,109	12,917	11,272	9,582
India	376	491	539	922	1,850	1,922	1,946	1,986	1,901
United States	915	581	510	1,306	566	651	980	1,010	1,300
Turkey	24	112	150	283	412	821	809	870	883
Brazil	321	391	231	755	1,400	852	852	854	876
Pakistan	55	131	313	608	316	422	414	433	455
Others	2,502	2,969	3,428	2,984	2,832	3,699	4,396	2,943	3,101
<b>World</b>	<b>4,605</b>	<b>5,151</b>	<b>6,761</b>	<b>10,614</b>	<b>9,463</b>	<b>20,476</b>	<b>22,314</b>	<b>19,368</b>	<b>18,098</b>
<b>Exports (thousand metric tons)</b>									
United States	848	1,290	1,697	1,467	3,130	2,293	2,449	1,993	2,504
India	34	140	255	24	1,085	2,014	914	1,265	821
Brazil	220	21	167	68	435	485	851	939	777
Australia	4	53	329	849	545	1,057	520	613	644
Uzbekistan	n/a	n/a	n/a	750	600	615	550	544	456
Burkina Faso	9	22	73	112	136	253	243	262	295
Others	n/a	n/a	n/a	2,535	1,786	2,293	2,204	1,873	1,917
<b>World</b>	<b>3,875</b>	<b>4,414</b>	<b>5,069</b>	<b>5,805</b>	<b>7,717</b>	<b>9,010</b>	<b>7,731</b>	<b>7,489</b>	<b>7,414</b>
<b>Imports (thousand metric tons)</b>									
Vietnam	33	40	31	84	350	687	934	1,001	1,152
Bangladesh	0	45	80	248	843	967	964	1,108	1,217
China	108	773	480	52	2,609	3,075	1,804	959	977
Turkey	1	0	46	381	760	924	800	918	849
Indonesia	36	106	324	570	471	651	728	640	646
Pakistan	1	1	0	101	314	463	541	490	436
Mexico	1	0	43	410	261	114	110	219	290
Thailand	46	86	354	342	383	369	398	278	274
Others	3,861	3,504	3,862	3,576	1,766	1,463	1,293	1,613	1,573
<b>World</b>	<b>4,086</b>	<b>4,555</b>	<b>5,220</b>	<b>5,764</b>	<b>7,756</b>	<b>8,712</b>	<b>7,572</b>	<b>7,226</b>	<b>7,414</b>

Source: International Cotton Advisory Committee (September-October 2016 update).

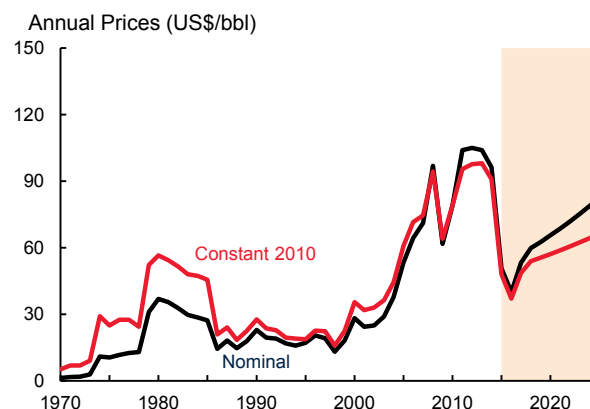
Note: n/a implies data not available.

## Crude oil



Source: World Bank.

Note: Last observation is September 2016.



Source: World Bank.

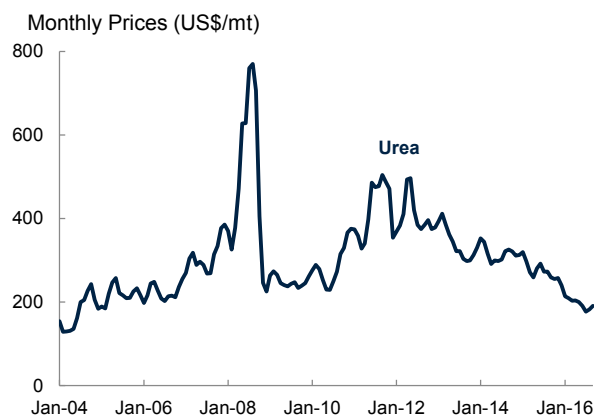
Note: 2016-25 are forecasts.

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

Source: BP Statistical Review.

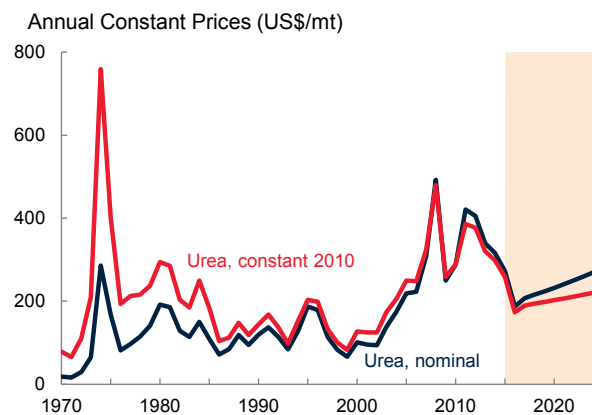
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

## Fertilizers—Nitrogen



Source: World Bank.

Note: Last observation is September 2016.



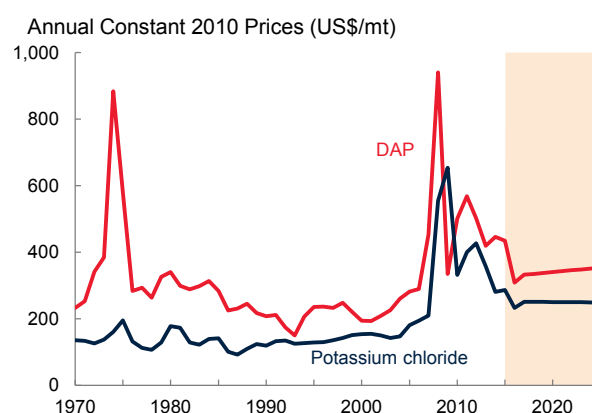
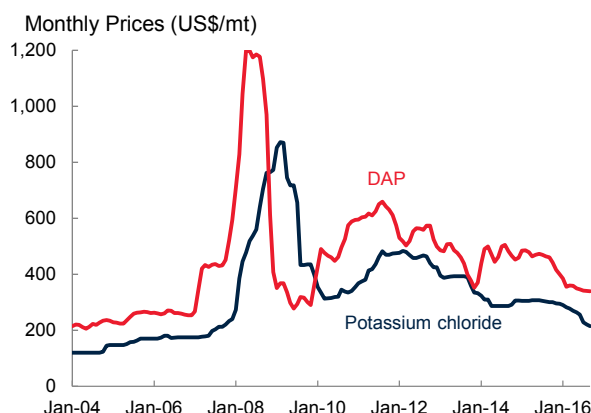
Source: World Bank.

Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2010	2011	2012	2013	2014
<b>Production (thousand tonnes nutrients)</b>									
China	1,200	9,993	14,637	22,175	35,678	36,323	36,056	36,810	35,540
India	838	2,164	6,993	10,943	12,178	12,288	12,237	12,409	12,435
United States	8,161	12,053	10,816	8,352	9,587	9,414	10,150	8,494	8,679
Russian Federation	n/a	n/a	n/a	5,452	6,544	6,917	6,605	6,819	6,678
Canada	726	1,755	2,683	3,797	3,364	3,565	3,344	3,225	3,432
Indonesia	45	958	2,462	2,853	3,207	3,375	3,313	3,442	3,406
Pakistan	140	572	1,120	2,054	2,629	2,534	2,232	2,589	2,647
Qatar	n/a	295	350	748	1,556	1,480	2,095	2,535	2,499
Saudi Arabia	0	138	568	1,278	1,695	1,737	1,923	1,920	2,119
Egypt, Arab Rep.	118	401	678	1,441	2,761	2,709	2,474	2,274	1,941
Ukraine	n/a	n/a	3,004	2,130	2,312	2,985	3,072	2,394	1,863
Iran, Islamic Rep.	31	72	376	726	1,524	1,904	2,058	1,975	1,784
Poland	1,030	1,290	1,233	1,497	1,509	1,445	1,529	1,466	1,404
Netherlands	957	1,624	1,928	1,300	1,175	1,322	1,293	1,321	1,322
Germany	1,900	2,380	1,165	1,558	1,289	1,275	1,326	1,316	1,316
Vietnam	0	15	18	227	479	503	861	999	1,067
Belgium	594	743	770	935	947	956	932	1,053	1,027
Belarus	n/a	n/a	747	574	740	773	832	922	964
Uzbekistan	n/a	n/a	1,113	682	911	864	875	811	925
Others	16,949	28,500	21,303	17,904	18,031	18,804	18,362	18,212	17,919
<b>World</b>	<b>32,690</b>	<b>62,951</b>	<b>71,964</b>	<b>86,624</b>	<b>108,116</b>	<b>111,170</b>	<b>111,568</b>	<b>110,987</b>	<b>108,966</b>
<b>Consumption (thousand tonnes nutrients)</b>									
China	2,987	11,787	19,233	22,720	32,213	32,806	33,046	33,000	32,869
India	1,310	3,522	7,566	10,911	16,558	17,300	16,821	16,731	16,816
United States	7,363	10,818	10,239	10,467	11,737	12,231	12,188	12,287	11,821
Brazil	276	886	797	1,998	2,855	3,366	3,435	3,706	3,872
Pakistan	264	843	1,472	2,265	3,143	3,209	2,853	3,179	3,315
Indonesia	184	851	1,610	1,964	3,045	2,940	3,063	2,820	2,981
Canada	323	946	1,158	1,592	1,990	2,297	2,479	2,457	2,551
France	1,425	2,146	2,493	2,317	2,337	2,020	2,140	2,178	2,163
Germany	1,642	2,303	1,787	1,848	1,786	1,640	1,648	1,675	1,823
Russian Federation	n/a	n/a	4,344	960	1,483	1,577	1,576	1,537	1,522
Mexico	406	878	1,346	1,342	1,166	1,168	1,201	1,518	1,501
Turkey	243	782	1,200	1,276	1,344	1,259	1,432	1,584	1,493
Australia	123	248	439	951	982	1,099	1,099	1,315	1,407
Vietnam	166	129	425	1,332	1,250	1,300	1,407	1,261	1,354
Bangladesh	99	266	609	996	1,237	1,122	1,112	1,133	1,321
Thailand	50	136	577	922	1,311	1,386	1,382	1,454	1,293
Ukraine	n/a	n/a	1,836	350	650	1,159	1,254	1,219	1,181
Egypt, Arab Rep.	331	554	745	1,084	1,159	1,207	1,087	1,104	1,122
United Kingdom	880	1,240	1,516	1,167	1,019	1,003	995	1,059	1,047
Others	13,351	22,157	17,386	15,609	16,815	16,692	17,205	17,968	18,255
<b>World</b>	<b>31,423</b>	<b>60,493</b>	<b>76,777</b>	<b>82,070</b>	<b>104,080</b>	<b>106,781</b>	<b>107,423</b>	<b>109,185</b>	<b>109,707</b>

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

## Fertilizers—Phosphate and Potash



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

Sources: International Fertilizer Industry Association (<http://ifadata.fertilizer.org/ucSearch.aspx>).

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

# Gold

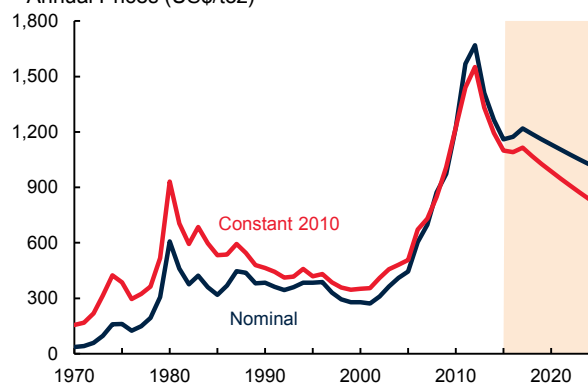
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/toz)



Source: World Bank.

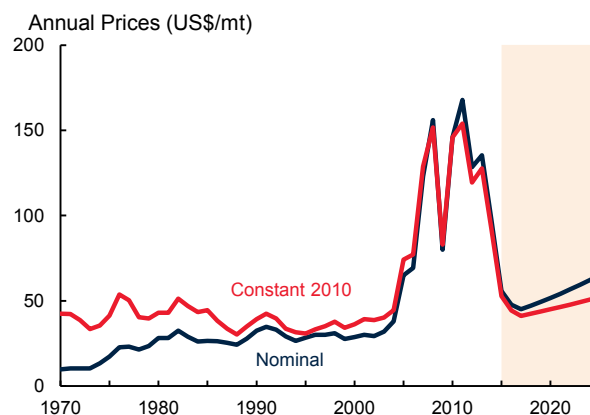
Note: 2016-25 are forecasts.

