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OCTOBER 2015

Commodity Markets Outlook

Understanding El Niño



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Commodity Markets Outlook

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Contents

Executive Summary	3
Special Focus: <i>Understanding El Niño: What does it mean for commodity markets?</i>	5
Commodity Market Developments and Outlook	
Energy	15
Box: <i>Iran Nuclear Agreement: A game changer for energy markets?</i>	19
Metals	22
Precious metals	24
Fertilizers	25
Agriculture	26
Appendix A: Historical commodity prices and price forecasts	29
Appendix B: Commodity balances	37
Appendix C: Description of price series and technical notes	61

Figures

1	Commodity price indices, monthly	3
2	Commodity price indices, annual	3
F.1	Oceanic Niño Index	7
F.2	El Niño's pattern during June-August	8
F.3	El Niño's pattern during December-February	8
F.4	Domestic price changes	9
F.5	Domestic rice price changes, 2014Q2 vs 2015Q2	9
F.6	Stock-to-use ratios, maize, wheat and rice	10
F.7	Price changes between Apr-Sep 2014 and Apr-Sep 2015	10
F.8	Agricultural commodity prices and El Niño episodes	10
3	Crude oil prices, daily	15
4	World oil demand growth	15
5	U.S. crude oil production	16
6	U.S. oil rig count and oil prices, weekly	16
7	OPEC crude oil production	17
8	OECD crude oil stocks	17
9	Coal consumption	18
10	Coal and natural gas prices, monthly	18
B1	Iran: Monthly oil production	19
B2	Proved oil reserves of top 15 countries	19
B3	Iran: Oil production	20
B4	Proved natural gas reserves of top 15 countries	20
11	Metal prices indices, monthly	22
12	World refined metal consumption	22
13	World metal consumption growth	23

14	Nickel price and LME stocks, daily	23
15	Precious metal prices, monthly	24
16	World silver mine production	24
17	Fertilizer prices	25
18	Global nutrient consumption	25
19	Agriculture price indices, monthly	26
20	Stocks-to-use ratios	26
21	Global grain production and consumption	27
22	Global biofuel production	27
23	Coffee prices, daily	28
24	Cotton stocks	28

Table

1	Nominal price indices, actual and forecast (2010 = 100)	4
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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, metals, agriculture, precious metals, and fertilizers. Price forecasts to 2025 for 46 commodities are also presented, together with historical price data. The report also contains production, consumption, and trade balances 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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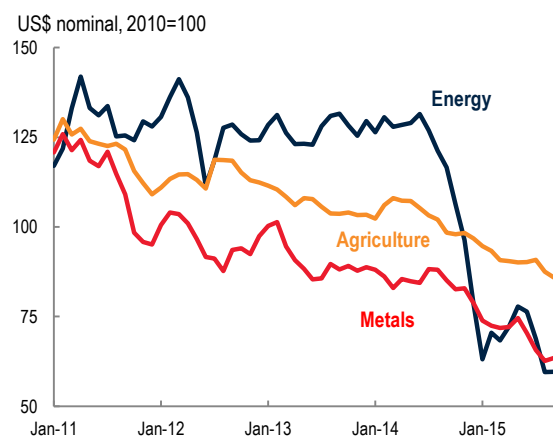
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Executive Summary

Ample supplies and weak demand, especially for industrial commodities, contributed to the continued slide in most commodity prices in the third quarter of 2015 (Figure 1). Annual price forecasts are revised down for 2015 and 2016. Only a modest recovery is expected in 2016 (Figure 2). This issue briefly analyzes the implications of the ongoing El Niño episode and the recent Nuclear Agreement with Iran for agricultural and energy markets, respectively. Although El Niño could be the strongest on record, its impact is likely to be predominantly local rather than global because world commodity markets are currently well-supplied and spillovers from local markets to global prices are typically weak. Following Iran's Nuclear Agreement, the country's 40 million barrels in floating storage could be made available almost immediately upon sanctions being lifted; and, within a few months, Iran could increase its crude oil production toward pre-sanctions levels. The impact of Iranian exports on global oil and natural gas markets could be large over the longer term provided that Iran attracts the necessary foreign investment and technology to extract its substantial reserves.

Trends. Energy prices dropped 17 percent in the third quarter of 2015, as oil prices weakened due to continuing supply surpluses and anticipation of higher Iranian oil exports in 2016. Coal and natural gas prices declined marginally on continued weak demand and excess supply. Oil consumption growth has risen this year, in part due to lower prices. Oil supply continues to outpace demand, although global production is plateauing and year-on-year growth is diminishing. U.S. oil production peaked in April and is now on a declining trend. OPEC production reached a three-year high, with much of the increase coming from Iraq and Saudi Arabia. OECD crude oil inventories have soared, with much of the increase in North America.

FIGURE 1 Commodity price indices, monthly



Source: World Bank.
Note: Last observation is September 2015.

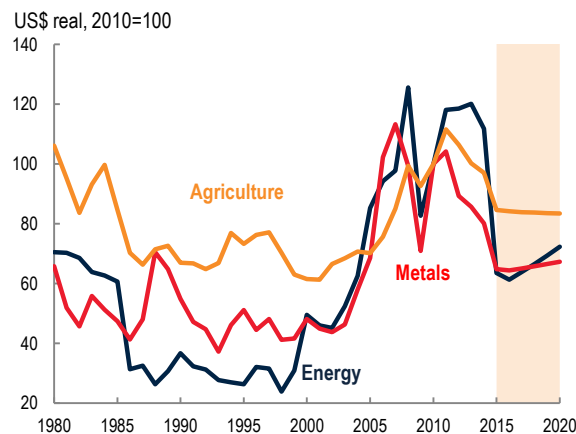
Non-energy commodity prices fell 5 percent in the third quarter of 2015, down more than a third from their early-2011 high. Abundant supply and large inventories were among the reasons. Metals prices fell 12 percent to barely half their early-2011 peak on weakening demand and supply increases from earlier large investments. Agriculture prices fell 2.4 percent (down for six consecutive quarters) on comfortable supply prospects, despite El Niño fears. Fertilizer prices fell marginally on abundant production capacity. Precious metals prices declined 7 percent on weakening investment demand reflecting expectations of a U.S. interest rate hike and dollar appreciation.

Outlook and risks. All main commodity price indices are expected to decline in 2015, mainly owing to ample supply and, in the case of industrial commodities, slowing demand in China and emerging markets (Table 1). Energy prices are expected to fall 43 percent from 2014. Average oil prices for 2015 of \$52/bbl have been revised down from \$57/bbl (July *Commodity Markets Outlook*) owing to large stocks, resilient supply, and expectations of larger Iranian oil exports. Natural gas prices are expected to be sharply lower, following the path of oil prices while coal prices are expected to fall on slowing Chinese demand.

Downside risks to the energy price forecast include higher-than-expected production from OPEC producers and continuing falling costs of the U.S. shale oil industry. Slowing demand and high stocks would further weigh on oil prices. Upside risks include accelerating declines in shale output, delayed implementation of the Iran agreement, and supply curtailment because of geopolitical events.

Non-energy prices are expected to fall 14 percent in 2015, with declines in all main indices. Metals prices are

FIGURE 2 Commodity price indices, annual



Source: World Bank.
Note: Shaded area denotes price forecast.

TABLE 1 Nominal price indices, actual and forecasts (2010 = 100)

	Price Indices (2010=100)						Change (%)		Revision ²	
	2011	2012	2013	2014	2015F ¹	2016F ¹	2014-15	2015-16	2015F	2016F
Energy	129	128	127	118	67	66	-43.3	-1.7	-5.4	-11.0
Non-Energy³	120	110	102	97	83	84	-14.4	1.2	-2.2	-2.5
Metals	113	96	91	85	68	69	-19.2	1.1	-2.2	-3.7
Agriculture	122	114	106	103	89	91	-13.0	1.3	-2.3	-2.0
Food	123	124	116	107	91	92	-15.2	1.5	-3.2	-2.9
Grains	138	141	128	104	89	91	-14.5	2.0	-5.3	-4.9
Oils and meals	121	126	116	109	86	88	-21.5	2.3	-3.7	-3.5
Other food	111	107	104	108	100	100	-7.5	0.2	-0.5	-0.5
Beverages	116	93	83	102	93	92	-8.7	-0.8	-0.5	-0.2
Raw Materials	122	101	95	92	84	85	-9.0	2.0	-0.9	-1.0
Fertilizers	143	138	114	100	95	95	-5.0	-0.5	0.0	0.0
Precious Metals³	136	138	115	101	92	91	-9.2	-1.1	0.2	0.1
Memorandum items										
Crude oil (\$/bbl)	104	105	104	96	52	51	-45.5	-2.1	-5.0	-9.8
Gold (\$/toz)	1,569	1,670	1,411	1,266	1,175	1,156	-7.2	-1.6	0.0	0.2

Source: World Bank.

Notes: (1) "F" denotes forecast. (2) "Revision" denotes change to the forecast from the July report in percentage points. (3) The Non-Energy price index excludes precious metals. See Appendix C for definitions of prices and indices.

projected to fall by 19 percent. The largest drop is expected for iron ore, as new low-cost capacity reaches the market and steel production declines in China. Some metal producers are closing high-cost operations and reducing investment in future capacity. Supplies are also expected to tighten from upcoming closure of large zinc mines due to resource exhaustion and Indonesia's continuation of ore export ban, which mainly affects nickel, bauxite, and copper. Downside risks to the metal price forecasts include slower demand in China as the country transitions to a less metal-intensive, consumer-driven economy—impacting both emerging- and developed-country producers. Upside risks include further closures of high-cost mines, and delays bringing on new capacity. A recovery in global demand would also boost prices.

Agriculture prices are projected to fall 13 percent in 2015 (in April the projected decline was 11 percent), with decreases in all main indices. The outlook mainly reflects abundant supplies, despite El Niño fears, and a high level of grain stocks. The largest price decline is for edible oils and meals (down 22 percent), owing to ample supplies and rising stocks. Grains prices are projected to fall by 15 percent. *Beverage* and *agriculture raw material* prices are expected to each fall by 9 percent. Fertilizer prices are expected to contract as well on weak demand and excess capacity expansion due to earlier high prices. Risks to the agriculture price forecasts include intensification of El Niño, which could reduce yields in grains (especially rice) and edible oils (palm oil). However, this risk is regional—in East

Asian countries including Indonesia, Malaysia, and Thailand—rather than Global.

Focus: El Niño's impact on commodity markets.

El Niño often adversely affects agricultural production in the Southern Hemisphere, especially countries in Latin America and East Asia, as well as Australia. Recent weather forecasts suggests that the current El Niño episode could be one of the strongest on record. However, its impact on commodity prices is likely to be local rather than global because global markets are currently well-supplied and country-specific factors could have a significant impact on local prices.

Iran's Nuclear Agreement. An international agreement on Iran's nuclear program was reached in July 2015 and is expected to be implemented in the first half of 2016. Within a few months of sanctions being lifted, Iran could increase crude oil production by 0.5-0.7 mb/d, potentially reaching a 2011 pre-sanctions level of 3.6 mb/d. Iran could immediately start exporting from its 40 million barrels of floating storage of oil. The impact of Iranian exports on global oil and gas markets could be large over the longer term provided that Iran attracts the necessary foreign investment and technology to extract its substantial reserves. Iran also has the potential to produce and export a significant volume of natural gas over the long term, as the country has the world's largest known gas reserves.



SPECIAL FOCUS

Understanding El Niño:
What does it mean for commodity markets?

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The El Niño episode currently under way could be one of the strongest on record and is expected to reach maximum strength during December-February, potentially lasting throughout early summer of 2016 (Figure F.1). Given its likely impact on agricultural production, the current episode has raised concerns that it may put upward pressure on global agricultural commodity prices. This section analyzes the implications of El Niño for commodity markets by addressing the following questions: (1) What is El Niño? (2) How does it impact commodity markets? (3) Could the current episode trigger a spike in world agricultural commodity prices?

What is El Niño?

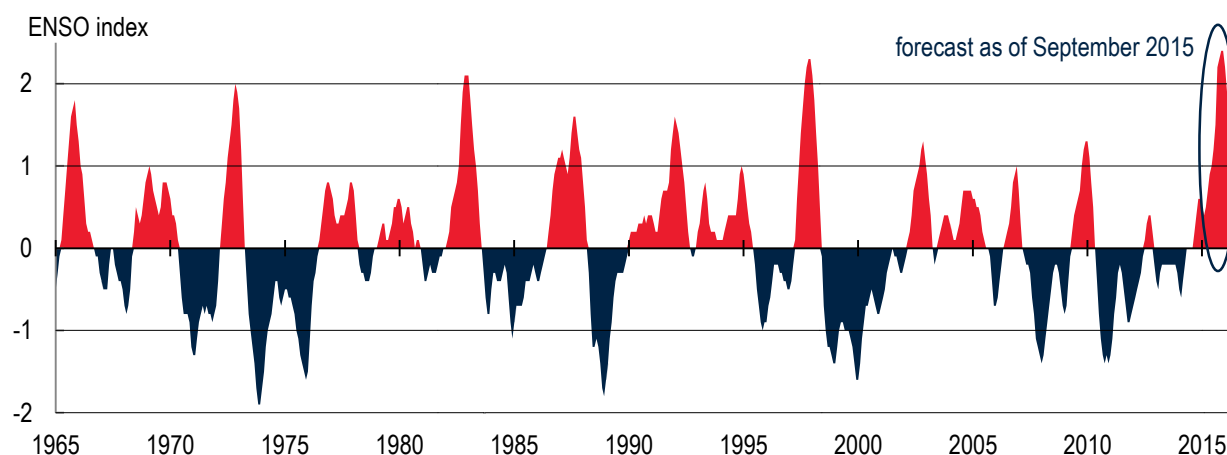
El Niño is a weather pattern which causes the winds of the equatorial Pacific to slow or reverse direction, in turn raising the temperature of waters over a vast

sea area of the Central and Eastern Pacific Ocean. Higher temperatures cause below- or above-normal precipitation in many regions, especially in the Southern Hemisphere (Figures F.2 and F.3). The impact is most noticeable in South America, East Asia, South Asia, and Australia, while there is modest impact in the Northern Hemisphere.

El Niño episodes occur every 2-7 years and last 9-12 months. Typically, they develop during April-June and reach maximum strength during December-February and they are often followed by La Niña, a weather pattern following lower than normal temperatures in the Pacific. The strongest El Niño on record occurred in 1997-98.

According to most forecasting models, the current El Niño may be the strongest since detailed data have been available (Earth Institute 2015). It is expected to reach—and remain—in the “strong” or “very strong” category (see Figure F.1 for definition) throughout the end of the Southern Hemisphere’s growing season, and into early spring (and possibly summer) in the Northern Hemisphere according to forecasts published on September 17, 2015. It is likely to be followed by La Niña, but it is too early to assess the strength of the latter (NOAA 2015).

FIGURE F.1 Oceanic Niño Index



Source: National Oceanic Atmospheric Administration (NOAA; historical data through August 2015) and Earth Institute (forecasts from September 2015 to June 2016, as of September 17, 2015).

Notes: The ENSO (El Niño Southern Oscillation) Index represents a centered three-month mean SST (Sea Surface Temperature) anomaly for the Niño 3.4 region (i.e., 5°N-5°S, 120°-170°W). According to the NOAA, events are defined as five consecutive overlapping three-month periods at or above the +0.50 anomaly for El Niño events and at or below the -0.5 anomaly for La Niña events. The threshold is further broken down into Weak (with a 0.5 to 0.9 SST anomaly), Moderate (1.0 to 1.4), Strong (1.5 to 1.9) and Very Strong (≥ 2.0) events. An event to be categorized in any of the above categories it must have equaled or exceeded the threshold for at least three consecutive 3-month periods. Note that the value of the index can change up two months after the “real” time data become available because of a filtering process applied to the data.

How does it impact commodity markets?

The impact of El Niño is highly heterogeneous across regions and commodities, depending on the timing, duration, intensity, and weather patterns prior to its occurrence. Particularly, it impacts agricultural commodities by affecting yields—lowering them for most but raising them for others—and industrial commodities by affecting operations and infrastructure.

Impact on agricultural commodities

It is useful to briefly analyze recent weather forecasts for areas affected by El Niño and review main agricultural commodities produced in those areas.

- **Central and South America.** Dry conditions are expected to persist across Central America and parts of South America while wetter than normal conditions are projected in Brazil and north-east Argentina—a key production region for coffee, soybeans, and some grains.
- **Australia.** As of September, rainfall in most part of Australia had been below average. Australia is the world's fifth largest wheat exporter.
- **East Asia.** Drier than normal conditions that developed in the summer are expected to continue, especially in Indonesia, the Philippines, Thailand, and Vietnam. In Indonesia, recent projections show a decline of 1 to 2 million tons of rice, equivalent to 1.5 to 3 percent of the country's rice output (World Bank 2015). In addition to rice, the region is a key supplier of palm oil and natural rubber.
- **Central Asia.** El Niño is likely to intensify snow accumulation in the mountainous areas of Central Asia, thus improving irrigation conditions for the summer of 2016 in a number of countries, includ-

ing Afghanistan, Iran, Tajikistan, and Uzbekistan (the world's fourth largest cotton exporter).

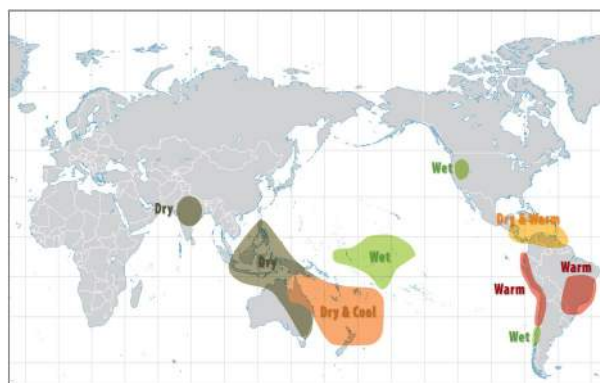
- **South Asia.** So far, growing conditions in South Asia have not been affected by El Niño in a major way. This is significant for India because agriculture, which is mainly rain-fed and thus subjected to weather fluctuations, accounts for 17 percent of its GDP.
- **Southern Africa.** Drier than normal conditions are also developing in Southern Africa, but the region is not a key player in any global commodity market.
- **North America.** Warmer than average temperatures across Canada and the northern U.S. may hamper grain yields, but wetter-than-average conditions across the rest of the U.S. could boost soybean yields.

Thus far, both global and domestic prices of key grains have not experienced a major spike, even in countries at risk from El Niño, regardless of the period examined. For example, in a sample of 22 countries, the median price of maize increased only 2.1 percent from the first to the second quarter of 2015; the median prices of wheat and rice changed very little over that period. In global markets, the world price of maize, wheat, and rice declined by 3, 9.5, and 7.5 percent over the same period, respectively (Figure F.4, left panel). A comparison of the second quarter of 2015 to the corresponding quarter of 2014, confirms small changes in domestic prices for the same sample of countries as well. (Yet, there was large dispersion of domestic prices across countries, even for countries in the same regions, see Figure F.5).

Impact on industrial commodities

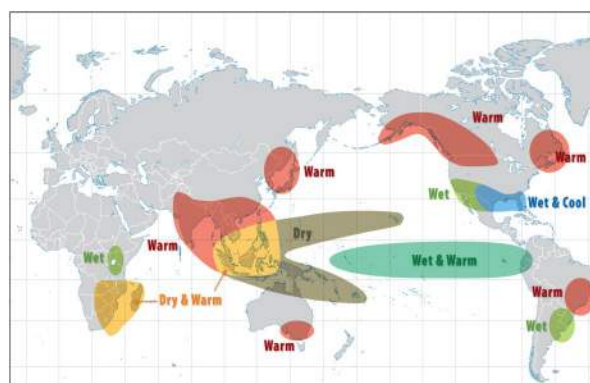
- **Energy.** Drought conditions could reduce hydroelectric power generation, while weaker winds

FIGURE F.2 El Niño's pattern during June-August



Source: National Oceanic Atmospheric Administration.
Note: This map depicts El Niño's impact at its early stages.

FIGURE F.3 El Niño's pattern during December-February



Source: National Oceanic Atmospheric Administration.
Note: This map depicts El Niño's impact during its peak.

could lower wind turbine electricity generation. Electricity shortfalls could have adverse spillovers to production of other commodities. For example, in Zambia, copper mines may need to reduce production if an El Niño-induced drought reduces electricity supply from hydro power sources. Conversely, above-normal rainfall would benefit hydroelectric generation and reduce power generation from other sources.

- Metals.** Excessive rain fall can disrupt mining activities and related transport infrastructure, thus negatively affecting metal production. For example, in March, heavy rains and mudslides in northern Chile and southern Peru curtailed activity temporarily at some copper mines. Additional rainfall could also affect zinc and other metal production in Peru. In East Asia, in contrast, drier conditions during the wet season could enhance bauxite production (Malaysia) and nickel output (Philippines). Mining and loading of bauxite in Malaysia stops on rainy days and exports grind to a halt in January during the heaviest part of the monsoon. Conversely, drought could disrupt river transport or water-dependent operations. For example, prolonged drought in Papua New Guinea has recently led to the closure of a large copper mine due to low river flow that restricted access and the replenishment of fuel and food stocks.

Could the current episode trigger a spike in world agricultural commodity prices?

The current El Niño episode is unlikely to cause a spike in global agricultural prices given ample supply of major agricultural commodities, weak links between global and domestic prices, and limited impact of past episodes. However, it could be a source of significant

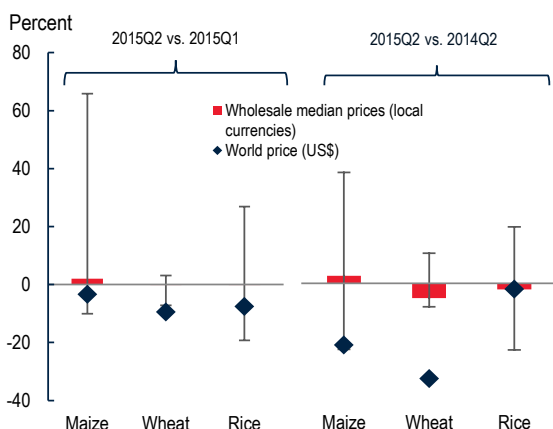
local disruptions in the most affected regions.

Ample supplies. Most commodity markets, including those of grains and oilseeds, are well-supplied. Stock-to-use ratios (a measure of the abundance of supplies relative to demand) for maize, wheat, and rice are well above their 10-year average, and much higher than in 2006–07 when a spike in most food commodity prices began (Figure F.6). The U.S. Department of Agriculture, which releases a monthly global update for most grain and oilseed commodities, maintained its comfortable outlook for the 2015–16 crop year in its October update.

Weak connection between global and domestic prices. The links between global and domestic prices are weak, especially for small developing countries. Thus, it could take a long time for any El Niño-related shortages to affect world markets, unless they are severe and affect a major producer. The well-supplied nature of global grain markets is reflected in prices, which have declined considerably between April-September 2015 (when El Niño fears were intensified) and the same period last year (from -8 percent in rice to -32 percent in wheat, Figure F.7).

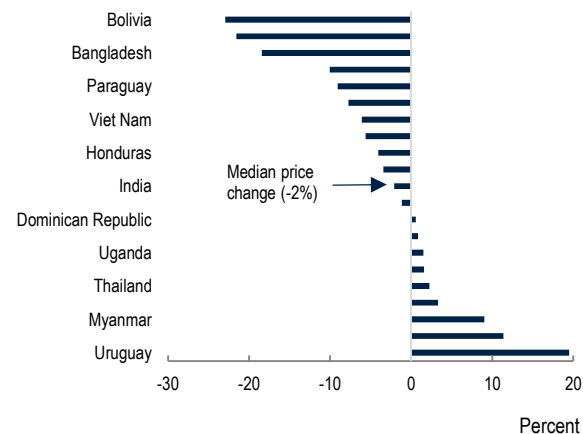
A weak correlation between domestic and global agricultural prices has been well-documented in the literature (Baffes and Gardner 2003; Ceballos et al. 2015; Minot 2011; Heady 2011; and Baffes, Kshirsagar, and Mitchell 2015). Indeed, domestic prices are driven by a host of country-specific factors, including weather patterns, currency movements, transportation costs (between domestic trading centers and ports), quality differences, and trade policies.

FIGURE F.4 Domestic price changes



Source: [FAO GIEWS Food Price Database](#) and World Bank.
 Note: The vertical line denotes the dispersion of price changes.

FIGURE F.5 Domestic rice price changes, 2015Q2 vs 2014Q2



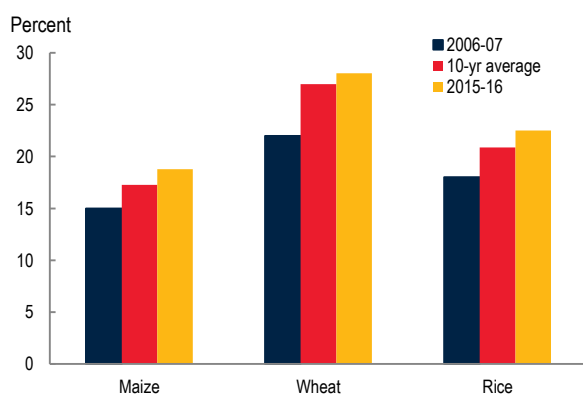
Source: [FAO GIEWS Food Price Database](#)
 Note: The world rice price declined 2 percent over this period.

Limited impact of previous El Niño episodes. The linkages of El Niño with commodity production have been understood and analyzed extensively (Ropelewski and Halpert 1987; Nicholson et al 2001). The estimated global impacts of previous El Niño episodes range widely but, in general, agricultural yields tended to decrease and prices increase, albeit marginally. For example, during an El Niño episode, maize, rice, and wheat yields could decrease by up to 4 percent and global soybean yields could increase by 2.1-5.4 percent (Iizumi et al. 2014). Algieri (2014) and Ubilava (2014) also established that both El Niño and La Niña shocks reduce yields and increase world wheat prices. Naylor et al (2001) show that ENSO (El Niño Southern Oscillation) anomalies account for 40 percent of inter-annual variation of rice production in Indonesia. For agricultural commodities more broadly, a one-standard deviation weather shock during El Niño could raise real prices by 3.5-4 percent (Brunner 2002).

The weak link during past El Niño episodes and world prices of agricultural commodities can be seen in Figure F.8. Of six such episodes since 1980 (excluding the ongoing one), in only one case (2002-03) the six-month average agricultural price index leading to the episode increased modestly either compared to the previous 6-month period or compared to a year ago. In all other cases, prices either declined (1982-83) or changed very little. Even during the 1997-98 episode, the strongest in recorded history with estimated worldwide damages estimated at US\$ 35-45 billion, prices declined.

