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Commodity Markets Outlook

Oil Exporters: Policies and Challenges



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Commodity Markets Outlook



WORLD BANK GROUP

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The World Bank's *Commodity Markets Outlook* is published twice a year, in April and October. The report provides detailed market analysis for major commodity groups, including energy, agriculture, fertilizers, metals, and precious metals. Price forecasts to 2030 for 46 commodities are presented, together with historical price data. The report also contains production, consumption, and trade statistics for major commodities. Commodity price data updates are published separately at the beginning of each month.

The report and data can be accessed at:
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Executive Summary

Commodity prices strengthened in the first quarter of 2018. Broad-based price increases were supported by both demand and supply factors. Accelerating global growth lifted demand for commodities, while a number of commodities faced supply constraints. For oil and precious metals, concerns about mounting geopolitical risk also supported prices. Crude oil prices are expected to average \$65 per barrel (bbl) in 2018 (up from \$53/bbl in 2017) and remain at \$65/bbl in 2019—an upward revision from the October 2017 forecast. Metals prices are expected to increase 9 percent in 2018 and, following three years of relative stability, agricultural prices are expected to gain 2 percent in 2018. Looking ahead, policy actions currently under discussion, such as additional tariffs, production cuts, and sanctions, present risks to the short-term outlook. This edition also analyzes the policies of oil exporting economies in response to the 2014 oil price collapse. It concludes that oil exporters with flexible currency regimes, larger fiscal buffers, and more diversified economies fared better than others. The experience of the past four years is a reminder of the urgent need for greater economic diversification and stronger monetary and fiscal policy frameworks in oil exporters.

Recent trends

Backdrop. Commodity prices strengthened in three-quarters of commodities in the first quarter of 2018, but prices of more than four-fifths of commodities remained below their 2011 peaks (Figure 1). Prices continue to be supported by a broad-based global recovery, with global GDP growth increasing to 3.1 percent in 2017, from 2.4 percent in 2016. Meanwhile, production has been held back for several commodity-specific reasons, including continued OPEC and non-OPEC oil production restraint, measures by China to reduce polluting metals and energy production, and lower grain planting intentions in the United States. Concerns about mounting geopolitical tensions have lifted oil and some precious metals prices. Several newly enacted or prospective policy actions have contributed to sharp movements in metals prices (e.g. U.S. import tariffs on aluminum and steel; U.S. sanctions on Russian commodity producers). Short-lived volatility on soybean prices was triggered by the discussion of the possibility of higher tariffs on imports to China.

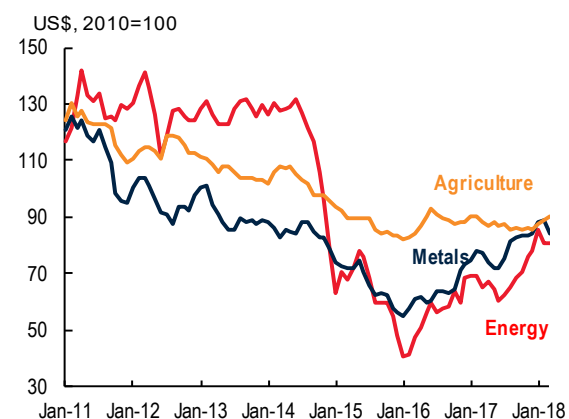
Energy prices surged 10 percent in the first quarter of 2018 (q/q), led by oil and natural gas. Oil prices rose 10 percent, averaging \$64.6/bbl over the quarter, and have more than doubled since bottoming in early 2016. Strong oil demand and greater-than-expected compliance by the 22 OPEC and non-OPEC producers to their agreed production cuts helped reduce inventories in the second half of 2017. Rising geopolitical concerns, especially about prospects for renewed sanctions on Iran, and tensions between Iran and Saudi Arabia in Yemen, bolstered prices in late March and rose further to \$74/bbl in April. The rise in prices has supported a recovery in U.S. shale production, with total crude production increasing by more than 1.1mb/d in January 2018 relative to the previous year.

Non-energy commodity prices rose 4 percent (q/q) in the first quarter of 2018. Metals prices increased over 4 percent due to strengthening global demand and

concerns about tightening global supplies. China continued to enforce measures to curtail production of aluminum and steel over the winter to meet pollution goals, although production rose in non-restricted areas. In April, the trade tensions between the United States and China initially weighed on all metals prices. However, aluminum prices subsequently surged and reached a seven-year high following the imposition of sanctions by the United States on the largest Russian aluminum producer (accounting for more than 6 percent of global supply). Nickel prices also rose amid fears that sanctions could be extended to other Russian metals producers—Russia accounts for 9 percent of global nickel production. Precious metals prices gained 4 percent on expectations of rising inflation, a weaker dollar and heightened concerns about geopolitical risks. Agricultural prices gained 4 percent, the largest quarterly increase in the past two years, largely due to lower wheat and maize plantings in the United States and a La Niña-related impact on banana pro-

1 Commodity price indexes, monthly

Commodity prices strengthened in the first quarter of 2018. Broad-based price increases were supported by both demand and supply factors.



Source: World Bank.

Note: Last observation is March 2018.

duction in Central America and soybean production in Argentina.

Outlook and risks

Prospects. More than half of commodity prices (and all non-coal energy prices) are expected to increase in 2018 but four-fifths of them will remain below their 2011 peaks. *Energy* prices are forecast to rise 20 percent in 2018—a 16 percentage point upward revision from October 2017—and stabilize in 2019 (Table 1). *Non-energy* prices are projected to gain more than 4 percent in 2018 before they stabilize in 2019. These constitute upward revisions of more than 2 percentage points for both years from the October 2017 forecast. If additional tariffs or sanctions are implemented, they could change the outlook for commodity prices in the short-term; however, their effect would likely unwind over the medium-term, as producers and consumers find new distribution channels, export markets or sources of finance.

Oil prices are anticipated to average \$65/bbl in 2018 and 2019 on robust demand and continued production restraint by OPEC and non-OPEC producers, notwithstanding increases in U.S. shale oil production. Higher oil prices are expected to eventually feed into higher natural gas prices while coal prices will continue to decline as energy demand shifts towards less polluting sources. Upside risks to the forecasts include potential supply losses arising from geopolitical events, a deterioration in República Bolivariana de Venezuela, deeper cuts by OPEC and non-OPEC countries or an extension of the agreement to a longer-term horizon. Conversely, a weakening of the agreement, or further efficiency gains among U.S. shale producers could depress prices.

Metals prices are projected to increase 9 percent in 2018 due to a further pickup in demand. An 11 per-

cent decline in iron ore prices—reflecting stronger production, especially in China—is expected to be more than offset by projected increases in all other base metals prices. Nickel prices, in particular, are expected to remain 30 percent higher than in 2017, despite a slight moderation from their recent sharp rise, that reflect hopes for buoyant electric vehicle demand and the risk of Russian sanctions. Upside price risks to the forecast include more robust global demand as well as production shortages. Supply could be curtailed by a slower ramp-up of new capacity, further sanctions against metal exporters, and policy changes in China. Downside risks are dominated by slower growth, the easing of pollution-related policies, and the reintroduction of idle capacity in China.

Agricultural prices are forecast to gain 2.2 percent in 2018 and a further 1.3 percent in 2019. Grain prices and oils and meal prices are projected to gain 8 percent and 4 percent, respectively, in 2018, mainly due to lower plantings. A key policy risk is the introduction of countervailing duties on soybeans by China in response to U.S. tariffs.

Special focus on oil exporters

Oil exporters faced substantial policy challenges after the 2014 oil price collapse, as their growth prospects deteriorated and fiscal buffers were depleted to varying degrees across countries. The *Special Focus* section concludes that oil exporters with flexible currency regimes, larger fiscal buffers, and more diversified economies fared better than others. Overall, however, most oil exporting economies still face significant policy challenges as their medium-term prospects for growth and fiscal revenues have deteriorated since 2014. This points to an urgent need for reforms to increase diversification and reinforce monetary and fiscal policy frameworks.

TABLE 1 Nominal price indexes and forecast revisions

	Price Indexes (2010=100)						Change (%)		Index revision ²	
	2014	2015	2016	2017	2018f ¹	2019f ¹	2017-18	2018-19	2018f	2019f
Energy	118	65	55	68	81	81	19.8	-0.4	10.7	7.4
Non-Energy³	97	82	80	84	87	88	4.1	0.3	2.5	2.1
Agriculture	103	88	88	87	89	90	2.2	1.3	-0.4	-0.3
Beverages	102	94	91	83	83	84	-0.2	1.1	-1.4	-1.0
Food	107	89	90	91	93	94	2.6	1.2	-0.3	-0.2
Oils and meals	109	85	90	89	93	94	4.0	1.5	2.1	2.0
Grains	104	87	81	81	87	88	7.5	1.6	3.2	3.0
Other food	107	95	99	102	99	100	-2.5	0.6	-6.5	-6.0
Raw Materials	92	83	80	81	83	85	2.5	1.7	-0.3	-0.2
Fertilizers	101	97	78	74	76	77	2.1	2.4	3.4	3.2
Metals and Minerals	85	67	63	78	85	83	8.6	-2.1	8.4	6.9
Precious Metals	101	91	97	98	101	99	2.8	-1.1	4.0	3.7
Memorandum items										
Crude oil (\$/bbl)	96	51	43	53	65	65	23.1	0.0	9.0	6.0
Gold (\$/toz)	1,266	1,161	1,249	1,258	1,300	1,282	3.4	-1.4	62.2	56.4

Source: World Bank.

Notes: (1) "f" denotes forecasts. (2) Denotes revision to the index level from the October 2017 report, except for crude oil (\$/bbl) and gold (\$/toz). (3) The non-energy price index excludes precious metals. See Appendix C for definitions of prices and indexes.



SPECIAL FOCUS

Oil Exporters: Policies and Challenges

Oil Exporters: Policies and Challenges¹

Oil exporters faced a challenging policy landscape after the 2014 oil price collapse, as growth prospects deteriorated and fiscal buffers were depleted to varying degrees across countries. Fundamental changes in the oil market in recent years — including rising efficiency in both the production and consumption of oil, make a return to the price levels of the early 2010s unlikely. This Special Focus section asks: (i) How did oil exporters cope with the plunge in oil prices from 2014 to 2016? (ii) What were the immediate monetary and fiscal policy responses? (iii) Have lower oil prices been a catalyst for energy policy reforms? (iv) What are the remaining challenges for exporters? We conclude that oil exporters with flexible currency regimes, relatively large fiscal buffers, and more diversified economies fared better than others, but that overall, most oil exporting economies still face significant policy challenges as their medium-term prospects for growth and fiscal revenues have deteriorated since 2014. This points to an urgent need for reforms to step up diversification efforts and reinforce monetary and fiscal policy frameworks.

How did oil exporters cope with the plunge in oil prices?

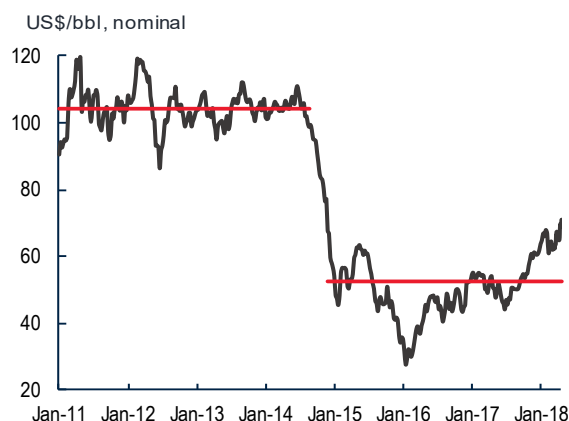
The 70 percent drop in oil prices between mid-2014 and early 2016 was one of the three largest oil-price declines in recent history. Despite retracing some of their losses, oil prices are still around 40 percent below their 2011-14 average (Figure F1). The decline had broad-based and long-lasting effects on oil-exporting emerging markets and developing economies (EMDEs), with nearly 70 percent of these economies registering slowing growth in 2015 and 2016, and most of them experiencing a sharp deceleration in private consumption and investment.