	1995	2000	2005	2009	2010	2011	2012	2013	2014
<b>Production (metric tons)</b>									
China	136	175	209	314	341	361	403	428	452
Australia	247	296	263	223	260	258	252	267	274
Russian Federation	128	144	163	205	201	185	183	230	249
United States	317	353	256	223	231	234	235	230	210
Canada	152	156	121	97	91	100	105	125	152
South Africa	522	428	297	205	191	187	154	169	152
Peru	56	134	206	184	164	164	162	151	141
Ghana	53	72	67	91	93	88	99	95	136
Mexico	20	24	30	62	79	89	103	120	118
Uzbekistan	70	88	84	73	90	91	93	98	102
Brazil	64	61	38	60	62	65	67	80	78
Argentina	1	26	28	49	64	59	55	52	72
Indonesia	63	125	158	128	106	77	69	60	69
Colombia	22	37	36	48	54	56	66	56	57
Papua New Guinea	52	73	67	68	67	62	58	63	53
Kazakhstan	11	27	18	23	30	37	40	42	49
Chile	44	54	40	41	39	45	50	49	46
Mali	8	29	44	43	39	36	41	41	45
Tanzania	0	15	48	39	39	37	40	43	41
Others	206	242	291	300	352	404	439	470	555
<b>World</b>	<b>2,174</b>	<b>2,560</b>	<b>2,464</b>	<b>2,477</b>	<b>2,594</b>	<b>2,635</b>	<b>2,713</b>	<b>2,868</b>	<b>3,049</b>
<b>Fabrication (metric tons)</b>									
India	426	704	695	571	783	761	736	716	771
China	217	213	277	431	523	651	698	1,058	732
Turkey	126	228	303	111	109	136	114	178	156
United States	245	277	219	173	179	167	147	160	150
Japan	189	161	165	141	158	147	126	124	119
Italy	458	522	290	135	126	103	96	92	96
Russian Federation	n/a	34	61	58	61	66	72	74	70
South Korea	82	107	83	65	68	62	54	49	47
Switzerland	47	54	56	38	41	48	48	48	46
Indonesia	133	99	87	46	39	39	44	52	45
Egypt, Arab Rep.	61	107	71	45	43	30	39	42	42
Malaysia	78	86	74	45	44	37	35	45	41
Saudi Arabia	156	153	125	54	47	37	33	41	37
Germany	71	64	52	38	41	39	36	37	36
United Arab Emirates	30	50	55	36	33	28	28	38	36
Brazil	27	32	26	25	30	29	30	33	34
Canada	28	25	27	48	44	45	32	45	32
Iran, Islamic Rep.	37	46	41	38	39	37	37	42	32
Singapore	22	26	30	23	25	24	22	25	27
Others	862	772	590	404	363	342	312	340	317
<b>World</b>	<b>3,294</b>	<b>3,761</b>	<b>3,325</b>	<b>2,524</b>	<b>2,795</b>	<b>2,828</b>	<b>2,738</b>	<b>3,238</b>	<b>2,864</b>

Sources: World Bureau of Metal Statistics and Thomson Reuters.

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

## Iron Ore



	1971	1980	1990	2000	2010	2011	2012	2013	2014
<b>Iron ore production (million metric tons)</b>									
Australia	62	99	109	176	433	477	520	609	724
Brazil	38	113	152	209	372	397	380	391	399
China	55	113	148	105	359	345	336	266	193
India	34	41	54	75	209	192	153	136	130
Russian Federation	n/a	n/a	n/a	87	99	104	103	102	101
Ukraine	n/a	n/a	n/a	56	79	81	81	84	82
South Africa	10	n/a	30	34	55	53	59	61	67
United States	82	71	55	63	50	55	54	52	54
Iran, Islamic Rep.	n/a	n/a	2	12	33	36	39	48	48
Canada	43	49	37	36	38	37	39	42	44
Sweden	34	27	20	21	25	26	27	27	28
Mexico	5	8	9	11	14	13	15	19	17
Kazakhstan	n/a	n/a	n/a	15	18	18	17	19	16
Chile	11	9	8	8	10	12	12	12	13
Mauritania	8	9	11	11	11	11	12	13	13
Peru	9	6	3	4	9	10	11	7	11
Mongolia	0	0	0	0	3	6	6	7	10
Malaysia	1	0	0	0	3	8	8	14	9
Turkey	2	3	6	4	6	6	7	8	7
Venezuela, RB	20	14	20	17	14	20	15	8	6
Liberia	23	18	4	0	0	1	3	4	5
Others	n/a	n/a	n/a	14	30	36	36	47	23
<b>World</b>	<b>781</b>	<b>931</b>	<b>984</b>	<b>959</b>	<b>1,870</b>	<b>1,944</b>	<b>1,931</b>	<b>1,977</b>	<b>2,001</b>
<b>Crude steel production (million metric tons)</b>									
China	21	37	66	129	639	702	731	822	823
Japan	89	111	110	106	110	108	107	111	111
United States	109	101	90	102	80	86	89	87	88
India	6	10	15	27	69	73	77	81	87
Korea, Rep.	0	9	23	43	59	69	69	66	72
Russian Federation	n/a	n/a	n/a	59	67	69	70	69	71
Germany	40	44	38	46	44	44	43	43	43
Turkey	1	3	9	14	29	34	36	35	34
Brazil	6	15	21	28	33	35	35	34	34
Ukraine	n/a	n/a	n/a	32	33	35	33	33	27
Italy	17	27	25	27	26	29	27	24	24
Taiwan, China	0	3	10	17	20	20	21	22	23
Mexico	4	7	9	16	17	18	18	18	19
Iran, Islamic Rep.	0	1	1	7	12	13	14	15	16
France	23	23	19	21	15	16	16	16	16
Spain	8	13	13	16	16	16	14	14	14
Canada	11	16	12	17	13	13	14	12	13
Others	n/a	n/a	n/a	143	151	158	147	148	155
<b>World</b>	<b>583</b>	<b>716</b>	<b>770</b>	<b>849</b>	<b>1,433</b>	<b>1,538</b>	<b>1,560</b>	<b>1,650</b>	<b>1,670</b>

Source: Steel Statistical Yearbook.

Notes: n/a implies data not available.



## Lead

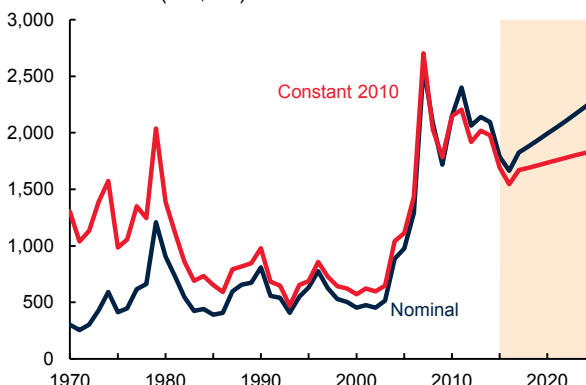
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2016-25 are forecasts.

	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
China	160	364	660	1,142	1,981	2,613	2,697	2,853	2,340
Australia	398	570	678	767	712	639	711	728	689
United States	562	493	447	437	356	336	343	385	375
Peru	189	188	271	319	262	249	266	278	316
Mexico	146	174	138	134	192	238	253	250	254
Russian Federation	n/a	n/a	13	36	97	151	165	194	188
India	15	26	38	60	91	115	106	105	139
Sweden	72	84	107	61	68	64	60	71	79
Bolivia	16	20	10	11	73	81	82	76	79
Poland	48	45	51	51	48	73	74	77	77
Turkey	8	18	16	19	39	54	78	65	77
Korea, Dem. People's Rep.	125	70	26	20	27	38	59	45	48
Iran, Islamic Rep.	12	9	17	22	32	36	40	45	46
Others	n/a	n/a	610	372	396	427	384	388	352
<b>World</b>	<b>3,595</b>	<b>3,150</b>	<b>3,080</b>	<b>3,453</b>	<b>4,374</b>	<b>5,115</b>	<b>5,317</b>	<b>5,561</b>	<b>5,059</b>
<b>Refined Production (thousand metric tons)</b>									
China	175	297	1,100	2,359	4,157	4,591	4,935	4,740	3,858
United States	1,151	1,291	1,431	1,293	1,255	1,221	1,308	1,120	1,127
Korea, Rep.	15	80	222	254	321	460	522	670	616
India	26	39	57	56	366	461	462	477	442
Germany	392	394	387	342	405	426	400	380	377
United Kingdom	325	329	328	304	301	312	296	267	351
Mexico	149	238	332	272	317	334	321	313	310
Canada	231	184	284	230	273	279	284	282	269
Japan	305	327	312	275	267	259	252	240	232
Australia	234	229	223	267	210	206	233	226	223
Italy	134	171	237	211	150	138	180	210	210
Spain	121	124	120	110	163	160	160	162	162
Brazil	85	76	86	121	115	165	152	160	160
Others	2,083	1,683	1,582	1,572	1,531	1,572	1,675	1,670	1,768
<b>World</b>	<b>5,424</b>	<b>5,460</b>	<b>6,701</b>	<b>7,665</b>	<b>9,832</b>	<b>10,585</b>	<b>11,180</b>	<b>10,917</b>	<b>10,106</b>
<b>Refined Consumption (thousand metric tons)</b>									
China	210	244	660	1,974	4,171	4,618	4,927	4,718	3,816
United States	1,094	1,275	1,660	1,490	1,430	1,360	1,750	1,670	1,608
Korea, Rep.	54	80	309	376	382	429	550	601	536
India	33	147	56	139	420	524	428	521	484
Germany	433	448	390	330	343	381	392	337	357
Japan	393	416	343	291	224	273	252	254	263
Italy	275	258	283	262	245	195	235	258	232
Spain	111	115	219	279	262	244	257	245	228
Brazil	83	75	155	189	201	238	234	229	224
Others	2,663	2,290	2,416	2,447	2,130	2,126	2,195	2,121	2,227
<b>World</b>	<b>5,348</b>	<b>5,348</b>	<b>6,491</b>	<b>7,777</b>	<b>9,807</b>	<b>10,388</b>	<b>11,222</b>	<b>10,955</b>	<b>9,976</b>

Source: World Bureau of Metal Statistics.

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



# Maize

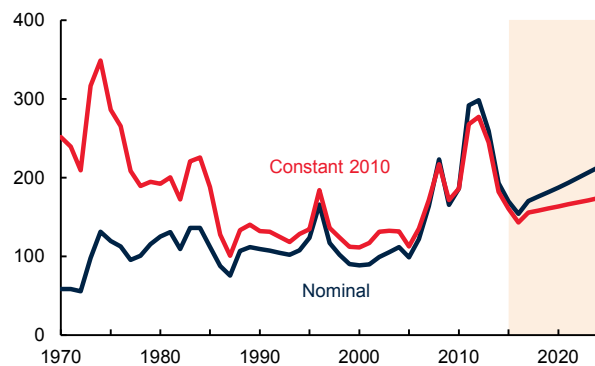
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2016-25 are forecasts.

