A World Bank Quarterly Report

JANUARY 2016

Commodity Markets Outlook

Weak Growth in Emerging Economies and Commodity Markets







A World Bank Quarterly Report

JANUARY 2016

Commodity Markets Outlook



© 2016 International Bank for Reconstruction and Development / The World Bank

1818 H Street NW, Washington, DC 20433

Telephone: 202-473-1000; Internet: www.worldbank.org

Some rights reserved

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of The World Bank, its Board of Executive Directors, or the governments they represent. The maps were produced by the Map Design Unit of The World Bank. The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on these maps do not imply, on the part of The World Bank Group, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries.

Nothing herein shall constitute or be considered to be a limitation upon or waiver of the privileges and immunities of The World Bank, all of which are specifically reserved.

Rights and Permissions



Attribution—Please cite the work as follows: World Bank Group. 2016. *Commodity Markets Outlook*, January. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO

Translations—If you create a translation of this work, please add the following disclaimer along with the attribution: This translation was not created by The World Bank and should not be considered an official World Bank translation. The World Bank shall not be liable for any content or error in this translation.

Adaptations—If you create an adaptation of this work, please add the following disclaimer along with the attribution: This is an adaptation of an original work by The World Bank. Views and opinions expressed in the adaptation are the sole responsibility of the author or authors of the adaptation and are not endorsed by The World Bank.

Third-party content—The World Bank does not necessarily own each component of the content contained within the work. The World Bank therefore does not warrant that the use of any third-party-owned individual component or part contained in the work will not infringe on the rights of those third parties. The risk of claims resulting from such infringement rests solely with you. If you wish to re-use a component of the work, it is your responsibility to determine whether permission is needed for that re-use and to obtain permission from the copyright owner. Examples of components can include, but are not limited to, tables, figures, or images.

All queries on rights and licenses should be addressed to the Publishing and Knowledge Division, The World Bank, 1818 H Street NW, Washington, DC 20433, USA; fax: 202-522-2625; e-mail: pubrights@worldbank.org.

The cutoff date for the data used in this report was January 22, 2016.

Contents

Ackno	owledgments	5
Execut	tive Summary	7
Special	I Focus: Weak growth in emerging market economies: What does it imply for commodity markets?	9
Comm	nodity Market Developments and Outlook	
	Energy	19
	Agriculture	23
	Fertilizers	27
	Metals	28
	Precious metals	30
Appen	ndix A: Historical commodity prices and price forecasts	31
Appen	ndix B: Commodity balances	39
Appen	ndix C: Description of price series and technical notes	65
Figu	ıres	
1	Commodity price indices, monthly	7
2	Oil prices during collapse and recovery episodes, monthly	7
F1	Contributions of supply and demand shocks to the oil price decline	11
F2	GDP growth of emerging and developing economies	12
F3	Change in 2020 growth forecasts from 2010 to 2015	12
F4	Consumption shares of key commodity groups	13
F5	Production shares of key commodity groups	13
F6	Metal consumption of China, India and rest of the world	13
F 7	Coal consumption of China, India and rest of the world	13
F8	China's consumption of key commodities	14
F9	China's consumption growth of industrial commodities	14
F10	Impact of China's growth slowdown on commodity prices	15
F11	Impact of China's growth slowdown on commodity exporting and importing countries	15
3	Crude oil prices, daily	19
4	World oil demand growth	19
5	U.S. crude oil production	20
6	U.S. oil rig count and oil prices, weekly	20
7	OECD crude oil stocks	21
8	Oil prices during collapse and recovery episodes, monthly	21

9	Coal consumption of key countries and regions
10	Coal and natural gas prices, monthly
11	Agriculture price indices, monthly
12	Stock-to-use ratios of maize, wheat, and rice
13	Global grain production and consumption
14	Global production of key edible oils
15	Price changes of commodities affected by El Niño
16	Global biofuel production
17	Arabica and robusta coffee prices, daily26
18	Natural rubber production
19	Fertilizer prices
20	Global nutrient consumption
21	Metal prices, monthly
22	Refined metal consumption of key regions and countries
23	World metal consumption growth
24	Zinc price and LME stocks, daily
25	Precious metal prices, monthly
26	Global silver production
Table	es
1	Nominal price indices (actual and forecasts) and forecast revisions
F1	Real GDP growth forecast

Acknowledgments

This World Bank Group Report is a product of the Prospects Group in the Development Economics Vice Presidency. The report was managed by John Baffes under the general guidance of Ayhan Kose and Franziska Ohnsorge.

Many people contributed to the report. John Baffes authored the section on agriculture. Shane Streifel authored the sections on energy, fertilizers, metals, and precious metals. John Baffes, Raju Huidrom, Franziska Ohnsorge, Marc Stocker, and Shane Streifel contributed to the Special Focus section on implications of the emerging market growth prospects for commodity markets. Xinghao Gong managed the price database and assisted with the Annex tables. The design and production of the report was managed by Maria Hazel Macadangdang and Adriana Maximiliano. Carlos Arteta, Betty Dow, Christian Eigen-Zucchi, Graeme Littler, and Dana Vorisek provided extensive editorial comments. David Rosenblatt reviewed the report. Mark Felsenthal, Phillip Jeremy Hay, and Mikael Reventar managed the media relations and dissemination. The accompanying website was produced by Graeme Littler.

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

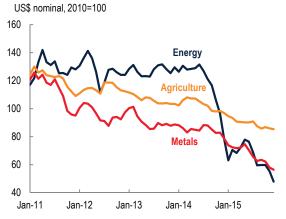
The report and data can be accessed at: www.worldbank.org/commodities For inquiries and correspondence, email at: commodities@worldbank.org

Executive Summary

Commodity prices continued to fall in the fourth quarter of 2015, reflecting abundant supplies, weaker growth prospects in emerging economies, and a strong U.S. dollar. One of the largest declines was in crude oil, which fell from \$51 per barrel (bbl) in early October to less than \$30/bbl in mid-January. In addition to concerns about slowing growth in emerging economies, the plunge in oil prices reflected mild winter weather in the northern hemisphere, elevated stocks, resilient U.S. oil production, earlier-than-expected Iranian exports, and unchanged OPEC policy prioritizing market share. For 2015 as a whole, energy prices plunged by 45 percent from the previous year, while non-energy commodity prices declined by 15 percent. Relative to their peaks in 2011, the main industrial commodity price indices in December were sharply down—two-thirds for energy and more than one-half for metals. Agricultural prices also declined—down one-third from their 2011 peaks—reflecting higher stocks (due to good crops in the past two seasons) and production increases for some commodities, despite an intensification of the El Niño weather phenomenon. Most price forecasts have been revised downward for 2016 (37 of the 46 commodity prices monitored in this report). Aside from rebound in oil prices, only a modest recovery is expected in 2017. This issue examines the implications of emerging-market growth on commodity prices, and highlights that weaker growth prospects could have a sizeable adverse effect on prices.

Trends. Energy prices dropped more than 13 percent in the fourth quarter of 2015 (Figure 1). Oil prices, which registered the largest decline, continued to slide in 2016 to below \$30/bbl in mid-January—somewhat below levels that would appear to be warranted by fundamentals—on prospects for continued abundant supplies and concerns about weak demand. In addition to high stocks, OPEC reaffirmed its market share strategy at its December 2015 meeting, and exports from the Islamic Republic of Iran are expected to rise sharply as sanctions that had hampered oil sector investment and exports have been lifted. U.S. crude oil production continued to fall from its peak in April 2015, but the decline has been slower than expected owing to efficiency gains and cost reductions. On the demand side, the oil price drop of 2015 encouraged consumption growth, but this was tempered in the fourth quarter by mild temperatures in the northern hemisphere reducing heating oil demand. Natural gas and coal prices fell 9 and 15 percent in the quarter on ample supplies, high stocks, falling im-

FIGURE 1 Commodity price indices, monthly



Source: World Bank.

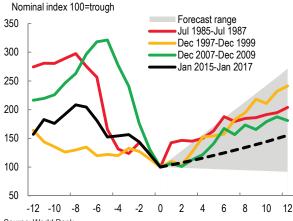
Note: Definitions and compositions of price indices can be found in Appendix A and C. Last observation is December 2015.

ports to China and India, and policies to reduce coal consumption in power generation.

Non-energy commodity prices fell 4 percent in the fourth quarter of 2015, to a level almost 40 percent below their early 2011 highs, on continued large inventories and ample supplies. Agriculture prices fell 2.3 percent, marking the seventh consecutive quarterly decline. El Niño-related concerns in some regions did little to support prices on global commodity markets. Metal prices fell 8 percent on softening growth prospects in China and continued increases in supply due to earlier investments. Cost reductions, notably for energy, and exchange rate depreciation in many producing countries have delayed closure of higher-cost mines. Fertilizer prices fell on surplus production capacity and slower seasonal demand. Precious metal prices fell marginally on weaker investment demand.

Outlook and risks. All main commodity price indices are projected to decline in 2016 relative to last year due to persistently elevated supplies and, in the case of

FIGURE 2 Oil prices during collapse and recovery episodes, monthly



Note: Lines indicate oil prices for 12 months before and after the trough, indexed to 100 at the trough. Dashed line indicates forecast. Shaded area denotes range of forecasts by 6 major investment banks, released during January 15-22, 2016.

Source: World Bank.

industrial commodities, weak growth prospects in emerging market economies (Table 1). Energy prices are expected to fall 25 percent from 2015, with oil prices projected to average \$37/bbl in 2016 (a downward revision from \$51/bbl forecast in the October 2015 Commodity Markets Outlook). From their current lows, however, a gradual recovery in oil prices is expected over the course of the year for several reasons. First, the sharp oil price drop in early 2016 does not appear fully warranted by fundamental drivers of oil demand and supply, and there may be some rebound in prices. Second, higher-cost oil producers are suffering losses, which could bring production cuts that offset additional capacity coming to the market. Third, demand is expected to strengthen somewhat with a modest pickup in global growth (Figure 2).

Significant downside risks to the energy price forecast include higher-than-expected output from OPEC producers that prolongs the surplus in the global oil market, particularly if accompanied by weaker demand from emerging market economies. On the other hand, higher prices could result from supply disruptions among key OPEC producers mostly because of conflict.

Non-energy prices are expected to fall 3.7 percent in 2016. Metals prices are projected to decline 10 percent, following last year's 21 percent drop, due to weaker demand prospects in emerging market economies and new capacity. The largest decline is expected for iron ore (-25 percent). Downside price risks include a further growth slowdown in China and larger-than-expected production associated with cost reductions and exchange rate depreciation in producing countries.

Agricultural prices are projected to decline 1.4 percent in 2016, compared with the October 2015 forecast of a 1.3 percent increase, with prices falling in almost all main commodity groups. This agricultural price outlook reflects adequate production (despite intensification of El Niño), comfortable levels of stocks for most commodities, lower energy costs, and plateauing demand for biofuel use. The largest price drop is for grains (-3.4 percent), followed by oils and meals (-2.2 percent); beverage and agricultural raw material prices are forecast to fall marginally. Fertilizer prices could retreat 4 percent, reflecting weakening growth prospects in emerging market economies and capacity expansion. Risks to the agricultural price forecasts include a prolonged (or intensified) El Niño that could reduce production in some commodities.

Special Focus on the implications of weak growth prospects of emerging market economies for commodity markets. Amid amply supplied markets, weak growth prospects for these economies are weighing on commodity prices. Growth projections for emerging and developing countries have been revised downwards by 0.6 percentage point to 4.0 percent in 2016 and 4.7 percent in 2017-18. The forecast is subject to considerable downside risks, especially if a sharperthan-anticipated slowdown in major commodity-importing emerging markets spills over to weaken growth prospects in other emerging market and developing countries. The Special Focus argues that a faster-than-expected slowdown in major emerging markets economies—especially if combined with financial stress—could further reduce commodity prices considerably, setting back growth in commodity exporters and the global economy.

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

	Price Indices (2010=100)							nge (%)	Revision ²	
	2012	2013	2014	2015	2016F ¹	2017F1	2015-16	2016-17	2016F	2017F
Energy	128	127	118	65	49	62	-24.7	25.8	-17.0	-8.3
Non-Energy ³	110	102	97	82	79	81	-3.7	2.2	-4.6	-4.3
Metals	96	91	85	67	60	63	-10.2	4.2	-9.2	-8.5
Agriculture	114	106	103	89	88	89	-1.4	1.6	-2.5	-2.3
Food	124	116	107	91	89	91	-1.7	1.9	-3.1	-2.8
Grains	141	128	104	89	86	88	-3.4	2.6	-5.0	-4.5
Oils and meals	126	116	109	85	83	86	-2.2	2.9	-4.2	-3.8
Other food	107	104	108	100	100	101	0.1	0.3	-0.1	0.0
Beverages	93	83	102	94	93	92	-0.9	-0.9	0.6	0.5
Raw Materials	101	95	92	83	83	85	-0.7	2.2	-2.6	-2.5
Fertilizers	138	114	100	95	92	92	-3.9	0.3	-3.3	-2.5
Precious Metals ³	138	115	101	91	83	83	-8.0	-0.3	-7.5	-6.7
Memorandum items										
Crude oil (\$/bbl)	105	104	96	51	37	48	-27.1	29.7	-14.4	-6.6
Gold (\$/toz)	1,670	1,411	1,265	1,160	1,075	1,066	-7.3	-0.8	-81.2	-71.3

Source: World Bank

Notes: (1) "F" denotes forecasts. (2) "Revision" denotes change to the forecast from the October 2015 report (expressed in percentage points for the price indices, \$/bbl for crude oil, and \$/toz for gold). (3) The non-energy price index excludes precious metals. See Appendix C for definitions of price and indices.



SPECIAL FOCUS:

Weak growth in emerging market economies: What does it imply for commodity markets?

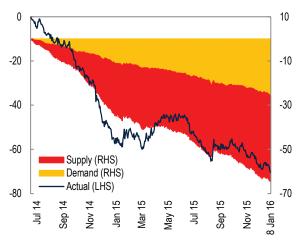
Weak growth in emerging market economies: What does it imply for commodity markets?

The World Bank has recently revised downwards its growth forecasts for emerging and developing economies to 4.0 percent in 2016. Amid amply-supplied markets, weak growth prospects for these economies are weighing on commodity prices. This Special Focus addresses the following questions: (i) How are emerging and developing economies performing? (ii) How important are these economies for commodity markets? (iii) What are the implications of the slowdown in major emerging market economies for commodity markets? The results indicate that major emerging markets—particularly China—have been among the largest sources of additional commodity demand during the 2000s. A faster-than-expected slowdown in major emerging economies—especially if combined with financial stress—could reduce commodity prices considerably and set back growth in commodity exporters.

Introduction

The sharp decline in commodity prices over the past five years has coincided with slowing growth in emerging and developing economies (EMDEs). Commodity prices slid by 40 percent since 2010 while growth in EMDEs slowed from 7.1 percent in 2010 to 3.3 percent in 2015. Although the decline in commodity prices has been mostly due to excess supply, weakening demand from commodity-importing EMDEs has also played a role. For example, recent developments in oil markets have been driven by both supply and demand factors. A decomposition of oil price movements into demand and supply factors (Baffes et al. 2015) suggests that the decline in oil prices since mid-2014 has been predominantly (about 65 percent) driven by supply factors (Figure F1). However, pressures from softening demand have steadily increased as EMDE growth slowed, compounded in the last quarter of 2015 by mild winter temperatures in the northern hemisphere. The weakness in oil prices has mirrored that in other commodity prices, especially

FIGURE F1 Contributions of supply and demand shocks to the oil price decline



Source: Baffes et al (2015).

Note: The results are based on a structural vector autoregression model with sign restrictions to identify demand and supply shocks that drive oil prices.

those of other industrial commodities. Following a decade of large investments encouraged by high prices, capacity in most industrial commodities is now ample, while slowing growth in EMDEs has weighed on demand.

How are emerging and developing economies performing?¹

The global economy remained in a fragile state in 2015, as further deceleration in activity across major EMDEs more than offset a modest recovery in advanced economies. As a result, global growth slowed to an estimated 2.4 percent in 2015 from 2.6 percent in 2014 (Table F1). EMDEs grew by 3.3 percent in 2015, the weakest showing since 2010. In about half of EMDEs, growth in 2015 fell short of expectations, with the largest disappointments among energy exporters (Angola, Colombia, Ecuador, Kazakhstan, Nigeria, Russian Federation, República Bolivariana de Venezuela) and countries experiencing conflicts (Ukraine) or heightened policy uncertainty (Brazil).

TABLE F1 Real GDP growth forecast¹

		Forecas	t	Rev	rision ³	
	2015e ²	2016F	2017F	2015e	2016F	2017F
World	2.4	2.9	3.1	-0.4	-0.4	-0.1
High-income	1.6	2.1	2.1	-0.3	-0.2	-0.1
Euro Area	1.5	1.7	1.7	0.0	-0.1	0.1
Japan	8.0	1.3	0.9	-0.3	-0.4	-0.3
United States	2.5	2.7	2.4	-0.2	-0.1	0.0
EMDE⁴	3.3	4.0	4.7	-0.4	-0.6	-0.2
Brazil	-3.7	-2.5	1.4	-2.4	-3.6	-0.6
China	6.9	6.7	6.5	0.2	-0.3	-0.4
India	7.3	7.8	7.9	-0.2	-0.1	-0.1
Indonesia	4.7	5.3	5.5	0.0	-0.2	0.0
Mexico	2.5	2.8	3.0	-0.1	-0.4	-0.5
Russia	-3.8	-0.7	1.3	-1.1	-1.4	-1.2
Turkey	4.2	3.5	3.5	1.2	-0.4	-0.2

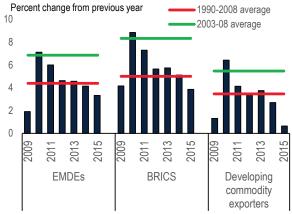
Source: World Bank

Notes: (1) Aggregate growth rates calculated using 2010 U.S. dollars GDP weights. (2) "e" denotes estimate. (3) Percentage point difference from June 2015 projection. (4) EMDE refers to emerging and developing economies that are not identified as advanced markets in Arteta et al. (2015).

Of the five BRICS economies (Brazil, China, India, Russian Federation, and South Africa), four slowed or even contracted in 2015. China's economy continued to slow, and its rebalancing away from commodityintensive activities toward services has weighed on global trade and commodity prices. Brazil and Russia, two large commodity exporters, are in deep contractions accompanied by currency depreciation, abovetarget inflation and deteriorating public finances. In South Africa, chronic power supply bottlenecks are a major factor behind weak growth. In contrast to the other four BRICS, growth in India remained robust, buoyed by strong investor sentiment and the positive effect on real incomes of falling oil prices. (India is the world's fourth largest crude oil consumer after the United States, China, and Japan, and imports most of the oil it consumes).

Both external factors—including weak global trade, financial market volatility, and persistently low commodity prices—and domestic factors have contributed to the slowdown. Adverse external developments have hit commodity-exporting developing economies particularly hard. Growth in several of the largest countries (Brazil, Colombia, Nigeria, Peru, South Africa) weakened considerably in 2015, as the impact of deteriorating terms of trade on exports was compounded by tightening macroeconomic policy and softening investor confidence. Governments responded to falling fiscal revenues from the resourceintensive sectors with spending cuts. Central banks raised interest rates to help moderate pressures on exchange or inflation rates. Investor confidence weakened on deteriorating growth prospects and credit ratings, resulting in declining capital inflows and currency depreciations.

FIGURE F2 GDP growth of emerging and developing economies



Source: World Bank.

Note: The developing country aggregate includes recently graduated high-income countries (Argentina, Chile, Hungary, República Bolivariana de Venezuela, and the Russian Federation).

The recent slowdown in EMDE growth partly reflects an unwinding of cyclically strong, policy-supported, post-crisis growth, especially in East Asia and Pacific and in Latin America and the Caribbean. However, it also has a considerable structural component. On average, among the 24 largest emerging market economies, about one-third of the slowdown between 2010 and 2014 was structural in nature (Didier et al. 2015). The working-age share of the population has peaked in most regions other than Sub-Saharan Africa, while slowing productivity growth, continued policy uncertainty, rising debt and eroding policy buffers capped growth and reduced confidence.

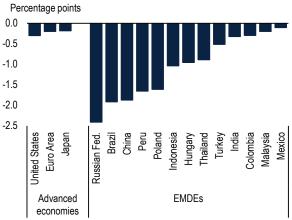
For EMDE growth, 2015 is expected to be a low point. Growth is projected to pick up somewhat in 2016, to 4.0 percent; however, this rate would be 0.6 percentage point lower than previously expected and would be significantly below historical averages (Figure F2).

Downside risks still dominate in this fragile global environment. Many of the factors underpinning the slowdown in recent years—including low commodity prices, weak global trade, and slow productivity growth—are expected to persist. This has already led to a re-evaluation of medium-term growth prospects for the largest emerging market economies (Figure F3). Deteriorating growth prospects are eroding fiscal and monetary policy buffers and leaving many countries more susceptible to external shocks.

How important are emerging economies for commodity markets?²

Despite the growth slowdown since 2010, emerging economies play a significant role in shaping commodity markets, both for production and consumption.

FIGURE F3 Change in 2020 growth forecasts from 2010 to 2015



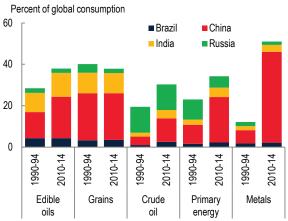
Source: World Bank.

Note: Percentage point revision between October 2010 and October 2015.

During 2010-14, the four largest emerging markets (Brazil, Russia, India, and China) accounted for 20 percent or more of global gas and oil production and 40 percent or more of global coal and grain production (Figure F4). At the same time, their commodity consumption has grown rapidly, to about 40 percent of global primary energy and food commodity consumption and more than 50 percent of global metal consumption (Figure F5).