The oil price plunge eroded oil-related revenues, forcing abrupt cuts in government spending that accentuated the slowdown in private sector activity in many regions (World Bank 2016a, 2016b, 2017a; Danforth, Medas, and Salins 2016). This effect was amplified in countries that entered the most recent oil price decline with weaker fiscal positions and higher private sector debt than in previous episodes (BIS 2016).

Idiosyncratic factors, including sanctions against the Russian Federation, geopolitical tensions in the Middle East, and conflict and deteriorating security conditions in some low-income Sub-Saharan producers (e.g., Chad, South Sudan) also exacerbated the impact of the oil price shock in the affected countries. In turn, economic headwinds in Russia and members of the Gulf Cooperation Council (GCC) had adverse cross-border spillover effects through reduced trade flows, remittances, foreign direct investment, and grants (World Bank 2015a, 2016c).

Oil exporters with floating exchange rate regimes and diversified economies (e.g., Malaysia, Qatar) recovered more quickly than in those with fixed exchange rates and high export concentrations (Figure F2).² Oil exporters with large foreign exchange reserves and more stable inflation also showed greater resilience (Grigoli, Herman, and Swiston 2017; World Bank 2016a). Finally, income inequality and political instability weakened the ability of some oil-exporting economies to weather low oil prices (Ianchovichina and Onder 2017).

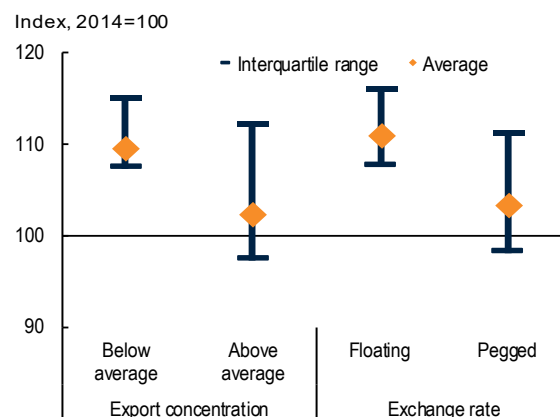
F1 Oil price



Source: World Bank.

Notes: Average of Brent, Dubai, and WTI. Last observation is April 20, 2018.

F2 GDP changes since 2014, by group



Sources: IMF, UNCTAD, World Bank.

Note: Sample includes 31 oil-exporting EMDEs. See endnote #2 for details.

What were the immediate monetary and fiscal policy response?

Monetary policy

Many oil-exporting EMDEs experienced sharp currency depreciations and rapid declines in foreign exchange reserves in 2014–16. Countries with floating exchange rate regimes were better able to stabilize reserves, but generally suffered sharper initial depreciations (Figure F3).³ Monetary authorities in several countries intervened in foreign exchange markets to support their currencies (e.g., Angola, Azerbaijan, Bolivia, Kazakhstan, Malaysia, Nigeria, Russia, Sudan, Turkmenistan), and many raised interest rates to contain inflation amid large currency depreciations (e.g., Angola, Azerbaijan, Colombia, Ghana, Kazakhstan, Nigeria, Russia, Trinidad and Tobago) or to support currency pegs (e.g., Bahrain, Kuwait, the United Arab Emirates).

The erosion of foreign exchange reserves forced some currency devaluations and encouraged a shift to more flexible exchange rate regimes in a number of countries (e.g., Azerbaijan, Nigeria, Russia). In contrast, GCC countries used strategic reserves to maintain their currency pegs, despite intermittent exchange rate pressures (World Bank 2016b).

Central banks in oil-exporting EMDEs also took steps to mitigate tightening banking sector liquidity. In some countries, sovereign wealth and pension funds were used to reduce liquidity pressures in the banking sector (e.g., Azerbaijan, Kazakhstan; Sommer et al. 2016).

Fiscal policy

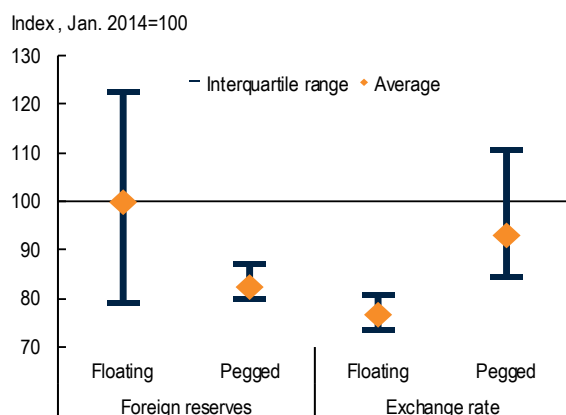
Many oil-exporting EMDEs undertook fiscal consolidation measures to realign spending with revenues despite rising economic slack and diminishing long-

term growth prospects (e.g., Algeria, Angola, Azerbaijan, Iraq, the Islamic Republic of Iran, Kuwait, Nigeria, Russia, Saudi Arabia, the United Arab Emirates; Danforth, Medas, and Salins 2016). Compared with previous episodes of declining oil prices, the impact on public finances in EMDE oil exporters was larger, reflecting the magnitude and duration of the oil price decline (World Bank 2018). The effect was compounded in some countries by weaker initial fiscal positions. Fiscal sustainability gaps continued to widen in 2015 and 2016, and government debt ratios rose on average by 11.4 percentage points, compared with an average of only 0.9 percentage point in past episodes (IMF 2017a; World Bank 2017a).

The deterioration in budget deficits and fiscal sustainability gaps was greater in oil-exporting EMDEs with higher reliance on oil-related revenues, while countries with more flexible exchange rate regimes generally fared better, in part because real exchange rate depreciation mitigated revenue declines and spurred needed adjustment within the private sector (Figure F4).⁴ A number of oil exporters that had previously built up buffers in sovereign wealth funds (SWFs) used such buffers to alleviate fiscal and exchange rate pressures (e.g., Algeria, Azerbaijan, Kazakhstan, Kuwait, Saudi Arabia, the United Arab Emirates; World Bank 2016b).⁵ Others have chosen to issue debt on international markets, reflecting low borrowing costs (Lopez-Martin, Leal, and Martinez 2016; Alberola-Ila et al. forthcoming).

Several countries also implemented tax reforms to compensate for the loss of government revenues and to insulate themselves from future oil price fluctuations. This included the introduction of taxes on goods and services or value-added taxes (e.g. Malaysia, Saudi Arabia, the United Arab Emirates), as well as raising existing VAT rates (Colombia). However,

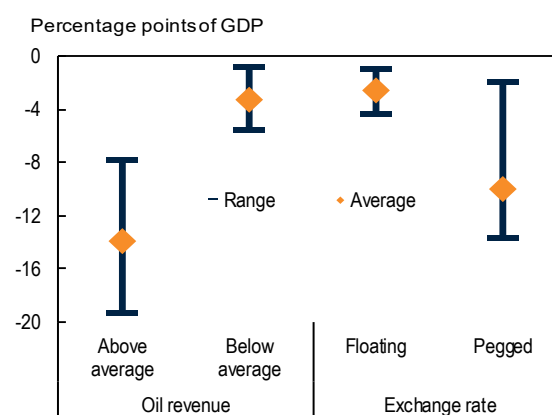
F3 Exchange rate pressures since 2014



Sources: BIS, Haver Analytics, IMF, World Bank.

Notes: Nominal effective exchange rate and foreign reserve levels indexed to 100 in January 2014. Last observation is March 2018. See endnote #3 for details.

F4 Change in fiscal balance since 2014



Sources: IMF, World Bank.

Notes: Change in overall fiscal balance in percent of GDP from 2014 to 2016. See endnote #4 for details.

implementation has stalled in some cases (e.g., Bahrain, Kuwait, Oman, Qatar), while exemptions have limited revenue growth in some others (Malaysia).

Expenditure cuts and tax hikes have helped lower the fiscal breakeven oil price in oil-exporting EMDEs since 2015, although they remain higher than the current oil price in some countries (e.g., Bahrain, Saudi Arabia, Oman, the United Arab Emirates; Baffes et al. 2015; World Bank 2017a; World Bank 2017b).

Have lower oil prices been a catalyst for reforms?

The collapse in oil prices provided impetus for reforms, particularly of energy subsidies. In countries where such reforms were undertaken, energy subsidies represented nearly 6 percent of GDP before the 2014-16 oil price collapse. Between mid-2014 and end-2016, a majority of oil-exporting EMDEs introduced subsidy reforms, although in various forms and to varying degrees across countries. Several oil exporters have also reduced utility subsidies. In some cases—for instance, in GCC countries—subsidy reform was a significant break from past policy (Krane and Hung 2016; World Bank 2017b).

The aim of these reforms was to restore fiscal space, discourage wasteful energy consumption, and strengthen programs that better target the poor (IMF 2017b). Encouragingly, the design and implementation of recently-implemented energy subsidy reforms have been superior, focusing on longer term objectives, proper phasing in of price increases, and better communication (Clements et al. 2013; Asamoah, Hanedar, and Shang 2017). In many cases, recent reforms have also included measures to mitigate the impact on the poor and to strengthen social safety nets (e.g., Algeria, Angola, Saudi Arabia).

Beyond subsidy reforms, several large oil-exporting EMDEs have also laid out medium- to long-term programs to reduce reliance on the energy sector. These reform plans include: reducing labor market rigidities (e.g., Oman, Saudi Arabia), supporting foreign investment (e.g., Saudi Arabia), expanding infrastructure investment (e.g., Malaysia), and improving the business environment (e.g., Algeria, Bahrain, Brunei Darussalam, Kazakhstan, Nigeria; Figure F5).⁶ However, in some cases, the structural reform agenda has faced legislative or implementation delays (e.g., Algeria, Kazakhstan) or has been scaled back as fiscal pressures receded (e.g., privatization efforts in Russia).

What are the remaining challenges for oil exporters?

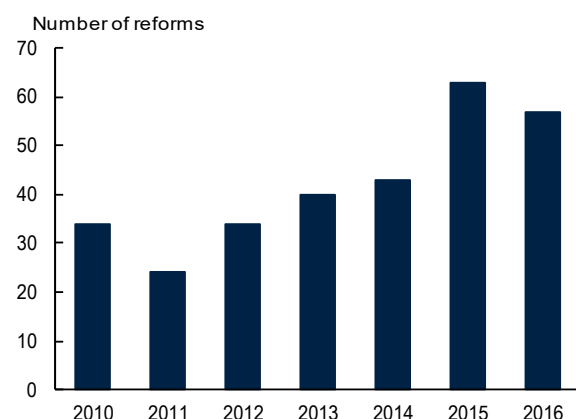
The prospect of persistently low and perhaps more volatile oil prices intensifies the need for improved monetary and fiscal policy frameworks as well as reforms to reduce reliance on oil, increase value added and productivity in the non-extractive sector, boost competitiveness, skills acquisition and adaptability.

Monetary policy

Reforms to monetary policy frameworks could help foster resilience to oil price fluctuations by taking more explicit account of these fluctuations into policy objectives. This should help limit procyclicality and ensure smoother exchange rate adjustments during oil price cycles.