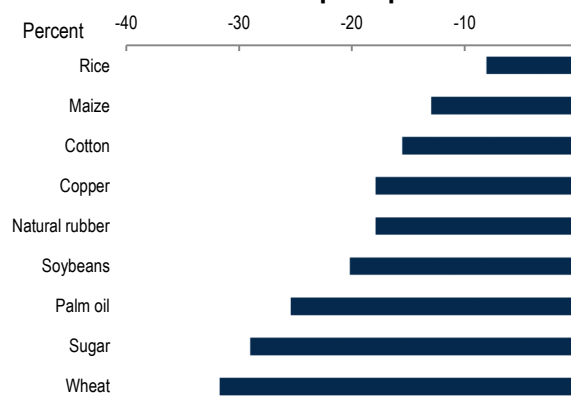
Mixed El Niño impacts have also been reported in the context of high income country growth. For example, Cashin, Mohaddes and Raissi (2015) found that while activity in Australia, Chile, Indonesia, India, Japan, New Zealand and South Africa may slow marginally in response to El Niño shocks, for some

FIGURE F.6 Stock-to-use ratios, maize, wheat, and rice



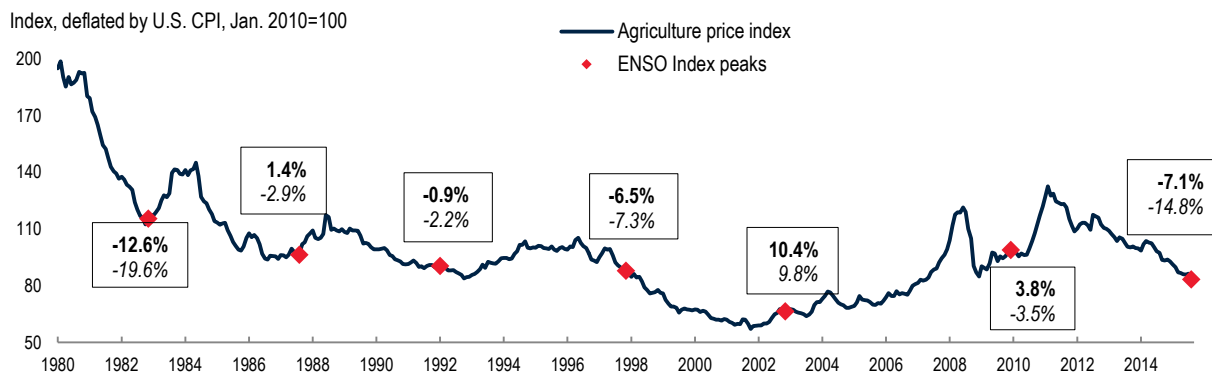
Source: U.S. Department of Agriculture.
 Note: The 2015-16 value reflects the October 2015 update.

FIGURE F.7 Price changes between Apr-Sep 2014 and Apr-Sep 2015



Source: World Bank.
 Note: The average April-September was chosen on the basis of the intensification of El Niño discussions.

FIGURE F.8 Agricultural commodity prices and El Niño episodes



Source: World Bank and NOAA.
 Note: The ENSO peaks reflect values greater than 1 (see Figure F.1.1). The numbers denote percent changes of the six-month average price index leading to the episode compared to the previous six-month period (bold) and the corresponding six-month period of the previous year (italic). The last observation for both agricultural price index and El Niño is September 2015.

countries (including the United States and European region), an El Niño can lift growth.

Larger impact on local markets. El Niño is likely to have a greater impact in more isolated local food markets that are not linked to international markets—a common characteristic of some local food markets in the developing world. Weather disturbances tend to have a robust short-run impact on local prices in a significant number of maize markets in developing countries (Brown and Kshirsagar 2015). In contrast, a rather small share of maize markets is influenced by global prices in the short-run.

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COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy
Metals
Precious metals
Fertilizers
Agriculture

Energy

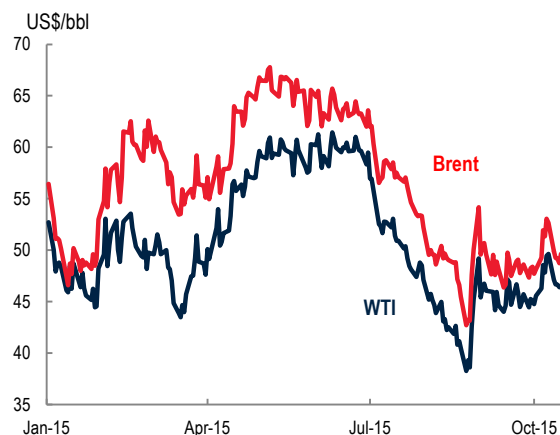
Energy prices, as measured by the World Bank Energy Index, fell 17 percent in the third quarter from the previous period. Oil led the decline dropping 19 percent on expected weaker demand, continuing supply surpluses, and anticipation of rising Iranian oil exports in 2016 (see Box). Coal and natural gas prices both fell 3 percent owing to weak demand and excess supply.

Crude oil

Crude oil prices averaged \$48.8/bbl in the third quarter, down 19 percent from the second quarter (see Figure in Annex 2, Crude Oil). Prices fell below \$50/bbl at the beginning of August and traded in a narrow averaging \$47/bbl into early October (Figure 3). Prices have been driven lower by expectations of slowing global growth (particularly in China and emerging markets), and various supply considerations, including high stocks, resilient non-OPEC output, and greater Iranian production next year. Oil demand remains quite strong, particularly in China and the United States, led by robust consumer appetite for gasoline. U.S. crude oil production has begun to decline due to lower investment and drilling. This is expected to help rebalance the market and reduce the large inventory overhang next year. OPEC output remains elevated and higher exports from Iran are expected once sanctions are lifted.

The differential between West Texas Intermediate (WTI) and Brent spot oil prices narrowed substantially in late September due to falling crude oil stocks—particularly at Cushing, Oklahoma, a delivery point for WTI futures contracts. With relatively strong demand for light oil in the U.S., WTI prices have been affected

FIGURE 3 Crude oil prices, daily



Source: World Bank.

Note: Last observation is October 5, 2015.

by declining production from shale (light oil) and falling imports of Canadian light synthetic oil (due to problems with Canadian bitumen upgrading plants). Outside the U.S., however, surplus light oil in the Atlantic basin is exerting downward pressure on Brent crude prices. Futures prices show the discount for WTI versus Brent widening to near \$5/bbl over the next several years.

World oil demand increased and estimated 1.9 mb/d (2.0 percent) in the first nine months of this year (Figure 4). Growth was concentrated in the U.S. and China—up a combined 1.1 mb/d—with strong gains in India as well, up 0.2 mb/d. U.S. oil demand rose 0.5 mb/d (2.6 percent), mainly for gasoline, partly as lower prices encouraged people to drive more. China's demand jumped 0.6 mb/d (up 5.9 percent). The largest increase was also for gasoline, despite falling car sales. Diesel demand has been flat (in both countries), with slowing industrial activity in China accounting for its subdued consumption. The Volkswagen scandal has raised uncertainty about long term diesel use in consumer vehicles.

World oil demand growth is expected to slow slightly in the fourth quarter, putting annual global growth at 1.8 mb/d (1.9 percent)—more than double the growth in 2014. Non-OECD demand is expected to climb by more than 1.2 mb/d (2.5 percent), a pace similar to recent years. OECD demand is projected to rise 0.6 mb/d, with gains coming from North America and Europe. In 2016, global oil demand is projected to slow to 1.2 mb/d (1.3 percent), with increases mainly in the non-OECD and OECD Americas. The stimulus of lower prices on consumer demand, particularly for gasoline, is expected subside.

FIGURE 4 World oil demand growth



Source: World Bank, International Energy Agency.

Note: Last observation is 2015Q4.

Although global oil supply continues to outpace demand, it plateaued near 97 mb/d in recent months and y-o-y growth is steadily slowing. Total output grew by 1.8 mb/d y-o-y in the third quarter, but is down from more than 3 mb/d gains in the first half of this year. OPEC production rose by 1.3 mb/d in the third quarter, and non-OPEC supply also grew by 1.3 mb/d. The U.S. accounted for less than half of the non-OPEC supply growth at 0.6 mb/d, down substantially from a gain of 1.6 mb/d in the first quarter. The other non-OPEC increases were mainly from Asia, recovering output in the North Sea (from last year's U.K. maintenance and strike in Norway), Russia, Brazil, Canada, and biofuels.

In the United States, crude oil production peaked in April at 9.6 mb/d and slipped to under 9.4 mb/d in July (Figure 5). The decrease primarily occurred in shale producing basins in Texas which peaked in March, and in North Dakota which peaked in December. Increases in the offshore Gulf of Mexico partly offset these losses. Upstream investment in the U.S. is estimated to have fallen by about a third and rigs drilling for oil have fallen more than 60 percent from a high in October 2014 (Figure 6).

Rig activity rose from its lows in June as producers continued to develop shale deposits, but has fallen back more recently with lower oil prices. The U.S. Energy Information Administration projects that domestic crude oil production will decline to 9.0 mb/d in the fourth quarter to 8.7 mb/d in the third quarter of next year, and then rebound to 9.0 mb/d in 2016Q4. For 2016, total production is projected to decline by 0.4 mb/d, with output in the lower-48

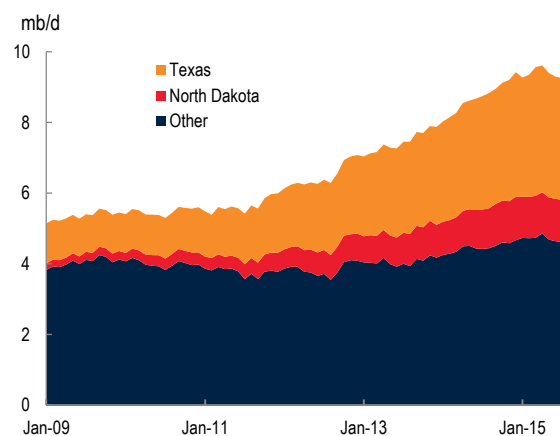
states falling 0.5 mb/d, partly offset by a gain of 0.1 mb/d in the offshore Gulf of Mexico.

Sharply reduced spending and drilling portends to lower crude oil production going forward, but there are other factors that are helping to stem sharp reductions in output. Producers are utilizing their most efficient rigs on most productive tracts (high-grading) to maximize returns. There is a significant backlog of drilled but uncompleted wells that can be completed at roughly two thirds of the cost a newly drilled well. Importantly, well productivity has improved substantially. In the Eagle Ford (Texas) and Bakken (North Dakota) regions, new well productivity has risen from less than 300 barrels per well in early 2012, to 694 and 795 barrels, respectively, and improved by about 9 percent in the third quarter alone.

Drilling and completion costs have fallen significantly, and efficiencies have improved through reduced drilling time, better planning and innovation. Technology also continues to improve, including new generation rigs, pad drilling (drilling multi wells on a single land track) and “re-fracking” of wells. On the other hand, shale oil wells decline rapidly, falling by some 70 percent or more in the first year and more than 80 percent in the first two years. This requires substantial drilling to offset the shale’s rapid declines.

OPEC crude oil production reached a high of 31.8 mb/d in June/July—up 1.7 mb/d from February. Most of the gains came from Iraq and Saudi Arabia, each boosting output by 0.9 mb/d. These were largely offset by lower production in the Neutral Zone due to an operational dispute between Saudi Arabia and Kuwait, which share output equally. Production

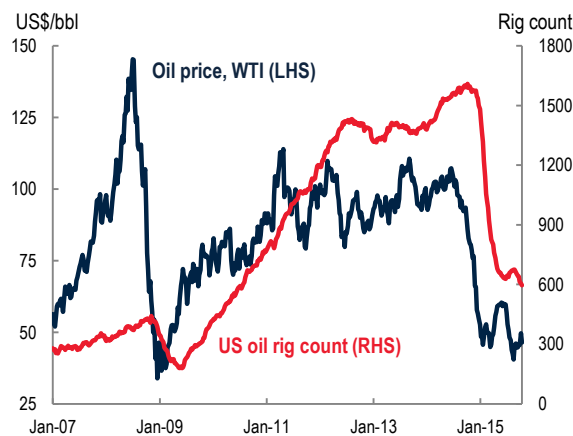
FIGURE 5 U.S. crude oil production



Source: U.S. Energy Information Administration, International Energy Agency.

Note: Last observation is July 2015.

FIGURE 6 U.S. oil rig count and oil prices, weekly



Source: Baker Hughes, Bloomberg.

Note: Last observation is October 9, 2015.

in Saudi Arabia eased in August and September, but total OPEC output was still 1.7 mb/d above its 30 mb/d target. Outside the Gulf, OPEC production has held fairly steady at around 8.0 mb/d, down from 9.6 mb/d in 2012Q3. The dropoff is mainly due to a large loss of Libyan production from civil conflict, and (to a lesser extent) pipeline sabotage and theft in Nigeria. OPEC meets December 4th to discuss its production target and higher exports from Iran. At present, key Gulf countries, led by Saudi Arabia, appear intent on maintaining their strategy to pursue market share despite low prices and reduced export revenues.

Iraq's production rose to a record 4.3 mb/d in September, with heavy-crude output from the southern fields accounting for much of recent gains because of a new system for exports. The system separates light and heavy grades—heavy oil no longer needs to be shut-in to enhance the quality of Basrah Light crude exports. Total exports reached a record 3.7 mb/d in September, as exports from the north recovered from pipeline attacks at 0.6 mb/d. Most of the northern exports are under the Kurdistan Regional Government. Low oil prices and the country's severe financial constraints—in part due to a costly battle with the Islamic State of Iraq and Levant—has forced the oil ministry to curb investment in new capacity and infrastructure projects. Only modest growth in oil production is expected next year.

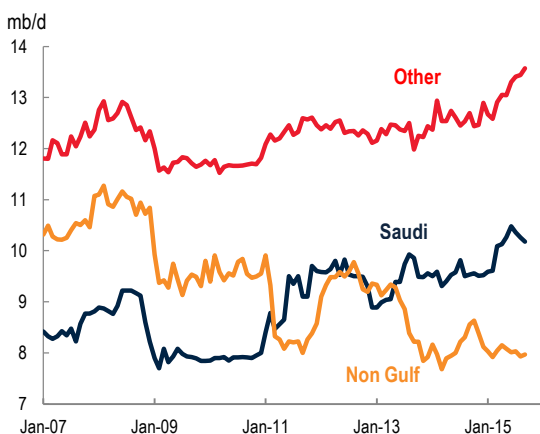
The large supply overhang has caused OECD crude oil inventories to soar (Figure 8). Much of the increase is in North America, but stocks in other regions are relatively high as well. Stocks of refined products in North America are above their five-year average but relatively low elsewhere. In the fourth

quarter, oil demand by refineries is expected to pick up after they exit autumn maintenance, which is expected to draw on inventories during fall/winter months. Outside the OECD, China has been importing crude above its consumption needs by more than 0.1 mb/d, some of which has likely been placed in its growing strategic reserve. Increasing storage capacity is expected to result in strategic stocks growing by 0.2 mb/d in the fourth quarter and into next year.

Crude oil prices are projected to average \$52/bbl in 2015, a drop of 46 percent from last year. U.S. crude oil production is expected to continue declining moderately into next year and will help to reduce the surplus. There is uncertainty as to how quickly the market will rebalance, and will depend on the pace of both demand and supply. Oil prices are expected to fall slightly in 2016, averaging \$51/bbl, assuming a steady return to balance throughout the year.

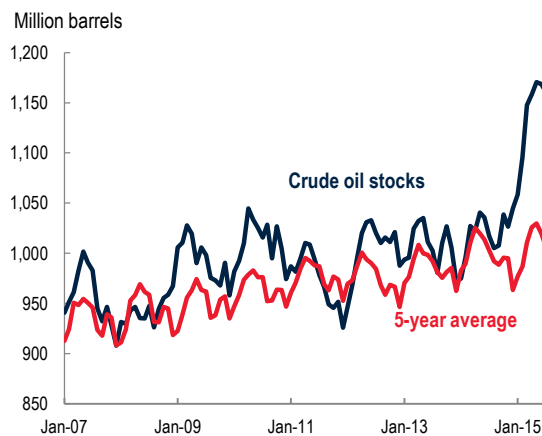
There are a number of risks to the price forecast. On the downside, higher Iranian exports could extend the current surplus, particularly if the rest of OPEC continues to maintain market share. Non-OPEC production may hold up better than expected due to cost reduction and efficiency improvements. Looked at another way, lower prices may be needed curtail surplus output. Finally, demand could also disappoint given the slowdown in China and other emerging markets. Upside risks include stronger consumer demand (especially for gasoline), delay in implementing the Iran agreement, more rapid decline in non-OPEC output, and disruptions to key producers (e.g., Iraq and Nigeria).

FIGURE 7 OPEC crude oil production



Source: International Energy Agency.
Note: Last observation is September 2015.

FIGURE 8 OECD crude oil stocks



Source: International Energy Agency.
Note: Last observation is August 2015.

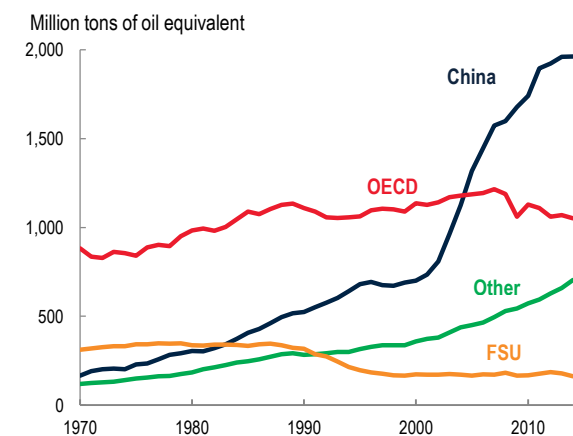
Coal

Thermal coal prices fell 3 percent in the third quarter on continued weak demand, high stocks, and surplus supply. Prices have fallen to a four-year low because of chronic oversupply and falling imports into China—the world’s largest consumer of coal (Figure 9). Global supplies continue to increase from new low-cost capacity, declining costs, and depreciating producer currencies.

China’s coal imports are down by more than a third this year due to slowing industrial activity, greater use of hydro and other sources of energy, and import restrictions on low quality coal. India’s import demand has remained strong but is now slowing as domestic production improves. Indonesia, the world’s largest coal exporter, has borne the brunt of the contraction in the seaborne market. Coal production is also being cut in Australia and elsewhere, but could come back on line if warranted.

Coal prices are expected to decline 17 percent in 2015 to \$50/ton on continued surplus supply. Coal faces difficult market conditions going forward due to slowing import demand in China. Reasons for concern include moderate growth for electricity generation in key importing regions, increased competition from natural gas due to lower prices, larger penetration of renewables due to environmental policies, and introduction of carbon trading schemes which would penalize coal further. Meanwhile, coal supplies are expected to be ample, in part because of the ramp-up in new capacity from earlier investment (though now slowing). Production cost reductions and weak producer currencies may keep high-cost capacity in play.

FIGURE 9 Coal consumption



Source: BP Statistical Review of World Energy.
Note: Last observation is 2014.

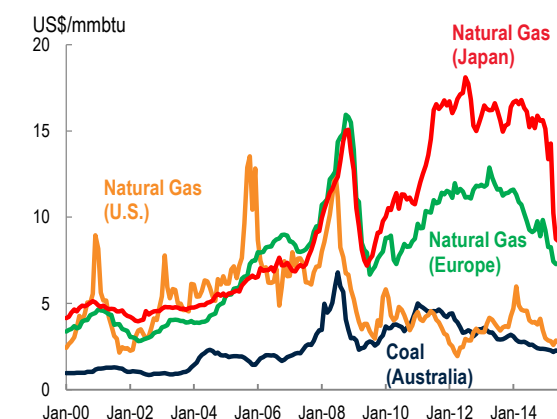
Natural gas

Natural gas prices fell 3 percent in the third quarter, as all three main markets (U.S., Europe and Japan) remain in surplus amid weak demand, large stocks and ample supply (Figure 10). European gas prices fell 6 percent to under \$7/mmbtu, partly due to lower oil prices and the uncompetitiveness of gas in power generation. Gas delivered to Japan fell 2 percent to \$9/mmbtu, as imported prices continue to reflect contracts indexed to oil prices (with a lag). However, spot cargoes of liquefied natural gas (LNG) are flowing into Asia and Europe at around \$6/mmbtu due to excess supply. New LNG capacity is set to come on line, mainly from Australia, and the U.S. is expected to export its first shipment by the end of this year.

U.S. gas prices edged higher to \$2.75/mmbtu, but slipped to \$2.30/mmbtu at the beginning of October due to near record stocks and mild weather heading into winter. Demand for gas is expected to remain robust for power generation, where it is an attractive substitute for coal. Gas production continues to grow but at a diminishing rate, and shale gas production levelled the past few months at 42 bcf/d, or about 53 percent of total U.S. gas production. Shale gas production continues to climb in the northeast Marcellus and Utica regions, and new pipelines are moving more of the region’s gas to markets.

Natural gas prices are expected to record large declines this year in all three main markets: U.S. (down 36 percent to \$2.8/mmbtu); Europe (down 26 percent to \$7.4/mmbtu), and Japan (down 36 percent to \$10.3/mmbtu). Prices are expected to remain weak in all regions due to surplus supply, relatively weak demand, and continuing low oil prices.

FIGURE 10 Coal and natural gas prices, monthly



Source: World Bank.
Note: Last observation is September 2015.

BOX Iran Nuclear Agreement: A game changer for energy markets?

An international agreement on Iran's nuclear program was reached in July 2015 and is expected to be implemented in the first half of 2016. Sanctions will be suspended at that time and terminated in 2023. Within a few months of sanctions being lifted, Iran could increase crude oil production by 0.5-0.7 mb/d, potentially reaching a 2011 pre-sanctions level of 3.6 mb/d. Iran could immediately start exporting from its 40 million barrels of floating storage of oil, of which more than half is condensate. The impact of Iranian exports on global oil and natural gas markets could be large over the longer term provided that Iran attracts the necessary foreign investment and technology to extract its substantial reserves.

What does the agreement entail?

On July 14, 2015, the five permanent UN Security Council Members plus Germany reached a comprehensive nuclear agreement with Iran, known as the Joint Comprehensive Plan of Action (JCPOA 2015). The plan places limitations on Iran's nuclear program and lifts nuclear-related sanctions by the United Nations (UN) Security Council, the EU and the U.S., which intensified in 2012. On July 20, 2015, the UN Security Council endorsed the JCPOA, and the agreement is expected to formally take effect on October 18 ("Adoption Day") pending Iran's response to queries from the International Atomic Energy Agency (IAEA) about its past nuclear work. Upon IAEA verification that Iran has implemented required measures, the agreement is to formally enter into force on "Implementation Day," expected in the first half of 2016. At that time nuclear-related sanctions would be suspended and Iran could begin to increase its crude oil exports (presently capped at about 1.1 mb/d under sanctions—see Congressional Research

Service 2015). Provisions are in place to "snap-back" sanctions if Iran is deemed to violate its commitments. Sanctions end eight years after the "Adoption Day," and the UN resolution (which adopted the agreement) terminates after 10 years, assuming no provisions are reinstated over the course of the agreement. Some nuclear restrictions and IAEA access and verification extend for 15 years.

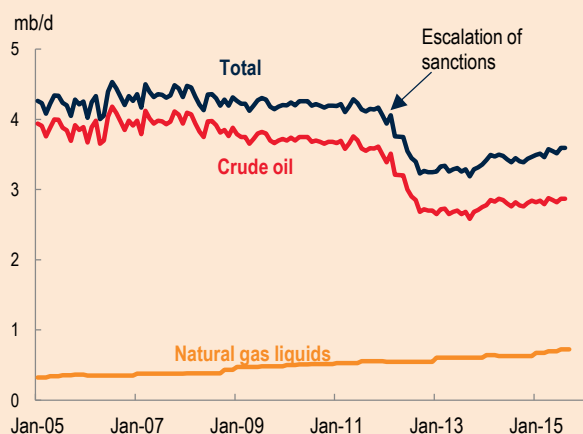
How does it affect the global oil market?

Upon the lifting of sanctions, Iran could almost immediately start exporting using its 40 million barrels of floating storage of oil. Less than half of this inventory is crude oil and the majority is condensate—a liquid produced mainly from its offshore natural gas fields. Condensate can also be produced from crude oil, which is under sanctions, that have inhibited sales. Condensate prices and refining margins remain weak as markets are well supplied, especially in Asia.

Within a few months of sanctions being lifted, Iran could raise crude oil production by 0.5-0.7 mb/d, potentially reaching a 2011 pre-sanctions output level of 3.6 mb/d (Figure B1), or about 4 percent of global oil consumption. It could take longer to register a sizeable increase in production, however, given that some oil fields could require rehabilitation.

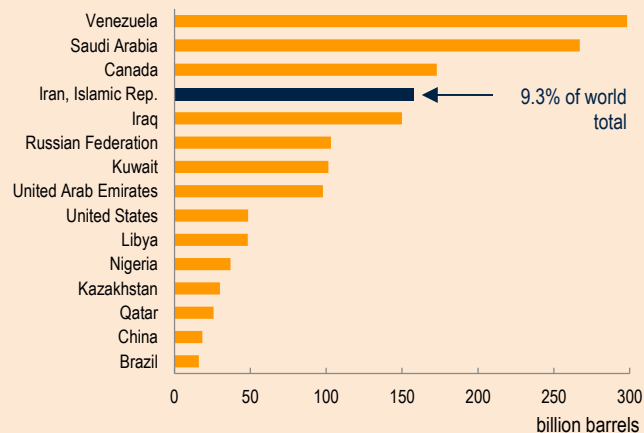
An increase in Iran's exports comes amidst ample global supplies and as OPEC peers and Russia vie for market share, especially in Asia. Iran will quickly seek to regain its earlier market share, particularly in Europe where Iran lost 0.7 mb/d of sales with the imposition of sanctions. International petroleum companies, particularly those in Europe, may choose to

FIGURE B1 Iran: Monthly oil production



Source: International Energy Agency (2015)
Note: Last observation is September 2015.

FIGURE B2 Proved oil reserves of top 15 countries



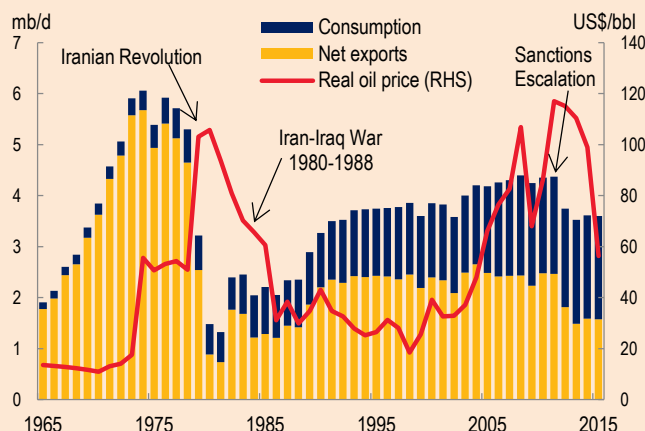
Source: BP Statistical Review of World Energy (2015)
Note: Total Global Reserves at end-2014 were 1700 billion barrels.

preferentially source oil from Iran as a strategic measure to help them enter Iran’s upstream sector. Rising exports from Iran will add to expected surpluses next year, resulting in greater pressure on prices, unless accommodated by lower production from OPEC or cost-induced declines elsewhere. Anticipation of Iran’s exports has already contributed to lower prices in recent months.

