

JULY 2016

Commodity Markets Outlook

*From energy prices to food prices:
Moving in tandem?*



Q1
Q2
Q3
Q4



A World Bank
Quarterly Report

JULY 2016

Commodity Markets Outlook

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The World Bank's *Commodity Markets Outlook* is published quarterly, in January, April, July, and October. The report provides detailed market analysis for major commodity groups, including energy, agriculture, fertilizers, metals, and precious metals. A *Special Focus* section examines current topics and issues in commodity markets. Price forecasts to 2025 for 46 commodities are presented, together with historical price data. The report also contains production, consumption, and trade statistics for major commodities. Commodity price data updates are published separately at the beginning of each month.

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Executive Summary

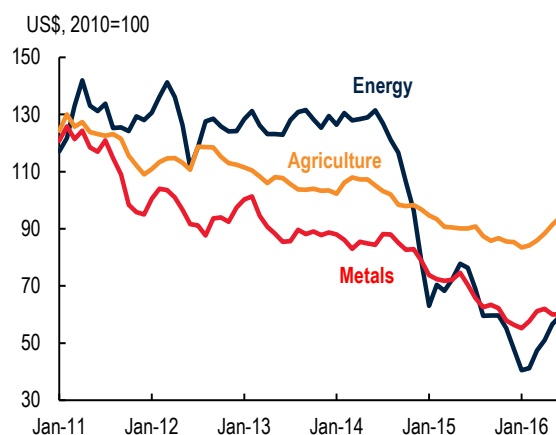
Most commodity price indexes rebounded in the second quarter of 2016, continuing their upward climb from January lows on improved market sentiment and tapering supplies. Oil prices jumped by more than a third due to supply outages and strong demand. Given this rebound and expected reduction in inventories during the second half of the year, the crude oil price forecast for 2016 is being raised to \$43 per barrel (bbl) from \$41/bbl in the April assessment, still a 15 percent drop from 2015. Metals prices are projected to decline 11 percent in 2016, a slightly larger drop than anticipated in April, mainly driven by an ongoing surplus in the copper market. Agricultural prices for 2016 have been revised slightly upwards due to weather patterns in South America, but are still expected to register a marginal decline from last year. A large upward revision for precious metal prices of more than 8 percentage points versus the April assessment reflects the increased demand for safe haven assets. For 2017, a modest recovery is projected for most commodities as demand strengthens and supply tightens. This issue of the Commodity Markets Outlook examines the implications of low energy prices for food prices. It finds that, given the energy-intensive nature of agriculture, high energy prices were an important driver of the post-2006 surge in agricultural prices. Over 2011-16, lower energy prices are estimated to account for up to one-third of the projected 32 percent decline in prices of grains and soybeans.

Trends. Energy prices leapt almost 30 percent in the second quarter of 2016 (Figure 1). Oil prices averaged \$47.70/bbl in June, 37 percent above their first quarter average. The oil price rebound reflects a number of supply disruptions that removed up to 2.5 million barrels per day (mb/d) of production at peak during May and June, with large losses concentrated in Canada due to wildfires, and in Nigeria due to militant attacks on oil infrastructure. In addition, there were disruptions in other countries, including Kuwait, Iraq, and Libya. Declines in non-OPEC production, led by the United States, were partly offset by higher OPEC production, mainly from Iran. Global oil demand remained strong, albeit slowing. In contrast, natural gas prices were down 5 percent in the second quarter, particularly in Europe and Asia, due to weak demand and surplus supplies of liquefied natural gas (LNG). However, U.S. gas prices rose from their lows in March on stronger demand and higher exports. Coal prices rose 2 percent on tightening supply and strong demand in China.

Non-energy commodity prices rose 7 percent in the second quarter, led by agriculture, which was up 8 percent. Gains were concentrated in oils and meals (up 17 percent) due to poor harvests in South America (some grains and soybeans) and East Asia (palm oil). Other food commodity prices rose moderately. Metals prices rose 5 percent in the second quarter, with gains concentrated in iron ore, zinc and tin on production cuts and stronger demand. Precious metals prices rose 8 percent due to strong investor demand prompted by anticipation of delays in the normalization of monetary policy in the United States and growing concerns about global growth. Fertilizer prices fell almost 7 percent amid weak demand and surplus production capacity.

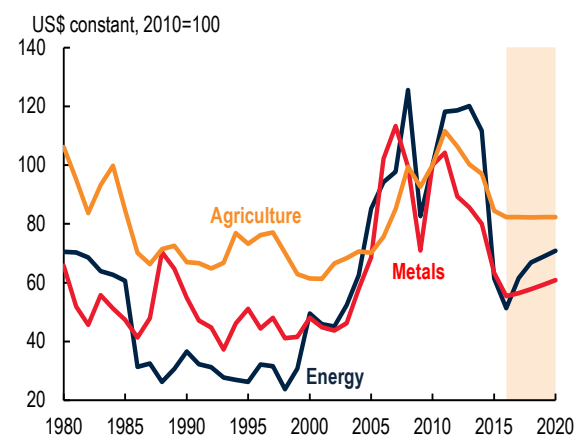
Outlook and risks. All main commodity price indexes (except food and precious metals) are expected to decline in 2016 (Figure 2) due to large supplies and, in the case of industrial commodities, weak growth prospects in emerging market and developing economies (EMDEs). However, the annual decline in prices is

1 Commodity price indexes, monthly



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

2 Commodity price indexes, annual



Source: World Bank.
Note: Shaded area denotes price forecast (2016-20).

smaller than forecast in the April 2016 *Commodity Markets Outlook* (Table 1). Energy prices are expected to fall 16 percent, with average oil prices projected at \$43/bbl in 2016 (compared with \$41/bbl in the April assessment). This implies marginally higher prices for the second half of 2016, as the oversupply in the oil market diminishes. Downside risks to the energy price forecast include higher-than-expected output and further weakening in EMDE growth. Supply disruptions among key producers could lead to higher prices.

Non-energy commodity prices are expected to drop 4 percent in 2016, 1 percentage point less than forecast in the April assessment. Agricultural prices have been revised up 2 percentage points, but are still projected to average marginally lower in 2016 than in 2015. The outlook reflects adequate supplies for most commodities but also takes into account reduced harvests in South America (especially Brazil) due to dry weather conditions. Agricultural commodity prices are also expected to be dampened by lower energy costs and plateauing demand for biofuels. Although the food price index is expected to grow only moderately next year, there is considerable dispersion among its key components: Grains and beverages are both projected to fall 4 percent and raw materials by 2 percent, while oils and meals are expected to increase 3 percent. Upside risks to agricultural price forecasts include the likely intensification of La Niña (unusually cold weather in the equatorial Eastern Central Pacific Ocean), which could affect some food commodities, such as maize in the United States and wheat in Australia. Downside price risks reflect in-

creased agricultural subsidies, which would encourage greater supply of food commodities. Fertilizer prices are projected to retreat 18 percent in 2016 due to surplus capacity, weak demand, and low natural gas prices, used as feedstock to the production of some fertilizers.

Metals prices are projected to decline 11 percent in 2016, which follows last year's 21 percent drop, due to weak demand prospects and new capacity coming on line. The largest declines are for nickel and copper, amid surplus supply, while the zinc market is expected to tighten with the closure of large mines. Downside price risks for non-energy industrial commodities include further slowdown in China and currency depreciations in key suppliers. Precious metals prices are projected to rise 8 percent in 2016 on stronger safe-haven buying and deepening concerns about global growth prospects.

Special Focus on the implications of low energy prices for food prices. Energy prices declined 45 percent in 2015 and are projected to drop another 16 percent in 2016. Since agriculture is energy intensive, lower energy prices reduce the cost of producing food commodities. Lower energy prices can ease policy pressures to encourage production of biofuels, which have been a key factor behind the growth of food commodity demand over the past decade. Indeed, energy prices were an important driver of the post-2006 surge in agricultural prices. During 2011-16, energy price changes are estimated to contribute about one-third to the projected 32 percent decline of grain commodities and soybeans prices.

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

	Price Indexes (2010=100)						Change (%)		Revision ²	
	2012	2013	2014	2015	2016f ¹	2017f ¹	2015-16	2016-17	2016f	2017f
Energy	128	127	118	65	54	66	-16.4	22.2	1.9	3.4
Non-Energy³	110	102	97	82	79	81	-4.1	2.1	0.8	0.7
Agriculture	114	106	103	89	89	90	-0.7	1.5	2.4	2.2
Beverages	93	83	102	94	90	89	-4.2	-0.3	0.4	0.5
Food	124	116	107	91	91	93	0.4	1.6	3.4	3.1
Oils and meals	126	116	109	85	87	89	2.7	2.3	5.2	4.8
Grains	141	128	104	89	86	88	-3.7	2.6	1.4	1.3
Other food	107	104	108	100	101	101	1.0	0.2	2.9	2.7
Raw Materials	101	95	92	83	82	84	-1.7	2.3	1.1	1.0
Fertilizers	138	114	100	95	78	80	-18.0	2.0	-4.6	-4.2
Metals and Minerals	96	91	85	67	60	62	-11.0	3.6	-1.8	-2.0
Precious Metals³	138	115	101	91	97	95	7.5	-2.0	8.3	7.3
Memorandum items										
Crude oil (\$/bbl)	105	104	96	51	43	53	-15.2	23.7	2.0	3.2
Gold (\$/toz)	1,670	1,411	1,266	1,161	1,250	1,219	7.7	-2.4	100.0	87.1

Source: World Bank.

Notes: (1) "f" denotes forecasts. (2) Denotes revision to the forecasts from the April 2016 report (expressed as change in index value except for \$/bbl for crude oil, and \$/toz for gold). (3) The non-energy price index excludes precious metals. See Appendix C for definitions of prices and indexes.



SPECIAL FOCUS:

From energy prices to food prices:
Moving in tandem?

From energy prices to food prices: Moving in tandem?

Energy prices declined 45 percent in 2015 and are projected to drop another 16 percent in 2016. Given the energy intensive nature of agriculture, lower energy prices will help reduce the cost of producing food commodities. They will also ease policy pressures to encourage production of biofuels, which have been a key factor behind the growth of food commodity demand over the past decade. During 2011-16, they are likely to account for up to one-third of the projected 32 percent price decline of grain commodities and soybeans.

Introduction

In 2016, food commodity prices are expected to average 26 percent below their 2011 highs (Figure F1). The decline in food prices has been due to a range of factors. Key among them have been falling energy prices, which are an important cost component of food production, and improved overall crop conditions, which are due to a robust supply response induced by large investment during the 2000s. Given the energy-intensive nature of agricultural production, the post-2014 weakness in energy prices is expected to continue to weigh on food prices.

Against this background, this *Special Focus* discusses the following three questions: (1) Through which channels do energy prices affect food commodity prices? (2) What are the major factors driving food prices? (3) Which factors mattered most during the post-2000 price cycle?

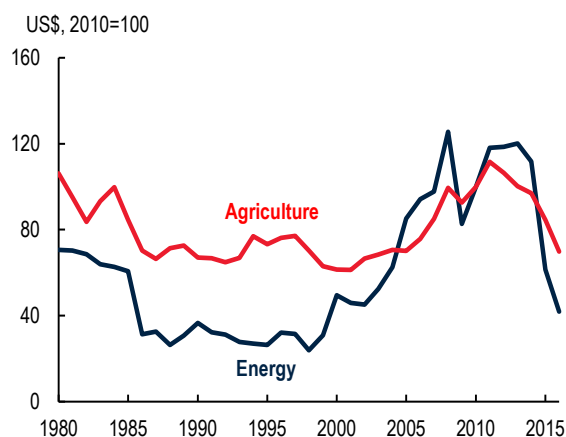
Through which channels do energy prices affect food commodity prices?

Energy prices affect food commodity prices through two main channels (Figure F2). First, fuel is a key cost component of producing and transporting food commodities (link A). Energy constitutes more than 10

percent of the cost of agricultural production—four to five times the energy intensity of manufacturing production (Figure F3). Furthermore, some chemicals and fertilizers that are by-products of crude oil or made from natural gas are also another large cost component (link B/C in Figure 2).

Second, energy price changes affect commercial incentives and policy support for biofuels use, which is partly driven by an objective to reduce dependence on imported crude oil. The diversion of some food commodities to the production of biofuels is an important driver of food commodity demand (link D/F in Figure F2).¹ During the past decade, biofuels constituted the largest source of growth in demand for grains and oilseeds. Currently, biofuels account for about three percent of global area allocated to grains and oilseeds and contribute the equivalent of 1.5 million barrels per day (1.6 percent) to global liquid energy consumption (Figure F4). Most biofuel production comes from maize-based ethanol in the United States and accounts for 49 percent of global biofuel production.² Sugar-based ethanol from Brazil accounts for 20 percent of the total, while edible oil-based biodiesel and ethanol in the European Union account for 15 percent (Brazil was the world's dominant biofuel producer until 2000). The remainder is produced by a

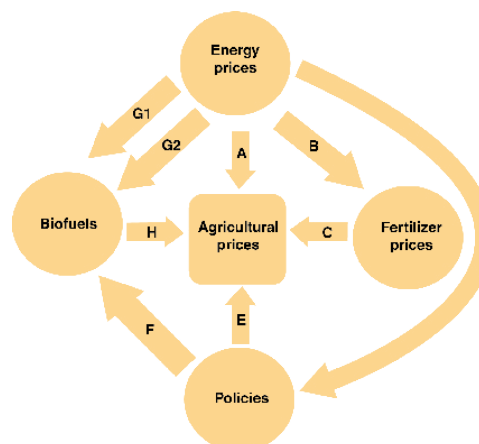
F1 Energy and agriculture price indexes



Source: World Bank.

Note: Definitions and compositions of price indexes can be found in Appendix A and C. Last observation is 2016 and represents forecast as of July 2016.

F2 The energy-biofuel-food price link



Source: Baffes (2013).

Notes: A—fuel channel; B/C—Fertilizer channel; D/F—policy-induced biofuel channel; E—other energy policies; G1—profitable biofuel channel due to high oil prices; G2—profitable biofuel channel due to induced innovation in biofuel technology.

number of smaller contributors, including Canada, China, and Thailand.

Based on data prior to the rise of biofuels, numerous studies have estimated the transmission elasticity of energy to non-energy prices, including food prices. The elasticities have been estimated to range from 0.11 to 0.16 (Borensztein and Reinhart 1994; Gilbert 1989; Baffes 2007). Food commodity prices (and agricultural prices more broadly) are more sensitive to energy prices than other non-energy prices, with average elasticity estimates ranging from 0.18 to 0.25 (Baffes 2007; Chaudhuri 2001; Gilbert 1989). For the United States, several authors have documented a sizable pass-through of oil price changes to agricultural producer prices as well (Hanson et al. 1993; Moss et al. 2010).

The more recent literature, which examines the energy/non-energy price link by also taking into account the biofuel channel, finds more tenuous links between energy and non-energy commodity prices (Saghalian 2010; Gilbert 2010; Zhang et al. 2010; Reboredo 2012). The mixed evidence could reflect different data frequencies (Zilberman et al. 2013) or the mandated nature of biofuels (De Gorter and Just 2008). For example, a technology-driven decline in oil prices would increase demand for oil and, because of the mandated nature of biofuel policies, would also increase demand (and hence the price) of ethanol.

What are the major factors driving food prices?

A reduced-form econometric model is estimated to identify the major drivers of the prices of agricultural commodities that, together, account for the largest part of world arable land: maize, soybeans, wheat, rice, palm oil, and cotton. The model incorporates the

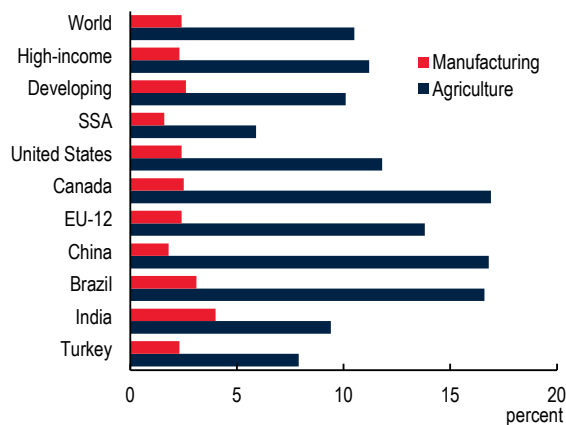
five main drivers of real agricultural prices (deflated by manufacturing prices): oil prices and exchange rates as cost components; GDP and interest rates as proxies for demand and monetary conditions; and stock-to-use ratios as proxies of crop conditions and biofuel policies. Implicitly, the stock-to-use ratio accounts for the diversion of food commodities to the production of biofuels (see Technical Appendix for model description and elasticity estimates).

Impact of oil prices. The estimated elasticities on oil prices are significantly different from zero for all food prices with an average (panel regression) estimate of 0.19. That is, a 10 percent increase in oil prices is associated with almost 2 percent increase in food prices. These elasticities are consistent with the literature which examined the effect of energy prices on the prices of food commodities based on data before the biofuel boom.

Impact of crop conditions and biofuel policies. The stock-to-use ratio, a measure of how well-supplied food markets are relative to demand (including biofuels), is also an important contributor to food price variability (Figure F5). Typically, low stocks-to-use ratios exert upward pressure on the prices of storable commodities, as was the case in the early stages of the price boom (conversely, the relatively high stocks of the past few years reduced such pressure.) The elasticity of real food prices to the stock-to-use ratio is estimated at -0.33. That is, a 10 percentage point increase in the stock-to-use ratio is associated with a 3.3 percent decline in food prices, similar to findings reported elsewhere (Bobenrieth et al. 2012, FAO 2008).

Impact of monetary conditions. The estimated impact of interest rates on food prices is either statistically insignificant (maize) or small (wheat, rice, soybeans, palm oil, cotton). This weak evidence is a common

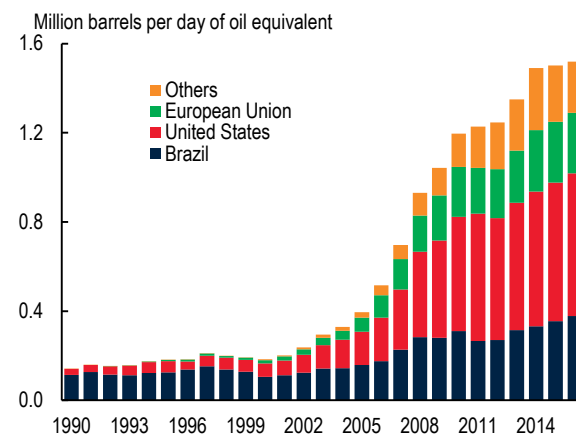
F3 Cost of energy component



Source: World Bank calculations based on the GTAP database.

Note: SSA = Sub-Saharan Africa. The energy intensity reflects the energy cost component of agriculture and manufacturing industries and accounts for both direct and indirect use of energy.

F4 Global biofuels production



Sources: BP Statistical Review and World Bank.

Note: Last observation is 2016.

finding in the empirical literature (Frankel and Rose 2010; Frankel 2014; Anzuini et al. 2010, Akram 2009).³

Impact of dollar appreciation. When the U.S. dollar appreciates (as it did over the past two years), the value of other assets that are evaluated against the U.S. dollar—including commodities—tends to decline. Over the medium-term, U.S. dollar appreciation raises commodity prices in domestic currency terms and leads to supply increases from non-U.S. dollar exporters and demand cuts from non-U.S. dollar importers (Radetzki 1985). On average, a 10 percent appreciation of the U.S. dollar is associated with a 5 percent decline in food commodity prices. The inverse relationship between the U.S. dollar and commodity prices is empirically well-established (Lamm 1980; Gardner 1981; Baffes and Dennis 2015 for agriculture; Gilbert 1989; Akram 2009 for metals).

Impact of GDP. As GDP rises, food consumption grows more slowly than consumption of other goods and services (Engel's Law, Engel 1857). This results in declining food prices relative to manufactured goods prices (the Prebisch-Singer hypothesis; Prebisch 1950; Singer 1950). A 10 percent increase in real GDP is associated with a 6 percent decline in real food prices.⁴

Which factors mattered most during the post-2000 price cycle?

The above elasticities combined with actual movements of the fundamental drivers of food prices provide a guide to the main reasons for the post-2011 weakness in food prices. Real prices of the three key grains—maize, wheat, and rice—and soybeans are expected to average 43, 42, 25, and 23 percent, respectively, lower in 2016 compared to their 2011 highs.⁵ About one-third of this decline can be explained by

the real oil price drop.⁶ The steady increase in incomes is estimated to shave another one-sixth off real grain prices during 2011-16 (Figure F6, right panel).

These developments are a reversal of trends during the boom part of the post-2000 commodity price cycle. During 2000-08, oil prices increased from \$35/bbl to \$94/bbl in real (2010) terms. The stock-to-use ratio for wheat, maize, and rice declined, on average, from 0.34 to 0.22 percent during this period (but was broadly constant for soybeans). While the decline in the stock-to-use ratio contributed up to 13 percentage points to the average grain and soybean price drop between 2000 and 2008, oil prices contributed about 16-18 percent (Figure F6, left panel).

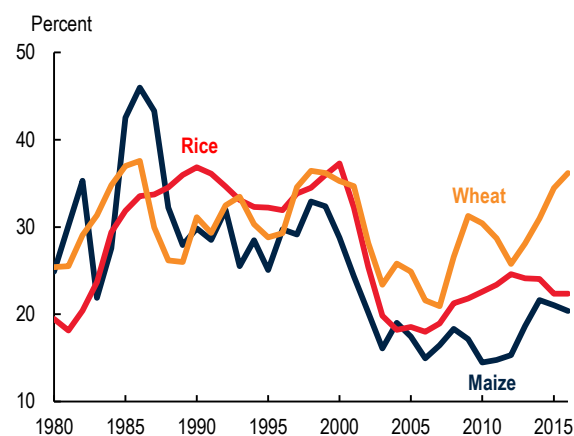
Conclusion

Given the energy-intensive nature of agriculture, lower energy prices are expected to reduce the costs of producing food commodities. They should also ease policy pressures to encourage biofuels production, which has been a key source of growth in food commodity demand over the past decade. Energy prices declined 45 percent in 2015 and are projected to drop another 16 percent in 2016. Based on elasticity estimates from a reduced-form econometric model, it is shown that the impact of lower energy prices on food commodities was about twice as much compared to the impact of crop conditions.

Endnotes

1. Links G1 and G2 represent the cases when biofuels become profitable. These scenarios are mostly relevant under high oil prices. For example, if biofuels are profitable (link G1) the price of oil acts as a floor to agricultural prices. Technological improvements under an induced innovation scenario could increase the energy

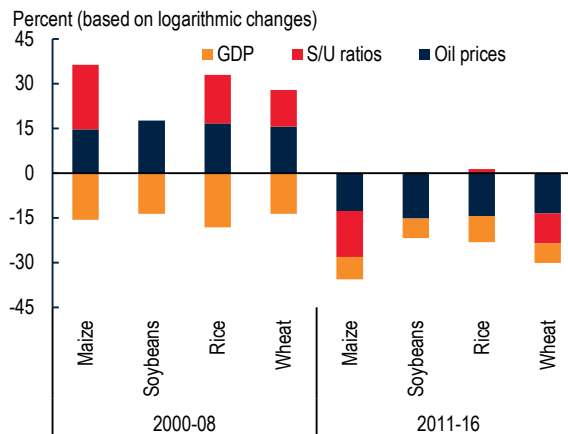
F5 Global stock-to-use ratios



Source: U.S. Department of Agriculture.

Note: The last observation refers to the 2016/17 crop year (July 2016 USDA update).

F6 Contribution to explained price variation



Source: World Bank.

Note: Predicted contributions (of the three most important drivers) are defined as the parameter estimates times the logarithmic changes during 2000-08 and 2011-16.

content of biofuels crops thereby rendering biofuels profitable even under a low oil price scenario (link G2), in which case, again, oil prices set a floor for agricultural prices (see Baffes 2013).

2. About 38 percent of U.S. maize goes to the production of ethanol—yet because one-third of maize returns to the feed industry in the form of byproducts, the actual share is 25 percent.
3. The literature typically assumes that when interest rates are low, increased consumption and larger stock holding will increase demand. Baffes and Savescu (2014) conjectured that the low cost of capital may have induced parallel (and similar) rightward shifts in both demand and supply schedules, thus explaining the muted impact of interest rate on commodity prices.
4. It has often been argued that changing consumption patterns by emerging economies, especially China and India, were key drivers of the boom (e.g., Krugman 2008, Wolf 2008, and Bourne 2009). However the evidence is to the contrary (see Alexandratos 2008; FAO 2008; Alexandratos and Bruinsma 2012; Sarris 2010; Baffes and Haniotis 2010; FAO 2009; and Lustig 2008). Deaton and Drèze (2008), noted that despite growing incomes, the caloric intake in India has followed a downward trend since the early 1990s.
5. To ensure consistency with the model described in the Technical Appendix, the decomposition has been applied to logarithmic changes, not percentage changes.
6. Although crude oil price remained high during 2011-13, low natural gas prices in the U. S. not only kept in check the costs of producing food commodities in the U.S. but also reduced the price pressure on fertilizer prices. For example, following their all time high of almost \$9/mmbtu in 2008, U.S. natural gas prices have been declining steadily to \$2.60/mmbtu. And, unlike other commodity prices, U.S. natural gas prices did not rebound after the Great Recession because of the large expansion of shale gas.