For countries with floating exchange rate regimes, options include targeting the domestic-currency price of exports, the GDP deflator, or even nominal GDP (Frankel 2010, 2017; Catao and Chang 2013). These options are viewed as delivering higher welfare gains and stability compared to a policy that targets con-

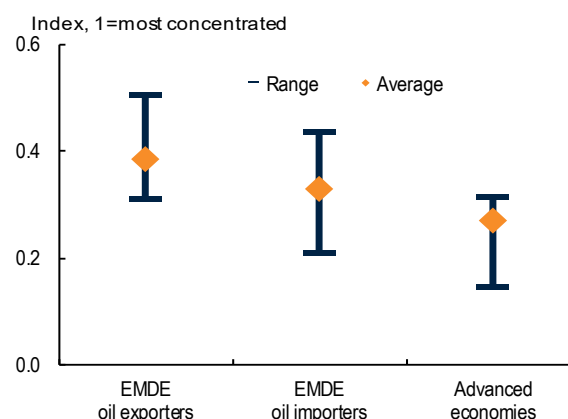
F5 Reforms in oil exporters



Source: World Bank (Doing Business database).

Note: Sample includes 35 oil-exporting EMDEs. See endnote #6 for details.

F6 Export concentration, 2016



Sources: UNCTAD, World Bank.

Note: Sample includes 34 oil-exporting EMDEs. See endnote #7 for details.

sumer price inflation. Countries with currency pegs—especially small open economies with limited financial market depth—could also see advantages by adding oil prices as part of their targeted currency basket. Irrespective of currency regimes, a criterion for judging whether monetary policy is appropriately countercyclical is whether the nominal exchange rate is allowed to move in line with terms-of-trade shocks.

Fiscal policy

Fiscal reforms also remain necessary in a majority of oil-exporting EMDEs. Only one-fourth of oil-exporting EMDEs have fiscal rules to smooth the impact of oil price cycles on activity and public finances. This suggests the need for stronger fiscal frameworks to help reduce procyclicality and to establish a firmer foundation for long-term fiscal sustainability (Mendes and Pennings 2017; Devarajan 2017). This includes linking spending and subsidies to revenues, as well as basing fiscal projections and structural budget balance calculations on prudent assumptions about potential output and equilibrium oil prices. Oil price hedging and indexation of government bonds to oil prices could also help reduce exposure to short-term fluctuations in oil prices (Frankel 2017).

Diversification

Over the medium term, diversification away from oil will be needed to raise GDP per capita and improve growth prospects for oil-exporting EMDEs. Cross-country studies underscore that greater diversification of exports and government revenues bolsters long-term growth prospects and resilience to external shocks (Lederman and Maloney 2007; Hesse 2008; IMF 2016). At present, oil-exporting EMDEs exhibit a much higher degree of export concentration than oil-importing EMDEs and advanced economies (Figure F6).⁷

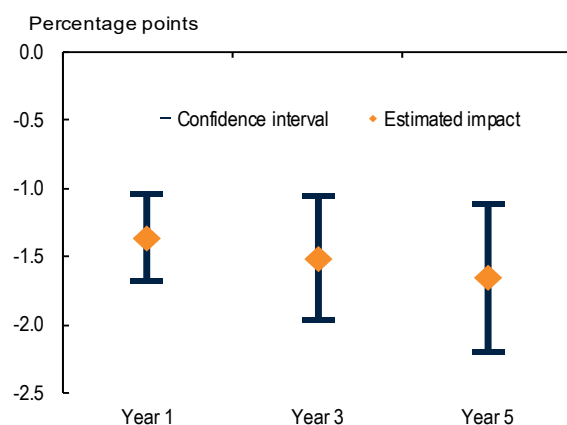
The successful diversification experience of some energy producers (e.g., Malaysia, Mexico) suggests the need for broader diversification efforts, especially along the energy supply chain of oil, natural gas, petrochemical sectors as well as energy intensive industries. This involves reforms to improve the business environment, education, and skills acquisition (Callen et al. 2014). Attracting capital flows to non-resource sectors may also encourage such efforts. While incremental diversification around resource sectors can help foster learning and the adoption of new technologies, proper regulatory and institutional conditions need to be in place to attract new investments, help the development of higher value-added export sectors, and boost participation in regional and global value chains. Regulations and institutions that slow the emergence of new sectors should be identified and reformed to support efficiency-seeking and productivity-enhancing investments (Mahmood 2017).

Conclusion

Oil exporters faced significant policy challenges since the 2014-16 collapse in oil prices, but those with flexible currency regimes, relatively large fiscal buffers, and diversified exports fared better than others. A period of low oil prices has also compelled policy-makers in many countries to undertake long-needed reforms, including reducing fiscally-costly energy subsidies and developing plans to reduce reliance on the energy sector.

However, the pace of reforms has been slow and the persistently low oil prices continue to cast a long shadow on potential growth, (Figure F7).⁸ The expectation that oil prices will remain markedly lower than previously expected increases the urgency of accelerating diversification efforts, boosting resilience, and increasing fiscal sustainability (Figure F8). Oil exporters

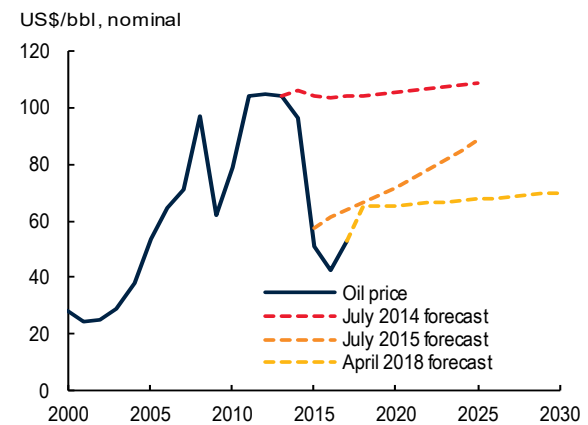
F7 Growth response to contractions



Source: World Bank.

Notes: Contractions are defined as years of negative growth from the year after the output peak to output trough. See endnote #8 for details.

F8 Oil prices, history and forecasts



Sources: World Bank (2014, 2015c, this report).

should also prepare for episodes of large price fluctuations as unexpected changes in oil supply (e.g., geopolitically-driven disruptions) or demand conditions (e.g., changing growth prospects in major EMDEs) remain possible. This emphasizes the need to reinforce fiscal rules and ensure that monetary policy frameworks facilitate orderly adjustments to terms-of-trade shocks.

Endnotes

1. This section draws heavily from Stocker et al (2018).
2. The Herfindahl-Hirschmann export concentration index measures the degree of product concentration. Values closer to 1 indicate a country's exports are highly concentrated on a few products. "Above average concentration" and "below average concentration" groups are defined by countries above or below the sample average for export concentration in 2014. Exchange rate classification is based on the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions database. Countries are ranked from 0 (no separate legal tender) to 10 (free float). "Pegged" refers to countries with a ranking of 1 to 6 while "Floating" denotes those with rankings of 7 to 10 and includes countries with horizontal bands and other managed arrangements.
3. Foreign reserve sample includes nine oil-exporting EMDEs for which data is available (Albania, Angola, Bolivia, Colombia, Kazakhstan, Malaysia, Nigeria, Qatar, and Russia). The nominal effective exchange rate sample includes seven oil-exporting EMDEs for which data is available (Algeria, Colombia, Malaysia, Nigeria, Russia, Saudi Arabia, and the United Arab Emirates).
4. Sample includes 27 oil-exporting EMDEs (excludes Albania, Bolivia, Brunei Darussalam, Ghana, Libya, Myanmar, South Sudan, and Turkmenistan). Change in overall fiscal balance is measured from 2014-16. Above average and below average oil revenue groups are defined by countries above or below the sample average of oil revenues as a share of GDP based on 2014 data.
5. Approximately 60 percent of oil-exporting EMDEs have at least one SWF.
6. Number of reforms reported in Doing Business in the following areas: making it easier to start a business, making it easier to deal with construction permits, making it easier to get electricity, making it easier to register property, making it easier to get credit, making it easier to protect minority investors, making it easier to pay taxes, making it easier to trade across borders, making it easier to enforce contracts, and making it easier to resolve insolvency. Sample includes 35 oil-exporting EMDEs.
7. Sample includes 34 oil-exporting EMDEs (excludes South Sudan), 116 oil-importing EMDEs, and 36 advanced economies.
8. Contractions are defined as the years of negative output growth from the year after the output peak to output trough. Sample includes 9 oil-exporting EMDEs: Bolivia, Columbia, Ecuador, Iran, Kazakhstan, Kuwait, Russian Federation, Saudi Arabia, and Venezuela. Dependent variable defined as cumulative slowdown in potential growth after a contraction event. Diamonds show coefficient estimates, while vertical lines show shock +/- 1.64 standard deviations (90 percent confidence bands).

References

- Alberola-Ila, E., J. Aizenman, R. Moreno, and F. Zampolli. Forthcoming. "The Commodity Cycle: Macroeconomic and Financial Stability Implications – An Introduction." *Journal of International Money and Finance*, <https://doi.org/10.1016/j.jimonfin.2017.07.003>.
- Asamoah, A., E. Hanedar, and B. Shang. 2017. "Energy Subsidy Reform: Difficult yet Progressing." VoxEU.org, June 12. <http://voxeu.org/article/energy-subsidy-reform-difficult-yet-progressing>.
- Aslam, A., S. Beidas-Strom, R. Bems, O. Celasun, S.K. Celik, and Z. Koczan. 2016. "Trading on Their Terms? Commodity Exporters in the Aftermath of the Commodity Boom." IMF Working Paper 16/27, International Monetary Fund, Washington, DC.
- Baffes, J., M. A. Kose, F. L. Ohnsorge, and M. Stocker. 2015. "The Great Plunge in Oil Prices: Causes, Consequences, and Policy Responses." Policy Research Note 1, World Bank, Washington, DC.
- BIS (Bank for International Settlements). 2016. "Uneasy Calm Gives Way to Turbulence." *BIS Quarterly Review* (March): 1–14.
- Callen, T., R. Cherif, F. Hasanov, A. Hegazy, and P. Khandelwal. 2014. "Economic Diversification in the GCC: Past, Present, and Future." IMF Staff Discussion Note 14/12, International Monetary Fund, Washington, DC.
- Clements, B., D. Coady, S. Fabrizio, S. Gupta, T. Alleyne, and C. Sdravovich. 2013. *Energy Subsidy Reform: Lessons and Implications*. Washington, DC: International Monetary Fund.
- Danforth, J., P. A. Medas, and V. Salins. 2016. *How to Adjust to a Large Fall in Commodity Prices*. Washington, DC: International Monetary Fund.