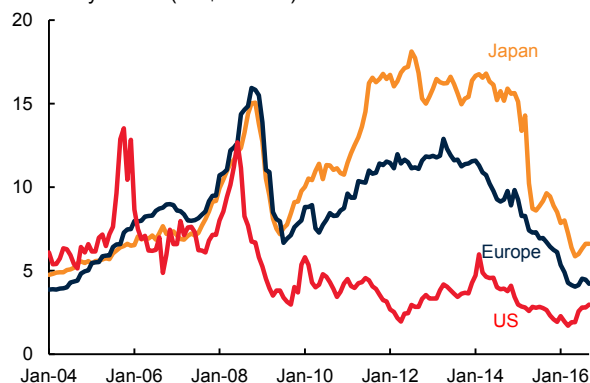
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
United States	105.5	168.6	201.5	251.9	315.6	351.3	361.1	345.5	382.5
China	33.0	62.6	96.8	106.0	177.2	218.5	215.6	224.6	216.0
Brazil	14.1	22.6	24.3	41.5	57.4	80.0	85.0	67.0	83.5
European Union	29.8	42.5	36.5	51.8	58.6	64.9	75.8	58.5	60.3
Argentina	9.9	12.9	7.7	15.4	25.2	26.0	28.7	28.0	36.5
Ukraine	n/a	n/a	4.7	3.8	11.9	30.9	28.5	23.3	26.0
Mexico	8.9	10.4	14.1	17.9	21.1	22.9	25.5	25.8	24.5
India	7.5	7.0	9.0	12.0	21.7	24.3	24.2	21.8	24.5
Russian Federation	n/a	n/a	2.5	1.5	3.1	11.6	11.3	13.2	14.0
South Africa	8.6	14.9	8.6	8.0	10.9	14.9	10.6	7.9	13.0
Canada	2.6	5.8	7.1	7.0	12.0	14.2	11.5	13.6	12.5
Indonesia	2.8	4.0	5.0	5.9	6.8	9.1	9.0	9.3	9.6
Philippines	2.0	3.1	5.1	4.5	7.3	7.5	7.7	7.5	7.9
Others	73.1	96.9	95.4	64.4	107.0	114.7	119.9	113.2	114.9
<b>World</b>	<b>297.9</b>	<b>451.3</b>	<b>518.4</b>	<b>591.7</b>	<b>835.9</b>	<b>990.8</b>	<b>1014.4</b>	<b>959.1</b>	<b>1025.7</b>
<b>Stocks (million metric tons)</b>									
China	8.9	42.8	82.8	102.4	49.4	81.3	100.5	110.7	103.7
United States	16.8	35.4	38.6	48.2	28.6	31.3	44.0	44.1	58.9
Brazil	2.0	1.3	0.8	2.7	6.3	14.0	7.8	5.3	5.9
Mexico	0.5	2.0	1.8	2.8	1.1	2.6	4.1	5.8	5.8
Iran, Islamic Rep.	0.0	0.1	0.0	0.9	2.8	4.5	5.7	6.1	5.3
Others	7.9	20.9	17.4	18.3	35.3	41.6	46.8	38.0	37.1
<b>World</b>	<b>36.1</b>	<b>102.5</b>	<b>141.4</b>	<b>175.3</b>	<b>123.6</b>	<b>175.3</b>	<b>208.9</b>	<b>210.1</b>	<b>216.8</b>
<b>Exports (million metric tons)</b>									
United States	12.9	60.7	43.9	49.3	46.5	48.8	47.4	48.2	56.5
Brazil	0.9	0.0	0.0	6.3	8.4	21.0	34.5	16.5	25.5
Argentina	6.4	9.1	4.0	9.7	16.3	17.1	18.9	19.5	25.0
Ukraine	n/a	n/a	0.4	0.4	5.0	20.0	19.7	16.5	17.7
Russian Federation	n/a	n/a	0.4	0.0	0.0	4.2	3.2	4.4	4.5
Paraguay	0.0	0.0	0.0	0.6	1.6	2.4	3.3	2.3	2.3
Serbia	0.0	0.0	0.0	0.0	2.0	1.8	3.0	1.6	2.2
Others	11.9	10.5	9.8	10.5	11.4	16.0	11.8	10.5	10.1
<b>World</b>	<b>32.2</b>	<b>80.3</b>	<b>58.4</b>	<b>76.7</b>	<b>91.3</b>	<b>131.2</b>	<b>141.7</b>	<b>119.5</b>	<b>143.8</b>
<b>Imports (million metric tons)</b>									
Japan	5.2	14.0	16.3	16.3	15.6	15.1	14.7	15.0	15.0
Mexico	0.1	3.8	1.9	6.0	8.3	10.9	11.3	13.8	13.8
European Union	18.9	26.6	5.7	3.7	7.4	16.0	8.6	13.4	13.5
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	10.4	10.2	10.3	10.0
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	8.7	7.8	8.5	8.8
Vietnam	0.1	0.1	0.0	0.1	1.3	3.5	5.0	8.0	6.5
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	5.5	6.1	6.6	6.0
Others	22.6	52.6	32.0	33.5	42.7	54.9	61.2	63.1	60.1
<b>World</b>	<b>47.3</b>	<b>100.9</b>	<b>64.3</b>	<b>74.9</b>	<b>92.7</b>	<b>125.1</b>	<b>124.9</b>	<b>138.7</b>	<b>133.6</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

# Natural gas

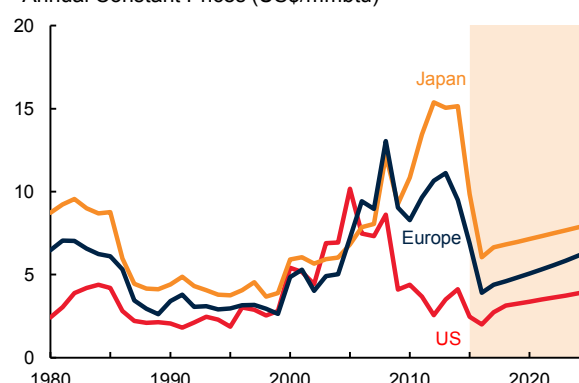
Monthly Prices (US\$/mmbtu)



Source: World Bank.

Note: Last observation is September 2016.

Annual Constant Prices (US\$/mmbtu)



Source: World Bank.

Note: 2016-25 are forecasts.

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

## Consumption (billion cubic metres)

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

Source: BP Statistical Review.

Note: n/a implies data not available.

## Natural rubber

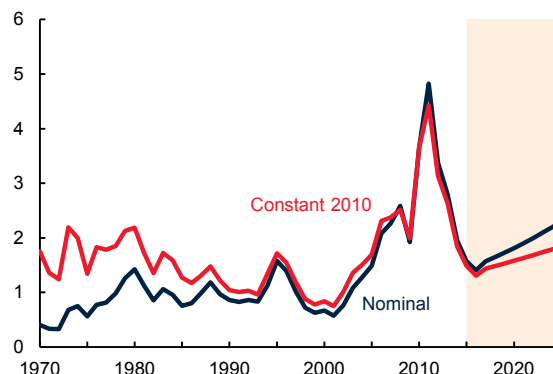
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
<b>Production (thousand metric tons)</b>									
Thailand	287	501	1,275	2,346	3,252	3,778	4,170	4,324	4,473
Indonesia	815	822	1,261	1,501	2,736	3,012	3,237	3,153	3,145
Vietnam	28	46	94	291	752	877	949	954	1,017
China	46	113	264	445	687	802	865	840	794
Malaysia	1,269	1,530	1,291	928	939	923	827	668	722
India	90	155	324	629	851	919	796	705	575
Côte d'Ivoire	11	23	69	123	231	254	289	317	351
Myanmar	10	16	15	36	128	164	177	198	212
Others	584	644	392	513	827	929	971	977	989
<b>World</b>	<b>3,140</b>	<b>3,850</b>	<b>4,985</b>	<b>6,811</b>	<b>10,403</b>	<b>11,658</b>	<b>12,281</b>	<b>12,136</b>	<b>12,278</b>
<b>Consumption (thousand metric tons)</b>									
China	250	340	600	1,150	3,622	3,890	4,270	4,804	4,680
European Union	991	1,007	1,012	1,293	1,136	1,076	1,060	1,139	1,159
India	86	171	358	638	944	988	962	1,015	987
United States	568	585	808	1,195	926	950	913	932	936
Japan	283	427	677	752	749	728	710	709	691
Thailand	8	28	99	243	487	505	521	541	601
Indonesia	25	46	108	139	421	465	509	540	579
Malaysia	20	45	184	364	458	441	434	447	475
Brazil	37	81	124	227	378	343	409	422	405
Korea, Rep.	26	118	255	332	384	396	396	402	388
Others	796	932	845	975	1,253	1,264	1,246	1,230	1,246
<b>World</b>	<b>3,090</b>	<b>3,780</b>	<b>5,068</b>	<b>7,306</b>	<b>10,759</b>	<b>11,046</b>	<b>11,430</b>	<b>12,181</b>	<b>12,146</b>
<b>Exports (thousand metric tons)</b>									
Thailand	279	457	1,151	2,166	2,866	3,175	3,752	3,729	3,776
Indonesia	790	976	1,077	1,380	2,369	2,525	2,770	2,662	2,680
Vietnam	23	33	80	273	782	1,023	1,076	1,066	1,138
Malaysia	1,304	1,482	1,322	978	1,245	1,291	1,332	1,192	1,119
Côte d'Ivoire	11	23	69	121	226	255	285	323	348
Others	413	299	263	359	558	602	672	882	1,147
<b>World</b>	<b>2,820</b>	<b>3,270</b>	<b>3,962</b>	<b>5,277</b>	<b>8,047</b>	<b>8,871</b>	<b>9,887</b>	<b>9,854</b>	<b>10,208</b>
<b>Imports (thousand metric tons)</b>									
China	178	242	340	820	2,888	3,426	3,975	4,096	4,200
European Union	1,071	1,068	1,072	1,474	1,427	1,459	1,451	1,546	1,536
Malaysia	45	43	136	548	706	871	1,005	914	955
United States	543	576	820	1,192	931	969	927	946	952
Japan	292	458	663	801	747	700	722	689	682
India	3	1	61	11	187	250	336	424	414
Korea, Rep.	26	118	254	331	388	397	396	403	388
Brazil	11	56	95	139	249	181	224	230	208
Others	641	673	1,328	1,065	1,157	1,307	1,236	1,251	1,354
<b>World</b>	<b>2,810</b>	<b>3,235</b>	<b>4,769</b>	<b>6,380</b>	<b>8,681</b>	<b>9,561</b>	<b>10,271</b>	<b>10,499</b>	<b>10,689</b>

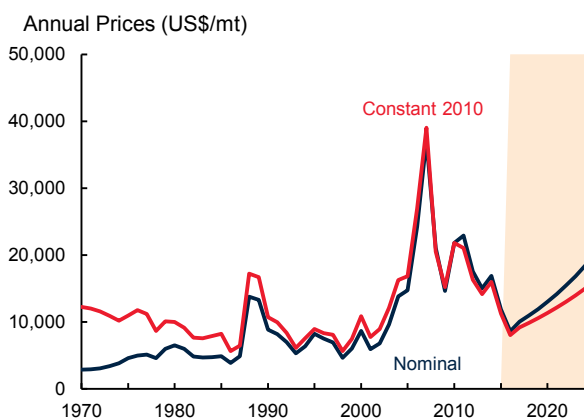
Source: International Rubber Study Group (July-September 2016 update).

# Nickel



Source: World Bank.

Note: Last observation is September 2016.



Source: World Bank.

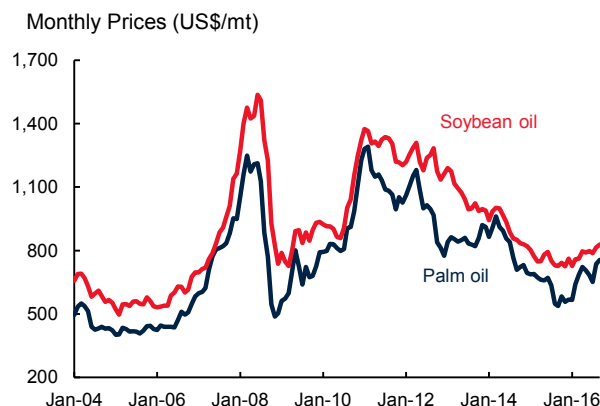
Note: 2016-25 are forecasts.

	1980	1990	2000	2005	2010	2012	2013	2014	2015
<b>Mine Production (thousand metric tons)</b>									
Philippines	38	16	17	27	184	318	316	411	317
Russian Federation	n/a	n/a	266	289	274	269	264	264	264
Canada	189	196	191	200	160	212	223	235	235
Australia	74	67	170	186	170	244	256	245	220
New Caledonia	87	85	129	112	130	132	150	178	186
Indonesia	41	69	117	156	216	622	811	146	106
China	11	33	51	59	80	93	93	92	92
Brazil	3	13	32	38	54	90	74	86	83
South Africa	26	30	37	42	40	46	51	55	57
Cuba	38	41	71	74	65	65	62	50	49
Madagascar	0	0	0	0	0	6	25	37	47
Guatemala	7	0	0	0	0	2	9	36	46
Colombia	0	0	28	53	49	52	49	41	37
Others	n/a	n/a	82	120	95	117	118	131	145
<b>World</b>	<b>749</b>	<b>888</b>	<b>1,191</b>	<b>1,356</b>	<b>1,518</b>	<b>2,266</b>	<b>2,504</b>	<b>2,006</b>	<b>1,884</b>
<b>Refined Production (thousand metric tons)</b>									
China	11	28	52	97	314	591	711	644	575
Russian Federation	n/a	n/a	242	264	263	254	242	239	233
Japan	109	103	161	164	166	170	178	178	193
Canada	145	127	134	140	105	152	153	151	163
Australia	35	43	112	122	102	129	142	138	128
Norway	37	58	59	85	92	92	91	91	91
New Caledonia	33	32	44	47	40	45	48	62	78
Brazil	3	13	23	30	28	59	56	73	72
Madagascar	0	0	0	0	0	6	25	37	47
Finland	13	17	54	41	49	46	44	43	43
United Kingdom	19	27	38	38	32	39	42	39	39
Korea, Rep.	0	0	0	0	23	24	28	25	37
Colombia	0	18	28	53	49	52	49	41	37
Others	n/a	n/a	164	208	174	200	194	186	181
<b>World</b>	<b>743</b>	<b>858</b>	<b>1,110</b>	<b>1,288</b>	<b>1,437</b>	<b>1,858</b>	<b>2,005</b>	<b>1,946</b>	<b>1,916</b>
<b>Refined Consumption (thousand metric tons)</b>									
China	18	28	58	197	489	805	909	761	964
Japan	122	159	192	180	177	159	159	157	159
United States	142	127	153	128	119	126	123	152	152
Taiwan, China	0	18	106	84	73	57	53	66	87
Korea, Rep.	0	24	91	118	101	108	107	100	83
Italy	27	27	53	85	62	65	59	60	60
Germany	78	93	102	116	100	89	66	62	60
India	12	14	23	16	27	33	37	27	37
Belgium	4	21	32	50	21	19	26	29	35
Others	315	330	342	344	257	275	259	285	295
<b>World</b>	<b>717</b>	<b>842</b>	<b>1,150</b>	<b>1,317</b>	<b>1,427</b>	<b>1,734</b>	<b>1,798</b>	<b>1,700</b>	<b>1,933</b>

Source: World Bureau of Metal Statistics.