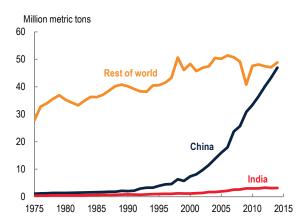
That said, there has been considerable heterogeneity among these countries, including between China and India, which together currently account for almost 40 percent of the global population. China has been world's largest consumer of a number of industrial commodities during the past decade and a half, and accounted for much of the growth of global commodity consumption—virtually all of the increase in met-

FIGURE F4 Consumption shares of key commodity groups



Sources: BP Statistical Review, U.S. Department of Agriculture, World Bureau of Metal Statistics.

FIGURE F6 Metal consumption of China, India, and rest of the world



Source: World Bureau of Metal Statistics.

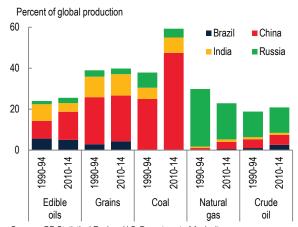
Note: Last observation is 2014. The six metals are included: aluminum, copper, lead, nickel, tin and zinc.

als and more than half of the increase in primary energy between 2000 and 2014 (Figures F6 and F7). China also accounts for more than half of global coal consumption, most of it domestically produced.

India's industrial commodity consumption has also increased, but to a lesser extent than China's, partly as a result of its economic growth being more services-based than China's. Although primary energy consumption in India doubled during the past two decades, the country still accounts for only 4.5 percent of global energy consumption. India's metal consumption almost doubled over the period, but from a very small base (from a share of 1.9 percent to 3.4 percent).

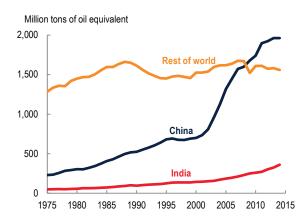
In contrast to industrial commodities, China's consumption of agricultural commodities—especially for grain such as maize, rice, and wheat—grew broadly in

FIGURE F5 Production shares of key commodity groups



Sources: BP Statistical Review, U.S. Department of Agriculture.

FIGURE F7 Coal consumption of China, India, and rest of the world



Source: BP Statistical Review.

Note: Last observation is 2014

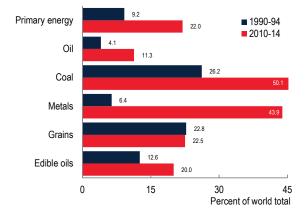
line with global consumption over the past two decades, leaving their share of world consumption virtually unchanged at about 23 percent and 10 percent, respectively (Figures F8). This partly reflects a greater sensitivity of agricultural commodity demand to population growth compared to industrial commodity demand which is more sensitive to income growth (World Bank 2015a). One exception among agricultural commodities is China's share of global edible oils consumption, which rose almost one-and-a-half fold, to one-fifth of the world total in 2014.

Since 2010, growth in metals and primary energy demand from China has slowed steadily. The slowdown was more pronounced in metals whose annual consumption growth declined from 10.3 percent during 1995-2008 to 3.2 percent during 2010-14 (Figure F9). This has partly reflected a gradual economic rebalancing in China, away from commodity-intensive investment and industry towards consumption and services.

What are the implications of the slowdown in major emerging market economies for commodity markets?³

Given their significant demand for commodities, a weakening in growth prospects for commodity importing emerging market economies could have significant repercussions for commodity markets. Although it is still a low-probability scenario, a faster-than-expected slowdown in China combined with a more protracted deceleration in other major emerging markets could materially weaken growth prospects across EMDEs and derail a still-fragile global recovery. Such a scenario would be accompanied by significantly lower global demand for key industrial commodities.

FIGURE F8 China's consumption of key commodities



Sources: BP Statistical Review, World Bank.

Note: Primary energy includes coal and oil. Grains consist of maize, wheat, and rice

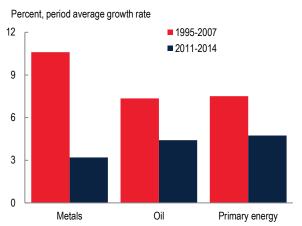
More specifically, a 1 percentage point growth slow-down in the BRICS could result in a 0.8 percentage point decline in growth in other emerging market countries over a span of two years and slow global growth by 0.4 percentage point. Such adverse spill-overs would transmit through a two main channels: trade and commodity markets.

China is deeply integrated into supply chains in East Asia and the Pacific, and constitutes a large export market for commodity-exporting countries in Sub-Saharan Africa and Latin America. Commodity-exporting countries, in turn, are important export markets and sources of finance for commodity-importing countries in their respective regions. In particular, Brazil trades significantly with neighboring Latin American countries and Russia generates large remittance flows and export revenues for countries in the Caucasus and Central Asia.

Given its direct impact on the demand for commodities and indirect impact through trading partner growth, a sharper-than-expected slowdown in China could have additional repercussions for commodity markets and, hence, commodity exporters. A 1 percentage point drop in China's growth could result in a decline in average commodity prices of about 6 percentage points after two years (Figure 10).4 Although point estimates vary widely across methodologies, the effect would likely be more pronounced for industrial metals prices than for oil prices. For example, while a 1 percentage point decline in China's growth has been estimated to reduce oil prices by 1.1-1.9 percent, it has been estimated to reduce metals prices by 1.3-5.5 percent (Inoue, Kaya and Ohshige 2015; Ahuja and Nabar 2012).

Focusing on the part of the Chinese economy that is among the most intensive in commodity imports, a 1

FIGURE F9 China's consumption growth of industrial commodities



Sources: BP Statistical Review and World Bureau of Metal Statistics.

Notes: The declines in the growth rate of oil and primary energy are nearly identical because declines in the growth rate of coal have been compensated by corresponding increases in natural gas.

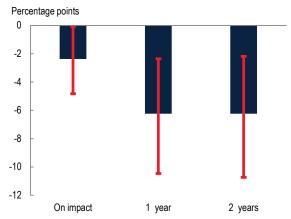
percentage point decline in Chinese industrial production has been associated with a decline of 1.9 percent in oil prices and 2.3 percent in copper prices (Roache 2012). As a result of global commodity price impacts, a slowdown in major emerging market commodity importers would likely set back growth more in commodity-exporting countries than commodity-importing countries (Figure 11). Regions with large resource wealth, such as Latin America and Sub-Saharan Africa, may be particularly affected by a slowdown in China (Gauvin and Rebillard 2013, World Bank 2015b and 2015c).

Finally, a synchronous slowdown of BRICS would have more pronounced spillover effects if combined with financial stress. In a scenario where BRICS growth continues to be downgraded (as in recent years) and emerging market bond spreads widen by 100 basis points, growth in other emerging markets could be curtailed by 1.3-1.5 percentage points in 2016. This would further set back global growth and be associated with continued downward pressure on commodity prices.

Endnotes

- This section is based on the January 2016 edition of Global Economic Prospects (World Bank 2016).
- See World Bank (2015a) for a comprehensive discussion of China's and India's role in global commodity markets.
- 3. The model is based on a vector autoregression (VAR) framework, with a recursive identification scheme, is estimated for the period 1998Q1-2015Q2. Key variables included in the model are growth in China (spillover source), trade-weighted commodity prices, and growth in the spillover destination country. The model

FIGURE F10 Impact of China's growth slowdown on commodity prices



Source: World Bank.

Note: Solid bars denote the median and the error bars denote the 16-84 percent

- also includes additional variables that serve as controls for global activity and financial conditions. The VAR model is estimated for each spillover destination country one at a time. Technical details of the model and the list of spillover destination countries are provided in Annex 3.2 of World Bank (2016).
- 4. Cumulated impulse responses of trade-weighted commodity prices of commodity exporters, for different horizons, due to a 1 percentage point decline in China growth. The average quarterly growth rate of commodity prices is about 0.9 percent in the sample. Commodity exporters include Chile, Malaysia, Paraguay, and Peru.
- 5. Cumulated impulse responses of GDP growth, at the two year horizon, due to a 1 percentage point decline in China's growth. For each group, the figures refer to the cross-sectional average response across all the countries in that group. Commodity exporters include Chile, Malaysia, Paraguay, and Peru. Commodity importers include Bulgaria, Croatia, Hong Kong SAR, China, Hungary, Jordan, Mexico, Poland, Republic of Korea, Romania, Singapore, Thailand, and Turkey.

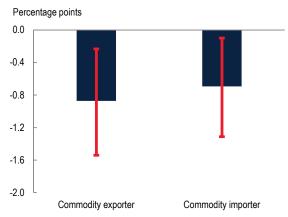
References

Ahuja, A., and M. Nabar. 2012. "Investment-Led Growth in China: Global Spillovers." Working Paper 12/267, International Monetary Fund, Washington, DC.

Arteta, C., M. A. Kose, F. Ohnsorge, M. Stocker. 2015. "The Coming U.S. Interest Rate Tightening Cycle: Smooth Sailing or Stormy Waters?" World Bank Policy Research Note No. 2. World Bank, Washington, D.C.

Baffes, J., M. A. Kose, F. Ohnsorge, and M. Stocker. 2015. "The Great Plunge in Oil Prices: Causes,

FIGURE F11 Impact of China's growth slowdown on commodity exporting and importing countries



Source: World Bank.

Note: Solid bars denote the median and the error bars denote the 16-84 percent confidence bands

- Consequences, and Policy Responses." Policy Research Note 1, World Bank, Washington DC.
- Didier, T., A. Kose, F. Ohnsorge, and L. Ye. 2015. "Slowdown in Emerging Markets: Rough Patch or Prolonged Weakness?" Policy Research Note 4, World Bank, Washington DC.
- Gauvin, L. & Rebillard, C. 2013. "Towards Recoupling? Assessing the Impact of a Chinese Hard Landing on Commodity Exporters: Results from Conditional Forecast in a GVAR Model." MPRA Paper 65457, University Library of Munich, Munich.
- Inoue, T., D. Kaya, and H. Ohshige. 2015. "The Impact of China's Slowdown on the Asia Pacific Region: An Application of the GVAR Model." Policy Research Working Paper 7442, World Bank, Washington, DC.

International Monetary Fund. 2014a. World Economic Outlook: Recovery Strengthens, Remains Uneven. International Monetary Fund, Washington, DC.

- . 2014b. "IMF Multilateral Policy Issues Report: 2014 Spillover Report." IMF Policy Paper, International Monetary Fund, Washington, DC.
- Roache, S. 2011. "China's Impact on World Commodity Markets." Working Paper 12/115, International Monetary Fund, Washington, DC.
- World Bank. 2015a. *Commodity Markets Outlook*, July. World Bank, Washington, DC.
- ______. 2015b. Global Economic Prospects: Having Fiscal Space and Using It, January. World Bank, Washington, DC.
- ______. 2015c. Global Economic Prospects: Global Economy in Transition, June. World Bank, Washington, DC.
- _____. 2016. Global Economic Prospects: Spill-overs Amid Weak Growth, January. World Bank, Washington, DC.

ANNEX Impact of EMDE slowdown on commodity prices: Review of the literature

Author	Data	Methodology	Results
Ahuja and Nabar (2012)	G20, monthly, 2000-11	Factor Augmented Vector autoregres- sion (FAVAR)	A slowdown in Chinese investment would result in a fall in commodity prices, especially metal prices. A 3.5 percentage point decline in China's investment growth (quarter-on-quarter, seasonally adjusted) is associated with a 2-5 ½ percent decline in aluminum, copper, lead, nickel, and zinc prices after one year but an insignificant impact on oil prices.
IMF (2014)	Advanced and emerging market aggregates, quarterly	VAR with Cholesky identification	Growth declines in emerging markets can adversely affect commodity prices. A 1 percentage point decline in emerging market growth is associated with a more than 6 percent decline in average commodity prices after one year, while a 1 percentage point decline in advanced market growth is associated with an almost 4 percent decline in average commodity prices after one year.
Inoue, Kaya, and Ohshige (2015)	26 advanced and emerging mar- kets, quarterly, 1979-2013	Global VAR (GVAR) with time-varying trade weights	A decline in China's real GDP has a significant impact on neighboring economies, especially on commodity exporters (e.g. Indonesia). A 1 percentage point decline in China's growth would reduce the oil price somewhat less than metal prices (by just over 1 percent after one year).
Gauvin and Rebillard (2015)	36 countries, quarterly, 1995- 2014	GVAR	A hard landing in China would significantly affect commodity- exporting regions such as Latin America.
Roache (2012)	Global aggregate, monthly, 2000-2011	VAR with Cholesky identification	Shocks to aggregate activity in China have a significant and persistent short-run impact on the price of oil and some base metals. A 1 percentage point increase in China's industrial production is followed by a 1.9 percent increase in oil prices, 0.4-0.9 percent increase in zinc and aluminum prices, 1-1.7 percent increase in lead, nickel, and tin prices, and 2.3 percent increase in copper prices after one year.
World Bank (2015a)	LAC region, quarterly, 1992- 2014	VAR with Cholesky identification	China's growth effects on metal prices are an important channel for the transmission of a slowdown in China to commodity exporters in Latin America.



COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy
Agriculture
Fertilizers
Metals
Precious metals

Energy

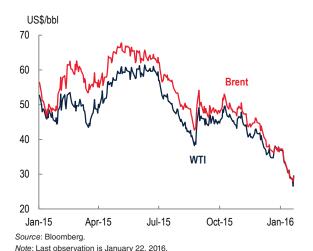
The World Bank Energy Index fell 13 percent in the fourth quarter from the previous period. Oil led the decline, dropping 13 percent on continued ample supply, expectation of an early increase in production in the Islamic Republic of Iran, deteriorating growth prospects in major energy- importing countries, high stocks and continued OPEC policy to defend market share. Natural gas and coal prices fell 15 and 9 percent, respectively, owing to similarly weak demand and abundant supply.

Crude oil

Crude oil prices averaged \$42.2/bbl in the fourth quarter, down 13 percent from the third quarter (see Appendix B, Crude Oil). For the year, crude oil prices averaged \$50.8/bbl, down 47 percent from 2014 and the lowest annual level since 2004. From November 2015, oil prices declined steadily, slipping below \$30/bbl in mid-January in a slide that appears somewhat stronger than warranted by fundamentals. Weak oil prices reflected continued ample supply from non-OPEC producers, expectations of an imminent expansion of Iranian exports as sanctions were lifted somewhat earlier than expected, high stocks, weakening growth prospects in major oil-importing economies, and OPEC's continued resolve to defend market share (Figure 3).

Despite tepid global industrial activity weighing on gasoil (diesel) demand, overall oil demand (especially for gasoline) was robust in 2015 but slowed in the fourth quarter as mild temperatures in the northern hemisphere reduced heating oil demand. U.S. crude oil production continued to fall from its peak in April, but less than expected—despite a plunge in investment and drilling—owing to efficiency gains and cost reductions. As many non-OPEC producers sustain

FIGURE 3 Crude oil prices, daily

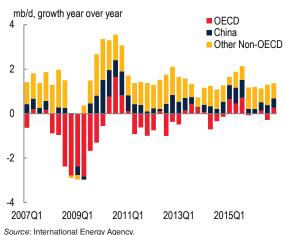


losses at oil prices below \$40/bbl, such production cuts are expected to accelerate in 2016 whereas OPEC production is expected to rise.

By December, a sharp decline in Brent spot prices had virtually eliminated the differential with the West Texas Intermediate (WTI) price, from a high of \$8 per barrel in March 2015. Meanwhile, the WTI was supported by declining light oil production from shale and expanding pipeline and rail infrastructure in the United States and the repeal of the 1975 ban on U.S. crude oil exports in late December. The immediate impact of lifting the ban on U.S. crude exports will be muted, as export infrastructure is limited and the United States still imported in excess of 7 mb/d of crude in 2015. U.S. light crude imports are expected to rise further as output from West Africa, for example, becomes more competitively priced. Nevertheless, removal of the export ban gives producers more options, such as selling to refiners in Central and South America. However, several uncertainties remain concerning the availability of crude for export and the demand for light crude by U.S. Gulf coast refiners. In the medium term, the WTI-Brent differential is expected to remain narrowly near export transport costs to less than \$3/bbl.

Global oil consumption has faced two offsetting pressures: weakening real income growth and sharply lower prices. While weakening growth, especially in emerging market and developing countries, has weighed on consumption, the sheer magnitude of the oil price decline—two-thirds of which due to a supply shock—has encouraged consumption. On balance, consumption growth reached a five-year high at 1.8 percent in 2015, despite some weakening in the fourth quarter to 1.1 percent as a result of lower heating oil consumption in OECD countries amidst mild winter weather in the northern hemisphere (Figure 4). While gasoline demand remained robust, weak diesel

FIGURE 4 World oil demand growth



Note: The last observation, 2016Q1, is an estimate

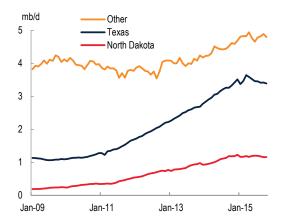
demand reflected slowing economic activity in China and tepid global industrial activity.

For 2016, world oil consumption growth is expected to slow to 1.3 percent (1.2 mb/d) to an average global consumption of 95.7 mb/d. The slowdown in growth partly reflects the waning boost to demand from lower oil prices. OECD oil consumption is expected to be flat with a modest gain in North America nearly offsetting declines elsewhere. Non-OECD oil consumption is projected to rise by 1.2 mb/d (2.4 percent). Consumption growth is expected to be considerably slower in Asia, which still accounts for the bulk of non-OECD growth.

Global oil production growth slowed sharply to 1.5 mb/d in the fourth quarter of 2015, from an average of nearly 3 mb/d during the first three quarters. Most of the gains in the fourth quarter were from OPEC countries, while non-OPEC production was up only marginally (with gains exceeding 0.1 mb/d only in the United States and Russia) despite cost reductions and efficiency gains. This reverses a trend over the previous 10 consecutive quarters where non-OPEC production recorded gains averaging nearly 2 mb/d, more than two-thirds of this in the United States.

Despite sharp cuts in investment, U.S. production has remained more resilient than projected. U.S. upstream investment is estimated to have fallen by about one-third last year, and rigs drilling for oil fell by two-thirds from a high in October 2014 (Figure 6). Producers have responded with productivity increases and cost cuts by utilizing their most efficient rigs on the most productive tracts; reducing drilling time and re-fracking wells; better planning and innovation; greater proppant use; longer laterals and tighter well spacing. In the Eagle Ford (Texas) and Bakken (North Dakota) regions, new well productivity has more than

FIGURE 5 U.S. crude oil production



Source: U.S. Energy Information Administration. *Note:* Last observation is October 2015.

doubled from less than 300 barrels per well in early 2012, to 785 and 712 barrels per well, respectively. As a result, U.S. crude oil production declined only moderately, from a peak in April at 9.7 mb/d to 9.2 mb/d in December, and mostly in the on-land lower-48 states, especially in shale-producing basins in Texas and, to a smaller extent, in North Dakota (Figure 5).

Looking ahead, U.S. shale oil production could drop off sharply. Output from shale oil wells declines rapidly, falling by some 70 percent or more in the first year and more than 80 percent in the first two years. This requires substantial drilling to offset the shale's rapid declines. While efficiency gains and technical innovation are expected to continue, future improvements may be more difficult.

For 2016, overall non-OPEC production is expected to decline by 0.6 mb/d. The U.S. Energy Information Administration projects that U.S. crude oil production declines from 9.3 mb/d in the fourth quarter of 2015 to 8.5 mb/d in the fourth quarter of 2016. For 2016 as a whole, total U.S. production is projected to decline by 0.7 mb/d, with output in the lower-48 states falling 0.8 mb/d, partly offset by an increase of 0.1 mb/d in the Gulf of Mexico. Non-OPEC production outside the U.S. is expected to fall by 0.1 mb/d, with small declines in most regions only partially offset by increases in Canada and Brazil of more than 0.1 mb/d each.

OPEC (excluding new member Indonesia) crude oil production averaged 31.7 mb/d during the second half of the year, ending the year at 31.6 mb/d—up from 30.5 mb/d a year earlier. Most of the gains came from Iraq and Saudi Arabia. Iraq's output reached a record 4.3 mb/d in September, but the country is not expected to exceed this level in 2016 under the strain

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



Sources: Baker Hughes, Bloomberg.
Note: Last observation is January 22, 2016.

of low oil prices and a costly conflict against the socalled Islamic State. While Libya's output has held near 0.4 mb/d, it is uncertain when production might rise following a UN brokered agreement forming a national unity government. At the OPEC meeting on December 4, the Organization decided to keep producing at current levels, with key exporter, Saudi Arabia, intent on maintaining market share. The group abandoned its 30 mb/d production target, which had been in place since the beginning of 2012. Adding to the uncertainty were expectations that the Islamic Republic of Iran would increase exports earlier-than-expected.

Ample supplies continue to result in higher OECD crude oil inventories (Figure 7). Much of the increase in stocks has been in North America, but they are elevated in Europe and the Pacific regions as well. In the fourth quarter—a period when stocks typically fall—global inventories soared by an implied 1.8 mb/d, a record for the quarter, on warm winter weather in the northern hemisphere.

For 2016, crude oil prices are projected to average \$37/bbl, a decline of 27 percent from last year. From their current lows, a gradual recovery in oil prices is expected over the course of the year, resulting from a number of factors. First, part of the sharp oil price drop in early 2016, which does not appear fully warranted by fundamental drivers of oil demand and supply, is likely to reverse. Second, high-cost oil producers are expected to sustain persistent losses and increasingly implement production cuts that are likely to exceed any additional capacity coming to the market. Third, demand is expected to strengthen somewhat, along with a modest pickup in global growth.