In the longer term, Iran has substantial reserves (9.3 percent of world total) to raise production significantly (Figure B2). However, its crude production may only exceed 4.0 mb/d—last seen in 2008—toward the end of the decade, as raising capacity will be costly and require foreign investment and technology. To attract investment amidst sharp cutbacks in expenditures by international companies and larger demand for foreign capital and technology, Iran may have to offer additional incentives. The government is planning to soon present a new oil contract model to international investors. U.S. oil companies will still be prohibited from conducting business with Iran, as other U.S. sanctions remain in place. However, non-U.S. oil companies will be able to take advantage of this opportunity.

In the early 1970s, Iran produced 6.0 mb/d (10 percent of world production) and exported 5.7 mb/d at its peak, but both production and exports declined due to revolution and war from the late 1970s through much of the 1980s, and due to sanctions more recently (Figure B3). The increase in domestic oil consumption, which has been supported by large consumer subsidies, has also impinged on exports. Planned subsidy reforms are underway and are expected to moderate domestic consumption growth while helping exports to rise. Exports of crude oil and natural gas liquids could return to pre-sanction highs of close to 2.5 mb/d by 2017. However, exports will unlikely return to record highs of the 1970s—at least for the foreseeable future.

FIGURE B3 Iran: Oil production



Source: BP Statistical Review of World Energy (2015), World Bank
 Note: Includes crude oil and natural gas liquids. 2015 first nine months.

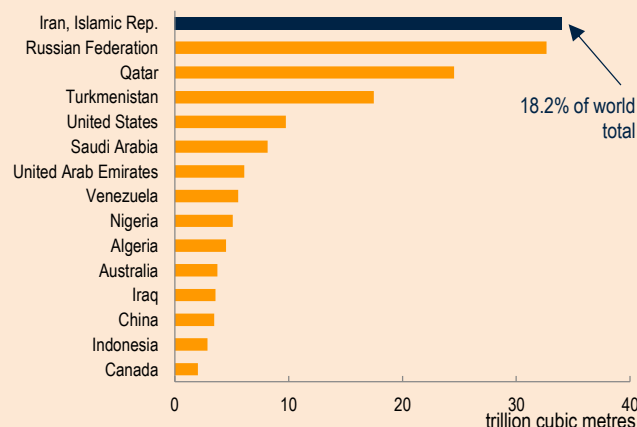
Ianchovichina, Devarajan, and Lakatos (2015) estimate that a rise of 1 mb/d back to a pre-sanction level in July 2011 would reduce international oil prices in 2016 by 13 percent. Apart from the impact on global energy markets, removal of sanctions and larger oil revenues would provide a major boost to the Iranian economy, its international trade, and foreign direct investment—especially in the oil and gas sectors.

How does it affect global natural gas markets?

Iran produced 173 billion cubic meters of natural gas in 2014, equivalent to 5 percent of world production, of which most was consumed domestically. Over the longer-term, Iran has the potential to produce and export significant volumes of natural gas. The country has the world’s largest known reserves—18 percent of world total, ahead of the Russian Federation at 17 percent and Qatar at 13 percent, (Figure B4). The country could over time develop gas export capacity via pipelines to neighboring countries and to Europe via Turkey, and eventually transport liquefied natural gas to Europe and Asia. Iran may utilize its gas reserves to promote domestic gas-based industries and inject gas into oil fields to help expand production and exports (gas injection is a normal industry process that increases reservoir pressure to help speed up oil extraction). Moving up the value chain, Iran might also use gas to export higher-value-added electricity and petrochemicals (see Khajehpour 2015).

The impact of Iran’s exports on regional gas prices will depend on prevailing global gas demand and the ability of markets to absorb the gas. The increasing number of actual and potential gas exporters on the horizon creates uncertainty, as does the changing structure of gas demand

FIGURE B4 Proved natural gas reserves of top 15 countries



Source: BP Statistical Review of World Energy (2015)
 Note: Global natural gas reserves at end-2014 were 187 tcm.

(relative to both coal and renewables) due to environmental pressures.

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Annex: Timeline of international oil sanctions

1979 November - US imposes the first sanctions on Iran, banning imports from Iran and freezing \$12bn assets.

1995 March - US companies are prohibited from investing in Iranian oil and gas and trading with Iran.

1996 April - Congress passes a law requiring the US government to impose sanctions on foreign firms investing more than \$20m a year in the energy sector.

2006 December - The UN Security Council imposes sanctions on Iran's trade in nuclear-related materials/technology and freezes the assets of individuals and companies.

2007 October - US announces sweeping new sanctions against Iran, the toughest since 1979. UN Security Council tightens economic and trade sanctions on Tehran.

2010 June - UN Security Council imposes a fourth round of sanctions against Iran over its nuclear program, including tighter financial curbs and an expanded arms sanctions.

2011 May and December - the assets of 243 Iranian entities and around 40 more individuals are frozen and visa bans imposed.

2012 January - US imposes sanctions on Iran's central bank, for its oil export profits. Iranian threatens to block the transport of oil through the Strait of Hormuz.

2012 June - US bans the world's banks from completing oil transactions with Iran, and exempts seven major customers India, South Korea, Malaysia, South Africa, Sri Lanka, Taiwan, China and Turkey from economic sanctions in return for their cutting imports of Iranian oil.

2012 July - European Union boycott of Iranian oil exports comes into effect.

2012 October - Iran's currency, the real, falls to a record low against the US dollar, losing about 50% of its value since 2011. EU countries announce further sanctions against Iran focusing on banks, trade and gas imports and freezing assets of individuals and companies that supply Iran with technology.

2013 November - Iran agrees to curb uranium enrichment above 5% and give UN inspectors better access in return for about \$7 billion in sanctions relief at talks with the P5+1 group—US, Britain, Russia, China, France, and Germany—in Geneva.

2015 April - Iran and the EU reach a nuclear framework agreement and set for a final agreement in July 2015 with attendant lifting of the EU and the US sanctions on Iran.

2015 July 14th - The P5+1 group reach an agreement with Iran on limiting Iranian nuclear activity in return for the lifting of sanctions.

2015 July 20th - The U.N. Security Council unanimously approved the July 14th agreement.

2015 October 18th - "Adoption Day." The July 14th agreement (The Joint Comprehensive Plan of Action) comes into effect.

Source: Devarajan and Mottaghi (2015).

Metals

Amid oversupply in most markets, metals prices fell 12 percent in the third quarter, a fourth straight quarterly retreat (Figure 11). Declines occurred in all metals. The surpluses reflected slowing demand, notably from China and other emerging economies, and weak global indicators for industrial production and manufacturing. But it also reflected ongoing supply increases, and still-high stocks for a number of metals. The World Bank Metals Price Index for September was 50 percent below its high in February 2011.

The sell-off was exacerbated by China's devaluation of the yuan and plunging equity values, adding to concerns about future metal demand. China's share of global metal consumption has risen above 50 percent (Figure 12), and has accounted for the bulk of world growth the past 15 years (Figure 13). As the country transitions from an investment-led, production-based economy to one that is consumer driven, metals demand is expected to slow as the economy becomes less metal intensive. A much larger currency devaluation would further reduce demand as raw material imports become more costly. There does not appear to be a group of countries to replace China's large growth in metal demand, at least in the near term.

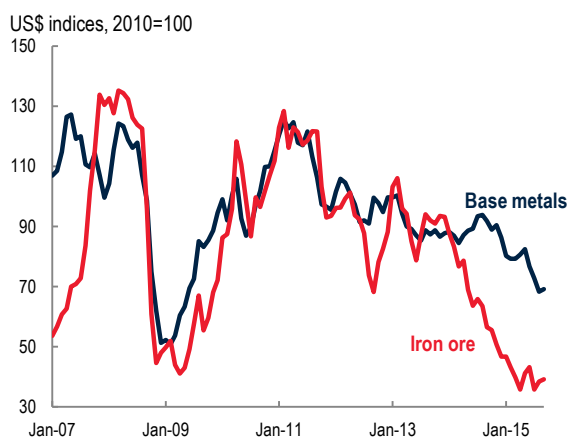
On the supply side, production continues to climb following years of large investments and higher prices. Additional supply increases are expected in the near-to-medium term, which are expected to keep most markets in surplus. Prices have fallen deep into the cost curve for some metals and high-cost capacity is being closed. However, depreciation of producer country currencies and falling production costs (e.g., energy) are helping sustain output. Capital expenditures for

new capacity have declined significantly which will help to rebalance markets in coming years.

Nickel prices plunged 19 percent due to weak demand, destocking from the stainless steel sector (which consumes about 70 percent of world refined nickel), and resilient Chinese output. LME inventories remain near record highs (Figure 14) and there are reported large non-exchange stocks in Asia. China's nickel pig iron (NPI) production, while contracting, has held up longer than expected following Indonesia's ore export ban (enacted to encourage domestic processing). Chinese producers have secured supplies from the Philippines and tapped large stockpiles of Indonesian ore acquired prior to the ban in January 2014—although these stocks are now running out. Shipments from new NPI plants in Indonesia are rising and further investment in capacity is expected. Nevertheless, current prices are significantly below estimated breakeven costs for much of China's NPI sector, and production cuts there and elsewhere are expected to help rebalance the nickel market.

Zinc prices dropped 16 percent on sharply higher LME stocks, weak global demand to galvanize steel (which accounts for more than half of zinc end-use consumption), and strong refined production growth in China. The zinc market is expected to tighten with further large mine closures this year, but the tightness is now expected to be smaller than previously thought due to new mine projects, expansions at existing operations, reactivation of previously closed mines, and delayed closures (e.g., Skorpion mine in Namibia from 2016 to 2019). Key uncertainties center on China's potential growth for zinc mining/smelting and the pace of stainless steel production.

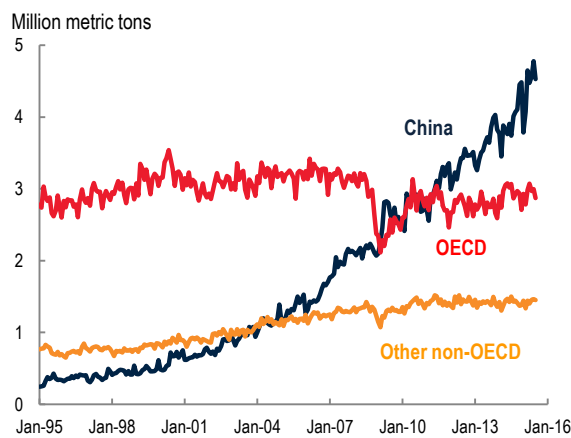
FIGURE 11 Metal price indices, monthly



Source: World Bank.

Note: Last observation is September 2015.

FIGURE 12 World refined metal consumption



Source: World Bureau of Metal Statistics.

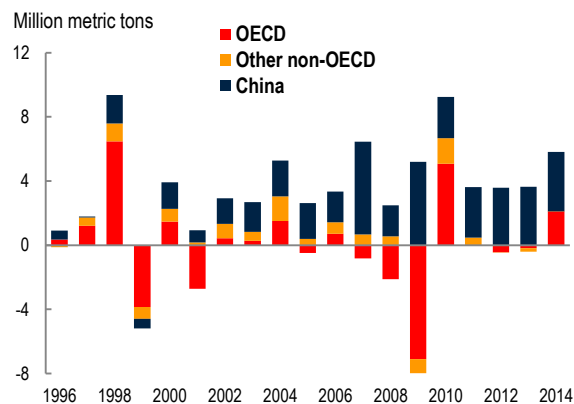
Note: Total of aluminum, copper, lead, nickel, tin, and zinc.

Copper prices fell 13 percent amid weak demand in China, elevated stocks, and steady increases in new mine capacity. There have been significant supply disruptions due to heavy rains and strikes in Chile, lack of rainfall/electric-power in Zambia and Democratic Republic of the Congo, and drought affecting operations and river transport in Papua New Guinea. Some producers have announced plans to idle production in 2016 because of the low price environment. New mine supply is coming on-line in the next few years, mainly from a number of mid-size mines in the Americas, and is expected to keep the market in surplus.

Lead prices declined 12 percent due to weak battery demand, especially in China where vehicle sales have slowed and the e-bike sector has plateaued. Supplies of lead from both primary and secondary (battery recycling) sources have been adequate, although LME stocks declined the past two months. Lead supply—often a by-product of zinc mine production—will be affected by zinc mine closures. Much will depend on China where mine supply output has risen strongly in the past, but fell in 2014 due to environmental and profitability issues. The majority of lead supply will continue to come from battery recycling.

Aluminum prices fell 10 percent, despite falling LME inventories, on slowing demand and continued strong growth in smelting capacity in China. There have been closures of high-cost capacity, including within China, but these fall short of the growth in new low-cost capacity in China, resulting in a global surplus. Further cuts are required to balance the market, but closures are expensive and often slow to materialize, in part due to local government pressures in China to sustain employment. Aluminum demand remains relatively robust globally due to its diversified use in multiple sectors, and is expected to be a key driver going forward.

FIGURE 13 World metal consumption growth



Source: World Bureau of Metal Statistics.

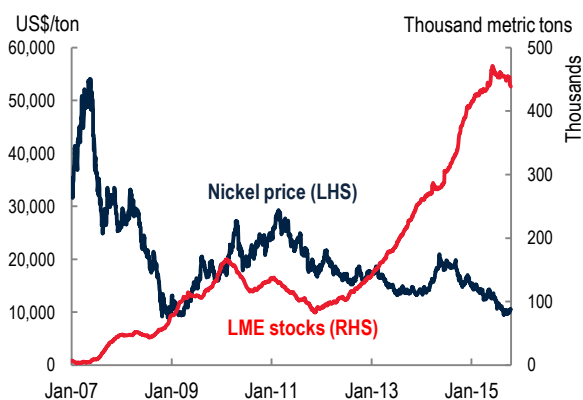
Note: Consumption reflects the sum of aluminum, zinc, lead, nickel, and copper.

Iron ore prices decreased 6 percent—down a seventh straight quarter and to less than one-third of its high in 2011—on continued oversupply and weak demand. Prices rose in August/September following lower exports out of Australia and low port stocks in China, but Australian shipments have recovered and surplus conditions are expected to continue. Significant new low-cost iron ore capacity continues to come on-line in Australia and Brazil, forcing closure of high-cost production in China and elsewhere. As new sources of supply hit the market, further displacement will likely be required to balance the market.

Metals prices are projected to decline by 19 percent in 2015 due to increases in new production capacity and slowing demand growth in China. The largest decline is for iron ore, which is expected to fall by 40 percent due to significant increases in new capacity from Australia and Brazil, followed by nickel (down 28 percent) and tin (down 26 percent). Most other prices are expected to decline as markets remain in surplus amid high stocks. Markets are expected to tighten in the medium term due to reduced investment in new production capacity, stronger global demand, and some specific factors, including Indonesia's ore export ban and closure of large zinc mines due to exhaustion.

Downside risks to the forecast include slower demand in China and tightening environmental constraints to reduce pollution. On the supply side, lower costs and further producer currency depreciation could sustain surplus output and delay supply rebalancing. Upside risks are centered on stronger demand growth and supply side factors such as project delays and disruptions, falling ore grades, environmental constraints, and closure of high-cost capacity.

FIGURE 14 Nickel price and LME stocks, daily



Source: Bloomberg.

Note: Last observation is October 16, 2015.

Precious metals

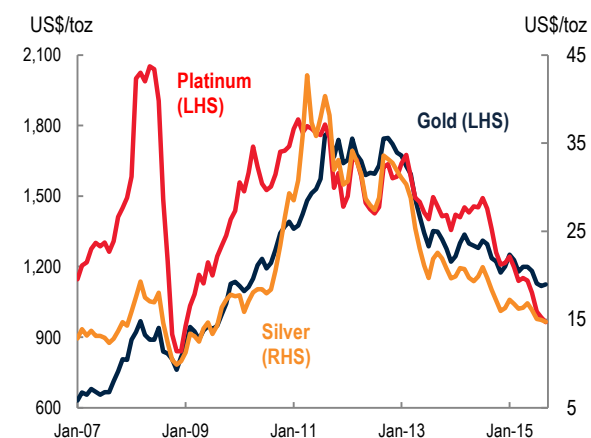
Precious metals prices fell 7 percent in the third quarter (Figure. 15) on weakening investment demand. Platinum led the declines falling by 13 percent, mainly on oversupply from rising production in South Africa, while silver and gold prices fell 9 and 6 percent, respectively. Expectations of a U.S. interest rate hike and dollar appreciation dampened investor sentiment.

Following a strong start to the year, gold prices have declined despite concerns over the Chinese economy and debt/political issues in Greece. These conditions were outweighed by investor expectations of dollar strength and a U.S. interest rate increase—the key drivers going forward. While the decision by the U.S. Federal Reserve on September 17th to defer a rate hike provided some respite, it was quickly followed by the Federal Reserve’s statement that the central bank is on track to raise interest rates this year. Rising interest rates typically have negative implications for gold prices, as investors seek yield-bearing assets.

Physical demand for gold has been weak this year, although third-quarter imports were strong in India and rebounded in China. Gold mine supply is trending lower as companies cut investments and focus on aggressive cost reduction. At this point, containing costs is the objective rather shutting down mines, a more expensive proposition. Lower energy prices, improved efficiency, and depreciating producer currencies have helped reduce costs. However, lower capital expenditures for exploration and development will negatively impact future production.

Silver prices fell more than gold, in part due weak industrial demand, with the gold/silver ratio edging up to 76 in September (compared with an average of 65

FIGURE 15 Precious metal prices, monthly



Source: World Bank.

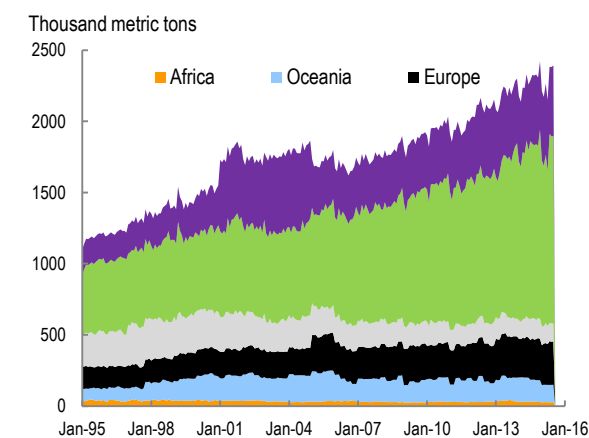
Note: Last observation is September 2015.

over the past three decades). Reduced silver intensity in the electronic and photovoltaic sectors and declining trends in photographic applications contributed to lower consumption. Like gold, investor sentiment remains, but consumer intake of silver bars and coins in the U.S. has been strong. Mine supply continues to expand, with gains mainly in the Americas and Asia (Figure 16).

Platinum prices continued to fall more steeply than its peers reflecting a recovery in South African mine output from last year’s strikes. However, a significant portion of the industry is losing money at current prices and some production cutbacks and deferrals have been announced. Demand from the auto sector remains buoyant due to increased auto production, particularly in Europe, but the auto/platinum industries received a jolt from the Volkswagen diesel emissions scandal. (Platinum is mainly used to produce catalysts for diesel vehicles.)

Precious metals prices are projected to decline 8 percent in 2015 on lower investment demand. Platinum will register the steepest decline, (22 percent) owing to expected surplus supply. Silver prices are expected to fall 17 percent, as the metal is generally thought to be more vulnerable than gold to shifting investment sentiment. Gold prices are projected to fall 8 percent, largely driven by expectations of a rising dollar and tightening in U.S. monetary policy. Downside risks to the forecast include stronger-than-expected monetary tightening and dollar strength. Significantly weaker U.S. growth (and the ramifications for the dollar) and monetary policy pose upside risk. For platinum over the longer term, how consumers and governments respond to the Volkswagen scandal, pose added risks.

FIGURE 16 World silver mine production



Source: World Bureau of Metal Statistics.

Note: Last observation is July 2015.

Fertilizers

Fertilizer prices fell 1 percent in the third quarter, down a second consecutive quarter, due to excess supply capacity and weak import demand among major agricultural consuming countries (Figure 17). Urea prices led the decline—falling 3 percent and down for the fifth straight quarter—while phosphate and potash prices fell 1 percent. Demand weakness stems from declining purchasing power among farmers globally, lower agriculture commodity prices, and depreciating currencies of emerging economies. In the coming months, adverse weather from El Niño may further impact agriculture production and fertilizer demand in Asia. Supply surpluses are being exacerbated by falling costs, cheaper feedstock prices (e.g., natural gas), and declining producer currencies.

The large decline in urea prices was mainly due to oversupply amid weak demand. Imports into Brazil are down sharply this year, and it appears buyers there and in South-east Asia are adopting just-in-time purchases in anticipation of lower prices. Contributing to the downward pressure on prices were increases in new capacity, notably in the Middle East and North Africa, and lower energy prices for high cost producers in Europe (spot/hub based gas), Ukraine (oil-indexed gas) and China (coal). China's exports increased sharply, with the country benefiting from lower coal prices and currency devaluation.

Prices for DAP (diammonium phosphate) fell 1 percent due to weak demand especially in Brazil. TSP (triple superphosphate) prices were flat. India's imports have been robust but may be negatively impacted by a lower rupee, weaker monsoon season (with rainfall estimated to be 15 percent lower), and ex-

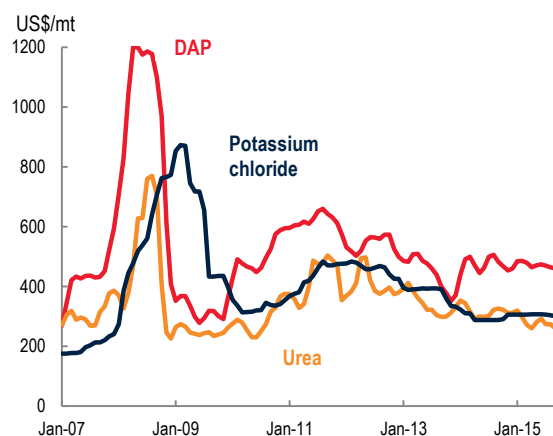
pected lack of subsidy funding beginning in October for the current fertilizer year. Phosphate production remains below capacity due to curtailments in Tunisia and South Africa.

Potash (potassium chloride) prices fell 1 percent owing to weak demand, particularly in Brazil, and destocking. The adverse effects of El Niño is expected to weaken demand into 2016, notably India and South-east Asia. India has been pushing to renegotiate contract prices lower through March. Upcoming annual contract negotiations with Chinese and Indian buyers are expected to result in lower prices due to surplus capacity.

Fertilizer prices are projected to decline by 5 percent in 2015, because of weak demand, rising supply, and destocking. Nutrient application, which has been on a rising trend (Figure 18), faces headwinds as farmers are likely to thrift on fertilizer use to reduce costs and offset effects of lower crop prices and currency depreciation. Prices are generally expected to increase moderately over the medium term due to expected moderate growth in demand, higher energy costs, and required new capacity of primary and processed supply.

Price forecast risks are skewed to the downside owing to poor financial positions of farmers, and expected increases in new production capacity. Subsidy reform in large consuming countries would curtail demand, and also adjust current imbalances in fertilizer use, notably in India where urea application is favored over phosphate and potash. On the upside, higher agriculture prices and currency appreciation could boost fertilizer demand and prices.

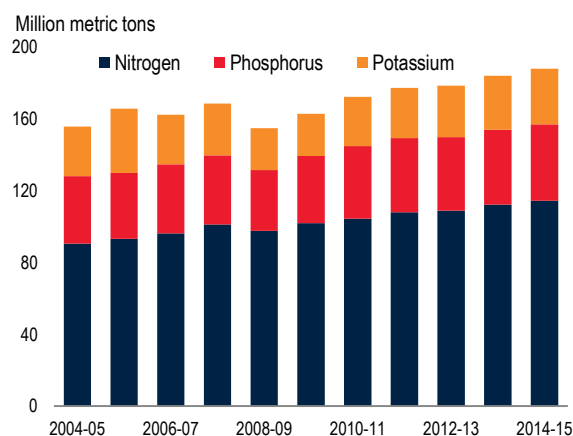
FIGURE 17 Fertilizer prices



Source: World Bank.

Note: Last observation is September 2015.

FIGURE 18 Global nutrient consumption



Source: Agrium Fact Book, International Fertilizer Association.

Note: Consumption does not include industrial use.

Agriculture

Supply conditions for agricultural commodities remained favorable in the third quarter. Most prices continued their broad-based declines, with the overall index down 2.5 percent for the quarter and 13 percent lower than a year prior (Figure 19). The two key food sub-indices—grains, and edible oils and meals—declined more than 4 percent in the quarter. Agricultural raw materials declined almost 2 percent for the quarter, while beverage prices remained virtually unchanged.

Food

Grain prices declined about 5 percent in the third quarter and are more than 13 percent lower than a year ago. Wheat prices declined more than 15 percent in the quarter, followed by rice (down 3 percent); maize prices changed very little.

Global production of wheat is expected to reach a new record in 2015-16 following upward revisions to output by China, the European Union, and Kazakhstan. Trade volume, however, is expected to decline for the year following lower imports by Morocco and several Asian wheat importers. Although global wheat consumption is projected to increase moderately, the stock-to-use (S/U) ratio (a measure of the abundance of supplies relative to demand) will reach a record high during 2015/16. The market for maize is expected to become tighter, with global production projected to reach 973 million tons this season—marginally lower than the May 2015 assessment, but 3.5 percent lower than 2014/15. Weather-related production declines in the United States and the EU, were not enough to offset Brazil's

improved outlook. Tighter maize supplies, combined with a marginal increase in consumption, imply a lower S/U ratio (0.19 in 2015/16 versus last season's 0.20). Lastly, global rice production is expected to decline marginally as well (from 479 to 474 million tons) on weakening prospects in Asia, particularly India and Thailand, the world's top rice exporter.

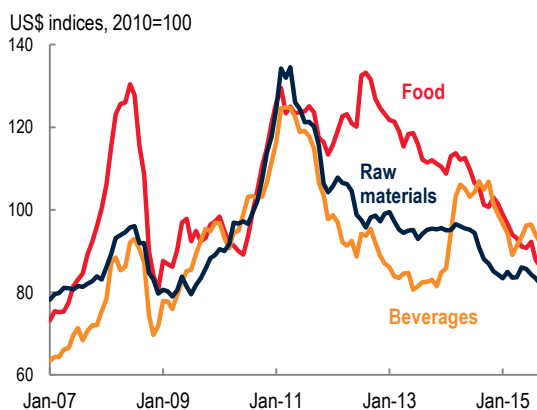
Global supplies (beginning stocks plus production) of all three grains are expected to reach 2.68 million tons in 2015-16, down marginally from last season's record of 2.71 million tons, according to the U.S. Department of Agriculture's October 2015 assessment. Thus, the lower S/U ratio of maize and rice will be offset by that of wheat (Figure 20).

The World Bank's *Edible Oils and Meals Price Index* declined 4.2 percent in the quarter, following across-the-board declines in its components; the largest was in palm oil, more than 13 percent. The index is down almost 20 percent compared to a year ago.

The oilseed outlook is stable as well, with global supplies of the 10 major oilseeds expected to reach 715 million tons in 2015-16, up from 608 million tons the previous season; most of the increase comes from soybeans. The outlook is positive for the 17 most consumed edible oils: global production for 2015-16 will reach 208 million tons, up from last season's 203 million tons. Most of the increase is expected in soybean oil, due to high crop yields in South America (particularly Argentina and Brazil), and palm oil, due to increased output in Indonesia.