References

- Akram, F.Q. 2009. "Commodity Prices, Interest Rates, and the Dollar." *Energy Economics*, 31, 838-851.
- Alexandratos, N. 2008. "Food Price Surges: Possible Causes, Past Experience, and Long-Term Relevance." *Population and Development Review*, 34, 599-629.
- Alexandratos, N., and J. Bruinsma 2012. World Agriculture towards 2030/2050: The 2012 Revision. ESA Working Paper No. 12-03. Agricultural Development and Economics Division, Food and Agriculture Organization of the United Nations, Rome.
- Anzuini, A., M.J. Lombardi, and P. Pagano 2010. "The Impact of Monetary Policy Shocks on Commodity Prices." ECB Working Paper 1232. European Central Bank, Frankfurt, Germany.
- Baffes, J. 2007. "Oil Spills on Other Commodities." *Resources Policy*, 32, 126-134.
- _____. 2013. "A Framework for Analysing the Interplay among Food, Fuels, and Biofuels." *Global Food Security*, 2, 110-116.
- Baffes, J., and A. Dennis. 2015. "Long-term Drivers of Food Prices." In *Trade policy and food security: Improving access to food in developing countries in the wake of high food prices*, Ch. 1, pp. 13-33, ed. I. Gillson and A. Fouad. Directions in Development, World Bank, Washington, DC.
- Baffes, J., and C. Savescu. 2014. "Monetary Conditions and Metals Prices." *Applied Economics Letters*, 21, 447-452.
- Baffes, J., and T. Haniotis. 2010. "Placing the Recent Commodity Boom into Perspective." In *Food Prices and Rural Poverty*, ch.2, pp. 40-70, ed. A. Aksoy and B. Hoekman. Centre for Economic Policy Research and the World Bank, Washington DC.
- _____. Forthcoming. "What Explains Agricultural Prices?" *Journal of Agricultural Economics*.
- Baffes, J., and X.L. Etienne. 2016. "Analysing Food Prices Trends in the Context of Engel's Law and the Prebisch-Singer Hypothesis." *Oxford Economic Papers*, 68, 688-713.
- Bobenrieth, E., B. Wright, and D. Zeng. 2012. "Stocks-to-Use Ratios as Indicator of Vulnerability to Spikes in Global Cereal Markets." Paper presented at the Second Session of the Agricultural Marketing Information System, Global Food Market Group. Food and Agriculture Organization of the United Nations, Rome.
- Borensztein, E., and C.M. Reinhart. 1994. "The Macroeconomic Determinants of Commodity Prices." *IMF Staff Papers*, 41, 236-261.
- Bourne, J.K. 2009. "The Global Food Crisis: The End of Plenty." *National Geographic*, June.
- Chaudhuri, K. 2001. "Long-run Prices of Primary Commodities and Oil Prices." *Applied Economics*, 33, 531-538.
- Deaton, A., and G. Laroque. 1992. "On the Behavior of Commodity Prices." *Review of Economic Studies*, 59, 1-23.

- Deaton, A., and J. Dréze. 2008. "Nutrition in India: Facts and Interpretations." *Economic and Political Weekly*, 44, 42-65.
- De Gorter, H., and D.R. Just. 2009. "The Economics of a Blend Mandate for Biofuels." *American Journal of Agricultural Economics*, 91, 738-750.
- Engel, E. 1857. "Die Productions- und Konsumptionsverhaeltnisse des Koenigreichs Sachsen." *Zeitschrift the Statistischen Bureaus des Koeniglich Saechsischen Ministeriums des Inneren* No 8 and 9.
- FAO, Food and Agriculture Organization of the United Nations. 2009. *The State of Agricultural Commodity Markets: High Food Prices and the Food Crisis—Experiences and Lessons Learned*. Food and Agriculture Organization, Rome.
- _____. 2008. "Soaring Food Prices: Facts, Perspectives, Impacts, and Actions Required." Technical report presented at the FAO's 'High—Level Conference on World Food Security: The Challenges of Climate Change and Bioenergy, Rome.
- Frankel, J.A. 2014. "Effects of Speculation and Interest Rates in a 'Carry Trade' Model of Commodity Prices." *Journal of International Money and Finance*, 42, 88-112.
- Frankel, J.A., and A.K. Rose. 2010. "Determinants of Agricultural and Mineral Commodity Prices." In *Inflation in an Era of Relative Price Shocks*, edited by R. Fry, C. Jones, and C. Kent, 9-51. Reserve Bank of Australia and Centre for Applied Macroeconomic Research, Sydney, Australia.
- Gardner, B. 1981. "On the Power of Macroeconomic Linkages to Explain Events in U.S. Agriculture." *American Journal of Agricultural Economics*, 63, 871-878.
- Gilbert, C.L. 2010. "How to Understand High Food Prices." *Journal of Agricultural Economics*, 61, 398-425.
- _____. 1989. "The Impact of Exchange Rates and Developing Country Debt on Commodity Prices." *Economic Journal*, 99, 773-783.
- Hanson, K., S. Robinson, and G.E. Schluter 1993. "Sectoral Effects of a World Oil Price Shock: Economywide Linkages to the Agricultural Sector." *Journal of Agricultural and Resource Economics*, 18, 96-116.
- Holtham, G.H. 1988. "Modeling Commodity Prices in a World Macroeconomic Model." In *International commodity market models and policy analysis*, edited by O. Guvenen. Kluwer Academic Publishers, Boston, MA.
- Krugman, P. 2008. "Grains Gone Wild." *The New York Times*, April 7.
- Lamm, M.R., Jr. 1980. "The Role of Agriculture in the Macroeconomy: A Sectoral Analysis." *Applied Economics*, 12, 19-35.
- Lustig, N. 2008. "Thought for Food: The Challenges of Coping with Soaring Food Prices." Working Paper 155, Center for Global Development, Washington, DC.
- Moss, C.B, G. Livanis, and A. Schmitz. 2010. "The Effect of Increased Energy Prices on Agriculture: A Differential Supply Approach." *Journal of Agricultural and Applied Economics*, 42, 711-718.
- Prebisch, R. 1950. "The Economic Development of Latin America and its Principal Problems." *Economic Bulletin for Latin America* 7, 1-12.
- Radetzki, M. 1985. "Effects of a Dollar Appreciation on Dollar Prices in International Commodity Markets." *Resources Policy*, 11, 158-159.
- Reboredo, J.C. 2012. "Do Food and Oil Prices Comove?" *Energy Policy*, 49, 456-467.
- Saghalian, S.H. 2010. "The Impact of the Oil Sector on Commodity Prices: Correlation or Causation?" *Journal of Agricultural and Applied Economics*, 42, 477-485.
- Sarris, A. 2010. "Trade-Related Policies to Ensure Food (Rice) Security in Asia." In *The Rice Crisis*, edited by David Dawe, 61-87. Earthscan, London.
- Singer, H. 1950. Comments to the Terms of Trade and Economic Development. *Review of Economics and Statistics* 40, 84-89.
- Wolf, M. 2008. "Food Crisis is a Chance to Reform Global Agriculture." *Financial Times*, April 27.
- World Bank. 2015. *Commodity Markets Outlook: How Important are China and India in Global Commodity Consumption?* July. World Bank, Washington DC.
- Zhang, Z., L. Lohr, C. Escalante, and M. Wetzstein 2010. "Food Versus Fuel: What Do Prices Tell Us?" *Energy Policy*, 38, 445-451.
- Zilberman, D., G. Hochman, D. Rajagopal, S. Sexton, and G. Timilsina. 2013. "The Impact of Biofuels on Commodity Food Prices: Assessment of Findings." *American Journal of Agricultural Economics*, 95, 275-281.

Technical Appendix: Modeling food price trends

To identify the long-term impact of the various sectoral and macroeconomic fundamentals on real commodity prices, this appendix presents estimates from a reduced-form econometric model reported in Baffes and Hanriot (2016). The model takes the following form:

$$\log(P_t) = \beta_0 + \beta_1 \log(Y_t) + \beta_2 R_t + \beta_3 \log(X_t) + \beta_4 \log(S_{t-1}) + \beta_5 \log(P_t^E) + \varepsilon_t$$

P_t is the real price of the commodity. Y_t denotes real income (proxied by GDP), R_t denotes the real interest rate, X_t is the U.S. dollar exchange rate, S_t denotes the stock-to-use ratio, P_t^E is the real price of crude oil, the β_j s are parameters to be estimated and ε_t is the error term. Because the variables (except the interest rate) are expressed in logarithmic levels, the estimated parameters can be interpreted as elasticities.

The model is applied to five food commodities (maize, soybeans, wheat, rice, and palm oil) and to cotton, whose inclusion was motivated by a desire to account for as much of the world's arable land as possible. Commodity prices are annual averages from 1960 to 2014, expressed in U.S. dollars per metric ton for crops and in U.S. dollars per barrel for crude oil (pink sheet data). All commodity prices have been deflated by the Manufacturing Unit Value index (MUV). The MUV—often viewed as a global deflator—is a U.S. dollar trade-weighted index of manufactured goods exported from 15 economies (Brazil, Canada,

China, Germany, France, India, Italy, Japan, Mexico, Republic of Korea, South Africa, Spain, Thailand, United Kingdom, and United States). To obtain the real interest rate, the interest rate on the 3-month U.S. Treasury bill is adjusted by the U.S. Consumer Price Index. The exchange rate is the U.S. dollar real effective exchange rate against a basket of 26 currencies. Interest rate, exchange rate and CPI are taken from the Board of Governors of the Federal Reserve System. Income is proxied by the real global GDP, taken from the World Bank's World Development Indicators.

Before estimating the model, the unit root properties of all the variables under consideration were examined by using the modified Dickey-Fuller and Phillips-Perron testing procedures. The results of the stationarity tests indicate that each of the variables other than the stock-to-use ratio contains a unit root, and the error terms of all regressions were stationary (stationarity test results are not reported here).

The model was estimated within an OLS (ordinary least-squares) and a panel framework. This choice was motivated by the desire to estimate the effects of the fundamentals on the prices of individual commodities (OLS estimates, reported in the first six columns of Table) and also to have a sense of the average effects across all commodities (panel estimates, reported in the last column of Table). Based on a Hausman test, the fixed effect model was rejected in favor of a random effect model (the chi-square statistic was 0.40 with a p-value of 0.995).

TABLE F1 Parameter estimates

	Maize	Soybeans	Wheat	Rice	Palm oil	Cotton	Panel
Constant	13.90*** (6.71)	12.30** (4.77)	11.30** (4.82)	20.70*** (7.31)	15.40*** (4.68)	15.10*** (6.01)	4.32*** (12.31)
Real GDP	-0.62*** (-7.86)	-0.54*** (-5.48)	-0.54*** (-6.10)	-0.72*** (-6.05)	-0.74*** (-5.92)	-0.71*** (-7.33)	-0.62*** (14.15)
Real interest rate	-0.02 (0.98)	-0.05*** (-3.25)	-0.05*** (-3.42)	-0.03** (-1.72)	-0.05*** (-2.41)	-0.03*** (-2.23)	-0.03*** (-4.94)
Real exchange rate	-0.41 (1.16)	-0.34 (-0.93)	-0.056 (-0.16)	-1.39*** (-3.45)	-0.22 (-0.47)	-0.22 (-0.61)	-0.45*** (2.58)
Stock-to-Use ratio (lag)	-0.48*** (6.90)	-0.18*** (-3.38)	-0.43*** (-4.58)	-0.29*** (-3.39)	-0.34*** (-3.15)	-0.40*** (-4.64)	-0.33*** (8.22)
Real oil price	0.15*** (2.99)	0.18*** (3.62)	0.16*** (3.38)	0.17*** (3.11)	0.32*** (4.58)	0.13*** (2.66)	0.19*** (8.12)
R-square	0.76	0.63	0.63	0.73	0.61	0.73	0.64
N° of observations	55	50	55	55	50	55	310

Notes: All variables (except interest rate) are expressed in logarithmic terms. The dependent variable is the logarithm of the nominal price divided by the price of manufacture goods. Because of data unavailability, the regressions for soybeans and palm oil begin in 1965 (the rest span 1960-2014). The last row, Panel, reports estimates from a random effects model. The R-square for the Panel refers to the overall R-square. Absolute t-statistics in parentheses, * = 10 percent, ** = 5 percent, *** = 1 percent.



COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy
Agriculture
Fertilizers
Metals and minerals
Precious metals

Energy

The World Bank Energy Price Index rose 29 percent in the second quarter of 2016 from the previous quarter. Oil jumped 37 percent on numerous supply outages, while coal prices rose 2 percent, also on reduced supply. Natural gas prices fell 5 percent on continued weak demand and oversupply.

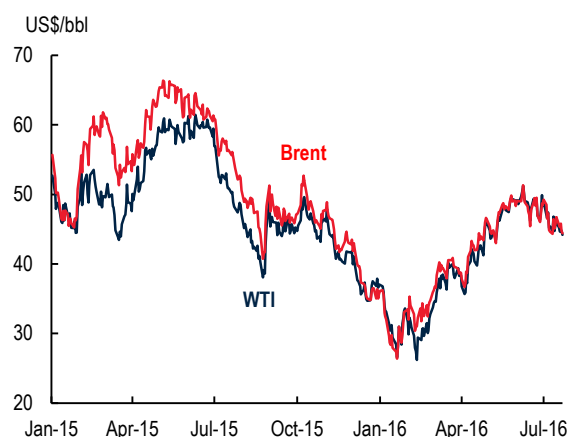
Crude oil

Crude oil prices rose 37 percent in the second quarter and averaged \$44.8/bbl on a number of supply outages (Figure 3). Oil prices climbed for five straight months, averaging \$47.7/bbl in June, and have traded in a relatively narrow band of \$45-49/bbl since mid-May. Prices eased in July on slowing demand for gasoline and recovery of disrupted oil supply.

At their peak, large supply disruptions removed up to 2.5 mb/d of production during May/June, with losses concentrated in Canada because of wildfires in Alberta's oil sands region, and in Nigeria due to militant attacks on oil infrastructure. In addition there were disruptions in Kuwait, Iraq, Libya and elsewhere. Meanwhile, underlying non-OPEC production continued to decline, led by the United States, but this was partly offset by higher OPEC production, mainly from Iran. Global demand remained fairly robust, particularly in India, but there was noticeable slowing in the United States and China.

With the supply outages, the market quickly transitioned toward balance on a current supply/demand basis, though stocks remain near-record levels. Inventories are expected to decline modestly in the second half of the year, led by higher seasonal demand and declining non-OPEC supply—this despite a rebound in shut-in volumes in Canada.

3 Crude oil prices



Source: Bloomberg.

Note: Daily frequency. Last observation is July 22, 2016.

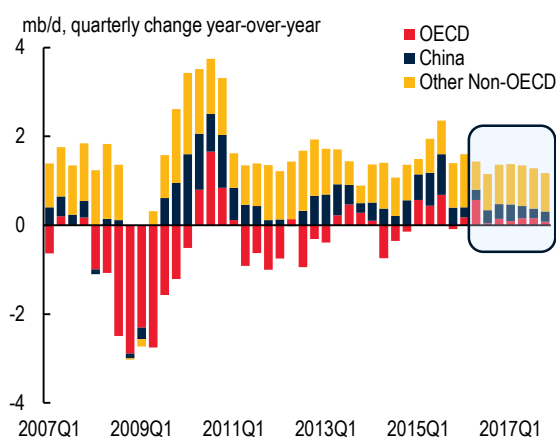
The differential between West Texas Intermediate (WTI) and Brent spot crude oil prices narrowed to a small premium for WTI, owing to reduced supply from Canada and higher imports from offshore. The Brent market remained well supplied, and crude demand was partly curtailed by strikes at French refineries. Futures prices several years forward show the WTI discount to Brent widening to more than \$4/bbl, as the U.S. is expected to remain a large oil importer, and crude exports are expected to be limited despite lifting of the export ban.

Demand

World oil demand in the first quarter rose by 1.6 mb/d or 1.7 percent y/y, down slightly from strong growth in 2015 of 1.9 mb/d or 2.0 percent, the largest gain in five years. Oil demand slowed in the second quarter, rising by 1.4 mb/d or 1.5 percent (Figure 4). The strength in oil demand last year was centered on gasoline, chiefly in the United States and China, but gasoline demand growth has slowed, partly due to the waning effect of low prices. OECD oil demand rose by 0.6 mb/d or 1.3 percent in the second quarter, with relatively strong increases in both Europe and the United States. U.S. vehicle miles traveled remains strong, and gasoline demand remains robust, though slowing. European demand surprised to the upside, with gasoil/diesel providing much of the growth.

Non-OECD oil demand growth in the first quarter continued at last year's pace of 1.4 mb/d or 3.0 percent. Much of the growth was in Asia, where oil demand rose by 1.0 mb/d or more than 4 percent. India provided the largest gain at 0.3 mb/d or 7 percent, led by diesel consumption, and continued the rapid gains from the second half of last year. China's domestic oil demand growth was noticeably weaker than last year, rising by just over 0.2 mb/d or 2 per-

4 World oil demand growth



Source: International Energy Agency.

Note: Shaded area (2016Q1-2017Q4) represents IEA projections.

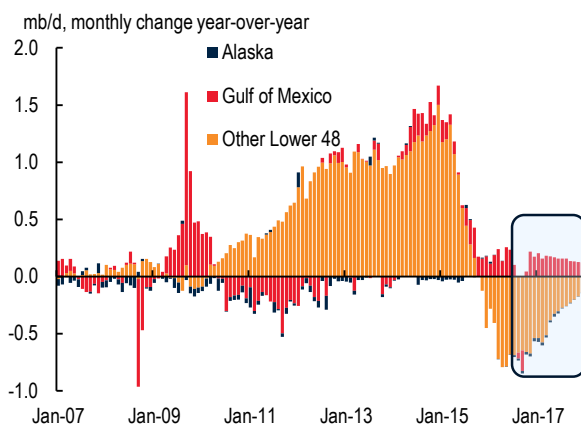
cent. Weakness in the industrial sector led to declines of gasoil/diesel and fuel oil, as well as slowing demand for gasoline. Non-OECD oil demand growth slowed in the second quarter to a gain of less than 0.9 mb/d or 1.8 percent, with most countries easing, with the exception of India. China's oil consumption continued its sluggish pace of just 2 percent.

World oil demand for 2016 is projected to increase by 1.3 mb/d or 1.3 percent to an average of 96.1 mb/d. OECD oil demand is projected to rise by 0.3 mb/d, with the United States providing much of the increase. Non-OECD oil demand is projected to rise by 1.2 mb/d or 2.4 percent, somewhat less than last year. Growth is expected to be led by India and China. In 2017, global demand trends are expected to be similar, albeit with slight easing.

Supply

Global oil supply in the first quarter continued to exceed the level of consumption by 1.3 mb/d, somewhat less than the average of 1.6 mb/d in 2015. However, the gap narrowed to just 0.2 mb/d in the second quarter owing to supply outages and underlying production declines in non-OPEC countries. Non-OPEC supply fell in the first quarter of 2016 for the first time in more than four years, down 0.1 mb/d compared with the same period of 2015. Declines were concentrated in the United States, Brazil, China, Colombia and the Republic of Yemen, partly offset by gains in Russia and Canada. In the second quarter, non-OPEC supply fell by 1.3 mb/d, with much of the reduction the result of outages in Canada, and ongoing declines in U.S. shale production. Wildfires in northern Alberta caused a peak loss of 1.3 mb/d in early May from mainly oil sands and heavy oil projects. Most production came back online by end-June, with about 0.3 mb/d still ramping up in July.

5 U.S. crude oil production



Source: International Energy Agency.

Note: Shaded area (July 2016 to January 2018) represents IEA projections.

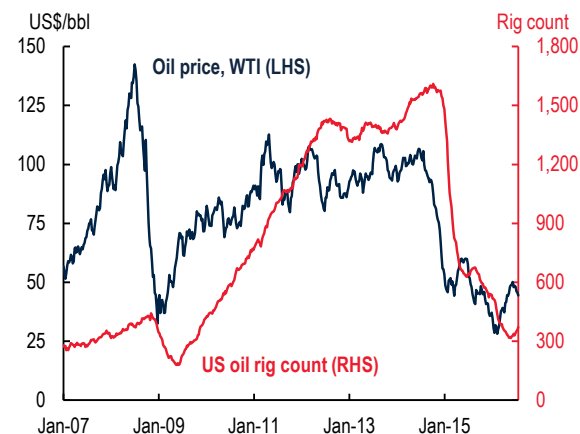
U.S. crude oil production fell from 9.7 mb/d in April 2015 to an estimated 8.8 mb/d in June. The decline was mainly in the on-shore lower-48 states where output dropped by 1.0 mb/d from its peak in March 2015 (Figure 5). About two-fifths of this decline has been in Texas, followed by decreases in North Dakota and Oklahoma. The U.S. Energy Information Administration projects that crude production will decline from 9.2 mb/d in the first quarter of 2016 to 8.1 mb/d during the third quarter of 2017 before trending upward.

The U.S. production decline stemmed from a large drop in investment following the collapse in prices, which resulted in an 80 percent plunge in the number of rigs drilling for oil—to a low of just 318 rigs at end-May. However, the number of active rigs has edged higher to above 350 rigs, following the recent rise in oil prices (Figure 6). Much of the increase has been in the Permian and Eagle Ford basins in Texas, on assets with favorable returns. It is unlikely, however, that recent prices will be sufficient to induce a strong rebound in drilling, as prices closer to \$60/bbl and higher are generally thought necessary to generate significant investment and drilling programs.

The industry has partly offset the effects of lower investment by improving productivity through cost reductions and operating efficiencies. Well productivity in the Eagle Ford (Texas) and Bakken (North Dakota) basins has risen from less than 300 barrels per well in early 2012 to more than 800 and 1,000 barrels, respectively. For the Permian basin, productivity improved from 100 barrels per well to more than 500. The industry is also reducing its backlog of drilled but uncompleted wells, which can be completed at roughly two-thirds the cost of a new well.

OPEC (including newly rejoined Gabon) crude oil

6 U.S. oil rig count and oil prices



Sources: Baker Hughes, Bloomberg.

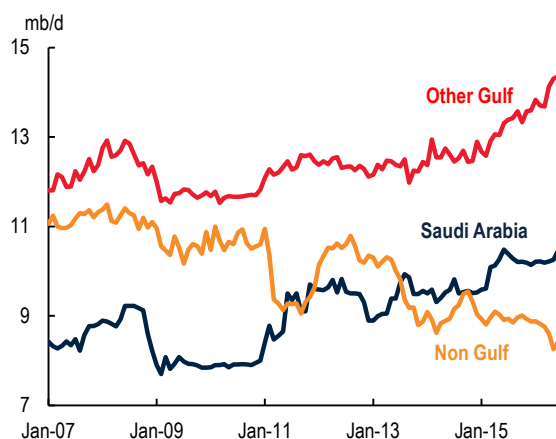
Note: Weekly frequency. Last observation is July 22, 2016.

production averaged 33.0 mb/d in the second quarter, up 0.2 mb/d from the first quarter, and more than 0.3 mb/d higher than the second half of last year. While total production was remarkably stable over the past year, there were significant changes among countries. Since the end of last year, OPEC Gulf production rose by 1.1 mb/d while non-Gulf output dropped by 0.5 mb/d (Figure 7). The largest decline was in Nigeria, where output fell from 1.8 mb/d at the beginning of this year to 1.4 mb/d in May due to acts of sabotage on oil infrastructure. Attacks by the Niger Delta Avengers on oil wells and pipelines brought Nigerian production to the lowest level since 1988. In the wake of lower oil prices, payments from the government to militants that were established under an amnesty signed in 2009 have fallen, and the militants are demanding a higher share of oil revenues. A ceasefire in June lifted production to 1.8 mb/d at month's end, but attacks resumed in July.

Production was also lowered by more than 0.1 mb/d in Libya because of a dispute between rival national oil companies that blocked exports from the eastern port of Marsa el-Hariga. However, an agreement in early July uniting rival administrations of the National Oil Company may result in higher exports and production. There were reduced flows from northern Iraq due to an ongoing dispute over revenues between Baghdad and the Kurdish Regional Government, and there was also a brief oil workers' strike in Kuwait in April. In Venezuela, power outages and missed payments to oil services companies contributed to a 0.2 mb/d output decline this year, with risks of further output disruptions associated with ongoing economic and political turmoil.

These losses were more than offset by a stronger-than-expected 0.7 mb/d increase in Iranian production following the lifting of sanctions in January 2016.

7 OPEC crude oil production



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

Production reached 3.7 mb/d in June, near pre-sanction levels, but is not expected to rise much further without significant foreign investment and technology. Obstacles remain regarding non-oil sanctions and contract conditions. Saudi Arabia's production, which had averaged 10.2 mb/d over the past year, rose to nearly 10.5 mb/d in June, partly due to seasonally higher domestic power demand for air conditioning.

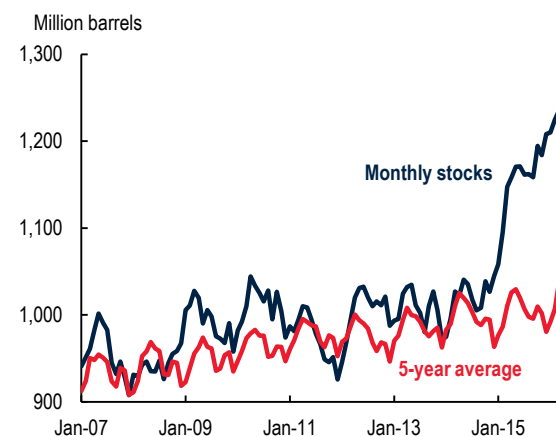
Global inventory builds have slowed as the market moved toward equilibrium. In the fourth quarter of 2015—a period when stocks typically fall—implied inventories soared by a record 1.8 mb/d, and rose by further 1.3 mb/d in first quarter. The stock buildup slowed significantly in April/May, with OECD crude oil inventories at a record 1.25 billion barrels (Figure 8). Stocks were particularly large in North America, but were also elevated in Europe and the Pacific regions as well. Product stocks continue to rise, in part because of slowing demand for gasoline.

Price projections and risks

Crude oil prices are projected to average \$43/bbl in 2016, a decline of 15 percent from last year. The market is expected to move into a small deficit in the second half of the year owing to continued declines in non-OPEC supply and limited gains in OPEC production, thereby allowing for a modest reduction in stocks. These trends are expected to continue in 2017, with a significant stock decline in the second half of the year, supporting moderately higher prices.

Upside risks to the price forecast include further supply outages in OPEC countries (Iraq, Nigeria, Venezuela), larger non-OPEC supply declines, and stronger demand. Downside price risks center on slower market rebalancing because of weak demand, the return of lost production, and persistent high stocks.

8 OECD crude oil stocks



Source: International Energy Agency.
Note: Previous 5-year average for each month. Last observation is May 2016.

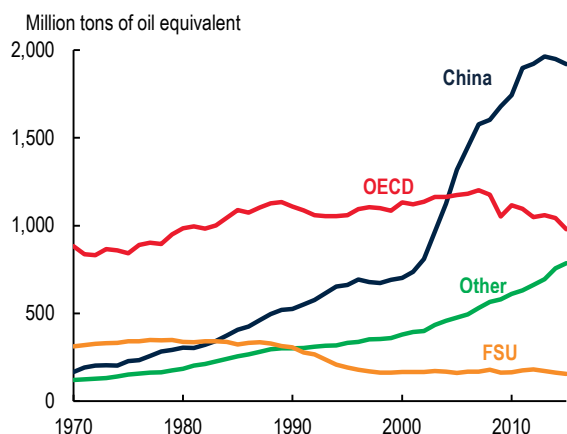
Coal

Thermal coal prices rose 2 percent in the second quarter, the first increase in 10 consecutive quarters, reflecting a jump in China's imports and a tightening of coal supply. Production cuts in China, a reduction in Indonesian supply because of heavy rains, and low stocks at China's ports and utilities contributed to the pick-up in imports. Supplies also tightened due to production outages in Australia and lower availability from Colombia. Prices rose sharply in July on the back of strong seasonal demand, low inventories and tightening supply, but the market is expected to remain in structural oversupply going forward.