The anticipated oil price recovery is forecast to be smaller than the rebounds that followed sharp drops

within about five months, and approximately doubled after 12 months (Figure 8). In 1998 and 2008, significant OPEC production cuts contributed to the price recovery, while in 1986 OPEC sought to regain its market share— somewhat similar to its current intent on defending its share. The currently expected price recovery over the course of 2016 is less than that in the previous episodes owing to large stocks and prospects for continued ample supplies (including from OPEC) and anemic demand.

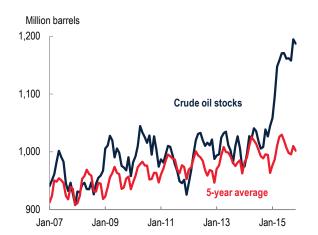
in 2008, 1998, and 1986. In these declines, prices re-

bounded from their troughs by around 50 percent

On balance, the price outlook remains subject to considerable downside risks. These include a larger-than-expected increase in Iran's exports and a possible recovery of exports from Libya. Short-cycle U.S. shale production may again turn out to be more resilient than currently anticipated if companies achieve further productivity gains. Ample supply would particularly weigh on prices if global demand were to also weaken more than expected. Prices may thus have to fall further to reduce production and investment, especially for short-cycle U.S. shale production.

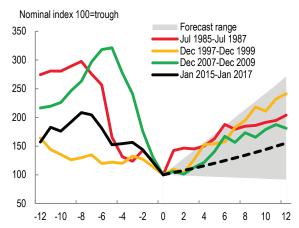
Upside risks include sharper-than-anticipated non-OPEC supply declines and slow expansion of exports from Iran. In addition, there are risks of disruptions among key OPEC producers mostly because of internal conflict. Higher-than-forecast global demand would also help reduce the stock overhang.

FIGURE 7 OECD crude oil stocks



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

FIGURE 8 Oil prices during collapse and recovery episodes, monthly



Source: World Bank.

Note: Lines indicate oil prices for 12 months before and after the trough, indexed to 100 at the trough. Dashed line indicates forecast. Shaded area denotes range of forecasts by 6 major investment banks, released during January 15-22, 2016.

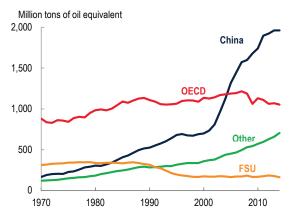
Coal

Thermal coal prices fell 9 percent in the fourth quarter on continued weak demand, high stocks, and surplus production. Prices have fallen by more than 60 percent since the beginning of 2011 because of chronic oversupply and falling imports into China—the world's largest consumer of coal—and India (Figure 9). Europe and United States continue to shun coal amidst a global drive towards cleaner energy colapsing gas prices and increasing power efficiency. Global coal supplies continue to increase aided by falling costs and depreciating producer currencies.

China's coal imports fell by one-third in 2015 due to slowing industrial activity, growing contributions from other sources to generate power, and government policies to limit coal use. China is suspending the approval of new mines for the next three years, and in an effort to reduce pollution coal's share of energy consumption is to be reduced to 62.6 percent this year from 64.4 percent in 2015. In addition, rising capacity of China's high-voltage long-distance power transmission network could suppress coastal import demand.

Coal prices are expected to decline 13 percent in 2016 to \$50/ton, on continued weak demand and oversupply. The coal industry faces difficult market conditions, as cheap natural gas and policies that favor clean energy challenge coal's position in the power sector. Import demand in China is expected to continue falling, and will only partly be offset by rising demand in India and other emerging markets. Coal also faces declining consumption in the OECD, particularly in the U.S. and Europe. Ample coal supplies are likely, in part because of the ramp-up in new capacity from earlier investment. There is also significant spare capacity in countries such as Indonesia and Australia that could be brought on-line.

FIGURE 9 Coal consumption of key countries and regions



Source: BP Statistical Review of World Energy.

Note: Last observation is 2014. FSU is Former Soviet Union

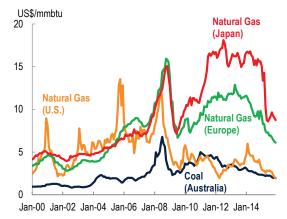
Natural gas

Natural gas prices fell 15 percent in the fourth quarter, as all three main markets remain in surplus amid weak demand, large stocks and ample supply (Figure 10). U.S. gas prices plunged 23 percent to \$2.1/mmbtu as stocks touched record highs, and consumption weakened because of mild weather. Demand has been robust for power generation, and continues to substitute for coal. While natural gas production continued to grow, shale gas output has declined, including in the northeast Marcellus basin, which lacks pipeline capacity out of the region.

European gas prices fell 9 percent to \$6.3/mmbtu, also on weak seasonal demand from mild temperatures. Eu-rope remains well supplied, despite the Netherlands setting a 27 billion cubic meter (bcm) cap for Groningen field production. The cap was imposed because of damage from earthquake tremors linked to gas extraction. The field produced 54 bcm in 2013. The price of gas delivered to Japan fell 2 percent to \$9.4/mmbtu, as im-ported gas largely remains indexed to oil prices (with a lag). Still, spot cargoes of liquefied natural gas (LNG) are flowing into Asia at \$7/mmbtu (and to Europe at under \$6) because of excess seaborne supply.

Natural gas prices are projected to fall in 2016, led by large declines in Japan (-19 percent to \$8.5/mmbtu) and Europe (-17 percent to \$6.0/mmbtu), on continued surplus supply and further competitive pressures on oil-linked import contracts. Gas prices in the U.S. are expected fall by 4 percent to an average of \$2.5/mmbtu, but are up from recent lows due to continued strong growth in demand, rising pipeline and LNG exports, and slowing production growth. Risks are mainly to the downside, however, given a global supply surplus and the resilience of production in the United States.

FIGURE 10 Coal and natural gas prices, monthly



Source: World Bank.

Note: Last observation is December 2015.

Agriculture

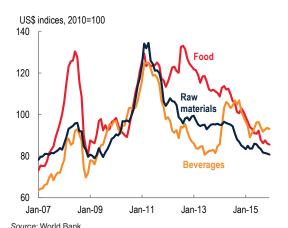
Agricultural prices continued their broad-based declines, with the overall index down 2.3 percent for the fourth quarter of 2015 and 12 percent lower than a year ago (Figure 11). The two key sub-indices both declined: grains fell 2.5 percent, and oils and meals 4.1 percent. Agricultural raw materials prices declined as well (more than 2 percent), while beverage prices were broadly unchanged. The price declines were driven by favorable supply conditions (despite a strong El Niño episode currently under way), with a number of food commodities (such as wheat) and edible oils expected to reach record production levels. Other factors, including a strong U.S. dollar, low energy prices, high stock levels (in turn a reflection of good crop yields during the past two seasons), and weak growth of biofuel production have also contributed to the softness of prices. Most agricultural commodity prices are expected to fall in 2016. Specifically, grains are expected to decline 3.4 percent, and oils and meals 2.2 percent, while raw material and beverage prices will decline by 1 percent. Prices are expected to recover marginally in 2017, but even that mild recovery is subject to numerous downside risks.

Food

Grain prices declined 2.5 percent in the fourth quarter; they are 14 percent lower than a year ago and almost 40 percent below their early 2011 peaks. Wheat prices declined almost 5 percent in the quarter, followed by rice and maize, which were down about 1.3 percent each.

Global production of wheat is expected to reach a new record in the 2015-16 season (1.5 percent higher than last season), with output increases in Australia, China, and Ukraine that more than offset declines in Argentina and Canada. As a result, the stocks-to-use ratio (a

FIGURE 11 Agriculture price indices, monthly



Note: Last observation is December 2015.

measure of the abundance of supplies relative to demand) is anticipated reach a 14-year high in 2015-16 (Figure 12), despite higher global wheat consumption. Trade volume, however, is expected to decline as several major wheat importers have good production prospects of their own.

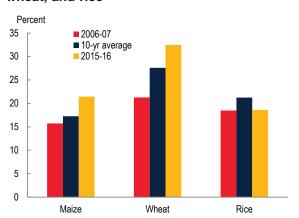
The market for maize is expected to tighten, with global production projected to reach 968 million tons this season—marginally lower than assessments prepared in May 2015 and 4.3 percent lower than 2014-15. Mostly due to weather, production is expected to fall in most producing countries and regions, including Argentina (-3.4 percent), Brazil (-4.1 percent), European Union (-23.8 percent), and the United States (-4 percent). Despite tighter maize supplies, the stocks-to-use ratio will remain largely unchanged due to low consumption and higher stock carry-over.

Global rice production is also expected to decline marginally (from 478 to 470 million tons) on weakening output prospects in Asia, particularly in India, the Philippines, and Thailand, the world's top rice exporter. The stocks-to-use ratio for rice is expected to drop to 18.6 percent, down from last season's 21.7 percent. The ongoing tightness in the rice market has been linked to El Niño.

Global supplies (beginning stocks plus production) for all three grains will reach 2.70 billion tons in 2015-16, slightly up from last season's record of 2.69 billion tons, according to the United States Department of Agriculture's January 2016 assessment (Figure 13). Thus, the lower stocks-to-use ratio of rice will be offset by a higher maize ratio.

The World Bank's Edible Oils and Meals Price Index declined 4.1 percent in the quarter due to declines in three of its key components: soybean meal (-10.2 percent), soybeans (-2.7 percent), and palm oil (-0.9 percent). The overall index is down almost 20 percent

FIGURE 12 Stock-to-use ratios of maize, wheat, and rice



Source: U.S. Department of Agriculture.

Note: Numbers are based on USDA's January 2016 update

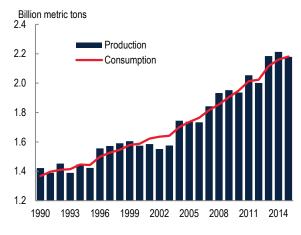
from a year ago, and close to 40 percent lower than its early 2011 peak.

The oilseed supply outlook is healthy with current season global supplies of the 10 major oilseeds expected to reach 619 million tons, 11 million tons higher than last season. Most of the increase in current supplies comes from elevated stock carry-over, which will reach 99.1 million tons, up from last season's 79.4 million tons. The increase in stocks reflects last year's record soybean harvest.

The outlook is positive for the 17 most consumed edible oils as well: global production in 2015-16 will reach 207 million tons, up from last season's 204 million tons, with most of the increase coming from soybean oil (Figure 14). The consumption of edible oils is typically more strongly correlated with income than consumption of other agricultural commodities since growing incomes are associated with increased food consumption in restaurants and in processed form—both with higher edible oil content compared to home-cooked meals.

In view of the adequate-supplied food commodity markets, along with lower energy prices and the macroeconomic headwinds discussed in the *Special Focus* section, the World Bank's Food Commodity Price Index is expected to decline 1.7 percent in 2016 before rebounding 2 percent the year after. This assessment is subject to a number of short- and long-term risks. The most important center on the evolution of energy prices (especially the likelihood of remaining low for an extended period of time); weather patterns (given the ongoing El Niño and, possibly La Niña episodes); trade policies (especially the reversal from export restrictions to domestic support); and biofuel consumption (in view of lower energy prices).

FIGURE 13 Global grain production and consumption



Source: U.S. Department of Agriculture.

Note: Grains include maize, wheat, and rice

Energy prices

Agriculture is very energy-intensive—it is four to five times more energy intensive than manufacturing in terms of energy used for a given value of output. Hence, food commodity prices are greatly affected by energy prices through numerous channels. The long-term transmission elasticity from energy to food commodity prices is estimated at between 0.15 and 0.20, suggesting that a halving of energy prices may precipitate a 10 percent decline in food prices (assuming everything else remains the same).

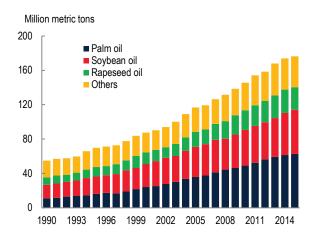
Oil prices are expected to average \$37 in 2016 (almost two-thirds lower than their 2011-14 levels), while fertilizer prices are projected to fall 4 percent in 2016, on top of last year's 5 percent decline. (Fertilizer prices are linked to natural gas prices because gas is a key input to fertilizer production.) Thus, a prolonged period of low energy prices will ease the input cost pressures that affected most agricultural commodities during the post-2005 price boom, keeping commodity prices depressed.

Weather

The key weather-related risk is El Niño, which will reach its peak during the first quarter of 2016. El Niño typically affects agricultural production in the Southern Hemisphere, especially in Australia and countries in East Asia and South America (see the *Special Focus* of the October 2015 edition of the *Commodities Market Outlook* for an extensive discussion on El Niño). Its impact in the northern hemisphere is modest.

Despite being one of the strongest on record, the impact of El Niño on commodity prices is likely to be predominantly local rather than global, especially

FIGURE 14 Global production of key edible oils



Source: U.S. Department of Agriculture.

Note: Numbers are based on USDA's January 2016 update

COMMODITY MARKETS OUTLOOK

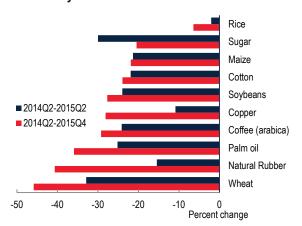
given the elevated supplies of most agricultural commodities. Indeed, the prices of commodities most vulnerable to El Niño saw year-on-year declines of between 2 percent (rice) and 33 percent (wheat) in the second quarter of 2015, when El Niño discussions intensified (Figure 15). The price drops were even more pronounced in the fourth quarter of 2015, when El Niño was peaking.

Trade policies

In the years following the food price spikes of 2007-08 and 2010-11, numerous countries imposed export restrictions in order to insulate their domestic commodity markets from increases in world prices. Prominent among those were export taxes and outright export bans imposed by various East Asian rice producing nations in the aftermath of the 2008 price spike, and by some Central Asian wheat producers during the 2010 price spike. Similar trade restrictions are unlikely to be repeated in view of the lower price environment.

In today's weak commodity price enviroment, governments are increasingly shifting from trade policies aimed to reduce consumer prices, to domestic support programs designed to raise farmgate prices. For example, an income transfer mechanism for wheat is expected to be implemented by Egypt in early 2016, supporting wheat farmers to the tune of \$400 per hectare. Likewise, the Indian government has increased the minimum support prices of wheat by more than 5 percent. Indonesia is considering a 10 percent import tariff on soybeans, in addition to a 10 percent increase in the floor price. Numerous other countries are considering support to farmers as well, especially those affected by drought conditions associated with El Niño (e.g., India and South Africa). Al-

FIGURE 15 Price changes of commodities affected by El Niño



Source: World Bank.

Note: Price changes are based on quarterly averages.

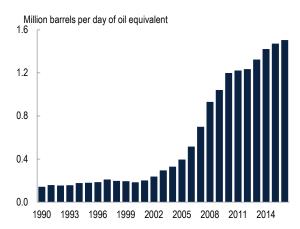
though these policies are unlikely to affect global food markets in a major way, if they are implemented at a large scale and frequency (or adopted by countries with large shares in world trade), they could lead to even lower agricultural commodity prices.

Biofuels

Finally, the outlook for food commodity prices also assumes that biofuels will continue to play a key role in agricultural commodity markets. However, this role is likely to be less prominent than in the past. Currently, biofuels account for 3-4 percent of global arable land and 1.5 mb/d in crude oil equivalent terms (Figure 16). The world's top three biofuel producers are the United States (accounting for 42 percent of global biofuel production, mostly from maize-based ethanol), Brazil (with a 24 percent share, mostly from sugarcane-based ethanol), and the European Union (with a 14 percent share, mostly from rapeseed-based biodiesel). Although biofuel production is expected to increase, growth will be much slower than previously anticipated. Indeed, production of biodiesel-which accounts for 20 percent of global biofuel production versus 80 percent for ethanol—declined almost 2 percent in 2015, the first decline since 2000. Biodiesel is projected to return to 2014 levels in 2016.

Low oil prices may increase biofuel demand given that they lead to higher oil consumption, which under mandated blending, implies more use of biofuels. However, several countries are reconsidering biofuel policies (and targets), as policy makers increasingly realize that the environmental and energy independence benefits of biofuels are not as large as initially thought, and that targets are harder to achieve than expected.

FIGURE 16 Global biofuel production



Sources: BP Statistical Review and World Bank. Note: The 2016 valve is a forecast.

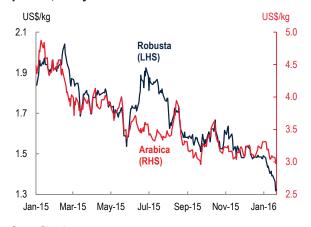
Beverages

The World Bank's Beverage Price Index declined marginally in the fourth quarter of 2015, led by declines in the prices of robusta coffee and tea, down 4.2 and 3.1 percent, respectively, for the quarter. Arabica coffee prices dipped slightly (-1.7 percent), while cocoa prices increased by a similar amount.

Although arabica coffee prices were broadly unchanged in the quarter, they are almost 30 percent lower than a year earlier (Figure 17). The price decline reflects Brazil's strong recovery from last year's drought, which had raised arabica coffee prices to almost \$5/kg. Other arabica producers, including Colombia and some countries in Central America, will also experience output increases. Despite concerns about Indonesia's robusta coffee production due to the El Niño-related drought, prices remain weak, down 4.2 in the fourth quarter of 2015 and 20 percent lower than a year ago. In view of the adequately supplied coffee market, both arabica and robusta prices are expected to decline in 2016 (-3.6 and -7.3 percent, respectively).

Cocoa prices gained 1.5 percent in the quarter, and stand almost 11 percent higher than a year earlier. The strength of cocoa prices reflects concerns that the global market will swing into deficit next year, due to downward forecast revisions in Indonesia's output (linked to El Niño), as well as an expected fall in Côte d'Ivoire's output. Cocoa prices are projected to increase marginally in 2016 (+2.1 percent), but then soften in 2017 as market supplies return to surplus. Finally, tea prices, which declined 3.1 percent in the fourth quarter due to ample supplies form several African producers, are expected to remain relatively stable in the medium term at about \$2.80/kg.

FIGURE 17 Arabica and robusta coffee prices, daily



Source: Bloomberg.

Note: Last observation is January 22, 2016

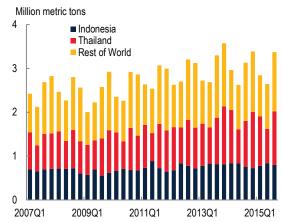
Agricultural raw materials

The World Bank's Raw Material Price Index declined a further 2.3 percent in the fourth quarter, and was 5 percent lower than a year earlier and almost 40 percent below its 2011 peak. This pattern largely mirrors the path of the other two industrial commodity price indices—energy and metals. The across-the-board weakness of industrial commodity prices reflects, for the most part, a slowing global economy (especially of emerging market economies, which account for most commodity consumption growth), and the scaled-up production capacity as a result of the high post-2005 prices.

Cotton prices changed little in the last quarter of 2015, as the market is gradually returning to deficit following six consecutive years of surpluses. These surpluses went mostly to China's stock-building, which currently accounts for almost 60 percent of world's stocks. Global cotton stocks currently represent one year of consumption, a highly atypical situation. In view of this season's deficit, cotton prices are expected to increase 2.7 percent in 2016 and 3.6 percent in 2017, assuming that there is no sharp draw-down in China's stocks.

Natural rubber prices continued their downward path, falling 14 percent in the fourth quarter compared with a year earlier and almost 80 percent lower than in 2011. The downward spiral of rubber prices reflects weak growth of tire sales, especially in China; two-thirds of natural rubber goes to tire manufacturing. Supplies of natural rubber have remain strong, especially by key East Asian producers, including Indonesia and Thailand (Figure 18). The weakness in rubber prices is expected to persist throughout 2016 (dropping by a further 10 percent from 2015), before a mild recovery materializes in 2017 (increasing by 6 percent).

FIGURE 18 Natural rubber production



Source: Rubber Statistical Bulletin, International Rubber Study Group. Note: Numbers are based on the January 2016 update.

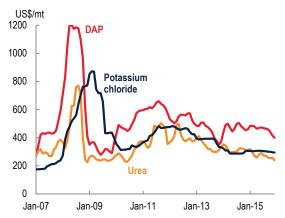
Fertilizers

Fertilizer prices fell 2 percent in the fourth quarter of 2015, the fourth consecutive quarterly decline, due to weak import demand, high stocks, and growing supply capacity (Figure 19). Phosphate prices led the decline by dropping 10 percent. Urea prices fell 7 percent, down for a fifth straight quarter, while potash prices declined 2 percent. Phosphate rock prices continued to climb, rising by 5 percent. Demand weakness stems from declining farmer profitability, lower crop prices, and depreciating currencies of key importing countries. Supply surpluses are being exacerbated by falling costs and cheaper feedstock prices (e.g., natural gas).

Phosphate prices for DAP fell 10 percent (TSP prices were flat) due to weak seasonal demand and continued contraction in Brazil's fertilizer consumption. Production capacity continued expanding globally, although some producers sought to curtail output in the fourth quarter. Demand is expected to grow moderately in 2016, initially from Australia and Brazil, and then in other major importing countries in the spring. Capacity expansions are expected in Morocco and Saudi Arabia, which along with elevated stocks, are expected to weigh on prices.

The decline in urea prices was mainly due to oversupply amid weak seasonal demand. Global import demand was weaker in 2015, led by reductions in urea purchases in Brazil, despite increases in imports in a few countries such as India and the United States. There were also natural gas supply constraints in a number of countries (Arab Republic of Egypt, Ukraine) and regions (e.g., South Asia), while new gas capacity came online in Asia and Africa. Higher-cost urea producers benefited from lower energy prices: Chinese firms benefited from lower coal prices while European firms benefited from cheaper natural gas

FIGURE 19 Fertilizer prices



Note: Last observation is December 2015.