In view of well-supplied markets for most grains, oilseeds, and edible oils, the World Bank's Food Commodity Price Index is expected to average more than 15 percent lower in 2015 compared to 2014, on

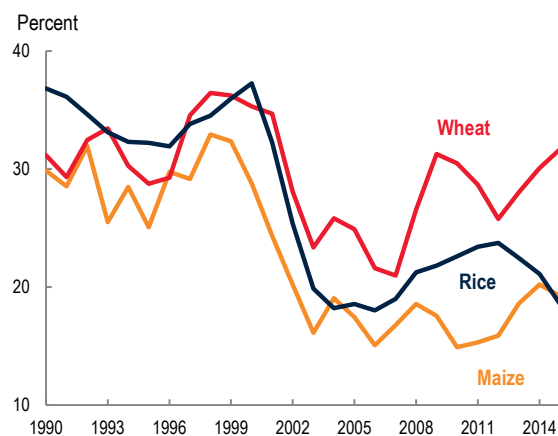
FIGURE 19 Agriculture price indices, monthly



Source: World Bank.

Note: Last observation is September 2015.

FIGURE 20 Stocks-to-use ratios



Source: U.S. Department of Agriculture (October 2015 update).

Note: Last observation is 2015-16.

top of a 7 percent decline in 2014. Edible oils and meals will decline the most (down 21.5 percent), followed by grains (down 14.5 percent), and other food items (down 7.5 percent).

Although still in the early stages, global grain supplies in 2015-16 will be marginally lower, down 1 percent from last season (Figure 21). Global edible oil and meals supplies are each expected to rise about 3 percent from last season.

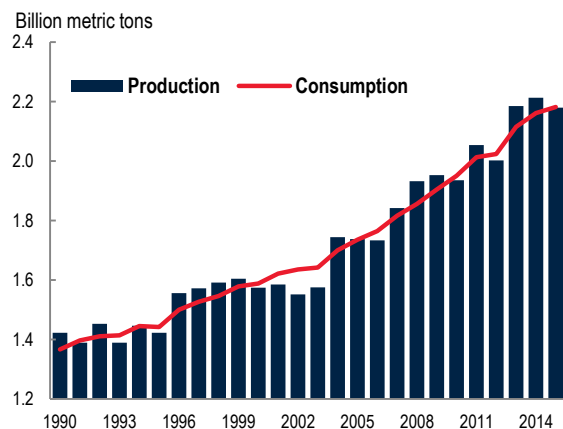
A number of short- and long-term risks underpin the food commodity price projections.

- **Weather.** A weather-related risk is El Niño, which typically adversely affects agricultural production in the Southern Hemisphere, especially countries in Latin America and East Asia, as well Australia. Recent weather forecasts suggest that the current El Niño episode could be one of the strongest on record. However, its impact on commodity prices is likely to be predominantly local rather than global. That's because global markets are currently well-supplied, and country-specific factors could have a significant impact on local prices (for more information, see the Special Focus section).
- **Energy prices.** Given the high energy requirements of agriculture—estimated to be four to five times more energy intensive than manufacturing—another risk relates to energy and fertilizer prices. Oil prices are expected to average \$52/bbl in 2015, down more than 45 percent from 2014, while fertilizer prices are projected to fall 5 percent in 2015 (on top of last year's 12 percent decline). Low oil and fertilizer prices will ease the cost pressures that most food

commodities experienced during the post-2005 price boom.

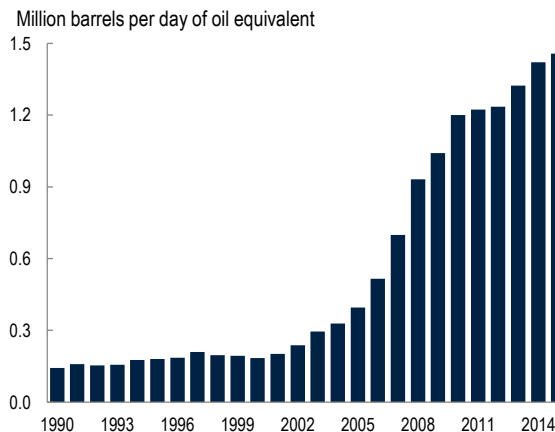
- **Biofuels.** The outlook for agricultural prices also assumes that while biofuels will continue to play a key role in the behavior of agricultural commodity markets, it will be less prominent than in the recent past. Currently, biofuels account for close to 1.5 mb/d in energy-equivalent terms, up from 0.4 mb/d a decade ago (Figure 22). Although biofuels will grow over the projection period, the growth will be much slower than earlier assessments. In fact, some analysts point to a slight reduction in global biodiesel production during 2016, as policy makers are increasingly realizing that the environmental and energy independence benefits of biofuels may not outweigh their costs and gradually ease policies that require diversion of food commodities to the production of biofuels.
- **Trade policies.** On trade policies, export restrictions are unlikely to be imposed, given that most markets are well-supplied. Even if some restrictions are imposed, their impact on prices is likely to be muted.
- **Investment fund activity.** Lastly, investment fund activity, which was on the rise for almost 15 years, has stabilized at just below \$320 billion, according to BarclayHedge, which tracks developments in the hedge fund industry. This level is close to the 2012-14 average. The continuing weakness in prices across the entire commodity spectrum is likely to induce an outflow of funds invested in commodity markets.

FIGURE 21 Global grain production and consumption



Source: U.S. Department of Agriculture (October 2015 update).
Note: Grains include maize, wheat, and rice.

FIGURE 22 Global biofuel production



Source: BP Statistical Review of World Energy and World Bank.
Note: The last observation is 2015 and is a projection.

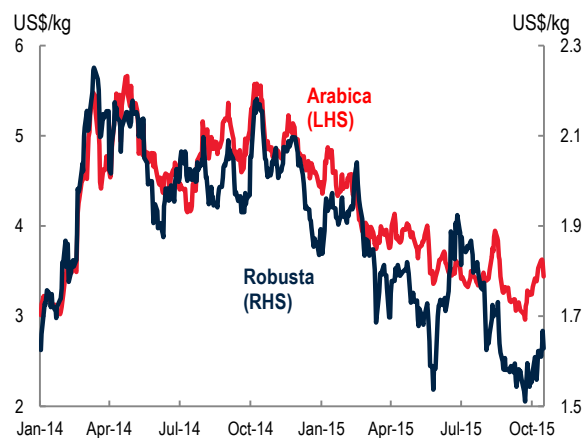
Beverages

The World Bank's Beverage Price Index changed very little in the third quarter, but individual prices followed diverse paths: tea and cocoa prices rose 3 and 6 percent, respectively, while coffee prices fell 5 and 6 percent for robusta and arabica, respectively.

Arabica prices are 26 percent lower than last year's third quarter. Last year the coffee market experienced a large production shortfall due to poor weather in Brazil, which pushed arabica prices to record highs. *Robusta* prices have fallen as well, down 6 percent for the quarter and 16 percent from a year ago (Figure 23). The coffee market is projected to return to a surplus in 2015-16, with Brazil (the world's top arabica supplier) bouncing back to 48 million bags during the 12-month period ending September, and Vietnam (the world's top robusta supplier) maintaining its output above 26 million bags. As a result, arabica and robusta prices in 2015 are expected to be 21 and 12 percent lower compared to a year ago, before stabilizing in 2016.

After rising 5 percent in the second quarter, *cocoa* prices gained another 6 percent in the current period. The market is expected to remain in deficit in 2015/16 due to a production shortfall in Ghana, following an even larger deficit in the previous season. For the year, however, cocoa prices are expected to increase only marginally. Finally, tea prices, which gained considerable momentum last quarter (+14 percent), have eased since their \$3.00/kg surge in July. Supplies look comfortable, especially in East Africa, as earlier reports that cocoa and tea markets may be subjected to El Niño-related shortfalls are unlikely to materialize.

FIGURE 23 Coffee prices, daily



Source: Bloomberg.
Note: Last observation is October 16, 2015.

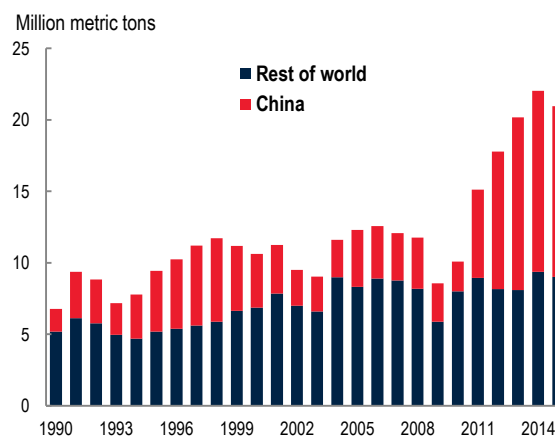
Agricultural raw materials

The World Bank's Raw Material Price Index declined marginally in the third quarter (-2.2 percent), but is 9 percent lower than a year ago and one-third below its early 2011 peak. The pattern is similar to the declines in two industrial commodity indices—energy and metals. The weakness of industrial commodity prices reflects weakness in the global economy and the larger production capacity induced by the post-2015 price boom.

Cotton prices declined marginally in the third quarter as the market returned to deficit after six consecutive years of surpluses—they are down 8 percent from last year. The surplus of the past five years went mostly to stock-building by China, which currently accounts for 57 percent of world stocks (Figure 24). Global cotton stocks currently account for almost one full year of consumption, a highly atypical situation. Although cotton prices are expected to average 15 percent lower in 2015, a moderate price recovery is expected for 2016 and 2017, based on the assumption that no sharp draw-down in Chinese stocks will take place.

After a short-lived recovery in the second quarter, *natural rubber* prices plunged to a 10-year low (down nearly 30 percent from June to September). The downward pressure on rubber prices comes from weak growth of tire sales, especially in China, and strong competition from synthetic rubber. (Two-thirds of natural rubber goes to tire manufacturing.) Despite persistent weakening in prices, production of natural rubber is strong. Rubber prices, projected to average \$1.58/kg in 2015, are expected to gradually recover in 2016 and beyond.

FIGURE 24 Cotton stocks



Source: International Cotton Advisory Committee.
Note: Last observation is 2015-16.



APPENDIX A

Historical commodity prices
Price forecasts

TABLE A.1 Commodities prices

Commodity	Unit		2013	2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Jul 2015	Aug 2015	Sep 2015
Energy												
Coal, Australia	\$/mt	*	84.6	70.1	67.9	62.9	61.2	59.0	57.3	59.1	58.6	54.2
Coal, Colombia	\$/mt		71.9	65.9	66.8	63.7	57.3	54.3	50.4	52.3	49.7	49.1
Coal, South Africa	\$/mt		80.2	72.3	70.2	65.8	62.1	60.7	54.3	57.1	54.4	51.6
Crude oil, average	\$/bbl		104.1	96.2	100.4	74.6	51.6	60.5	48.8	54.3	45.7	46.3
Crude oil, Brent	\$/bbl	*	108.9	98.9	102.1	76.0	53.9	62.1	50.0	55.9	47.0	47.2
Crude oil, Dubai	\$/bbl	*	105.4	96.7	101.5	74.6	52.2	61.4	49.9	56.3	47.2	46.2
Crude oil, WTI	\$/bbl	*	97.9	93.1	97.5	73.2	48.6	57.8	46.4	50.9	42.9	45.5
Natural gas, Index	2010=100		112.1	111.7	102.0	101.6	85.4	74.2	72.0	73.3	72.7	70.1
Natural gas, Europe	\$/mmbtu	*	11.79	10.05	9.22	9.50	8.60	7.33	6.86	6.93	6.95	6.71
Natural gas, US	\$/mmbtu	*	3.73	4.37	3.94	3.77	2.87	2.73	2.75	2.83	2.76	2.65
Natural gas, Japan	\$/mmbtu	*	15.96	16.04	15.37	15.70	14.26	9.18	8.96	8.87	9.00	9.00
Non-Energy												
Agriculture												
Beverages												
Cocoa	\$/kg	**	2.44	3.06	3.23	2.99	2.92	3.07	3.25	3.33	3.15	3.28
Coffee, arabica	\$/kg	**	3.08	4.42	4.56	4.64	3.89	3.54	3.36	3.41	3.46	3.22
Coffee, robusta	\$/kg	**	2.08	2.22	2.22	2.26	2.12	1.98	1.87	1.92	1.89	1.80
Tea, average	\$/kg		2.86	2.72	2.80	2.64	2.43	2.79	2.86	3.00	2.88	2.72
Tea, Colombo	\$/kg	**	3.45	3.54	3.45	3.38	3.16	3.00	2.83	2.98	2.87	2.63
Tea, Kolkata	\$/kg	**	2.73	2.58	2.93	2.65	1.82	2.56	2.81	2.92	2.84	2.67
Tea, Mombasa	\$/kg	**	2.40	2.05	2.01	1.90	2.31	2.80	2.95	3.09	2.92	2.85
Food												
Oils and Meals												
Coconut oil	\$/mt	**	941	1,280	1,204	1,185	1,147	1,115	1,067	1,100	1,037	1,063
Copra	\$/mt		627	854	805	792	760	737	708	735	689	699
Fishmeal	\$/mt		1,747	1,709	1,767	1,792	1,712	1,523	1,472	1,466	1,469	1,480
Groundnuts	\$/mt		1,378	1,296	1,276	1,356	1,333	1,290	1,193	1,280	1,150	1,150
Groundnut oil	\$/mt	**	1,773	1,313	1,345	1,368	1,371	1,346	1,332	1,345	1,331	1,321
Palm oil	\$/mt	**	857	821	772	715	683	664	574	635	549	538
Palmkernel oil	\$/mt		897	1,121	988	958	1,046	957	802	869	739	798
Soybean meal	\$/mt	**	545	528	493	471	432	391	398	415	394	386
Soybean oil	\$/mt	**	1,057	909	865	828	774	774	734	751	730	721
Soybeans	\$/mt	**	538	492	457	440	411	394	385	405	381	368
Grains												
Barley	\$/mt	**	202	138	130	153	189	201	200	214	203	184
Maize	\$/mt	**	259	193	174	174	174	168	169	180	163	166
Rice, Thailand 5%	\$/mt	**	506	423	433	421	417	385	374	392	373	357
Rice, Thailand 25%	\$/mt		473	382	400	402	397	372	362	376	362	347
Rice, Thailand A1	\$/mt		474	425	449	428	416	388	376	390	378	360
Rice, Vietnam 5%	\$/mt		392	407	435	414	363	351	337	346	340	326
Sorghum	\$/mt		243	207	184	201	237	215	190	213	179	178
Wheat, US HRW	\$/mt	**	312	285	262	258	239	216	183	197	180	173
Wheat, US SRW	\$/mt		277	245	214	239	223	205	196	207	188	194
Other Food												
Bananas, EU	\$/kg		1.02	1.04	0.99	0.99	0.92	0.92	0.90	0.89	0.90	0.91
Bananas, US	\$/kg	**	0.92	0.93	0.94	0.90	0.98	0.97	0.95	0.94	0.96	0.95
Meat, beef	\$/kg	**	4.07	4.95	5.58	5.68	4.76	4.47	4.55	4.50	4.68	4.47
Meat, chicken	\$/kg	**	2.29	2.43	2.49	2.51	2.51	2.55	2.55	2.56	2.55	2.54
Meat, sheep	\$/kg		5.17	6.39	6.49	6.05	5.60	5.38	5.07	5.17	5.07	4.97
Oranges	\$/kg	**	0.97	0.78	0.77	0.74	0.70	0.62	0.65	0.64	0.68	0.63
Shrimp	\$/kg		13.84	17.25	18.08	16.08	15.84	15.65	15.43	15.87	15.87	14.55
Sugar, EU	\$/kg	**	0.43	0.43	0.43	0.41	0.37	0.36	0.36	0.36	0.36	0.37
Sugar, US	\$/kg	**	0.45	0.53	0.56	0.55	0.54	0.54	0.54	0.54	0.54	0.53
Sugar, World	\$/kg	**	0.39	0.37	0.38	0.35	0.32	0.29	0.27	0.28	0.25	0.26

TABLE A.1 Commodities prices

Commodity	Unit		2013	2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015	Q3 2015	Jul 2015	Aug 2015	Sep 2015
Raw Materials												
Timber												
Logs, Africa	\$/cum		464	465	464	437	395	387	389	385	390	393
Logs, S.E. Asia	\$/cum	**	305	282	286	260	250	245	244	241	242	248
Plywood	¢/sheets		560	517	525	478	458	450	447	443	443	454
Sawnwood, Africa	\$/cum		749	789	800	758	726	734	743	746	747	736
Sawnwood, S.E. Asia	\$/cum	**	853	898	910	863	826	835	845	848	850	837
Woodpulp	\$/mt		823	877	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.99	1.83	1.70	1.52	1.52	1.59	1.56	1.60	1.58	1.52
Rubber, RSS3	\$/kg	**	2.79	1.96	1.84	1.62	1.73	1.79	1.46	1.64	1.42	1.31
Rubber, TSR20	\$/kg		2.52	1.71	1.63	1.51	1.42	1.52	1.34	1.45	1.32	1.25
Fertilizers												
DAP	\$/mt	**	445	472	495	460	483	469	464	469	464	460
Phosphate rock	\$/mt	**	148	110	112	115	115	115	117	115	115	121
Potassium chloride	\$/mt	**	379	297	287	301	305	307	303	305	303	300
TSP	\$/mt	**	382	388	413	405	400	380	380	380	380	380
Urea, E. Europe	\$/mt	**	340	316	316	315	296	277	268	273	273	259
Metals and Minerals												
Aluminum	\$/mt	**	1,847	1,867	1,990	1,970	1,802	1,770	1,592	1,640	1,548	1,590
Copper	\$/mt	**	7,332	6,863	6,996	6,632	5,833	6,057	5,267	5,457	5,127	5,217
Iron ore	\$/dmt	**	135.4	96.9	90.3	74.3	63.0	58.3	55.0	52.0	56.0	57.0
Lead	\$/mt	**	2,140	2,095	2,182	2,001	1,810	1,942	1,717	1,763	1,704	1,684
Nickel	\$/mt	**	15,032	16,893	18,584	15,860	14,393	13,056	10,579	11,413	10,386	9,938
Tin	\$/mt	**	22,283	21,899	21,915	19,898	18,370	15,590	15,230	15,072	15,164	15,453
Zinc	\$/mt	**	1,910	2,161	2,311	2,235	2,080	2,192	1,843	2,001	1,808	1,720
Precious Metals												
Gold	\$/toz	***	1,411	1,266	1,281	1,199	1,219	1,193	1,124	1,128	1,118	1,125
Platinum	\$/toz	***	1,487	1,384	1,433	1,228	1,193	1,127	986	1,009	984	964
Silver	\$/toz	***	23.85	19.07	19.68	16.47	16.75	16.42	14.91	15.05	14.94	14.75
Commodity Price Indices (2010=100)												
Energy			127.4	118.3	121.6	93.7	67.3	75.5	62.6	68.8	59.5	59.6
Non-energy			101.7	97.0	96.8	92.7	86.7	84.8	80.7	83.0	79.9	79.1
Agriculture			106.3	102.7	101.2	97.7	92.9	90.2	88.1	90.8	87.5	85.9
Beverages			83.3	101.8	105.3	102.4	93.4	93.6	94.1	96.4	93.9	91.9
Food			115.6	107.4	104.5	101.7	96.5	91.6	88.8	92.3	87.9	86.2
Oils and Meals			115.9	109.0	102.3	97.5	91.3	86.7	83.0	87.7	81.6	79.9
Grains			128.2	103.9	97.7	96.9	95.4	89.9	85.7	91.0	83.8	82.3
Other Food			103.9	108.4	113.4	111.7	104.3	99.7	99.2	99.5	99.9	98.1
Raw Materials			95.4	91.9	91.1	85.5	84.0	85.1	83.3	84.3	83.4	82.0
Timber			102.6	104.9	106.3	99.9	95.7	96.2	96.9	97.1	97.3	96.5
Other Raw Materials			87.6	77.8	74.5	69.7	71.1	73.1	68.3	70.4	68.3	66.2
Fertilizers			113.7	100.5	101.5	102.1	99.3	95.6	94.4	94.9	94.8	93.4
Metals and Minerals			90.8	84.8	87.1	81.4	72.7	72.4	63.9	65.7	62.6	63.4
Base Metals		****	90.3	89.0	92.9	88.5	79.5	79.9	70.0	72.7	68.3	69.1
Precious Metals			115.1	101.1	102.8	94.2	95.6	93.5	87.4	87.9	87.0	87.3

Sources: 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 Commodities price forecasts, nominal U.S. dollars

Commodity	Unit	2013	2014	Forecasts						
				2015	2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	84.6	70.1	58.0	50.0	51.9	53.9	55.9	58.1	70.0
Crude oil, avg, spot	\$/bbl	104.1	96.2	52.5	51.4	54.6	57.9	61.5	65.3	88.3
Natural gas, Europe	\$/mmbtu	11.79	10.05	7.40	7.55	7.70	7.85	8.00	8.16	9.00
Natural gas, US	\$/mmbtu	3.73	4.37	2.80	3.02	3.26	3.52	3.80	4.10	6.00
Natural gas, Japan	\$/mmbtu	15.96	16.04	10.30	10.46	10.62	10.78	10.95	11.12	12.00
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.44	3.06	3.10	3.02	2.95	2.87	2.80	2.73	2.40
Coffee, Arabica	\$/kg	3.08	4.42	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Coffee, robusta	\$/kg	2.08	2.22	1.95	1.93	1.92	1.90	1.89	1.87	1.80
Tea, avgerage	\$/kg	2.86	2.72	2.70	2.74	2.78	2.81	2.85	2.89	3.10
Food										
Oils and Meals										
Coconut oil	\$/mt	941	1,280	1,100	1,090	1,079	1,069	1,059	1,049	1,000
Groundnut oil	\$/mt	1,773	1,313	1,345	1,377	1,410	1,443	1,477	1,512	1,700
Palm oil	\$/mt	857	821	615	631	648	665	683	701	800
Soybean meal	\$/mt	545	528	405	412	419	426	433	441	480
Soybean oil	\$/mt	1,057	909	755	777	799	821	845	869	1,000
Soybeans	\$/mt	538	492	390	401	413	425	438	450	520
Grains										
Barley	\$/mt	202	138	195	195	196	196	197	197	200
Maize	\$/mt	259	193	170	174	179	184	188	193	220
Rice, Thailand, 5%	\$/mt	506	423	385	387	390	392	395	397	410
Wheat, US, HRW	\$/mt	312	285	205	211	217	223	229	235	270
Other Food										
Bananas, EU	\$/kg	0.92	0.93	0.97	0.96	0.96	0.95	0.95	0.94	0.92
Meat, beef	\$/kg	4.07	4.95	4.55	4.51	4.48	4.44	4.41	4.37	4.20
Meat, chicken	\$/kg	2.29	2.43	2.50	2.47	2.44	2.41	2.38	2.35	2.20
Oranges	\$/kg	0.97	0.78	0.65	0.68	0.70	0.73	0.76	0.79	0.95
Shrimp	\$/kg	13.84	17.25	15.40	15.14	14.89	14.64	14.39	14.15	13.00
Sugar, World	\$/kg	0.39	0.37	0.29	0.29	0.30	0.31	0.32	0.33	0.38
Raw Materials										
Timber										
Logs, Africa	\$/cum	464	465	390	400	410	420	431	442	500
Logs, S.E. Asia	\$/cum	305	282	245	253	262	270	279	289	340
Saw nw ood, S.E. Asia	\$/cum	853	898	835	850	866	881	897	914	1,000
Other Raw Materials										
Cotton A	\$/kg	1.99	1.83	1.55	1.61	1.66	1.72	1.78	1.85	2.20
Rubber, RSS3	\$/kg	2.79	1.96	1.58	1.66	1.75	1.83	1.93	2.03	2.60
Tobacco	\$/mt	4,589	4,991	5,000	4,948	4,896	4,844	4,794	4,743	4,500
Fertilizers										
DAP	\$/mt	445	472	469	466	463	460	457	454	440
Phosphate rock	\$/mt	148	110	117	114	111	108	105	103	90
Potassium chloride	\$/mt	379	297	300	301	302	303	304	305	310
TSP	\$/mt	382	388	385	381	378	374	371	367	350
Urea, E. Europe	\$/mt	340	316	275	275	276	276	277	277	280
Metals and Minerals										
Aluminum	\$/mt	1,847	1,867	1,700	1,650	1,704	1,759	1,816	1,875	2,200
Copper	\$/mt	7,332	6,863	5,625	5,749	5,876	6,006	6,139	6,275	7,000
Iron ore	\$/dmt	135.4	96.9	58.0	59.5	61.1	62.6	64.3	66.0	75.0
Lead	\$/mt	2,140	2,095	1,800	1,836	1,874	1,912	1,950	1,990	2,200
Nickel	\$/mt	15,032	16,893	12,200	12,818	13,468	14,150	14,867	15,620	20,000
Tin	\$/mt	22,283	21,899	16,300	16,871	17,462	18,074	18,707	19,362	23,000
Zinc	\$/mt	1,910	2,161	1,980	2,100	2,131	2,163	2,196	2,228	2,400
Precious Metals										
Gold	\$/toz	1,411	1,266	1,175	1,156	1,138	1,120	1,102	1,084	1,000
Silver	\$/toz	23.85	19.07	16.00	16.10	16.20	16.29	16.39	16.49	17.00
Platinum	\$/toz	1,487	1,384	1,080	1,116	1,153	1,192	1,232	1,273	1,500

Next update: January 2016.