China consumes half of the world's coal output (Figure 9) and coal accounts for nearly two-thirds of the country's energy consumption. The government plans to reduce coal's share from 64 to 60 percent in 2020 by reducing the energy intensity of the economy by 15 percent and increasing the share of nuclear energy, natural gas and renewables. The government also plans to reduce coal production by 500 mt (13 percent of production) over the next 3-5 years. In April the government ordered that the statutory working days for coal miners be reduced to 276 days from 330 days per year.

Coal prices are expected to decline 11 percent in 2016, averaging \$51/ton, on relatively weak demand and continued oversupply. Import demand in China is expected to weaken, and will partly be offset by rising demand in India and other emerging markets. Production in India is growing under new government policies aiming to reduce imports significantly over the next few years. Global supplies are likely to remain ample, and there is large spare capacity that could be brought back on-line in countries such as Australia and Indonesia should prices firm.

9 Coal consumption



Source: BP Statistical Review of World Energy.

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

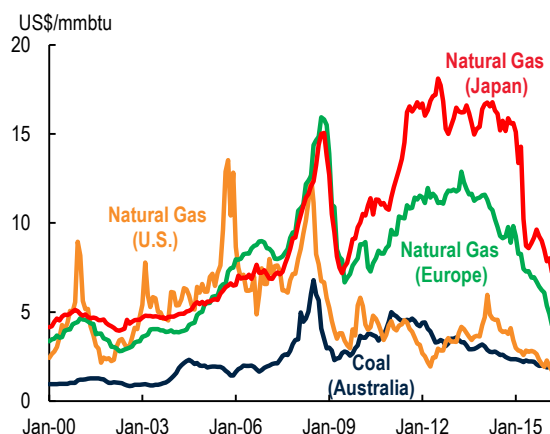
Natural gas

Natural gas prices fell 5 percent in the second quarter amid weak demand, large stocks, and ample supply (Figure 10). The price of gas delivered to Japan plunged 18 percent to \$6.3/mmbtu, owing to weak demand and surplus seaborne supply from the Pacific and Atlantic Basins. While spot cargoes of liquefied natural gas (LNG) into Asia rose from around \$4/mmbtu in April to \$5.5/mmbtu in early July on supply outages and a slower than expected ramp-up in U.S. and Australian supplies, but spot cargoes only account for 1-2 percent of global LNG trade. European gas prices dropped 15 percent to \$4.1/mmbtu on weak demand in the power sector. Spot prices also rose from under \$4/mmbtu to \$4.5/mmbtu in early July due to lower re-gasification rates at U.K. LNG terminals and unplanned outages in Norway.

Meanwhile U.S. gas prices rose 8 percent to \$2.1/mmbtu due to strong demand, declining production, and weak injections into storage. Prices jumped from a low of \$1.7/mmbtu in March to nearly \$3/mmbtu in late June, as hot weather boosted gas-fueled power generation to record levels, aided by weak nuclear and hydro generation. U.S. gas production is declining and exports are increasing by pipeline to Mexico and LNG to offshore markets. Consequently storage injections have been lower than normal, but inventories remain at historically high levels.

Natural gas prices are projected to fall in 2016, led by large declines in Europe (-38 percent to \$4.5/mmbtu) and Japan (-33 percent to \$7.0/mmbtu) on continued weak demand and surplus supply. Gas prices in the U.S. are expected fall by 12 percent to \$2.3/mmbtu due to high stocks. However, strong power demand, rising exports, and falling production growth are expected to help underpin U.S. prices.

10 Coal and natural gas prices



Source: World Bank.

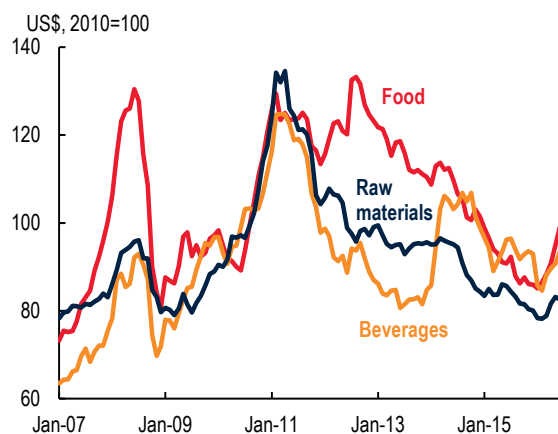
Note: Last observation is June 2016.

Agriculture

Agricultural prices reversed their year-long slide, rising for three straight months to June 2016. Second-quarter prices were up 8 percent from the first quarter of 2016 and were marginally higher than a year ago (Figure 11). Oils and meals prices gained 17 percent over the quarter, followed by beverages, other food items, and raw materials, which rose about 6 percent each. The rebound in prices was supported by flood-related crop losses in South America, especially in Argentina and Uruguay, as well as a shortfall in Malaysian palm oil production and strong demand from China. Prices declined in June, however, following favorable news for the 2016-17 crop. Between mid-June and mid-July maize and wheat prices dropped more than 20 percent each while soybean prices declined nearly 10 percent.

Most agricultural commodity prices are expected to fall in 2016 from 2015, before recovering marginally in 2017. Grain prices are projected to decline 4 percent in 2016 (a less steep decline compared to the projected 5 percent drop in April). Oils and meals prices are expected to gain 3 percent rather than 4 percent projected contraction in April. Beverages and raw materials are forecast to drop 4 percent and 2 percent, respectively. Upside risks to this year's price forecast for agricultural commodity prices, especially grains, include challenging weather conditions due to La Niña—a cooling of the equatorial Pacific Ocean. The main long-term upside risk is increased use of agricultural commodity support policies. Upside or downside risks could also stem from energy prices, given the energy-intensive nature of agriculture, as well as biofuel policies (see *Special Focus* section).

11 Agriculture price indexes



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

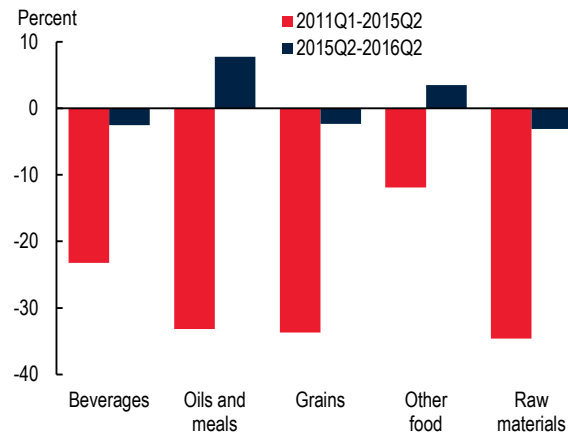
Food

Grain prices rose 4 percent in the second quarter of 2016 but stood 3 percent lower than a year ago and 35 percent below their 2011 average (Figure 12). Wheat prices declined by 7 percent, while rice and maize prices gained 12 percent and 7 percent, respectively. The high second quarter average for grains (and soybeans) reflected various production issues, including crop damage in Argentina due to excessive rainfall (soybeans) and dry weather dampening prospects for the second harvest in Brazil (maize). Rice prices were on the rise due to the El Niño-related droughts that continued to affect the rice outlook.

Early indications for the 2016-17 season point to a favorable crop. Global production of wheat is expected to reach a new record, at 0.5 percent higher than 2015-16, according to the July assessment of the U.S. Department of Agriculture (USDA). Overall conditions for the global wheat crop are favorable. Yields in the European Union remain above its five-year average, and the U.S. harvest, currently underway, is very good. Conditions are also favorable in other important wheat producers, including China, the Russian Federation, Canada, Kazakhstan, and Australia. As a result of favorable supplies, the stock-to-use ratio (a measure of the abundance of supplies relative to demand) is anticipated to reach 34.8 percent, marginally higher than last season's ratio, and a 17-year high. Trade volume for the 2016-17 season is expected to increase marginally.

Production of maize is projected to increase 5.3 percent in 2016-17, reflecting good crop conditions in the United States, the world's top maize supplier, as well as in the European Union and Ukraine. Increased production, however, will be accompanied by an increase in consumption. Together, these projections

12 Agriculture price indexes, change



Source: World Bank.
Note: Index changes are based on nominal quarterly averages.

imply that the stock-to-use ratio for maize at the end of the season will fall by 1 percentage point (from 21.5 to 20.6 percent). The volume of maize traded is expected to increase marginally, with higher imports by Bangladesh offsetting lower imports by China.

Rice production is projected to increase 2.3 percent in 2016-17. The increase follows last year's poor crop due to an El Niño-related shortfall in some producing countries in Asia, especially Thailand, where rice output declined from 18.8 million metric tons (mmt) in 2014-15 to 15.8 mmt in 2015-16. Rice production is expected to increase in East Asia (Thailand and Cambodia) and Central and South America (Argentina, Brazil, and Uruguay). Despite increased production, the stock-to-use ratio will not change, as consumption is projected to increase by 2.3 percent. Trade volume is expected to change little.

According to the July USDA assessment, global supplies (i.e., beginning stocks plus production) of wheat, maize, and rice will each reach 2,789 mmt in 2016-17, 3 percent higher than last season's record supplies. If projections materialize, 2016-17 will be the fourth consecutive surplus crop year (Figure 13).

The World Bank's oil and meal price index increased nearly 17 percent in the second quarter from the first quarter, and stood at 8 percent higher than a year ago. Soybean prices gained 15 percent in the quarter while edible oil prices experienced across-the-board gains: palm oil (+12 percent), coconut and palm kernel oil (+20 percent and +24 percent, respectively), soybean oil (+6 percent), and rapeseed oil (+4 percent).

This season's outlook is favorable for edible oils (Figure 14). Following last season's lower production due to El Niño-related shortfall in palm oil production (a shortfall comparable to 1997, which was also a strong El Niño year), global production during 2016-17 is

expected to reach 214.2 mmt, up from last season's 205.6 mmt. Most of the increase will come from palm oil (4 mmt) and soybean oil (2.3 mmt).

The oilseed supply outlook is healthy, with next season's (October 2016 to September 2017) global supplies for the 10 major oilseeds projected to reach 626 mmt, 25 mmt higher than the current season. Most of the increase in supplies will come from a robust soybean crop, which is expected to reach 325 mmt, up from current season's 313 mmt.

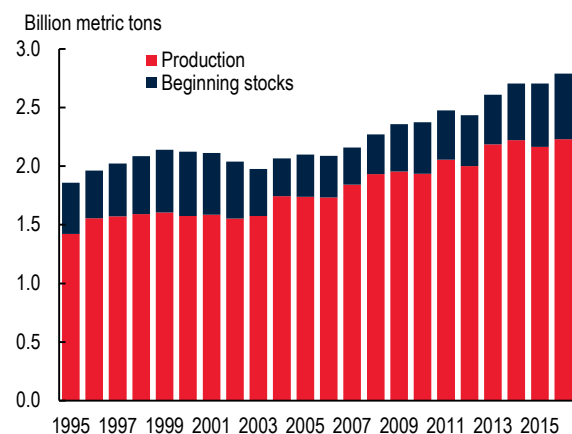
In view of the adequately supplied food commodity markets, together with the projection of lower energy and fertilizer prices, the World Bank's food commodity price index is expected to advance only marginally in 2016, with a dispersion among various prices. An increase in the oils and meals component (+3 percent) will be balanced by a decline in grains (-4 percent). A moderate gain (+2 percent) in the food index is projected for 2017.

Risks

The forecast for food prices is subject to a number of short- and long-term risks. Most important among these are the evolution of energy prices, weather patterns (especially the possibility of a La Niña episode later in the season), trade policies aimed at supporting commodity producers, and biofuel policies.

Prices of agricultural commodities (especially those of grains and oilseeds) are affected by energy prices through two channels: directly through fuel (and other energy) costs, and indirectly through chemicals and fertilizers (some fertilizers are made directly from natural gas). Globally, energy constitutes more than 10 percent of the cost of agricultural production—four to five times the energy intensity of manufacturing (see *Special Focus* section). The transmission elas-

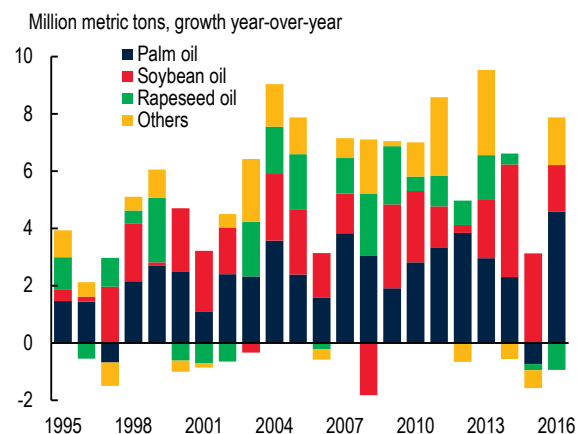
13 Global grain supplies



Source: U.S. Department of Agriculture.

Note: Grains include maize, wheat, and rice. Supply is the sum of production and beginning stocks.

14 Global production of key edible oils



Source: U.S. Department of Agriculture.

Note: Data is based on USDA's July 2016 update.

ticity from energy to food commodity prices is about 0.20 over the long term, implying that a 50 percent reduction of energy prices is associated with a 10 percent decline in food prices.

Low energy prices are easing input cost pressures for food commodity producers, especially in locations where energy intensity in agriculture is highest, such as North America, Europe, China, and Brazil. Oil prices are expected to average \$43/bbl in 2016 (16 percent lower than 2015), while fertilizer prices are projected to fall 18 percent, on top of a 5 percent decline in 2015.

Last year's key weather risk, El Niño, has reached its neutral stage, although some of its effects are still visible. Its counterpart, La Niña—a cooling of the equatorial Pacific off the coast of South America—could materialize toward the end of 2016, although U.S. National Oceanic and Atmospheric Administration Climate Prediction Center lowered the probability of La Niña to 55-60 percent in July, from 75 percent in June.

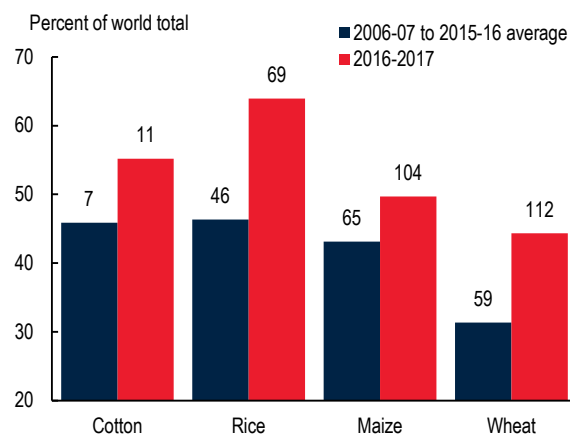
In the current weak commodity price environment, governments are increasingly shifting from trade policies aimed at reducing consumer prices (frequent during the price spikes of 2007-08 and 2010-11 price spikes) to policies designed to raise producer prices. India, for instance, has extended the current 25 percent duty on wheat (up from 10 percent in October 2015) initially expected to remain in place until March 2016. India has also increased the minimum support price for rice. Similarly, South Africa raised import duties on wheat by 30 percent. Nigeria has announced various support measures, including subsidies for machinery and improved access to credit. On the other hand, agricultural support for OECD countries as a whole has roughly halved in intensity

over the past 30 years and now amounts to 17 percent of gross farm receipts according to the 2016 OECD Agricultural Policy Monitor. However, average support levels in the emerging economies have increased from very low or even negative levels to approach the average level of OECD countries.

An important policy challenge is China's decision to end its maize stockpiling program later this year (this follows last year's cotton de-stocking initiative.) China's stockpiling program is intended to be replaced by a less price-distortionary program, perhaps, along the lines of earlier programs implemented by the European Union, Mexico, and the United States. China's changes in farm policies are important for two reasons. First, China holds a disproportionately large amount of stocks, which are 50 to 90 percent higher than the past decade's average (Figure 15). Second, the policy changes come at a time when commodity markets are well-supplied, with stock-to-use ratios well above their 10-year average (Figure 16). Thus, any release in stocks could depress prices and impact production.

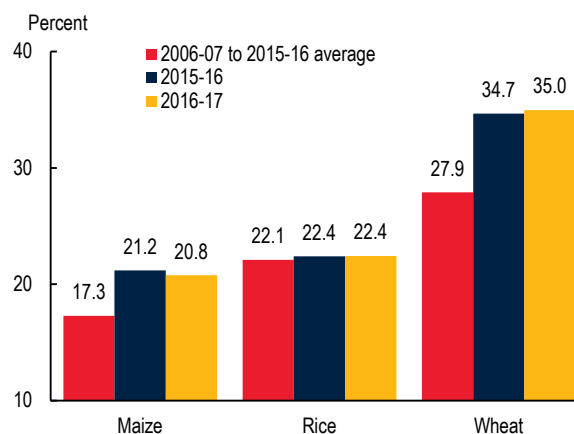
Finally, the outlook assumes that biofuels will continue to be a source of demand for food commodities—mainly maize for ethanol in the United States, sugarcane for ethanol in Brazil, and edible oils for biodiesel in Europe. Biofuels currently account for nearly 3 percent of global arable land and 1.5 mb/d (1.6 percent) of global liquid energy consumption. Yet the role of biofuels will be less important in the long run, as policymakers increasingly realize that the environmental and energy independence benefits stemming from biofuels policies are not as strong as originally envisaged. Indeed, biofuel production grew an average of 1 percent in the current and past year, versus 17 percent during 2001-14.

15 China's stocks of key commodities



Sources: U.S. Department of Agriculture, International Cotton Advisory Committee.
Note: Figures on top of columns represent China's stocks in million metric tons.

16 Global stock-to-use ratios



Source: U.S. Department of Agriculture.
Note: Data is based on USDA's July 2016 update.

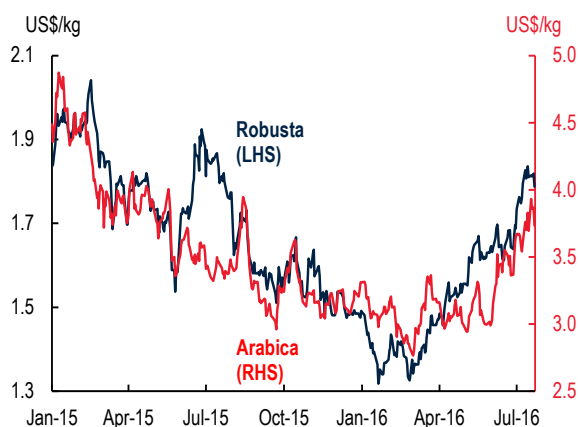
Beverages

The World Bank's beverage price index rose 6 percent in the second quarter of 2016, reflecting gains across all components. Arabica and robusta coffee prices increased 5 percent and 11 percent in the quarter (Figure 17). The strength in arabica prices stems from weather concerns in Brazil which included both a frost scare and excessive rainfall, the latter associated with lower quality coffee. Robusta prices increased as record output in Vietnam was offset by falling production in Brazil and Indonesia. Despite the shortfalls, the coffee market is still in surplus, as global output of 153.8 million bags for 2015-16 exceeds consumption by 2.3 million bags. In view of the well-supplied market, only marginal increases in coffee prices are expected in 2016.

Cocoa prices increased 4 percent in the quarter and are marginally higher than a year ago. The pickup of cocoa prices reflects the widened deficit in the 2015-16 season due to downward revision in the South America crop, especially Brazil, and lower arrivals in Côte d'Ivoire. Because cocoa futures contracts are priced in pounds sterling, the sharp depreciation of the pound following the U.K. referendum pushed cocoa futures to a six-year high. Cocoa prices are projected to average \$3.03/kg in 2016, down from \$3.10/kg in 2015.

The three-auction tea average, the global price indicator, gained almost 8 percent in the quarter with a large dispersion among its components: Colombo (+6 percent), Mombasa (-10 percent), and Kolkata (+34 percent). The strength of Kolkata prices reflects seasonal supply tightness, while lower Mombasa prices due to weak demand and robust supplies from East Africa producers. Tea prices are projected to drop 4 percent in 2016.

17 Coffee prices



Source: Bloomberg.

Note: Daily frequency. Last observation is July 22, 2016.

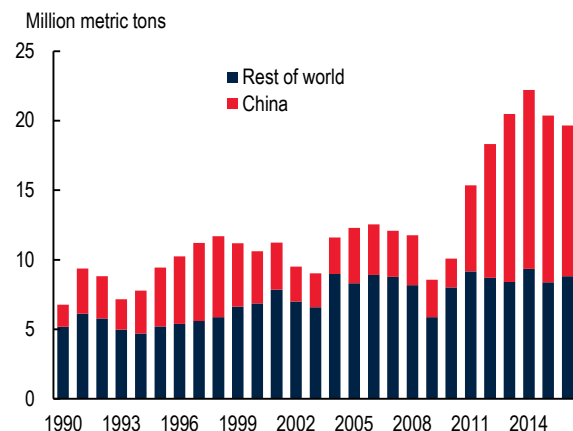
Agricultural raw materials

The World Bank's raw material price index gained 5 percent in the second quarter of 2016. The index is down 3 percent from a year earlier, however, and nearly 40 percent lower than its early 2011 peak. This decline is similar to the other two industrial commodity price indexes—energy and metals, down 55 and 50 percent since their 2011 peaks and—reflects in part, slowing of the global economy.

Cotton prices rose 6 percent in the quarter reaching \$1.63/kg in June, a two-year high. The strength reflects the large drop of global production in 2015-16 to 21.1 mmt, down 17 percent from 2014-15. However, production is forecast to increase by 6 percent in 2016-17, to 23 million tons, as world cotton area expands. Most of the gains in area are accounted for by India, the world's top cotton supplier. World cotton production is expected to be unchanged after declining 3 percent last season due to intense competition from synthetic products. Despite the recent increase in cotton prices, the cotton market is mired in unusually high stocks, the equivalent of almost one year's worth of consumption. China holds 55 percent of those stocks (Figure 18). No change is expected in the cotton price for 2016 and only a marginal increase is projected in 2017.

Natural rubber prices rose 27 percent in the quarter on strong Chinese import demand—up 14 percent for the first five months of 2016 on a year-on-year basis. Growth in China was mirrored by similar growth of tire exports to the United States. On the supply side, extremely low rainfall in Thailand delayed the start of the tapping season, thus weakening the availability of supplies. Despite the price strengthening, natural rubber prices are expected to average marginally lower in 2016, before increasing by about

18 Cotton stocks



Source: International Cotton Advisory Committee.

Note: Last observation is 2016-17.

Fertilizers

Fertilizer prices fell 7 percent in the second quarter (Figure 19), a sixth consecutive quarterly decline, due to weak import demand, high stocks, and ample supply. Phosphate prices led the decline with TSP plunging 14 percent, and potash and urea prices falling 7 and 5 percent, respectively. Demand weakness continues to stem from poor farmer profitability, low crop prices, and weak currencies of key importing countries—although all elements reversed slightly during the quarter. Despite cuts to production, surplus supply remains because of falling costs, cheaper feedstock prices, and new low-cost capacity.

Phosphate prices dropped by 14 percent (TSP) and 4 percent (DAP) as oversupply continued to weigh on prices. Although demand increased in Brazil due to improved credit and farmer margins, global demand remains weak. Demand in India, the second largest phosphate consumer after China, has been weak as buyers awaited a new phosphoric acid contract with Morocco's OCP—a nine month agreement that was signed in July at 15 percent lower than the first quarter. This is expected to unlock pent-up global demand in the third quarter, but may be overshadowed by a potential surge in exports from China and new supply from Morocco. Chinese producers cut production this year, but there is uncertainty whether exports will increase or if there will be further cuts. Supply pressures will continue, with additional Moroccan capacity starting in December and in Saudi Arabia in 2017.

Potash (potassium chloride) prices fell 7 percent owing to weak demand, high stocks, and ample supply. Production has been curtailed and mines closed by a number of producers to help contain oversupply. Demand has been weak, in part as purchasers awaited contract settlements between major buyers and the

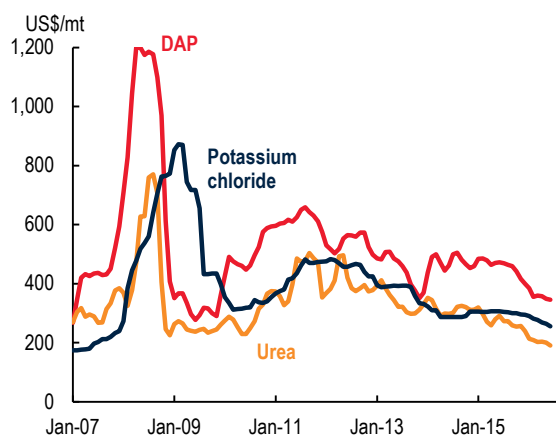
Belarus Potash Company. The first was signed with India at end June for \$227/mt, and another with China (the largest purchaser of potash) in July for \$219/mt—the latter down \$96/mt from last year's settlement. Other contracts are expected to be signed, while deferred demand is expected to pick up in the near term. However, the market will remain over-supplied, with new capacity coming online over the next couple of years.

Urea prices fell 5 percent to the lowest level in over 11 years, as the market continues to be impacted by large capacity additions and falling raw materials prices (natural gas globally, and coal in China). Prices have been relatively stable this year due to export restraint by Chinese producers and surprisingly strong demand in Brazil. However, production capacity is expected to grow, notably in Saudi Arabia by year-end. U.S. capacity is expected to climb further due to low natural gas prices, with U.S. imports expected to contract—further bloating seaborne supply. China's exports are also expected to increase.

Fertilizer prices are projected to decline by 18 percent in 2016 due to relatively weak demand and rising supply capacity. Nutrient application, which has been increasing (Figure 20), remains constrained due to poor farmers' margins, but there has been some improvement in crop prices and domestic currencies. Prices are generally expected to increase moderately over the medium term due to expected growth in demand, higher energy costs, and new capacity required for primary and processed supply.