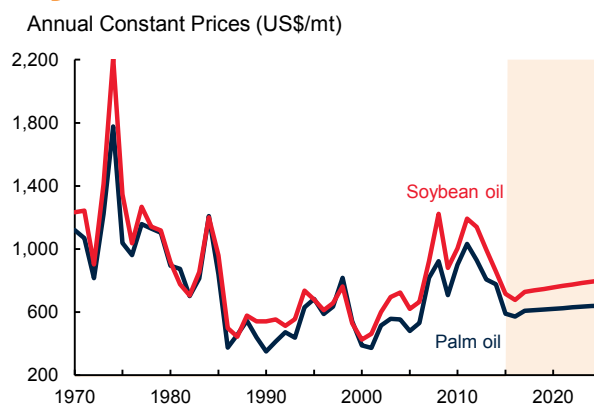
Note: n/a implies data not available.

## Palm oil and Soybean oil



Source: World Bank.

Note: Last observation is September 2016.



Source: World Bank.

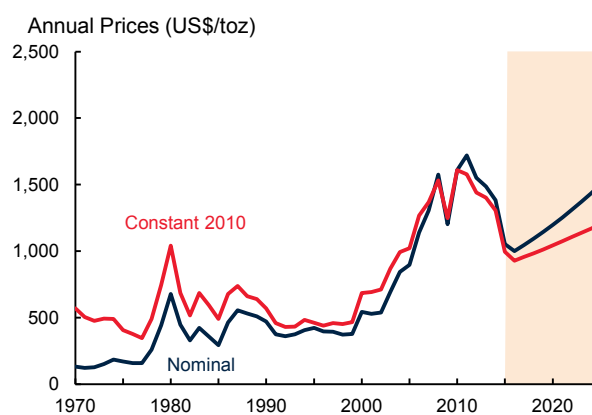
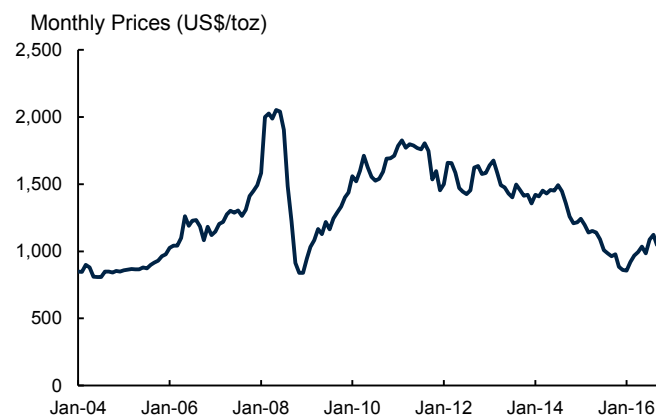
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Palm oil: production (thousand metric tons)</b>									
Indonesia	248	752	2,650	8,300	23,600	30,500	33,000	32,000	35,000
Malaysia	589	2,692	6,031	11,937	18,211	20,161	19,879	17,700	20,000
Thailand	0	19	200	580	1,832	2,000	2,068	2,100	2,300
Colombia	36	80	252	520	753	1,041	1,110	1,273	1,280
Nigeria	432	520	600	730	971	970	970	970	970
Ecuador	5	44	150	222	380	497	477	500	560
Honduras	0	18	64	148	320	460	470	490	545
Papua New Guinea	0	45	145	336	488	500	520	580	522
Ghana	21	19	24	108	426	493	495	500	520
Guatemala	0	0	6	124	231	434	448	470	515
Others	591	707	912	1,234	1,980	2,218	2,196	2,259	2,283
<b>World</b>	<b>1,922</b>	<b>4,896</b>	<b>11,034</b>	<b>24,239</b>	<b>49,192</b>	<b>59,274</b>	<b>61,633</b>	<b>58,842</b>	<b>64,495</b>
<b>Palm oil: consumption (thousand metric tons)</b>									
India	1	431	259	4,100	7,090	8,452	9,250	9,600	10,400
Indonesia	29	561	1,330	3,263	6,269	8,750	7,420	8,570	9,100
European Union	595	607	1,509	2,790	5,110	6,850	6,730	6,600	6,520
China	53	16	1,194	2,028	5,797	5,700	5,700	4,750	5,150
Pakistan	1	231	800	1,245	2,050	2,490	2,690	3,045	3,245
Malaysia	8	420	914	1,571	2,204	2,869	2,941	3,144	3,170
Others	1,707	3,104	6,658	8,603	19,018	22,944	23,665	24,593	25,716
<b>World</b>	<b>2,394</b>	<b>5,370</b>	<b>12,664</b>	<b>23,600</b>	<b>47,538</b>	<b>58,055</b>	<b>58,396</b>	<b>60,302</b>	<b>63,301</b>
<b>Soybean oil: production (thousand metric tons)</b>									
China	181	183	599	3,240	9,840	12,335	13,347	14,569	15,501
United States	3,749	5,112	6,082	8,355	8,568	9,131	9,706	9,961	10,217
Argentina	0	158	1,179	3,190	7,181	6,785	7,687	8,415	8,440
Brazil	0	2,601	2,669	4,333	6,970	7,070	7,760	7,660	7,750
European Union	1,260	2,478	2,317	3,033	2,362	2,501	2,553	2,698	2,810
India	2	69	425	805	1,691	1,460	1,210	1,059	1,353
Mexico	52	255	330	795	648	720	745	775	800
Paraguay	10	6	56	174	300	640	697	705	725
Others	2,205	4,191	4,425	2,887	3,921	4,448	5,328	5,804	6,296
<b>World</b>	<b>7,459</b>	<b>15,053</b>	<b>18,082</b>	<b>26,812</b>	<b>41,481</b>	<b>45,090</b>	<b>49,033</b>	<b>51,646</b>	<b>53,892</b>
<b>Soybean oil: consumption (thousand metric tons)</b>									
China	179	256	1,055	3,542	11,409	13,650	14,200	15,300	16,200
United States	2,854	4,134	5,506	7,401	7,506	8,576	8,600	9,117	9,320
Brazil	0	1,490	2,075	2,932	5,205	5,705	6,265	6,265	6,320
India	79	708	445	2,080	2,655	3,309	4,056	5,100	5,000
Argentina	0	56	101	247	2,520	2,729	2,501	2,580	2,815
European Union	1,170	1,926	1,879	2,186	2,530	1,908	1,970	2,000	2,000
Mexico	52	305	404	863	840	890	1,001	1,050	1,075
Bangladesh	40	28	235	503	388	530	650	710	825
Others	2,754	5,435	5,613	6,693	7,649	7,871	8,683	9,276	9,684
<b>World</b>	<b>7,128</b>	<b>14,338</b>	<b>17,313</b>	<b>26,447</b>	<b>40,702</b>	<b>45,168</b>	<b>47,926</b>	<b>51,398</b>	<b>53,239</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

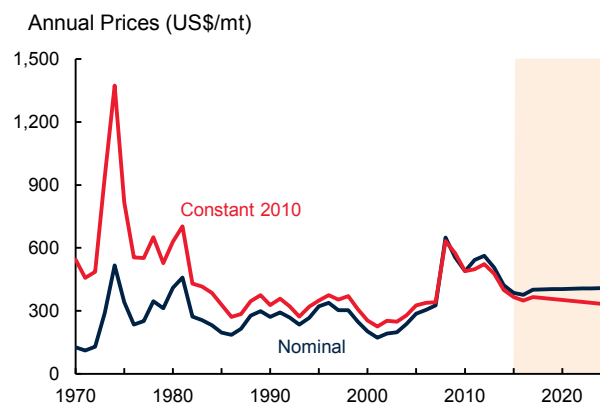
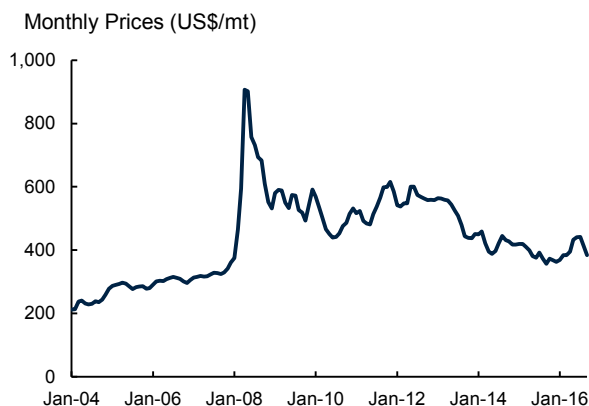
# Platinum



	2003	2005	2008	2009	2010	2011	2012	2013	2014
<b>Mine production (metric tons)</b>									
South Africa	146.1	157.2	145.4	143.2	147.7	147.3	130.3	133.3	95.2
Russian Federation	25.9	29.9	25.8	24.7	24.4	25.4	25.0	23.8	22.3
Zimbabwe	4.3	5.0	5.6	7.1	8.9	10.6	10.4	12.7	12.4
Canada	4.6	7.2	7.1	5.3	4.0	8.4	6.9	6.8	7.7
United States	4.2	3.9	3.6	3.8	3.5	3.7	3.7	3.7	3.7
Others	2.3	2.8	4.0	4.0	3.8	3.7	4.2	4.8	4.8
<b>World</b>	<b>187.4</b>	<b>206.0</b>	<b>191.5</b>	<b>188.1</b>	<b>192.3</b>	<b>199.1</b>	<b>180.5</b>	<b>185.1</b>	<b>146.1</b>
<b>Autocatalyst scrap (metric tons)</b>									
Europe	3.9	5.4	9.2	8.0	9.3	10.8	9.7	11.6	13.4
North America	15.1	15.6	17.3	12.2	14.0	14.8	12.8	14.4	12.1
Japan	2.1	1.7	2.1	1.7	1.9	1.7	1.8	1.8	2.1
China	n/a	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.1
Others	1.8	2.3	2.5	2.2	2.5	3.1	3.8	3.9	4.1
<b>World</b>	<b>22.9</b>	<b>25.1</b>	<b>31.3</b>	<b>24.4</b>	<b>28.1</b>	<b>30.9</b>	<b>28.8</b>	<b>32.6</b>	<b>32.8</b>
<b>Old jewellery scrap (metric tons)</b>									
China	0.9	5.1	10.4	5.5	6.7	7.5	7.3	7.3	7.8
Japan	4.0	6.0	18.0	8.5	8.7	10.7	8.0	7.3	7.6
North America	0.1	0.2	1.3	1.0	0.4	0.3	0.3	0.3	0.3
Europe	0.1	0.1	0.4	0.4	0.3	0.2	0.2	0.2	0.2
Others	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.2	0.2
<b>World</b>	<b>5.2</b>	<b>11.5</b>	<b>30.1</b>	<b>15.4</b>	<b>16.2</b>	<b>18.8</b>	<b>15.9</b>	<b>15.3</b>	<b>16.1</b>
<b>TOTAL SUPPLY (metric tons)</b>	<b>215.5</b>	<b>242.6</b>	<b>252.8</b>	<b>228.0</b>	<b>236.6</b>	<b>248.9</b>	<b>225.2</b>	<b>233.0</b>	<b>195.0</b>
<b>Autocatalyst demand (metric tons)</b>									
Europe	41.3	56.1	56.2	39.8	43.9	46.2	39.5	38.5	40.0
North America	26.8	23.3	17.5	10.8	12.0	14.1	14.3	14.4	14.0
China	4.7	5.5	5.8	5.9	6.9	6.2	5.8	7.0	8.8
Japan	16.6	18.1	16.1	9.6	11.4	9.4	10.0	9.0	8.7
Others	8.0	12.5	13.9	11.9	17.1	19.0	21.0	21.2	21.9
<b>World</b>	<b>97.4</b>	<b>115.5</b>	<b>109.5</b>	<b>78.0</b>	<b>91.3</b>	<b>94.9</b>	<b>90.6</b>	<b>90.1</b>	<b>93.4</b>
<b>Jewellery demand (metric tons)</b>									
China	46.1	35.0	34.5	60.8	44.8	49.4	54.0	55.2	52.3
Japan	21.3	20.5	7.7	8.4	8.1	8.8	9.9	10.2	10.0
North America	9.9	8.1	6.4	5.6	6.6	6.8	7.0	7.3	7.6
Europe	8.5	7.9	7.4	6.9	6.8	6.7	6.6	6.6	6.4
Others	2.4	1.2	1.4	1.6	2.2	2.6	3.3	3.4	3.6
<b>World</b>	<b>88.2</b>	<b>72.7</b>	<b>57.4</b>	<b>83.3</b>	<b>68.5</b>	<b>74.3</b>	<b>80.8</b>	<b>82.7</b>	<b>79.9</b>
<b>Other demand (metric tons)</b>									
North America	15.8	15.8	15.2	14.7	12.2	12.5	14.3	13.9	14.7
Europe	11.1	9.5	10.1	8.9	10.1	9.7	10.3	9.7	10.8
China	n/a	4.7	9.1	1.0	10.1	7.5	11.3	10.9	8.4
Japan	9.9	13.2	18.2	9.0	10.2	13.5	11.0	1.7	2.7
Others	14.0	14.0	18.4	15.0	20.7	20.9	13.7	13.5	16.7
<b>World</b>	<b>50.8</b>	<b>57.2</b>	<b>71.0</b>	<b>48.6</b>	<b>63.3</b>	<b>64.1</b>	<b>60.6</b>	<b>49.7</b>	<b>53.3</b>
<b>TOTAL DEMAND (metric tons)</b>	<b>236.4</b>	<b>245.4</b>	<b>237.9</b>	<b>209.9</b>	<b>223.1</b>	<b>233.3</b>	<b>232.0</b>	<b>222.5</b>	<b>226.6</b>

Sources: Platinum & Palladium Survey, Thomson Reuters.