- Devarajan, S. 2017. "How to Use Oil Revenues Efficiently." *Mimeo*, World Bank, Washington, DC.
- Frankel, J. A. 2017. "How to Cope with Volatile Commodity Export Prices: Four Proposals." Working Papers 335, Center for International Development at Harvard University, Cambridge, MA.
- Grigoli, F., A. Herman, and A. Swiston. 2017. "A Crude Shock: Explaining the Impact of the 2014-16 Oil Price Decline Across Exporters." Working Paper 17/160, International Monetary Fund, Washington, DC.
- Hesse, H. 2008. "Export Diversification and Economic Growth." Working Paper 21, Commission on Growth and Development, World Bank, Washington, DC.
- Ianchovichina, E., and H. Onder. 2017. "Dutch Disease: An Economic Illness Easy to Catch, Difficult to Cure." *Future Developments*, The Brookings Institution, Washington, DC.
- IMF (International Monetary Fund). 2016. "Economic Diversification in Oil-Exporting Arab Countries." Annual Meeting of Arab Ministers of Finance.
- . 2017a. *Fiscal Monitor: Achieving More with Less*. Washington, DC: International Monetary Fund.
- . 2017b. "If Not Now, When? Energy Price Reform in Arab Countries." Note Prepared for Annual Meeting of Arab Ministers of Finance, International Monetary Fund, Washington, DC.
- Krane, J., and S. Y. Hung. 2016. "Energy Subsidy Reform in the Persian Gulf: The End of the Big Oil Giveaway." Issue Brief 04/28/16, Baker Institute for Public Policy, Rice University, Houston, TX.
- Lederman, D., and W. Maloney. 2007. "Trade Structure and Growth" In *Natural Resources: Neither Curse nor Destiny*, edited by D. Lederman and W. Maloney. Washington, DC: World Bank.
- Lopez-Martin, B., J. Leal, and A. Martinez. 2016. "Commodity Price Risk Management and Fiscal Policy in a Sovereign Default Model." BIS Working Paper No. 620, Bank for International Settlements, Basel.
- Mahmood, A. 2017. "Unlearning to Learn: The Path to Diversification." *Future of Development* (blog), January 25. <https://www.brookings.edu/blog/future-development/2017/01/25/unlearning-to-learn-the-path-to-diversification/>.
- Mendes, A., and S. Pennings. 2017. "Consumption Smoothing and Shock Persistence: Optimal Simple Fiscal Rules for Commodity Exporters." Policy Research Working Paper 8035, World Bank, Washington, DC.
- Sommer, M., G. Auclair, A. Fouejieu, I. Lukonga, S. Quayyum, A. Sadeghi, G. Shbaikat, A. Tiffin, J. Trevino, and B. Versailles. 2016. "Learning to Live with Cheaper Oil: Policy Adjustment in Oil-Exporting Countries of the Middle East and Central Asia." Middle East and Central Asia Departmental Paper No. 16/03, International Monetary Fund, Washington, DC.
- Stocker, M., J. Baffes, Y. Modeste Some, D. Vorisek, and C. Wheeler. "With the Benefit of Hindsight: The Impact of the 2014-16 Oil Price Collapse." Policy Research Working Paper, forthcoming, World Bank, Washington, DC.
- World Bank. 2014. *Commodity Markets Outlook*. July. Washington, DC: World Bank.
- . 2015a. "MENA Quarterly Economic Review: Plunging Oil Prices." World Bank, Washington, DC.
- . 2015b. *Global Economic Prospects: Having Fiscal Space and Using It*. Washington, DC: World Bank.
- . 2015c. *Commodity Markets Outlook*. July. Washington, DC: World Bank.
- . 2016a. *Global Economic Prospects: Divergences and Risks*. Washington, DC: World Bank.
- . 2016b. "MENA Quarterly Economic Review: Whither Oil Prices." World Bank, Washington, DC.
- . 2016c. *Global Economic Prospects: Spillovers amid Weak Growth*. Washington, DC: World Bank.
- . 2017a. *Global Economic Prospects: Weak Investment in Uncertain Times*. Washington, DC: World Bank.
- . 2017b. *Global Economic Prospects: A Fragile Recovery*. Washington, DC: World Bank.
- . 2017c. *Commodity Markets Outlook*. October. Washington, DC: World Bank.
- . 2018. *Global Economic Prospects: Broad-Based Upturn, but for How Long?* Washington, DC: World Bank.



COMMODITY MARKET DEVELOPMENTS AND OUTLOOK

Energy
Agriculture
Fertilizers
Metals and minerals
Precious metals

Energy

The World Bank *Energy Price Index* rose 10 percent in the first quarter of 2018 (q/q), following a jump of 24 percent in 2017 (y/y), supported by the cyclical global recovery. The increase was driven by crude oil prices, which increased 10 percent amid rising geopolitical tensions and greater-than-expected compliance by Organization of Petroleum Exporting Countries (OPEC) and non-OPEC producers to production targets. Strong winter demand caused natural gas prices to surge 11 percent while coal prices rose 4 percent.

Crude oil

Crude oil prices rose 10 percent in the first quarter (q/q), averaging \$64.6/bbl (Figure 2). Prices have more than doubled from the trough in early 2016 (around \$25/bbl).

Following a weak first half in 2017, oil prices rose sharply in the latter half of the year. Strong oil consumption growth and greater-than-expected compliance by the 22 OPEC and non-OPEC producers to their agreed production cuts helped reduce inventories, particularly in the United States (Figure 3). Oil inventories are now just 30 million barrels above their 5-year average, which was the original goal for OPEC's production cuts.

In the first quarter of 2018, oil prices continued to rise on strong consumption growth, with the main international marker, Brent, briefly topping \$70/bbl in January. Prices rose further in April, with Brent exceeding \$74/bbl, its highest level since November 2014. Rising geopolitical tensions threatened oil exports on several fronts, such as the possible reinstatement of U.S. sanctions against Iran, military escalation in Syria, and tensions between Saudi Arabia and

Iran. OPEC's supply cuts have also continued to be deeper than expected, primarily due to unplanned production losses in Venezuela, where supply has fallen by more than half a million barrels per day compared to last year.

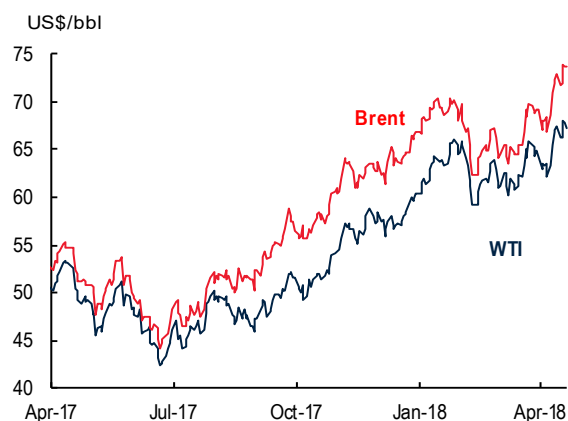
The impact of the substantial production cuts by these countries has been countered by continued increases in U.S. production, which surpassed its 1970s peak in November 2017. The United States has overtaken Saudi Arabia to become the world's second largest oil producer. Rapid growth in shale production is projected to continue despite rising costs including for wages and equipment, and expected pipeline constraints that may prevent rising supply from reaching the Gulf coast for export, at least in the short-term.

Crude oil prices are projected to average \$65/bbl in 2018 and 2019. The longer-term outlook for oil prices depends heavily on the balance between rising U.S. oil production, and the persistence and depth of OPEC production cuts. At its June meeting, OPEC is scheduled to consider extending or amending output limits in conjunction with non-OPEC producers. An extension of the cuts has been called for by some members, and would further tighten oil markets. However, higher prices will benefit the U.S. shale industry and may result in faster output growth despite increasingly binding capacity constraints in the short-term. The evolution of geopolitical tensions will also play an important role in determining oil prices. The renewal of sanctions on Iran could have an adverse impact—prior sanctions resulted in a reduction of around 1mb/d of Iranian exports. An escalation of trade tensions could also hit oil demand, particularly for fuel oil.

Consumption

World oil consumption grew strongly in 2017, up more than 1.6 mb/d or 1.6 percent (y/y). Most of the

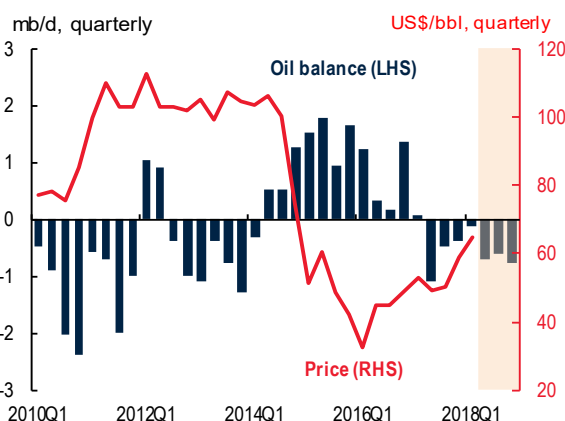
2 Crude oil prices



Source: Bloomberg.

Note: Daily frequency. Last observation is April 20, 2018.

3 World oil balance and oil price



Sources: IEA, World Bank.

Note: Shaded area (2018Q2-Q4) represents IEA projections. Balance is defined as the difference between world oil demand and supply. OPEC crude oil production for 2018 is assumed at 32.0 mb/d.

increase was in Asia and the countries of the Organization for Economic Co-operation and Development (OECD) (Figure 4).

In the first quarter of 2018, world oil consumption is estimated to have risen 1.6 percent (y/y). Consumption growth accelerated to 1.4 percent in OECD members with gains primarily in North America, as cold weather boosted heating oil demand. Consumption growth in non-OECD countries in the first quarter rose 1.8 percent (y/y), led by China, although its consumption growth slowed amid environmentally-motivated production cuts and the late New Year holiday season. India's consumption, up 11 percent, also rose strongly.

For 2018, world oil consumption is projected to increase by 1.5 percent (y/y), with non-OECD consumption rising 1.2 mb/d and OECD consumption gaining 0.3 mb/d. Beyond this year, OECD oil consumption growth is projected by the International Energy Agency (IEA) to slow due to efficiency and environmental policies that will mainly impact transport fuels. Non-OECD consumption growth is also expected to slow as countries introduce policies to improve urban air quality. In addition, some countries are reducing consumer fuel subsidies and switching to natural gas in the power sector, further limiting oil consumption.

Production

Global crude oil production rose by 0.4 mb/d in 2017, slightly less than in 2016, and well below the average gain of 1.9 mb/d over 2010-2015. A decline in OPEC production of 0.4 mb/d last year partly offset an increase in non-OPEC production of nearly 0.8 mb/d that was driven by rising U.S. output (Figure 5).

For 2018, non-OPEC production is projected to rise by 1.8 mb/d, slightly above projected growth in con-

sumption, with the increase again due primarily to rising U.S. production. Assuming production remains at its current level for the remainder of 2018, OPEC production for the year is expected to be below 2017 levels. This would likely result in a further reduction in global stocks, particularly in the second half of the year.

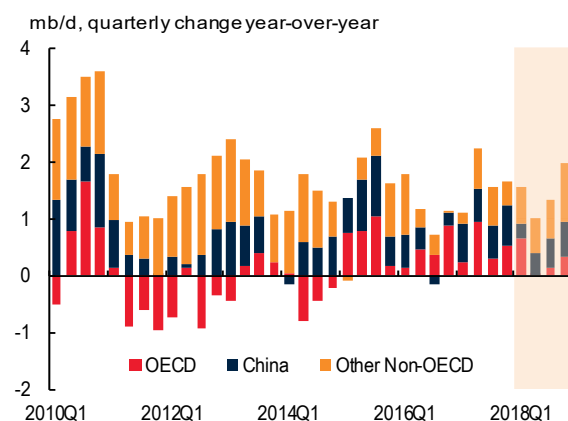
OPEC

OPEC compliance to its agreed production cuts has steadily improved and reached 163 percent in March, as most countries exceeded their commitments, with Iraq the notable exception at just 58 percent. Much of the additional compliance was due to Venezuela, where output has fallen by more than half a million barrels per day compared to a year ago. The extension of the cuts in late 2017, together with their unexpected size has helped support oil prices in 2018.

OPEC had agreed that twelve of its members (Libya and Nigeria exempted) would cut output by 1.2 mb/d (from an assigned baseline) from the start of 2017. The pact was forged with ten non-OPEC countries that agreed to reduce output by 0.6 mb/d, led by Russia and Mexico, and collectively amounted to just under 2 percent of global supply. Since December 2016, the 22 "agreement" countries reduced crude oil output by 2.4 mb/d. Crude oil production in the twelve OPEC countries fell 1.4 mb/d, including a drop of 0.6 mb/d in Venezuela. (Figure 6). The next largest decreases were in Saudi Arabia (0.5 mb/d) and the United Arab Emirates (0.3 mb/d). However, OPEC cuts were partly offset by increases of more than 0.6 mb/d in Libya and Nigeria combined.