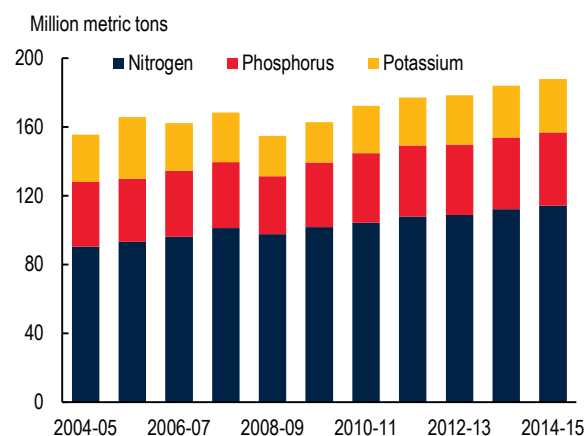
Risks to the forecast are skewed to the downside on weak demand and expected increases in new production capacity. On the upside, higher agriculture prices and currency appreciation could improve farmer margins and boost fertilizer demand and prices.

19 Fertilizer prices



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

20 Global fertilizer consumption



Source: Agrium Fact Book, International Fertilizer Association.
Note: Fertilizer consumption is expressed in nutrient content.

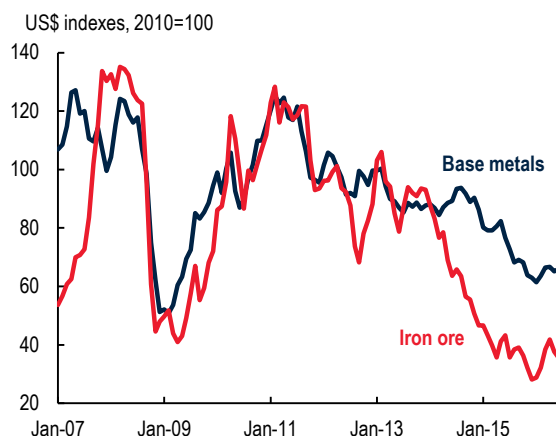
Metals and minerals

Metals prices rose by 5 percent in the second quarter, the first increase in seven consecutive quarters (Figure 21). Prices rebounded from lows during the first quarter on production cuts, stronger demand, falling stocks, and a weaker dollar. The gains have been concentrated in iron ore, zinc and tin due to supply tightness, while there were modest increases in most other metals and a small decrease in lead. All metal prices continued to move higher in July, particularly nickel on expected supply tightness in the Philippines. Metals consumption has been relatively strong due to firming industrial activity globally. China's metal consumption has been buoyed by stimulus measures and increases in fixed asset investment, notably for infrastructure. Construction has also been positive for metals demand, and although housing inventory remains high, the excess supply is easing.

On the supply side, declining investment and shut-in of high-cost operations has been more than offset by new low-cost capacity from legacy projects. The recent price rally may tempt producers to restart idled capacity or delay further closures. Supply at existing operations has been supported by significant cost reductions (notably for energy), producer country currency devaluations, and better management practices. However a reversal in exchange rates and oil prices is now reflating production costs.

China remains an important driver for metals demand. The country's share of world metal consumption rose above 50 percent in 2015 (Figure 22), and the country accounted for the majority of global growth over the past 15 years (Figure 23). However the transition from an investment/export driven economy to one that is consumption-led could reduce demand growth for raw materials.

21 Metal and mineral prices



Source: World Bank.

Note: Last observation is June 2016.

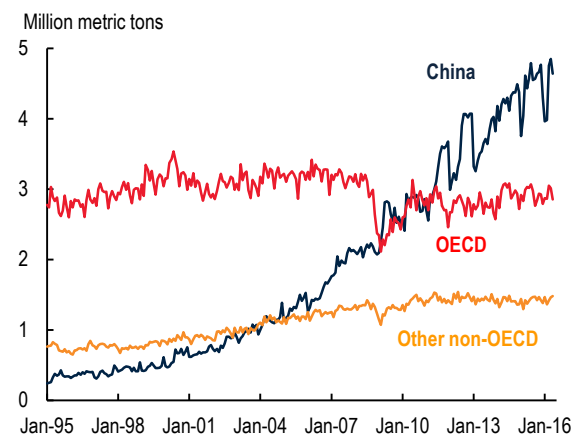
Individual metal trends

Iron ore prices rose 16 percent, up a second consecutive quarter, on supply reductions (notably Samarco's closure in Brazil), seasonal restocking, and strong steel demand in China for construction and infrastructure. Prices spiked to \$70 per metric ton (mt) during April but settled back to around \$55/mt in early July. Demand is expected to ease in the second half of the year as inventories are replenished and steel production slows seasonally. New low-cost capacity is expected to come on line over the next 2-3 years, which may pressure high-cost capacity to close. Higher prices this year have delayed closures, but further cuts will be required to balance the market going forward. A key uncertainty will be China's level of steel demand.

Zinc prices rose 14 percent on expected market tightness due to the closure of depleted mines, and price-driven curtailments by Glencore and Nyrstar. Exhausted mines have already closed in Australia, Canada and Ireland. London Metal Exchange (LME) stocks of refined metal continue to move lower (Figure 24), but there is an unknown amount of inventory off-exchange. No major mine capacity is expected near term, but two large mine projects, Gamsberg and Dugald River, are planned for 2017-18. Additional supply could come from many small Chinese mines, and idled capacity could also return. Nevertheless, reduced ore concentrate is expected to constrain refined zinc output and push prices upward over the medium term. A key uncertainty is China's demand for galvanized steel—the main end-use market for zinc.

Tin prices rose 9 percent in the quarter on lower export volumes from Indonesia and stronger-than-expected demand from the electronics sector. LME stocks rose slightly but remain low by historical levels. In Indonesia, the world's largest exporter of tin, the government is clamping down on illegal mining and

22 World refined metal consumption



Source: World Bureau of Metal Statistics.

Note: Last observation is May 2016.

requiring audits before granting new export permits. This has kept shipments below typical levels. Flooding and permanent closure of a major producer also tightened the country's supply. Shipments from Myanmar continue to fill the gap, but there is uncertainty whether output can be sustained. Although supply growth remains limited in the near term, new supplies are expected from Brazil, Australia and Africa, and higher prices could reactivate idled capacity.

Aluminum prices rose 4 percent in the quarter on falling LME inventories, strong demand, and an easing of China's exports of semi-manufactured aluminum products. The global market remains oversupplied, mainly in China, while the rest of the world is in deficit due to significant capacity closures. High-cost capacity has also been shut in China, and the government plans further closures of outdated, polluting output, but new capacity continues to come online there and elsewhere. The outlook for global aluminum consumption is robust due to its many uses, favorable properties, and substitution possibilities. However, further closures are required to balance the market and reduce the large inventory overhang.

Nickel prices rose 4 percent on falling LME stocks and strong demand from China's stainless steel sector. Stainless production has surged due to rising demand from construction and infrastructure expansion, as well as for restocking and higher exports. Global nickel production is falling, with the largest cuts being nickel pig iron (NPI) output in China. Philippine ore exports to China are down owing to weather and mine exhaustion, but concerns of additional mine closures have arisen as the new government performs regulatory and environmental audits of the industry, especially of small mines. Elsewhere Indonesia is commissioning new NPI capacity for export, following its 2014 ban on the export of ore. The market appears to

be moving into a supply/demand deficit which is expected to begin a long process of reducing the large levels of inventory.

Copper prices rose 1 percent in the quarter, but weakened in early July as LME stocks rose. The market remains oversupplied despite a number of production cuts, and new capacity is expected on line in the next 2-3 years. The market is expected to remain in surplus, especially as Chinese demand growth slows.

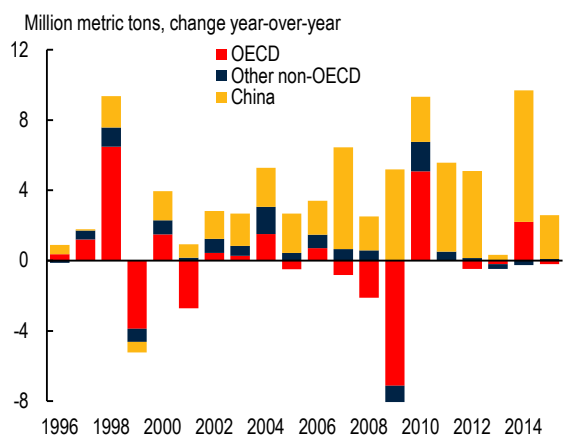
In contrast to the above increases, lead prices fell 1 percent on seasonally weak battery demand and small increase in stocks. Prices jumped in early July, however, and may reflect investor concerns of supply tightening from closure of large zinc mines.

Price projections and risks

Metals prices are projected to decline by 11 percent in 2016 due to slowing demand in emerging economies, and increases in new production capacity. The largest decline is for nickel, which is expected to fall by 22 percent as a result of large stocks and insufficient production cuts. Large price declines are also expected for copper (down 15 percent) and iron ore (down 10 percent) due to expected gains in new capacity. Most other prices are expected to fall moderately as markets remain in surplus, with the exception of zinc which is facing mine supply constraints. Markets are expected to tighten over the medium term due to reduced investment in new capacity, rising global demand, and environmental policy constraints.

Downside risks to the forecast include slower demand in China, higher-than-expected production, and further cost reductions. Upside risks are centered on stronger global demand and supply shortfalls from project delays, operational disruptions, falling ore grades, increased environmental constraints, and more closures of high-cost capacity.

23 World metal consumption growth



Source: World Bureau of Metal Statistics.
Note: Last observation is 2014-15 change.

24 Zinc price and LME stocks



Source: Bloomberg.
Note: Daily frequency. Last observation is July 22, 2016.

Precious metals

Precious metals prices rose 8 percent in the second quarter on strong investment demand, a weaker dollar, and safe-haven buying (Figure 25). Silver led the way, surging 13 percent, followed by platinum, up 10 percent. Gold prices trailed these increases, but still rose 7 percent to above \$1350/toz in early July. The investor-driven gains were the result of weak U.S. economic data that delayed the U.S. Federal Reserve plans to raise policy interest rates. Prices also received a boost from the Brexit vote, as the outlook for Europe became less confident amid weakening global growth and political uncertainty. Near-term prices are likely to depend primarily on changing investor expectations about U.S. Federal Reserve policy and its impact on the dollar.

Silver prices jumped 13 percent on strong investment demand, with significant inflows into Exchange Traded Funds. The gold/silver price ratio dropped below 74 in June from above 80 in March. [The average ratio from 1985 is 66.] Physical demand was weighed down by sluggish industrial activity and ongoing thrifting in the electronics and photovoltaic sectors and declining photographic applications. Mine supply is up 5 percent, but faces lower by-product output from declining lead/zinc and other metal production (Figure 26).

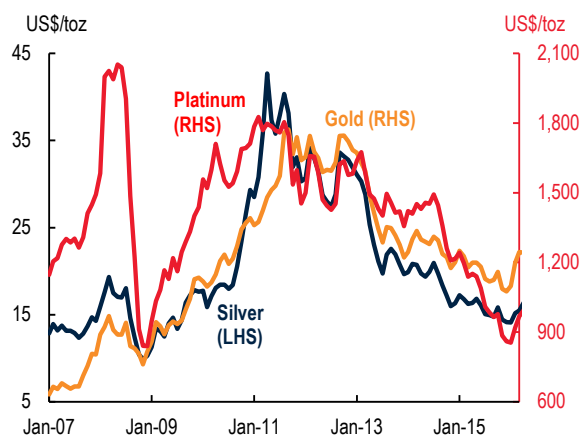
Platinum prices rose 10 percent in the quarter, benefiting from a broader rise in precious metals prices. Physical demand is slowing, especially from the jewelry sector in China, while demand from auto manufacturers remains robust. Mine supply is declining on lower investment, production outages, and effects of drought in South Africa. The market is expected to record a deficit this year, but large above ground stocks are expected to dampen near term price pres-

ures. Wage negotiations in South Africa are about to commence after the previous agreement expired at end-June. The last wage negotiations were accompanied by an unprecedented five-month strike in 2014.

Gold prices increased 7 percent in quarter, and in early July were up 25 percent from a multi-year low in December of \$1076/toz. The Federal Reserve's delay in raising interest rates helped bolster investment demand. Rising interest rates typically have negative implications for gold prices, as investors seek yield-bearing assets. Physical gold demand fell in the two largest consuming countries—India and China—due to higher prices and currency depreciation. In India demand was also curtailed because of a strike at the beginning of March (induced by a tax on jewelry manufacturing) that kept some shops closed into early April. Global gold mine supply is up 3.5 percent this year, as miners continue to benefit from cost reductions and producer hedging.

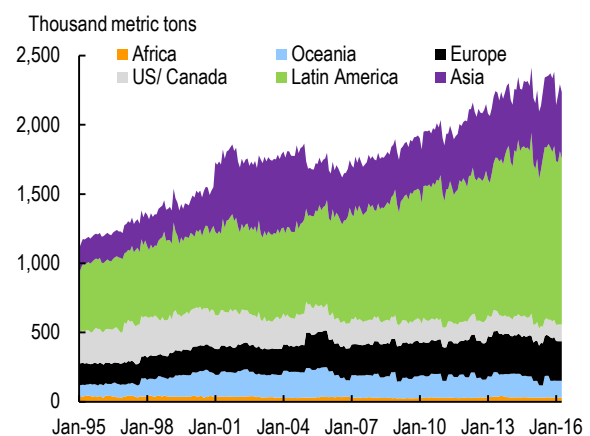
Precious metals prices are projected to rise 7 percent in 2016, mainly due to stronger investment demand. Silver and gold prices are expected to rise 8 percent, but are likely to decline going forward on expectations of U.S. monetary policy tightening and strengthening value of the dollar. Physical demand for gold is expected to remain robust in India and China, while mine production is expected to expand, although benefits from energy and currency cost reductions may have run their course. Platinum prices are projected to decline 5 percent on a large stock overhang. Downside risks to the forecast include stronger-than-expected monetary tightening, dollar strengthening, and demand weakening. Upside risks include rising inflation, weakening economic growth, increasing financial market stress in key economies, adverse geopolitical events and stronger physical demand from consumers, central banks and investors.

25 Precious metal prices



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

26 Global silver production



Source: World Bureau of Metal Statistics.
Note: Last observation is April 2016.



APPENDIX A

Historical commodity prices
Price forecasts

TABLE A.1 Commodity prices

Commodity	Unit		2014	2015	Q2	Q3	Q4	Q1	Q2	Apr	May	Jun
			2014	2015	2015	2015	2015	2016	2016	2016	2016	2016
Energy												
Coal, Australia	\$/mt	*	70.1	57.5	59.0	57.5	52.3	50.9	51.9	50.8	51.5	53.4
Coal, Colombia	\$/mt		65.9	52.5	54.3	50.4	48.0	42.7	44.6	43.1	43.9	46.6
Coal, South Africa	\$/mt		72.3	57.0	60.7	54.3	51.1	51.5	54.7	52.7	54.0	57.3
Crude oil, average	\$/bbl		96.2	50.8	60.5	48.8	42.2	32.7	44.8	40.8	45.9	47.7
Crude oil, Brent	\$/bbl	*	98.9	52.4	62.1	50.0	43.4	34.4	46.0	42.3	47.1	48.5
Crude oil, Dubai	\$/bbl	*	96.7	51.2	61.4	49.9	41.2	30.6	42.9	39.0	44.0	45.8
Crude oil, WTI	\$/bbl	*	93.1	48.7	57.8	46.4	42.0	33.2	45.5	41.0	46.7	48.8
Natural gas, Index	2010=100		111.7	73.3	74.2	72.2	61.4	52.2	49.6	47.1	46.8	55.0
Natural gas, Europe	\$/mmbtu	*	10.05	7.26	7.33	6.86	6.26	4.84	4.10	4.13	4.04	4.13
Natural gas, US	\$/mmbtu	*	4.37	2.61	2.73	2.75	2.11	1.98	2.13	1.90	1.92	2.57
Natural gas, Japan	\$/mmbtu	*	16.04	10.40	9.18	9.23	8.94	7.70	6.29	6.38	6.25	6.25
Non-Energy												
Agriculture												
Beverages												
Cocoa	\$/kg	**	3.06	3.14	3.07	3.25	3.30	2.98	3.10	3.08	3.10	3.13
Coffee, Arabica	\$/kg	**	4.42	3.53	3.54	3.36	3.31	3.31	3.49	3.40	3.42	3.64
Coffee, Robusta	\$/kg	**	2.22	1.94	1.98	1.87	1.79	1.65	1.84	1.77	1.85	1.89
Tea, average	\$/kg		2.72	2.71	2.79	2.85	2.76	2.36	2.55	2.51	2.56	2.58
Tea, Colombo	\$/kg	**	3.54	2.96	3.00	2.83	2.85	2.82	2.97	2.94	3.05	2.93
Tea, Kolkata	\$/kg	**	2.58	2.42	2.56	2.78	2.52	1.89	2.53	2.55	2.50	2.54
Tea, Mombasa	\$/kg	**	2.05	2.74	2.80	2.95	2.91	2.38	2.14	2.04	2.12	2.27
Food												
Oils and Meals												
Coconut oil	\$/mt	**	1,280	1,110	1,115	1,067	1,109	1,273	1,531	1,586	1,445	1,563
Copra	\$/mt		854	735	737	708	737	855	1,019	1,045	963	1,048
Fishmeal	\$/mt		1,709	1,558	1,523	1,472	1,524	1,465	1,526	1,478	1,514	1,586
Groundnuts	\$/mt		1,296	1,248	1,290	1,193	1,175	1,158	1,204	1,163	1,200	1,250
Groundnut oil	\$/mt	**	1,313	1,337	1,346	1,332	1,298	1,277	1,550	1,350	1,600	1,700
Palm oil	\$/mt	**	821	623	664	574	570	631	704	722	706	683
Palmkernel oil	\$/mt		1,121	909	957	802	831	1,032	1,283	1,304	1,234	1,312
Soybean meal	\$/mt	**	528	395	391	398	358	328	419	355	434	467
Soybean oil	\$/mt	**	909	757	774	736	743	749	795	796	791	798
Soybeans	\$/mt	**	492	390	394	385	372	370	424	393	422	457
Grains												
Barley	\$/mt	**	138	194	201	200	187	183	172	172	172	171
Maize	\$/mt	**	193	170	168	169	167	160	171	164	169	180
Rice, Thailand 5%	\$/mt	**	423	386	385	374	368	379	423	395	433	441
Rice, Thailand 25%	\$/mt		382	373	372	362	359	370	408	386	415	422
Rice, Thailand A1	\$/mt		425	386	388	376	365	373	408	384	414	427
Rice, Vietnam 5%	\$/mt		407	352	351	337	356	362	374	371	377	372
Sorghum	\$/mt		207	205	215	190	176	174	174	174	174	174
Wheat, US HRW	\$/mt	**	285	204	216	183	180	191	178	187	172	174
Wheat, US SRW	\$/mt		245	206	205	196	201	190	190	193	190	187
Other Food												
Bananas, EU	\$/kg		1.04	0.90	0.92	0.90	0.88	0.91	0.94	0.94	0.93	0.94
Bananas, US	\$/kg	**	0.93	0.96	0.97	0.95	0.93	1.03	0.99	0.99	0.99	0.99
Meat, beef	\$/kg	**	4.95	4.42	4.47	4.55	3.91	3.72	3.95	3.91	3.96	4.00
Meat, chicken	\$/kg	**	2.43	2.53	2.55	2.55	2.50	2.47	2.46	2.46	2.47	2.47
Meat, sheep	\$/kg		6.39	5.22	5.38	5.07	4.82	4.51	4.66	4.56	4.71	4.71
Oranges	\$/kg	**	0.78	0.68	0.62	0.65	0.73	0.69	0.78	0.71	0.76	0.88
Shrimp	\$/kg		17.25	14.36	15.65	15.43	10.50	10.83	10.80	11.02	10.69	10.69
Sugar, EU	\$/kg	**	0.43	0.36	0.36	0.36	0.36	0.36	0.37	0.37	0.37	0.37
Sugar, US	\$/kg	**	0.53	0.55	0.54	0.54	0.56	0.57	0.61	0.61	0.60	0.61
Sugar, World	\$/kg	**	0.37	0.30	0.29	0.27	0.32	0.31	0.38	0.34	0.38	0.43

TABLE A.1 Commodity prices

Commodity	Unit		2014	2015	Q2 2015	Q3 2015	Q4 2015	Q1 2016	Q2 2016	Apr 2016	May 2016	Jun 2016
Raw Materials												
Timber												
Logs, Africa	\$/cum		465	389	387	389	383	386	395	397	396	393
Logs, S.E. Asia	\$/cum	**	282	246	245	244	245	258	276	272	273	282
Plywood	¢/sheets		517	451	450	447	450	474	506	498	501	518
Sawnwood, Africa	\$/cum		789	733	734	743	727	686	688	686	696	681
Sawnwood, S.E. Asia	\$/cum	**	898	833	835	845	827	780	782	780	792	775
Woodpulp	\$/mt		877	875	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.83	1.55	1.59	1.56	1.53	1.48	1.57	1.53	1.55	1.63
Rubber, RSS3	\$/kg	**	1.96	1.56	1.79	1.46	1.26	1.31	1.66	1.72	1.67	1.58
Rubber, TSR20	\$/kg		1.71	1.37	1.52	1.34	1.20	1.15	1.38	1.48	1.37	1.28
Fertilizers												
DAP	\$/mt	**	472	459	469	464	419	367	351	358	349	346
Phosphate rock	\$/mt	**	110	117	115	117	123	116	115	115	115	115
Potassium chloride	\$/mt	**	297	303	307	303	297	283	263	269	264	256
TSP	\$/mt	**	388	385	380	380	380	328	282	278	284	285
Urea, E. Europe	\$/mt	**	316	273	277	268	251	209	198	204	200	191
Metals and Minerals												
Aluminum	\$/mt	**	1,867	1,665	1,770	1,592	1,494	1,514	1,571	1,571	1,551	1,591
Copper	\$/mt	**	6,863	5,510	6,057	5,267	4,885	4,675	4,733	4,873	4,695	4,633
Iron ore	\$/dmt	**	96.9	55.8	58.3	55.0	47.0	48.3	56.0	61.0	55.0	52.0
Lead	\$/mt	**	2,095	1,788	1,942	1,717	1,682	1,738	1,716	1,732	1,708	1,709
Nickel	\$/mt	**	16,893	11,863	13,056	10,579	9,423	8,508	8,815	8,879	8,660	8,906
Tin	\$/mt	**	21,899	16,067	15,590	15,230	15,077	15,439	16,900	17,033	16,707	16,962
Zinc	\$/mt	**	2,161	1,932	2,192	1,843	1,612	1,677	1,916	1,855	1,869	2,023
Precious Metals												
Gold	\$/toz	***	1,266	1,161	1,193	1,124	1,107	1,181	1,260	1,242	1,261	1,276
Silver	\$/toz	***	19.07	15.72	16.42	14.91	14.80	14.91	16.86	16.36	16.95	17.29
Platinum	\$/toz	***	1,384	1,053	1,127	986	907	914	1,005	994	1,036	984
Commodity Price Indices (2010=100)												
Energy			118.3	64.9	75.5	62.7	54.2	43.0	55.7	51.1	56.6	59.5
Non-energy			97.0	82.4	84.8	80.6	77.6	76.0	81.1	79.6	80.9	82.6
Agriculture			102.7	89.3	90.2	88.0	85.9	84.5	91.3	88.4	91.4	94.0
Beverages			101.8	93.5	93.6	94.0	93.1	86.2	91.3	89.6	90.8	93.4
Food			107.4	90.9	91.6	88.8	86.6	86.7	94.9	90.9	94.9	98.9
Oils and Meals			109.0	85.2	86.7	83.1	79.6	79.9	93.5	87.7	94.3	98.3
Grains			103.9	88.8	89.9	85.7	84.1	84.3	87.8	85.7	87.3	90.4
Other Food			108.4	100.3	99.7	99.2	98.0	97.6	103.2	99.7	102.7	107.2
Raw Materials			91.9	83.2	85.1	83.1	80.7	78.4	82.5	81.7	83.2	82.6
Timber			104.9	96.1	96.2	96.9	95.4	92.2	93.7	93.2	94.4	93.6
Other Raw Materials			77.8	69.2	73.1	67.9	64.5	63.4	70.2	69.0	70.9	70.6
Fertilizers			100.5	95.4	95.6	94.4	92.3	81.6	76.1	77.1	76.5	74.8
Metals and Minerals			84.8	66.9	72.4	63.9	58.8	58.0	60.7	62.0	60.0	60.2
Base Metals		****	89.0	73.6	79.9	70.0	65.0	63.8	65.9	66.7	65.1	65.9
Precious Metals			101.1	90.6	93.5	87.4	86.1	90.9	97.9	96.3	98.1	99.3

Source: See Appendix C.