## Rice



	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
China	77.0	97.9	132.5	131.5	137.0	142.5	144.6	145.8	146.5
India	42.2	53.6	74.3	85.0	96.0	106.6	105.5	104.3	106.5
Indonesia	13.1	22.3	29.0	33.0	35.5	36.3	35.6	36.2	36.6
Bangladesh	11.1	13.9	17.9	25.1	31.7	34.4	34.5	34.5	34.5
Vietnam	6.4	7.7	12.4	20.5	26.4	28.2	28.2	27.5	27.8
Thailand	9.0	11.5	11.3	17.1	20.3	20.5	18.8	15.8	18.6
Myanmar	5.1	6.7	7.9	10.8	11.1	12.0	12.6	12.2	12.5
Philippines	3.4	5.0	6.4	8.1	10.5	11.9	11.9	11.4	12.0
Brazil	3.7	5.9	6.8	6.9	9.3	8.3	8.5	7.2	8.0
Japan	11.5	8.9	9.6	8.6	7.8	7.9	7.8	7.7	7.7
United States	2.8	4.8	5.1	5.9	7.6	6.1	7.1	6.1	7.5
Pakistan	2.2	3.1	3.3	4.8	4.8	6.8	6.9	6.7	6.9
Cambodia	2.5	1.1	1.6	2.5	4.2	4.7	4.7	4.7	4.7
Others	22.9	27.6	33.3	39.4	48.3	52.3	52.2	52.1	53.4
<b>World</b>	<b>213.0</b>	<b>269.9</b>	<b>351.4</b>	<b>399.2</b>	<b>450.4</b>	<b>478.4</b>	<b>478.7</b>	<b>472.1</b>	<b>483.3</b>
<b>Stocks (million metric tons)</b>									
China	11.0	28.0	94.0	93.0	42.6	53.1	57.4	63.7	70.9
India	6.0	6.5	14.5	25.0	23.5	22.8	17.8	17.8	17.3
Thailand	1.2	2.0	0.9	2.2	5.6	12.0	10.8	7.9	6.6
Indonesia	0.6	3.0	2.1	4.6	7.1	5.5	4.1	3.5	3.7
Japan	6.1	4.0	1.0	2.6	2.9	3.0	2.8	2.5	2.1
United States	0.6	0.5	0.8	0.9	1.5	1.0	1.6	1.5	1.9
Others	3.4	8.5	13.4	18.3	16.8	16.6	20.1	18.7	18.2
<b>World</b>	<b>28.8</b>	<b>52.6</b>	<b>126.7</b>	<b>146.7</b>	<b>100.0</b>	<b>114.0</b>	<b>114.6</b>	<b>115.6</b>	<b>120.7</b>
<b>Exports (million metric tons)</b>									
India	0.0	0.9	0.7	1.7	2.8	10.6	12.2	10.3	10.0
Thailand	1.6	3.0	4.0	7.5	10.6	11.0	9.8	9.2	9.5
Vietnam	0.0	0.0	1.0	3.5	7.0	6.3	6.6	5.4	5.8
Pakistan	0.2	1.2	1.3	2.4	3.4	4.0	3.8	4.2	4.2
United States	1.5	3.1	2.3	2.6	3.5	3.0	3.1	3.4	3.6
Others	5.2	4.2	2.8	6.2	7.8	8.1	8.1	7.6	8.2
<b>World</b>	<b>8.5</b>	<b>12.4</b>	<b>12.1</b>	<b>24.0</b>	<b>35.1</b>	<b>43.0</b>	<b>43.6</b>	<b>40.1</b>	<b>41.2</b>
<b>Imports (million metric tons)</b>									
China	0.0	0.2	0.1	0.3	0.5	4.0	4.7	4.8	5.0
Nigeria	0.0	0.4	0.2	1.3	2.4	2.8	2.6	2.1	2.0
European Union	0.9	0.5	0.7	1.2	1.4	1.5	1.7	1.8	1.8
Saudi Arabia	0.2	0.4	0.5	1.0	1.1	1.5	1.6	1.6	1.6
Indonesia	0.5	0.5	0.2	1.5	3.1	1.2	1.4	1.2	1.3
Philippines	0.0	0.0	0.4	1.4	1.3	1.2	1.8	1.6	1.2
Cote d'Ivoire	0.1	0.3	0.3	0.5	0.9	0.8	1.3	1.3	1.2
Malaysia	0.4	0.2	0.3	0.6	1.1	1.0	1.1	1.0	1.1
Others	6.5	9.4	8.7	14.4	21.3	24.6	25.0	23.1	23.7
<b>World</b>	<b>8.6</b>	<b>11.8</b>	<b>11.3</b>	<b>22.1</b>	<b>33.1</b>	<b>38.6</b>	<b>41.1</b>	<b>38.3</b>	<b>38.7</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

# Silver

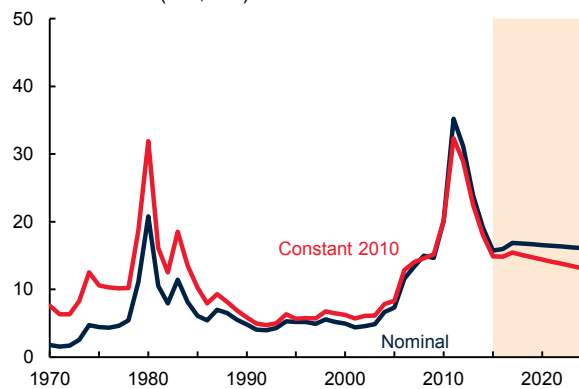
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/toz)



Source: World Bank.

Note: 2016-25 are forecasts.

	1995	2000	2005	2009	2010	2011	2012	2013	2014
<b>Production (metric tons)</b>									
Mexico	2,334	2,483	2,894	3,554	4,411	4,778	5,358	5,821	5,766
Peru	1,881	2,418	3,193	3,854	3,640	3,414	3,481	3,674	3,777
China	1,000	1,600	2,500	2,900	3,085	3,232	3,639	3,673	3,673
Australia	920	2,060	2,417	1,633	1,880	1,725	1,728	1,840	1,847
Chile	1,036	1,245	1,400	1,301	1,276	1,311	1,151	1,174	1,572
Russian Federation	250	400	1,350	1,313	1,145	1,134	1,400	1,412	1,412
Bolivia	425	434	420	1,326	1,259	1,214	1,207	1,287	1,345
Poland	1,001	1,164	1,262	1,207	1,183	1,167	1,149	1,403	1,200
United States	1,565	2,017	1,230	1,250	1,280	1,120	1,060	1,050	1,160
Kazakhstan	371	927	883	618	552	651	963	964	982
Argentina	48	78	264	533	723	641	750	768	905
Guatemala	0	0	7	129	195	273	205	284	857
Canada	1,285	1,204	1,124	631	596	572	705	618	493
Sweden	268	329	310	289	302	302	309	341	401
India	38	40	32	138	165	203	374	367	338
Morocco	204	290	186	210	243	227	230	255	277
Turkey	70	110	80	352	348	292	236	187	187
Finland	29	24	47	70	65	73	128	101	148
Dominican Republic	21	n/a	n/a	19	23	19	23	80	128
Others	1,436	1,372	1,099	1,002	1,069	1,042	1,088	1,061	954
<b>World</b>	<b>14,183</b>	<b>18,194</b>	<b>20,697</b>	<b>22,328</b>	<b>23,440</b>	<b>23,389</b>	<b>25,185</b>	<b>26,362</b>	<b>27,422</b>
<b>Fabrication (metric tons)</b>									
India	n/a	n/a	1,333	1,164	1,233	1,194	1,196	2,248	3,058
China	n/a	n/a	1,054	1,457	1,681	1,952	2,029	2,266	1,642
Italy	n/a	n/a	1,230	806	802	599	540	559	614
Thailand	n/a	n/a	1,145	946	947	798	662	692	611
United States	n/a	n/a	487	362	400	370	342	381	419
Mexico	n/a	n/a	511	355	344	450	428	281	261
Russian Federation	n/a	n/a	138	263	291	240	228	225	223
Indonesia	n/a	n/a	140	150	168	190	207	215	206
Turkey	n/a	n/a	258	175	153	134	139	162	192
South Korea	n/a	n/a	147	150	167	179	183	186	167
Germany	n/a	n/a	213	166	169	159	147	134	131
Brazil	n/a	n/a	50	57	64	50	50	94	82
Japan	n/a	n/a	64	65	70	69	72	75	70
France	n/a	n/a	55	59	64	73	67	56	54
Vietnam	n/a	n/a	32	40	45	49	50	49	52
Israel	n/a	n/a	59	46	42	32	29	34	37
Iran, Islamic Rep.	n/a	n/a	50	44	43	40	37	39	34
Spain	n/a	n/a	61	41	37	37	32	29	30
Bangladesh	n/a	n/a	46	45	43	41	40	28	30
Others	n/a	n/a	886	784	774	683	676	674	667
<b>World</b>	<b>n/a</b>	<b>n/a</b>	<b>7,959</b>	<b>7,175</b>	<b>7,537</b>	<b>7,339</b>	<b>7,154</b>	<b>8,427</b>	<b>8,580</b>

Sources: World Bureau of Metal Statistics and Thomson Reuters.