TABLE A.3 Commodity price forecasts, constant (2010) U.S. dollars

Commodity	Unit	2013	2014	Forecasts						
				2015	2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	79.7	66.2	54.9	46.5	47.4	48.5	49.5	50.6	56.1
Crude oil, avg. spot	\$/bbl	98.1	90.9	49.7	47.7	49.9	52.1	54.5	56.9	70.8
Natural gas, Europe	\$/mmbtu	11.11	9.49	7.00	7.01	7.03	7.06	7.09	7.11	7.22
Natural gas, US	\$/mmbtu	3.52	4.13	2.65	2.81	2.98	3.17	3.36	3.57	4.81
Natural gas, Japan	\$/mmbtu	15.04	15.15	9.75	9.72	9.71	9.70	9.69	9.69	9.62
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.30	2.89	2.93	2.81	2.69	2.58	2.48	2.38	1.92
Coffee, Arabica	\$/kg	2.90	4.18	3.31	3.25	3.20	3.15	3.10	3.05	2.81
Coffee, robusta	\$/kg	1.96	2.09	1.85	1.80	1.75	1.71	1.67	1.63	1.44
Tea, avgerage	\$/kg	2.70	2.57	2.56	2.54	2.54	2.53	2.53	2.52	2.49
Food										
Oils and Meals										
Coconut oil	\$/mt	887	1,209	1,041	1,012	986	962	937	914	802
Groundnut oil	\$/mt	1,672	1,240	1,273	1,279	1,288	1,298	1,308	1,318	1,363
Palm oil	\$/mt	808	776	582	587	592	599	605	611	642
Soybean meal	\$/mt	514	499	383	383	383	383	384	384	385
Soybean oil	\$/mt	996	859	715	721	730	739	748	757	802
Soybeans	\$/mt	508	464	369	373	378	382	387	392	417
Grains										
Barley	\$/mt	191	130	185	182	179	177	174	172	160
Maize	\$/mt	245	182	161	162	164	165	167	169	176
Rice, Thailand, 5%	\$/mt	477	399	364	360	356	353	350	346	329
Wheat, US, HRW	\$/mt	294	269	194	196	198	200	203	205	217
Other Food										
Bananas, EU	\$/kg	0.87	0.88	0.92	0.90	0.88	0.86	0.84	0.82	0.74
Meat, beef	\$/kg	3.84	4.67	4.31	4.19	4.09	4.00	3.90	3.81	3.37
Meat, chicken	\$/kg	2.16	2.29	2.37	2.29	2.23	2.16	2.10	2.04	1.76
Oranges	\$/kg	0.91	0.74	0.62	0.63	0.64	0.66	0.67	0.68	0.76
Shrimp	\$/kg	13.05	16.29	14.58	14.07	13.61	13.17	12.74	12.33	10.43
Sugar, World	\$/kg	0.37	0.35	0.27	0.27	0.28	0.28	0.28	0.29	0.30
Raw Materials										
Timber										
Logs, Africa	\$/cum	437	439	369	371	375	378	381	385	401
Logs, S.E. Asia	\$/cum	288	266	232	235	239	243	247	252	273
Saw nw ood, S.E. Asia	\$/cum	804	848	790	790	791	793	795	796	802
Other Raw Materials										
Cotton A	\$/kg	1.88	1.73	1.47	1.49	1.52	1.55	1.58	1.61	1.76
Rubber, RSS3	\$/kg	2.63	1.85	1.50	1.54	1.60	1.65	1.71	1.77	2.09
Tobacco	\$/mt	4,327	4,714	4,733	4,597	4,474	4,358	4,244	4,134	3,609
Fertilizers										
DAP	\$/mt	419	446	444	433	423	414	405	396	353
Phosphate rock	\$/mt	140	104	111	106	101	97	93	89	72
Potassium chloride	\$/mt	357	281	284	280	276	273	269	266	249
TSP	\$/mt	360	367	364	354	345	337	328	320	281
Urea, E. Europe	\$/mt	321	299	260	256	252	249	245	242	225
Metals and Minerals										
Aluminum	\$/mt	1,741	1,764	1,609	1,533	1,557	1,582	1,608	1,634	1,764
Copper	\$/mt	6,913	6,482	5,324	5,341	5,371	5,403	5,435	5,468	5,614
Iron ore	\$/dmt	127.6	91.6	54.9	55.3	55.8	56.4	56.9	57.5	60.2
Lead	\$/mt	2,018	1,979	1,704	1,706	1,712	1,720	1,727	1,734	1,764
Nickel	\$/mt	14,173	15,955	11,548	11,909	12,309	12,728	13,163	13,612	16,041
Tin	\$/mt	21,010	20,683	15,428	15,674	15,959	16,257	16,563	16,873	18,447
Zinc	\$/mt	1,801	2,041	1,874	1,951	1,948	1,946	1,944	1,942	1,925
Precious Metals										
Gold	\$/toz	1,331	1,195	1,112	1,074	1,040	1,007	975	945	802
Silver	\$/toz	22.49	18.01	15.14	14.96	14.80	14.66	14.51	14.37	13.63
Platinum	\$/toz	1,402	1,307	1,022	1,037	1,054	1,072	1,090	1,109	1,203

Sources and Notes: See Appendix C.

Next update: January 2016.

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

Commodity	Unit	2013	2014	Forecasts						
				2015	2016	2017	2018	2019	2020	2025
Nominal US dollars (2010=100)										
Energy		127.4	118.3	67.1	65.9	69.8	73.9	78.3	82.9	111.1
Non-energy commodities		101.7	97.0	83.0	84.0	85.4	86.8	88.2	89.8	98.2
Agriculture		106.3	102.7	89.4	90.6	91.8	93.0	94.4	95.7	103.3
Beverages		83.3	101.8	92.9	92.1	91.4	90.6	89.9	89.3	86.2
Food		115.6	107.4	91.0	92.4	93.8	95.3	96.8	98.3	106.8
Oils and meals		115.9	109.0	85.6	87.5	89.6	91.6	93.8	95.9	107.7
Grains		128.2	103.9	88.8	90.6	92.5	94.3	96.3	98.2	108.8
Other food		103.9	108.4	100.2	100.4	100.6	100.9	101.2	101.5	103.8
Raw materials		95.4	91.9	83.7	85.3	87.1	88.9	90.8	92.7	103.5
Timber		102.6	104.9	96.1	98.2	100.3	102.4	104.6	106.8	118.8
Other Raw Materials		87.6	77.8	70.0	71.3	72.6	74.1	75.6	77.2	86.7
Fertilizers		113.7	100.5	95.5	95.0	94.5	94.0	93.6	93.1	91.1
Metals and minerals *		90.8	84.8	68.5	69.2	71.1	73.1	75.1	77.2	88.5
Base Metals **		90.3	89.0	75.2	75.9	77.9	80.1	82.3	84.6	97.2
Precious Metals		115.1	101.1	91.9	90.8	89.8	88.8	87.9	86.9	82.5
Constant 2010 US dollars (2010=100), deflated by the MUV Index										
Energy		120.1	111.7	63.5	61.2	63.8	66.5	69.3	72.3	89.1
Non-energy commodities		95.9	91.6	78.6	78.0	78.0	78.1	78.1	78.2	78.8
Agriculture		100.2	97.0	84.6	84.1	83.9	83.7	83.5	83.4	82.9
Beverages		78.5	96.1	87.9	85.6	83.5	81.5	79.6	77.8	69.2
Food		109.0	101.4	86.2	85.8	85.7	85.7	85.7	85.7	85.7
Oils and meals		109.3	103.0	81.0	81.3	81.8	82.4	83.0	83.6	86.4
Grains		120.9	98.1	84.1	84.2	84.5	84.9	85.2	85.6	87.3
Other food		98.0	102.3	94.8	93.3	92.0	90.7	89.6	88.5	83.2
Raw materials		90.0	86.8	79.2	79.3	79.6	79.9	80.3	80.8	83.0
Timber		96.7	99.0	91.0	91.2	91.7	92.1	92.6	93.1	95.3
Other Raw Materials		82.6	73.5	66.3	66.2	66.4	66.6	66.9	67.3	69.6
Fertilizers		107.2	94.9	90.4	88.2	86.4	84.6	82.9	81.2	73.1
Metals and minerals *		85.6	80.1	64.8	64.3	65.0	65.7	66.5	67.3	71.0
Base Metals **		85.2	84.1	71.1	70.5	71.2	72.1	72.9	73.7	77.9
Precious Metals		108.5	95.5	87.0	84.4	82.1	79.9	77.8	75.8	66.2
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

Sources: 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 2016.



APPENDIX B

Commodity Balances

Energy

Coal
Crude oil
Natural gas

Agriculture

Cocoa
Coffee
Soybeans
Palm oil & Soybean oil
Maize
Rice
Wheat
Sugar
Industrial roundwood &
Sawnwood
Wood-based panels &
Woodpulp
Cotton
Natural rubber

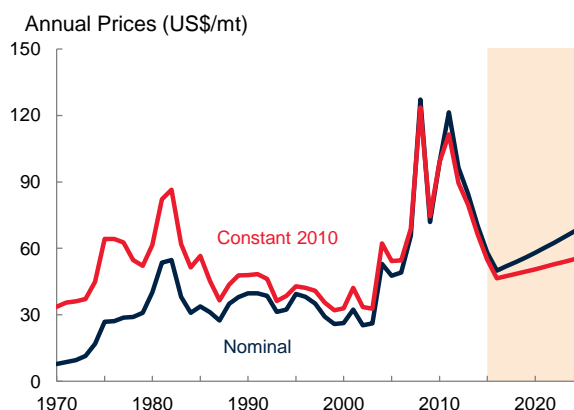
Metals

Aluminum
Copper
Lead
Nickel
Tin
Zinc

Coal



Source: World Bank.
Note: Last observation is September 2015.



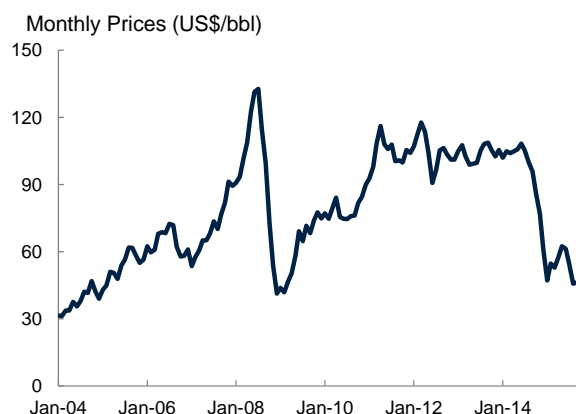
Source: World Bank.
Note: 2015-25 are forecasts.

	1981	1990	2000	2005	2010	2011	2012	2013	2014
Production (million metric tons oil equivalent)									
China	311	540	707	1,241	1,665	1,853	1,872	1,894	1,845
United States	463	566	570	580	551	556	518	501	508
Indonesia	0	7	47	94	169	217	237	276	282
Australia	65	109	167	206	241	233	250	268	281
India	63	92	132	162	218	216	229	229	244
Russian Federation	n/a	178	117	140	151	159	170	169	171
South Africa	75	100	127	138	144	143	147	145	148
Colombia	3	14	25	38	48	56	58	56	58
Kazakhstan	n/a	68	38	44	54	56	59	58	55
Poland	98	94	71	69	55	57	59	58	55
Germany	149	125	61	57	46	47	48	45	44
Canada	23	40	39	35	35	35	36	37	37
Ukraine	n/a	84	42	41	40	44	45	44	32
Vietnam	3	3	7	19	25	26	24	23	23
Turkey	7	12	12	11	18	18	17	15	18
Czech Republic	43	37	25	24	21	22	21	18	17
United Kingdom	76	55	19	12	11	11	10	8	7
Mexico	2	3	5	6	7	9	7	8	7
Greece	3	7	8	9	7	8	8	7	6
Bulgaria	5	5	4	4	5	6	6	5	5
Thailand	0	4	5	6	5	6	5	5	5
Romania	8	9	6	7	6	7	6	5	4
Brazil	3	2	3	2	2	2	3	3	3
Others	n/a	111	71	72	79	83	79	86	80
World	1,855	2,265	2,310	3,018	3,604	3,869	3,913	3,961	3,933
Consumption (million metric tons oil equivalent)									
China	303	525	700	1,318	1,741	1,896	1,922	1,961	1,962
United States	401	483	569	574	525	495	438	455	453
India	63	95	144	184	260	270	302	324	360
Japan	64	76	99	121	124	118	124	129	127
South Africa	51	67	75	80	93	90	88	89	89
Russian Federation	n/a	182	106	95	91	94	98	91	85
Korea, Rep.	15	24	43	55	76	84	81	82	85
Germany	144	132	85	81	77	78	80	82	77
Indonesia	0	3	13	24	39	47	53	58	61
Poland	91	80	58	56	56	56	54	56	53
Australia	27	37	48	54	51	50	47	45	44
Taiwan, China	4	11	29	38	40	41	41	41	41
Turkey	7	16	23	22	31	34	36	32	36
Kazakhstan	n/a	40	23	27	32	34	37	36	35
Ukraine	n/a	75	39	38	38	41	43	41	33
Others	n/a	386	316	354	337	348	352	347	341
World	1,834	2,233	2,369	3,122	3,611	3,777	3,799	3,867	3,882

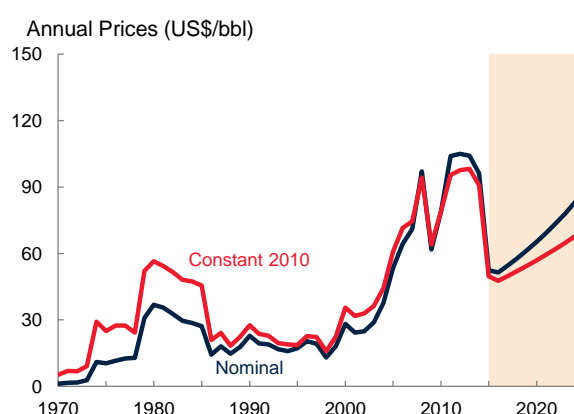
Source: BP Statistical Review of World Energy.

Note: 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.

Crude oil



Source: World Bank.
Note: Last observation is September 2015.



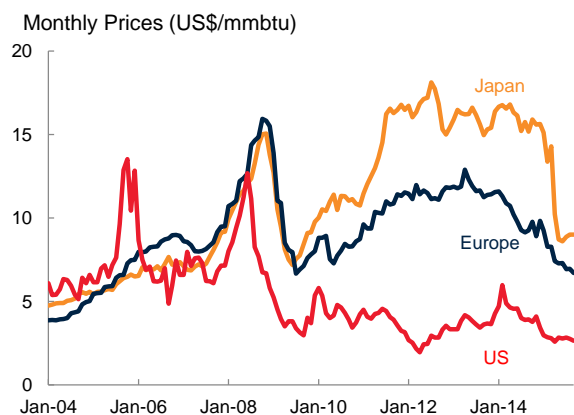
Source: World Bank.
Note: 2015-25 are forecasts.

	1970	1980	1990	2000	2010	2011	2012	2013	2014
Production (thousand barrels per day)									
United States	11,297	10,170	8,914	7,732	7,556	7,861	8,904	10,069	11,644
Saudi Arabia	3,851	10,270	7,105	9,470	10,075	11,144	11,635	11,393	11,505
Russian Federation	n/a	n/a	10,342	6,583	10,366	10,516	10,640	10,777	10,838
Canada	1,473	1,764	1,968	2,703	3,332	3,515	3,740	3,977	4,292
China	616	2,122	2,778	3,257	4,077	4,074	4,155	4,216	4,246
United Arab Emirates	762	1,745	2,283	2,660	2,895	3,325	3,406	3,648	3,712
Iran, Islamic Rep.	3,848	1,479	3,270	3,852	4,352	4,373	3,742	3,525	3,614
Iraq	1,549	2,658	2,149	2,613	2,490	2,801	3,116	3,141	3,285
Kuwait	3,036	1,757	964	2,244	2,562	2,915	3,172	3,135	3,123
Mexico	487	2,129	2,941	3,456	2,959	2,940	2,911	2,875	2,784
Venezuela, RB	3,754	2,228	2,244	3,097	2,838	2,734	2,704	2,687	2,719
Nigeria	1,084	2,059	1,870	2,159	2,509	2,450	2,395	2,302	2,361
Brazil	167	188	650	1,271	2,137	2,193	2,149	2,114	2,346
Qatar	363	476	434	853	1,655	1,850	1,968	1,998	1,982
Norway	0	528	1,716	3,346	2,136	2,040	1,917	1,838	1,895
Angola	103	150	475	746	1,863	1,726	1,784	1,799	1,712
Kazakhstan	n/a	n/a	571	740	1,672	1,684	1,662	1,720	1,701
Algeria	1,052	1,139	1,347	1,549	1,689	1,642	1,537	1,485	1,525
Colombia	226	131	446	687	786	915	944	1,004	990
Oman	332	285	695	961	865	885	918	942	943
India	140	193	715	726	882	916	906	906	895
Indonesia	854	1,577	1,539	1,456	1,003	952	918	882	852
United Kingdom	4	1,676	1,933	2,714	1,361	1,116	949	867	850
Others	n/a	n/a	8,037	10,051	11,128	9,413	9,977	9,280	8,857
World	48,056	62,959	65,385	74,925	83,190	83,980	86,150	86,579	88,673
Consumption (thousand barrels per day)									
United States	14,710	17,062	16,988	19,701	19,180	18,882	18,490	18,961	19,035
China	556	1,690	2,320	4,766	9,266	9,791	10,231	10,664	11,056
Japan	3,876	4,905	5,240	5,542	4,442	4,439	4,688	4,521	4,298
India	391	644	1,213	2,261	3,319	3,488	3,685	3,727	3,846
Brazil	523	1,163	1,478	2,056	2,701	2,813	2,860	3,048	3,229
Russian Federation	n/a	n/a	5,042	2,542	2,895	3,096	3,137	3,179	3,196
Saudi Arabia	408	607	1,158	1,578	2,793	2,838	2,991	3,000	3,185
Korea, Rep.	162	476	1,042	2,263	2,370	2,394	2,458	2,455	2,456
Germany	2,774	3,020	2,689	2,746	2,445	2,369	2,356	2,408	2,371
Canada	1,472	1,898	1,747	2,043	2,316	2,404	2,372	2,383	2,371
Iran, Islamic Rep.	222	591	1,070	1,457	1,874	1,910	1,928	2,038	2,024
Mexico	412	1,048	1,580	1,965	2,014	2,043	2,063	2,020	1,941
Indonesia	138	396	653	1,137	1,458	1,567	1,599	1,615	1,641
France	1,867	2,221	1,895	1,994	1,763	1,730	1,676	1,664	1,615
United Kingdom	2,030	1,647	1,754	1,704	1,588	1,532	1,520	1,494	1,501
Others	n/a	n/a	20,868	23,112	27,442	27,679	27,789	28,065	28,320
World	45,348	61,233	66,737	76,868	87,867	88,974	89,846	91,243	92,086

Source: BP Statistical Review of World Energy.

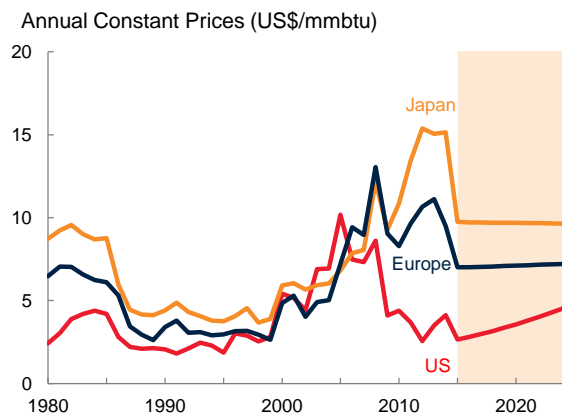
Note: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as bio-

Natural gas



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1970	1980	1990	2000	2010	2011	2012	2013	2014
Production (billion cubic metres)									
United States	595	549	504	543	604	649	681	689	728
Russian Federation	n/a	n/a	590	529	589	607	592	605	579
Qatar	1	5	6	24	126	161	170	176	177
Iran, Islamic Rep.	4	5	26	60	152	160	166	164	173
Canada	57	75	109	182	160	160	156	156	162
China	3	15	16	28	99	109	114	125	134
Norway	0	25	25	50	107	101	115	109	109
Saudi Arabia	2	10	34	50	88	92	99	100	108
Algeria	3	14	49	84	80	83	82	82	83
Indonesia	1	19	44	70	86	81	77	72	73
Turkmenistan	n/a	n/a	79	43	42	60	62	62	69
Malaysia	0	2	17	47	63	62	62	67	66
Mexico	11	26	27	38	58	58	57	58	58
United Arab Emirates	1	8	20	38	51	52	54	55	58
Uzbekistan	n/a	n/a	37	51	54	57	57	57	57
Netherlands	27	76	61	58	71	64	64	69	56
Australia	2	11	21	31	46	47	52	53	55
Egypt, Arab Rep.	0	2	8	21	61	61	61	56	49
Thailand	0	0	7	20	36	37	41	42	42
Trinidad & Tobago	2	3	5	16	45	43	43	43	42
Pakistan	3	7	12	22	42	42	44	43	42
Nigeria	0	2	4	12	37	41	43	36	39
United Kingdom	10	35	45	108	57	45	39	36	37
Others	n/a	n/a	236	293	448	443	450	454	464
World	992	1,435	1,983	2,416	3,203	3,316	3,380	3,409	3,461
Consumption (billion cubic metres)									
United States	599	563	543	661	682	693	723	740	759
Russian Federation	n/a	n/a	408	360	414	425	416	413	409
China	3	15	16	25	110	135	151	171	185
Iran, Islamic Rep.	3	5	24	63	153	162	162	159	170
Japan	3	24	48	72	95	105	114	114	112
Saudi Arabia	2	10	34	50	88	92	99	100	108
Canada	36	52	67	93	95	101	100	104	104
Mexico	10	23	28	41	72	77	80	85	86
Germany	15	57	60	79	83	75	78	82	71
United Arab Emirates	1	5	17	31	61	63	66	67	69
United Kingdom	11	45	52	97	94	78	74	73	67
Italy	14	25	43	65	76	71	69	64	57
Thailand	0	0	7	22	45	47	51	52	53
India	1	1	12	26	63	64	59	51	51
Uzbekistan	n/a	n/a	36	46	41	48	47	47	49
Others	n/a	n/a	565	686	1,021	1,030	1,057	1,058	1,042
World	980	1,436	1,958	2,418	3,194	3,265	3,346	3,381	3,393

Source: BP Statistical Review of World Energy.

Note: n/a implies data not available.

Cocoa

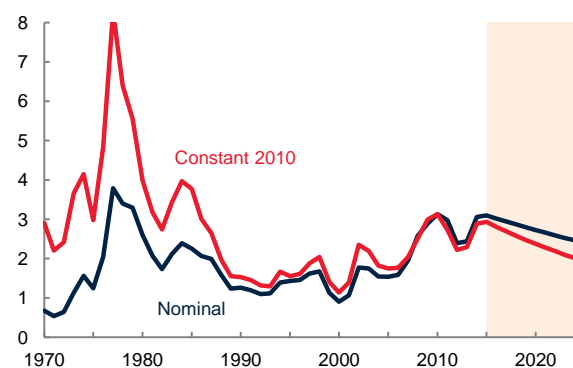
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2015.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2015-25 are forecasts.

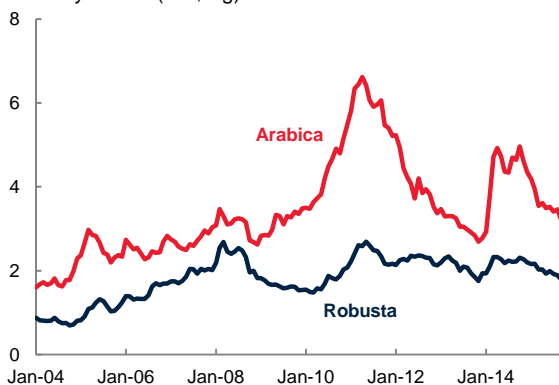
	1970/71	1980/81	1990/91	2000/01	2010/11	2011/12	2012/13	2013/14	2014/15
Production (thousand metric tons)									
Côte d'Ivoire	179.6	417.2	804.4	1,212.4	1,511.3	1,485.9	1,449.0	1,746.2	1,750.0
Ghana	406.0	258.0	293.4	395.0	1,024.6	879.3	835.5	896.9	695.7
Indonesia	1.7	12.4	150.0	385.0	440.0	440.0	410.0	375.0	350.0
Ecuador	71.6	86.7	111.1	88.9	160.5	198.0	191.5	234.0	250.0
Cameroon	112.0	117.1	115.0	133.0	228.5	206.5	225.0	211.0	230.0
Brazil	182.4	353.0	368.1	162.8	199.8	220.0	185.3	228.2	230.0
Nigeria	304.8	155.9	160.0	180.0	240.0	245.0	238.0	248.0	210.0
Peru	2.0	7.0	11.0	16.9	54.4	60.6	69.8	76.3	78.0
Dominican Republic	34.6	34.5	42.0	44.9	54.3	72.2	68.0	70.0	70.0
Colombia	21.0	38.3	52.0	37.1	35.2	42.6	48.4	48.8	51.0
Others	212.3	213.9	399.8	195.5	360.6	245.2	224.7	235.7	243.1
World	1,528.0	1,694.0	2,506.8	2,851.5	4,309.0	4,095.4	3,945.2	4,370.1	4,157.7
Grindings (thousand metric tons)									
Côte d'Ivoire	34.7	60.0	118.1	285.0	360.9	430.7	471.1	519.4	560.0
Netherlands	116.4	139.6	267.7	451.9	540.0	500.0	545.0	528.5	515.5
United States	278.7	185.6	267.9	444.7	401.3	386.9	429.2	446.0	406.0
Germany	150.7	180.0	294.2	226.6	438.5	407.0	402.0	412.0	404.0
Indonesia	1.2	10.0	32.0	83.0	190.0	270.0	257.0	322.0	312.0
Brazil	66.6	191.3	260.0	194.5	239.1	242.5	241.2	239.6	220.0
Others	782.7	799.5	1,084.8	1,355.4	1,768.2	1,734.7	1,794.3	1,836.1	1,713.6
World	1,431.0	1,566.0	2,324.7	3,041.1	3,938.1	3,971.8	4,139.7	4,303.5	4,131.1
Exports (thousand metric tons)									
Côte d'Ivoire	138.0	405.6	688.1	903.4	1,079.3	1,000.0	1,045.2	1,191.8	n/a
Ghana	347.6	181.8	245.2	306.8	694.4	684.4	600.6	709.2	n/a
Ecuador	46.5	19.0	55.9	57.2	135.7	166.1	165.4	196.8	n/a
Nigeria	215.5	75.9	142.0	149.4	219.0	199.8	182.9	190.1	n/a
Cameroon	74.6	96.0	96.3	101.6	204.1	172.7	186.4	160.0	n/a
Indonesia	0.6	6.3	113.4	326.5	275.2	183.8	173.6	99.0	n/a
Others	296.2	315.3	396.2	141.9	388.3	310.4	288.7	371.7	n/a
World	1,118.9	1,099.8	1,737.1	1,986.7	2,995.9	2,717.1	2,642.9	2,918.5	n/a
Imports (thousand metric tons)									
Netherlands	116.2	167.0	267.0	549.0	805.5	677.1	671.9	632.5	n/a
United States	269.0	246.3	319.7	354.7	472.0	419.8	427.9	475.2	n/a
Germany	154.7	187.4	299.9	228.2	433.8	376.6	272.6	318.2	n/a
Malaysia	0.9	n/a	0.9	109.6	320.4	356.3	305.4	315.4	n/a
Belgium	18.4	28.0	49.7	101.3	193.8	192.0	224.6	258.0	n/a
France	41.7	58.8	74.1	157.2	149.2	133.2	114.0	141.3	n/a
Spain	33.8	36.9	45.4	48.8	87.9	90.9	99.0	107.5	n/a
Italy	41.2	31.7	56.2	72.2	85.7	88.2	87.7	89.5	n/a
Turkey	1.2	2.0	5.9	39.1	71.1	84.6	78.3	87.8	n/a
Singapore	2.6	21.8	126.6	67.0	87.8	85.5	79.9	80.7	n/a
Others	459.7	418.2	516.0	682.3	649.4	682.5	635.0	659.3	n/a
World	1,139.4	1,198.1	1,761.4	2,409.5	3,356.6	3,186.8	2,996.2	3,165.5	n/a

Source: Quarterly Bulletin of Cocoa Statistics.