The target for OPEC's production cuts was for oil inventories to return to their 5-year average. While close to being achieved, both Saudi Arabia and Russia have called this target flawed, and they are discussing other measures for gauging success. Options include: (i) a

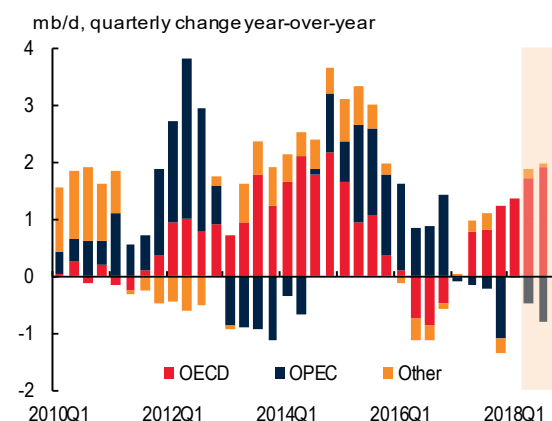
4 World oil demand growth



Source: IEA.

Note: Shaded area (2018Q1-2018Q4) represents IEA projections.

5 World oil supply growth



Source: IEA.

Note: Shaded area (2018Q2-2018Q4) represents IEA projections and assumes OPEC production remains constant.

7-year average of OECD stocks; (ii) number of days of forward consumption; (iii) excluding periods of high stocks in 5- or 7-year averages; (iv) non-OECD stocks including floating storage; and (v) various financial indicators. Saudi Arabia would also like to shift the existing OPEC/non-OPEC cooperation with Russia and other non-OPEC producers to a longer-term arrangement, possibly over 10 or 20 years. At its June meeting, OPEC is scheduled to assess market developments and to consider extending or amending output limits in conjunction with non-OPEC producers. There have also been press reports that Saudi Arabia may prefer to target an oil price of \$80/bbl to fund its ambitious policy agenda.

Non-OPEC

Non-OPEC production returned to growth in 2017, increasing by almost 0.8 mb/d relative to 2016. Output gains in the United States and Canada totaled 1 mb/d, while additional increases in Africa, Brazil, and Kazakhstan were more than offset by large declines in Asia and Mexico. In the second half of the year, total non-OPEC production accelerated, and averaged 1.3 mb/d in the first quarter of 2018. Gains this year were led by a jump of 1.5 mb/d in the United States.

In March 2018, compliance with the production cuts by the 10 non-OPEC producers reached 90 percent, with Russia absorbing the largest cut (approaching 0.3 mb/d). Production in Mexico has fallen by three times its mandated cut of 0.1 mb/d due to a continued natural contraction in output. Kazakhstan, on the other hand, is producing well above its target, owing to the ramp up of the long-delayed Kashagan field in the Caspian Sea.

For 2018, non-OPEC supply is projected to increase by 1.8 mb/d. Most of the growth is expected in the United States (1.5 mb/d). Small increases in Brazil, Canada, Kazakhstan, and the United Kingdom are

expected to be partly offset by large decreases in China, Mexico and Norway. The IEA is projecting an even larger gain in non-OPEC supply for 2019, with U.S. output climbing by more than 1 mb/d.

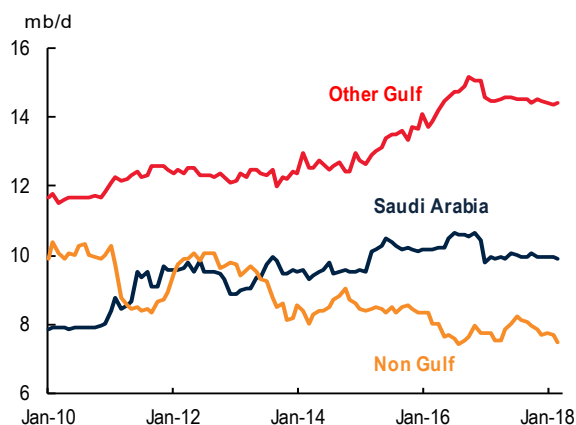
United States

U.S. crude oil output rose to a record 10.4 mb/d in March, surpassing its 1970s peak and overtaking Saudi Arabia as the second largest producer. Much of the increase has been from shale deposits, which account for nearly two-thirds of U.S. crude production. The U.S. Energy Information Administration projects U.S. crude production will reach 11.3 mb/d by the fourth quarter of 2018, and average 11.4 mb/d in 2019.

The rise in oil prices over 2017 and into 2018 has supported shale oil production. Production has also benefited from improvements in efficiency, reduced costs, and technological and managerial innovation. Improvements include longer horizontal pipe laterals, shorter drilling and completion times, greater proppant intensity, and the use of multiple wells at a single location. As a result, well productivity continues to rise. In both the Eagle Ford and the Bakken basins, output has jumped from less than 300 barrels per well in 2012 to 1,400 barrels. In addition, producers have hedged their production by selling forward, which has contributed to the steep backwardation (downward slope) in futures prices.

The number of rigs drilling for oil in the United States rose to 815, an increase of nearly 500 from its low in 2016 (Figure 7). A large portion of investment has been directed to the Permian Basin, which straddles West Texas and New Mexico and where the number of rigs jumped by more than 300 over the same period. The Permian Basin accounts for more than half of all U.S. wells drilling for oil, and production has reached 3 mb/d (Figure 8).

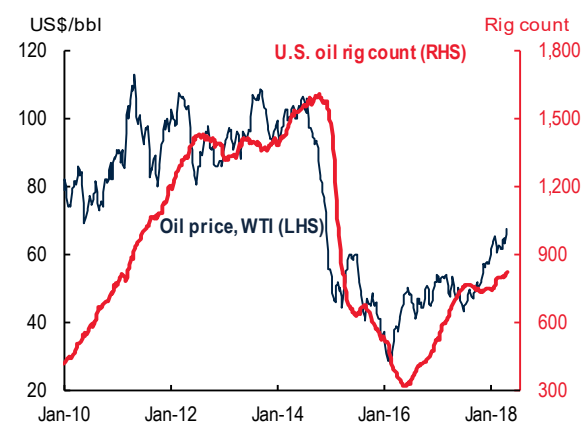
6 OPEC crude oil production



Source: IEA.

Note: Last observation is March 2018.

7 U.S. oil rig count and oil prices, weekly



Sources: Baker Hughes, Bloomberg.

Note: Weekly frequency. Last observation is April 20, 2018.

While the fundamentals for shale oil production are favorable, the speed of the rise in output has resulted in increasingly binding capacity constraints. Costs have started to rise, especially for skilled labor, fracking crews, key equipment, and specialty materials. In addition, the rapidly growing Permian Basin is expected to encounter pipeline constraints in the second half of 2018, which will restrict shipments to Gulf coast refineries and export facilities. These bottlenecks are likely to endure through 2019 until expected new pipeline capacity comes on line. This has resulted in a substantial price discount for Permian to benchmark WTI crude oil. Meanwhile, shipping by higher-cost rail and truck is planned to help offset the anticipated constraints.

Shale oil is a very light crude, and not preferred in complex U.S. refineries that were built to process an expected increasingly heavy slate of imported crudes. Thus, much of the increase in shale production will have to be either blended with heavy crude in domestic refineries or exported. Since the export ban was lifted in 2015, U.S. crude shipments abroad have risen to 1.6 mb/d, and are in addition to 5 mb/d of refined product exports which were not previously restricted. Asia is best positioned to absorb rising U.S. shale oil exports, in part because of growing consumption and refinery processing capacity. U.S. crude export capacity is projected to rise to nearly 5 mb/d by 2023, with Corpus Christi in Texas expected to become the largest export hub, in part because it is a deep-water port that can accommodate large tankers.

Stocks

Total oil stocks (crude oil and petroleum products) in OECD countries remain elevated by historical standards, but have fallen to their lowest level since April 2015. Relative to their five-year average (OPEC's current target), stocks have rapidly declined from 337

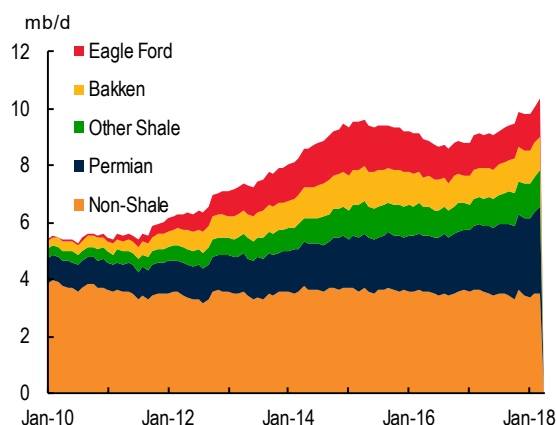
million barrels (mb) above the average at end-January 2017, to just 30 mb in February, and will likely fall below the five-year average this year (Figure 9). The OECD stock surplus is concentrated in crude oil, mainly in the United States, as refined product stocks are already below their five-year average. Stocks at a key inland hub, Cushing Oklahoma, fell to their lowest level in over four years due to record refinery runs, rising crude exports, lower exports from Canada (the result of a pipeline leak), and a new pipeline that ships crude out of Cushing to Memphis Tennessee. These led to a narrowing of the price differential between Brent and West Texas Intermediate crudes. Stocks at Cushing are expected to rise, however, from a new pipeline, a rebound of export flows from Canada, and shipments redirected from the Permian region as pipelines to the Gulf coast reach capacity.

Price projections and risks

Crude oil prices are projected to average \$65/bbl in 2018 and 2019, supported by continued production restraint among OPEC and non-OPEC producers, but capped by slowing consumption growth and accelerating production growth from non-agreement countries, led by U.S. shale. Stocks are expected to decline moderately, particularly in the second half of the year.

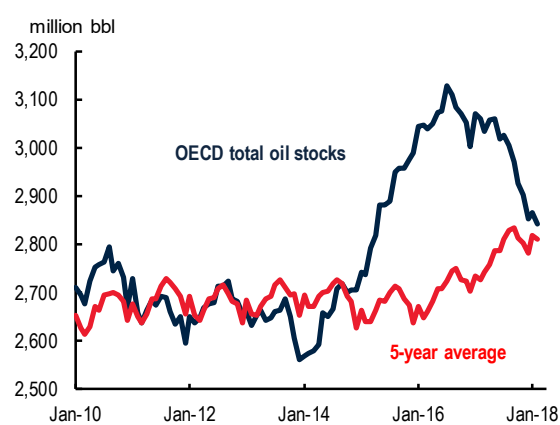
There are significant upside risks to the oil price forecast. First, the expected rise in U.S. shale output could be held back by transport constraints and slowing investment. Second, geopolitical risks threaten exports from several producing countries (e.g. Iraq, Libya, Nigeria, and Venezuela). Third, there are concerns that the U.S. administration may not waive sanctions on Iran on May 12 under the Joint Comprehensive Action Plan regarding its nuclear program. This could place a sizeable portion of Iran's exports to Europe and Asia at risk, with previous sanctions reducing Iranian

8 U.S. shale oil production



Source: U.S. Energy Information Administration.
Note: Last observation is March 2018.