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



# Soybeans

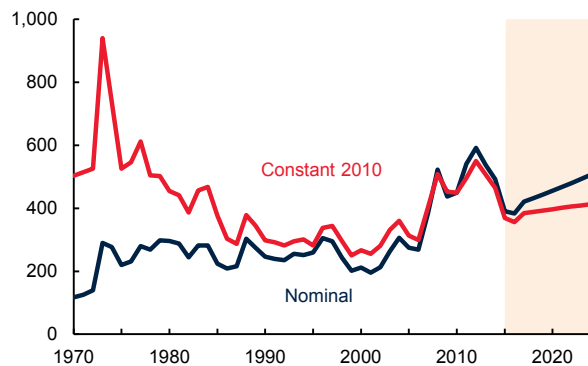
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
United States	30.7	48.9	52.4	75.1	90.7	91.4	106.9	106.9	116.2
Brazil	0.0	15.2	15.8	39.5	75.3	86.7	97.2	96.5	102.0
Argentina	0.0	3.5	11.5	27.8	49.0	53.4	61.4	56.8	57.0
China	8.7	7.9	11.0	15.4	15.1	12.0	12.2	11.6	12.5
India	0.0	0.4	2.6	5.3	10.1	9.5	8.7	7.1	9.7
Paraguay	0.1	0.6	1.3	3.5	7.1	8.2	8.2	9.0	9.2
Canada	0.3	0.7	1.3	2.7	4.4	5.4	6.0	6.2	6.0
Ukraine	n/a	n/a	0.1	0.1	1.7	2.8	3.9	3.9	4.0
Bolivia	0.0	0.0	0.4	1.2	2.3	2.4	2.7	3.1	3.1
Uruguay	0.0	0.0	0.0	0.0	1.9	3.3	3.3	2.0	3.0
Others	2.4	3.5	7.9	5.4	6.7	7.5	9.4	9.9	10.5
<b>World</b>	<b>42.1</b>	<b>80.9</b>	<b>104.3</b>	<b>175.8</b>	<b>264.3</b>	<b>282.5</b>	<b>319.8</b>	<b>313.0</b>	<b>333.2</b>
<b>Crushings (million metric tons)</b>									
China	1.5	1.5	3.9	18.9	55.0	68.9	74.5	81.3	86.5
United States	20.7	27.8	32.3	44.6	44.9	47.2	51.0	51.3	53.1
Argentina	0.0	0.9	7.0	17.3	37.6	36.2	40.0	43.3	44.3
Brazil	0.0	13.8	14.2	22.7	36.3	36.9	40.4	39.9	40.5
European Union	7.3	14.1	13.0	16.8	12.2	13.4	13.6	14.4	13.8
India	0.0	0.4	2.4	4.5	9.5	8.2	6.8	6.0	7.6
Mexico	0.3	1.5	1.9	4.5	3.6	4.0	4.2	4.4	4.5
Russian Federation	n/a	n/a	0.4	0.4	2.1	3.4	3.7	4.0	4.0
Paraguay	0.1	0.0	0.3	0.9	1.6	3.4	3.7	3.7	3.8
Bolivia	0.0	0.0	0.3	0.9	1.8	2.3	2.5	2.8	2.8
Others	12.7	23.8	24.1	15.0	17.5	18.6	22.9	24.9	27.6
<b>World</b>	<b>42.5</b>	<b>83.9</b>	<b>99.7</b>	<b>146.4</b>	<b>222.0</b>	<b>242.3</b>	<b>263.2</b>	<b>275.9</b>	<b>288.5</b>
<b>Exports (million metric tons)</b>									
Brazil	0.0	1.8	2.5	15.5	30.0	46.8	50.6	54.4	58.4
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	10.3	9.7
Paraguay	0.0	0.6	1.0	2.5	5.2	4.8	4.5	5.3	5.3
Canada	0.0	0.1	0.2	0.7	2.9	3.5	3.9	4.3	4.0
Others	0.5	0.4	2.1	0.7	3.4	5.2	6.5	5.6	6.3
<b>World</b>	<b>12.3</b>	<b>25.3</b>	<b>25.4</b>	<b>53.8</b>	<b>91.7</b>	<b>112.7</b>	<b>126.2</b>	<b>132.5</b>	<b>138.8</b>
<b>Imports (million metric tons)</b>									
China	0.0	0.5	0.0	13.2	52.3	70.4	78.4	82.5	86.0
European Union	7.4	13.6	13.2	17.7	12.5	13.3	13.4	14.2	13.0
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	3.3	3.1
Thailand	0.0	0.0	0.0	1.3	2.1	1.8	2.4	2.8	2.7
Taiwan, China	0.5	1.1	2.2	2.3	2.5	2.3	2.5	2.6	2.6
Indonesia	0.0	0.4	0.5	1.1	1.9	2.2	2.0	2.3	2.4
Others	8.8	18.7	17.1	8.3	12.0	16.3	18.4	20.0	22.3
<b>World</b>	<b>20.0</b>	<b>39.8</b>	<b>38.8</b>	<b>53.1</b>	<b>89.8</b>	<b>113.1</b>	<b>123.9</b>	<b>131.7</b>	<b>136.2</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

# Sugar

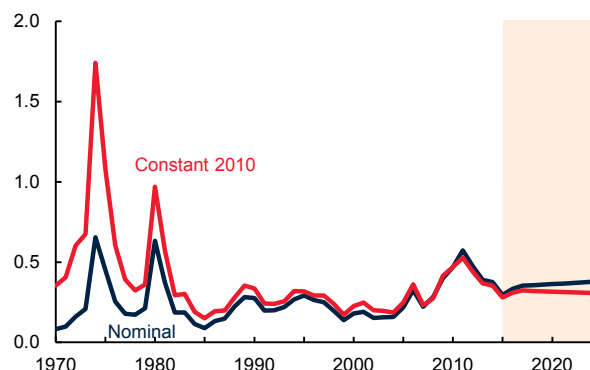
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
Brazil	5.1	8.5	7.9	17.1	38.4	37.8	36.0	34.7	37.1
India	4.5	6.5	13.7	20.5	26.6	26.6	30.5	27.7	25.5
European Union	15.4	19.0	23.2	22.1	15.9	16.0	18.4	14.0	16.5
Thailand	0.5	1.7	4.0	5.1	9.7	11.3	10.8	9.7	10.1
China	2.1	3.2	6.8	6.8	11.2	14.3	11.0	8.4	8.2
United States	5.6	5.6	6.3	8.0	7.1	7.7	7.9	8.1	7.9
Mexico	2.5	2.5	3.9	5.2	5.5	6.4	6.3	6.6	6.5
Pakistan	0.0	0.9	2.1	2.6	3.9	5.6	5.2	5.1	5.4
Russian Federation	0.0	0.0	2.6	1.6	3.0	4.4	4.4	5.2	5.3
Australia	2.7	3.3	3.6	4.2	3.7	4.4	4.7	5.0	5.0
Guatemala	0.2	0.5	1.0	1.6	2.0	2.9	3.0	3.0	3.1
Turkey	0.6	0.9	1.9	2.8	2.3	2.3	2.1	2.0	2.5
Others	46.5	54.8	60.6	55.3	33.0	36.5	37.1	35.5	36.3
<b>World</b>	<b>85.7</b>	<b>107.6</b>	<b>137.6</b>	<b>152.9</b>	<b>162.2</b>	<b>176.1</b>	<b>177.2</b>	<b>164.9</b>	<b>169.3</b>
<b>Stocks (million metric tons)</b>									
India	1.8	1.1	3.6	12.0	6.3	8.2	10.6	9.7	8.0
China	0.3	0.7	1.4	1.0	1.6	8.8	7.3	4.9	3.2
Thailand	0.0	0.2	0.2	0.6	3.0	5.3	5.3	3.6	2.1
Pakistan	0.0	0.1	0.3	0.4	1.5	1.3	1.3	1.4	2.0
United States	2.9	1.4	1.4	2.0	1.3	1.6	1.6	1.6	1.5
Mexico	0.7	0.7	2.4	1.5	0.8	0.9	0.9	1.4	1.4
Others	14.4	13.4	13.2	22.4	15.1	17.8	18.8	15.2	14.8
<b>World</b>	<b>20.2</b>	<b>17.6</b>	<b>22.4</b>	<b>39.9</b>	<b>29.5</b>	<b>43.9</b>	<b>45.8</b>	<b>37.8</b>	<b>32.8</b>
<b>Exports (million metric tons)</b>									
Brazil	1.2	2.3	1.3	7.7	25.8	26.2	24.0	24.4	26.1
Thailand	0.2	1.0	2.7	3.4	6.6	7.2	8.3	8.8	9.0
Australia	1.8	2.6	2.8	3.1	2.8	3.2	3.6	3.7	3.9
Guatemala	0.1	0.2	0.7	1.2	1.5	2.1	2.3	2.3	2.3
Mexico	0.6	0.0	0.3	0.2	1.6	2.7	1.5	1.2	1.6
European Union	2.7	6.5	8.1	7.3	1.1	1.6	1.7	1.5	1.5
Others	17.4	22.3	26.1	22.8	14.5	14.9	13.7	13.1	11.2
<b>World</b>	<b>24.0</b>	<b>34.9</b>	<b>42.0</b>	<b>45.6</b>	<b>53.9</b>	<b>57.9</b>	<b>55.0</b>	<b>54.9</b>	<b>55.6</b>
<b>Imports (million metric tons)</b>									
China	0.4	1.1	1.1	1.1	2.1	4.3	5.1	6.7	7.9
European Union	5.4	3.8	4.1	3.3	3.8	3.3	2.9	3.5	3.5
Indonesia	0.1	0.6	0.2	1.6	3.1	3.6	3.1	3.3	3.4
United States	4.8	4.4	2.6	1.4	3.4	3.4	3.2	2.9	3.2
United Arab Emirates	0.0	0.1	0.1	1.1	2.0	2.1	2.4	2.5	2.5
Bangladesh	0.0	0.0	0.0	0.8	1.5	2.1	2.0	2.4	2.4
Korea, Rep.	0.0	0.8	1.2	1.6	1.7	1.9	1.9	1.9	1.9
Malaysia	0.0	0.5	0.9	1.3	1.8	1.9	2.1	1.9	1.9
Others	12.0	20.8	25.9	31.4	29.7	28.9	28.3	29.4	29.0
<b>World</b>	<b>22.7</b>	<b>32.0</b>	<b>36.2</b>	<b>43.6</b>	<b>49.1</b>	<b>51.4</b>	<b>50.9</b>	<b>54.4</b>	<b>55.6</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

## Tea

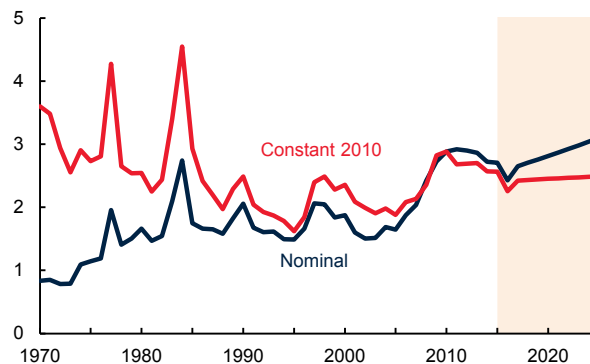
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2016.

Annual Constant Prices (US\$/kg)



Source: World Bank.

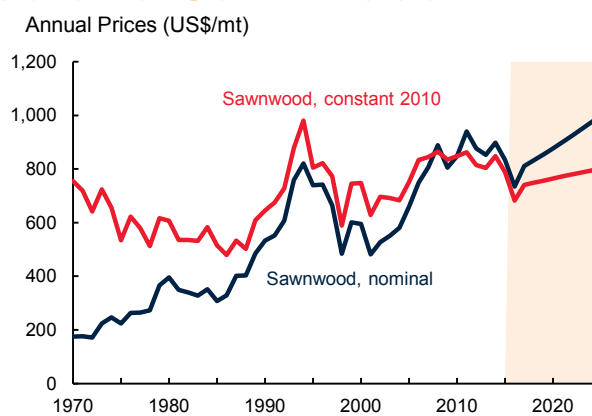
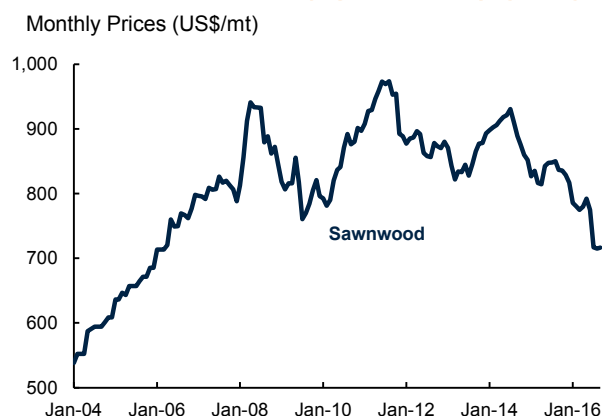
Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2009	2010	2011	2012	2013
<b>Production (thousand metric tons)</b>									
China	163	328	562	704	1,376	1,467	1,640	1,805	1,939
India	419	570	688	826	973	991	1,095	1,135	1,209
Kenya	41	90	197	236	314	399	378	369	432
Sri Lanka	212	191	233	306	290	331	328	330	340
Vietnam	15	21	32	70	186	198	207	217	214
Turkey	33	96	123	139	199	235	222	225	212
Iran, Islamic Rep.	20	32	37	50	166	166	104	158	160
Indonesia	64	106	156	163	157	150	150	143	148
Argentina	26	36	51	74	72	92	93	83	105
Japan	91	102	90	85	86	85	82	86	85
Thailand	0	1	7	32	64	67	73	74	75
Bangladesh	31	40	39	46	60	60	61	60	64
Malawi	19	30	39	42	53	52	52	54	54
Uganda	18	2	7	29	49	49	35	51	53
Burundi	0	1	4	34	32	38	41	42	42
Tanzania	8	16	18	24	34	33	32	33	34
Others	126	231	242	155	179	191	179	170	179
<b>World</b>	<b>1,287</b>	<b>1,894</b>	<b>2,525</b>	<b>3,014</b>	<b>4,287</b>	<b>4,606</b>	<b>4,771</b>	<b>5,035</b>	<b>5,346</b>
<b>Consumption (thousand metric tons)</b>									
China	109	220	383	497	1,112	1,217	1,369	1,547	1,671
India	218	331	490	632	803	774	795	932	973
Brazil	90	81	133	514	419	406	414	478	481
Pakistan	30	61	106	111	96	93	118	119	118
Afghanistan	12	15	13	19	10	31	63	136	107
Indonesia	27	37	41	59	72	74	94	98	98
Paraguay	15	27	56	59	76	85	87	58	87
Kenya	6	12	21	2	2	2	136	113	81
Thailand	1	1	7	32	62	67	75	78	78
Bangladesh	2	14	18	35	54	61	62	60	78
Others	992	1,287	1,571	1,765	2,162	2,251	2,279	n/a	n/a
<b>World</b>	<b>1,502</b>	<b>2,086</b>	<b>2,839</b>	<b>3,725</b>	<b>4,868</b>	<b>5,061</b>	<b>5,492</b>	<b>n/a</b>	<b>n/a</b>
<b>Exports (thousand metric tons)</b>									
Kenya	42	84	166	217	332	418	307	234	449
China	61	120	211	238	307	308	328	319	332
Sri Lanka	208	185	216	287	289	313	321	318	318
India	200	239	198	201	204	235	323	225	255
Vietnam	2	9	16	56	133	137	134	147	90
Argentina	19	33	46	50	70	86	87	78	77
Indonesia	41	74	111	106	92	87	75	70	71
Uganda	15	1	5	26	44	55	56	55	62
United Arab Emirates	0	8	7	12	24	50	25	31	45
Malawi	18	31	41	42	47	50	46	35	43
Others	146	200	210	229	280	286	283	293	309
<b>World</b>	<b>752</b>	<b>984</b>	<b>1,228</b>	<b>1,464</b>	<b>1,822</b>	<b>2,023</b>	<b>1,983</b>	<b>1,806</b>	<b>2,051</b>

Sources: Food and Agriculture Organization, Intergovernmental Group on Tea.