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

Coffee

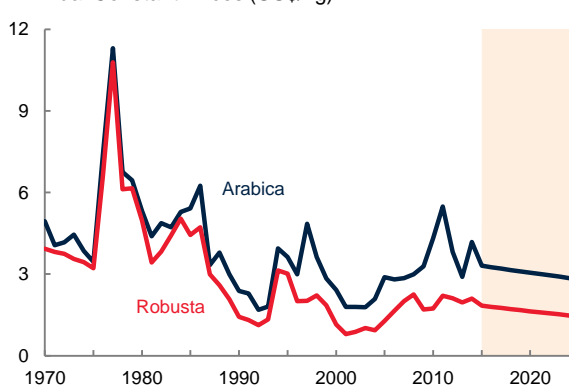
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2015.

Annual Constant Prices (US\$/kg)



Source: World Bank.

Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (thousand 60kg bags)									
Brazil	11,000	21,500	31,000	34,100	54,500	57,600	56,000	51,200	52,400
Vietnam	56	77	1,200	15,333	19,415	26,500	29,833	28,167	28,600
Colombia	8,000	13,500	14,500	10,500	8,525	9,927	12,075	12,500	13,000
Indonesia	2,330	5,365	7,480	6,495	9,325	10,500	9,500	8,800	11,000
Ethiopia	2,589	3,264	3,500	2,768	6,125	6,325	6,345	6,475	6,500
Honduras	545	1,265	1,685	2,821	3,975	4,725	4,400	5,200	5,900
India	1,914	1,977	2,970	5,020	5,035	5,303	5,075	5,100	5,200
Uganda	2,667	2,133	2,700	3,097	3,212	3,600	3,850	3,550	3,800
Peru	1,114	1,170	1,170	2,824	4,100	4,300	4,250	2,800	3,500
Mexico	3,200	3,862	4,550	4,800	4,000	4,650	3,950	3,300	3,300
Guatemala	1,965	2,702	3,282	4,564	3,960	4,010	3,415	3,215	3,215
Nicaragua	641	971	460	1,610	1,740	1,925	1,900	2,050	2,150
Malaysia	66	88	75	700	1,100	1,400	1,500	1,750	1,800
Costa Rica	1,295	2,140	2,565	2,502	1,575	1,675	1,450	1,400	1,350
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,750	1,675	1,400	1,325
Tanzania, United Rep.	909	1,060	763	809	1,050	1,180	800	1,150	1,250
Thailand	19	201	785	1,692	850	850	850	900	900
Kenya	999	1,568	1,455	864	710	660	850	900	900
Papua New Guinea	401	880	964	1,041	865	825	855	810	850
Others	15,496	16,361	15,777	10,577	8,755	7,063	5,735	5,596	5,711
World	59,202	86,174	100,181	117,217	140,417	154,768	154,308	146,263	152,651
Consumption (thousand 60kg bags)									
European Union	n/a	n/a	n/a	n/a	41,350	43,270	41,405	43,875	43,900
United States	n/a	n/a	n/a	n/a	22,383	23,027	23,811	23,974	23,700
Brazil	8,890	7,975	9,000	13,100	19,420	20,110	20,210	20,330	20,580
Japan	n/a	n/a	n/a	n/a	7,015	7,505	7,750	7,775	7,790
Canada	n/a	n/a	n/a	n/a	4,245	4,230	4,605	4,650	4,975
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,260	4,365	4,565	4,940
Philippines	496	432	810	900	2,825	4,405	3,595	3,800	3,900
Indonesia	888	1,228	1,295	1,335	1,690	2,670	2,790	2,990	3,150
Ethiopia	1,170	1,600	1,900	1,667	2,860	3,055	3,120	2,985	2,972
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	1,825	2,160	2,240	2,350
Algeria	n/a	n/a	n/a	n/a	1,815	1,945	2,300	2,130	2,280
Mexico	1,512	1,500	1,400	978	2,470	2,030	2,310	1,940	2,273
Vietnam	31	35	100	417	1,337	1,825	2,008	2,080	2,160
China	n/a	n/a	n/a	n/a	965	1,560	1,705	1,660	1,765
Australia	n/a	n/a	n/a	n/a	1,445	1,660	1,615	1,595	1,680
Thailand	93	118	160	500	683	1,130	1,260	1,545	1,450
Switzerland	n/a	n/a	n/a	n/a	1,570	1,500	1,410	1,425	1,400
Colombia	1,349	1,825	1,615	1,530	1,120	1,200	1,300	1,405	1,300
India	665	887	1,224	959	1,231	1,100	1,200	1,200	1,250
Others	n/a	n/a	n/a	n/a	13,846	14,224	13,843	13,809	13,869
World	n/a	n/a	n/a	n/a	134,535	142,531	142,762	145,973	147,684

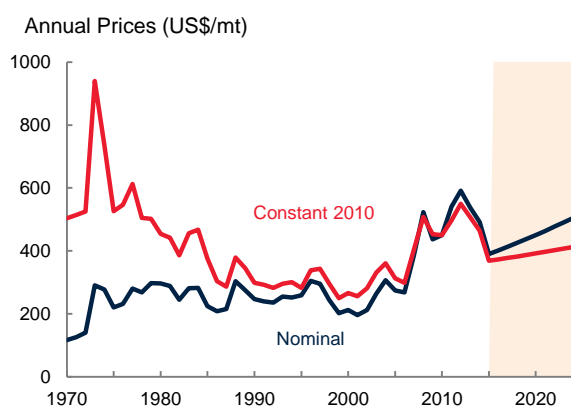
Source: U.S. Department of Agriculture (October 2015 update).

Note: n/a implies data not available.

Soybeans



Source: World Bank.
Note: Last observation is September 2015.



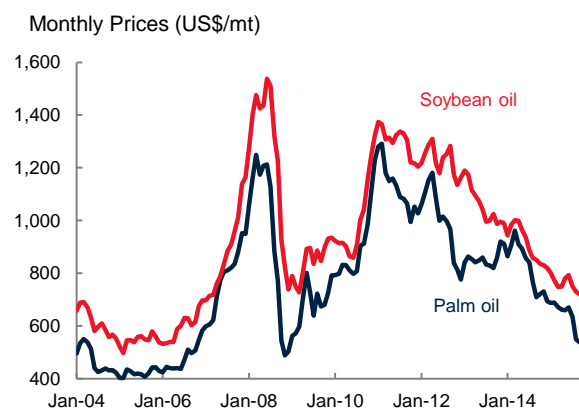
Source: World Bank.
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million metric tons)									
United States	30.7	48.9	52.4	75.1	90.7	82.8	91.4	106.9	105.8
Brazil	0.0	15.2	15.8	39.5	75.3	82.0	86.7	96.2	100.0
Argentina	0.0	3.5	11.5	27.8	49.0	49.3	53.5	60.8	57.0
China	8.7	7.9	11.0	15.4	15.1	13.1	12.2	12.4	11.5
India	0.0	0.4	2.6	5.3	10.1	12.2	9.5	9.0	11.0
Paraguay	0.1	0.6	1.3	3.5	7.1	8.2	8.2	8.1	8.8
Canada	0.3	0.7	1.3	2.7	4.4	5.1	5.4	6.0	6.0
Ukraine	n/a	n/a	0.1	0.1	1.7	2.4	2.8	3.9	3.6
Uruguay	0.0	0.0	0.0	0.0	1.9	3.7	3.3	3.5	3.5
Bolivia	0.0	0.0	0.4	1.2	2.3	2.6	2.4	2.7	3.1
Others	2.4	3.5	7.9	5.4	6.8	7.5	7.8	9.5	10.2
World	42.1	80.9	104.3	175.8	264.3	268.8	283.1	318.9	320.5
Crushings (million metric tons)									
China	1.5	1.5	3.9	18.9	55.0	65.0	68.9	74.2	79.5
United States	20.7	27.8	32.3	44.6	44.9	46.0	47.2	51.0	51.2
Argentina	0.0	0.9	7.0	17.3	37.6	33.6	36.2	40.0	41.5
Brazil	0.0	13.8	14.2	22.7	36.3	35.2	36.9	39.5	39.6
European Union	7.3	14.1	13.0	16.8	12.4	13.2	13.4	14.0	14.7
India	0.0	0.4	2.4	4.5	9.3	9.9	8.3	7.1	8.7
Mexico	0.3	1.5	1.9	4.5	3.6	3.7	4.0	4.3	4.4
Russian Federation	n/a	n/a	0.4	0.4	2.2	2.4	3.3	3.9	4.1
Paraguay	0.1	0.0	0.3	0.9	1.6	3.0	3.4	3.7	4.1
Bolivia	0.0	0.0	0.3	0.9	1.8	2.2	2.3	2.3	2.5
Others	12.7	23.8	24.1	15.0	16.5	16.2	17.3	20.6	22.3
World	42.5	83.9	99.8	146.4	221.2	230.2	241.1	260.5	272.4
Exports (million metric tons)									
Brazil	0.0	1.8	2.5	15.5	30.0	41.9	46.8	51.1	56.5
United States	11.8	19.7	15.2	27.1	41.0	36.1	44.6	50.2	45.6
Argentina	0.0	2.7	4.5	7.3	9.2	7.7	7.8	9.6	9.8
Paraguay	0.0	0.6	1.0	2.5	5.2	5.5	4.8	4.4	4.6
Canada	0.0	0.1	0.2	0.7	2.9	3.5	3.5	3.9	3.9
Others	0.5	0.4	2.1	0.7	3.4	6.1	5.1	6.9	6.5
World	12.3	25.3	25.4	53.8	91.7	100.8	112.6	126.1	126.8
Imports (million metric tons)									
China	0.0	0.5	0.0	13.2	52.3	59.9	70.4	77.0	79.0
European Union	7.4	13.6	13.2	17.7	12.5	12.5	13.0	13.6	13.6
Mexico	0.1	1.4	1.4	4.4	3.5	3.4	3.8	4.0	4.1
Japan	3.2	4.2	4.4	4.8	2.9	2.8	2.9	3.0	2.9
Taiwan, China	0.0	1.1	2.2	2.3	2.5	2.3	2.3	2.4	2.4
Turkey	0.0	0.0	0.0	0.4	1.4	1.2	1.6	2.1	2.3
Indonesia	0.0	0.4	0.5	1.1	1.9	1.8	2.2	2.1	2.3
Others	8.8	18.7	17.1	9.2	11.9	12.0	15.0	16.1	17.4
World	19.5	39.8	38.8	53.1	88.8	95.9	111.3	120.2	123.9

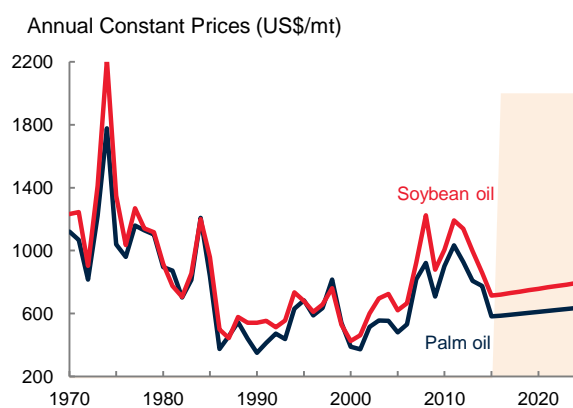
Source: U.S. Department of Agriculture (October 2015 update).

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.

Palm oil and Soybean oil



Source: World Bank.
Note: Last observation is September 2015.



Source: World Bank.
Note: 2015-25 are forecasts.

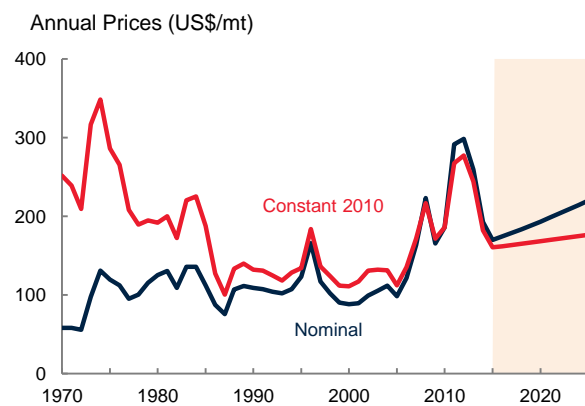
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Palm oil: production (thousand metric tons)									
Indonesia	248	752	2,650	8,300	23,600	28,500	30,500	33,000	35,000
Malaysia	589	2,692	6,031	11,937	18,211	19,321	20,161	19,800	21,000
Thailand	0	19	200	580	1,832	2,135	2,000	1,800	2,200
Colombia	36	80	252	520	753	974	1,041	1,110	1,130
Nigeria	432	520	600	730	971	970	970	970	970
Ecuador	5	44	150	222	380	540	565	575	600
Papua New Guinea	0	45	145	336	488	520	500	500	520
Ghana	21	19	24	108	426	471	493	495	500
Honduras	0	18	64	148	320	425	450	470	490
Guatemala	0	0	6	124	231	365	420	440	460
Others	591	707	912	1,234	2,027	2,201	2,289	2,295	2,325
World	1,922	4,896	11,034	24,239	49,239	56,422	59,389	61,455	65,195
Palm oil: consumption (thousand metric tons)									
India	1	431	259	4,100	7,090	8,250	8,384	9,200	9,950
Indonesia	29	561	1,330	3,263	6,414	7,852	8,900	7,620	9,220
European Union	595	607	1,509	2,790	5,110	6,560	6,790	6,700	6,850
China	53	16	1,194	2,028	5,797	6,389	5,669	5,580	5,750
Malaysia	8	420	914	1,571	2,204	2,451	2,868	3,060	3,370
Pakistan	1	231	800	1,245	2,077	2,285	2,490	2,690	2,945
Others	1,707	3,104	6,658	8,618	19,126	21,364	22,741	23,945	25,447
World	2,394	5,370	12,664	23,615	47,818	55,151	57,842	58,795	63,532
Soybean oil: production (thousand metric tons)									
China	181	183	599	3,240	9,840	11,626	12,335	13,280	14,230
United States	3,749	5,112	6,082	8,355	8,568	8,990	9,131	9,720	9,859
Argentina	0	158	1,179	3,190	7,181	6,364	6,785	7,630	7,860
Brazil	n/a	2,601	2,669	4,333	6,970	6,760	7,070	7,580	7,590
European Union	1,260	2,478	2,317	3,033	2,362	2,501	2,553	2,660	2,795
India	2	69	425	805	1,646	1,752	1,478	1,255	1,540
Paraguay	10	6	56	174	300	564	640	697	783
Mexico	52	255	330	795	648	653	720	765	780
Others	2,205	4,191	4,425	2,888	3,841	3,884	4,271	4,982	5,359
World	7,459	15,053	18,082	26,813	41,356	43,094	44,983	48,569	50,796
Soybean oil: consumption (thousand metric tons)									
China	179	256	1,055	3,542	11,409	12,545	13,657	14,193	15,237
United States	2,854	4,134	5,506	7,401	7,619	8,476	8,599	8,709	8,868
Brazil	n/a	1,490	2,075	2,932	5,205	5,534	5,705	6,205	6,275
India	79	708	445	2,080	2,610	2,950	3,300	3,900	4,400
Argentina	0	56	101	247	2,520	2,275	2,729	2,651	2,660
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	860	890	1,001	1,010
Iran, Islamic Rep.	95	343	431	873	646	630	635	665	695
Others	2,699	5,120	5,417	6,335	7,358	7,422	7,799	8,487	8,856
World	7,128	14,338	17,313	26,459	40,737	42,600	45,284	47,811	50,001

Source: U.S. Department of Agriculture (October 2015 update).
Note: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

Maize



Source: World Bank.
Note: Last observation is September 2015.



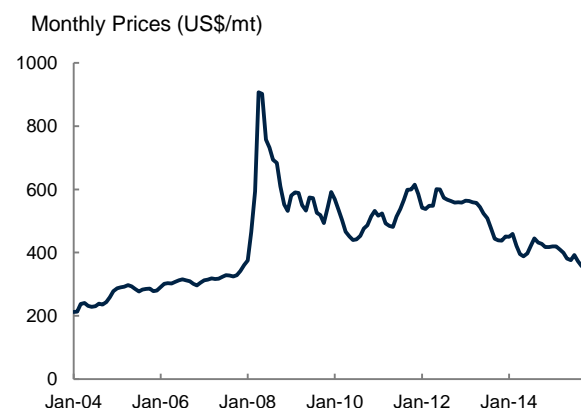
Source: World Bank.
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million metric tons)									
United States	105.5	168.6	201.5	251.9	315.6	273.2	351.3	361.1	344.3
China	33.0	62.6	96.8	106.0	177.2	205.6	218.5	215.7	225.0
Brazil	14.1	22.6	24.3	41.5	57.4	81.5	80.0	85.0	80.0
European Union	29.8	42.5	36.6	51.9	58.3	58.9	64.6	75.7	58.0
Ukraine	n/a	n/a	4.7	3.8	11.9	20.9	30.9	28.5	25.0
Argentina	9.9	12.9	7.7	15.4	25.2	27.0	26.0	26.5	24.0
Mexico	8.9	10.4	14.1	17.9	21.1	21.6	22.9	25.0	23.5
India	7.5	7.0	9.0	12.0	21.7	22.3	24.3	23.7	23.0
South Africa	8.6	14.9	8.6	8.0	10.9	12.4	14.9	10.8	13.5
Russian Federation	n/a	n/a	2.5	1.5	3.1	8.2	11.6	11.3	13.5
Canada	n/a	n/a	7.1	7.0	12.0	13.1	14.2	11.5	12.3
Indonesia	2.8	4.0	5.0	5.9	6.8	8.5	9.1	9.4	9.6
Philippines	2.0	3.1	5.1	4.5	7.3	7.3	7.5	7.7	7.8
Others	73.1	96.9	95.6	64.4	107.0	109.9	115.6	116.9	113.1
World	295.3	445.5	518.6	591.8	835.5	870.3	991.4	1,008.7	972.6
Stocks (million metric tons)									
China	8.9	42.8	82.8	102.4	49.4	67.6	77.3	81.7	90.6
United States	16.8	35.4	38.6	48.2	28.6	20.9	31.3	44.0	39.7
Brazil	2.0	1.3	0.8	2.7	10.3	14.2	19.0	18.6	15.2
European Union	2.3	4.8	3.7	3.2	5.2	5.1	6.8	8.6	5.1
Iran, Islamic Rep.	n/a	0.1	0.0	0.9	2.8	3.2	4.5	5.8	4.7
Others	8.4	22.9	19.1	17.8	30.7	27.0	37.0	37.4	32.6
World	38.4	107.4	145.1	175.3	127.1	137.9	175.9	196.0	187.8
Exports (million metric tons)									
United States	12.9	60.7	43.9	49.3	46.5	18.5	48.8	47.4	47.0
Brazil	0.9	0.0	0.0	6.3	8.4	24.9	21.0	29.0	25.0
Ukraine	n/a	n/a	0.4	0.4	5.0	12.7	20.0	19.8	17.0
Argentina	6.4	9.1	4.0	9.7	16.3	18.7	17.1	17.0	14.5
Russian Federation	n/a	n/a	n/a	n/a	0.0	1.9	4.2	2.9	4.0
Paraguay	0.0	0.0	0.0	0.6	1.6	2.8	2.4	2.7	2.5
India	0.0	0.0	0.0	0.1	3.5	4.7	3.9	1.1	2.0
Others	11.9	10.5	9.8	10.4	9.9	10.8	13.8	13.2	9.9
World	32.2	80.3	58.0	76.7	91.3	95.1	131.1	133.0	121.9
Imports (million metric tons)									
European Union	18.9	26.6	5.7	3.7	7.4	11.4	15.9	8.6	16.0
Japan	5.2	14.0	16.3	16.3	15.6	14.4	15.1	14.7	14.8
Mexico	0.1	3.8	1.9	6.0	8.3	5.7	11.0	11.0	10.5
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	8.2	10.4	10.0	10.0
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	5.1	8.7	7.5	8.0
Colombia	0.0	0.1	0.0	1.9	3.5	3.3	4.4	4.4	4.5
Taiwan, China	0.6	2.7	5.3	4.9	4.1	4.2	4.2	4.2	4.3
Others	22.1	50.3	27.4	28.0	39.7	47.6	54.2	60.8	55.2
World	47.3	100.9	64.3	74.9	92.6	99.8	123.9	121.2	123.3

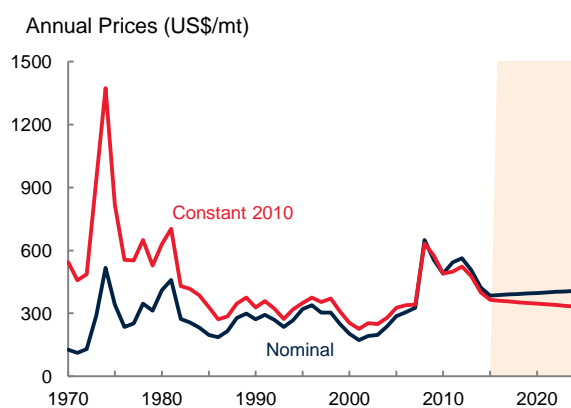
Source: U.S. Department of Agriculture (October 2015 update).

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.

Rice



Source: World Bank.
Note: Last observation is September 2015.



Source: World Bank.
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million metric tons)									
China	77.0	97.9	132.5	131.5	137.0	143.0	142.5	144.5	145.5
India	42.2	53.6	74.3	85.0	96.0	105.2	106.6	104.8	103.5
Indonesia	13.1	22.3	29.0	33.0	35.5	36.6	36.3	36.3	36.3
Bangladesh	11.1	13.9	17.9	25.1	31.7	33.8	34.4	34.5	35.0
Vietnam	6.4	7.7	12.4	20.5	26.4	27.5	28.2	28.1	28.2
Thailand	9.0	11.5	11.3	17.1	20.3	20.2	20.5	18.8	16.4
Burma	5.1	6.7	7.9	10.8	11.1	11.7	12.0	12.6	12.2
Philippines	3.4	5.0	6.4	8.1	10.5	11.4	11.9	11.9	12.0
Brazil	3.7	5.9	6.8	6.9	9.3	8.0	8.3	8.5	8.0
Japan	11.5	8.9	9.6	8.6	7.8	7.9	7.9	7.8	7.9
Pakistan	2.2	3.1	3.3	4.8	5.0	5.8	6.7	6.9	6.9
United States	2.8	4.8	5.1	5.9	7.6	6.3	6.1	7.1	6.0
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	50.5	52.3	52.4	51.5
World	213.0	269.9	351.4	399.3	450.6	472.8	478.4	478.8	474.0
Stocks (million metric tons)									
China	11.0	28.0	94.0	93.0	42.6	46.8	46.8	46.8	45.6
India	6.0	6.5	14.5	25.1	23.5	25.4	22.8	16.6	11.9
Thailand	1.2	2.0	0.9	2.2	5.6	12.8	11.7	10.1	5.3
Indonesia	0.6	3.0	2.1	4.6	7.1	6.5	5.5	4.5	3.4
Japan	6.1	4.0	1.0	2.6	2.9	2.9	3.1	3.2	3.4
Philippines	0.6	1.5	1.8	2.8	2.5	1.5	1.7	2.1	2.6
Others	3.4	7.6	12.4	16.4	16.0	14.9	16.0	18.5	16.2
World	28.8	52.6	126.7	146.7	100.1	110.8	107.6	101.8	88.3
Exports (million metric tons)									
Thailand	1.6	3.0	4.0	7.5	10.6	6.7	11.0	9.0	9.5
India	0.0	0.9	0.7	1.7	2.8	10.9	10.1	11.7	9.0
Vietnam	0.0	0.0	1.0	3.5	7.0	6.7	6.3	6.2	7.0
Pakistan	0.2	1.2	1.3	2.4	3.4	3.6	3.2	4.0	4.5
United States	1.5	3.1	2.3	2.6	3.5	3.4	3.0	3.2	3.1
Others	5.2	4.2	2.8	6.2	7.7	8.1	8.1	8.7	8.4
World	8.5	12.4	12.1	24.0	35.1	39.3	41.7	42.8	41.5
Imports (million metric tons)									
China	0.0	0.2	0.1	0.3	0.5	3.1	4.0	4.3	4.7
Nigeria	0.0	0.4	0.2	1.3	2.4	2.8	2.8	4.0	3.0
Philippines	0.0	0.0	0.4	1.4	1.3	1.4	1.2	1.7	1.7
Iran	0.1	0.6	0.6	0.8	2.0	2.1	1.6	1.5	1.6
Saudi Arabia	0.2	0.4	0.5	1.0	1.1	1.3	1.4	1.5	1.6
European Union	0.9	0.5	0.7	1.2	1.4	1.4	1.5	1.6	1.6
Indonesia	0.5	0.5	0.2	1.5	3.1	0.7	1.2	1.3	1.3
Iran, Islamic Rep.	0.1	0.4	0.3	1.0	1.2	1.4	1.0	1.1	1.2
Others	6.8	8.8	8.3	13.7	20.0	22.4	23.6	23.7	22.8
World	8.6	11.8	11.3	22.1	33.0	36.6	38.4	40.7	39.4

Source: U.S. Department of Agriculture (October 2015 update).