Notes: (*) Included in the energy index; (**) Included in the non-energy index; (***) Included in the precious metals index; (****) Metals and Minerals excluding iron ore.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	84.6	70.1	57.5	51.0	51.9	52.9	53.8	54.8	60.0
Crude oil, average	\$/bbl	104.1	96.2	50.8	43.0	53.2	59.9	62.7	65.6	82.6
Natural gas, Europe	\$/mmbtu	11.79	10.05	7.26	4.50	4.80	5.11	5.45	5.81	8.00
Natural gas, US	\$/mmbtu	3.73	4.37	2.61	2.30	3.00	3.50	3.68	3.88	5.00
Natural gas, Japan	\$/mmbtu	15.96	16.04	10.40	7.00	7.28	7.58	7.88	8.20	10.00
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.44	3.06	3.14	3.10	3.03	2.96	2.89	2.82	2.50
Coffee, Arabica	\$/kg	3.08	4.42	3.53	3.35	3.37	3.38	3.40	3.42	3.50
Coffee, Robusta	\$/kg	2.08	2.22	1.94	1.70	1.72	1.74	1.76	1.79	1.90
Tea, average	\$/kg	2.86	2.72	2.71	2.60	2.65	2.70	2.76	2.81	3.10
Food										
Oils and Meals										
Coconut oil	\$/mt	941	1,280	1,110	1,400	1,349	1,299	1,251	1,206	1,000
Groundnut oil	\$/mt	1,773	1,313	1,337	1,500	1,521	1,542	1,564	1,586	1,700
Palm oil	\$/mt	857	821	623	650	665	681	697	713	800
Soybean meal	\$/mt	545	528	395	380	390	400	411	422	480
Soybean oil	\$/mt	1,057	909	757	775	797	820	844	868	1,000
Soybeans	\$/mt	538	492	390	410	421	432	444	456	520
Grains										
Barley	\$/mt	202	138	194	180	182	184	186	189	200
Maize	\$/mt	259	193	170	165	170	176	182	188	220
Rice, Thailand, 5%	\$/mt	506	423	386	400	401	402	403	404	410
Wheat, US, HRW	\$/mt	312	285	204	180	188	197	206	216	270
Other Food										
Bananas, US	\$/kg	0.92	0.93	0.96	1.00	0.99	0.98	0.97	0.96	0.92
Meat, beef	\$/kg	4.07	4.95	4.42	3.90	3.93	3.96	4.00	4.03	4.20
Meat, chicken	\$/kg	2.29	2.43	2.53	2.50	2.46	2.43	2.40	2.36	2.20
Oranges	\$/kg	0.97	0.78	0.68	0.75	0.77	0.79	0.81	0.83	0.95
Shrimp	\$/kg	13.84	17.25	14.36	11.00	11.21	11.42	11.63	11.85	13.00
Sugar, World	\$/kg	0.39	0.37	0.30	0.35	0.35	0.36	0.36	0.36	0.38
Raw Materials										
Timber										
Logs, Africa	\$/cum	464	465	389	390	401	412	424	436	500
Logs, S.E. Asia	\$/cum	305	282	246	265	272	280	288	296	340
Sawnwood, S.E. Asia	\$/cum	853	898	833	790	811	832	855	877	1,000
Other Raw Materials										
Cotton	\$/kg	1.99	1.83	1.55	1.55	1.61	1.68	1.74	1.81	2.20
Rubber, RSS3	\$/kg	2.79	1.96	1.56	1.50	1.57	1.65	1.73	1.81	2.30
Tobacco	\$/mt	4,589	4,991	4,908	5,000	4,942	4,884	4,827	4,771	4,500
Fertilizers										
DAP	\$/mt	445	472	459	355	364	372	381	391	440
Phosphate rock	\$/mt	148	110	117	118	117	116	115	114	110
Potassium chloride	\$/mt	379	297	303	270	274	278	283	287	310
TSP	\$/mt	382	388	385	300	306	312	319	325	360
Urea, E. Europe	\$/mt	340	316	273	200	208	216	224	232	280
Metals and Minerals										
Aluminum	\$/mt	1,847	1,867	1,665	1,575	1,626	1,679	1,734	1,790	2,100
Copper	\$/mt	7,332	6,863	5,510	4,650	4,866	5,092	5,329	5,577	7,000
Iron ore	\$/dmt	135.4	96.9	55.8	50.0	45.0	47.1	49.3	51.7	65.0
Lead	\$/mt	2,140	2,095	1,788	1,775	1,827	1,880	1,935	1,992	2,300
Nickel	\$/mt	15,032	16,893	11,863	9,200	10,029	10,933	11,918	12,992	20,000
Tin	\$/mt	22,283	21,899	16,067	16,600	17,128	17,672	18,234	18,814	22,000
Zinc	\$/mt	1,910	2,161	1,932	1,850	2,200	2,224	2,248	2,273	2,400
Precious Metals										
Gold	\$/toz	1,411	1,265	1,161	1,250	1,219	1,190	1,160	1,132	1,000
Silver	\$/toz	23.85	19.07	15.72	17.00	16.89	16.77	16.66	16.55	16.00
Platinum	\$/toz	1,487	1,384	1,053	1,000	1,046	1,094	1,145	1,197	1,500

Next update: October 2016.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Energy										
Coal, Australia	\$/mt	79.7	66.2	54.4	47.4	47.5	47.6	47.7	47.8	48.1
Crude oil, average	\$/bbl	98.1	90.9	48.0	40.0	48.6	53.9	55.5	57.1	66.3
Natural gas, Europe	\$/mmbtu	11.11	9.49	6.87	4.18	4.38	4.60	4.83	5.06	6.42
Natural gas, US	\$/mmbtu	3.52	4.13	2.47	2.14	2.74	3.15	3.26	3.38	4.01
Natural gas, Japan	\$/mmbtu	15.04	15.15	9.85	6.50	6.66	6.82	6.98	7.15	8.02
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	2.30	2.89	2.97	2.88	2.77	2.66	2.55	2.46	2.01
Coffee, Arabica	\$/kg	2.90	4.18	3.34	3.11	3.08	3.04	3.01	2.98	2.81
Coffee, Robusta	\$/kg	1.96	2.09	1.84	1.58	1.57	1.57	1.56	1.56	1.52
Tea, average	\$/kg	2.70	2.57	2.56	2.42	2.42	2.43	2.44	2.45	2.49
Food										
Oils and Meals										
Coconut oil	\$/mt	887	1,209	1,050	1,301	1,233	1,169	1,108	1,051	802
Groundnut oil	\$/mt	1,672	1,240	1,265	1,394	1,390	1,387	1,385	1,382	1,363
Palm oil	\$/mt	808	776	589	604	608	612	617	621	642
Soybean meal	\$/mt	514	499	374	353	356	360	364	367	385
Soybean oil	\$/mt	996	859	716	720	729	738	747	756	802
Soybeans	\$/mt	508	464	370	381	385	389	393	397	417
Grains										
Barley	\$/mt	191	130	184	167	166	166	165	164	160
Maize	\$/mt	245	182	161	153	156	158	161	163	176
Rice, Thailand, 5%	\$/mt	477	399	365	372	367	362	357	352	329
Wheat, US, HRW	\$/mt	294	269	194	167	172	177	182	188	217
Other Food										
Bananas, US	\$/kg	0.87	0.88	0.91	0.93	0.91	0.88	0.86	0.84	0.74
Meat, beef	\$/kg	3.84	4.67	4.19	3.62	3.59	3.57	3.54	3.51	3.37
Meat, chicken	\$/kg	2.16	2.29	2.39	2.32	2.25	2.19	2.12	2.06	1.76
Oranges	\$/kg	0.91	0.74	0.64	0.70	0.70	0.71	0.72	0.73	0.76
Shrimp	\$/kg	13.05	16.29	13.59	10.22	10.24	10.27	10.30	10.32	10.43
Sugar, World	\$/kg	0.37	0.35	0.28	0.33	0.32	0.32	0.32	0.32	0.30
Raw Materials										
Timber										
Logs, Africa	\$/cum	437	439	368	362	366	371	375	380	401
Logs, S.E. Asia	\$/cum	288	266	233	246	249	252	255	258	273
Sawnwood, S.E. Asia	\$/cum	804	848	789	734	741	749	757	764	802
Other Raw Materials										
Cotton	\$/kg	1.88	1.73	1.47	1.44	1.47	1.51	1.54	1.58	1.76
Rubber, RSS3	\$/kg	2.63	1.85	1.48	1.39	1.44	1.48	1.53	1.58	1.84
Tobacco	\$/mt	4,327	4,714	4,646	4,645	4,517	4,393	4,274	4,158	3,609
Fertilizers										
DAP	\$/mt	419	446	434	330	332	335	338	340	353
Phosphate rock	\$/mt	140	104	111	110	107	104	102	100	88
Potassium chloride	\$/mt	357	281	287	251	251	250	250	250	249
TSP	\$/mt	360	367	364	279	280	281	282	284	289
Urea, E. Europe	\$/mt	321	299	258	186	190	194	198	202	225
Metals and Minerals										
Aluminum	\$/mt	1,741	1,764	1,576	1,463	1,486	1,510	1,535	1,560	1,684
Copper	\$/mt	6,913	6,482	5,216	4,320	4,447	4,581	4,718	4,860	5,614
Iron ore	\$/dmt	127.6	91.6	52.8	46.5	41.1	42.4	43.7	45.0	52.1
Lead	\$/mt	2,018	1,979	1,692	1,649	1,670	1,691	1,713	1,736	1,845
Nickel	\$/mt	14,173	15,955	11,228	8,547	9,166	9,834	10,552	11,322	16,041
Tin	\$/mt	21,010	20,683	15,207	15,422	15,654	15,896	16,144	16,395	17,645
Zinc	\$/mt	1,801	2,041	1,828	1,719	2,011	2,001	1,991	1,981	1,925
Precious Metals										
Gold	\$/toz	1,331	1,195	1,099	1,161	1,114	1,070	1,027	986	802
Silver	\$/toz	22.49	18.01	14.88	15.79	15.43	15.09	14.75	14.42	12.83
Platinum	\$/toz	1,402	1,307	997	929	956	984	1,013	1,044	1,203

Sources and Notes: See Appendix C.
Next update: October 2016.

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

Commodity	Unit	2013	2014	2015	Forecasts					
					2016	2017	2018	2019	2020	2025
Nominal US dollars (2010=100)										
Energy		127.4	118.3	64.9	54.3	66.3	74.3	77.8	81.4	102.6
Non-energy		101.7	97.0	82.4	79.1	80.7	82.5	84.4	86.3	97.4
Agriculture		106.3	102.7	89.3	88.6	90.0	91.4	92.9	94.4	103.1
Beverages		83.3	101.8	93.5	89.6	89.3	89.1	88.8	88.6	88.0
Food		115.6	107.4	90.9	91.2	92.7	94.3	95.9	97.6	106.8
Oils and meals		115.9	109.0	85.2	87.5	89.5	91.5	93.7	95.8	107.7
Grains		128.2	103.9	88.8	85.5	87.7	90.0	92.4	94.9	108.8
Other food		103.9	108.4	100.3	101.3	101.5	101.7	101.9	102.2	103.8
Raw materials		95.4	91.9	83.2	81.8	83.7	85.7	87.7	89.9	101.7
Timber		102.6	104.9	96.1	93.6	96.1	98.7	101.4	104.1	118.8
Other Raw Materials		87.6	77.8	69.2	69.0	70.2	71.5	72.8	74.3	82.9
Fertilizers		113.7	100.5	95.4	78.2	79.8	81.4	83.1	84.8	94.4
Metals and minerals *		90.8	84.8	66.9	59.6	61.7	64.3	67.0	69.8	86.0
Base Metals **		90.3	89.0	73.6	65.5	68.9	71.7	74.7	77.8	95.6
Precious Metals		115.1	101.1	90.6	97.4	95.4	93.5	91.7	89.9	81.6
Constant 2010 US dollars (2010=100), deflated by the MUV Index										
Energy		120.1	111.7	61.4	50.4	60.6	66.8	68.9	70.9	82.3
Non-energy		95.9	91.6	78.0	73.5	73.8	74.2	74.7	75.2	78.1
Agriculture		100.2	97.0	84.5	82.3	82.3	82.2	82.3	82.3	82.7
Beverages		78.5	96.1	88.5	83.3	81.7	80.1	78.7	77.2	70.6
Food		109.0	101.4	86.0	84.7	84.7	84.8	84.9	85.0	85.7
Oils and meals		109.3	103.0	80.6	81.3	81.8	82.3	82.9	83.5	86.4
Grains		120.9	98.1	84.0	79.4	80.2	81.0	81.8	82.7	87.3
Other food		98.0	102.3	94.9	94.1	92.8	91.5	90.3	89.1	83.2
Raw materials		90.0	86.8	78.8	76.0	76.5	77.1	77.7	78.3	81.6
Timber		96.7	99.0	90.9	87.0	87.8	88.8	89.7	90.7	95.3
Other Raw Materials		82.6	73.5	65.5	64.1	64.1	64.3	64.5	64.7	66.5
Fertilizers		107.2	94.9	90.3	72.7	72.9	73.2	73.6	73.9	75.7
Metals and minerals *		85.6	80.1	63.4	55.4	56.4	57.8	59.3	60.8	69.0
Base Metals **		85.2	84.1	69.7	60.8	63.0	64.5	66.1	67.8	76.7
Precious Metals		108.5	95.5	85.8	90.5	87.2	84.1	81.2	78.3	65.4
Inflation indices, 2010=100										
MUV index ***		106.1	105.9	105.7	107.6	109.4	111.2	112.9	114.8	124.7
% change per annum		-1.4	-0.2	-0.2	1.9	1.7	1.6	1.6	1.6	1.7
US GDP deflator		105.4	106.9	108.5	110.7	113.0	115.3	117.6	120.0	132.6
% change per annum		1.5	1.3	1.6	2.0	2.0	2.0	2.0	2.0	2.0

Source: See Appendix C.

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

Next update: October 2016.



APPENDIX B

Supply-Demand Balances

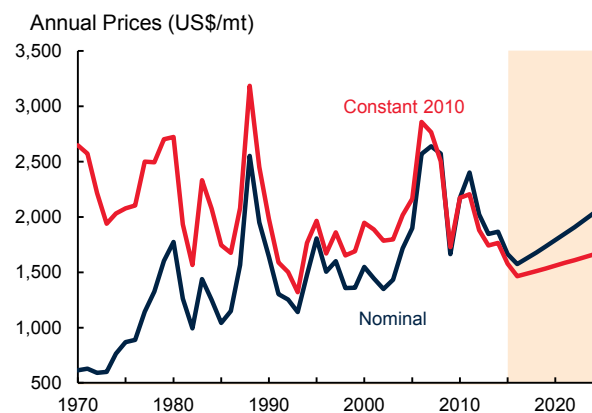
Aluminum	35	Natural gas	50
Bananas	36	Natural rubber	51
Coal	37	Nickel	52
Cocoa	38	Palm oil and Soybean oil	53
Coconut oil and Palm kernel oil	39	Platinum	54
Coffee	40	Rice	55
Copper	41	Silver	56
Cotton	42	Soybeans	57
Crude oil	43	Sugar	58
Fertilizers—Nitrogen	44	Tea	59
Fertilizers—Phosphate and Potash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

Aluminum



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

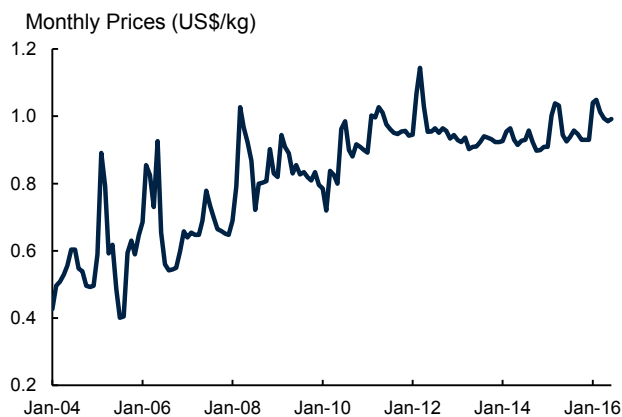
Note: 2016-25 are forecasts.

	1980	1990	2000	2005	2010	2012	2013	2014	2015
Bauxite Production (thousand metric tons)									
Australia	27,179	40,697	53,801	59,959	68,535	76,282	81,119	78,633	80,910
China	1,700	3,655	7,900	17,408	36,837	44,052	50,339	65,000	65,000
Brazil	4,152	9,876	14,379	22,365	32,028	34,988	33,849	35,410	31,231
India	1,785	5,277	7,562	12,385	12,662	15,320	20,421	20,688	26,383
Malaysia	920	398	123	5	124	122	220	963	22,867
Guinea	13,911	16,150	17,992	19,237	17,633	19,974	18,763	19,178	20,414
Jamaica	12,064	10,937	11,127	14,118	8,540	9,339	9,435	9,677	9,629
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,166	5,322	5,589	6,580
Kazakhstan	n/a	n/a	3,729	4,815	5,310	5,170	5,193	4,515	4,683
Greece	3,286	2,496	1,991	2,495	1,902	1,815	1,844	1,876	2,100
Saudi Arabia	n/a	n/a	0	0	0	760	1,044	1,965	1,964
Surinam	4,903	3,267	3,610	4,757	3,097	2,873	2,706	2,708	1,871
Venezuela, RB	0	786	4,361	5,815	3,126	2,285	2,341	2,316	1,770
Others	n/a	n/a	7,315	7,038	33,532	39,538	64,212	11,775	10,080
World	93,326	114,835	138,889	176,807	228,802	257,685	296,808	260,291	285,483
Refined Production (thousand metric tons)									
China	358	854	2,647	7,759	16,244	20,251	23,153	27,517	31,410
Russian Federation	n/a	n/a	3,258	3,647	3,947	4,024	3,724	3,488	3,524
Canada	1,075	1,567	2,373	2,894	2,963	2,781	2,967	2,858	2,880
United Arab Emirates	35	174	536	722	1,400	1,861	1,848	2,296	2,464
India	185	433	647	942	1,610	1,714	1,597	1,767	1,886
Australia	304	1,233	1,761	1,903	1,928	1,864	1,778	1,704	1,645
United States	4,654	4,048	3,668	2,480	1,728	2,070	1,948	1,710	1,587
Norway	662	867	1,026	1,376	1,090	1,111	1,155	1,331	1,241
Bahrain	126	212	509	708	851	890	913	931	961
Saudi Arabia	0	0	0	0	0	0	187	665	835
Brazil	261	931	1,271	1,498	1,536	1,436	1,304	962	773
Iceland	75	88	226	272	826	803	736	749	756
South Africa	87	157	683	851	806	665	822	745	695
Others	n/a	n/a	5,699	6,788	6,630	6,766	6,569	6,526	6,686
World	16,036	19,362	24,304	31,841	41,559	46,236	48,701	53,249	57,342
Refined Consumption (thousand metric tons)									
China	550	861	3,352	7,072	15,854	20,224	21,955	27,204	31,068
United States	4,454	4,330	6,161	6,114	4,242	4,875	4,632	5,250	5,325
Germany	1,272	1,379	1,632	1,758	1,912	2,086	2,083	2,289	2,126
Japan	1,639	2,414	2,223	2,276	2,025	1,982	1,772	2,034	1,779
India	234	433	601	958	1,475	1,690	1,559	1,523	1,476
Korea, Rep.	68	369	823	1,201	1,255	1,278	1,241	1,282	1,366
Turkey	45	152	211	390	703	925	867	915	952
United Arab Emirates	0	0	34	85	650	835	835	835	835
Brazil	296	341	514	759	985	1,021	988	1,027	801
Others	6,754	8,947	9,456	11,022	11,317	11,013	10,563	10,945	11,353
World	15,312	19,227	25,007	31,636	40,419	45,929	46,495	53,305	57,080

Source: World Bureau of Metal Statistics.

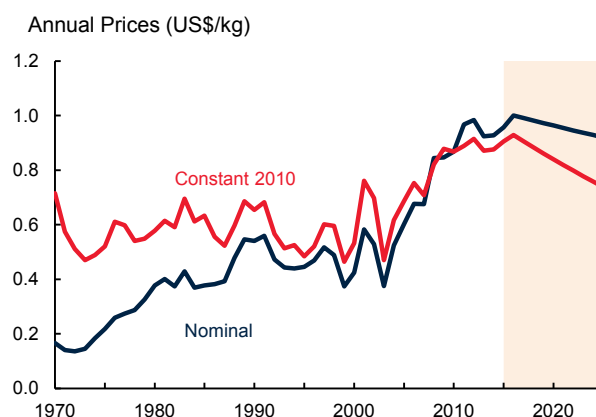
Note: n/a implies data not available.

Bananas



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

	1993	1995	2000	2005	2008	2009	2010	2011	2012
Gross exports (thousand metric tons)									
Ecuador	2,582	3,737	3,940	4,654	5,133	5,473	4,945	5,392	4,982
Philippines	1,154	1,213	1,599	2,024	2,193	1,664	1,590	2,056	2,646
Costa Rica	1,833	2,033	1,883	1,615	1,873	1,588	1,821	1,902	2,029
Guatemala	432	636	801	1,046	1,355	1,406	1,369	1,559	1,921
Colombia	1,502	1,336	1,680	1,622	1,798	2,102	1,803	1,915	1,835
Honduras	831	522	375	501	606	520	512	517	901
Côte d'Ivoire	173	173	217	234	264	257	336	320	339
Mexico	295	169	46	70	75	140	174	178	308
Dominican Republic	73	94	80	167	192	282	340	304	297
Cameroon	120	171	238	266	269	256	233	249	247
Panama	708	693	489	348	367	257	272	267	245
Peru	n/a	n/a	1	43	78	83	89	109	124
Belize	43	52	66	76	83	82	79	84	99
Brazil	90	13	72	212	131	144	140	110	96
Suriname	29	34	35	40	65	57	79	63	83
Bolivia	n/a	n/a	9	54	86	89	88	98	73
Pakistan	3	2	2	9	13	87	58	59	59
Ghana	n/a	n/a	4	2	70	48	68	58	56
India	n/a	n/a	9	14	28	46	61	40	55
Thailand	2	2	6	42	23	26	23	25	28
Others	545	63	369	256	173	166	100	75	74
World	10,416	11,424	11,922	13,294	14,872	14,771	14,180	15,378	16,495
Net imports (thousand metric tons)									
European Union	3,217	3,125	3,890	3,923	4,877	4,537	4,509	4,603	4,488
United States	3,133	3,266	3,630	3,373	3,453	3,061	3,611	4,123	4,350
Russian Federation	19	503	500	853	989	969	1,069	1,308	1,254
Japan	913	874	1,079	1,067	1,093	1,253	1,109	1,064	1,086
China	30	160	642	414	421	554	741	910	716
Canada	383	400	398	449	478	482	496	507	527
Argentina	459	412	340	302	347	344	351	395	377
Korea, Rep.	146	122	184	253	258	257	338	353	368
Iran, Islamic Rep.	172	120	200	451	752	713	640	591	356
Saudi Arabia	145	167	187	233	257	252	307	306	306
Syrian Arab Republic	0	53	69	112	220	184	232	272	293
Ukraine	0	12	60	249	278	227	215	248	243
Algeria	n/a	n/a	0	157	164	180	208	245	231
Turkey	113	88	124	151	219	182	201	235	225
Chile	139	145	193	195	175	179	176	184	191
Kuwait	19	22	23	31	96	93	91	131	140
United Arab Emirates	39	45	69	175	127	85	93	129	130
New Zealand	65	72	68	78	80	76	81	81	81
Switzerland	76	75	72	74	82	81	80	79	79
Norway	61	60	60	73	84	81	79	78	77
Others	517	735	364	506	654	628	714	742	737
World	9,645	10,544	12,151	13,120	15,102	14,418	15,340	16,582	16,252

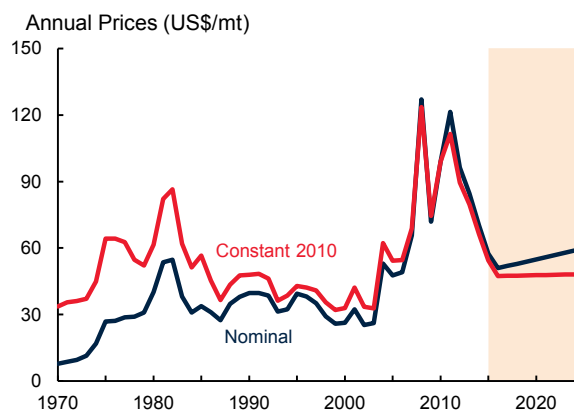
Sources: Food and Agriculture Organization, Intergovernmental Group on Bananas and Tropical Fruits.

Note: n/a implies data not available. European Union includes EU-15 for 1993 and 1995 and EU-27 for 2000-2012.

Coal



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



Source: World Bank.
Note: 2016-25 are forecasts.

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

Source: BP Statistical Review.

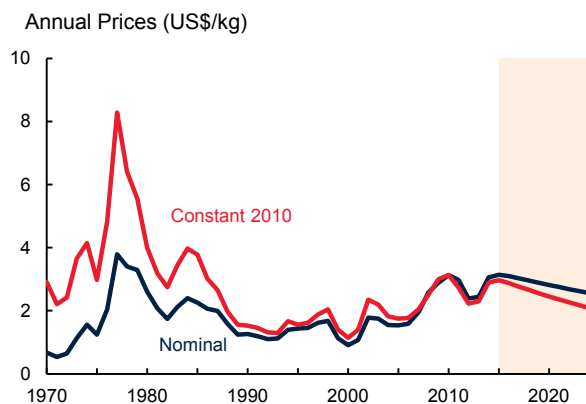
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

Cocoa



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

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

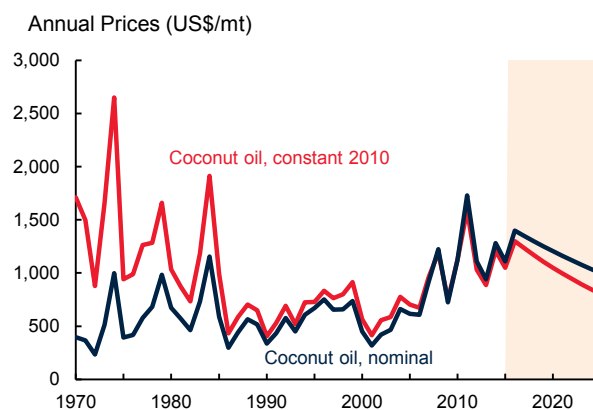
Source: Quarterly Bulletin of Cocoa Statistics.

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

Coconut oil and Palm kernel oil



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



Source: World Bank.
Note: 2016-25 are forecasts.

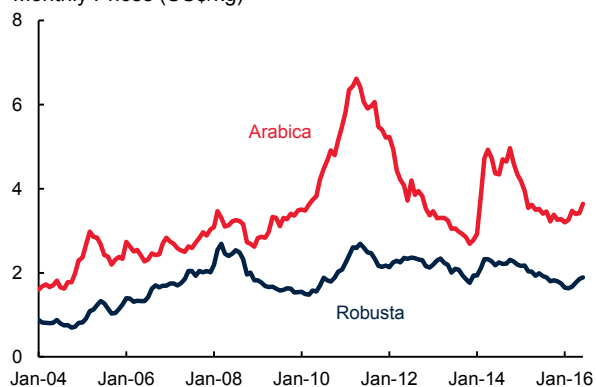
	1980/81	1990/91	2000/01	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16
Coconut oil: production (thousand metric tons)									
Philippines	1,159	1,448	1,207	1,240	1,208	1,624	1,153	1,102	946
Indonesia	677	833	825	847	914	850	933	937	833
India	228	292	442	398	393	380	390	377	366
Mexico	99	126	126	131	131	131	127	127	127
Malaysia	64	32	38	49	46	51	51	51	48
Vietnam	n/a	n/a	n/a	34	34	34	34	34	33
Thailand	n/a	n/a	n/a	27	28	29	29	29	28
Papua New Guinea	n/a	n/a	n/a	54	47	32	26	18	18
Others	596	628	606	314	321	322	313	310	311
World	2,823	3,359	3,244	3,094	3,122	3,453	3,056	2,985	2,710
Coconut oil: consumption (thousand metric tons)									
European Union	498	632	734	739	601	716	646	537	545
United States	373	400	585	474	487	520	518	531	478
India	233	301	448	411	403	381	392	389	370
Philippines	195	318	297	336	375	523	364	241	211
Indonesia	639	600	200	153	138	215	377	155	190
China	27	32	43	216	193	152	142	137	136
Mexico	115	139	139	153	137	135	129	130	131
Malaysia	4	4	32	90	85	57	49	83	69
Others	575	759	715	671	624	702	507	706	649
World	2,659	3,185	3,193	3,243	3,043	3,401	3,124	2,909	2,779
Palmkernel oil: production (thousand metric tons)									
Indonesia	36	229	709	2,534	2,857	3,022	3,264	3,538	3,525
Malaysia	250	827	1,289	2,072	2,103	2,271	2,332	2,280	2,122
Thailand	n/a	n/a	n/a	140	148	174	176	165	176
Nigeria	82	146	190	108	111	116	109	114	115
Colombia	n/a	n/a	n/a	80	85	90	95	105	110
Papua New Guinea	n/a	n/a	n/a	43	44	51	57	58	59
Ecuador	n/a	n/a	n/a	35	38	39	37	40	42
Côte d'Ivoire	n/a	n/a	n/a	40	42	43	42	39	41
Others	195	261	349	339	363	376	411	425	439
World	563	1,463	2,537	5,391	5,791	6,182	6,523	6,764	6,629
Palmkernel oil: consumption (thousand metric tons)									
Indonesia	29	66	113	851	1,052	1,260	1,518	1,670	1,745
Malaysia	4	117	686	1,420	1,404	1,464	1,414	1,504	1,444
European Union	238	417	500	537	586	667	674	675	670
China	1	12	31	421	476	620	495	578	620
United States	69	149	224	279	302	267	266	274	305
Brazil	2	10	55	201	189	215	249	241	246
India	1	7	13	198	183	326	265	245	182
Nigeria	24	146	175	107	109	113	105	113	114
Others	147	465	708	1,214	1,276	1,326	1,406	1,423	1,407
World	515	1,389	2,505	5,228	5,577	6,258	6,392	6,723	6,733

Source: Oil World.