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

## Timber—Roundwood and Sawnwood



	1970	1980	1990	2000	2010	2012	2013	2014	2015
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### Industrial roundwood: production (million cubic meters)

United States	312.7	327.1	427.2	420.6	336.1	347.1	354.9	356.8	354.7
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	162.5
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	149.5	149.5
Sweden	56.7	44.8	49.1	57.4	66.3	63.6	63.7	67.4	68.1
Indonesia	12.7	30.9	38.4	48.8	54.1	62.6	62.6	62.6	62.6
Finland	37.5	43.0	40.2	50.1	46.0	44.6	49.3	49.2	51.4
Others	673.4	708.4	832.9	564.5	610.0	618.0	623.8	647.5	652.2
<b>World</b>	<b>1,276.4</b>	<b>1,446.0</b>	<b>1,709.2</b>	<b>1,685.0</b>	<b>1,703.1</b>	<b>1,766.5</b>	<b>1,793.8</b>	<b>1,832.6</b>	<b>1,842.9</b>

### Industrial roundwood: imports (million cubic meters)

China	2.0	8.3	7.2	15.7	35.4	38.7	45.8	52.3	45.4
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
India	0.0	0.0	1.3	2.2	5.3	6.5	6.5	7.0	5.7
Finland	2.3	3.8	5.2	9.9	6.3	5.5	6.7	6.3	5.7
Canada	2.1	3.0	1.5	6.5	4.7	4.5	4.9	4.3	4.6
Belgium	n/a	n/a	n/a	4.0	4.2	4.3	4.5	4.5	4.4
Others	69.0	69.7	58.9	53.2	32.0	32.5	34.1	35.0	34.8
<b>World</b>	<b>83.1</b>	<b>95.4</b>	<b>82.6</b>	<b>115.3</b>	<b>109.9</b>	<b>112.7</b>	<b>126.7</b>	<b>133.1</b>	<b>123.8</b>

### Sawnwood: production (million cubic meters)

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	68.4
Canada	19.8	32.8	39.7	50.5	38.7	40.6	42.8	43.4	47.1
Russian Federation	n/a	n/a	n/a	20.0	28.9	32.2	33.5	34.6	34.7
Germany	11.6	13.0	14.7	16.3	22.1	21.1	21.5	21.8	21.5
Sweden	12.3	11.3	12.0	16.2	16.8	16.3	16.2	17.5	18.2
Brazil	8.0	14.9	13.7	21.3	17.5	15.2	15.4	15.2	15.2
Finland	7.4	10.3	7.5	13.4	9.5	9.4	10.4	10.9	10.6
Others	251.6	252.1	265.6	149.4	145.1	146.6	148.9	152.3	152.5
<b>World</b>	<b>389.1</b>	<b>420.9</b>	<b>463.0</b>	<b>384.8</b>	<b>375.6</b>	<b>404.6</b>	<b>422.9</b>	<b>439.9</b>	<b>445.1</b>

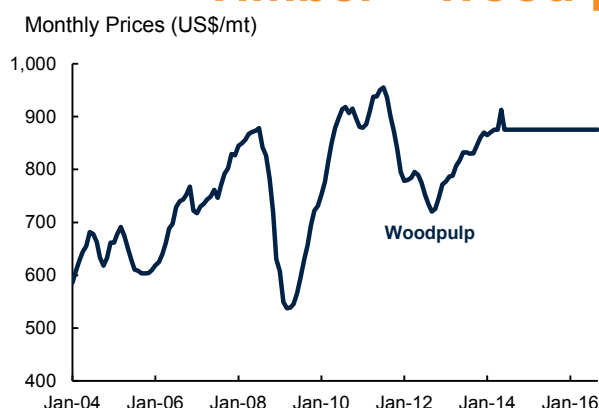
### Sawnwood: imports (million cubic meters)

China	0.1	0.3	1.3	6.1	16.2	22.0	25.5	27.3	27.6
United States	10.6	17.0	22.5	34.4	16.6	17.4	20.5	22.2	24.5
United Kingdom	9.0	6.6	10.7	7.9	5.7	5.2	5.5	6.4	6.3
Japan	3.0	5.6	9.0	10.0	6.4	6.6	7.5	6.2	5.8
Egypt, Arab Rep.	0.4	1.6	1.6	2.0	4.8	4.5	4.5	5.7	5.8
Germany	6.0	6.9	6.1	6.3	4.4	4.4	4.5	4.6	4.8
Italy	4.0	5.8	6.0	8.4	6.1	4.9	4.7	4.7	4.6
Netherlands	3.1	3.2	3.5	3.7	2.8	2.6	2.5	2.5	2.7
Others	16.5	24.6	23.8	36.9	45.5	45.5	46.8	48.8	49.3
<b>World</b>	<b>52.6</b>	<b>71.5</b>	<b>84.5</b>	<b>115.6</b>	<b>108.4</b>	<b>113.0</b>	<b>122.0</b>	<b>128.5</b>	<b>131.4</b>

Source: Food and Agriculture Organization.

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

## Timber—Wood panels and Woodpulp

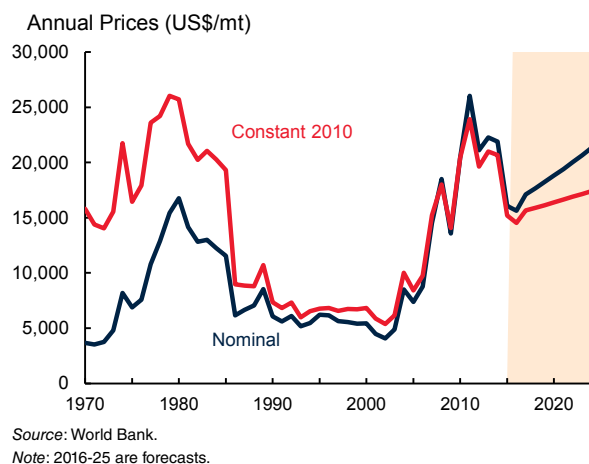
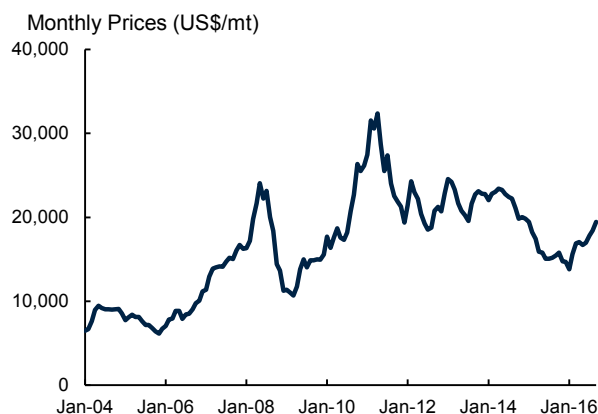


	1970	1980	1990	2000	2010	2011	2012	2013	2014
<b>Wood-based panels: production (million cubic meters)</b>									
China	0.9	2.3	3.0	19.3	109.2	149.3	177.0	191.2	191.2
United States	23.0	26.4	37.0	45.7	32.6	31.5	33.5	33.8	33.8
Russian Federation	n/a	n/a	n/a	4.8	10.1	12.8	12.7	13.2	13.6
Canada	3.3	4.8	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	11.8
Turkey	0.2	0.4	0.8	2.4	6.6	8.1	8.8	9.6	9.5
Poland	1.0	2.0	1.4	4.6	8.2	8.5	9.0	9.2	9.4
Others	34.7	54.6	67.9	74.7	88.8	89.3	90.8	92.9	93.4
<b>World</b>	<b>69.8</b>	<b>101.3</b>	<b>129.0</b>	<b>186.3</b>	<b>288.3</b>	<b>334.7</b>	<b>367.4</b>	<b>386.3</b>	<b>387.7</b>
<b>Wood-based panels: imports (million cubic meters)</b>									
United States	2.5	2.1	4.2	13.9	7.7	8.8	8.8	9.6	11.6
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	2.8	3.5	3.3
United Kingdom	2.0	2.4	3.3	3.3	2.7	2.6	3.0	3.3	3.2
Italy	0.1	0.8	0.9	1.7	2.4	2.2	2.4	2.8	2.9
Korea, Rep.	0.0	0.0	1.2	2.1	2.6	2.3	2.5	2.3	2.5
Others	0.2	0.4	0.1	0.7	1.7	1.4	1.6	2.2	2.2
<b>World</b>	<b>10.0</b>	<b>15.7</b>	<b>30.3</b>	<b>59.9</b>	<b>66.7</b>	<b>72.3</b>	<b>74.1</b>	<b>77.0</b>	<b>77.9</b>
<b>Woodpulp: production (million metric tons)</b>									
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	17.6
Canada	16.6	19.9	23.0	26.7	18.9	17.8	18.1	17.3	17.6
Sweden	8.1	8.7	10.2	11.5	11.9	12.0	11.7	11.5	11.6
Finland	6.2	7.2	8.9	12.0	10.5	10.2	10.5	10.5	10.5
China	1.2	1.3	2.1	3.7	7.5	8.8	9.6	10.4	10.2
Japan	8.8	9.8	11.3	11.4	9.5	8.7	8.8	9.1	8.9
Russian Federation	n/a	n/a	n/a	5.8	7.4	7.7	7.2	7.7	8.1
Others	22.5	29.1	37.8	34.9	39.5	41.6	41.3	41.6	41.1
<b>World</b>	<b>101.6</b>	<b>125.7</b>	<b>154.8</b>	<b>171.3</b>	<b>170.6</b>	<b>171.4</b>	<b>171.8</b>	<b>174.9</b>	<b>174.9</b>
<b>Woodpulp: imports (million metric tons)</b>									
China	0.1	0.4	0.9	4.0	12.1	17.2	17.6	18.7	18.7
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	1.8
Indonesia	0.0	0.1	0.3	1.0	1.2	1.3	1.6	1.6	1.6
Others	7.6	7.5	8.0	11.3	14.1	15.6	16.3	16.9	16.7
<b>World</b>	<b>16.6</b>	<b>20.6</b>	<b>25.2</b>	<b>37.8</b>	<b>47.9</b>	<b>53.7</b>	<b>55.8</b>	<b>57.2</b>	<b>56.7</b>

Source: Food and Agriculture Organization of the United Nations.