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

Wheat

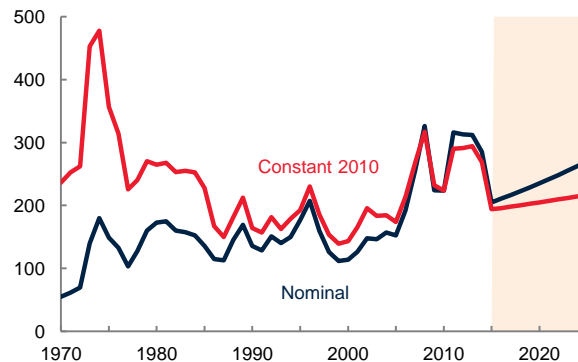
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is September 2015.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million metric tons)									
European Union	62.5	93.3	125.0	132.7	136.7	133.9	144.4	156.5	155.3
China	29.2	55.2	98.2	99.6	115.2	121.0	121.9	126.2	130.0
India	20.1	31.8	49.9	76.4	80.8	94.9	93.5	95.9	88.9
Russian Federation	n/a	n/a	49.6	34.5	41.5	37.7	52.1	59.1	61.0
United States	36.8	64.8	74.3	60.6	58.9	61.3	58.1	55.1	55.8
Ukraine	n/a	n/a	30.4	10.2	16.8	15.8	22.3	24.8	27.0
Australia	7.9	10.9	15.1	22.1	27.4	22.9	25.3	23.7	27.0
Canada	9.0	19.3	32.1	26.5	23.3	27.2	37.5	29.4	26.0
Pakistan	7.3	10.9	14.4	21.1	23.9	23.3	24.0	25.5	25.0
Turkey	8.0	13.0	16.0	18.0	17.0	16.0	18.8	15.3	19.5
Kazakhstan	n/a	n/a	16.2	9.1	9.6	9.8	13.9	13.0	14.0
Iran, Islamic Rep.	3.8	5.9	8.0	8.1	13.5	13.8	14.5	13.0	14.0
Argentina	4.9	7.8	11.0	16.3	17.2	9.3	10.5	12.5	10.5
Egypt, Arab Rep.	1.5	1.8	4.3	6.4	7.2	8.5	8.3	8.3	8.4
Others	178.0	214.5	169.4	41.7	60.9	63.3	70.0	67.3	70.4
World	369.1	529.2	713.8	583.3	649.9	658.7	715.1	725.5	732.8
Stocks (million metric tons)									
China	7.2	31.7	49.9	91.9	59.1	54.0	65.3	74.6	89.6
United States	22.4	26.9	23.6	23.8	23.5	19.5	16.1	20.5	23.4
European Union	8.6	13.0	22.5	17.9	11.9	10.7	9.9	13.1	15.5
India	5.0	4.0	5.8	21.5	15.4	24.2	17.8	17.2	11.9
Iran, Islamic Rep.	0.7	1.2	3.2	2.9	2.9	5.1	7.2	7.8	7.3
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.0	5.2	6.3	7.1
Others	45.2	48.9	72.3	47.1	72.6	58.7	72.3	72.7	73.7
World	89.1	125.6	193.8	206.6	199.1	177.2	193.8	212.1	228.5
Exports (million metric tons)									
European Union	6.7	17.5	23.8	15.7	23.1	22.8	32.0	35.4	33.0
Russian Federation	n/a	n/a	1.2	0.7	4.0	11.3	18.6	22.8	23.5
United States	20.2	41.2	29.1	28.9	35.1	27.5	32.0	23.2	23.1
Canada	11.8	16.3	21.7	17.3	16.6	19.0	23.3	24.1	19.0
Australia	9.1	9.6	11.8	15.9	18.6	18.6	18.6	16.7	19.0
Ukraine	n/a	n/a	2.0	0.1	4.3	7.2	9.8	11.3	15.0
Others	15.3	23.1	38.0	22.6	31.0	31.0	31.7	31.0	27.9
World	63.2	107.6	127.7	101.3	132.7	137.4	165.9	164.5	160.6
Imports (million metric tons)									
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	8.3	10.2	11.1	11.5
Indonesia	0.5	1.2	2.0	4.1	6.6	7.1	7.4	7.5	7.8
Algeria	0.6	2.3	4.4	5.6	6.5	6.5	7.5	7.3	7.7
Brazil	1.7	3.9	4.4	7.2	6.7	7.4	7.1	5.6	6.7
European Union	19.6	10.4	3.7	3.5	4.6	5.3	4.0	6.0	6.0
Japan	4.8	5.8	5.6	5.9	5.9	6.6	6.1	5.9	5.8
Others	45.3	70.8	76.9	67.1	91.1	104.2	116.2	115.7	112.3
World	75.4	99.9	102.7	99.4	132.0	145.4	158.4	159.0	157.8

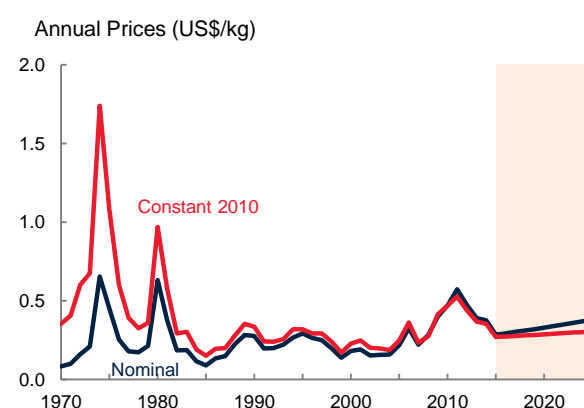
Source: U.S. Department of Agriculture (October 2015 update).

Note: 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.

Sugar



Source: World Bank.
Note: Last observation is September 2015.



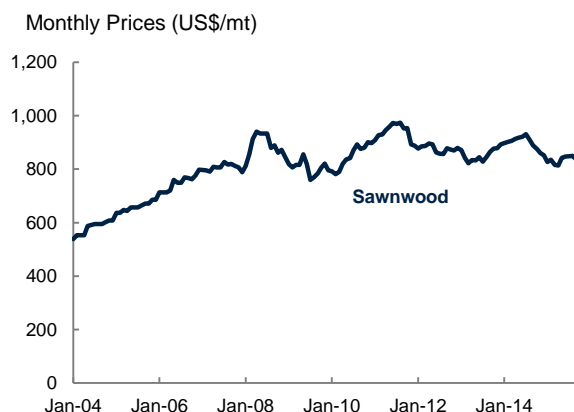
Source: World Bank.
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million metric tons)									
Brazil	5.1	8.5	7.9	17.1	38.4	38.6	37.8	35.9	36.0
India	4.5	6.5	13.7	20.5	26.6	27.3	26.6	29.5	29.1
European Union	15.4	19.0	23.2	22.1	15.9	16.7	16.0	16.8	15.5
Thailand	0.5	1.7	4.0	5.1	9.7	10.0	11.3	11.0	11.4
China	2.1	3.2	6.8	6.8	11.2	14.0	14.3	11.0	10.8
United States	5.6	5.6	6.3	8.0	7.1	8.1	7.7	7.7	7.7
Mexico	2.5	2.5	3.9	5.2	5.5	7.4	6.4	6.4	6.4
Pakistan	0.0	0.9	2.1	2.6	3.9	5.0	5.6	5.2	5.4
Australia	2.7	3.3	3.6	4.2	3.7	4.3	4.4	4.7	4.8
Russian Federation	n/a	n/a	2.6	1.6	3.0	5.0	4.4	4.4	4.5
Guatemala	0.2	0.5	1.0	1.6	2.0	2.8	2.9	2.9	3.0
Philippines	2.1	2.4	1.7	1.8	2.5	2.4	2.5	2.5	2.5
Others	45.1	53.3	60.9	56.3	32.7	36.0	35.7	36.5	36.4
World	85.7	107.6	137.6	152.9	162.2	177.6	175.6	174.3	173.4
Stocks (million metric tons)									
India	1.8	1.1	3.6	12.0	6.3	9.4	8.2	10.2	10.0
Thailand	0.0	0.2	0.2	0.6	3.0	3.6	5.3	5.7	6.2
China	0.3	0.7	1.4	1.0	1.6	6.8	8.8	7.2	5.8
United States	2.9	1.4	1.4	2.0	1.3	2.0	1.6	1.5	1.4
European Union	6.3	3.5	3.7	5.7	2.0	3.8	3.1	2.6	1.0
Pakistan	0.0	0.1	0.3	0.4	1.5	0.9	1.3	1.2	1.0
Others	15.1	14.2	15.6	23.9	13.9	16.2	15.7	15.9	15.2
World	26.5	21.2	26.1	45.6	29.5	42.6	44.0	44.3	40.5
Exports (million metric tons)									
Brazil	1.2	2.3	1.3	7.7	25.8	27.7	26.2	24.6	24.4
Thailand	0.2	1.0	2.7	3.4	6.6	6.7	7.2	8.0	8.3
Australia	1.8	2.6	2.8	3.1	2.8	3.1	3.2	3.6	3.7
Guatemala	0.1	0.2	0.7	1.2	1.5	1.9	2.1	2.2	2.4
India	0.3	0.1	0.2	1.4	3.9	1.0	2.8	1.5	2.2
Mexico	0.6	0.0	0.3	0.2	1.6	2.1	2.7	1.6	1.9
Others	17.1	22.2	25.9	21.5	11.6	12.7	13.3	12.7	13.0
World	21.3	28.4	33.9	38.3	53.8	55.1	57.5	54.2	55.8
Imports (million metric tons)									
China	0.4	1.1	1.1	1.1	2.1	3.8	4.3	4.8	5.5
United States	4.8	4.4	2.6	1.4	3.4	2.9	3.4	3.1	3.5
Indonesia	0.1	0.6	0.2	1.6	3.1	3.6	3.6	3.1	3.2
European Union	5.4	3.8	4.1	3.3	3.8	3.8	3.3	3.0	3.2
United Arab Emirates	0.0	0.1	0.1	1.1	2.0	2.6	2.1	2.4	2.5
Malaysia	0.0	0.5	0.9	1.3	1.8	2.1	2.0	2.1	2.1
Bangladesh	0.0	0.0	0.0	0.8	1.5	1.5	2.1	2.1	2.1
Korea, Rep.	0.0	0.8	1.2	1.6	1.7	1.8	1.9	1.9	1.9
Others	12.0	20.8	25.9	31.4	29.7	28.9	28.6	29.1	28.9
World	22.7	32.0	36.2	43.6	49.1	51.0	51.3	51.6	52.9

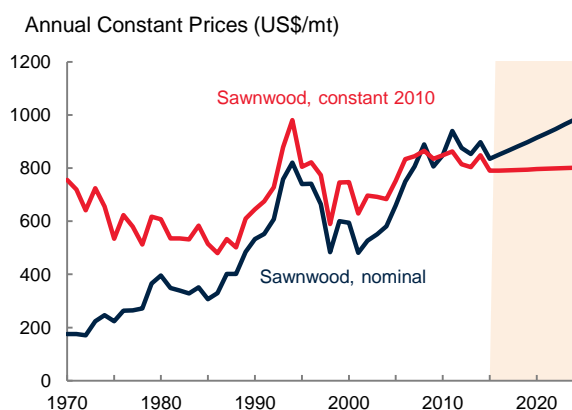
Source: U.S. Department of Agriculture (October 2015 update).

Note: 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.

Industrial roundwood and Sawnwood



Source: World Bank.
Note: Last observation is September 2015.



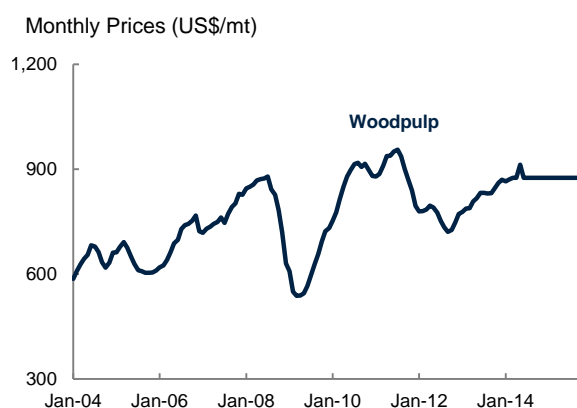
Source: World Bank.
Note: 2015-25 are forecasts.

	1970	1980	1990	2000	2010	2011	2012	2013	2014
Industrial roundwood: production (million cubic meters)									
United States	312.7	327.1	427.2	420.6	336.1	354.7	347.1	354.9	356.8
Russian Federation	n/a	n/a	n/a	145.6	161.6	175.6	177.5	180.4	188.3
China	42.2	79.2	91.2	96.0	161.8	160.9	159.6	168.7	168.7
Canada	117.5	150.8	156.0	198.9	138.8	146.7	146.7	147.8	149.9
Brazil	23.9	61.7	74.3	103.0	128.4	140.0	146.8	144.5	144.5
Sweden	56.7	44.8	49.1	57.4	66.3	66.0	63.6	63.7	64.2
Indonesia	12.7	30.9	38.4	48.8	54.1	60.7	62.6	62.6	62.6
India	12.7	19.7	35.1	41.2	48.8	49.5	49.5	49.5	49.5
Others	698.2	731.8	838.1	572.9	606.2	614.4	615.1	627.9	643.5
World	1,276.4	1,446.0	1,709.2	1,684.4	1,702.1	1,768.6	1,768.5	1,799.9	1,828.1
Industrial roundwood: imports (million cubic meters)									
China	2.0	8.3	7.2	15.7	35.4	43.3	38.7	45.9	53.6
Germany	5.2	3.8	2.0	3.5	7.7	7.0	6.6	8.4	8.3
Sweden	0.6	3.1	2.0	11.7	6.3	6.7	6.9	7.5	8.1
India	0.0	0.0	1.3	2.2	5.3	6.3	6.5	6.5	7.4
Austria	2.0	3.7	4.4	8.5	8.0	7.4	7.3	8.2	7.3
Finland	2.3	3.8	5.2	9.9	6.3	5.7	5.5	6.7	6.3
Belgium	n/a	n/a	n/a	4.0	4.2	4.3	4.3	4.5	4.5
Japan	39.4	37.6	27.6	15.9	4.8	4.6	4.5	4.6	4.4
Others	31.7	35.2	32.8	43.8	32.0	35.4	32.7	34.7	36.7
World	83.1	95.4	82.6	115.3	109.9	120.9	112.9	127.1	136.6
Sawnwood: production (million cubic meters)									
United States	63.7	65.3	86.1	91.1	60.0	63.2	67.5	71.1	74.8
China	14.8	21.2	23.6	6.7	37.2	44.6	55.7	63.0	68.4
Canada	19.8	32.8	39.7	50.5	38.7	38.9	40.6	42.8	43.4
Russian Federation	n/a	n/a	n/a	20.0	28.9	31.2	32.2	33.5	33.9
Germany	11.6	13.0	14.7	16.3	22.1	22.6	21.1	21.5	21.8
Sweden	12.3	11.3	12.0	16.2	16.8	16.5	16.3	16.1	17.5
Brazil	8.0	14.9	13.7	21.3	17.5	16.2	15.2	15.4	15.4
Finland	7.4	10.3	7.5	13.4	9.5	9.8	9.4	10.4	10.9
Others	251.6	252.1	265.6	149.4	146.6	147.4	148.9	149.0	152.7
World	389.1	420.9	463.0	384.8	377.1	390.4	406.9	422.9	438.8
Sawnwood: imports (million cubic meters)									
China	0.1	0.3	1.3	6.1	16.2	23.1	22.0	25.5	27.3
United States	10.6	17.0	22.5	34.4	16.6	16.4	17.4	20.5	22.2
Japan	3.0	5.6	9.0	10.0	6.4	6.8	6.6	7.5	6.8
United Kingdom	9.0	6.6	10.7	7.9	5.7	4.9	5.2	5.5	6.4
Egypt, Arab Rep.	0.4	1.6	1.6	2.0	4.8	4.7	4.5	4.4	4.7
Italy	4.0	5.8	6.0	8.4	6.1	6.0	4.9	4.7	4.6
Germany	6.0	6.9	6.1	6.3	4.4	4.6	4.4	4.5	4.5
Netherlands	3.1	3.2	3.5	3.7	2.8	2.7	2.6	2.5	2.5
Others	16.5	24.6	23.8	36.9	45.1	47.5	46.1	47.5	48.4
World	52.6	71.5	84.5	115.6	108.0	116.8	113.5	122.5	127.4

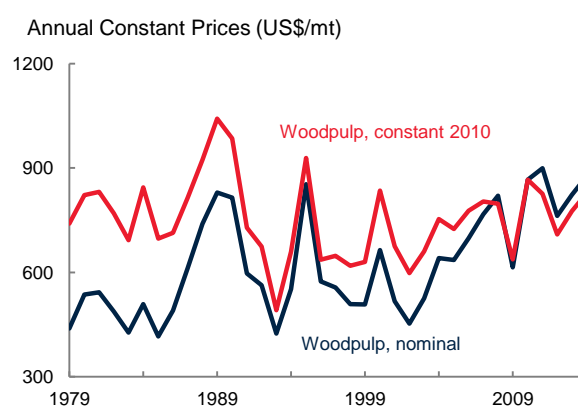
Source: Food and Agriculture Organization of the United Nations.

Note: n/a implies data not available. 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.

Wood-based panels and Woodpulp



Source: World Bank.
Note: Last observation is September 2015.



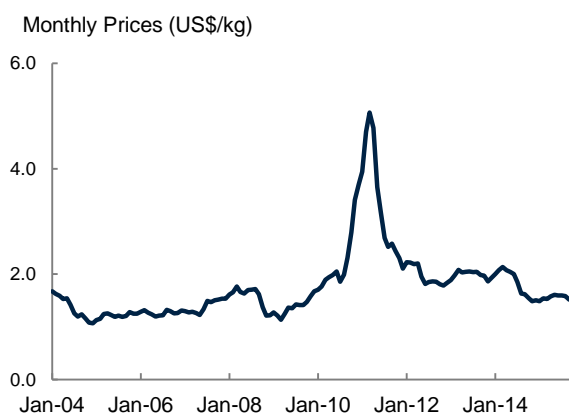
Source: World Bank.
Note: 2015-25 are forecasts.

	1970	1980	1990	2000	2010	2011	2012	2013	2014
Wood-based panels: production (million cubic meters)									
China	0.9	2.3	3.0	19.3	109.2	134.0	149.3	177.0	189.2
United States	23.0	26.4	37.0	45.7	32.6	32.0	31.5	33.5	34.0
Russian Federation	n/a	n/a	n/a	4.8	10.1	12.1	12.8	12.7	13.1
Canada	3.3	4.8	6.4	15.0	9.9	10.5	11.1	11.7	12.4
Germany	5.8	8.3	9.6	14.1	12.6	12.1	12.1	12.2	12.2
Brazil	0.8	2.5	2.9	5.8	9.5	9.4	10.6	11.2	11.3
Turkey	0.2	0.4	0.8	2.4	6.6	7.4	8.1	8.8	9.6
Poland	1.0	2.0	1.4	4.6	8.2	8.4	8.5	9.0	9.4
Others	34.7	54.6	67.9	74.7	88.7	89.5	89.3	90.8	93.2
World	69.8	101.3	129.0	186.3	287.5	315.5	333.3	366.9	384.5
Wood-based panels: imports (million cubic meters)									
United States	2.5	2.1	4.2	13.9	8.1	8.2	9.2	9.2	10.0
Germany	1.0	2.3	3.3	4.1	4.6	5.1	5.3	5.1	5.1
Japan	0.6	0.3	3.8	6.2	4.2	5.0	4.8	5.0	4.9
Canada	0.2	0.2	0.5	1.5	3.0	2.9	2.9	2.8	3.7
China	0.1	0.3	3.2	6.6	3.0	3.0	2.9	3.2	3.6
United Kingdom	2.0	2.4	3.3	3.3	2.7	2.8	2.6	3.0	3.3
Italy	0.1	0.8	0.9	1.7	3.0	2.4	2.2	2.4	2.8
Russian Federation	n/a	n/a	n/a	0.4	1.1	1.4	2.1	3.0	2.7
Others	3.5	7.1	11.1	22.1	38.2	40.2	40.2	42.0	41.7
World	10.0	15.7	30.3	59.9	67.9	71.1	72.2	75.7	77.7
Woodpulp: production (million metric tons)									
United States	37.3	46.2	57.2	57.8	50.9	51.1	50.2	49.1	47.8
Canada	16.6	19.9	23.0	26.7	18.9	18.3	17.8	18.1	17.7
Brazil	0.8	3.4	4.3	7.3	14.5	14.3	14.3	15.5	16.8
Sweden	8.1	8.7	10.2	11.5	11.9	11.9	12.0	11.7	11.5
Finland	6.2	7.2	8.9	12.0	10.5	10.4	10.2	10.5	10.5
China	1.2	1.3	2.1	3.7	7.5	8.9	8.8	9.6	10.4
Japan	8.8	9.8	11.3	11.4	9.5	9.1	8.7	8.8	9.1
Russian Federation	n/a	n/a	n/a	5.8	7.4	7.9	7.7	7.2	7.5
Others	22.5	29.1	37.8	34.9	39.5	41.8	41.9	41.1	40.7
World	101.6	125.7	154.8	171.3	170.6	173.6	171.7	171.5	171.9
Woodpulp: imports (million metric tons)									
China	0.1	0.4	0.9	4.0	12.1	15.2	17.2	17.6	18.7
United States	3.2	3.7	4.4	6.6	5.6	5.5	5.2	5.5	5.8
Germany	1.8	2.6	3.7	4.1	5.1	5.0	4.8	5.0	4.8
Italy	1.4	1.8	2.1	3.2	3.4	3.5	3.3	3.5	3.4
Netherlands	0.6	0.6	0.6	0.9	1.2	1.6	1.6	2.5	2.5
Korea, Rep.	0.2	0.5	1.1	2.1	2.5	2.5	2.4	2.4	2.4
France	1.3	1.8	1.9	2.4	1.9	1.9	2.0	2.1	2.0
Japan	0.9	2.2	2.9	3.1	1.8	1.9	1.8	1.7	1.8
Others	7.0	7.0	7.6	11.4	14.3	14.6	15.7	16.6	17.0
World	16.6	20.6	25.2	37.8	48.1	51.6	54.0	56.9	58.3

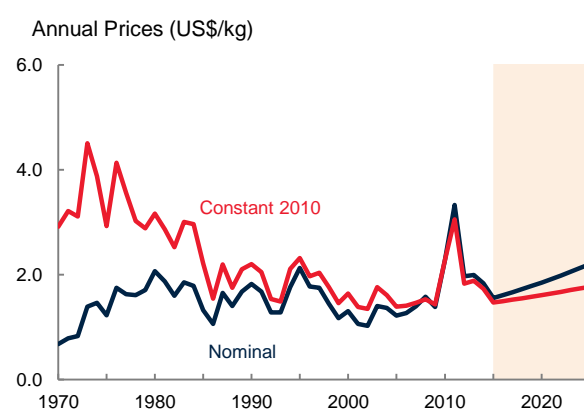
Source: Food and Agriculture Organization of the United Nations.

Note: 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.

Cotton



Source: World Bank.
Note: Last observation is September 2015.



Source: World Bank.
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (thousand metric tons)									
India	909	1,322	1,989	2,380	5,865	6,095	6,371	6,262	6,381
China	1,995	2,707	4,508	4,505	6,400	7,300	6,700	6,003	5,403
United States	2,219	2,422	3,376	3,742	3,942	3,770	2,802	3,077	3,046
Pakistan	543	714	1,638	1,816	1,948	2,204	2,076	2,069	2,050
Brazil	594	623	717	939	1,960	1,310	1,644	1,652	1,479
Uzbekistan	n/a	1,671	1,593	975	910	1,000	920	1,005	921
Turkey	400	500	655	880	594	858	843	722	812
Australia	19	99	433	804	898	1,002	933	937	560
Burkina Faso	8	23	77	116	141	260	247	254	272
Turkmenistan	n/a	n/a	437	187	380	335	329	327	263
Mexico	312	353	175	72	157	231	193	206	255
Greece	110	115	213	421	180	248	280	308	247
Others	n/a	n/a	3,141	2,688	2,034	2,265	2,363	2,341	2,215
World	11,740	13,831	18,951	19,524	25,408	26,878	25,699	25,163	23,904
Stocks (thousand metric tons)									
China	412	476	1,589	3,755	2,087	9,607	11,511	11,890	11,756
India	376	491	539	922	1,850	1,681	1,922	1,946	2,198
Brazil	321	391	231	755	1,400	852	852	852	1,043
United States	915	581	510	1,306	566	848	539	539	973
Turkey	24	112	150	283	412	785	821	809	695
Pakistan	55	131	313	608	316	452	422	414	684
Others	2,502	2,969	3,428	2,984	2,832	3,669	3,974	4,419	3,439
World	4,605	5,151	6,761	10,614	9,463	17,895	20,041	20,869	20,788
Exports (thousand metric tons)									
United States	848	1,290	1,697	1,467	3,130	2,902	2,330	2,256	2,331
India	34	140	255	24	1,085	1,685	1,393	1,157	1,184
Brazil	220	21	167	68	435	938	767	814	726
Uzbekistan	n/a	n/a	n/a	750	600	653	680	585	595
Australia	4	53	329	849	545	1,345	1,033	776	424
Burkina Faso	9	22	73	112	136	215	253	243	264
Others	n/a	n/a	n/a	2,535	1,786	2,341	2,264	2,342	2,153
World	3,875	4,414	5,069	5,805	7,717	10,078	8,719	8,173	7,677
Imports (thousand metric tons)									
China	108	773	480	52	2,609	4,426	3,089	2,179	1,632
Bangladesh	0	45	80	248	843	593	857	899	967
Vietnam	33	40	31	84	350	548	656	676	927
Indonesia	36	106	324	570	471	683	661	656	797
Turkey	1	0	46	381	760	804	635	849	699
Pakistan	1	1	0	101	314	430	463	541	463
Thailand	46	86	354	342	383	329	369	398	372
Korea, Rep.	121	332	447	304	230	286	311	285	276
Others	3,741	3,172	3,458	3,682	1,797	1,729	1,680	1,690	1,544
World	4,086	4,555	5,220	5,764	7,756	9,827	8,719	8,173	7,677

Source: International Cotton Advisory Committee.
Note: n/a implies data not available.

Natural rubber

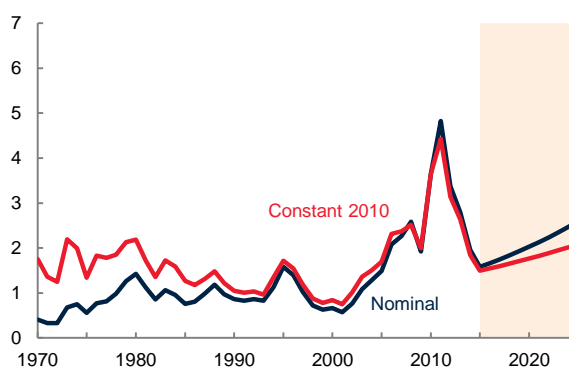
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is September 2015.

Annual Prices (US\$/kg)



Source: World Bank.

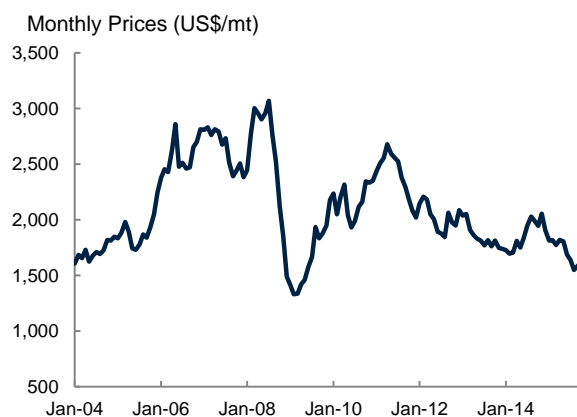
Note: 2015-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2011/12	2012/13	2013/14	2014/15
Production (thousand metric tons)									
Thailand	287	501	1,275	2,346	3,252	3,569	3,778	4,170	4,324
Indonesia	815	822	1,261	1,501	2,736	2,990	3,012	3,237	3,153
Vietnam	28	46	94	291	752	789	877	949	954
China	46	113	264	445	687	727	802	865	857
India	90	155	324	629	851	893	919	796	705
Malaysia	1,269	1,530	1,291	928	939	996	923	827	668
Cote d'Ivoire	11	23	69	123	231	234	254	289	317
Brazil	25	28	31	88	136	166	171	187	185
Others	569	632	376	461	811	853	893	931	908
World	3,140	3,850	4,985	6,811	10,395	11,217	11,629	12,251	12,070
Consumption (thousand metric tons)									
China	250	340	600	1,150	3,668	3,622	3,857	4,210	4,760
European Union	991	1,007	1,012	1,293	1,136	1,242	1,077	1,060	1,139
India	86	171	358	638	944	957	988	962	1,012
United States	568	585	808	1,195	926	1,029	950	913	932
Japan	283	427	677	752	749	772	728	710	709
Indonesia	25	46	108	139	421	460	465	509	540
Thailand	8	28	99	243	459	487	505	521	541
Malaysia	20	45	184	364	458	402	441	434	447
Korea, Rep.	26	118	255	332	384	402	396	396	402
Brazil	37	81	124	227	378	382	343	409	413
Others	796	932	845	975	1,268	1,242	1,271	1,264	1,264
World	3,090	3,780	5,068	7,306	10,792	10,997	11,020	11,388	12,159
Exports (thousand metric tons)									
Thailand	279	457	1,151	2,166	2,866	2,890	3,024	3,649	3,615
Indonesia	790	976	1,077	1,380	2,369	2,566	2,525	2,770	2,662
Malaysia	1,304	1,482	1,322	978	1,245	1,239	1,291	1,332	1,192
Vietnam	23	33	80	273	782	817	1,023	1,076	1,067
Cote d'Ivoire	11	23	69	121	226	234	255	285	323
Others	413	299	263	359	533	582	589	661	814
World	2,820	3,270	3,962	5,277	8,022	8,327	8,707	9,773	9,672
Imports (thousand metric tons)									
China	178	242	340	820	2,590	2,665	3,176	3,652	3,809
European Union	1,071	1,068	1,072	1,474	1,427	1,664	1,459	1,451	1,546
India	3	1	61	11	187	158	250	336	402
United States	543	576	820	1,192	931	1,049	969	927	946
Japan	292	458	663	801	747	785	700	722	689
Malaysia	45	43	136	548	706	667	871	1,005	914
Korea, Rep.	26	118	254	331	388	402	397	396	403
Brazil	11	56	95	139	249	223	181	224	230
Others	641	673	1,328	1,065	1,157	1,170	1,310	1,235	1,263
World	2,810	3,235	4,769	6,380	8,382	8,784	9,314	9,948	10,202

Source: Rubber Statistical Bulletin, International Rubber Study Group.