Source: World Bank

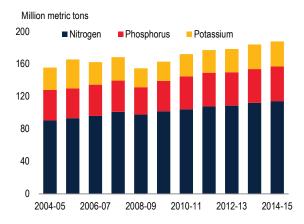
prices. While new export capacity is expected this year in a number of regions (especially Africa), U.S. imports may fall as substantial new domestic production comes on stream (on top of the gains in 2014), and could significantly impact global trade flows.

Potash (potassium chloride) prices fell 2 percent in the quarter owing to weak demand, particularly in Brazil, and elevated stocks. Global potash capacity declined in the United States, Lao People's Democratic Republic, and the Russian Federation (the latter as a result of a mine flood). These were partly offset by capacity increases in Canada, which will add to production volumes in 2016. Upcoming annual contract negotiations with Chinese and Indian buyers are likely to result in significant reductions from the current contract price of \$315/tons. Weak demand, surplus global capacity, and currency devaluations will also factor into negotiations.

Fertilizer prices are projected to decline by 4 percent in 2016 due to weak demand, rising supply capacity, and destocking. Nutrient application, which has been on a rising trend faces headwinds as farmers are likely to economize more on fertilizer use in order to reduce costs and offset the effects of lower crop prices and currency depreciations (Figure 20). Prices are generally expected to increase moderately over the medium term due to growth in demand, higher energy costs, and to support investment for required new capacity of primary and processed supply.

Forecast risks are skewed to the downside, owing to the poor economic positions of farmers, and expected increases in new production capacity. Subsidy reform in large consuming countries could curtail demand and precipitate adjustments in fertilizer use, notably in India which favors urea application over phosphate and potash. On the upside, higher agriculture prices and currency appreciation could boost fertilizer demand and prices.

FIGURE 20 Global nutrient consumption



Source: Agrium Fact Book, International Fertilizer Association... Note: Consumption does not include industrial use

Metals

Amid oversupply in most markets, metals prices fell 8 percent in the fourth quarter of 2015—a fifth straight quarter-on-quarter decline (Figure 21). The weakness reflected slowing demand (especially from China and other emerging economies), ongoing supply increases, and still-high stocks for a number of metals. Prices for all metals rallied from late November on supply cut announcements, but fell in early January along with the drop in other commodities and financial assets. For 2015 as a whole, average prices were down 21 percent compared with a year earlier, falling for the fourth consecutive year. In December, the World Bank Metals and Minerals Price Index was 55 percent below the high reached in February 2011.

Metals consumption remains relatively weak in emerging market economies, particularly in China's metals-intensive manufacturing and construction sectors. China's share of global metal consumption rose above 50 percent in 2015 (Figure 22); the country has accounted for the most of the world's growth for all major metals over the past 15 years (Figure 23). As the economy rebalances from investment to consumption, and from industry to services, metals demand is expected to slow.

On the supply side, a number of production cuts have been announced to help stem oversupply. Reductions will be partly offset by increases in new capacity coming on-line from the large investment cycle that peaked in 2012. Chinese producers have also agreed to cut refined metal production at copper, nickel, and zinc smelters. Further mine closures are expected this year, as prices remain well into the cost curve for many metals. However, significant cost reductions (notably for energy), producer currency devaluations, and other considerations (such as high shut-down costs) are delaying the winding down of high-cost capacity.

FIGURE 21 Metal prices, monthly



Note: Last observation is December 2015.

Iron ore prices plunged 15 percent in the fourth quarter—down eight consecutive quarters and now barely one-fourth of the high reached in 2011—on continued oversupply, weak demand from the steel producing sector in China, and destocking of iron ore at Chinese mills. New low-cost iron ore capacity continues to come on-line in Australia and Brazil, and is forcing closures of higher-cost mines in China and elsewhere. Other capacity has been temporarily idled or curtailed, and some projects are ramping up at a slower pace than planned. In addition, a tragic tailings dam collapse at Brazil's Samarco mine has caused the indefinite closure of annual production near 30 million tons (2 percent of total seaborne supply). Global seaborne iron ore demand may be nearing a peak due to China's transition to a less-metal intensive economy, and as a result of rising scrap metal availability. More low-cost iron ore capacity awaits development in Australia, and will continue to displace high-cost output in other areas.

Zinc prices dropped 13 percent—despite falling London Metal Exchange (LME) stocks and announced production cuts—on weak global demand for galvanized steel (which accounts for more than half of enduse zinc consumption) and strong refined production growth in China (Figure 24). The zinc market is expected to tighten following the latest closure of several large mines (Century, Lisheen), announced mining production cuts (such as Glencore), and agreed smelter output reductions in China. Key uncertainties are demand growth in China, additions to supply from both greenfield and brownfield expansions, and possible reactivation of idled capacity. Stocks remain relatively high but could be quickly drawn down should the market swing into deficit.

Nickel prices fell 11 percent due to weak global demand, destocking from the stainless steel sector (which consumes about two-thirds of the world's re-

FIGURE 22 Refined metal consumption of key regions and countries



Source: World Bureau of Metal Statistics.

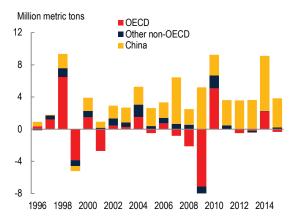
Note: Total of aluminum, copper, lead, nickel, tin, and zinc.

fined nickel), and rising LME inventories. Despite some announced production cuts and the fact that prices are deep into the global cost curve, supply outside China has proved resilient, mainly on the belief that prices will rebound from low levels and further cost reductions can be achieved. China's nickel pig iron (NPI) production continues to contract, following Indonesia's 2014 ore export ban, which was enacted in order to encourage more domestic processing. Ore imports from Indonesia have been partly replaced by shipments from the Philippines. The nickel market is expected to move into a small deficit in 2016. The magnitude hinges on the trajectory of demand growth, China's capital NPI output, and the pace of inventory withdrawal.

Copper prices fell 7 percent amid weak demand in China, elevated stocks, and steady increases in new mine capacity. China's copper demand growth has been slower in most key sectors, particularly construction, and weak growth is expected in 2016. There have been a number of production curtailments over the past year due to both technical issues and market-related pressures, such as the closure of Glencore's African mines for 18 months (restarts are expected in 2017). Further new mine supply is likely to come online in the near term. In an environment of weak demand, more significant closures may well be necessary to limit emerging market surpluses.

Aluminum prices fell 6 percent, despite declining LME inventories, on slowing demand and continued strong growth in smelting capacity in China. Demand remains relatively robust compared with other metals, due to aluminum's diversified uses in multiple sectors and the ongoing substitution away from other metals (such as copper, zinc, and steel). However, it is not immune from the general decline in global metals consumption. While some higher-cost capacity has been closed, and Alcoa announced that it would shut 0.5 million tons of capacity (less than 1 percent of

FIGURE 23 World metal consumption growth



Source: World Bureau of Metal Statistics Note: Last observation is 2015.

global demand) by the end of the first quarter of 2016, new low-cost capacity continues to ramp-up in China and is boosting excess supplies. With domestic demand weakening, Chinese exports of semi-manufactured aluminum products are increasing, broadly offsetting cuts in aluminum production in the rest of the world. Despite prospects for relatively strong demand growth, more closures of high-cost production is required to bring the market into balance.

Lead prices fell 2 percent due to weak seasonal demand, with mild temperatures denting the demand for replacement batteries. Tin prices slipped 1 percent, despite rising inventories and weak demand in China (particularly for use in solder alloys). Tin supplies continue to contract.

Metals prices are projected to decline by 10 percent in 2016 due to slowing demand in emerging market economies (especially China), and increases in new production capacity. Iron ore prices are projected to decline most (down 25 percent), due to reduced imports from China's steel producers and new capacity in Australia and Brazil, followed by nickel (down 16 percent) and copper (down 9 percent). Most other prices are also expected to fall, as markets remain well supplied with elevated stocks. Markets are expected to tighten in the medium term due to reduced investment in production capacity, stronger global demand, and some specific factors, including the continued impact of Indonesia's ore export ban and closure of large zinc mines due to exhaustion.

Downside risks to the forecast include slower demand in China and higher-than-expected production induced by cost reductions and currency depreciations in producer countries. Upside risks are centered on stronger global demand growth and supply shortfalls from project delays and disruptions, falling ore grades, environmental constraints, higher costs (such as for energy), and accelerated closure of high-cost capacity.

FIGURE 24 Zinc price and LME stocks, daily



Source: Bloomberg.

Note: Last observation is January 22, 2016.

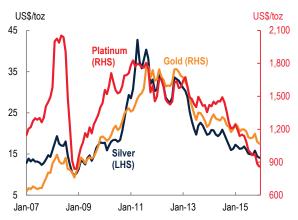
Precious metals

Precious metals prices fell 2 percent in the fourth quarter of 2015 on weakening investment demand (Figure 25). Platinum prices fell 8 percent, mainly on oversupply driven by rising production in South Africa. Gold and silver prices fell 2 and 1 percent, respectively, as U.S. dollar appreciation and the start of the U.S. Federal Reserve's tightening cycle dampened investor sentiment.

Gold prices have declined during 10 of the past 12 quarters, reaching \$1,105/toz in the fourth quarter of 2015—a drop of one-third since its quarterly peak of \$1,718/toz in the fourth quarter of 2012. Weak investor demand and a strong dollar helped push prices lower. Anticipation of a U.S. interest rate increase (0.25 percent on December 16, and the first rise in nearly ten years) was a key factor exerting downward pressure on gold prices. Rising interest rates typically have negative implications for gold prices, as investors find yield-bearing assets more attractive. Despite various geopolitical and financial jitters, gold did not attract much in the way of safe-haven buying until the stock market sell-off in January this year.

After a weak first half, physical demand for gold was up 8 percent in the third quarter of 2015, with the bulk of the increase accounted for by jewelry in China and India. Bar and coin demand was strong in China, Europe, and North America. Indian gold demand was relatively subdued in the fourth quarter due to a poor monsoon season and its effects on agriculture income, and high inventories. Central banks continue to be net buyers of gold, with the majority of purchases coming from China and Russia. Gold mine supply is trending lower as investment falls. Companies continue to focus on aggressive cost reduction, helped by lower energy prices, improved efficiency, and depreciating producer currencies.

FIGURE 25 Precious metal prices, monthly



Source: World Bank.

Note: Last observation is December 2015.

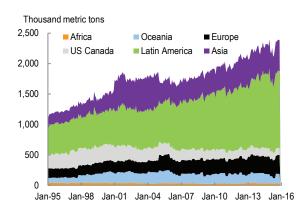
Silver prices continued to fall, in line with investor sentiment for gold, and weak industrial demand. The gold/silver price ratio ended the year at 76 (compared with an average of 66 the past three decades). Reduced silver intensity in the electronic and photovoltaic sectors, combined with declining trends in photographic applications, contributed to declining consumption. Mine supply is down owing to reductions in Australia, but production continues to expand elsewhere (Figure 26).

Platinum prices continued to fall more steeply than its peers—down a sixth straight quarter—as South African mine production ramped back to full capacity following the labor unrest in 2014. Lower prices are prompting cuts of high-cost production. Demand from the auto sector remains buoyant, but the outlook for diesel vehicles, which mainly use platinum output in catalytic converters, has been dented by the Volkswagen diesel emissions scandal.

Precious metals prices are projected to decline 8 percent in 2016, mainly due to reduced investment demand. The price of silver is expected to fall the most, dropping by 11 percent, since silver is more vulnerable than gold to shifts in industrial production. Platinum prices are expected fall 10 percent on surplus supply. Gold prices are projected to fall 7 percent, largely driven by expectations of a rising dollar and a further tightening of U.S. monetary policy.

Downside risks to the forecasts include faster monetary tightening and greater dollar appreciation than expected, while upside risks include significantly weaker U.S. growth (and the ramifications for the dollar and monetary policy), intensification of geopolitical concerns, financial stress in key economies, and stronger demand from consumers, central banks, and investors. For platinum, the Volkswagen scandal poses additional risks to the forecast. It remains unclear how the company, its consumers, and government regulators will respond.

FIGURE 26 Global silver production



Source: World Bureau of Metal Statistics. Note: Last observation is October 2015.



APPENDIX A

Historical commodity prices Price forecasts

TABLE A.1 Commodity prices

Commodity	Unit				Q4	Q1	Q2	Q3	Q4	Oct	Nov	Dec
	Offic		2014	2015	2014	2015	2015	2015	2015	2015	2015	2015
Energy												
Coal, Australia	\$/mt	*	70.1	57.5	62.9	61.2	59.0	57.5	52.4	52.3	52.6	52.3
Coal, Colombia	\$/mt		65.9	52.5	63.7	57.3	54.3	50.4	48.1	48.6	50.8	45.0
Coal, South Africa	\$/mt		72.3	57.1	65.8	62.1	60.7	54.3	51.2	49.9	53.3	50.4
Crude oil, average	\$/bbl		96.2	50.8	74.6	51.6	60.5	48.8	42.2	47.0	43.1	36.6
Crude oil, Brent	\$/bbl	*	98.9	52.4	76.0	53.9	62.1	50.0	43.4	48.1	44.4	37.7
Crude oil, Dubai	\$/bbl	*	96.7	51.2	74.6	52.2	61.4	49.9	41.2	46.6	42.2	34.8
Crude oil, WTI	\$/bbl	*	93.1	48.7	73.2	48.6	57.8	46.4	42.0	46.2	42.7	37.2
Natural gas, Index	2010=100		111.7	73.3	101.6	85.4	74.2	72.2	61.4	65.1	61.0	58.3
Natural gas, Europe	\$/mmbtu	*	10.05	7.26	9.50	8.60	7.33	6.86	6.26	6.43	6.24	6.10
Natural gas, US	\$/mmbtu	*	4.37	2.61	3.77	2.87	2.73	2.75	2.11	2.32	2.08	1.92
Natural gas, Japan	\$/mmbtu	*	16.04	10.43	15.70	14.26	9.18	9.23	9.06	9.44	9.00	8.75
Non-Energy												
Agriculture												
•												
Beverages Cocoa	\$/ka	**	3.06	3.14	2.99	2.92	3.07	3.25	3.30	3.20	3.36	3.35
Cocoa Coffee, arabica	\$/kg \$/kg	**	4.42	3.14	4.64	3.89	3.54	3.25	3.31	3.38	3.36	3.35
Coffee, robusta	\$/kg \$/kg	**	2.22	1.94	2.26	2.12	1.98	1.87	1.79	1.82	1.80	1.75
Tea, average	\$/kg		2.72	2.71	2.26	2.12	2.79	2.85	2.77	2.79	2.77	2.74
Tea, Colombo	\$/kg	**	3.54	2.71	3.38	3.16	3.00	2.83	2.85	2.79	2.89	2.89
Tea, Kolkata	\$/kg	**	2.58	2.43	2.65	1.82	2.56	2.78	2.54	2.70	2.54	2.49
Tea, Mombasa		**	2.05	2.43	1.90	2.31	2.80	2.76	2.91	3.01	2.87	2.49
	\$/kg		2.05	2.74	1.90	2.31	2.80	2.95	2.91	3.01	2.87	2.85
Food Oils and Meals												
Coconut oil	\$/mt	**	1,280	1,110	1,185	1,147	1,115	1,067	1,110	1,108	1,073	1,150
Copra	\$/mt		854	736	792	760	737	708	738	736	716	763
Fishmeal	\$/mt		1,709	1,557	1,792	1,712	1,523	1,472	1,519	1,531	1,537	1,490
Groundnuts	\$/mt		1,296	1,248	1,356	1,333	1,290	1,193	1,175	1,150	1,175	1,200
Groundnut oil	\$/mt	**	1,313	1,337	1,368	1,371	1,346	1,332	1,297	1,314	1,298	1,280
Palm oil	\$/mt	**	821	622	715	683	664	574	569	583	558	565
Palmkernel oil	\$/mt		1,121	909	958	1,046	957	802	830	860	785	845
Soybean meal	\$/mt	**	528	395	471	432	391	398	358	380	356	337
Soybean oil	\$/mt	**	909	757	828	774	774	736	743	742	726	761
Soybeans	\$/mt	**	492	391	440	411	394	385	374	376	368	379
Grains	•											
	\$/mt	**	138	194	153	189	201	200	187	187	188	186
Barley	\$/mt	**	193	170	174	174	168	169	167	171	166	164
Maize		**										
Rice, Thailand 5%	\$/mt		423	386	421	417 397	385	374	368 359	373	368 359	363 356
Rice, Thailand 25% Rice, Thailand A1	\$/mt \$/mt		382 425	373 386	402 428	416	372 388	362 376	365	362 369	366	360
Rice, Vietnam 5%	\$/mt		407	352	414	363	351	337	356	342	354	371
	\$/mt		207	205	201	237	215	190	176	181	174	174
Sorghum Wheat, US HRW	\$/mt	**	285	203	258	239	216	183	176	173	174	174
Wheat, US SRW	\$/mt		245	206	239	223	205	196	201	206	203	192
	φ/ΠΙ		240	200	239	223	200	190	201	200	203	192
Other Food												
Bananas, EU	\$/kg		1.04	0.90	0.99	0.92	0.92	0.90	0.88	0.93	0.85	0.86
Bananas, US	\$/kg	**	0.93	0.96	0.90	0.98	0.97	0.95	0.93	0.93	0.93	0.93
Meat, beef	\$/kg	**	4.95	4.42	5.68	4.76	4.47	4.55	3.91	4.10	3.90	3.73
Meat, chicken	\$/kg	**	2.43	2.53	2.51	2.51	2.55	2.55	2.50	2.52	2.50	2.49
Meat, sheep	\$/kg		6.39	5.22	6.05	5.60	5.38	5.07	4.82	4.91	4.83	4.72
Oranges	\$/kg	**	0.78	0.68	0.74	0.70	0.62	0.65	0.73	0.66	0.77	0.77
Shrimp	\$/kg		17.25	14.36	16.08	15.84	15.65	15.43	10.50	11.41	9.96	10.14
Sugar, EU	\$/kg	**	0.43	0.36	0.41	0.37	0.36	0.36	0.36	0.37	0.35	0.36
Sugar, US	\$/kg	**	0.53	0.55	0.55	0.54	0.54	0.54	0.56	0.55	0.57	0.57
Sugar, World	\$/kg	**	0.37	0.30	0.35	0.32	0.29	0.27	0.32	0.31	0.32	0.32

TABLE A.1 Commodity prices

					Q4	Q1	Q2	Q3	Q4	Oct	Nov	Dec
Commodity	Unit		2014	2015	2014		2015			2015	2015	2015
Raw Materials												
Timber												
Logs, Africa	\$/cum		465	389	437	395	387	389	383	393	376	381
Logs, S.E. Asia	\$/cum	**	282	246	260	250	245	244	245	248	243	245
Plywood	¢/		517	451	478	458	450	447	450	455	446	449
Sawnwood, Africa	\$/cum		789	733	758	726	734	743	727	735	729	718
Sawnwood, S.E. Asia	\$/cum	**	898	833	863	826	835	845	827	836	829	817
Woodpulp	\$/mt		877	875	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.83	1.56	1.52	1.52	1.59	1.56	1.55	1.52	1.58	1.55
Rubber, RSS3	\$/kg	**	1.96	1.56	1.62	1.73	1.79	1.46	1.26	1.30	1.22	1.25
Rubber, TSR20	\$/kg		1.71	1.37	1.51	1.42	1.52	1.34	1.20	1.25	1.17	1.17
Fertilizers												
DAP	\$/mt	**	472	459	460	483	469	464	419	442	416	399
Phosphate rock	\$/mt	**	110	117	115	115	115	117	123	123	123	123
Potassium chloride	\$/mt	**	297	303	301	305	307	303	297	300	296	295
TSP	\$/mt	**	388	385	405	400	380	380	380	380	380	380
Urea, E. Europe	\$/mt	**	316	273	315	296	277	268	251	255	257	240
Metals and Minerals												
Aluminum	\$/mt	**	1,867	1,665	1,970	1,802	1,770	1,592	1,494	1,516	1,468	1,497
Copper	\$/mt	**	6,863	5,510	6,632	5,833	6,057	5,267	4,885	5,216	4,800	4,639
Iron ore	\$/dmt	**	96.9	55.8	74.3	63.0	58.3	55.0	47.0	53.0	47.0	41.0
Lead	\$/mt	**	2,095	1,788	2,001	1,810	1,942	1,717	1,682	1,720	1,618	1,707
Nickel	\$/mt	**	16,893	11,863	15,860	14,393	13,056	10,579	9,423	10,317	9,244	8,708
Tin	\$/mt	**	21,899	16,067	19,898	18,370	15,590	15,230	15,077	15,795	14,745	14,692
Zinc	\$/mt	**	2,161	1,932	2,235	2,080	2,192	1,843	1,612	1,724	1,583	1,528
Precious Metals												
Gold	\$/toz	***	1,265	1,160	1,199	1,219	1,193	1,124	1,105	1,159	1,086	1,068
Platinum	\$/toz	***	1,384	1,053	1,228	1,193	1,127	986	908	977	885	861
Silver	\$/toz	***	19.07	15.72	16.47	16.75	16.42	14.91	14.78	15.81	14.45	14.09
Commodity Price Ind	lices (2	010= ⁻	100)									
Energy			118.3	64.9	93.7	67.3	75.5	62.7	54.3	59.7	55.2	47.9
Non-energy			97.0	82.4	92.7	86.7	84.8	80.6	77.6	79.2	77.3	76.3
Agriculture			102.7	89.3	97.7	92.9	90.2	88.0	86.0	86.7	85.9	85.3
Beverages			101.8	93.5	102.4	93.4	93.6	94.0	93.2	92.9	93.6	93.1
Food			107.4	90.8	101.7	96.5	91.6	88.8	86.4	87.6	86.1	85.5
Oils and Meals			109.0	85.2	97.5	91.3	86.7	83.1	79.6	81.8	78.5	78.7
Grains			103.9	88.6	96.9	95.4	89.9	85.7	83.5	84.6	83.6	82.4
Other Food			108.4	100.3	111.7	104.3	99.7	99.2	98.0	98.0	98.4	97.4
Raw Materials			91.9	83.3	85.5	84.0	85.1	83.1	81.2	81.5	81.2	8.08
Timber			104.9	96.1	99.9	95.7	96.2	96.9	95.4	96.5	95.4	94.5
Other Raw Materi-			77.8	69.4	69.7	71.1	73.1	67.9	65.6	65.2	65.8	65.8
Fertilizers			100.5	95.4	102.1	99.3	95.6	94.4	92.3	93.1	93.2	90.6
Metals and Minerals			84.8	66.9	81.4	72.7	72.4	63.9	58.8	62.2	57.9	56.4
Base Metals		****	89.0	73.6	88.5	79.5	79.9	70.0	65.0	68.2	63.8	62.9
Precious Metals Source: See Appendix C			101.1	90.6	94.2	95.6	93.5	87.4	85.9	90.5	84.4	82.8

Source: See Appendix C.