Notes: All quantities are for the crop year (beginning October 1). For example, 2001/02 refers to October 2001 to September 2002. European Union includes EU-15 for 1980/81, 1990/91, 2000/01 and EU-28 for 2010-2016.

Coffee

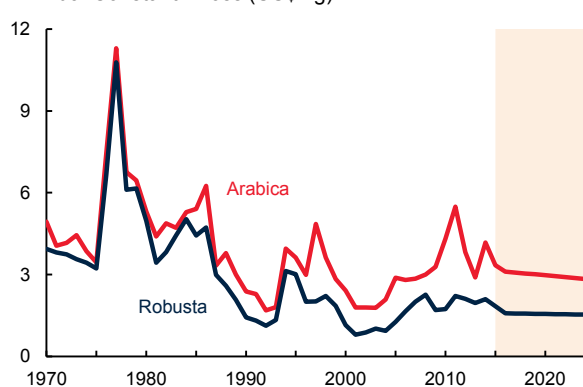
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is June 2016.

Annual Constant Prices (US\$/kg)



Source: World Bank.

Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (thousand 60kg bags)									
Brazil	11,000	21,500	31,000	34,100	54,500	57,200	54,300	49,400	55,950
Vietnam	56	77	1,200	15,333	19,415	29,833	27,400	29,300	27,275
Colombia	8,000	13,500	14,500	10,500	8,525	12,075	13,300	13,600	13,300
Indonesia	2,330	5,365	7,480	6,495	9,325	9,500	10,470	11,750	10,000
Ethiopia	2,589	3,264	3,500	2,768	6,125	6,345	6,475	6,500	6,500
Honduras	545	1,265	1,685	2,821	3,975	4,400	5,100	5,700	6,100
India	1,914	1,977	2,970	5,020	5,035	5,075	5,440	5,300	5,170
Peru	1,114	1,170	1,170	2,824	4,100	4,250	2,900	3,500	3,800
Uganda	2,667	2,133	2,700	3,097	3,212	3,850	3,550	4,500	3,700
Guatemala	1,965	2,702	3,282	4,564	3,960	3,515	3,185	3,350	3,375
Mexico	3,200	3,862	4,550	4,800	4,000	3,950	3,180	2,500	2,300
China	0	0	0	0	827	1,947	2,000	2,100	2,300
Nicaragua	641	971	460	1,610	1,740	2,000	2,125	2,025	2,125
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,675	1,400	1,650	1,700
Malaysia	66	88	75	700	1,100	1,500	1,500	1,500	1,500
Costa Rica	1,295	2,140	2,565	2,502	1,575	1,450	1,400	1,400	1,400
Tanzania, United Rep.	909	1,060	763	809	1,050	800	1,150	1,250	1,050
Thailand	19	201	785	1,692	1,000	1,000	1,000	1,000	1,000
Papua New Guinea	401	880	964	1,041	865	855	810	750	750
Others	16,495	17,929	17,232	11,441	9,480	6,558	6,570	6,217	6,402
World	59,202	86,174	100,181	117,217	141,409	157,778	153,255	153,292	155,697
Consumption (thousand 60kg bags)									
European Union	n/a	n/a	n/a	n/a	41,350	41,475	43,820	43,100	43,900
United States	305	297	229	183	22,383	23,811	23,573	24,767	25,150
Brazil	8,890	7,975	9,000	13,100	19,420	20,210	20,420	20,500	20,520
Japan	n/a	n/a	n/a	n/a	7,015	7,750	7,825	8,285	8,325
Philippines	496	432	810	900	2,825	3,630	4,320	5,475	4,775
Canada	n/a	n/a	n/a	n/a	4,245	4,605	4,495	4,200	4,400
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,230	4,050	4,450	4,375
Indonesia	888	1,228	1,295	1,335	1,680	2,750	3,040	2,750	3,110
China	n/a	n/a	n/a	n/a	1,059	2,195	2,463	2,850	3,000
Ethiopia	1,170	1,600	1,900	1,667	2,860	3,120	2,985	2,972	2,975
Vietnam	31	35	100	417	1,337	2,008	2,217	2,600	2,868
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	2,160	2,305	2,370	2,450
Mexico	1,512	1,500	1,400	978	2,620	2,731	2,364	2,315	2,350
Algeria	n/a	n/a	n/a	n/a	1,815	2,300	2,195	2,230	2,280
Australia	n/a	n/a	n/a	n/a	1,445	1,615	1,775	1,810	1,800
Switzerland	n/a	n/a	n/a	n/a	1,570	1,410	1,445	1,500	1,550
Colombia	1,349	1,825	1,615	1,530	1,120	1,300	1,400	1,425	1,475
India	665	887	1,224	959	1,231	1,170	1,270	1,350	1,400
Venezuela, RB	638	1,090	850	735	1,305	1,170	1,151	1,151	1,031
Others	n/a	n/a	n/a	n/a	12,878	13,156	12,874	12,990	13,072
World	n/a	n/a	n/a	n/a	134,423	142,796	145,987	149,090	150,806

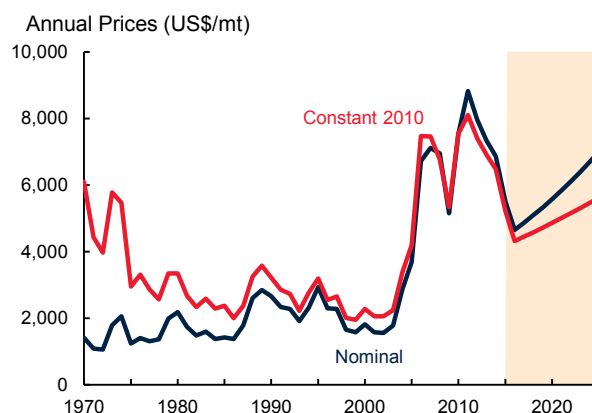
Source: U.S. Department of Agriculture (July 2016 update).

Note: n/a implies data not available.

Copper



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



Source: World Bank.
Note: 2016-25 are forecasts.

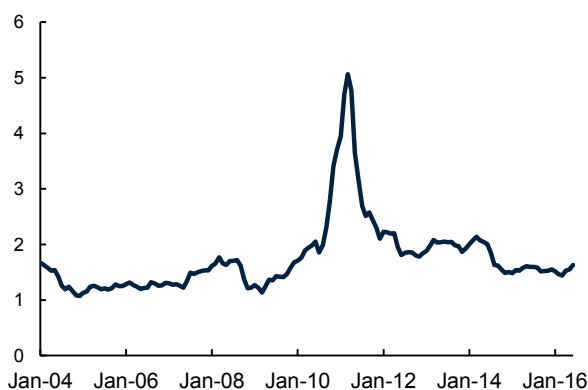
	1980	1990	2000	2005	2010	2012	2013	2014	2015
Mine Production (thousand metric tons)									
Chile	1,068	1,588	4,602	5,321	5,419	5,434	5,776	5,750	5,764
Peru	367	318	553	1,010	1,247	1,299	1,376	1,380	1,705
China	177	296	549	639	1,180	1,552	1,681	1,632	1,669
United States	1,181	1,587	1,440	1,157	1,129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

Source: World Bureau of Metal Statistics.

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

Cotton

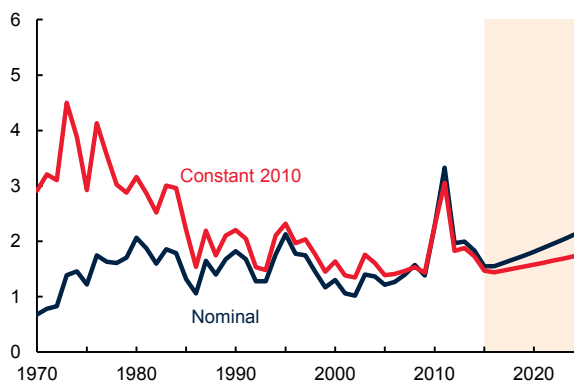
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is June 2016.

Annual Prices (US\$/kg)



Source: World Bank.

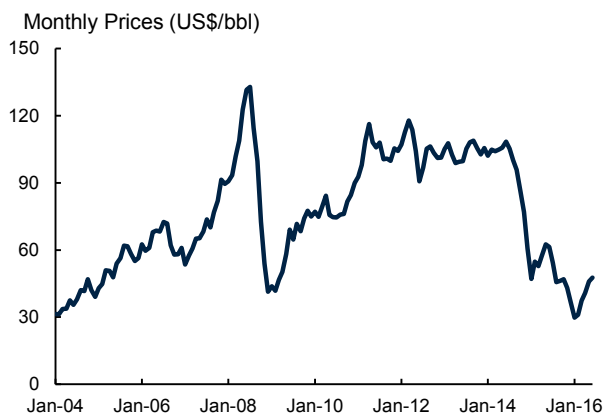
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (thousand metric tons)									
India	909	1,322	1,989	2,380	5,865	6,766	6,460	5,880	6,450
China	1,995	2,707	4,508	4,505	6,400	6,929	6,480	5,170	4,650
United States	2,219	2,422	3,376	3,742	3,942	2,811	3,553	2,810	3,130
Pakistan	543	714	1,638	1,816	1,948	2,076	2,305	1,510	2,050
Brazil	594	623	717	939	1,960	1,734	1,563	1,440	1,490
Uzbekistan	n/a	1,671	1,593	975	910	910	885	810	850
Turkey	400	500	655	880	594	843	722	699	710
Australia	19	99	433	804	898	933	937	546	641
Turkmenistan	n/a	n/a	437	187	380	329	327	300	286
Burkina Faso	8	23	77	116	141	247	254	252	279
Greece	110	115	213	421	180	280	308	218	258
Mexico	312	353	175	72	157	193	206	188	207
Others	n/a	n/a	3,141	2,688	2,034	2,135	2,116	1,987	2,009
World	11,740	13,831	18,951	19,524	25,408	26,185	26,116	21,810	23,010
Stocks (thousand metric tons)									
China	412	476	1,589	3,755	2,087	12,088	12,876	12,010	10,850
India	376	491	539	922	1,850	1,922	1,946	2,198	2,146
United States	915	581	510	1,306	566	651	980	1,010	1,130
Turkey	24	112	150	283	412	821	809	842	906
Brazil	321	391	231	755	1,400	852	852	841	794
Pakistan	55	131	313	608	316	422	414	566	677
Others	2,502	2,969	3,428	2,984	2,832	3,734	4,345	2,913	3,157
World	4,605	5,151	6,761	10,614	9,463	20,490	22,222	20,380	19,660
Exports (thousand metric tons)									
United States	848	1,290	1,697	1,467	3,130	2,293	2,449	2,003	2,230
India	34	140	255	24	1,085	2,014	914	1,213	1,060
Brazil	220	21	167	68	435	485	851	1,005	830
Australia	4	53	329	849	545	1,057	520	531	560
Uzbekistan	n/a	n/a	n/a	750	600	615	550	544	490
Burkina Faso	9	22	73	112	136	253	243	265	289
Others	n/a	n/a	n/a	2,535	1,786	2,259	2,120	1,809	1,991
World	3,875	4,414	5,069	5,805	7,717	8,976	7,647	7,370	7,450
Imports (thousand metric tons)									
Vietnam	33	40	31	84	350	691	941	1,100	1,370
Bangladesh	0	45	80	248	843	967	964	1,079	1,130
China	108	773	480	52	2,609	3,075	1,804	1,083	960
Turkey	10		46	381	760	924	800	780	880
Indonesia	36	106	324	570	471	651	728	660	680
Pakistan	1	1	0	101	314	463	541	536	319
Thailand	46	86	354	342	383	369	398	286	290
Korea, Rep.	121	332	447	304	230	311	285	272	281
Others	3,741	3,172	3,458	3,682	1,797	1,270	1,136	1,574	1,538
World	4,086	4,555	5,220	5,764	7,756	8,721	7,597	7,370	7,448

Source: International Cotton Advisory Committee (January-February 2016 update).

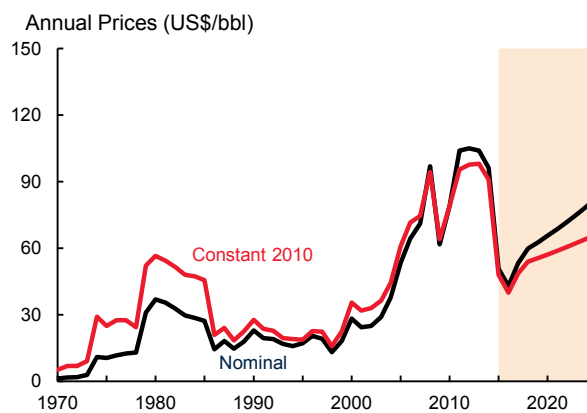
Note: n/a implies data not available.

Crude oil



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

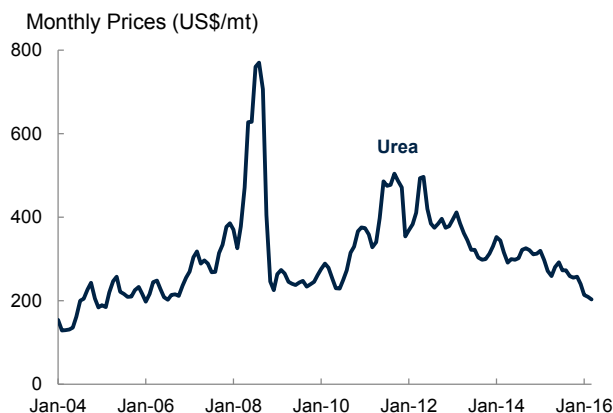
Note: 2016-25 are forecasts.

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

Source: BP Statistical Review.

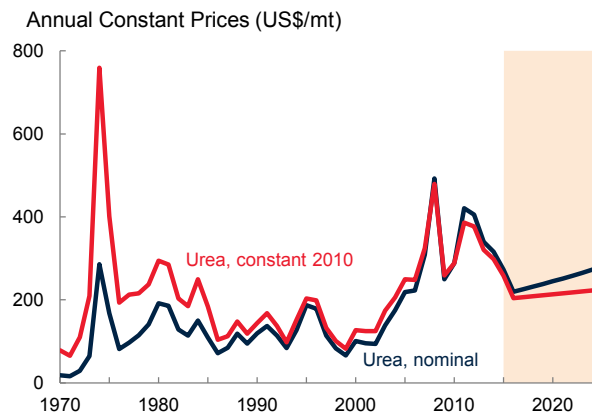
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

Fertilizers—Nitrogen



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

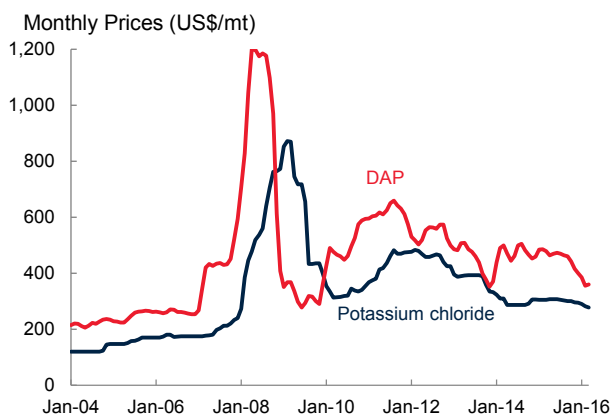
Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2009	2010	2011	2012	2013
Production (thousand tonnes nutrients)									
China	1,200	9,993	14,637	22,175	36,009	35,678	36,323	36,056	36,810
India	838	2,164	6,993	10,943	11,924	12,178	12,288	12,237	12,409
United States	8,161	12,053	10,816	8,352	9,722	9,587	9,414	10,150	9,280
Russian Federation	n/a	n/a	n/a	5,452	6,052	6,544	6,917	6,605	6,819
Canada	726	1,755	2,683	3,797	3,509	3,364	3,565	3,344	3,225
Indonesia	45	958	2,462	2,853	3,261	3,207	3,375	3,313	3,173
Pakistan	140	572	1,120	2,054	2,594	2,629	2,534	2,232	2,589
Qatar	n/a	295	350	748	1,379	1,556	1,480	2,095	2,535
Ukraine	n/a	n/a	3,004	2,130	2,154	2,312	2,985	3,072	2,489
Egypt, Arab Rep.	118	401	678	1,441	2,779	2,761	2,709	2,474	2,308
Iran, Islamic Rep.	31	72	376	726	1,311	1,524	1,904	2,058	1,975
Saudi Arabia	0	138	568	1,278	1,619	1,695	1,737	1,923	1,920
Poland	1,030	1,290	1,233	1,497	1,320	1,509	1,445	1,529	1,466
Netherlands	957	1,624	1,928	1,300	1,216	1,175	1,322	1,293	1,381
Germany	1,900	2,380	1,165	1,558	1,165	1,289	1,275	1,326	1,326
Vietnam	0	15	18	227	431	479	503	861	999
Belgium	594	743	770	935	884	947	956	932	911
Turkey	82	600	1,026	400	557	747	929	905	865
Belarus	n/a	n/a	747	574	670	740	773	832	862
Others	16,868	27,900	21,389	18,185	17,017	18,195	18,739	18,344	18,126
World	32,690	62,951	71,964	86,624	105,573	108,116	111,170	111,580	111,468
Consumption (thousand tonnes nutrients)									
China	2,987	11,787	19,233	22,720	33,600	32,599	33,800	34,294	34,250
India	1,310	3,522	7,566	10,911	15,582	16,558	17,300	16,821	16,731
United States	7,363	10,818	10,239	10,467	11,117	11,737	12,231	12,050	12,247
Brazil	276	886	797	1,998	2,554	2,855	3,366	3,435	3,699
Pakistan	264	843	1,472	2,265	3,476	3,143	3,209	2,853	3,179
Indonesia	184	851	1,610	1,964	3,215	3,045	2,940	3,063	2,820
Canada	323	946	1,158	1,592	1,901	1,990	2,297	2,479	2,457
France	1,425	2,146	2,493	2,317	2,069	2,337	2,020	2,140	2,191
Germany	1,642	2,303	1,787	1,848	1,569	1,786	1,640	1,648	1,675
Turkey	243	782	1,200	1,276	1,412	1,344	1,259	1,432	1,584
Russian Federation	n/a	n/a	4,344	960	1,494	1,483	1,577	1,576	1,537
Thailand	50	136	577	922	1,228	1,311	1,386	1,382	1,480
Ukraine	n/a	n/a	1,836	350	700	650	1,159	1,254	1,382
Australia	123	248	439	951	849	982	1,099	1,099	1,315
Vietnam	166	129	425	1,332	1,190	1,250	1,300	1,407	1,261
Mexico	406	878	1,346	1,342	1,113	1,166	1,168	1,201	1,246
Poland	785	1,344	671	896	1,113	1,090	1,095	1,204	1,172
Bangladesh	99	266	609	996	1,149	1,237	1,122	1,112	1,133
Egypt, Arab Rep.	331	554	745	1,084	1,193	1,159	1,207	1,087	1,114
Others	13,446	22,054	18,231	15,880	15,928	16,800	16,660	17,006	17,665
World	31,423	60,493	76,777	82,070	102,453	104,522	107,835	108,543	110,136

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

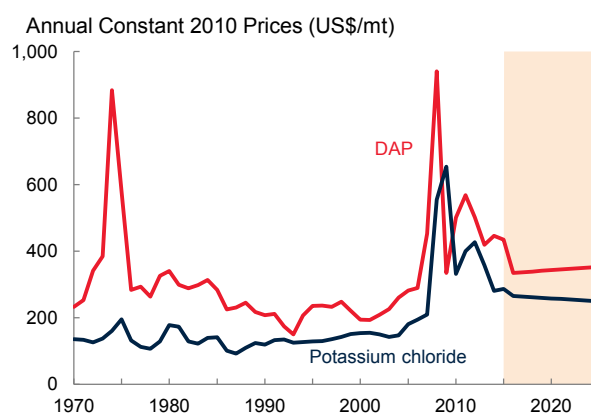
Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see www.fertilizers.org for details).

Fertilizers—Phosphate and Potash



Source: World Bank.

Note: Last observation is June 2016.



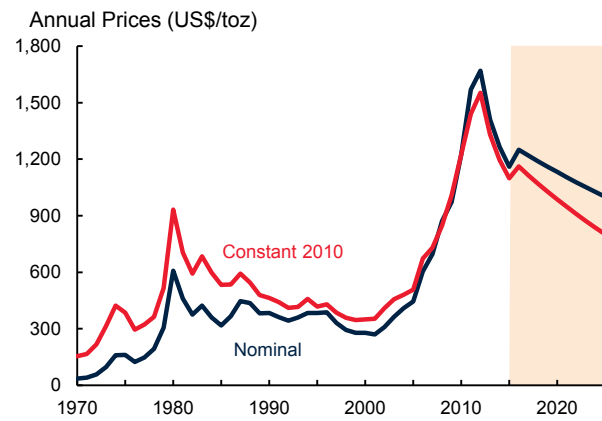
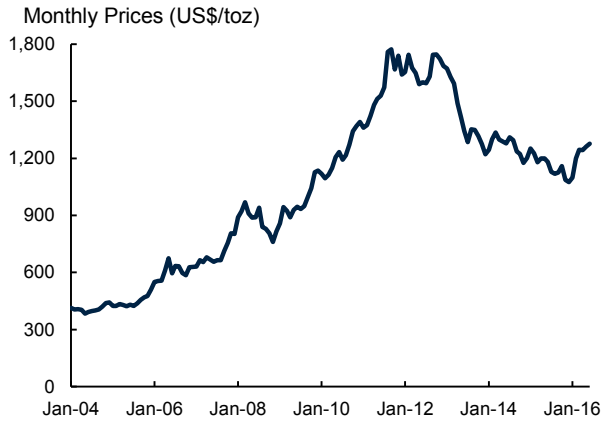
Source: World Bank.

Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2009	2010	2011	2012	2013
Phosphate: production (thousand tonnes nutrients)									
China	907	2,607	4,114	6,759	14,374	15,998	17,631	16,387	16,620
United States	n/a	7,437	8,105	7,337	5,817	6,297	6,123	6,456	6,055
India	228	854	2,077	3,751	4,390	4,378	4,370	3,825	3,973
Russian Federation	n/a	n/a	4,943	2,320	2,578	2,926	3,070	2,940	2,929
Morocco	99	174	1,180	1,122	1,288	1,875	2,242	2,433	2,198
Brazil	169	1,623	1,091	1,496	1,813	2,004	2,011	2,183	2,100
Saudi Arabia	0	n/a	n/a	159	71	119	298	826	919
Tunisia	177	408	664	885	859	997	398	528	631
Others	14,102	20,574	14,244	8,915	6,787	8,102	8,323	8,171	8,036
World	15,682	33,677	36,417	32,744	37,977	42,697	44,466	43,749	43,460
Phosphate: consumption (thousand tonnes nutrients)									
China	907	2,952	5,770	8,664	11,000	12,100	12,300	12,400	11,480
India	305	1,091	3,125	4,248	7,278	8,050	7,914	6,653	5,695
Brazil	416	1,965	1,202	2,544	3,342	3,384	3,860	4,325	4,641
United States	4,671	4,926	3,811	3,862	3,719	3,890	3,946	4,215	4,335
Canada	326	634	578	634	630	723	799	831	886
Pakistan	31	227	389	675	860	767	633	747	881
Indonesia	45	274	581	263	450	500	584	695	849
Australia	757	853	579	1,107	641	817	873	803	816
Others	13,743	18,990	19,887	10,815	9,556	10,343	10,642	10,732	11,405
World	21,202	31,912	35,920	32,812	37,477	40,574	41,551	41,401	40,988
Potash: production (thousand tonnes nutrients)									
Canada	3,179	7,337	7,005	9,174	4,414	10,289	9,919	9,877	9,461
Russian Federation	n/a	n/a	n/a	3,716	3,691	6,128	6,526	5,403	6,086
China	n/a	20	46	275	2,600	3,101	3,390	4,007	4,565
Belarus	n/a	n/a	4,992	3,372	2,485	5,223	5,332	4,831	4,229
Germany	4,824	6,123	4,967	3,409	1,789	2,962	3,106	3,056	2,968
Israel	576	797	1,296	1,748	1,653	1,944	1,700	2,100	2,150
Chile	21	23	41	408	662	850	964	1,244	1,187
Jordan	n/a	n/a	842	1,162	672	1,166	1,355	1,094	1,047
Others	8,871	13,307	3,649	2,878	1,801	2,043	2,482	2,409	2,604
World	17,471	27,608	22,838	26,141	19,767	33,706	34,775	34,022	34,297
Potash: consumption (thousand tonnes nutrients)									
China	25	527	1,761	3,364	4,300	5,200	5,700	6,000	6,500
Brazil	307	1,267	1,210	2,760	3,149	3,894	4,431	4,844	5,094
United States	3,827	5,733	4,537	4,469	4,044	4,165	4,186	4,461	4,717
India	199	618	1,309	1,565	3,632	3,514	2,576	2,062	2,058
Indonesia	18	91	310	266	801	1,250	1,401	1,490	1,580
Malaysia	61	250	494	650	700	1,150	1,250	1,290	1,290
Belarus	n/a	n/a	986	450	663	660	787	720	683
Viet Nam	38	39	29	450	300	400	440	552	570
Others	11,289	15,302	13,685	8,121	6,011	7,243	7,369	7,531	7,874
World	15,764	23,826	24,320	22,095	23,601	27,477	28,140	28,950	30,365

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

Gold

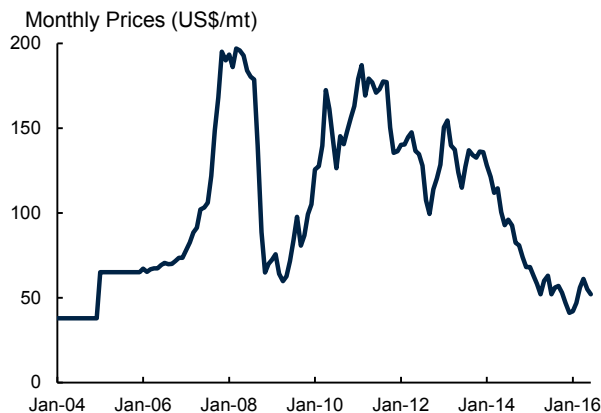


	1995	2000	2005	2009	2010	2011	2012	2013
Production (metric tons)								
China	136	175	209	314	341	361	403	428
Australia	247	296	263	223	260	258	252	267
Russian Federation	128	144	163	205	201	185	183	230
United States	317	353	256	223	231	234	235	230
South Africa	522	428	297	205	191	187	154	169
Peru	56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

Sources: World Bureau of Metal Statistics and Thomson Reuters.