9 OECD total oil stocks



Source: IEA.
Note: Last observation is February 2018.

oil exports by around 1mb/d. While the OPEC production cuts have resulted in significant spare capacity which could be used to offset any geopolitically-driven reductions in production, this is not guaranteed. OPEC has not increased production to offset the unexpected decline in Venezuelan production, for example. Lastly, deeper cuts by OPEC and non-OPEC countries, or a lengthy extension of their agreement, could materially tighten the crude market.

Downside price risks include weaker compliance with the OPEC/non-OPEC agreement, or termination of the pact. Rising output from Libya and Nigeria could add to global supplies, as could faster-than-expected growth in U.S. shale oil production from further gains in efficiency. A larger-than-expected slowdown in global economic activity, or an escalation of trade tensions resulting in a trade war would also curtail oil use, particularly for fuel oil.

Coal and Natural gas

Coal prices rose 4 percent in the first quarter (q/q), following a surge of 34 percent in 2017, mainly due to strong consumption in China spurred by cold weather, low inventories and production constraints. Weak hydro power availability in China and natural gas shortages also boosted coal consumption for heat and power generation. In early February the Chinese government capped the coal import price at around \$118/mt to encourage domestic production and curtail coal imports. Coal prices have since declined as the boost from winter demand has waned.

Coal consumption faces long-term structural declines in several consuming regions for both economic and policy reasons. In the United States, low-priced natural gas has reduced coal usage in power generation, and led to a reduction in investment in coal supply. China is investing in cleaner energy sources, reform-

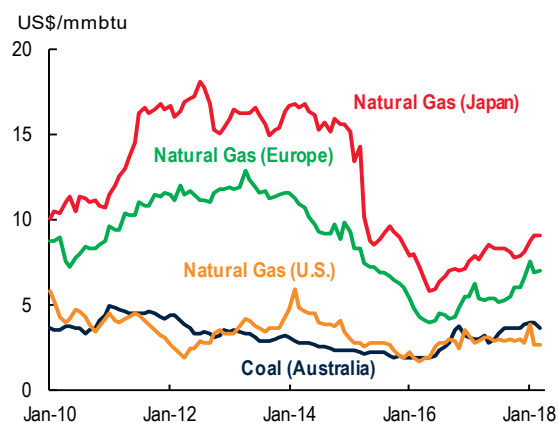
ing its electricity sector to reduce inefficient production, and reducing the energy intensity of its economy—all at the expense of coal. Meanwhile, several European countries plan to end coal consumption over the next decade, and India is seeking to reach peak coal consumption over the same period.

Coal prices are expected to average \$85/mt in 2018, down slightly from 2017, as inventories are replenished and consumption is curtailed. China, which accounts for more than half of global coal consumption, is expected to be a key driver of coal prices in the seaborne market, as it reforms its energy sector away from coal toward cleaner burning fuels.

Natural gas prices rose 11 percent in the first quarter (q/q), after a 21 percent increase in 2017, as strong winter consumption depleted storage levels in all main regions. European gas prices jumped 15 percent to average \$7.2/mmbtu, while the delivered price to Japan averaged \$9.0/mmbtu on strong import demand for liquefied natural gas (LNG). U.S. prices averaged \$3.1 mmbtu, despite cold weather on lower inventories (Figure 10).

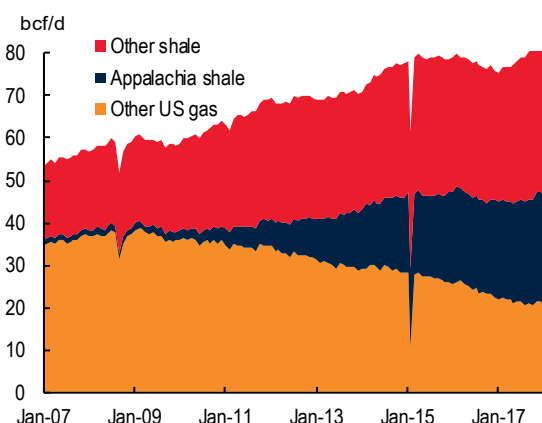
Natural gas prices are projected to rise 8 percent in 2018. In the United States, prices are expected to edge higher buoyed by strong inventory injections and rising exports, but stocks are expected to be amply supplied due to rising production and transport infrastructure. Most of the production growth is expected in shale gas production (mainly in the northeast Appalachian region) and associated gas from expanding shale oil production, mainly in Texas (Figure 11). Prices in Europe and Japan are expected to increase by 15 and 9 percent, respectively, in part due to current higher oil prices which are indexed with a lag.

10 Coal and natural gas prices



Source: World Bank.
Note: Last observation is March 2018.

11 U.S. shale gas production



Source: U.S. Energy Information Administration.
Note: Last observation is January 2018.

Agriculture

Following more than two years of stability, agricultural commodity prices began to strengthen in the first quarter as a result of reduced plantings of key crops in the United States (notably maize and soybean) and unfavorable weather in South America (soybeans). The World Bank's *Agriculture Price Index* gained 4 percent (q/q), the first significant increase since mid-2016. Food commodities rose 4.3 percent, reflecting gains in all three grains (maize, rice, and wheat) as well as in soybeans, although some edible oil prices (such as palm and rapeseed oil) experienced significant declines (Figure 12). The beverage prices index was largely flat as a decline in tea prices was offset by cocoa price increases. The raw material price index rose due to a large gain in cotton prices.

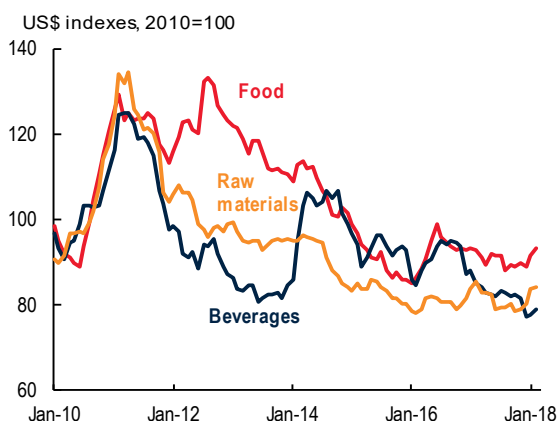
The *Agriculture Price Index* is expected to rise 2.2 percent in 2018 and 1.3 percent in 2019 due to the current season's reduced plantings (maize) and some weather-induced crop reductions in South America (soybeans). Grain prices are expected to increase 7.5 percent in 2018 and rise an additional 1.8 percent in 2019. Oils and meals are projected to advance 4 percent in 2018 and edge up 1.5 percent in 2019, largely a reflection of tight soybean supplies. Beverage prices are expected to remain largely unchanged in 2018 before climbing 1 percent in 2019. Raw materials prices are projected to jump 2.5 percent in 2018 and tick up further in 2019. Over the medium term, nominal agricultural commodity prices are expected to strengthen a cumulative 5 percent through 2020, a small gain compared to post-2011 declines.

Risks to the forecasts are limited. Price volatility based on monthly data for more than 20 agricultural commodities is at low levels by historical standards (Figure 13). Earlier fears that the La Niña cycle could disrupt

food supplies did not materialize. Impacts were limited to two commodities: bananas in Central America and soybeans in Argentina. Although the effects of La Niña are still in effect in April, its impact has dissipated and the cycle is expected to end soon, according to the U.S. National Oceanic and Atmospheric Administration. Recent tensions on trade have thus far stopped short of agricultural products, but some measures under consideration could affect prices of specific products, such as soybeans, if implemented. The effect of growing land use for biofuel production on food commodities such as corn and edible oils is diminishing. However, higher energy prices could materially reverse this trend and increase food commodity prices, as discussed later in this section. The World Bank's *Grain Price Index* rose nearly 9 percent in the first quarter (q/q), reaching a three-year high in March. Global grain supplies increased marginally in the current (2017-18) season, and preliminary assessments for the next season point to decreasing production due to lower planting intentions for key grains in the United States.

Global production of wheat, which has been revised upwards repeatedly throughout the current crop season, is projected to reach a record 759 million metric tons (mmt), 1.2 percent higher than last season's 751 mmt, according to the U.S. Department of Agriculture (USDA). Conditions for the current crop season, which is coming to a close in some countries, have generally been favorable, including for the winter crop in the two key Central Asian wheat producers (Russia and Ukraine) and in India for the upcoming rice crop. Some weather concerns in North America, notably a drought in the United States and temperature changes in Canada, are not strong enough to alter the global outlook significantly.

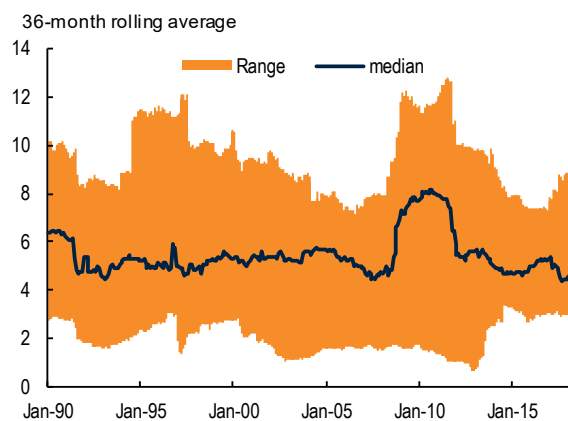
12 Agriculture price indexes



Source: World Bank

Note: Last observation is March 2018.

13 Volatility of agriculture prices



Source: World Bank.

Note: Price volatility of 21 agricultural commodities, calculated as the standard deviation of logarithmic price changes (times 100). Last observation is March 2018.

With global consumption expected to grow by only 1 percent from last season, the stocks-to-use ratio for wheat (a measure of supply relative to demand) is forecast to advance to 36.5 percent, a three-decade high. An early assessment for next season's wheat crop in the United States, based on the USDA's prospective plantings report (released on March 29), points to an increase in wheat area by 3 percent (for all types of wheat). If the assessment for the United States materializes, next season's global wheat output could push stocks higher.

Global maize production is expected to fall more than 3 percent this season, to 1,043 mmt. Crop conditions in the Southern Hemisphere are mixed—Brazil's harvest is expected to be near its five-year average; but weather conditions in Argentina have been unfavorable notwithstanding some recent improvement. Despite a promising start in maize sowing in the Northern Hemisphere (United States, Mexico, and China), the USDA's prospective plantings report points to a 2 percent decline in land allocated to maize for the next season. South Africa may also experience a decline in maize plantings. Global maize consumption is anticipated to expand nearly 3 percent, reducing the stocks-to-use ratio to 18.6 percent, nearly 4 percentage points below last season but much higher than the lows in 2010-12.

Rice production is expected to remain virtually unchanged in 2017-18 at 487 mmt (against earlier expectations of decline). Sowing in most rice-producing South-East Asian countries, including Indonesia, the Philippines, and Vietnam, is taking place under benign conditions. Growing conditions are also good in India and Thailand, the world's top two rice exporters. With global rice consumption expected to increase only marginally (about 1 percent), the stocks-

to-use ratio is seen reaching an 11-year high of 30 percent.

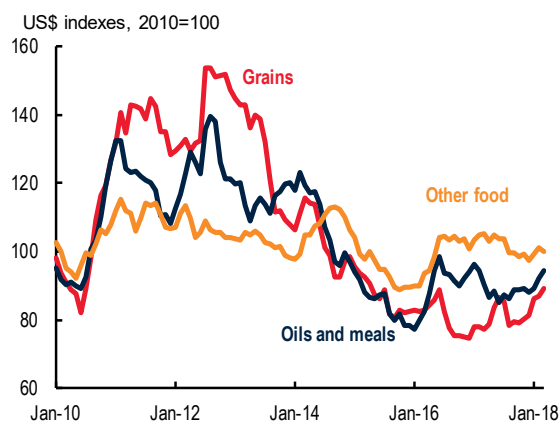
Based on USDA's March assessment of global crop conditions—the last update for the current season—combined global supplies of wheat, maize, and rice are projected to reach 2,901 mmt this season, 4 mmt higher than 2016-17, the fifth consecutive surplus season (Figure 15).