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

TABLE A.2 Price forecast in nominal U.S. dollars

Commodity	Llm!4					Fore	ecasts		
Commodity	Unit	2013	2014	2015	2016	2017	2018	2019	2020
Energy									
Coal, Australia	\$/mt	84.6	70.1	57.5	50.0	51.9	53.9	55.9	58.1
Crude oil, avg, spot	\$/bbl	104.1	96.2	50.8	37.0	48.0	51.4	54.9	58.8
Natural gas, Europe	\$/mmbtu	11.79	10.05	7.26	6.00	6.19	6.40	6.60	6.82
Natural gas, US	\$/mmbtu	3.73	4.37	2.61	2.50	3.00	3.50	3.68	3.88
Natural gas, Japan	\$/mmbtu	15.96	16.04	10.43	8.50	8.75	9.00	9.26	9.53
Non-Energy Agriculture									
Beverages	C/1-~	2.44	3.06	3.14	2.20	3.10	3.00	2.91	2.82
Cocoa Coffee, Arabica	\$/kg	3.08	4.42	3.14	3.20 3.40	3.41	3.42	3.43	3.44
Coffee, robusta	\$/kg	2.08	2.22	1.94	1.80	1.81	1.82	1.83	1.84
Tea, average	\$/kg \$/kg	2.86	2.72	2.71	2.75	2.79	2.82	2.86	2.90
•	φ/κς	2.00	2.12	2.7 1	2.73	2.19	2.02	2.00	2.90
Food									
Oils and Meals	C/mat	044	4 200	1 110	1 100	4 000	4.077	1.000	1.054
Coconut oil Groundnut oil	\$/mt \$/mt	941 1,773	1,280	1,110	1,100	1,088 1,339	1,077 1,380	1,066 1,422	1,054 1,465
Palm oil	\$/mt	857	1,313 821	1,337 622	1,300 600	619	640	660	682
Soybean meal	\$/mt	545	528	395	370	381	392	404	415
Soybean oil	\$/mt	1,057	909	757	775	797	820	844	868
Soybeans	\$/mt	538	492	391	400	412	424	437	449
	ψ/1110	000	702	001	400	712	727	401	110
Grains	C/mat	202	400	101	105	105	100	407	407
Barley	\$/mt	202	138	194	195	195	196	197	197
Maize	\$/mt	259	193	170 386	170 370	175 374	180	185 383	191
Rice, Thailand, 5% Wheat, US, HRW	\$/mt \$/mt	506 312	423 285	203	185	193	379 201	210	387 219
	φ/111ι	312	200	203	100	193	201	210	219
Other Food									
Bananas, EU	\$/kg	0.92	0.93	0.96	0.95	0.95	0.94	0.94	0.94
Meat, beef	\$/kg	4.07	4.95	4.42	3.90	3.93	3.96	4.00	4.03
Meat, chicken	\$/kg	2.29	2.43	2.53	2.50	2.46	2.43	2.40	2.36
Oranges	\$/kg	0.97	0.78	0.68	0.75	0.77	0.79	0.81	0.83
Shrimp Sugar, World	\$/kg	13.84 0.39	17.25 0.37	14.36 0.30	12.00 0.35	12.11 0.35	12.22 0.36	12.32 0.36	12.43 0.36
•	\$/kg	0.39	0.57	0.50	0.33	0.55	0.30	0.30	0.30
Raw Materials									
Timber	0.1	40.4	405	000	222	400	440	400	444
Logs, Africa	\$/cum	464	465	389	398	409	419	430	441
Logs, S.E. Asia Sawnwood, S.E. Asia	\$/cum \$/cum	305 853	282 898	246 833	250 830	259 847	268 865	277 883	287 902
,	φ/Cum	000	090	000	030	047	000	003	902
Other Raw Materials									
Cotton A	\$/kg	1.99	1.83	1.56	1.60	1.66	1.72	1.78	1.84
Rubber, RSS3	\$/kg	2.79	1.96	1.56	1.40	1.48	1.56	1.65	1.75
Tobacco	\$/mt	4,589	4,991	4,941	5,000	4,942	4,884	4,827	4,771
Fertilizers									
DAP	\$/mt	445	472	459	457	455	453	451	449
Phosphate rock	\$/mt	148	110	117	120	119	118	117	115
Potassium chloride	\$/mt	379	297	303	295	297	298	300	302
TSP	\$/mt	382	388	385	380	378	375	373	371
Urea, E. Europe	\$/mt	340	316	273	250	253	256	260	263
Metals and Minerals									
Aluminum	\$/mt	1,847	1,867	1,665	1,550	1,612	1,675	1,742	1,811
Copper	\$/mt	7,332	6,863	5,510	5,000	5,190	5,388	5,593	5,807
Iron ore	\$/dmt	135.4	96.9	55.8	42.0	44.1	46.3	48.6	51.0
Lead	\$/mt	2,140	2,095	1,788	1,775	1,818	1,862	1,907	1,953
Nickel	\$/mt	15,032	16,893	11,863	10,000	10,801	11,665	12,599	13,608
Tin	\$/mt	22,283	21,899	16,067	15,000	15,730	16,495	17,297	18,138
Zinc	\$/mt	1,910	2,161	1,932	1,800	1,858	1,919	1,981	2,046
Precious Metals									
Gold	\$/toz	1,411	1,265	1,160	1,075	1,066	1,058	1,049	1,041
Silver	\$/toz	23.85	19.07	15.72	14.00	14.21	14.42	14.64	14.86
Platinum	\$/toz	1,487	1,384	1,053	950	999	1,051	1,106	1,164

Next update: April 2016.

TABLE A.3 Commodity price forecasts (2010=100)

Commodity	Unit					For	ecasts		
Commodity	Offic	2013	2014	2015	2016	2017	2018	2019	2020
Energy									
Coal, Australia	\$/mt	79.7	66.2	54.4	46.5	47.4	48.5	49.5	50.6
Crude oil, avg, spot	\$/bbl	98.1	90.9	48.0	34.4	43.9	46.2	48.6	51.2
Natural gas, Europe	\$/mmbtu	11.11	9.49	6.87	5.57	5.66	5.75	5.85	5.94
Natural gas, US	\$/mmbtu	3.52	4.13	2.47	2.32	2.74	3.15	3.26	3.38
Natural gas, Japan	\$/mmbtu	15.04	15.15	9.87	7.90	7.99	8.10	8.20	8.31
Non-Energy Agriculture									
Beverages Cocoa	\$/kg	2.30	2.89	2.97	2.97	2.83	2.70	2.57	2.45
Coffee, Arabica	\$/kg	2.90	4.18	3.34	3.16	3.12	3.08	3.04	3.00
Coffee, robusta	\$/kg	1.96	2.09	1.84	1.67	1.66	1.64	1.62	1.61
Tea, average	\$/kg	2.70	2.57	2.56	2.55	2.55	2.54	2.53	2.53
Oils and Meals									
Coconut oil	\$/mt	887	1,209	1,050	1,022	995	969	943	919
Groundnut oil	\$/mt	1,672	1,240	1,265	1,208	1,224	1,241	1,259	1,276
Palm oil			776						594
	\$/mt	808		589	557	566	575	585	
Soybean meal	\$/mt	514	499	374	344	348	353	357	362
Soybean oil	\$/mt	996	859	716	720	729	738	747	756
Soybeans	\$/mt	508	464	370	372	376	381	387	392
Grains	.								
Barley	\$/mt	191	130	184	181	179	176	174	172
Maize	\$/mt	245	182	161	158	160	162	164	166
Rice, Thailand, 5%	\$/mt	477	399	365	344	342	340	339	337
Wheat, US, HRW	\$/mt	294	269	192	172	176	181	186	191
Other Food	A (1	0.07	0.00	0.04	0.00	0.07	0.05	0.00	0.00
Bananas, EU	\$/kg	0.87	0.88	0.91	0.88	0.87	0.85	0.83	0.82
Meat, beef	\$/kg	3.84	4.67	4.19	3.62	3.59	3.57	3.54	3.51
Meat, chicken	\$/kg	2.16	2.29	2.39	2.32	2.25	2.19	2.12	2.06
Oranges	\$/kg	0.91	0.74	0.64	0.70	0.70	0.71	0.72	0.73
Shrimp	\$/kg	13.05	16.29	13.59	11.15	11.07	10.99	10.91	10.84
Sugar, World	\$/kg	0.37	0.35	0.28	0.33	0.32	0.32	0.32	0.32
Timber									
Logs, Africa	\$/cum	437	439	368	370	374	377	381	384
Logs, S.E. Asia	\$/cum	288	266	233	232	236	241	245	250
Sawnwood, S.E. Asia	\$/cum	804	848	789	771	774	778	782	786
Other Raw Materials									
Cotton A	\$/kg	1.88	1.73	1.47	1.49	1.51	1.54	1.58	1.61
Rubber, RSS3	\$/kg	2.63	1.85	1.48	1.30	1.35	1.41	1.46	1.52
Tobacco	\$/mt	4,327	4,714	4,677	4,645	4,517	4,393	4,274	4,158
Fertilizers									
DAP	\$/mt	419	446	434	424	416	408	399	392
Phosphate rock	\$/mt	140	104	111	111	109	106	103	101
Potassium chloride	\$/mt	357	281	287	274	271	268	266	263
TSP	\$/mt	360	367	364	353	345	338	330	323
Urea, E. Europe	\$/mt	321	299	258	232	231	231	230	229
Metals and Minerals									
Aluminum	\$/mt	1,741	1,764	1,576	1,440	1,473	1,507	1,542	1,578
Copper	\$/mt	6,913	6,482	5,216	4,645	4,744	4,847	4,952	5,060
Iron ore	\$/dmt	127.6	91.6	52.8	39.0	40.3	41.6	43.0	44.4
Lead	\$/mt	2,018	1,979	1,692	1,649	1,661	1,675	1,688	1,702
Nickel	\$/mt	14,173	15,955	11,228	9,291	9,871	10,493	11,155	11,859
Tin	\$/mt	21,010	20,683	15,207	13,936	14,376	14,837	15,314	15,807
Zinc	\$/mt	1,801	2,041	1,828	1,672	1,699	1,726	1,754	1,783
Precious Metals		,	, -	,		,	,	,	,
Gold	\$/toz	1,331	1,195	1,098	999	975	952	929	907
Silver	\$/toz	22.49	18.01	14.88	13.01	12.99	12.97	12.96	12.95
Platinum	\$/toz	1,402	1,307	997	883	913	946	979	1,014
i iutiliulii	Ψ/τΟΖ	1,402	1,507	991	000	913	340	313	1,014

Sources and Notes: See Appendix C.

Next update: April 2016.

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

O = = -1!4					Forecasts				
Commodity	2013	2014	2015	2016	2017	2018	2019	2020	
Nominal US dollars (2010=100)									
Energy	127.4	118.3	64.9	48.9	61.5	66.0	70.3	74.9	
Non-energy	101.7	97.0	82.4	79.4	81.1	82.9	84.7	86.7	
Agriculture	106.3	102.7	89.3	88.1	89.5	90.9	92.5	94.0	
Beverages	83.3	101.8	93.5	92.7	91.9	91.1	90.4	89.7	
Food	115.6	107.4	90.8	89.3	91.0	92.7	94.6	96.4	
Oils and meals	115.9	109.0	85.2	83.4	85.7	88.2	90.7	93.4	
Grains	128.2	103.9	88.6	85.7	87.9	90.2	92.7	95.1	
Other food	103.9	108.4	100.3	100.3	100.6	101.0	101.3	101.7	
Raw materials	95.4	91.9	83.3	82.8	84.6	86.4	88.4	90.4	
Timber	102.6	104.9	96.1	96.1	98.4	100.7	103.1	105.6	
Other Raw Materials	87.6	77.8	69.4	68.2	69.5	70.8	72.3	73.8	
Fertilizers	113.7	100.5	95.4	91.7	92.0	92.3	92.5	92.8	
Metals and minerals *	90.8	84.8	66.9	60.1	62.6	65.2	68.0	70.8	
Base Metals **	90.3	89.0	73.6	67.3	70.1	73.0	76.0	79.2	
Precious Metals	115.1	101.1	90.6	83.4	83.1	82.9	82.7	82.4	
Constant 2010 US dollars (2010=100)	deflated by the MU	V Index							
Constant 2010 US dollars (2010=100), o	deflated by the MU 120.1	V Index 111.7	61.4	45.4	56.2	59.4	62.2	65.2	
Energy Non-energy	120.1 95.9	111.7 91.6	78.0	73.7	74.1	74.5	75.0	75.5	
Energy	120.1 95.9 100.2	111.7 91.6 97.0	78.0 84.5	73.7 81.8	74.1 81.8	74.5 81.8	75.0 81.9	75.5 81.9	
Energy Non-energy Agriculture Beverages	120.1 95.9 100.2 78.5	91.6 97.0 96.1	78.0 84.5 88.5	73.7 81.8 86.1	74.1 81.8 84.0	74.5 81.8 82.0	75.0 81.9 80.0	75.5 81.9 78.2	
Energy Non-energy Agriculture Beverages Food	120.1 95.9 100.2 78.5 109.0	111.7 91.6 97.0 96.1 101.4	78.0 84.5 88.5 86.0	73.7 81.8 86.1 82.9	74.1 81.8 84.0 83.2	74.5 81.8 82.0 83.4	75.0 81.9 80.0 83.7	75.5 81.9 78.2 84.0	
Energy Non-energy Agriculture Beverages Food Oils and meals	120.1 95.9 100.2 78.5 109.0 109.3	111.7 91.6 97.0 96.1 101.4 103.0	78.0 84.5 88.5 86.0 80.6	73.7 81.8 86.1 82.9 77.4	74.1 81.8 84.0 83.2 78.4	74.5 81.8 82.0 83.4 79.3	75.0 81.9 80.0 83.7 80.3	75.5 81.9 78.2 84.0 81.4	
Energy Non-energy Agriculture Beverages Food	120.1 95.9 100.2 78.5 109.0	111.7 91.6 97.0 96.1 101.4 103.0 98.1	78.0 84.5 88.5 86.0 80.6 83.9	73.7 81.8 86.1 82.9 77.4 79.6	74.1 81.8 84.0 83.2 78.4 80.4	74.5 81.8 82.0 83.4 79.3 81.2	75.0 81.9 80.0 83.7 80.3 82.0	75.5 81.9 78.2 84.0 81.4 82.9	
Energy Non-energy Agriculture Beverages Food Oils and meals	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3	78.0 84.5 88.5 86.0 80.6 83.9 94.9	73.7 81.8 86.1 82.9 77.4 79.6 93.2	74.1 81.8 84.0 83.2 78.4 80.4 92.0	74.5 81.8 82.0 83.4 79.3 81.2 90.8	75.0 81.9 80.0 83.7 80.3 82.0 89.7	75.5 81.9 78.2 84.0 81.4 82.9 88.6	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers Metals and minerals *	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2 85.6	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9 80.1	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7 90.3 63.4	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2 55.8	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0 58.7	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9 60.2	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9 61.7	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers Metals and minerals * Base Metals **	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2 85.6 85.2	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9 80.1 84.1	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7 90.3 63.4 69.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2 55.8 62.6	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1 57.2 64.1	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0 58.7 65.7	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9 60.2 67.3	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9 61.7 69.0	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers Metals and minerals * Base Metals ** Precious Metals	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2 85.6 85.2	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9 80.1 84.1	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7 90.3 63.4 69.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2 55.8 62.6	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1 57.2 64.1	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0 58.7 65.7	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9 60.2 67.3	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9 61.7 69.0	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers Metals and minerals * Base Metals ** Precious Metals Inflation indices, 2010=100	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2 85.6 85.2 108.5	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9 80.1 84.1 95.5	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7 90.3 63.4 69.7 85.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2 55.8 62.6 77.5	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1 57.2 64.1 76.0	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0 58.7 65.7 74.6	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9 60.2 67.3 73.2	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9 61.7 69.0 71.9	
Energy Non-energy Agriculture Beverages Food Oils and meals Grains Other food Raw materials Timber Other Raw Materials Fertilizers Metals and minerals * Base Metals ** Precious Metals Inflation indices, 2010=100 MUV index ***	120.1 95.9 100.2 78.5 109.0 109.3 120.9 98.0 90.0 96.7 82.6 107.2 85.6 85.2 108.5	111.7 91.6 97.0 96.1 101.4 103.0 98.1 102.3 86.8 99.0 73.5 94.9 80.1 84.1 95.5	78.0 84.5 88.5 86.0 80.6 83.9 94.9 78.9 90.9 65.7 90.3 63.4 69.7 85.7	73.7 81.8 86.1 82.9 77.4 79.6 93.2 76.9 89.3 63.4 85.2 55.8 62.6 77.5	74.1 81.8 84.0 83.2 78.4 80.4 92.0 77.3 89.9 63.5 84.1 57.2 64.1 76.0	74.5 81.8 82.0 83.4 79.3 81.2 90.8 77.8 90.6 63.7 83.0 58.7 65.7 74.6	75.0 81.9 80.0 83.7 80.3 82.0 89.7 78.2 91.3 64.0 81.9 60.2 67.3 73.2	75.5 81.9 78.2 84.0 81.4 82.9 88.6 78.8 92.0 64.3 80.9 61.7 69.0 71.9	

Source: See Appendix C

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

Next update: April 2016.



APPENDIX B

Commodity Balances

Energy

- Coal
- Crude oil
- Natural gas

Agriculture

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

Metals

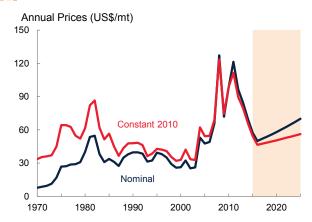
- Aluminum
- Copper
- Lead
- Nickel
- Tin
- Zinc

Precious Metals

- Gold
- Silver

Coal





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

Note: Last observation is December 2015.

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

Source: BP Statistical Review.

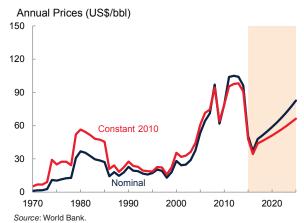
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

Crude oil



Source: World Bank.

Note: Last observation is December 2015.

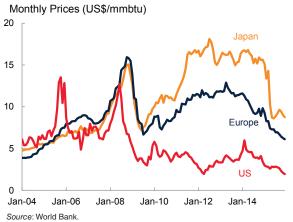


Note: 2015-25 are forecasts.