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



	1980	1990	2000	2005	2010	2011	2012	2013	2014
<b>Mine Production (thousand metric tons)</b>									
China	16.0	42.2	87.7	113.1	129.6	115.7	149.0	177.3	146.6
Indonesia	32.5	39.3	51.6	120.0	84.0	90.0	84.0	69.6	68.4
Myanmar	1.2	0.6	1.6	0.7	0.8	2.1	9.0	17.5	24.0
Bolivia	22.5	17.3	12.5	18.6	20.2	19.7	19.3	19.8	20.2
Peru	1.1	4.8	36.4	42.5	33.8	26.1	23.7	23.1	19.5
Brazil	6.9	39.1	14.2	11.7	10.4	13.7	13.8	13.8	13.8
Australia	11.6	7.4	9.1	2.7	18.6	6.2	6.5	7.2	7.1
Malaysia	61.4	28.5	6.3	2.9	2.7	3.7	3.7	3.8	3.7
Vietnam	0.4	0.8	1.8	5.4	5.4	5.4	5.4	5.4	3.6
Congo, Dem. Rep.	3.2	1.6	0.0	7.6	7.4	2.5	5.2	4.1	3.0
Nigeria	2.5	0.3	2.0	0.9	1.3	2.4	2.6	2.5	2.1
Rwanda	1.5	0.7	0.4	3.3	2.9	3.5	3.6	4.2	2.0
Lao PDR	0.6	0.3	0.4	0.6	0.4	0.6	0.5	0.8	0.8
Others	69.7	41.6	10.4	3.1	0.6	0.5	0.6	0.5	0.6
<b>World</b>	<b>231.1</b>	<b>224.5</b>	<b>234.5</b>	<b>333.1</b>	<b>318.1</b>	<b>292.0</b>	<b>326.9</b>	<b>349.6</b>	<b>315.5</b>
<b>Refined Production (thousand metric tons)</b>									
China	15.0	35.8	109.9	112.2	149.0	147.9	159.6	186.9	166.9
Indonesia	30.5	38.0	46.4	78.0	64.2	79.8	63.0	64.8	67.4
Malaysia	71.3	49.0	26.2	39.2	38.7	37.8	32.7	36.7	31.2
Peru	0.0	0.0	17.4	38.3	36.4	24.8	24.2	24.5	20.4
Bolivia	17.5	13.1	9.4	15.6	15.0	14.3	14.9	15.4	15.1
Brazil	8.8	37.6	13.8	9.0	9.1	12.0	12.0	12.0	12.0
Thailand	34.8	15.5	17.2	29.4	23.5	22.8	23.0	16.3	10.5
Belgium	3.1	6.1	8.5	7.7	9.9	11.4	10.3	9.7	8.8
Vietnam	0.0	1.8	1.8	1.8	3.0	4.8	5.5	5.5	5.5
India	0.1	0.3	3.6	3.6	3.6	3.6	3.8	4.2	4.2
Poland	0.0	0.0	0.0	0.0	0.6	1.4	1.9	2.3	2.1
Japan	1.3	0.8	0.6	0.8	0.8	1.1	1.8	1.7	1.7
Nigeria	2.7	0.3	0.1	0.6	0.6	0.6	0.6	0.6	0.6
Others	59.5	49.7	7.4	4.4	2.0	1.8	0.5	0.1	0.1
<b>World</b>	<b>244.6</b>	<b>248.0</b>	<b>262.3</b>	<b>340.5</b>	<b>356.6</b>	<b>364.0</b>	<b>353.7</b>	<b>380.8</b>	<b>346.4</b>
<b>Refined Consumption (thousand metric tons)</b>									
China	12.5	25.5	49.1	108.7	154.3	176.2	169.3	192.6	176.4
United States	46.5	36.8	51.0	42.3	32.0	30.7	29.2	28.8	31.3
Japan	30.9	34.8	25.2	33.2	35.7	27.7	28.3	27.1	26.8
Germany	19.0	21.7	20.7	19.1	17.4	17.6	18.0	18.8	17.9
Korea, Rep.	1.8	7.8	15.3	17.9	17.4	16.2	14.5	13.8	13.1
India	2.3	2.3	6.4	8.4	10.7	10.0	10.4	11.9	12.9
Vietnam	0.0	0.0	0.8	1.2	2.0	2.0	3.6	5.5	6.0
Netherlands	5.0	6.9	3.6	3.5	5.4	4.5	7.4	7.2	6.0
Spain	4.6	4.0	4.1	7.0	6.1	2.9	4.7	6.4	5.7
Others	100.3	97.8	100.6	97.4	87.7	70.0	69.7	66.8	67.2
<b>World</b>	<b>222.9</b>	<b>237.6</b>	<b>276.9</b>	<b>338.6</b>	<b>368.8</b>	<b>357.8</b>	<b>355.1</b>	<b>378.8</b>	<b>363.1</b>

Source: World Bureau of Metal Statistics.

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

# Wheat

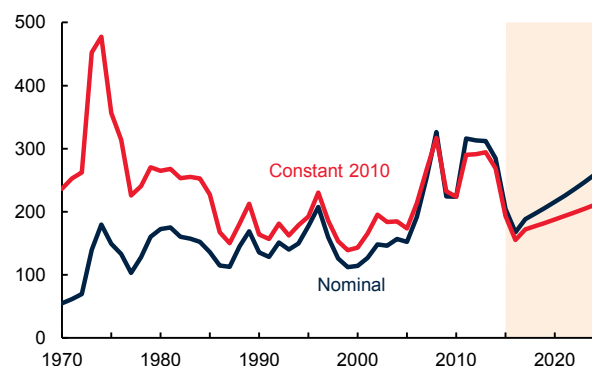
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2016.

Annual Prices (US\$/mt)



Source: World Bank.

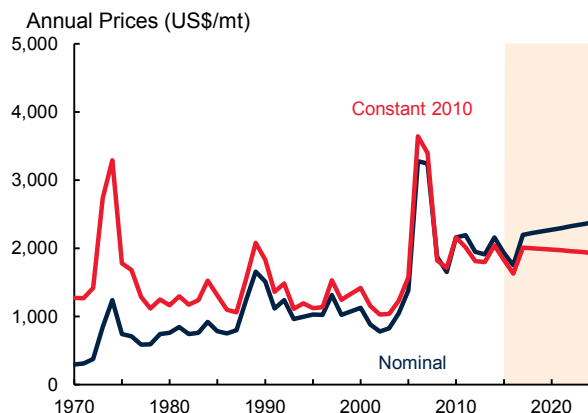
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
<b>Production (million metric tons)</b>									
European Union	62.5	93.3	125.0	132.7	136.7	144.6	156.9	160.0	143.2
China	29.2	55.2	98.2	99.6	115.2	121.9	126.2	130.2	128.0
India	20.1	31.8	49.9	76.4	80.8	93.5	95.9	86.5	90.0
Russian Federation	n/a	n/a	49.6	34.5	41.5	52.1	59.1	61.0	72.0
United States	36.8	64.8	74.3	60.6	58.9	58.1	55.1	56.1	62.9
Canada	9.0	19.3	32.1	26.5	23.3	37.5	29.4	27.6	31.5
Australia	7.9	10.9	15.1	22.1	27.4	25.3	23.9	24.5	28.3
Ukraine	n/a	n/a	30.4	10.2	16.8	22.3	24.8	27.3	27.0
Pakistan	7.3	10.9	14.4	21.1	23.3	24.2	26.0	25.1	25.3
Turkey	8.0	13.0	16.0	18.0	17.0	18.8	15.3	19.5	17.5
Kazakhstan	n/a	n/a	16.2	9.1	9.6	13.9	13.0	13.7	16.5
Iran, Islamic Rep.	3.8	5.9	8.0	8.1	13.5	14.5	13.0	15.0	15.5
Argentina	4.9	7.8	11.0	16.3	17.2	10.5	13.9	11.3	14.4
Egypt, Arab Rep.	1.5	1.8	4.3	6.4	7.2	8.3	8.3	8.1	8.1
Others	178.0	214.5	169.4	41.7	60.9	69.6	67.5	69.0	64.3
<b>World</b>	<b>369.1</b>	<b>529.2</b>	<b>713.8</b>	<b>583.3</b>	<b>649.3</b>	<b>715.0</b>	<b>728.3</b>	<b>735.0</b>	<b>744.4</b>
<b>Stocks (million metric tons)</b>									
China	7.2	31.7	49.9	91.9	59.1	65.3	76.1	97.0	110.7
United States	22.4	26.9	23.6	23.8	23.5	16.1	20.5	26.6	31.0
India	5.0	4.0	5.8	21.5	15.4	17.8	17.2	14.5	11.0
European Union	8.6	13.0	22.5	17.9	11.9	9.9	12.7	14.0	10.5
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.2	6.3	5.6	9.6
Australia	3.7	2.0	2.8	5.5	8.2	4.6	4.8	6.3	6.8
Others	42.3	48.0	72.6	44.4	66.6	75.1	78.4	75.7	68.8
<b>World</b>	<b>89.1</b>	<b>125.6</b>	<b>193.7</b>	<b>206.5</b>	<b>198.4</b>	<b>194.0</b>	<b>216.1</b>	<b>239.7</b>	<b>248.4</b>
<b>Exports (million metric tons)</b>									
Russian Federation	n/a	n/a	1.2	0.7	4.0	18.6	22.8	25.5	30.0
United States	20.2	41.2	29.1	28.9	35.1	32.0	23.5	21.1	26.5
European Union	6.7	17.5	23.8	15.7	23.1	32.0	35.4	34.7	25.0
Canada	11.8	16.3	21.7	17.3	16.6	23.3	24.2	22.1	22.0
Australia	9.1	9.6	11.8	15.9	18.6	18.6	16.6	16.0	20.5
Ukraine	n/a	n/a	2.0	0.1	4.3	9.8	11.3	17.4	15.5
Others	15.3	23.1	38.0	22.6	31.0	31.7	30.7	35.1	35.1
<b>World</b>	<b>63.2</b>	<b>107.6</b>	<b>127.7</b>	<b>101.3</b>	<b>132.7</b>	<b>166.0</b>	<b>164.4</b>	<b>172.0</b>	<b>174.7</b>
<b>Imports (million metric tons)</b>									
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	10.2	11.3	11.9	11.8
Indonesia	0.5	1.2	2.0	4.1	6.6	7.4	7.5	10.1	8.5
Algeria	0.6	2.3	4.4	5.6	6.5	7.5	7.3	8.2	8.2
European Union	19.6	10.4	3.7	3.5	4.6	4.0	6.0	6.9	7.0
Brazil	1.7	3.9	4.4	7.2	6.7	7.1	5.4	6.8	6.0
Japan	4.8	5.8	5.6	5.9	5.9	6.1	5.9	5.7	5.8
Others	45.3	70.8	76.9	67.0	91.1	116.3	115.8	120.4	122.6
<b>World</b>	<b>75.4</b>	<b>99.9</b>	<b>102.7</b>	<b>99.3</b>	<b>132.0</b>	<b>158.5</b>	<b>159.1</b>	<b>169.9</b>	<b>169.9</b>

Source: U.S. Department of Agriculture (October 2016 update).

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

# Zinc



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

Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.





## APPENDIX C

Description of price series  
Technical notes



## Description of Price Series

### ENERGY

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

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

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

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

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

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

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

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

### NON-ENERGY

#### Beverages

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

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

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

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

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

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

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

#### Oils and meals

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

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

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

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

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

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

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

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

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

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

### Grains

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

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

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

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

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

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

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

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

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

### Other food

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

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

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

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

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

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

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

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

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

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

## Timber

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

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

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

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

**Sawnwood** (Southeast Asia). Malaysian dark red se-  
raya/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

CIS Commonwealth of Independent States  
 CPI consumer price index  
 DAP diammonium phosphate  
 DUC drilled but uncompleted wells  
 ECB European Central Bank  
 EIA Energy Information Administration  
 EMDE emerging and developing economies  
 FAO Food and Agriculture Organization

FSU former Soviet Union  
 GDP gross domestic product  
 ICA International Coffee Agreement  
 IEA International Energy Agency  
 ITA International Tin Agreement  
 LME London Metal Exchange  
 LNG liquefied natural gas  
 MUV Manufacture Unit Value  
 NDRC National Development and Reform Commission  
 NPI nickel pig iron  
 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  
 Concensus Forecast  
 Cotton Outlook  
 FAO  
 Fertilizer Week  
 INFOFISH  
 INTERFEL Fel Actualités Hebdo  
 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  
 Platts International Coal Report  
 Singapore Commodity Exchange  
 Sopisco News  
 Sri Lanka Tea Board  
 Thomson Reuters  
 U.S. Department of Agriculture  
 U.S. Energy Information Administration (EIA)  
 U.S. NOAA Fisheries Service  
 World Bureau of Metal Statistics  
 World Gas Intelligence

## Weights for commodity price indexes

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

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

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

Topic	Date
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

Most commodity prices rose in the third quarter from lows earlier in the year, with gains in energy and metals partly offset by declines in grains and fertilizers. Crude oil prices are forecast to rise to \$55 per barrel in 2017 from \$43/bbl as OPEC limits production. Energy prices, which also include coal and natural gas, are seen jumping 24 percent next year. Metals prices are forecast to rise next year. Agricultural prices are expected to post a modest increase overall in 2017, including food prices.

A *Special Focus* analyzes OPEC's plan to limit production. Historically, agreements aimed at influencing the prices of commodities such as tin and coffee have succeeded in swaying markets for a time but eventually lost that ability and collapsed. OPEC's ability to affect oil prices is likely to be tested by the expansion of oil supply from unconventional sources, especially shale producers.

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 2025 for 46 commodities are also presented, together with historical price data. Commodity price data updates are published separately at the beginning of each month.

The report and data can be accessed at:  
[www.worldbank.org/commodities](http://www.worldbank.org/commodities)