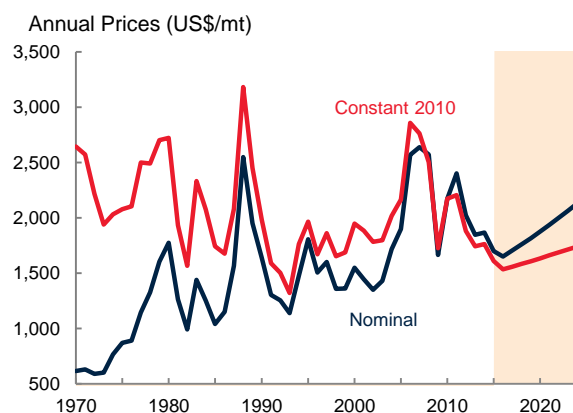
Note:

Aluminum



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Bauxite Production (thousand metric tons)									
Australia	27,179	40,697	53,801	59,959	68,535	69,977	76,282	81,119	80,300
China	1,700	3,655	7,900	17,408	36,837	37,174	44,052	50,400	65,000
Brazil	4,152	9,876	14,379	22,365	32,028	33,625	34,988	33,849	31,693
India	1,785	5,277	7,562	12,385	12,662	13,000	15,320	20,421	20,688
Guinea	13,911	16,150	17,992	19,237	16,427	17,695	19,974	18,763	17,602
Jamaica	12,064	10,937	11,127	14,118	8,540	10,189	9,339	9,435	9,677
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,888	5,166	5,322	5,589
Kazakhstan	n/a	n/a	3,729	4,815	5,310	5,495	5,170	5,193	4,515
Surinam	4,903	3,267	3,610	4,757	3,097	3,236	2,873	2,706	2,708
Indonesia	1,249	1,249	1,151	1,442	27,410	40,644	31,443	55,655	2,556
Venezuela, RB	0	786	4,361	5,815	3,126	2,455	2,500	2,302	2,200
Greece	3,286	2,496	1,991	2,495	1,902	2,324	1,815	1,844	2,100
Dominican Republic	511	85	0	0	0	0	11	770	1,662
Others	n/a	n/a	6,287	5,601	5,800	6,628	7,655	7,846	9,206
World	93,326	114,835	138,889	176,807	227,150	248,330	256,590	295,624	255,495
Refined Production (thousand metric tons)									
China	358	854	2,647	7,759	16,244	18,135	20,251	22,046	24,382
Russian Federation	n/a	n/a	3,258	3,647	3,947	3,992	4,024	3,724	3,488
Canada	1,075	1,567	2,373	2,894	2,963	2,988	2,781	2,967	2,858
United Arab Emirates	35	174	536	722	1,400	1,750	1,861	1,848	2,341
Australia	304	1,233	1,761	1,903	1,928	1,945	1,864	1,778	1,773
India	185	433	647	942	1,610	1,660	1,714	1,596	1,767
United States	4,654	4,048	3,668	2,480	1,727	1,983	2,070	1,948	1,710
Norway	662	867	1,026	1,376	1,090	1,201	1,111	1,155	1,154
Brazil	261	931	1,271	1,498	1,536	1,440	1,436	1,304	978
Bahrain	126	212	509	708	851	881	890	913	931
Iceland	75	88	226	272	826	781	803	736	749
South Africa	87	157	683	851	806	808	665	822	745
Saudi Arabia	0	0	0	0	0	0	0	187	652
Others	n/a	n/a	5,699	6,788	6,816	7,465	7,000	6,686	6,518
World	16,036	19,362	24,304	31,841	41,745	45,030	46,470	47,710	50,047
Refined Consumption (thousand metric tons)									
China	550	861	3,352	7,072	15,854	17,702	20,224	21,955	24,069
United States	4,454	4,330	6,161	6,114	4,242	4,060	4,875	4,632	5,250
Germany	1,272	1,379	1,632	1,758	1,912	2,103	2,086	2,083	2,262
Japan	1,639	2,414	2,223	2,276	2,025	1,946	1,982	1,772	2,034
India	234	433	601	958	1,475	1,569	1,690	1,559	1,523
Korea, Rep.	68	369	823	1,201	1,255	1,233	1,278	1,241	1,282
Brazil	296	341	514	759	985	1,077	1,021	988	1,027
Turkey	45	152	211	390	703	870	925	867	915
United Arab Emirates	0	0	34	85	650	750	835	835	835
Others	6,754	8,947	9,456	11,022	11,576	11,880	11,263	10,748	11,071
World	15,312	19,227	25,007	31,636	40,677	43,190	46,179	46,680	50,267

Source: World Bureau of Metal Statistics.

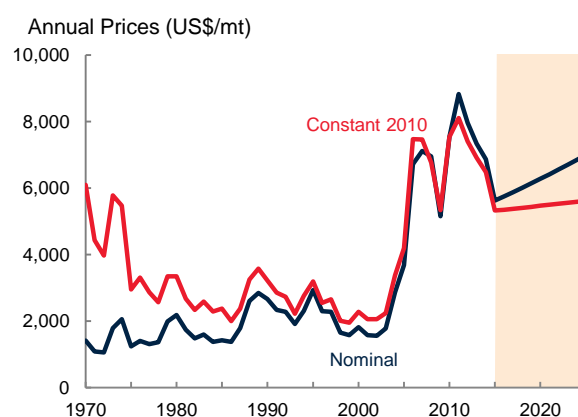
Note: n/a implies data not available.

Copper



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

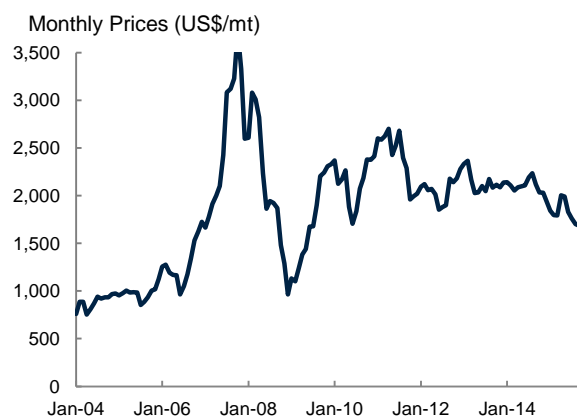
Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand metric tons)									
Chile	1,068	1,588	4,602	5,321	5,419	5,263	5,434	5,776	5,750
China	177	296	549	639	1,180	1,295	1,577	1,707	1,632
United States	1,181	1,587	1,440	1,157	1,129	1,138	1,196	1,279	1,383
Peru	367	318	553	1,010	1,247	1,235	1,299	1,376	1,380
Congo, DR	460	356	33	98	378	480	608	817	1,003
Australia	244	327	832	930	870	960	914	999	970
Zambia	596	496	249	441	732	784	782	839	759
Russian Federation	n/a	n/a	580	805	703	714	720	720	720
Canada	716	794	634	595	522	569	580	632	696
Mexico	175	291	365	391	270	444	500	480	514
Kazakhstan	n/a	n/a	433	436	404	433	491	538	501
Poland	343	370	454	523	425	427	427	429	421
Indonesia	59	169	1,006	1,064	871	543	398	494	366
Others	n/a	n/a	1,476	1,619	1,985	2,006	2,095	2,252	2,409
World	7,864	8,997	13,207	15,029	16,135	16,291	17,021	18,338	18,502
Refined Production (thousand metric tons)									
China	314	562	1,312	2,566	4,540	5,163	5,879	6,839	8,008
Chile	811	1,192	2,669	2,824	3,244	3,092	2,902	2,755	2,729
Japan	1,014	1,008	1,437	1,395	1,549	1,328	1,516	1,468	1,554
United States	1,686	2,017	1,802	1,257	1,093	1,031	1,001	1,040	1,095
Russian Federation	n/a	n/a	824	968	900	910	887	874	874
India	23	39	265	518	647	662	689	619	764
Congo, DR	144	173	29	3	254	349	453	643	742
Zambia	607	479	226	465	767	740	700	629	739
Germany	425	533	709	639	704	709	686	680	683
Korea, Rep.	79	187	471	527	556	593	590	604	604
Poland	357	346	486	560	547	571	566	565	577
Australia	182	274	484	471	424	477	461	480	509
Spain	154	171	316	308	347	354	408	351	428
Others	n/a	n/a	3,731	4,135	3,637	3,834	3,617	3,737	3,704
World	9,390	10,809	14,761	16,635	19,211	19,814	20,356	21,284	23,011
Refined Consumption (thousand metric tons)									
China	286	512	1,869	3,621	7,385	7,881	8,896	9,830	11,352
United States	1,868	2,150	2,979	2,264	1,760	1,755	1,758	1,826	1,841
Germany	870	1,028	1,309	1,115	1,312	1,247	1,114	1,136	1,173
Japan	1,158	1,577	1,351	1,229	1,060	1,003	985	996	1,085
Korea, Rep.	85	324	862	868	856	784	721	722	759
Italy	388	475	674	680	619	608	570	552	622
Russian Federation	n/a	n/a	183	667	457	586	490	484	568
Taiwan, China	85	265	628	638	532	457	432	437	465
Turkey	33	103	248	319	369	421	429	453	453
Others	n/a	n/a	4,992	5,246	4,989	4,834	4,738	4,566	4,456
World	9,385	10,780	15,096	16,649	19,340	19,576	20,133	21,002	22,774

Source: World Bureau of Metal Statistics.

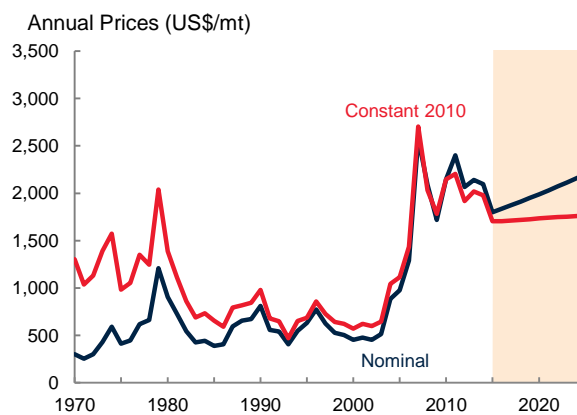
Note: n/a implies data not available.

Lead



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand metric tons)									
China	160	364	660	1,142	1,981	2,406	2,613	3,048	2,853
Australia	398	570	678	767	712	621	622	711	728
United States	562	493	447	437	356	334	336	343	385
Peru	189	188	271	319	262	230	249	266	278
Mexico	146	174	138	134	192	224	238	253	249
Russian Federation	n/a	n/a	13	36	97	123	147	143	194
India	15	26	38	60	91	94	115	106	105
Bolivia	16	20	10	11	73	100	81	82	82
Sweden	72	84	107	61	68	62	64	60	71
Turkey	8	18	16	19	39	40	54	78	65
Korea, Dem. People's Rep.	125	70	26	20	27	29	38	59	53
Iran, Islamic Rep.	12	9	17	22	32	29	36	40	46
Poland	48	45	51	51	48	41	73	74	45
Others	n/a	n/a	610	372	396	410	429	393	396
World	3,595	3,150	3,080	3,453	4,374	4,741	5,096	5,655	5,550
Refined Production (thousand metric tons)									
China	175	297	1,100	2,359	4,157	4,604	4,591	4,475	4,221
United States	1,151	1,291	1,431	1,293	1,255	1,248	1,221	1,308	1,128
Korea, Rep.	15	80	222	254	321	423	460	470	633
India	26	39	57	56	366	380	461	462	473
Germany	392	394	387	342	405	429	426	400	380
United Kingdom	325	329	328	304	301	275	312	329	330
Canada	231	184	284	230	273	282	278	288	281
Japan	305	327	312	275	267	253	259	252	240
Mexico	149	238	332	272	257	247	244	236	233
Australia	234	229	223	267	210	232	207	233	232
Italy	134	171	237	211	150	150	138	180	180
Spain	121	124	120	110	163	170	160	160	162
Brazil	85	76	86	121	115	138	165	152	152
Others	2,083	1,683	1,582	1,572	1,485	1,547	1,503	1,615	1,608
World	5,424	5,460	6,701	7,665	9,726	10,377	10,426	10,561	10,253
Refined Consumption (thousand metric tons)									
China	210	244	660	1,974	4,171	4,618	4,618	4,467	4,199
United States	1,094	1,275	1,660	1,490	1,430	1,410	1,360	1,750	1,650
Korea, Rep.	54	80	309	376	382	427	429	498	564
India	33	147	56	139	420	420	524	428	517
Germany	433	448	390	330	343	374	381	392	337
United Kingdom	296	302	301	288	211	211	229	274	271
Japan	393	416	343	291	224	236	273	255	254
Spain	111	115	219	279	262	263	244	257	245
Italy	275	258	283	262	245	233	195	235	229
Others	2,451	2,063	2,270	2,348	2,012	2,051	2,059	2,089	1,985
World	5,348	5,348	6,491	7,777	9,700	10,243	10,312	10,646	10,252

Source: World Bureau of Metal Statistics.

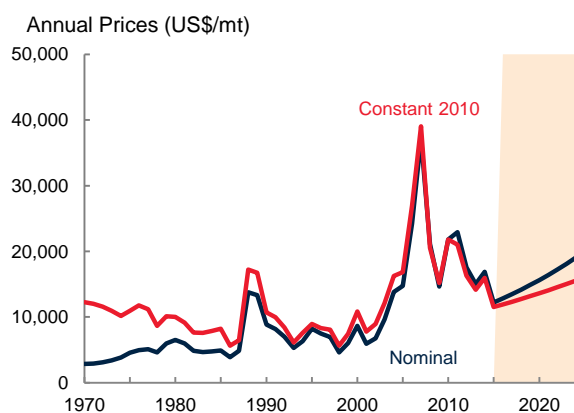
Note: n/a implies data not available. Refined production and consumption include significant recycled material.

Nickel



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand metric tons)									
Philippines	38	16	17	27	184	319	318	316	411
Australia	74	67	170	186	170	215	244	256	246
Russian Federation	n/a	n/a	266	289	274	270	269	242	238
Canada	189	196	191	200	160	219	212	223	235
New Caledonia	87	85	129	112	130	131	132	150	178
Indonesia	41	69	117	156	216	227	622	811	144
China	11	33	51	59	80	90	93	98	98
Brazil	3	13	32	38	54	75	90	74	86
Cuba	38	41	71	74	65	69	65	62	61
South Africa	26	30	37	42	40	43	46	51	55
Colombia	0	0	28	53	49	38	52	49	41
Madagascar	0	0	0	0	0	0	6	25	37
Guatemala	7	0	0	0	0	0	2	9	34
Others	n/a	n/a	82	120	108	128	123	134	127
World	749	888	1,191	1,356	1,531	1,823	2,272	2,503	1,991
Refined Production (thousand metric tons)									
China	11	28	52	97	314	470	591	711	644
Russian Federation	n/a	n/a	242	264	263	266	256	246	246
Japan	109	103	161	164	166	157	170	178	178
Australia	35	43	112	122	102	110	129	142	138
Canada	145	127	134	140	105	142	140	137	115
Norway	37	58	59	85	92	92	92	91	91
Brazil	3	13	23	30	28	43	59	56	73
New Caledonia	33	32	44	47	40	41	45	48	62
Finland	13	17	54	41	49	49	46	44	43
Colombia	0	18	28	53	49	38	52	49	41
United Kingdom	19	27	38	38	32	37	34	40	38
Madagascar	0	0	0	0	0	0	6	25	37
South Africa	18	28	37	42	34	36	33	32	35
Others	n/a	n/a	127	166	163	184	192	184	180
World	743	858	1,110	1,288	1,437	1,665	1,843	1,985	1,920
Refined Consumption (thousand metric tons)									
China	18	28	58	197	489	703	805	909	761
Japan	122	159	192	180	177	174	159	159	161
United States	142	127	153	128	119	134	126	123	152
Korea, Rep.	0	24	91	118	101	100	108	107	100
Taiwan, China	0	18	106	84	73	53	57	53	66
Germany	78	93	102	116	100	88	89	66	62
Italy	27	27	53	85	62	66	65	59	60
Spain	9	21	32	48	29	29	32	32	33
South Africa	n/a	n/a	35	47	41	34	32	35	31
Others	n/a	n/a	329	315	235	281	257	255	268
World	717	842	1,150	1,317	1,427	1,661	1,729	1,798	1,695

Source: World Bureau of Metal Statistics.

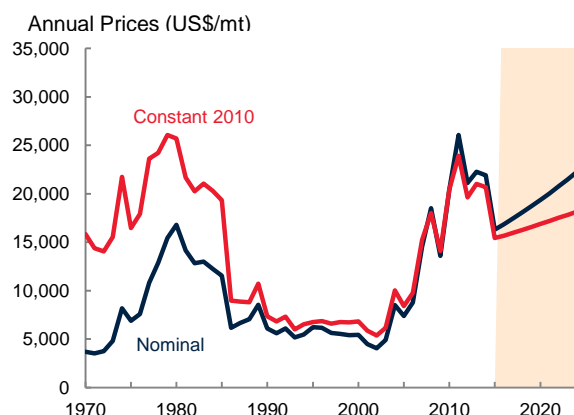
Note: n/a implies data not available.

Tin



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand metric tons)									
China	16	42	88	113	130	127	116	149	177
Indonesia	33	39	52	120	84	78	90	84	70
Peru	1	5	36	43	34	29	26	24	23
Bolivia	23	17	13	19	20	20	20	19	20
Myanmar	1	1	2	1	1	2	2	9	17
Brazil	7	39	14	12	10	11	14	14	14
Australia	12	7	9	3	19	15	6	6	7
Vietnam	0	1	2	5	5	5	5	5	5
Rwanda	2	1	0	3	3	5	3	4	4
Congo, DR	3	2	0	8	7	3	2	5	4
Malaysia	61	29	6	3	3	3	4	4	4
Nigeria	3	0	2	1	1	2	2	3	2
Lao People's DR	1	0	0	1	0	0	1	1	1
Others	72	42	10	3	1	1	1	1	1
World	231	225	234	333	318	303	292	327	349
Refined Production (thousand metric tons)									
China	15	36	110	112	149	155	148	159	187
Indonesia	31	38	46	78	64	73	80	63	68
Malaysia	71	49	26	39	39	40	38	33	37
Peru	0	0	17	38	36	30	25	24	26
Thailand	35	16	17	29	24	24	23	23	16
Bolivia	18	13	9	16	15	15	14	15	15
Brazil	9	38	14	9	9	9	12	12	12
Belgium	3	6	9	8	10	10	11	10	10
Vietnam	0	2	2	2	3	4	5	6	6
India	0	0	4	4	4	4	4	4	4
Poland	0	0	0	0	1	1	1	2	2
Japan	1	1	1	1	1	1	1	2	2
Russian Federation	n/a	n/a	5	4	1	1	1	1	1
Others	n/a	n/a	2	1	2	2	2	1	1
World	245	248	262	341	357	369	365	353	386
Refined Consumption (thousand metric tons)									
China	13	26	49	109	154	176	176	168	193
United States	47	37	51	42	32	32	31	29	29
Japan	31	35	25	33	36	27	28	28	27
Germany	19	22	21	19	17	20	18	18	19
Korea, Rep.	2	8	15	18	17	14	16	15	14
India	2	2	6	8	11	10	10	10	12
Netherlands	5	7	4	4	5	5	5	7	7
Spain	5	4	4	7	6	6	3	5	6
Vietnam	0	0	1	1	2	2	2	4	5
Others	100	98	101	97	88	85	70	70	67
World	223	238	277	339	369	377	358	354	379

Source: World Bureau of Metal Statistics.

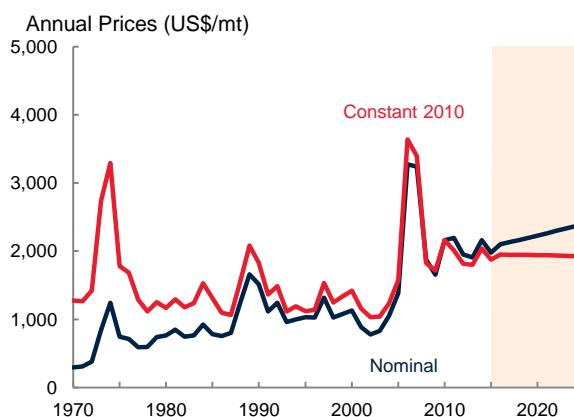
Note: n/a implies data not available.

Zinc



Source: World Bank.

Note: Last observation is September 2015.



Source: World Bank.

Note: 2015-25 are forecasts.

	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand metric tons)									
China	150	763	1,780	2,061	3,842	4,050	4,859	5,391	5,445
Australia	495	940	1,420	1,367	1,480	1,516	1,542	1,523	1,560
Peru	488	584	910	1,202	1,470	1,256	1,281	1,351	1,319
United States	349	571	829	748	748	769	738	788	831
India	32	70	208	447	740	733	725	817	729
Mexico	243	307	401	476	570	632	660	643	676
Bolivia	50	108	149	160	411	427	390	407	493
Canada	1,059	1,203	1,002	667	649	612	612	426	353
Kazakhstan	n/a	n/a	322	364	405	377	371	361	347
Ireland	229	167	263	429	354	344	338	327	283
Sweden	167	160	177	216	199	194	188	177	222
Russian Federation	n/a	n/a	132	186	269	282	259	209	217
Turkey	23	35	26	19	196	158	206	200	211
Others	n/a	n/a	1,204	1,228	1,176	1,185	1,211	1,202	1,344
World	6,172	7,176	8,823	9,569	12,510	12,535	13,380	13,822	14,029
Refined Production (thousand metric tons)									
China	155	552	1,957	2,725	5,209	5,212	4,881	5,302	5,827
Korea, Rep.	76	248	473	650	750	828	877	895	915
India	44	79	176	266	701	788	691	773	698
Canada	592	592	780	724	690	662	649	652	648
Japan	735	688	654	638	574	545	571	587	583
Spain	152	253	386	501	517	527	528	529	529
Australia	301	309	489	457	498	507	498	498	482
Peru	64	118	200	166	223	314	319	346	336
Mexico	145	199	337	334	322	322	324	323	326
Kazakhstan	n/a	n/a	263	357	319	320	320	320	325
Finland	147	175	223	282	307	307	315	312	302
Netherlands	170	208	217	225	264	261	257	275	290
Russian Federation	n/a	n/a	241	206	260	246	247	262	265
Others	n/a	n/a	2,757	2,587	2,285	2,305	2,086	2,021	1,998
World	6,159	6,698	9,153	10,119	12,919	13,145	12,563	13,095	13,525
Refined Consumption (thousand metric tons)									
China	200	369	1,402	3,040	5,350	5,460	5,396	5,995	6,420
United States	810	992	1,315	1,080	907	939	892	939	962
Korea, Rep.	68	230	419	448	540	544	553	578	644
India	95	135	224	389	538	556	561	640	636
Japan	752	814	674	602	516	501	479	498	503
Germany	474	530	532	514	494	515	474	479	474
Belgium	155	178	394	256	321	256	239	222	388
Russian Federation	n/a	n/a	138	166	203	202	222	265	242
Italy	236	270	377	373	339	338	247	245	240
Others	n/a	n/a	3,414	3,527	3,313	3,267	3,096	3,138	3,169
World	6,131	6,568	8,889	10,396	12,521	12,579	12,159	13,000	13,678

Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.



APPENDIX C

Description of price series
Technical notes

Description of Price Series

ENERGY

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

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

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

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

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

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

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

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

NON-ENERGY

Beverages

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

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

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

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

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

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

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

Oils and meals

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

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

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

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

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

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

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

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

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

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

Grains

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

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

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

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

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

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

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

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

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

Other food

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

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

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

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

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

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

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

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

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

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

Timber

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

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

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

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

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

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

Other raw materials

Cotton (Cotton Outlook "CotlookA 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 indices 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 of World Energy, 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
 mt = metric ton (1,000 kilograms)
 toz = troy oz

Acronyms

DAP	diammonium phosphate
EIA	Energy Information Administration
ENSO	El Niño Southern Oscillation
GDP	gross domestic product
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
JCPOA	Joint Comprehensive Plan of Action
LME	London Metal Exchange
LNG	liquefied natural gas
NOAA	National Oceanic Atmospheric Administration
NPI	nickel pig iron
OECD	Organization of Economic Cooperation and Development
OPEC	Organization of Petroleum Exporting Countries
SST	Sea Surface Temperature
S/U	stocks-to-use ratio
TSP	triple superphosphate
UN	United Nations
USDA	United States Department of Agriculture
WTI	West Texas Intermediate

Data sources

Baker Hughes
 Bloomberg
 BP Statistical Review of World Energy
 Cotton Outlook
 Fertilizer Week
 INFOFISH
 INTERFEL Fel Actualités Hebdo
 International Cocoa Organization (ICCO)
 International Coffee Organization (ICO)
 International Energy Agency (IEA)
 International Fertilizer 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
 MLA Meat & Livestock Weekly
 Platts International Coal Report
 Singapore Commodity Exchange
 Sopesco News
 Sri Lanka Tea Board
 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 indices

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

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

The five-year decline in most commodity prices continued in the third quarter of 2015 due to ample supplies and weak demand. The decline was led by energy prices, which dropped 17 percent, partly on expectations of increased future exports by Iran. A *Special Focus* section concludes that the impact of an unusually strong El Niño weather episode this year is unlikely to cause a spike in global agricultural commodity prices, although local disruptions are possible. Separately, this edition documents that Iran could ramp up oil production following the lifting of sanctions and, over the long-term, export a significant volume of oil and natural gas if the country attracts the necessary investment and technology to leverage its substantial reserves.

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