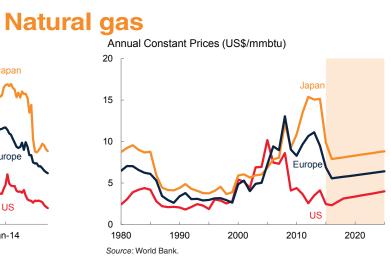
	1970	1980	1990	2000	2010	2011	2012	2013	2014
roduction (thousand I	barrels per d	ay)							
United States	11,297	10,170	8,914	7,732	7,556	7,861	8,904	10,069	11,64
Saudi Arabia	3,851	10,270	7,105	9,470	10,075	11,144	11,635	11,393	11,50
Russian Federation	n/a	n/a	10,342	6,583	10,366	10,516	10,640	10,777	10,83
Canada	1,473	1,764	1,968	2,703	3,332	3,515	3,740	3,977	4,29
China	616	2,122	2,778	3,257	4,077	4,074	4,155	4,216	4,24
United Arab Emirates	762	1,745	2,283	2,660	2,895	3,325	3,406	3,648	3,71
Iran, Islamic Rep.	3,848	1,479	3,270	3,852	4,352	4,373	3,742	3,525	3,61
Iraq	1,549	2,658	2,149	2,613	2,490	2,801	3,116	3,141	3,28
Kuwait	3,036	1,757	964	2,244	2,562	2,915	3,172	3,135	3,12
Mexico	487	2,129	2,941	3,456	2,959	2,940	2,911	2,875	2,78
Venezuela, RB	3,754	2,228	2,244	3,097	2,838	2,734	2,704	2,687	2,71
Nigeria	1,084	2,059	1,870	2,159	2,509	2,450	2,395	2,302	2,36
Brazil	167	188	650	1,271	2,137	2,193	2,149	2,114	2,34
Qatar	363	476	434	853	1,655	1,850	1,968	1,998	1,98
Norway	0	528	1,716	3,346	2,136	2,040	1,917	1,838	1,89
Angola	103	150	475	746	1,863	1,726	1,784	1,799	1,71
Kazakhstan	n/a	n/a	571	740	1,672	1,684	1,662	1,720	1,70
Algeria	1,052	1,139	1,347	1,549	1,689	1,642	1,537	1,485	1,52
Colombia	226	131	446	687	786	915	944	1,004	99
Oman	332	285	695	961	865	885	918	942	94
India	140	193	715	726	882	916	906	906	89
Indonesia	854	1,577	1,539	1,456	1,003	952	918	882	85
United Kingdom	4	1,676	1,933	2,714	1,361	1,116	949	867	85
Others	n/a	n/a	8,037	10,051	11,128	9,413	9,977	9,280	8,85
World	48,056	62,959	65,385	74,925	83,190	83,980	86,150	86,579	88,67
onsumption (thousan									
United States	14,710	17,062	16,988	19,701	19,180	18,882	18,490	18,961	19,03
China	556	1,690	2,320	4,766	9,266	9,791	10,231	10,664	11,05
Japan	3,876	4,905	5,240	5,542	4,442	4,439	4,688	4,521	4,29
India	391	644	1,213	2,261	3,319	3,488	3,685	3,727	3,84
Brazil	523	1,163	1,478	2,056	2,701	2,813	2,860	3,048	3,22
Russian Federation	n/a	n/a	5,042	2,542	2,895	3,096	3,137	3,179	3,19
Saudi Arabia	408	607	1,158	1,578	2,793	2,838	2,991	3,000	3,18
Korea, Rep.	162	476	1,042	2,263	2,370	2,394	2,458	2,455	2,45
Germany	2,774	3,020	2,689	2,746	2,445	2,369	2,356	2,408	2,37
Canada	1,472	1,898	1,747	2,043	2,316	2,404	2,372	2,383	2,37
Iran, Islamic Rep.	222	591	1,070	1,457	1,874	1,910	1,928	2,038	2,02
Mexico	412	1,048	1,580	1,965	2,014	2,043	2,063	2,020	1,94
Indonesia	138	396	653	1,137	1,458	1,567	1,599	1,615	1,64
France	1,867	2,221	1,895	1,994	1,763	1,730	1,676	1,664	1,61
United Kingdom	2,030	1,647	1,754	1,704	1,588	1,532	1,520	1,494	1,50
Others	n/a	n/a	20,868	23,112	27,442	27,679	27,789	28,065	28,32
World	45,348	61,233	66,737	76,868	87,867	88,974	89,846	91,243	92,08

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.



Note: Last observation is December 2015.



Note: 2015-25 are forecasts.

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

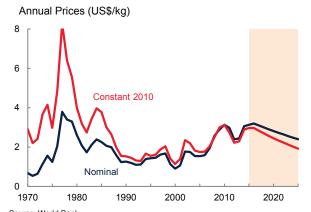
Source: BP Statistical Review. Note: n/a implies data not available.

Cocoa



Source: World Bank.

Note: Last observation is December 2015.



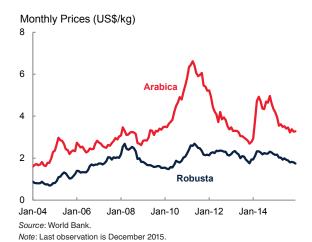
Source: World Bank. Note: 2015-25 are forecasts.

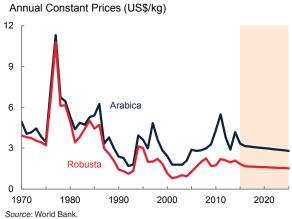
	1970/71	1980/81	1990/91	2000/01	2010/11	2011/12	2012/13	2013/14	2014/15
Production (thous	and metric	tons)							
Côte d'Ivoire	179.6	417.2	804.4	1,212.4	1,511.3	1,485.9	1,449.0	1,746.2	1,750.0
Ghana	406.0	258.0	293.4	395.0	1,024.6	879.3	835.5	896.9	695.7
Indonesia	1.7	12.4	150.0	385.0	440.0	440.0	410.0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

Source: Quarterly Bulletin of Cocoa Statistics.

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

Coffee





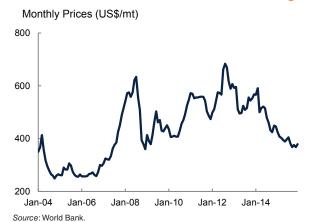
Note: 2015-25 are forecasts.

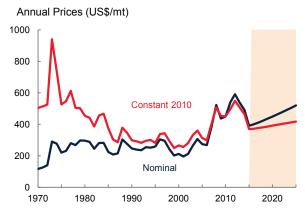
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/1
oduction (thousan	d 60kg bad	gs)							
Brazil	11,000	21,500	31,000	34,100	54,500	57,600	57,200	54,300	49,40
Vietnam	56	77	1,200	15,333	19,415	26,500	29,833	27,400	29,30
Colombia	8,000	13,500	14,500	10,500	8,525	9,927	12,075	13,300	13,40
Indonesia	2,330	5,365	7,480	6,495	9,325	10,500	9,500	8,800	10,60
Ethiopia	2,589	3,264	3,500	2,768	6,125	6,325	6,345	6,475	6,50
Honduras	545	1,265	1,685	2,821	3,975	4,725	4,400	5,000	5,90
India	1,914	1,977	2,970	5,020	5,035	5,303	5,075	5,440	5,30
Uganda	2,667	2,133	2,700	3,097	3,212	3,600	3,850	3,550	3,80
Mexico	3,200	3,862	4,550	4,800	4,000	4,650	3,950	3,300	3,40
Guatemala	1,965	2,702	3,282	4,564	3,960	4,010	3,515	3,365	3,31
Peru	1,114	1,170	1,170	2,824	4,100	4,300	4,250	2,900	3,00
Nicaragua	641	971	460	1,610	1,740	1,925	2,000	2,100	2,20
Malaysia	66	88	75	700	1,100	1,400	1,500	1,750	1,80
Costa Rica	1,295	2,140	2,565	2,502	1,575	1,675	1,450	1,400	1,35
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,750	1,675	1,400	1,32
Tanzania, United Rep.	909	1,060	763	809	1,050	1,180	800	800	90
Thailand	19	201	785	1,692	850	850	850	900	90
Papua New Guinea	401	880	964	1,041	865	825	855	810	85
Kenya	999	1,568	1,455	864	710	660	850	780	84
Others	15,496	16,361	15,777	10,577	8,755	7,053	5,698	5,765	6,03
World	59,202	86,174	100,181	117,217	140,417	154,758	155,671	149,535	150,12
onsumption (thous	and 60kg l	bags)							
European Union	n/a	n/a	n/a	n/a	41,350	43,275	41,475	43,630	43,85
United States	n/a	n/a	n/a	n/a	22,383	23,027	23,811	23,577	24,06
Brazil	8,890	7,975	9,000	13,100	19,420	20,110	20,210	20,330	20,33
Japan	n/a	n/a	n/a	n/a	7,015	7,505	7,750	7,825	8,12
Canada	n/a	n/a	n/a	n/a	4,245	4,230	4,605	4,505	4,80
Philippines	496	432	810	900	2,825	4,405	3,630	4,265	4,60
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,130	4,230	4,050	4,07
Indonesia	888	1,228	1,295	1,335	1,690	2,670	2,790	3,050	3,09
Ethiopia	1,170	1,600	1,900	1,667	2,860	3,055	3,120	2,985	2,97
Vietnam	31	35	100	417	1,337	1,825	2,008	2,217	2,60
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	1,825	2,160	2,305	2,35
Algeria	n/a	n/a	n/a	n/a	1,815	1,945	2,300	2,155	2,28
Mexico	1,512	1,500	1,400	978	2,470	2,030	2,331	1,776	2,17
China	n/a	n/a	n/a	n/a	965	1,560	1,705	1,940	1,92
Australia	n/a	n/a	n/a	n/a	1,445	1,660	1,615	1,775	1,80
Thailand	93	118	160	500	683	1,130	1,260	1,700	1,55
Switzerland	n/a	n/a	n/a	n/a	1,570	1,500	1,410	1,445	1,45
Colombia	1,349	1,825	1,615	1,530	1,120	1,200	1,300	1,515	1,35
India	665	887	1,224	959	1,231	1,100	1,200	1,200	1,25
Others	n/a	n/a	n/a	n/a	13,698	14,089	13,843	13,276	13,63
Others									

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

Note: n/a implies data not available.

Soybeans





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

Note: Last observation is December 2015.

1970/71 1980/81 1990/91 2000/01 2010/11 2012/13 2013/14 2014/15 2015/16 Production (million metric tons) 90.7 82.8 106.9 107.0 **United States** 30.7 48.9 52.4 75.1 91.4 Brazil 0.0 15.2 15.8 39.5 75.3 82.0 86.7 96.2 100.0 Argentina 0.0 3.5 11.5 27.8 49.0 49.3 53.5 61.4 57.0 China 8.7 7.9 11.0 15.4 15.1 13.1 12.0 12.2 12.0 Paraguay 0.1 0.6 1.3 3.5 7.1 8.2 8.2 8.1 8.8 India 0.0 0.4 2.6 5.3 10.1 12.2 9.5 8.7 8.0 Canada 0.3 0.7 1.3 2.7 4.4 5.1 5.4 6.0 6.2 Ukraine n/a n/a 0.1 0.1 1.7 2.4 2.8 3.9 3.8 Uruguay 0.0 0.0 0.0 0.0 1.9 3.7 3.3 3.1 3.1 0.0 0.4 Bolivia 0.0 1.2 2.3 2.6 2.4 2.7 3.1 Others 2.4 3.5 6.8 7.8 9.7 10.0 7.9 5.4 7.5 264.3 World 42.1 80.9 104.3 175.8 268.8 282.9 318.8 319.0 **Crushings (million metric tons)** 3.9 18.9 55.0 65.0 68.9 74.5 80.7 China 1.5 1.5 **United States** 20.7 27.8 32.3 46.0 47.2 51.0 51.4 44.6 44.9 Argentina 0.0 0.9 7.0 17.3 37.6 33.6 36.2 40.2 42.9 Brazil 0.0 13.8 14.2 22.7 36.3 35.2 36.9 39.9 40.0 European Union 7.3 14.1 13.0 16.8 12.4 13.2 13.4 14.2 14.8 India 0.0 0.4 2.4 4.5 9.3 9.9 8.3 7.0 6.5 Mexico 0.3 1.5 1.9 4.5 3.6 3.7 4.0 4.2 4.4 Paraguay 0.1 0.0 0.3 0.9 1.6 3.0 3.4 3.7 4.1 4.0 Russian Federation n/a n/a 0.4 0.4 2.2 2.4 3.5 3.9 Bolivia 0.0 0.0 0.3 0.9 1.8 2.2 2.3 2.5 2.7 Others 12.7 23.8 24.1 15.0 16.5 16.1 17.4 21.7 24.0 World 42.5 83.9 99.7 146.4 221.2 230.1 241.3 262.7 275.3 **Exports (million metric tons)** 2.5 30.0 41.9 46.8 50.6 57.0 Brazil 0.0 1.8 15.5 19.7 44.6 46.0 **United States** 11.8 15.2 27.1 41.0 36.1 50.2 0.0 2.7 7.3 9.2 7.8 10.6 11.8 Argentina 4.5 7.7 5.2 4.6 Paraguay 0.0 0.6 1.0 2.5 5.5 4.8 4.4 Canada 0.0 0.1 0.2 0.7 2.9 3.5 3.5 3.9 4.2 Others 0.5 0.4 2.1 0.7 6.0 5.3 6.2 3.4 6.4 World 12.3 25.3 25.4 53.8 91.7 100.8 112.8 126.0 129.8 Imports (million metric tons) 52.3 80.5 0.5 0.0 13.2 59.9 70.4 78.4 China 0.0 13.6 13.2 17.7 12.5 12.5 13.3 13.4 13.7 European Union 7.4 0.1 1.4 3.5 3.4 3.8 3.8 4.1 Mexico 1.4 4.4 3.2 4.2 4.4 4.8 2.9 2.8 2.9 3.0 2.9 Japan Taiwan, China 0.5 1.1 2.2 2.3 2.5 2.3 2.3 2.5 2.6 Turkey 0.0 0.0 0.0 0.4 1.4 1.2 1.6 2.2 2.4 Thailand 0.0 0.0 0.0 1.3 2.1 1.9 1.8 2.4 2.4 Others 8.8 19.0 17.6 9.0 11.6 11.9 15.6 16.5 18.7 World 20.0 39.8 38.8 53.1 88.8 95.9 111.8 122.2 127.2

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

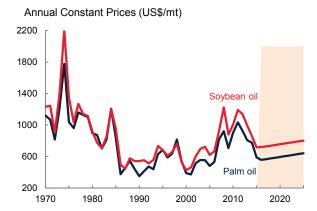
Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

Palm oil and Soybean oil



Source: World Bank.

Note: Last observation is December 2015.



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

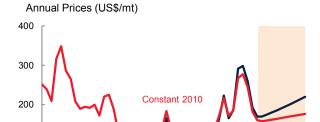
	Tibel 2015.								
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/1
Palm oil: production	(thousand	metric tor	ıs)						
Indonesia	248	752	2,650	8,300	23,600	28,500	30,500	33,000	33,00
Malaysia	589	2,692	6,031	11,937	18,211	19,321	20,161	19,879	20,50
Thailand	0	19	200	580	1,832	2,135	2,000	1,800	2,20
Colombia	36	80	252	520	753	974	1,041	1,110	1,13
Nigeria	432	520	600	730	971	970	970	970	97
Papua New Guinea	0	45	145	336	488	520	500	520	58
Ecuador	5	44	150	222	380	540	565	485	51
Ghana	21	19	24	108	426	471	493	495	50
Honduras	0	18	64	148	320	425	460	470	49
Guatemala	0	0	6	124	231	365	434	448	47
Others	591	707	912	1,234	2,027	2,201	2,259	2,255	2,32
World	1,922	4,896	11,034	24,239	49,239	56,422	59,383	61,432	62,67
Palm oil: consumpti	on (thousai	nd metric t	ons)						
India	1	431	259	4,100	7,090	8,250	8,412	9,009	9,92
Indonesia	29	561	1,330	3,263	6,414	7,852	9,020	7,620	8,62
European Union	595	607	1,509	2,790	5,110	6,560	6,790	6,700	6,85
China	53	16	1,194	2,028	5,797	6,389	5,669	5,726	5,75
Malaysia	8	420	914	1,571	2,204	2,451	2,868	2,950	3,28
Pakistan	1	231	800	1,245	2,077	2,285	2,490	2,820	3,18
Others	1,707	3,104	6,658	8,618	19,125	21,363	22,688	23,730	24,79
World	2,394	5,370	12,664	23,615	47,817	55,150	57,937	58,555	62,40
	,	•	,	_0,0.0	,•	00,.00	0.,00.	00,000	0_,
Soybean oil: produc	-		-	2.240	0.040	44 606	40.005	10.047	11.15
China	181	183	599	3,240	9,840	11,626	12,335	13,347	14,45
United States	3,749	5,112	6,082	8,355	8,568	8,990	9,131	9,706	9,94
Argentina	0	158	1,179	3,190	7,181	6,364	6,785	7,687	8,15
Brazil	n/a	2,601	2,669	4,333	6,970	6,760	7,070	7,660	7,68
European Union	1,260	2,478	2,317	3,033	2,362	2,501	2,553	2,698	2,81
India	2	69	425	805	1,646	1,752	1,478	1,245	1,15
Paraguay	10	6	56	174	300	564	640	697	78
Mexico	52	255	330	795	648	653	720	745	78
Others	2,205	4,191	4,425	2,888	3,835	3,890	4,310	5,206	5,70
World	7,459	15,053	18,082	26,813	41,350	43,100	45,022	48,991	51,45
Soybean oil: consun	nption (tho	usand met	ric tons)						
China	179	256	1,055	3,542	11,409	12,545	13,657	14,126	15,22
United States	2,854	4,134	5,506	7,401	7,506	8,522	8,576	8,616	8,89
Brazil	n/a	1,490	2,075	2,932	5,205	5,534	5,705	6,275	6,36
India	79	708	445	2,080	2,610	2,950	3,300	4,050	4,70
Argentina	0	56	101	247	2,520	2,275	2,729	2,601	2,44
European Union	1,170	1,926	1,879	2,186	2,530	1,908	1,970	2,000	2,00
Mexico	52	305	404	863	840	860	890	1,001	1,02
Iran, Islamic Rep.	95	343	431	873	620	600	630	720	80
Others	2,699	5,120	5,417	6,335	7,351	7,430	7,719	8,588	9,12
World	7,128	14,338	17,313	26,459	40,591	42,624	45,176	47,977	50,56

Source: U.S. Department of Agriculture (January 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.

Maize





Nominal

1990

2000

2010

2020

Source: World Bank.

1980

100

0

1970

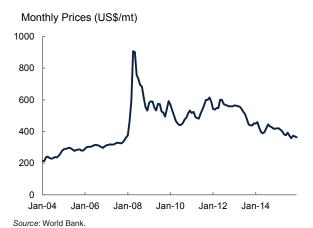
Source: World Bank.

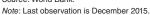
Note: Last observation is	December 2015.				Note: 2015-25 a	are forecasts.			
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million	metric tons)							
United States	105.5	168.6	201.5	251.9	315.6	273.2	351.3	361.1	345.5
China	33.0	62.6	96.8	106.0	177.2	205.6	218.5	215.6	224.6
Brazil	14.1	22.6	24.3	41.5	57.4	81.5	80.0	85.0	81.5
European Union	29.8	42.5	36.6	51.9	58.3	58.9	64.6	75.8	57.8
Argentina	9.9	12.9	7.7	15.4	25.2	27.0	26.0	26.5	25.6
Ukraine	n/a	n/a	4.7	3.8	11.9	20.9	30.9	28.5	23.5
Mexico	8.9	10.4	14.1	17.9	21.1	21.6	22.9	25.5	23.5
India	7.5	7.0	9.0	12.0	21.7	22.3	24.3	23.7	21.0
Canada	2.6	5.8	7.1	7.0	12.0	13.1	14.2	11.5	13.6
Russian Federation	n/a	n/a	2.5	1.5	3.1	8.2	11.6	11.3	13.0
Indonesia	2.8	4.0	5.0	5.9	6.8	8.5	9.1	8.8	9.6
South Africa	8.6	14.9	8.6	8.0	10.9	12.4	14.9	10.8	8.0
Philippines	2.0	3.1	5.1	4.5	7.3	7.3	7.5	7.7	7.8
Others	73.1	96.9	95.6	64.4	107.0	109.2	115.6	116.8	113.0
World	297.9	451.3	518.6	591.8	835.5	869.5	991.4	1,008.5	967.9
Stocks (million met	ric tons)								
China	8.9	42.8	82.8	102.4	49.4	67.6	81.3	100.5	113.5
United States	16.8	35.4	38.6	48.2	28.6	20.9	31.3	44.0	45.8
Brazil	2.0	1.3	8.0	2.7	6.3	9.2	14.0	10.1	7.7
European Union	2.3	4.8	3.7	3.2	5.2	5.1	6.8	9.3	6.1
Iran, Islamic Rep.	n/a	0.1	0.0	0.9	2.8	3.2	4.5	5.8	5.0
Others	8.4	22.9	19.1	17.8	30.7	26.7	36.7	37.6	30.9
World	38.4	107.4	145.1	175.3	123.1	132.6	174.6	207.2	208.9
Exports (million me	tric tons)								
United States	12.9	60.7	43.9	49.3	46.5	18.5	48.8	47.4	43.2
Brazil	0.9	0.0	0.0	6.3	8.4	24.9	21.0	32.5	25.5
Argentina	6.4	9.1	4.0	9.7	16.3	18.7	17.1	17.5	16.0
Ukraine	n/a	n/a	0.4	0.4	5.0	12.7	20.0	19.7	15.5
Russian Federation	n/a	n/a	0.4	0.0	0.0	1.9	4.2	3.2	3.8
Paraguay	0.0	0.0	0.0	0.6	1.6	2.8	2.4	2.9	2.3
Serbia	n/a	n/a	n/a	n/a	2.0	0.6	1.7	3.0	1.7
Others	11.9	10.5	9.8	10.5	11.4	14.9	15.9	11.7	8.7
World	32.2	80.3	58.4	76.7	91.3	95.1	131.1	137.8	116.7
Imports (million me	tric tons)								
European Union	18.9	26.6	5.7	3.7	7.4	11.4	16.0	8.8	16.0
Japan	5.2	14.0	16.3	16.3	15.6	14.4	15.1	14.7	14.7
Mexico	0.1	3.8	1.9	6.0	8.3	5.7	11.0	11.3	11.0
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	8.2	10.4	10.2	10.0
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	5.1	8.7	7.8	8.0
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	3.7	5.5	6.2	4.5
Colombia	0.0	0.1	0.0	1.9	3.5	3.3	4.4	4.5	4.5
Others	22.6	52.6	31.9	31.7	40.4	48.1	52.9	59.5	55.9
World	47.3	100.9	64.3	74.9	92.6	99.8	123.9	122.9	124.6

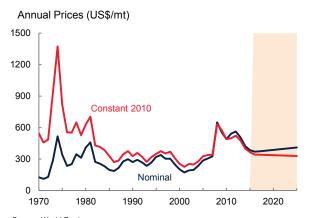
Source: U.S. Department of Agriculture (January 2016 update).

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.