The World Bank's *Oils and Meals Price Index* gained nearly 4 percent in the first quarter of 2018 (q/q). However, the index is 2 percent below last year's first quarter average. A 17 percent increase in the price of soybean meal (a key input to animal feed and close substitute for maize) was counterbalanced by declines in prices of key palm and coconut oil (down 4 and 16 percent, respectively) due to ample supplies in Indonesia and Malaysia (palm oil) and the Philippines (coconut oil).

The production outlook for edible oils for the current season, which ends in September, is promising despite weather-related factors, including the effects of La Niña, in South America. Global production of key edible oils (including palm, soybean, and rapeseed) is forecast to exceed 226 mmt in 2017-18, 7 percent more than last season and a cumulative 11 percent above the 2015-16 season. This in part reflects a rebound from the exceptionally weak 2015-16 season, which was severely affected by El Niño. About half of the anticipated expanded production is expected to come from palm oil, which is mainly produced in Indonesia and Malaysia, and soybean oil, of which Argentina, Brazil, and the United States are the key producers.

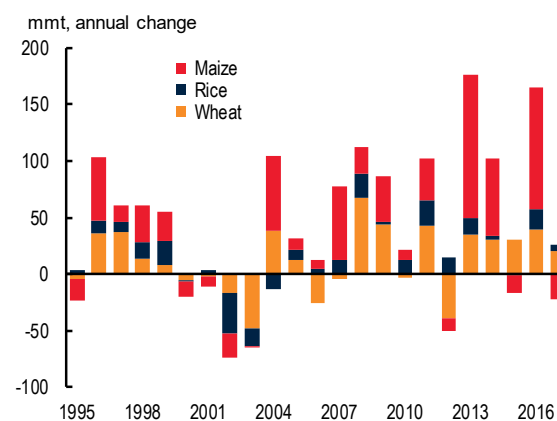
The oilseed supply outlook for the current season (October 2017-September 2018) is also healthy, with global supplies for the ten major oilseeds projected to

14 Food price indexes



Source: World Bank
Note: Last observation is March 2018.

15 Global grain supply growth



Source: U.S. Department of Agriculture.
Notes: April 10, 2018 update. Supply is the sum of beginning stocks and production. Years represent crop seasons (e.g., 2016 refers to 2016-17 crop season).

increase marginally from last season's 560 mmt. A weather-related decline in Argentina's soybean output (Figure 16) is expected to be offset by increases in cottonseed, palm kernels, and rapeseed.

Despite some La Niña-related weather disruptions in South America, grain supplies in the current season increased marginally. (As late as December, global supplies of grains were expected to decline.) In two of the three grains (wheat and rice) stocks-to-use ratios are projected to reach multi-year highs (Figure 17). However, some early assessments for the next season point to reduced plantings. In view of these supply conditions, the World Bank's *Agriculture Price Index* is expected to increase 2.2 percent in 2018 and rise an additional 1.3 percent in 2019.

Risks

Key risks to the forecasts are associated with volatility of energy and fertilizer prices (both of which are key inputs, especially to grains and oilseeds) and changes in trade policies. Other risks such as production subsidies and the diversion of some food commodities to biofuels have diminished.

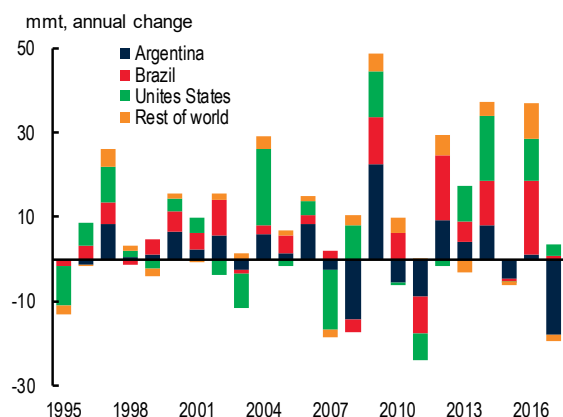
Energy, a key input to most agricultural commodities, affects the costs of production directly through fuel use and indirectly through the use of chemicals and fertilizers. Energy prices are expected to increase almost 20 percent in 2018 and, as noted in the energy section, this forecast is subject to considerable upside risks. Higher-than-expected energy prices could exert upward pressure on agricultural prices. Research reported in the July 2016 edition of the *Commodity Markets Outlook* suggests that a 10 percent increase in energy prices is associated with a 2 percent increase in grains and edible oil prices.

Efforts by governments to increase farmgate prices through production subsidies and trade measures,

which prevail during periods of low world prices, have been very few so far. However, the possible imposition of countervailing duties (or other trade measures or non-trade barriers) by China against agricultural imports from the U.S. could dampen global prices, especially in the short term. Separately, legislation has been introduced in the U.S. Congress that would reform U.S. food assistance programs by making the procurement process more effective and eliminating the requirement that 15 percent of U.S. donated food be sold first by aid organizations and be used to fund development projects. If signed into law, this measure would improve food assistance to poor countries and enhance poverty reduction.

Finally, the agricultural price outlook assumes that biofuels will be a stable source of demand for key food commodities. Biofuels currently account for more than 1.5 mb/d or 1.6 percent of global liquid energy consumption. Following double-digit growth rates of biofuel production, interest in biofuels has waned in recent years, with production growth slowing considerably due to a combination of lower energy prices and a gradual acknowledgement by policymakers of the limited environmental and energy-independence benefits of biofuels. Yet some countries are still enacting measures that increase biofuels production. For example, Brazil recently increased its biodiesel blending mandate from 8 to 10 percent. Thailand also announced plans to increase usage of methyl ester (a by-product of palm oil) in automotive equipment from 7 to 10 percent. Nevertheless, current projections by the Organisation for Economic Co-operation and Development and the United Nations Food and Agriculture Organization point to considerably lower biofuels production growth in the next decade.

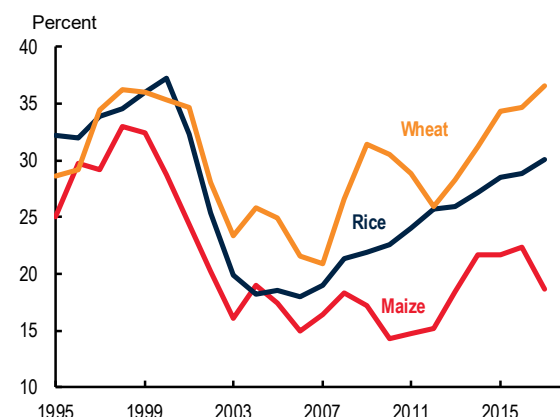
16 Soybean production growth



Source: U.S. Department of Agriculture.

Notes: April 10, 2018 update. Years represent crop seasons (e.g., 2016 refers to 2016-17 crop season).

17 Stock-to-use ratios



Source: U.S. Department of Agriculture.

Notes: April 10, 2018 update. Years represent crop seasons (e.g., 2016 refers to 2016-17 crop season).

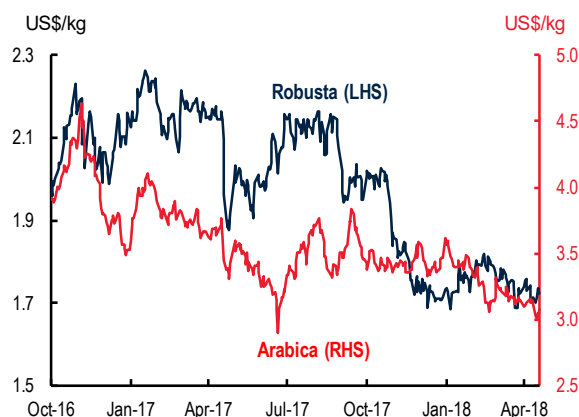
Beverages

The World Bank's *Beverage Price Index* dropped marginally in the first quarter (q/q) and is more than 7 percent lower than a year earlier. A surge in cocoa prices was more than offset by lower coffee and tea prices. Both Arabica and Robusta prices have fallen, due to stronger-than-expected exports from most exporters as well as a large upcoming Brazilian crop (Figure 18). Global coffee production is projected to exceed 168 million bags in 2017-18, up 7 percent from the previous season. Global consumption is estimated at 161 million bags, leaving a 7 million bag increase in stocks. Arabica prices are forecast to average \$3.25/kg this year, down 2 percent from last year, while Robusta prices are set to decline 10 percent in 2018. No recovery is expected in 2019.

Cocoa prices surged 7 percent the first quarter of 2018 (q/q), reaching \$2.50/kg in March, the highest level since October 2016. The cocoa market has tightened considerably as both Cote d'Ivoire and Ghana, the world's top cocoa suppliers, experienced larger-than-expected production declines this season (down 6 percent and 3 percent, respectively) due to poor weather. In view of tightening supplies, cocoa prices are expected to increase more than 8 percent in 2018 and stabilize thereafter.

Global tea prices declined 7 percent in the first quarter of 2018 (q/q), reflecting a 23 percent drop in Kolkata prices due to a surge in supplies resulting from good weather. Colombo and Mombasa prices have been broadly stable. Tea prices are expected to average a little over \$3/kg in 2018, marginally higher than 2017, as the market appears to be balanced. Looking ahead, tea prices are likely to rise modestly.

18 Coffee prices



Source: Bloomberg.

Notes: Daily frequency. Last observation is April 20, 2018.

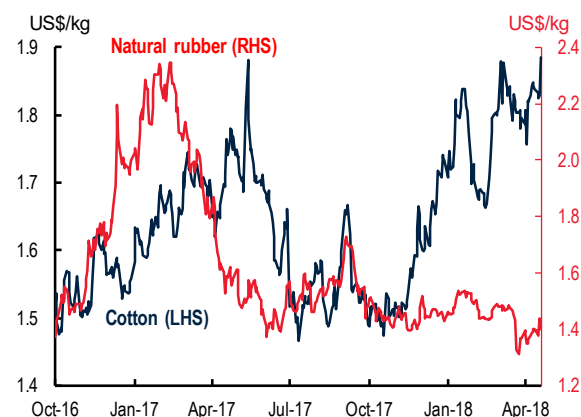
Agricultural raw materials

The World Bank's *Raw Materials Price Index* gained 6 percent in the first quarter of 2018 (q/q), erasing last year's decline. All components of the index registered gains.

Following six months of relatively low and stable prices, cotton prices surged 11 percent in the first quarter of 2018, reaching a four-year high in March (Figure 19). The increase reflects an expected production decline in next season (2018-19) to 25.4 mmt, down from last season's 25.8 mmt, mainly a result of a more than 3 percent drop of India's output (the world's larger cotton supplier). The expected drop in production comes as global consumption is expected to increase by more than 4 percent. Stocks for the next season are expected to decline by 1 mmt and be 20 percent lower than 2014-15 highs. Given the tightening conditions in the global cotton market, prices are seen advancing 6 percent in 2018 before stabilizing around \$2/kg from 2019 on.

Natural rubber prices remained low following a sharp decline in early 2017. Although up 7 percent in the first quarter of 2018 (q/q), natural rubber prices began easing again in early April. The market is still oversupplied as a result of last year's large output—global production reached 13.4 mmt in 2017, up 9 percent from 2016. A preliminary assessment for 2018 points to even higher production, as rubber exports surged in January 2018 compared to a year ago in key producers such as Thailand (35 percent higher) and Vietnam (45 percent higher). Some South-East Asian governments (e.g., Thailand) are contemplating policy measures to support declining farmer prices. If such measures materialize, they will further exacerbate the supply glut. Rubber prices are set to decline 10 percent in 2018 before they recover gradually.