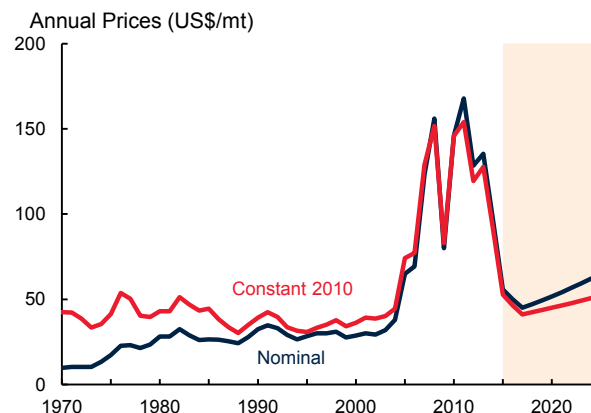
Notes: n/a implies data not available. Fabrication includes the use of scrap. Fabrication of "Saudi Arabia" includes Saudi Arabia and the Republic of Yemen in 1995 and 2000.

Iron Ore



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

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

Source: Steel Statistical Yearbook.

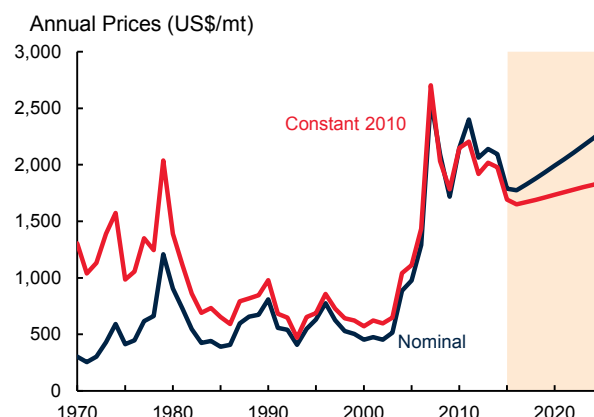
Notes: n/a implies data not available.

Lead



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

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

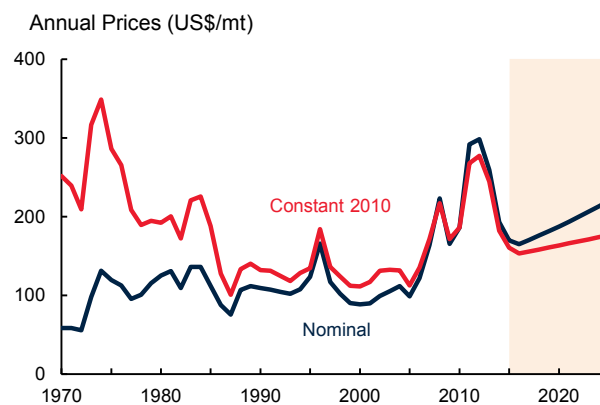
Source: World Bureau of Metal Statistics.

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

Maize



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



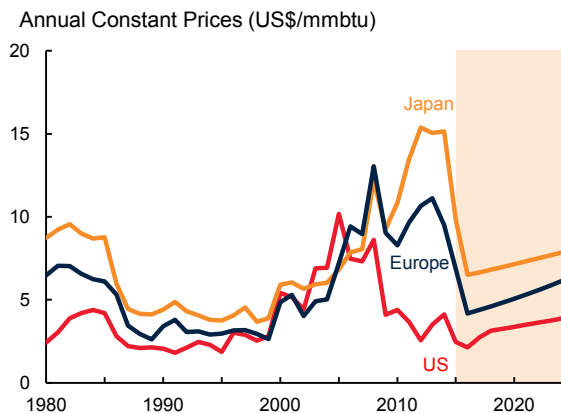
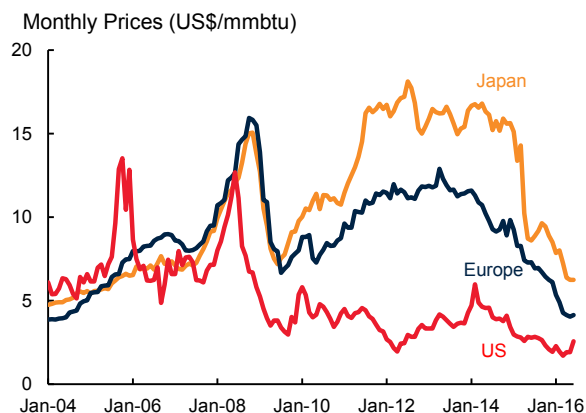
Source: World Bank.
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (million metric tons)									
United States	105.5	168.6	201.5	251.9	315.6	351.3	361.1	345.5	369.3
China	33.0	62.6	96.8	106.0	177.2	218.5	215.6	224.6	218.0
Brazil	14.1	22.6	24.3	41.5	57.4	80.0	85.0	70.0	80.0
European Union	29.8	42.5	36.5	51.8	58.6	64.9	75.8	58.0	63.8
Argentina	9.9	12.9	7.7	15.4	25.2	26.0	28.7	28.0	34.0
Ukraine	n/a	n/a	4.7	3.8	11.9	30.9	28.5	23.3	26.0
Mexico	8.9	10.4	14.1	17.9	21.1	22.9	25.5	25.0	24.2
India	7.5	7.0	9.0	12.0	21.7	24.3	24.2	21.0	23.0
Russian Federation	n/a	n/a	2.5	1.5	3.1	11.6	11.3	13.2	14.0
South Africa	8.6	14.9	8.6	8.0	10.9	14.9	10.6	6.5	13.0
Canada	2.6	5.8	7.1	7.0	12.0	14.2	11.5	13.6	12.5
Indonesia	2.8	4.0	5.0	5.9	6.8	9.1	9.0	9.4	9.6
Philippines	2.0	3.1	5.1	4.5	7.3	7.5	7.7	7.5	8.0
Others	73.1	96.9	95.4	64.4	107.0	115.3	119.1	114.2	115.3
World	297.9	451.3	518.4	591.7	835.9	991.4	1013.6	959.8	1010.7
Stocks (million metric tons)									
China	8.9	42.8	82.8	102.4	49.4	81.3	100.5	110.6	103.6
United States	16.8	35.4	38.6	48.2	28.6	31.3	44.0	43.2	52.9
Brazil	2.0	1.3	0.8	2.7	6.3	14.0	7.8	5.3	5.9
European Union	2.3	4.8	3.7	3.2	5.2	6.9	9.4	6.3	5.3
Mexico	0.5	2.0	1.8	2.8	1.1	2.6	4.1	5.1	5.2
Others	7.9	21.0	17.4	16.0	32.9	39.7	42.7	36.3	35.5
World	38.4	107.4	145.1	175.3	123.6	175.7	208.5	206.9	208.4
Exports (million metric tons)									
United States	12.9	60.7	43.9	49.3	46.5	48.8	47.4	48.3	52.1
Argentina	6.4	9.1	4.0	9.7	16.3	17.1	18.9	19.0	23.0
Brazil	0.9	0.0	0.0	6.3	8.4	21.0	34.5	18.5	22.0
Ukraine	n/a	n/a	0.4	0.4	5.0	20.0	19.7	16.0	17.0
Russian Federation	n/a	n/a	0.4	0.0	0.0	4.2	3.2	4.4	4.5
European Union	5.4	1.3	0.2	0.5	1.1	2.4	4.0	1.6	2.5
Paraguay	0.0	0.0	0.0	0.6	1.6	2.4	3.3	2.3	2.3
Others	11.9	10.5	9.8	10.1	12.3	15.3	10.8	9.3	10.0
World	37.6	81.6	58.5	76.7	91.3	131.2	141.7	119.4	133.4
Imports (million metric tons)									
Japan	5.2	14.0	16.3	16.3	15.6	15.1	14.7	15.0	15.0
Mexico	0.1	3.8	1.9	6.0	8.3	10.9	11.3	13.0	13.0
European Union	18.9	26.6	5.7	3.7	7.4	16.0	8.6	13.2	11.0
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	10.4	10.2	10.3	10.0
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	8.7	7.8	8.5	8.8
Vietnam	0.1	0.1	0.0	0.1	1.3	3.5	4.9	7.3	6.0
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	5.5	6.2	5.5	5.5
Others	22.6	52.6	32.0	33.5	42.7	54.9	61.2	61.8	57.3
World	47.3	100.9	64.3	74.9	92.7	125.1	124.9	134.6	126.6

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

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

Natural gas



	1970	1980	1990	2000	2010	2012	2013	2014	2015
Production (billion cubic metres)									
United States	595	549	504	543	604	681	685	729	767
Russian Federation	n/a	n/a	590	529	589	592	605	582	573
Iran, Islamic Rep.	4	5	26	60	152	166	167	182	192
Qatar	1	5	6	25	131	157	178	174	181
Canada	57	75	109	182	160	156	156	162	164
China	3	15	16	28	99	112	122	132	138
Norway	0	25	25	50	107	115	109	109	117
Saudi Arabia	2	10	34	50	88	99	100	102	106
Algeria	3	15	49	88	80	82	82	83	83
Indonesia	1	19	44	70	86	77	76	75	75
Turkmenistan	n/a	n/a	79	43	42	62	62	69	72
Malaysia	0	2	17	47	61	61	67	67	68
Australia	2	11	20	32	53	56	58	61	67
Uzbekistan	n/a	n/a	37	51	54	57	57	57	58
United Arab Emirates	1	8	20	38	51	54	55	54	56
Mexico	11	26	27	38	58	57	58	57	53
Nigeria	0	2	4	12	37	43	36	45	50
Egypt, Arab Rep.	0	2	8	21	61	61	56	49	46
Netherlands	27	76	61	58	70	64	69	56	43
Pakistan	3	7	12	22	42	44	43	42	42
Thailand	0	0	7	20	36	41	42	42	40
United Kingdom	10	35	45	108	57	39	36	37	40
Trinidad and Tobago	2	3	5	16	45	43	43	42	40
Others	n/a	n/a	235	292	444	443	449	455	467
World	992	1,435	1,982	2,421	3,209	3,363	3,411	3,463	3,539
Consumption (billion cubic metres)									
United States	599	563	543	661	682	723	741	756	778
Russian Federation	n/a	n/a	408	360	414	416	413	412	391
China	3	15	16	25	111	151	172	188	197
Iran, Islamic Rep.	3	5	24	63	153	162	163	180	191
Japan	3	24	48	72	95	117	117	118	113
Saudi Arabia	2	10	34	50	88	99	100	102	106
Canada	36	52	67	93	95	100	104	104	102
Mexico	10	23	28	41	72	80	83	87	83
Germany	15	58	61	79	84	77	81	71	75
United Arab Emirates	1	5	17	31	61	66	67	66	69
United Kingdom	11	45	52	97	94	74	73	67	68
Italy	14	25	43	65	76	68	64	56	61
Thailand	0	0	7	22	45	51	52	53	53
India	1	1	12	26	61	58	50	51	51
Uzbekistan	n/a	n/a	36	46	41	47	47	49	50
Others	n/a	n/a	562	691	1,029	1,043	1,065	1,050	1,078
World	979	1,433	1,956	2,422	3,201	3,333	3,393	3,410	3,469

Source: BP Statistical Review.

Note: n/a implies data not available.

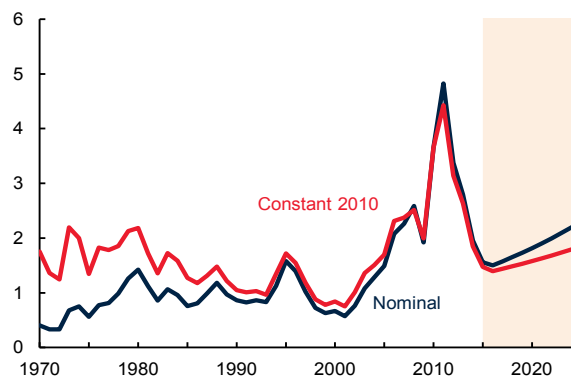
Natural rubber

Monthly Prices (US\$/kg)



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

Annual Prices (US\$/kg)



Source: World Bank.
Note: 2016-25 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
Production (thousand metric tons)									
Thailand	287	501	1,275	2,346	3,252	3,778	4,170	4,324	4,473
Indonesia	815	822	1,261	1,501	2,736	3,012	3,237	3,153	3,175
Vietnam	28	46	94	291	752	877	949	954	1,017
China	46	113	264	445	687	802	865	840	794
Malaysia	1,269	1,530	1,291	928	939	923	827	668	722
India	90	155	324	629	851	919	796	705	575
Côte d'Ivoire	11	23	69	123	231	254	289	317	351
Myanmar	10	16	15	36	128	164	177	198	228
Others	584	644	392	513	827	929	971	956	980
World	3,140	3,850	4,985	6,811	10,403	11,658	12,281	12,115	12,314
Consumption (thousand metric tons)									
China	250	340	600	1,150	3,622	3,890	4,210	4,760	4,680
European Union	991	1,007	1,012	1,293	1,136	1,076	1,060	1,139	1,159
India	86	171	358	638	944	988	962	1,015	987
United States	568	585	808	1,195	926	950	913	932	936
Japan	283	427	677	752	749	728	710	709	691
Thailand	8	28	99	243	487	505	521	541	601
Indonesia	25	46	108	139	421	465	509	540	579
Malaysia	20	45	184	364	458	441	434	447	475
Brazil	37	81	124	227	378	343	409	422	405
Korea, Rep.	26	118	255	332	384	396	396	402	388
Others	796	932	845	975	1,253	1,264	1,246	1,230	1,267
World	3,090	3,780	5,068	7,306	10,759	11,046	11,370	12,137	12,167
Exports (thousand metric tons)									
Thailand	279	457	1,151	2,166	2,866	3,175	3,752	3,729	3,776
Indonesia	790	976	1,077	1,380	2,369	2,525	2,770	2,662	2,680
Vietnam	23	33	80	273	782	1,023	1,076	1,066	1,138
Malaysia	1,304	1,482	1,322	978	1,245	1,291	1,332	1,192	1,119
Côte d'Ivoire	11	23	69	121	226	255	285	323	348
Others	413	299	263	359	558	602	672	861	1,126
World	2,820	3,270	3,962	5,277	8,047	8,871	9,887	9,833	10,187
Imports (thousand metric tons)									
China	178	242	340	820	2,888	3,426	3,975	4,096	4,144
European Union	1,071	1,068	1,072	1,474	1,427	1,459	1,451	1,546	1,536
Malaysia	45	43	136	548	706	871	1,005	914	955
United States	543	576	820	1,192	931	969	927	946	952
Japan	292	458	663	801	747	700	722	689	682
India	3	1	61	11	187	250	336	424	414
Korea, Rep.	26	118	254	331	388	397	396	403	388
Brazil	11	56	95	139	249	181	224	230	208
Others	641	673	1,328	1,065	1,157	1,307	1,235	1,251	1,354
World	2,810	3,235	4,769	6,380	8,681	9,561	10,271	10,499	10,634

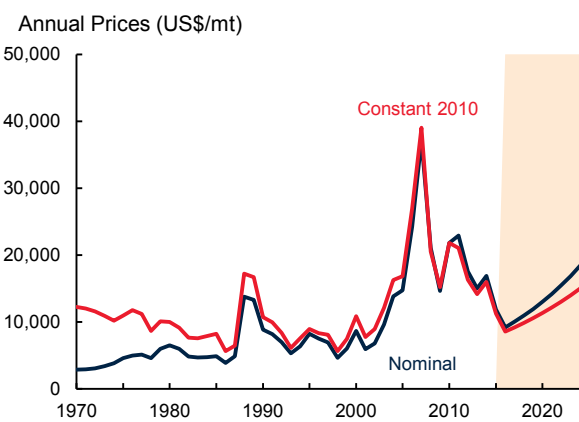
Source: International Rubber Study Group (April-June 2016 update).

Nickel



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

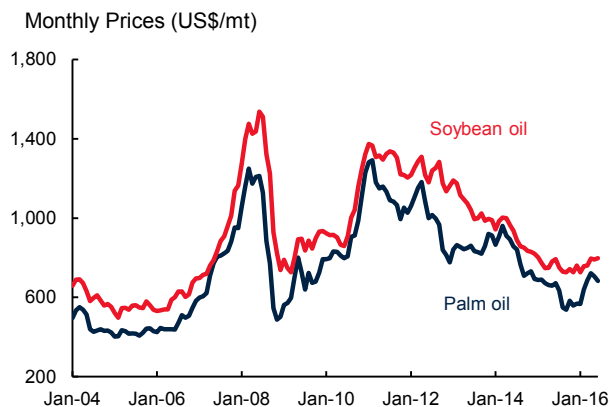
Note: 2016-25 are forecasts.

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

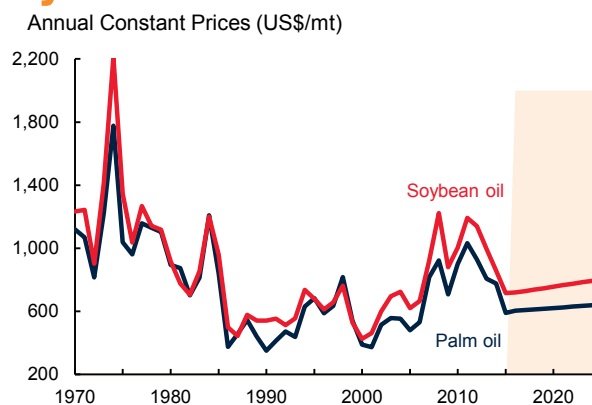
Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.

Palm oil and Soybean oil



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



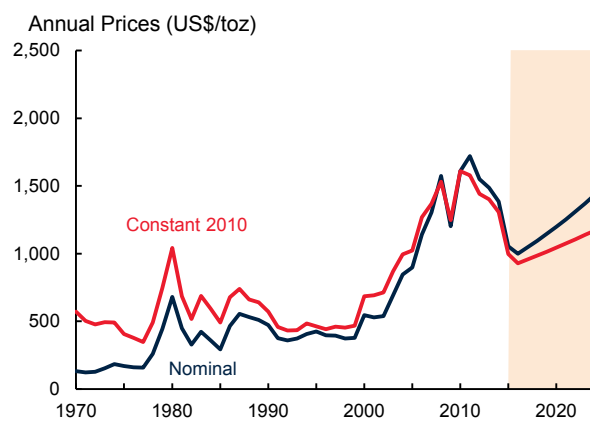
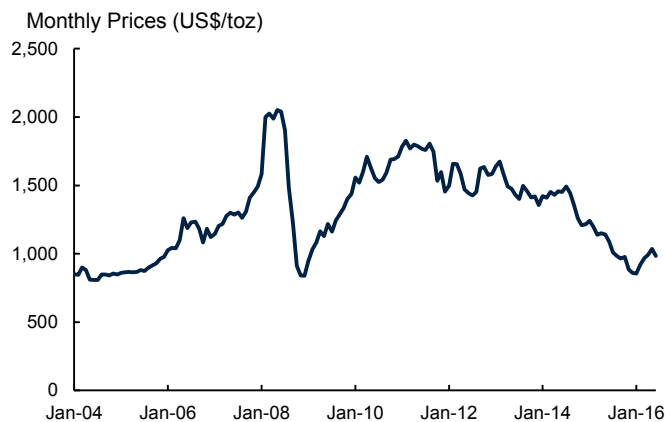
Source: World Bank.
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Palm oil: production (thousand metric tons)									
Indonesia	248	752	2,650	8,300	23,600	28,500	30,500	33,000	33,000
Malaysia	589	2,692	6,031	11,937	18,211	19,321	20,161	19,879	20,500
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
Papua New Guinea	0	45	145	336	488	520	500	520	580
Ecuador	5	44	150	222	380	540	565	485	510
Ghana	21	19	24	108	426	471	493	495	500
Honduras	0	18	64	148	320	425	460	470	490
Guatemala	0	0	6	124	231	365	434	448	470
Others	591	707	912	1,234	2,027	2,201	2,259	2,255	2,325
World	1,922	4,896	11,034	24,239	49,239	56,422	59,383	61,432	62,675
Palm oil: consumption (thousand metric tons)									
India	1	431	259	4,100	7,090	8,250	8,412	9,009	9,925
Indonesia	29	561	1,330	3,263	6,414	7,852	9,020	7,620	8,620
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	5,726	5,750
Malaysia	8	420	914	1,571	2,204	2,451	2,868	2,950	3,280
Pakistan	1	231	800	1,245	2,077	2,285	2,490	2,820	3,185
Others	1,707	3,104	6,658	8,618	19,125	21,363	22,688	23,730	24,790
World	2,394	5,370	12,664	23,615	47,817	55,150	57,937	58,555	62,400
Soybean oil: production (thousand metric tons)									
China	181	183	599	3,240	9,840	11,626	12,335	13,347	14,458
United States	3,749	5,112	6,082	8,355	8,568	8,990	9,131	9,706	9,945
Argentina	0	158	1,179	3,190	7,181	6,364	6,785	7,687	8,150
Brazil	n/a	2,601	2,669	4,333	6,970	6,760	7,070	7,660	7,680
European Union	1,260	2,478	2,317	3,033	2,362	2,501	2,553	2,698	2,810
India	2	69	425	805	1,646	1,752	1,478	1,245	1,150
Paraguay	10	6	56	174	300	564	640	697	783
Mexico	52	255	330	795	648	653	720	745	780
Others	2,205	4,191	4,425	2,888	3,835	3,890	4,310	5,206	5,702
World	7,459	15,053	18,082	26,813	41,350	43,100	45,022	48,991	51,458
Soybean oil: consumption (thousand metric tons)									
China	179	256	1,055	3,542	11,409	12,545	13,657	14,126	15,228
United States	2,854	4,134	5,506	7,401	7,506	8,522	8,576	8,616	8,890
Brazil	n/a	1,490	2,075	2,932	5,205	5,534	5,705	6,275	6,365
India	79	708	445	2,080	2,610	2,950	3,300	4,050	4,700
Argentina	0	56	101	247	2,520	2,275	2,729	2,601	2,440
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	1,020
Iran, Islamic Rep.	95	343	431	873	620	600	630	720	800
Others	2,699	5,120	5,417	6,335	7,351	7,430	7,719	8,588	9,126
World	7,128	14,338	17,313	26,459	40,591	42,624	45,176	47,977	50,569

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

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

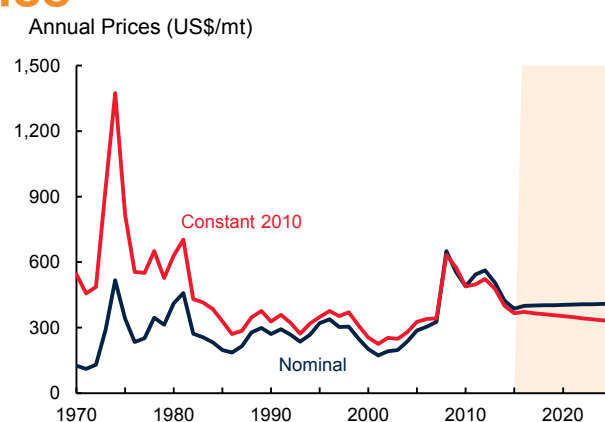
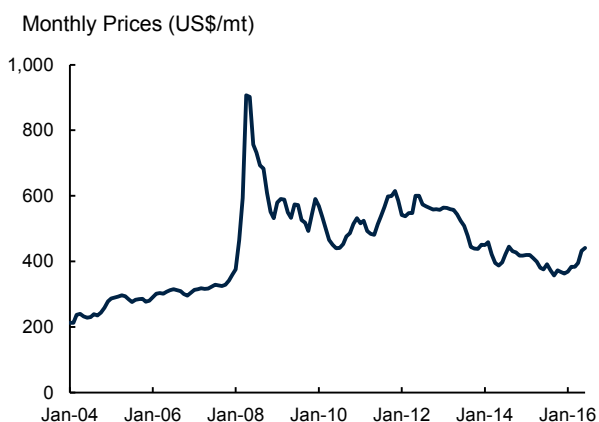
Platinum



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

Sources: Platinum & Palladium Survey, Thomson Reuters.