Rice







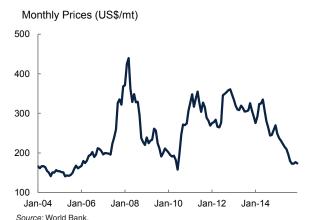
Source: World Bank.
Note: 2015-25 are forecasts

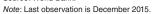
Note: Last observation is Dec	cember 2015.			No	ote: 2015-25 are f	orecasts.			
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million	metric tons	s)							
China	77.0	97.9	132.5	131.5	137.0	143.0	142.5	144.6	145.8
India	42.2	53.6	74.3	85.0	96.0	105.2	106.6	104.8	100.0
Indonesia	13.1	22.3	29.0	33.0	35.5	36.6	36.3	35.6	36.3
Bangladesh	11.1	13.9	17.9	25.1	31.7	33.8	34.4	34.5	34.6
Vietnam	6.4	7.7	12.4	20.5	26.4	27.5	28.2	28.2	28.2
Thailand	9.0	11.5	11.3	17.1	20.3	20.2	20.5	18.8	16.4
Burma	5.1	6.7	7.9	10.8	11.1	11.7	12.0	12.6	12.2
Philippines	3.4	5.0	6.4	8.1	10.5	11.4	11.9	11.9	11.5
Brazil	3.7	5.9	6.8	6.9	9.3	8.0	8.3	8.5	8.0
Japan	11.5	8.9	9.6	8.6	7.8	7.9	7.9	7.8	7.9
Pakistan	2.2	3.1	3.3	4.8	4.8	5.5	6.8	7.0	6.9
United States	2.8	4.8	5.1	5.9	7.6	6.3	6.1	7.1	6.1
Cambodia	2.5	1.1	1.6	2.5	4.2	4.7	4.7	4.7	4.4
Others	22.9	27.6	33.3	39.4	48.3	50.5	52.4	52.2	51.9
World	213.0	269.9	351.4	399.3	450.4	472.5	478.5	478.3	470.1
Stocks (million met	tric tons)								
China	11.0	28.0	94.0	93.0	42.6	46.8	46.8	47.7	47.7
India	6.0	6.5	14.5	25.1	23.5	25.4	22.8	17.7	11.2
Thailand	1.2	2.0	0.9	2.2	5.6	12.8	11.7	10.1	5.0
Indonesia	0.6	3.0	2.1	4.6	7.1	6.5	5.5	3.9	3.9
Japan	6.1	4.0	1.0	2.6	2.9	2.9	3.1	3.2	3.4
Philippines	0.6	1.5	1.8	2.8	2.5	1.5	1.7	2.2	2.5
Others	3.4	7.6	12.4	16.4	15.9	14.6	15.9	19.2	16.2
World	28.8	52.6	126.7	146.7	100.0	110.5	107.5	103.9	89.7
Exports (million me	etric tons)								
Thailand	1.6	3.0	4.0	7.5	10.6	6.7	11.0	9.2	10.3
India	0.0	0.9	0.7	1.7	2.8	10.9	10.1	11.9	8.5
Vietnam	0.0	0.0	1.0	3.5	7.0	6.7	6.3	6.5	7.3
Pakistan	0.2	1.2	1.3	2.4	3.4	3.6	3.2	4.0	4.6
United States	1.5	3.1	2.3	2.6	3.5	3.4	3.0	3.2	3.2
Others	5.2	4.2	2.8	6.2	7.7	8.1	8.1	8.2	8.2
World	8.5	12.4	12.1	24.0	35.1	39.3	41.7	43.0	42.2
mports (million me	etric tons)								
China	0.0	0.2	0.1	0.3	0.5	3.1	4.0	4.3	4.7
Nigeria	0.0	0.4	0.2	1.3	2.4	2.8	2.8	3.5	2.5
Philippines	0.0	0.0	0.4	1.4	1.3	1.4	1.2	1.8	2.0
Indonesia	0.5	0.5	0.2	1.5	3.1	0.7	1.2	1.1	2.0
Iran, Islamic Rep.	0.1	0.6	0.6	0.8	2.0	2.1	1.6	1.4	1.6
Saudi Arabia	0.2	0.4	0.5	1.0	1.1	1.3	1.4	1.5	1.6
European Union	0.9	0.5	0.7	1.2	1.4	1.4	1.5	1.7	1.5
Iraq	0.1	0.4	0.3	1.0	1.2	1.4	1.0	1.1	1.2
Others	6.8	8.8	8.3	13.7	20.0	22.4	23.6	24.0	22.8
World	8.6	11.8	11.3	22.1	33.0	36.6	38.4	40.4	39.9

Source: U.S. Department of Agriculture (January 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.

Wheat







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

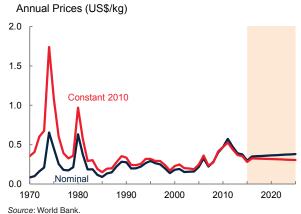
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million r	netric tons)							
European Union	62.5	93.3	125.0	132.7	136.7	133.9	144.6	156.5	158.0
China	29.2	55.2	98.2	99.6	115.2	121.0	121.9	126.2	130.2
India	20.1	31.8	49.9	76.4	80.8	94.9	93.5	95.9	88.9
Russian Federation	n/a	n/a	49.6	34.5	41.5	37.7	52.1	59.1	61.0
United States	36.8	64.8	74.3	60.6	58.9	61.3	58.1	55.1	55.8
Canada	9.0	19.3	32.1	26.5	23.3	27.2	37.5	29.4	27.6
Ukraine	n/a	n/a	30.4	10.2	16.8	15.8	22.3	24.8	27.0
Australia	7.9	10.9	15.1	22.1	27.4	22.9	25.3	23.7	26.0
Pakistan	7.3	10.9	14.4	21.1	23.3	23.5	24.2	26.0	25.5
Turkey	8.0	13.0	16.0	18.0	17.0	16.0	18.8	15.3	19.5
Kazakhstan	n/a	n/a	16.2	9.1	9.6	9.8	13.9	13.0	14.0
Iran, Islamic Rep.	3.8	5.9	8.0	8.1	13.5	13.8	14.5	13.0	14.0
Argentina	4.9	7.8	11.0	16.3	17.2	9.3	10.5	12.5	10.5
Egypt, Arab Rep.	1.5	1.8	4.3	6.4	7.2	8.5	8.3	8.3	8.1
Others	178.0	214.5	169.4	41.7	60.9	62.7	69.9	67.2	69.3
World	369.1	529.2	713.8	583.3	649.3	658.3	715.4	725.9	735.4
Stocks (million metri	ic tons)								
China	7.2	31.7	49.9	91.9	59.1	54.0	65.3	74.1	87.3
United States	22.4	26.9	23.6	23.8	23.5	19.5	16.1	20.5	25.6
European Union	8.6	13.0	22.5	17.9	11.9	10.7	9.9	13.5	19.3
India	5.0	4.0	5.8	21.5	15.4	24.2	17.8	17.2	11.9
Iran, Islamic Rep.	0.7	1.2	3.2	2.9	2.9	5.1	7.2	7.8	7.3
Russian Federation	n/a	n/a	16.4	1.5	13.7	5.0	5.2	6.3	7.1
Others	45.2	48.8	72.2	47.0	72.1	58.6	72.5	73.4	73.5
World	89.1	125.6	193.7	206.5	198.7	177.0	194.0	212.8	232.0
Exports (million met	ric tons)								
European Union	6.7	17.5	23.8	15.7	23.1	22.8	32.0	35.4	32.5
Russian Federation	n/a	n/a	1.2	0.7	4.0	11.3	18.6	22.8	23.5
United States	20.2	41.2	29.1	28.9	35.1	27.5	32.0	23.2	21.8
Canada	11.8	16.3	21.7	17.3	16.6	19.0	23.3	24.1	20.5
Australia	9.1	9.6	11.8	15.9	18.6	18.6	18.6	16.6	18.0
Ukraine	n/a	n/a	2.0	0.1	4.3	7.2	9.8	11.3	15.5
Others	15.3	23.1	38.0	22.6	31.0	31.0	31.7	31.0	29.8
World	63.2	107.6	127.7	101.3	132.7	137.4	165.9	164.4	161.6
mports (million met	ric tons)								
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	8.3	10.2	11.1	11.5
Indonesia	0.5	1.2	2.0	4.1	6.6	7.1	7.4	7.5	8.1
Algeria	0.6	2.3	4.4	5.6	6.5	6.5	7.5	7.3	7.7
Brazil	1.7	3.9	4.4	7.2	6.7	7.4	7.1	5.4	6.3
European Union	19.6	10.4	3.7	3.5	4.6	5.3	4.0	6.0	6.0
Japan	4.8	5.8	5.6	5.9	5.9	6.6	6.1	5.9	5.8
Others	45.3	70.8	76.9	67.0	91.1	104.2	116.2	115.8	114.3
World	75.4	99.9	102.7	99.3	132.0	145.4	158.4	158.8	159.7

Source: U.S. Department of Agriculture (January 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.

Sugar





Note: 2015-25 are forecasts.

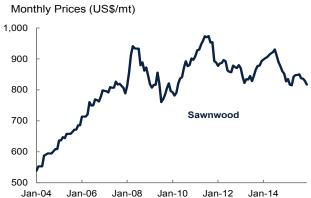
Note: Last observation is December 2015.	

	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (million m	etric tons)								
Brazil	5.1	8.5	7.9	17.1	38.4	38.6	37.8	36.0	35.0
India	4.5	6.5	13.7	20.5	26.6	27.3	26.6	30.2	28.5
European Union	15.4	19.0	23.2	22.1	15.9	16.7	16.0	16.8	16.1
Thailand	0.5	1.7	4.0	5.1	9.7	10.0	11.3	10.8	10.8
China	2.1	3.2	6.8	6.8	11.2	14.0	14.3	11.0	10.6
United States	5.6	5.6	6.3	8.0	7.1	8.1	7.7	7.8	8.0
Mexico	2.5	2.5	3.9	5.2	5.5	7.4	6.4	6.3	6.4
Pakistan	0.0	0.9	2.1	2.6	3.9	5.0	5.6	5.2	5.4
Australia	2.7	3.3	3.6	4.2	3.7	4.3	4.4	4.7	5.0
Russian Federation	n/a	n/a	2.6	1.6	3.0	5.0	4.4	4.4	4.7
Guatemala	0.2	0.5	1.0	1.6	2.0	2.8	2.9	2.9	3.0
Turkey	0.6	0.9	1.9	2.8	2.3	2.1	2.3	2.1	2.3
Others	46.5	54.8	60.6	55.3	33.0	36.3	35.9	36.9	36.3
World	85.7	107.6	137.6	152.9	162.2	177.6	175.6	175.1	172.1
Stocks (million metric	tons)								
India	1.8	1.1	3.6	12.0	6.3	9.4	8.2	9.9	8.9
China	0.3	0.7	1.4	1.0	1.6	6.8	8.8	7.3	5.8
Thailand	0.0	0.2	0.2	0.6	3.0	3.6	5.3	5.5	4.9
United States	2.9	1.4	1.4	2.0	1.3	2.0	1.6	1.6	1.7
Pakistan	0.0	0.1	0.3	0.4	1.5	0.9	1.3	1.2	1.6
Mexico	0.7	0.7	2.4	1.5	0.8	1.5	0.9	0.9	1.0
Others	14.4	13.4	13.2	22.4	15.1	18.3	17.7	17.1	15.6
World	20.2	17.6	22.4	39.9	29.5	42.5	43.8	43.6	39.6
Exports (million metric tor									
Brazil	1.2	2.3	1.3	7.7	25.8	27.7	26.2	24.0	23.8
Thailand	0.2	1.0	2.7	3.4	6.6	6.7	7.2	8.0	8.8
Australia	1.8	2.6	2.8	3.1	2.8	3.1	3.2	3.6	3.7
India	0.3	0.1	0.2	1.4	3.9	1.3	2.8	2.4	2.5
Guatemala	0.1	0.2	0.7	1.2	1.5	1.9	2.1	2.2	2.4
European Union	2.7	6.5	8.1	7.3	1.1	1.7	1.6	1.6	1.5
Others	17.7	22.2	26.1	21.6	12.2	13.2	14.6	12.4	12.1
World	24.0	34.9	42.0	45.6	53.9	55.5	57.6	54.1	54.7
Imports (million metri	c tons)								
China	0.4	1.1	1.1	1.1	2.1	3.8	4.3	5.1	5.5
Indonesia	0.1	0.6	0.2	1.6	3.1	3.6	3.6	3.1	3.2
United States	4.8	4.4	2.6	1.4	3.4	2.9	3.4	3.2	3.1
European Union	5.4	3.8	4.1	3.3	3.8	3.8	3.3	2.6	2.8
United Arab Emirates	0.0	0.1	0.1	1.1	2.0	2.6	2.1	2.4	2.5
Malaysia	0.0	0.5	0.9	1.3	1.8	2.0	1.9	2.1	2.1
Bangladesh	0.0	0.0	0.0	0.8	1.5	1.5	2.1	2.0	2.1
Korea, Rep.	0.0	0.8	1.2	1.6	1.7	1.8	1.9	1.9	1.9
Others	12.0	20.8	25.9	31.4	29.7	30.0	28.7	28.2	29.0
World	22.7	32.0	36.2	43.6	49.1	52.0	51.2	50.4	52.2

Source: U.S. Department of Agriculture (January 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.

Industrial roundwood and Sawnwood



Source: World Bank

Note: Last observation is December 2015.

Annual Constant Prices (US\$/mt) 1200 Sawnwood, constant 2010 1000 800 600 400 Sawnwood, nominal 200 0 1990 2000 2010 2020 1980

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

	1970	1980	1990	2000	2010	2011	2012	2013	2014
ndustrial roundwood	d: productio	n (million c	ubic meters	s)					
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.
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.
Others	698.2	731.8	838.1	572.9	606.2	614.4	615.1	627.9	643.
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.
ndustrial roundwood	d: imports (r	nillion cubi	c 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.
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.
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.
World	83.1	95.4	82.6	115.3	109.9	120.9	112.9	127.1	136.0
awnwood: production	on (million o	ubic meter	rs)						
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.
World	389.1	420.9	463.0	384.8	377.1	390.4	406.9	422.9	438.8
awnwood: imports (million cub	ic 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.
Italy	4.0	5.8	6.0	8.4	6.1	6.0	4.9	4.7	4.0
Germany	6.0	6.9	6.1	6.3	4.4	4.6	4.4	4.5	4.5
Netherlands	3.1	3.2	3.5	3.7	2.8	2.7	2.6	2.5	2.5
Others	16.5	24.6	23.8	36.9	45.1	47.5	46.1	47.5	48.4
World	52.6	71.5	84.5	115.6	108.0	116.8	113.5	122.5	127.4

Source: Food and Agriculture Organization of the United Nations.

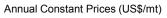
Notes: n/a implies data not available. Industrial roundwood, reported in cubic meters solid volume underbark (i.e. exclusing bark), is an aggregate comprising sawlogs and veneer logs; pulpwood, round and split; and other industrial roundwood except wood fuel. Sawnwood, reported in cubic meters solid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

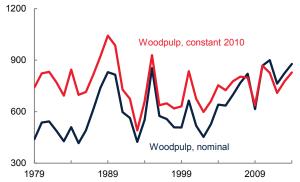
Wood-based panels and Woldpulp



Source: World Bank.

Note: Last observation is December 2015.





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

Note: Last observation is Decem	ber 2015.			Note: 20	15-25 are forecast	S.			
	1970	1980	1990	2000	2010	2011	2012	2013	2014
Wood-based panels: p	oroduction (million cub	ic 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: i	mports (mill	ion cubic n	neters)						
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	n (million me	etric 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 (m	nillion 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.

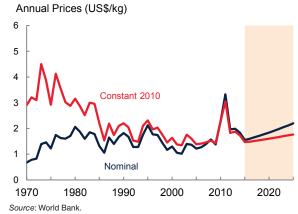
Notes: n/a implies data not available. Wood-based panels, reported in cubic meters solid volume, is an aggregate comprising veneer sheets, plywood, particle board and fiberboard. Woodpulp, reported in metric tons air-dry weight (i.e. with 10% moisture content), is an aggregate comprising mechanical woodpulp;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

Cotton



Source: World Bank.

 ${\it Note} : Last observation is \ December \ 2015.$



Note: 2015-25 are forecasts.

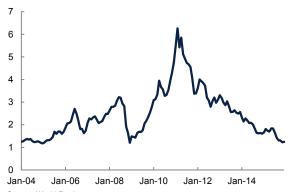
Note. Last observation	. 10 2000111201 201	0.							
	1970/71	1980/81	1990/91	2000/01	2010/11	2012/13	2013/14	2014/15	2015/16
Production (thous	and metric	tons)							
India	909	1,322	1,989	2,380	5,865	6,095	6,371	6,262	6,381
China	1,995	2,707	4,508	4,505	6,400	7,300	6,700	6,003	5,403
United States	2,219	2,422	3,376	3,742	3,942	3,770	2,802	3,077	3,046
Pakistan	543	714	1,638	1,816	1,948	2,204	2,076	2,069	2,050
Brazil	594	623	717	939	1,960	1,310	1,644	1,652	1,479
Uzbekistan	n/a	1,671	1,593	975	910	1,000	920	1,005	921
Turkey	400	500	655	880	594	858	843	722	812
Australia	19	99	433	804	898	1,002	933	937	560
Burkina Faso	8	23	77	116	141	260	247	254	272
Turkmenistan	n/a	n/a	437	187	380	335	329	327	263
Mexico	312	353	175	72	157	231	193	206	255
Greece	110	115	213	421	180	248	280	308	247
Others	n/a	n/a	3,141	2,688	2,034	2,265	2,363	2,341	2,215
World	11,740	13,831	18,951	19,524	25,408	26,878	25,699	25,163	23,904
Stocks (thousand	metric tons	s)							
China	412	476	1,589	3,755	2,087	9,607	11,511	11,890	11,756
India	376	491	539	922	1,850	1,681	1,922	1,946	2,198
Brazil	321	391	231	755	1,400	852	852	852	1,043
United States	915	581	510	1,306	566	848	539	539	973
Turkey	24	112	150	283	412	785	821	809	695
Pakistan	55	131	313	608	316	452	422	414	684
Others	2,502	2,969	3,428	2,984	2,832	3,669	3,974	4,419	3,439
World	4,605	5,151	6,761	10,614	9,463	17,895	20,041	20,869	20,788
Exports (thousand	d metric ton	ıs)							
United States	848	1,290	1,697	1,467	3,130	2,902	2,330	2,256	2,331
India	34	140	255	24	1,085	1,685	1,393	1,157	1,184
Brazil	220	21	167	68	435	938	767	814	726
Uzbekistan	n/a	n/a	n/a	750	600	653	680	585	595
Australia	4	53	329	849	545	1,345	1,033	776	424
Burkina Faso	9	22	73	112	136	215	253	243	264
Others	n/a	n/a	n/a	2,535	1,786	2,341	2,264	2,342	2,153
World	3,875	4,414	5,069	5,805	7,717	10,078	8,719	8,173	7,677
Imports (thousand	d metric ton	s)							
China	108	773	480	52	2,609	4,426	3,089	2,179	1,632
Bangladesh	0	45	80	248	843	593	857	899	967
Vietnam	33	40	31	84	350	548	656	676	927
Indonesia	36	106	324	570	471	683	661	656	797
Turkey	1	0	46	381	760	804	635	849	699
Pakistan	1	1	0	101	314	430	463	541	463
Thailand	46	86	354	342	383	329	369	398	372
Korea, Rep.	121	332	447	304	230	286	311	285	276
Others	3,741	3,172	3,458	3,682	1,797	1,729	1,680	1,690	1,544
World	4,086	4,555	5,220	5,764	7,756	9,827	8,719	8,173	7,677

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

Note: n/a implies data not available.

Natural rubber

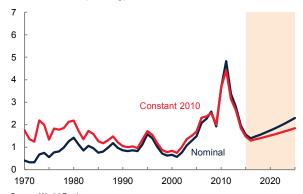
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is December 2015.

Annual Prices (US\$/kg)

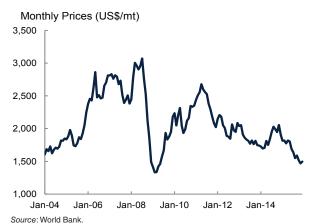


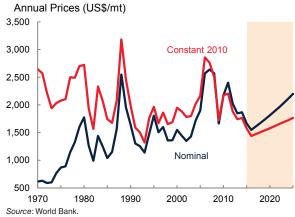
Source: World Bank.
Note: 2015-25 are forecasts.

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

Source: International Rubber Study Group (January 2016 update).

Aluminum





Note: 2015-25 are forecasts.

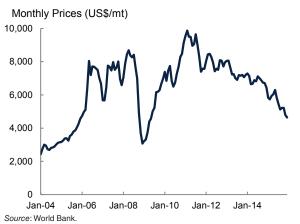
Note: Last	observation is	December 2015.

Note: Last observation is Decemb	er 2015.			Note: 1	2015-25 are fore	ecasts.			
	1980	1990	2000	2005	2010	2011	2012	2013	2014
Bauxite Production (the	ousand meti	ric tons)							
Australia	27,179	40,697	53,801	59,959	68,535	69,977	76,282	81,119	80,300
China	1,700	3,655	7,900	17,408	36,837	37,174	44,052	50,400	65,000
Brazil	4,152	9,876	14,379	22,365	32,028	33,625	34,988	33,849	31,693
India	1,785	5,277	7,562	12,385	12,662	13,000	15,320	20,421	20,688
Guinea	13,911	16,150	17,992	19,237	16,427	17,695	19,974	18,763	17,602
Jamaica	12,064	10,937	11,127	14,118	8,540	10,189	9,339	9,435	9,677
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,888	5,166	5,322	5,589
Kazakhstan	n/a	n/a	3,729	4,815	5,310	5,495	5,170	5,193	4,515
Surinam	4,903	3,267	3,610	4,757	3,097	3,236	2,873	2,706	2,708
Indonesia	1,249	1,249	1,151	1,442	27,410	40,644	31,443	55,655	2,556
Venezuela, RB	0	786	4,361	5,815	3,126	2,455	2,500	2,302	2,200
Greece	3,286	2,496	1,991	2,495	1,902	2,324	1,815	1,844	2,100
Dominican Republic	511	85	0	0	0	0	11	770	1,662
Others	n/a	n/a	6,287	5,601	5,800	6,628	7,655	7,846	9,206
World	93,326	114,835	138,889	176,807	227,150	248,330	256,590	295,624	255,495
Refined Production (the	ousand met	ric tons)							
China	358	854	2,647	7,759	16,244	18,135	20,251	22,046	24,382
Russian Federation	n/a	n/a	3,258	3,647	3,947	3,992	4,024	3,724	3,488
Canada	1,075	1,567	2,373	2,894	2,963	2,988	2,781	2,967	2,858
United Arab Emirates	35	174	536	722	1,400	1,750	1,861	1,848	2,341
Australia	304	1,233	1,761	1,903	1,928	1,945	1,864	1,778	1,773
India	185	433	647	942	1,610	1,660	1,714	1,596	1,767
United States	4,654	4,048	3,668	2,480	1,727	1,983	2,070	1,948	1,710
Norway	662	867	1,026	1,376	1,090	1,201	1,111	1,155	1,154
Brazil	261	931	1,271	1,498	1,536	1,440	1,436	1,304	978
Bahrain	126	212	509	708	851	881	890	913	931
Iceland	75	88	226	272	826	781	803	736	749
South Africa	87	157	683	851	806	808	665	822	745
Saudi Arabia	0	0	0	0	0	0	0	187	652
Others	n/a	n/a	5,699	6,788	6,816	7,465	7,000	6,686	6,518
World	16,036	19,362	24,304	31,841	41,745	45,030	46,470	47,710	50,047
	•	•	•	- ,-	, -	.,	-, -	, -	, .
Refined Consumption (tnousand m 550	861) 3,352	7,072	15 051	17 700	20,224	21.055	24,069
				,	15,854	17,702		21,955	,
United States	4,454	4,330	6,161	6,114	4,242	4,060	4,875	4,632	5,250 2,262
Germany	1,272	1,379	1,632	1,758	1,912	2,103	2,086	2,083	,
Japan	1,639	2,414	2,223	2,276	2,025	1,946	1,982	1,772	2,034
India	234	433	601	958	1,475	1,569	1,690	1,559	1,523
Korea, Rep.	68	369	823	1,201	1,255	1,233	1,278	1,241	1,282
Brazil	296	341	514	759	985	1,077	1,021	988	1,027
Turkey	45	152	211	390	703	870	925	867	915
United Arab Emirates	0	0	34	85	650	750	835	835	835
Others	6,754	8,947	9,456	11,022	11,576	11,880	11,263	10,748	11,071
World	15,312	19,227	25,007	31,636	40,677	43,190	46,179	46,680	50,267

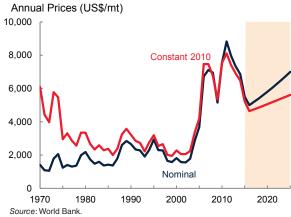
Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.

Copper







Note: 2015-25 are forecasts.

Note: Last observation is December 20	15.			Note: 2	015-25 are forec	asts.			
	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousa	nd metric	tons)							
Chile	1,068	1,588	4,602	5,321	5,419	5,263	5,434	5,776	5,750
China	177	296	549	639	1,180	1,295	1,577	1,707	1,632
United States	1,181	1,587	1,440	1,157	1,129	1,138	1,196	1,279	1,383
Peru	367	318	553	1,010	1,247	1,235	1,299	1,376	1,380
Congo, DR	460	356	33	98	378	480	608	817	1,003
Australia	244	327	832	930	870	960	914	999	970
Zambia	596	496	249	441	732	784	782	839	759
Russian Federation	n/a	n/a	580	805	703	714	720	720	720
Canada	716	794	634	595	522	569	580	632	696
Mexico	175	291	365	391	270	444	500	480	514
Kazakhstan	n/a	n/a	433	436	404	433	491	538	501
Poland	343	370	454	523	425	427	427	429	421
Indonesia	59	169	1,006	1,064	871	543	398	494	366
Others	n/a	n/a	1,476	1,619	1,985	2,006	2,095	2,252	2,409
World	7,864	8,997	13,207	15,029	16,135	16,291	17,021	18,338	18,502
Refined Production (tho	usand meti	ric tons)							
China	314	562	1,312	2,566	4,540	5,163	5,879	6,839	8,008
Chile	811	1,192	2,669	2,824	3,244	3,092	2,902	2,755	2,729
Japan	1,014	1,008	1,437	1,395	1,549	1,328	1,516	1,468	1,554
United States	1,686	2,017	1,802	1,257	1,093	1,031	1,001	1,040	1,095
Russian Federation	n/a	n/a	824	968	900	910	887	874	874
India	23	39	265	518	647	662	689	619	764
Congo, DR	144	173	29	3	254	349	453	643	742
Zambia	607	479	226	465	767	740	700	629	739
Germany	425	533	709	639	704	709	686	680	683
Korea, Rep.	79	187	471	527	556	593	590	604	604
Poland	357	346	486	560	547	571	566	565	577
Australia	182	274	484	471	424	477	461	480	509
Spain	154	171	316	308	347	354	408	351	428
Others	n/a	n/a	3,731	4,135	3,637	3,834	3,617	3,737	3,704
World	9,390	10,809	14,761	16,635	19,211	19,814	20,356	21,284	23,011
Refined Consumption (th	nousand m	etric tons)						
China	286	512	1,869	3,621	7,385	7,881	8,896	9,830	11,352
United States	1,868	2,150	2,979	2,264	1,760	1,755	1,758	1,826	1,841
Germany	870	1,028	1,309	1,115	1,312	1,247	1,114	1,136	1,173
Japan	1,158	1,577	1,351	1,229	1,060	1,003	985	996	1,085
Korea, Rep.	85	324	862	868	856	784	721	722	759
	388	475	674	680	619	608	570	552	622
Italy Russian Federation	n/a	n/a	183	667	457	586	490	484	568
Taiwan, China	85	265	628	638	532	457	432	437	465
Turkey	33	103	248	319	369	421	429	453	453
Others	n/a	n/a	4,992	5,246	4,989	4.834	4,738	4,566	4,456
World	9,385	10,780	15,096	16,649	19,340	19,576	20,133	21,002	22,774

Source: World Bureau of Metal Statistics.

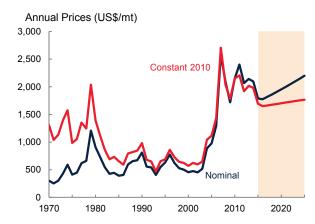
Notes: n/a implies data not available. Refined production and consumption include significant recyled material.

Lead



Source: World Bank.

Note: Last observation is December 2015.



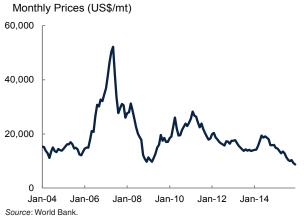
Source: World Bank.
Note: 2015-25 are forecasts.

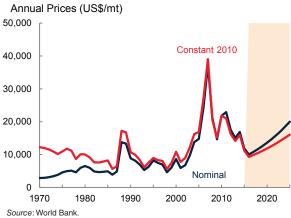
Note: Last observation is December 20	115.			Note.	2015-25 are to	recasis.			
	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (thousand	l metric ton	s)							
China	160	364	660	1,142	1,981	2,406	2,613	3,048	2,853
Australia	398	570	678	767	712	621	622	711	728
United States	562	493	447	437	356	334	336	343	385
Peru	189	188	271	319	262	230	249	266	278
Mexico	146	174	138	134	192	224	238	253	249
Russian Federation	n/a	n/a	13	36	97	123	147	143	194
India	15	26	38	60	91	94	115	106	10
Bolivia	16	20	10	11	73	100	81	82	8:
Sweden	72	84	107	61	68	62	64	60	7
Turkey	8	18	16	19	39	40	54	78	6
Korea, Dem. People's Rep.	125	70	26	20	27	29	38	59	5
Iran, Islamic Rep.	12	9	17	22	32	29	36	40	4
Poland	48	45	51	51	48	41	73	74	4
Others	n/a	n/a	610	372	396	410	429	393	39
World	3,595	3,150	3,080	3,453	4,374	4,741	5,096	5,655	5,55
Refined Production (thous	and metric t	ons)							
China	175	297	1,100	2,359	4,157	4,604	4,591	4,475	4,22
United States	1,151	1,291	1,431	1,293	1,255	1,248	1,221	1,308	1,12
Korea, Rep.	15	80	222	254	321	423	460	470	63
India	26	39	57	56	366	380	461	462	47
Germany	392	394	387	342	405	429	426	400	38
United Kingdom	325	329	328	304	301	275	312	329	33
Canada	231	184	284	230	273	282	278	288	28
Japan	305	327	312	275	267	253	259	252	24
Mexico	149	238	332	272	257	247	244	236	23
Australia	234	229	223	267	210	232	207	233	23
Italy	134	171	237	211	150	150	138	180	18
Spain	121	124	120	110	163	170	160	160	16
Brazil	85	76	86	121	115	138	165	152	15
Others	2,083	1.683	1,582	1,572	1,485	1,547	1,503	1,615	1.60
World	5,424	5,460	6,701	7,665	9,726	10,377	10,426	10,561	10,25
		•	0,701	7,000	0,720	10,077	10,720	10,001	10,20
Refined Consumption (tho			660	1.074	4 474	4.040	4.640	4.467	4.40
China	210	244	660	1,974	4,171	4,618	4,618	4,467	4,19
United States	1,094	1,275	1,660	1,490	1,430	1,410	1,360	1,750	1,65
Korea, Rep.	54	80	309	376	382	427	429	498	56
India	33	147	56	139	420	420	524	428	51
Germany	433	448	390	330	343	374	381	392	33
United Kingdom	296	302	301	288	211	211	229	274	27
Japan	393	416	343	291	224	236	273	255	25
Spain	111	115	219	279	262	263	244	257	24
Italy	275	258	283	262	245	233	195	235	229
Others	2,451	2,063	2,270	2,348	2,012	2,051	2,059	2,089	1,98
World	5,348	5,348	6,491	7,777	9,700	10,243	10,312	10,646	10,25

Source: World Bureau of Metal Statistics.

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

Nickel





Note: 2015-25 are forecasts.

Note: Last observation is December 201	5.
--	----

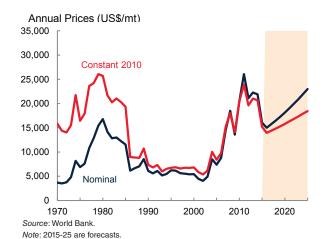
	1980	1990	2000	2005	2010	2011	2012	2013	2014
Mine Production (tho	usand met	ric tons)							
Philippines	38	16	17	27	184	319	318	316	411
Australia	74	67	170	186	170	215	244	256	246
Russian Federation	n/a	n/a	266	289	274	270	269	242	238
Canada	189	196	191	200	160	219	212	223	235
New Caledonia	87	85	129	112	130	131	132	150	178
Indonesia	41	69	117	156	216	227	622	811	144
China	11	33	51	59	80	90	93	98	98
Brazil	3	13	32	38	54	75	90	74	86
Cuba	38	41	71	74	65	69	65	62	61
South Africa	26	30	37	42	40	43	46	51	55
Colombia	0	0	28	53	49	38	52	49	41
Madagascar	0	0	0	0	0	0	6	25	37
Guatemala	7	0	0	0	0	0	2	9	34
Others	n/a	n/a	82	120	108	128	123	134	127
World	749	888	1,191	1,356	1,531	1,823	2,272	2,503	1,991
Refined Production (thousand n	netric ton	s)						
China	11	28	52	97	314	470	591	711	644
Russian Federation	n/a	n/a	242	264	263	266	256	246	246
Japan	109	103	161	164	166	157	170	178	178
Australia	35	43	112	122	102	110	129	142	138
Canada	145	127	134	140	105	142	140	137	115
Norway	37	58	59	85	92	92	92	91	91
Brazil	3	13	23	30	28	43	59	56	73
New Caledonia	33	32	44	47	40	41	45	48	62
Finland	13	17	54	41	49	49	46	44	43
Colombia	0	18	28	53	49	38	52	49	41
United Kingdom	19	27	38	38	32	37	34	40	38
Madagascar	0	0	0	0	0	0	6	25	37
South Africa	18	28	37	42	34	36	33	32	35
Others	n/a	n/a	127	166	163	184	192	184	180
World	743	858	1,110	1,288	1,437	1,665	1,843	1,985	1,920
Refined Consumption	n (thousand	d metric to	ons)						
China	18	28	58	197	489	703	805	909	761
Japan	122	159	192	180	177	174	159	159	161
United States	142	127	153	128	119	134	126	123	152
Korea, Rep.	0	24	91	118	101	100	108	107	100
Taiwan, China	0	18	106	84	73	53	57	53	66
Germany	78	93	102	116	100	88	89	66	62
Italy	27	27	53	85	62	66	65	59	60
Spain	9	21	32	48	29	29	32	32	33
South Africa	n/a	n/a	35	47	41	34	32	35	31
Others	n/a	n/a	329	315	235	281	257	255	268
World	717	842	1,150	1,317	1,427	1,661	1,729	1.798	1,695

Source: World Bureau of Metal Statistics.

Note: n/a implies data not available.

Tin





Note: Last	observation	is	December 2015.

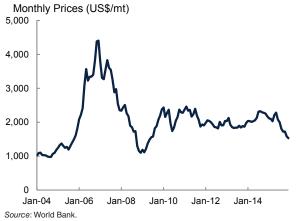
Mine Production (thousand metric tons) China Indonesia Peru Bolivia Myanmar Brazil Australia Vietnam Rwanda Congo, DR Malaysia Nigeria Lao People's DR Others World Refined Production (thousand metric tons) China Indonesia Malaysia Peru Thailand Bolivia Brazil Belgium Vietnam India Poland Japan Russian Federation n/a n/a Others n/a n/a World Refined Consumption (thousand metric tons) China **United States** Japan Germany Korea, Rep. India Netherlands Spain Vietnam Others

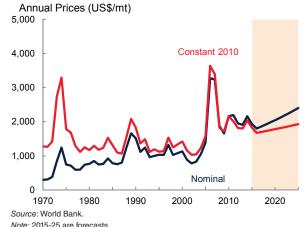
Source: World Bureau of Metal Statistics.

World

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

Zinc





ľ	Vo	te	:	Last	ob	ser	vation	is	December	2015.	

Mine Production (thousand metric tons) China 1,780 2,061 3,842 4,050 4,859 5,391 5,445 Australia 1,420 1,367 1,480 1,516 1,542 1,523 1,560 Peru 1,202 1,470 1,256 1,281 1,351 1,319 **United States** India Mexico Bolivia 1,059 1,203 1,002 Canada Kazakhstan n/a n/a Ireland Sweden Russian Federation n/a n/a Turkey Others n/a n/a 1.204 1.228 1.176 1.185 1.211 1.202 1.344 World 6,172 7,176 8,823 9,569 12,510 12,535 13,380 13,822 14,029 Refined Production (thousand metric tons) 2,725 5,209 5,212 4,881 5,827 China 1,957 5,302 Korea, Rep. India Canada Japan Spain Australia Peru Mexico Kazakhstan n/a n/a Finland Netherlands Russian Federation n/a n/a Others n/a n/a 2,757 2,587 2,285 2,305 2,086 2,021 1,998 World 6,159 6,698 9,153 10,119 12,919 13,145 12,563 13,095 13,525 Refined Consumption (thousand metric tons) 1,402 3,040 5,350 5,460 5,396 5,995 6,420 China **United States** 1,315 1,080 Korea, Rep. India Japan Germany Belgium

Source: World Bureau of Metal Statistics

n/a

n/a

6,131

n/a

n/a 6,568 3.414

8,889

3,527

10,396

3,313

12,521

3,267

12,579

3,096

12,159

3,138

13,000

3,169

13,678

Note: n/a implies data not available

Russian Federation

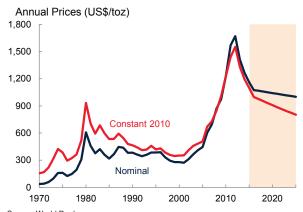
Italy

Others

World

Gold





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

Note: Last observation is Decemb	er 2015.
----------------------------------	----------

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

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 Yemen in 1995 and 2000.

Silver





Note: Last observation is December 2015.

Note: 2015-25 are forecasts.

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

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.



APPENDIX C

Description of price series Technical notes

Description of Price Series

ENERGY

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

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

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

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

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

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

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

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

NON-ENERGY

Beverages

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

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

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

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

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

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

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

Oils and meals

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

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

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

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

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

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

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

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

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

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

Grains

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

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

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

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

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

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

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

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

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

Other food

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

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

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

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

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

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

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

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

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

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

Timber

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

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

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

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

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

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

Other raw materials

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

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

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

Fertilizers

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

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

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

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

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

Metals and minerals

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

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

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

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

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

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

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

PRECIOUS METALS

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

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

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

Technical Notes

Definitions and explanations

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

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

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

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

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

Abbreviations

\$ = U.S. dollar

bbl = barrel

bcf/d = billion cubic feet per day

cif = cost, insurance, freight

cum = cubic meter

dmt = dry metric ton

f.o.b. = free on board

f.o.t. = free on track

kg = kilogram

mb/d = million barrels per day

mmbtu = million British thermal units

mt = metric ton (1,000 kilograms)

toz = troy oz

Acronyms

BRICS Brazil, Russian Federation, India, China, and

South Africa

DAP diammonium phosphate

EIA Energy Information Administration

EMDE emerging and developing economies

FAVAR factor augmented vector autoregression

GDP gross domestic product GVAR global vector autoregression

IAEA International Atomic Energy Agency

IEA International Energy Agency
LME London Metal Exchange
LNG liquefied natural gas
NPI nickel pig iron

OECD Organization of Economic Cooperation and

Development

OPEC Organization of Petroleum Exporting Countries

S/U stocks-to-use ratio
TSP triple superphosphate
UN United Nations

USDA United States Department of Agriculture

VAR vector autoregression
WTI West Texas Intermediate

Data sources

Baker Hughes

Bloomberg

BP Statistical Review of World Energy

Cotton Outlook

Fertilizer Week

INFOFISH

INTERFEL Fel Actualités Hebdo

International Cocoa Organization (ICCO)

International Coffee Organization (ICO)

International Energy Agency (IEA)

International Fertilizer Association (IFA)

International Rubber Study Group (IRSG)

International Tea Committee (ITC)

International Tropical Timber Organization (ITTO)

International Sugar Organization (ISO)

ISTA Mielke GmbH Oil World

Japan Lumber Journal

MLA Meat & Livestock Weekly

Platts International Coal Report

Singapore Commodity Exchange

Sopisco News

Sri Lanka Tea Board

U.S. Department of Agriculture

U.. Energy Information Administration (EIA)

U.S. NOAA Fisheries Service

World Bureau of Metal Statistics

World Gas Intelligence

Weights for commodity price indices

ommodity group	Share of energy and non-energy indices	Share of sub-group indices
ENERGY		
Coal	100.0 4.7	100.0 4.7
Crude Oil	84.6	84.6
Natural Gas	10.8	10.8
NON-ENERGY	100.0	10.0
Agriculture	64.9	
Beverages	8.4	100.0
Coffee	3.8	45.7
Cocoa	3.1	36.9
Tea	1.5	17.4
Food	40.0	
Grains	11.3	100.0
Rice	3.4	30.2
Wheat	2.8	25.3
Maize (includes sorghum)	4.6	40.8
Barley	0.5	3.7
Oils and Meals	16.3	100.0
Soybeans	4.0	24.6
Soybean Oil	2.1	13.0
Soybean Meal	4.3	26.3
Palm Oil	4.9	30.2
Coconut Oil	0.5	3.1
Groundnut Oil (includes groundnuts)	0.5	2.8
Other Food	12.4	100.0
Sugar	3.9	31.5
Bananas	1.9	15.7
Meat, beef	2.7	22.0
Meat, chicken	2.4	19.2
Oranges (includes orange junice)	1.4	11.6
Agricultural Raw Materials	16.5	
Timber	8.6	100.0
Hardwood	8.6	100.0
Logs	1.9	22.1
Sawnwood	6.7	77.9
Other Raw Materials	7.9	100.0
Cotton	1.9	24.7
Natural Rubber	3.7	46.7
Tobacco	2.3	28.7
Metals and Minerals	31.6	100.0
Aluminum	8.4	26.7
Copper	12.1	38.4
Iron Ore	6.0	18.9
Lead	0.6	1.8
Nickel	2.5	8.1
Tin	0.7	2.1
Zinc	1.3	4.1
Fertilizers	3.6	100.0
Natural Phosphate Rock	0.6	16.9
Phosphate	0.8	21.7
Potassium	0.7	20.1
Nitogenous	1.5	41.3
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.

ommodity prices continued to fall in the fourth quarter of 2015 reflecting abundant supplies, weaker growth prospects in emerging economies, and a strong U.S. dollar. One of the largest declines was in crude oil, which fell from \$51 per barrel in early October to less than \$30 in mid-January. For 2015 as a whole, average energy prices plunged 45 percent from 2014, while non-energy prices declined 15 percent. Relative to their peaks in 2011, the main industrial commodity price indices in December were down substantially—two-thirds for energy and more than one-half for metals. Agricultural prices also fell despite intensification of El Niño. Most price forecasts have been revised down for 2016. Separately, this edition examines the implications of emerging market economic growth on commodity prices and concludes that weaker growth prospects could have sizeable adverse effects on prices.

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