Rice



	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (million metric tons)									
China	77.0	97.9	132.5	131.5	137.0	142.5	144.6	145.8	146.5
India	42.2	53.6	74.3	85.0	96.0	106.6	105.5	103.5	105.0
Indonesia	13.1	22.3	29.0	33.0	35.5	36.3	35.6	35.3	36.6
Bangladesh	11.1	13.9	17.9	25.1	31.7	34.4	34.5	34.5	34.6
Vietnam	6.4	7.7	12.4	20.5	26.4	28.2	28.2	28.1	28.5
Thailand	9.0	11.5	11.3	17.1	20.3	20.5	18.8	15.8	17.0
Myanmar	5.1	6.7	7.9	10.8	11.1	12.0	12.6	12.2	12.5
Philippines	3.4	5.0	6.4	8.1	10.5	11.9	11.9	11.4	12.0
Brazil	3.7	5.9	6.8	6.9	9.3	8.3	8.5	7.1	8.5
United States	2.8	4.8	5.1	5.9	7.6	6.1	7.1	6.1	7.8
Japan	11.5	8.9	9.6	8.6	7.8	7.9	7.8	7.7	7.7
Pakistan	2.2	3.1	3.3	4.8	4.8	6.8	6.9	6.7	6.9
Cambodia	2.5	1.1	1.6	2.5	4.2	4.7	4.7	4.4	4.7
Others	22.9	27.6	33.3	39.4	48.3	52.3	52.2	52.2	53.0
World	213.0	269.9	351.4	399.3	450.4	478.4	478.7	470.6	481.2
Stocks (million metric tons)									
China	11.0	28.0	94.0	93.0	42.6	53.1	57.4	62.4	68.6
India	6.0	6.5	14.5	25.1	23.5	22.8	17.8	13.8	11.7
Thailand	1.2	2.0	0.9	2.2	5.6	11.9	10.6	6.1	3.2
Indonesia	0.6	3.0	2.1	4.6	7.1	5.5	4.1	3.2	2.9
Philippines	0.6	1.5	1.8	2.8	2.5	1.7	2.2	2.0	2.2
Japan	6.1	4.0	1.0	2.6	2.9	3.0	2.8	2.5	2.1
Others	3.4	7.6	12.4	16.4	15.9	15.8	19.6	16.8	16.7
World	28.8	52.6	126.7	146.7	100.0	113.8	114.5	106.7	107.3
Exports (million metric tons)									
Thailand	1.6	3.0	4.0	7.5	10.6	11.0	9.8	9.8	9.0
India	0.0	0.9	0.7	1.7	2.8	10.6	12.2	9.2	8.5
Vietnam	0.0	0.0	1.0	3.5	7.0	6.3	6.6	6.9	7.0
Pakistan	0.2	1.2	1.3	2.4	3.4	4.0	3.8	4.5	4.3
United States	1.5	3.1	2.3	2.6	3.5	3.0	3.2	3.3	3.7
Others	5.2	4.2	2.8	6.2	7.8	8.1	8.2	7.6	8.1
World	8.5	12.4	12.1	24.0	35.1	43.0	43.8	41.3	40.5
Imports (million metric tons)									
China	0.0	0.2	0.1	0.3	0.5	4.0	4.7	5.0	5.0
Nigeria	0.0	0.4	0.2	1.3	2.4	2.8	2.7	2.2	2.0
European Union	0.9	0.5	0.7	1.2	1.4	1.5	1.7	1.6	1.6
Saudi Arabia	0.2	0.4	0.5	1.0	1.1	1.5	1.6	1.6	1.6
Philippines	0.0	0.0	0.4	1.4	1.3	1.2	1.8	1.6	1.5
Indonesia	0.5	0.5	0.2	1.5	3.1	1.2	1.4	1.9	1.3
Iraq	0.1	0.4	0.3	1.0	1.2	1.0	1.2	1.2	1.2
Iran, Islamic Rep.	0.1	0.6	0.6	0.8	2.0	1.5	1.4	1.1	1.2
Others	6.8	8.8	8.3	13.7	20.1	23.9	24.7	23.0	23.0
World	8.6	11.8	11.3	22.1	33.1	38.6	41.1	39.0	38.2

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

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

Silver

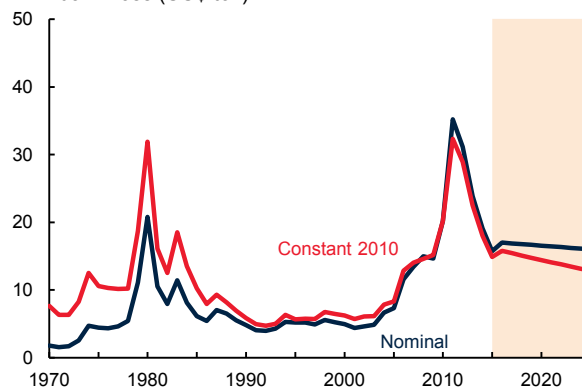
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is June 2016.

Annual Prices (US\$/toz)



Source: World Bank.

Note: 2016-25 are forecasts.

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

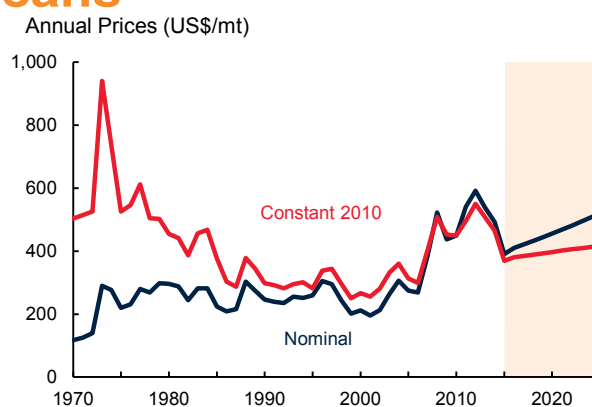
Sources: World Bureau of Metal Statistics and Thomson Reuters.

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

Soybeans



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



Source: World Bank.
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (million metric tons)									
United States	30.7	48.9	52.4	75.1	90.7	91.4	106.9	106.9	105.6
Brazil	0.0	15.2	15.8	39.5	75.3	86.7	97.2	96.5	103.0
Argentina	0.0	3.5	11.5	27.8	49.0	53.4	61.4	56.5	57.0
China	8.7	7.9	11.0	15.4	15.1	12.0	12.2	11.6	12.2
India	0.0	0.4	2.6	5.3	10.1	9.5	8.7	7.0	11.7
Paraguay	0.1	0.6	1.3	3.5	7.1	8.2	8.1	8.8	9.0
Canada	0.3	0.7	1.3	2.7	4.4	5.4	6.0	6.2	6.3
Ukraine	n/a	n/a	0.1	0.1	1.7	2.8	3.9	3.9	4.3
Bolivia	0.0	0.0	0.4	1.2	2.3	2.4	2.7	3.1	3.1
Uruguay	0.0	0.0	0.0	0.0	1.9	3.3	3.3	2.0	3.0
Others	2.4	3.5	7.9	5.4	6.7	7.5	9.4	9.8	10.8
World	42.1	80.9	104.3	175.8	264.3	282.5	319.7	312.4	326.0
Crushings (million metric tons)									
China	1.5	1.5	3.9	18.9	55.0	68.9	74.5	81.8	87.0
United States	20.7	27.8	32.3	44.6	44.9	47.2	51.0	51.4	52.4
Argentina	0.0	0.9	7.0	17.3	37.6	36.2	40.0	45.7	44.3
Brazil	0.0	13.8	14.2	22.7	36.3	36.9	40.4	40.7	40.5
European Union	7.3	14.1	13.0	16.8	12.2	13.4	13.6	13.8	13.3
India	0.0	0.4	2.4	4.5	9.3	8.2	6.8	5.9	9.1
Mexico	0.3	1.5	1.9	4.5	3.6	4.0	4.2	4.3	4.3
Paraguay	0.1	0.0	0.3	0.9	1.6	3.4	3.7	4.1	4.2
Russian Federation	n/a	n/a	0.4	0.4	2.1	3.4	3.7	4.0	4.1
Bolivia	0.0	0.0	0.3	0.9	1.8	2.3	2.5	2.7	2.7
Others	12.7	23.8	24.1	15.0	17.5	18.6	22.9	24.9	27.4
World	42.5	83.9	99.7	146.4	221.8	242.3	263.3	279.2	289.2
Exports (million metric tons)									
Brazil	0.0	1.8	2.5	15.5	30.0	46.8	50.6	57.2	59.7
United States	11.8	19.7	15.2	27.1	41.0	44.6	50.2	48.9	52.3
Argentina	0.0	2.7	4.5	7.3	9.2	7.8	10.6	11.4	10.7
Paraguay	0.0	0.6	1.0	2.5	5.2	4.8	4.5	4.6	4.8
Canada	0.0	0.1	0.2	0.7	2.9	3.5	3.9	4.3	4.2
Others	0.5	0.4	2.1	0.7	3.4	5.2	6.5	5.3	6.8
World	12.3	25.3	25.4	53.8	91.7	112.7	126.2	131.6	138.3
Imports (million metric tons)									
China	0.0	0.5	0.0	13.2	52.3	70.4	78.4	83.0	87.0
European Union	7.4	13.6	13.2	17.7	12.5	13.3	13.4	13.2	12.6
Mexico	0.1	1.4	1.4	4.4	3.5	3.8	3.8	4.0	4.0
Japan	3.2	4.2	4.4	4.8	2.9	2.9	3.0	3.1	3.1
Taiwan, China	0.5	1.1	2.2	2.3	2.5	2.3	2.5	2.6	2.6
Thailand	0.0	0.0	0.0	1.3	2.1	1.8	2.4	2.4	2.5
Indonesia	0.0	0.4	0.5	1.1	1.9	2.2	2.0	2.3	2.4
Others	8.8	18.7	17.1	8.3	12.0	16.3	18.2	19.9	21.9
World	20.0	39.8	38.8	53.1	89.8	113.1	123.7	130.4	136.0

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

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

Sugar

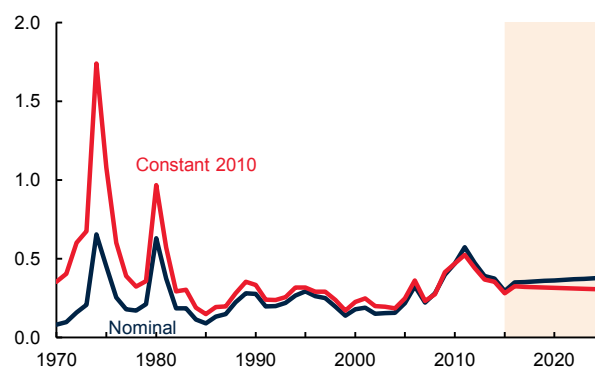
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is June 2016.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2016-25 are forecasts.

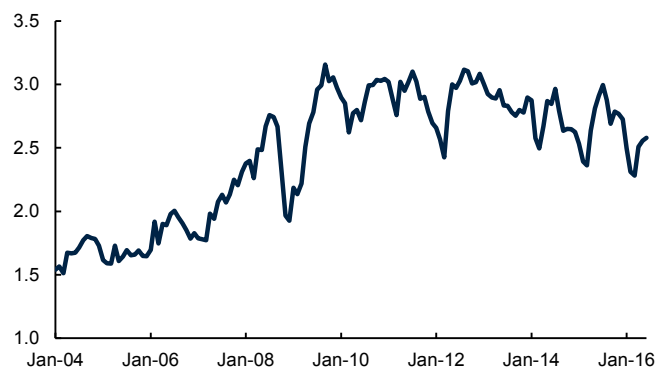
	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (million metric tons)									
Brazil	5.1	8.5	7.9	17.1	38.4	37.8	36.0	34.7	37.1
India	4.5	6.5	13.7	20.5	26.6	26.6	30.5	27.7	25.5
European Union	15.4	19.0	23.2	22.1	15.9	16.0	18.4	14.0	16.5
Thailand	0.5	1.7	4.0	5.1	9.7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

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

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

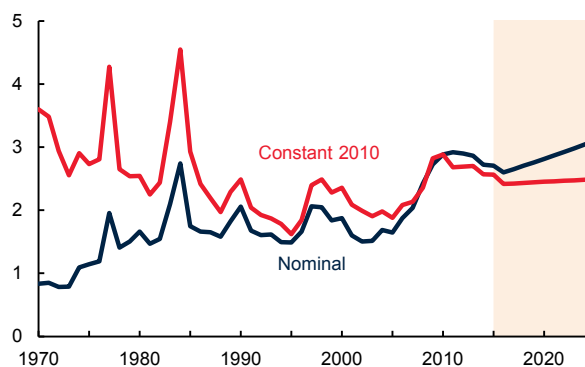
Tea

Monthly Prices (US\$/kg)



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

Annual Constant Prices (US\$/kg)



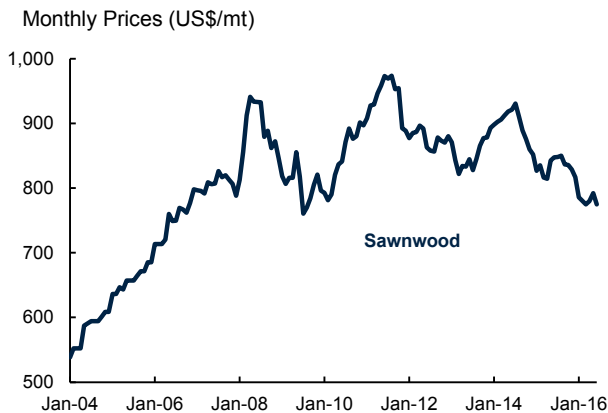
Source: World Bank.
Note: 2016-25 are forecasts.

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Production (thousand metric tons)									
China	933	1,028	1,166	1,258	1,344	1,475	1,623	1,790	1,925
India	944	985	990	984	982	970	1,120	1,129	1,200
Kenya	324	313	373	350	318	403	383	373	436
Sri Lanka	312	311	305	319	291	331	328	328	343
Turkey	143	115	122	124	199	235	222	225	227
Vietnam	133	149	162	162	177	192	202	200	185
Indonesia	156	147	137	138	157	157	151	151	153
Japan	98	92	94	96	86	83	82	86	85
Argentina	73	76	81	82	73	91	91	81	79
Bangladesh	57	53	58	59	60	60	60	63	66
Uganda	37	37	45	46	51	59	56	58	58
Malawi	47	45	48	42	53	52	47	43	47
Tanzania	31	31	35	32	32	32	33	32	32
Iran, Islamic Rep.	36	36	44	44	40	27	30	27	27
Rwanda	16	17	21	20	21	22	24	25	25
Burundi	7	6	7	7	7	7	7	9	9
Others	152	158	158	155	149	169	169	166	167
World	3,499	3,600	3,844	3,915	4,040	4,365	4,627	4,785	5,064
Consumption (thousand metric tons)									
China	651	745	889	967	1,045	1,189	1,315	1,482	1,614
India	753	772	786	803	822	818	922	939	1,001
Turkey	138	114	117	109	202	242	227	227	228
Russian Federation	171	169	175	175	176	178	182	173	159
United States	101	106	107	116	108	124	125	123	127
Pakistan	126	127	112	103	86	120	126	131	127
Japan	150	139	140	138	124	124	122	122	119
United Kingdom	130	136	133	133	121	120	129	125	116
Egypt, Arab Rep.	73	74	77	92	82	69	96	95	99
Iran, Islamic Rep.	60	63	76	91	86	90	80	80	83
Others	1,012	1,028	1,056	1,053	1,063	1,108	1,125	1,129	1,168
World	3,364	3,474	3,668	3,779	3,916	4,180	4,450	4,627	4,842
Exports (thousand metric tons)									
Kenya	292	272	302	329	281	362	348	350	416
China	285	287	289	297	303	302	323	322	330
Sri Lanka	301	315	294	301	280	306	303	306	311
India	207	219	179	203	181	183	205	199	209
Vietnam	99	106	115	105	134	138	123	145	134
Indonesia	99	95	84	96	92	87	76	70	71
Uganda	34	33	44	42	48	54	48	52	57
Malawi	44	42	47	40	47	49	45	42	41
Tanzania	24	24	29	26	24	26	27	28	26
Rwanda	12	13	20	20	19	22	23	23	24
Others	152	151	157	156	136	154	155	147	152
World	1,548	1,555	1,559	1,615	1,545	1,683	1,675	1,684	1,769

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

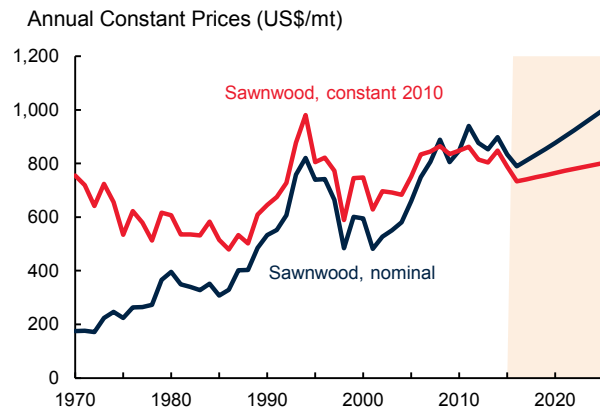
Notes: 2005 data are average of 2004-2006.

Timber—Roundwood and Sawnwood



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

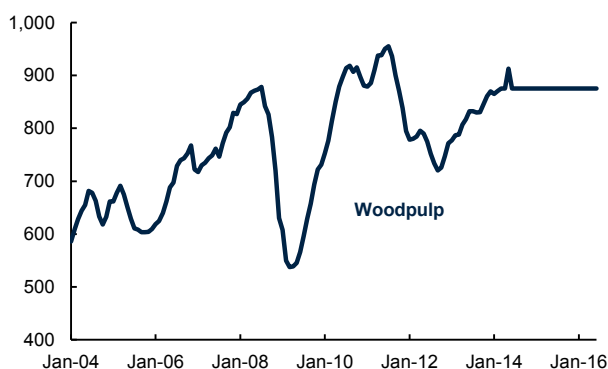
	1970	1980	1990	2000	2010	2011	2012	2013	2014
Industrial roundwood: production (million cubic meters)									
United States	312.7	327.1	427.2	420.6	336.1	354.7	347.1	354.9	356.8
Russian Federation	n/a	n/a	n/a	145.6	161.6	175.6	177.5	180.4	188.3
China	42.2	79.2	91.2	96.0	161.8	160.9	159.6	168.7	168.7
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.

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

Timber—Wood panels and Woodpulp

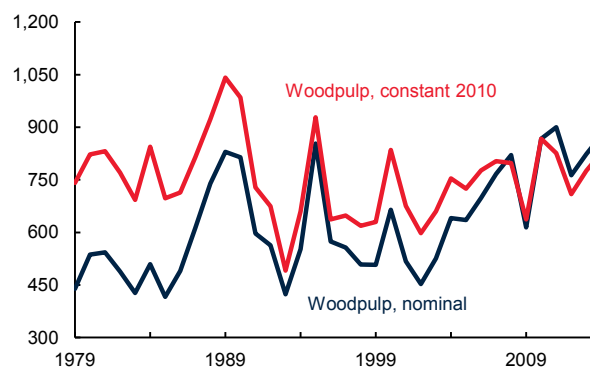
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is June 2016.

Annual Constant Prices (US\$/mt)



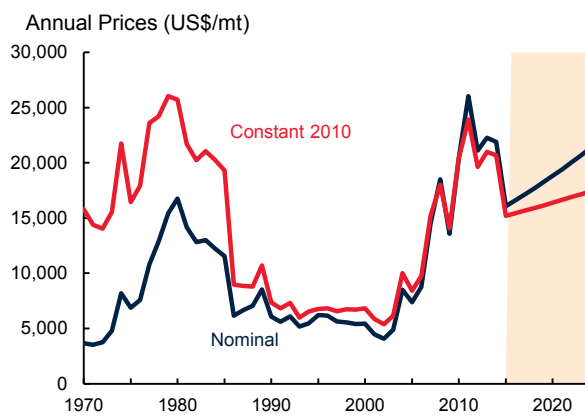
Source: World Bank.

	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.

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

Tin



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

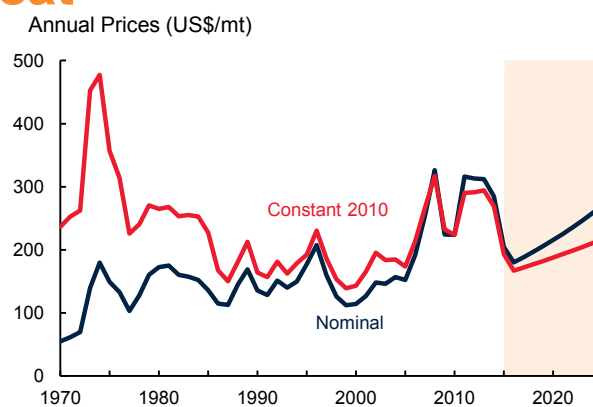
Source: World Bureau of Metal Statistics.

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

Wheat



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



Source: World Bank.
Note: 2016-25 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17
Production (million metric tons)									
European Union	62.5	93.3	125.0	132.7	136.7	144.6	156.8	160.0	156.5
China	29.2	55.2	98.2	99.6	115.2	121.9	126.2	130.2	130.0
India	20.1	31.8	49.9	76.4	80.8	93.5	95.9	86.5	88.0
Russian Federation	n/a	n/a	49.6	34.5	41.5	52.1	59.1	61.0	65.0
United States	36.8	64.8	74.3	60.6	58.9	58.1	55.1	55.8	61.5
Canada	9.0	19.3	32.1	26.5	23.3	37.5	29.4	27.6	29.0
Australia	7.9	10.9	15.1	22.1	27.4	25.3	23.9	24.5	25.5
Pakistan	7.3	10.9	14.4	21.1	23.3	24.2	26.0	25.1	25.3
Ukraine	n/a	n/a	30.4	10.2	16.8	22.3	24.8	27.3	25.0
Turkey	8.0	13.0	16.0	18.0	17.0	18.8	15.3	19.5	17.5
Iran, Islamic Rep.	3.8	5.9	8.0	8.1	13.5	14.5	13.0	15.0	15.5
Argentina	4.9	7.8	11.0	16.3	17.2	10.5	14.0	11.3	15.0
Kazakhstan	n/a	n/a	16.2	9.1	9.6	13.9	13.0	13.7	13.0
Egypt, Arab Rep.	1.5	1.8	4.3	6.4	7.2	8.3	8.3	8.1	8.1
Others	178.0	214.5	169.4	41.7	60.9	69.5	67.1	68.9	63.6
World	369.1	529.2	713.8	583.3	649.3	715.0	727.9	734.6	738.5
Stocks (million metric tons)									
China	7.2	31.7	49.9	91.9	59.1	65.3	76.1	96.8	112.5
United States	22.4	26.9	23.6	23.8	23.5	16.1	20.5	26.7	30.1
European Union	8.6	13.0	22.5	17.9	11.9	9.9	13.8	18.7	17.4
India	5.0	4.0	5.8	21.5	15.4	17.8	17.2	14.5	11.0
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.2	6.3	6.1	8.6
Australia	3.7	2.0	2.8	5.5	8.2	4.6	4.8	5.9	6.6
Others	42.3	48.0	72.6	44.4	66.9	75.3	78.7	75.8	67.5
World	89.1	125.6	193.7	206.5	198.7	194.2	217.4	244.5	253.7
Exports (million metric tons)									
European Union	6.7	17.5	23.8	15.7	23.1	32.0	35.4	33.0	34.0
Russian Federation	n/a	n/a	1.2	0.7	4.0	18.6	22.8	25.0	25.5
United States	20.2	41.2	29.1	28.9	35.1	32.0	23.2	21.1	25.2
Canada	11.8	16.3	21.7	17.3	16.6	23.3	24.2	22.0	20.5
Australia	9.1	9.6	11.8	15.9	18.6	18.6	16.6	16.4	17.5
Ukraine	n/a	n/a	2.0	0.1	4.3	9.8	11.3	17.0	12.5
Others	15.3	23.1	38.0	22.6	31.0	31.6	30.7	34.7	33.3
World	63.2	107.6	127.7	101.3	132.7	165.9	164.1	169.2	168.4
Imports (million metric tons)									
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	10.2	11.1	11.5	12.0
Indonesia	0.5	1.2	2.0	4.1	6.6	7.4	7.5	9.6	9.1
Algeria	0.6	2.3	4.4	5.6	6.5	7.5	7.3	8.1	8.0
Brazil	1.7	3.9	4.4	7.2	6.7	7.1	5.4	6.0	6.0
Japan	4.8	5.8	5.6	5.9	5.9	6.1	5.9	5.7	5.8
European Union	19.6	10.4	3.7	3.5	4.6	4.0	6.0	6.7	5.5
Others	45.3	70.8	76.9	67.0	91.1	116.2	115.8	119.6	117.8
World	75.4	99.9	102.7	99.3	132.0	158.4	158.8	167.2	164.2

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

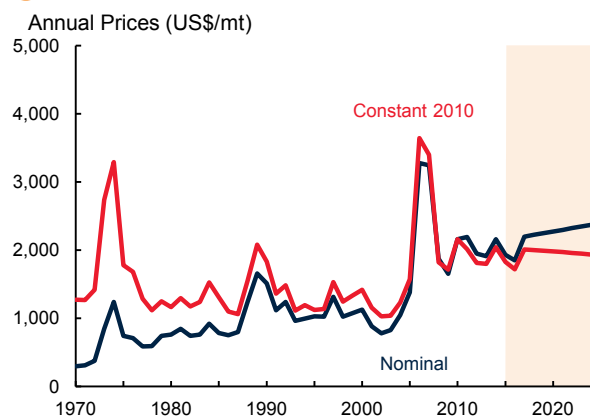
Notes: n/a implies data not available. The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

Zinc



Source: World Bank.

Note: Last observation is June 2016.



Source: World Bank.

Note: 2016-25 are forecasts.

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

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/E.

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

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

Fertilizers

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

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

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

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

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

Metals and minerals

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

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

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

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

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

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

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

PRECIOUS METALS

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

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

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

Technical Notes

Definitions and explanations

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

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

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

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

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

Abbreviations

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

Acronyms

CIS Commonwealth of Independent States
 CPI consumer price index
 DAP diammonium phosphate
 EIA Energy Information Administration
 EMDE emerging and developing economies
 FAO Food and Agriculture Organization
 FSU former Soviet Union

GDP gross domestic product
 GTAP Global Trade Analysis Project
 ICMM International Council on Mining and Metals
 IEA International Energy Agency
 LME London Metal Exchange
 LNG liquefied natural gas
 MUV Manufacture Unit Value
 NPI nickel pig iron
 OCP Office Cherifien de Phosphate
 OECD Organization of Economic Cooperation and Development
 OLS ordinary least-squares
 OPEC Organization of Petroleum Exporting Countries
 TSP triple superphosphate
 USDA United States Department of Agriculture
 WTI West Texas Intermediate

Data sources

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

Weights for commodity price indexes

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

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

Most commodity price indexes rebounded in the second quarter of 2016, continuing their rise from January on improved market sentiment and tapering supplies. Oil prices jumped by more than a third due to supply outages and strong demand. The crude oil price forecast for 2016 is raised to \$43/bbl from \$41/bbl in April. Metals prices are projected to fall 11 percent in 2016, a larger drop than anticipated in April. Agricultural prices for 2016 have been revised slightly upwards due to weather patterns in South America, but should register a small decline from last year. An 8 percentage point upward revision for precious metal prices from April reflects safe haven demand. A *Special Focus* section finds that, given the energy-intensive nature of agriculture, high energy prices were an important driver of the post-2006 surge in agricultural prices. Over 2011-16, relatively lower energy prices are likely to account for up to one-third of the projected 32 percent decline in prices of grains and soybeans.

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