19 Cotton and natural rubber prices



Source: Bloomberg.

Notes: Daily frequency. Last observation is April 20, 2018.

Fertilizers

The World Bank's *Fertilizer Price Index* rose marginally in the first quarter (q/q), following an 8 percent gain in 2017 (Figure 20). Although there was moderate demand over the period, the fertilizer markets remain over-supplied, as new capacity continues to come online. Urea prices dropped 6 percent on weak import demand. This followed strong price gains in fourth quarter due to supply shortages. Other fertilizer prices moved higher in the first quarter. Phosphate DAP and phosphate rock prices rose 13 percent and 6 percent, respectively, on supply outages and higher input costs, while potash prices were unchanged. Fertilizer markets continue to face relatively weak global demand due to low crop prices, while new capacity continues to come online from investments made several years ago when fertilizer prices and farm profitability prospects were higher.

Nitrogen (urea) prices fell 6 percent in the first quarter (q/q) following a temporary price surge in the fourth quarter. In October prices spiked amid production outages in the Middle East, Algeria, Indonesia and Venezuela, as well as delayed start-ups elsewhere. Prices subsequently pulled back as production was restored and new capacity entered the market. Nevertheless, prices are higher on a year-on-year basis due to rising energy production costs, specifically the price of fossil fuels, especially coal and natural gas. U.S urea imports continue to drop as new domestic capacity displaces imports. Meanwhile production in China—the world's largest producer—fell for the second straight year due to rising costs and to increasing environmental regulations. This contributed to a halving of its exports in 2017. The global urea market is projected to remain oversupplied due to new capacity from Azerbaijan, Indonesia, Russia and the United States.

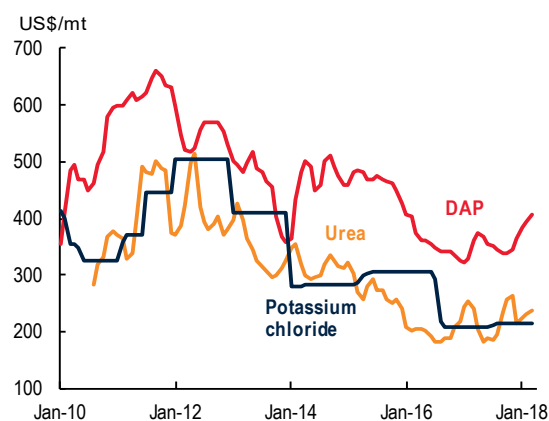
Phosphate DAP prices jumped 13 percent in the first quarter, following an 8 percent rise in the fourth quarter of 2017. Supply curtailments and rising costs, amid firm demand, fueled the upward pressure on prices. Mosaic idled a large plant in the United States at end-2017 on cost considerations, and several weeks of strikes at mines in Tunisia shut down much of the country's phosphate rock production. Meanwhile, new capacity ramped up slower than expected, and phosphate exports from China have fallen owing to increased environmental closures and higher energy costs. Large new capacity is coming online, particularly in Morocco and Saudi Arabia.

Potash (potassium chloride) prices were unchanged, following a 1 percent gain in the fourth quarter of 2017, despite strong demand in key importing countries—Brazil, China and India. New projects delivered less than anticipated, and supply restraints (including idling and closures) have kept the market relatively tight. However, new capacity is coming online this year, notably in Canada and Russia, and the market is forecast to remain in surplus.

Fertilizer prices are forecast to rise by 2 percent in 2018 on relatively firm demand, but markets are anticipated to remain well supplied. Fertilizer application, which has been on a rising trend, remains constrained by relatively weak crop prices, which in turn reflect well-supplied agriculture markets (Figure 21). Fertilizer prices are expected to strengthen moderately over the medium term due to anticipated growth in demand and higher energy costs, and to reach levels that will incentivize new capacity.

Downside risks to the forecast include weaker demand, larger increases in new capacity, and restart of idle capacity. Upside risks include higher agriculture prices which help boost fertilizer demand, higher input costs, and stricter environmental policies.

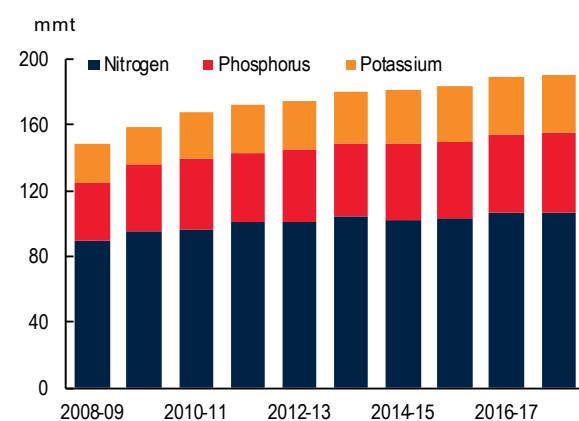
20 Fertilizer prices



Source: World Bank.

Note: Last observation is March 2018.

21 Global fertilizer consumption



Sources: Nutrien Fact Book, International Fertilizer Industry Association.

Note: Fertilizer consumption is expressed in nutrient content.

Metals and minerals

The World Bank's *Metals and Minerals Price Index* rose by 4 percent in the first quarter (q/q), following a 24 percent surge in 2017, due to strong global demand and various supply bottlenecks. After peaking in mid-February, all metals prices fell in March amid rising trade tensions between the United States and China, rising inventories, and weak consumption in China (Figure 22). However, aluminum prices surged in April following U.S. sanctions on Rusal, the world's second largest aluminum producing company. Nickel prices have risen on fears that sanctions could be extended to the Russian producer Norilsk, which generates 9 percent of global nickel supply (Figure 23).

The sanctions order "U.S. persons" to cease conducting business with Rusal, and raise the possibility of "secondary sanctions" on foreign companies for doing business with the firm. Rusal accounts for 6 percent of world aluminum production, most of which is exported. It plays an important role in the global aluminum supply chain given its foreign assets in bauxite and alumina (two raw materials for aluminum production). It refines two-thirds of its alumina outside Russia, and owns an alumina plant in Ireland that supplies smelters in Europe. The sanctions were followed by a rush to secure alternate supplies of aluminum and alumina. A likely source of supply is China, which produces about 55 percent of the world's aluminum, and has surplus capacity (Figure 24). Higher prices should induce demand rationing, and some exports may be directed to locations that can avoid sanctions. Restructuring of Rusal's assets (change of ownership) may allow Rusal to keep producing and exporting aluminum, as well as keep importing and trading its raw materials. Hence, there is considerable uncertainty surrounding the impact of the sanctions on production and trade flows in coming months.

Going forward, China is expected to continue to play a key role in global metals markets, as it accounts for more than 50 percent of world metal consumption (Figure 25). The country is expected to continue to reform its mining and processing sectors, while a transition to a consumption-led economy is expected to slow growth in metals demand.

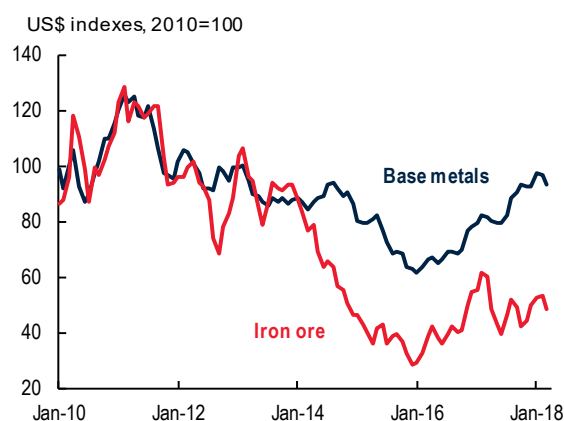
Individual metal trends

Nickel prices jumped 15 percent in the first quarter (q/q) on strong growth in stainless steel production, some disruption to supply, and falling inventories. While nickel pig iron production is rising in China and Indonesia, the rest of the world is struggling to produce nickel. Prices were also supported by the anticipated growth in batteries for electric vehicles (EV). Battery demand for nickel is expected to increase significantly in the next few years. A major concern is that half of global nickel production is not suitable for producing the nickel-sulfate needed for EV batteries. New investments will therefore be required in nickel capacity suitable for battery use.

Iron ore prices leaped 13 percent on increased steel output in China, which mainly reflects a government-imposed closure of illegal scrap-based steel capacity. This led to stronger iron ore demand by steel producers, particularly for higher quality material. Key iron ore producers continued to manage supply to balance the market, and there were weather disruptions in Brazil. Prices dropped sharply in March on fears of a trade war and slowing demand in China. Seaborne supply to importing countries is expected to exceed moderate growth demand and weigh on prices.

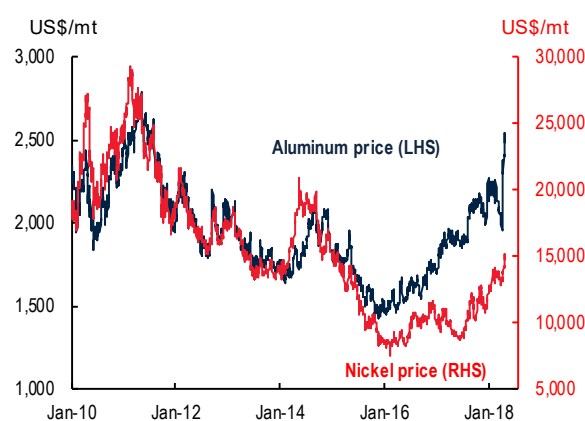
Tin prices climbed 7 percent in the first quarter, and although it sold off recently, it was the most stable metal price during the past year. Despite very low stocks, supply continued to expand from Myanmar,

22 Metal and mineral prices



Source: World Bank.
Note: Last observation is March 2018.

23 Refined aluminum and nickel prices



Source: Bloomberg.
Note: Daily frequency. Last observation is April 20, 2018.

particularly for higher quality exports, mostly destined for China. Indonesian production and exports also rebounded last year, following four years of falling output as the government sought to curb illegal mining and environmental degradation.

Zinc prices rose 6 percent, and have more than doubled from their lows in January 2016, mainly due to lack of mine supply and strong growth in demand to galvanize steel. Mine closures due to resource exhaustion (Australia and Ireland) and voluntary cutbacks (Australia and United States) in 2015/16 limited refined zinc production and caused inventories to plunge to critically low levels. In addition, China's mine production fell in 2017 due to more stringent environmental and regulatory measures, although output rose strongly in the fourth quarter suggesting that smaller miners may be adapting to meet stricter environmental standards. New, large capacity continues to ramp up including Dugald River in Australia and Gamsburg in South America by mid-year.

Aluminum prices advanced 2 percent in the first quarter driven by China's efforts to reduce smelter capacity over the winter and strong demand. Prices fell in March on rising inventories and larger-than-expected Chinese production over the winter season—despite a 10 percent import tariff on aluminum imposed by the United States. Several countries are exempt from the tariff, including Canada, which accounts for more than one-third of U.S. aluminum imports. Prices increased sharply in April after U.S. sanctions were imposed on Rusal.

Copper prices strengthened 2 percent, although they fell in March on weak seasonal demand and concerns of a slowdown in China's property sector. Mine supply is expected to increase strongly this year, following declines last year due to a plethora of disruptions (weather, technical, and policy reasons). Production is

expected to ramp up this year from new projects and expansions at existing sites. A series of labor contract negotiations in Chile and Peru have the potential to disrupt a significant portion of production, but these risks are easing from successful settlements to date.

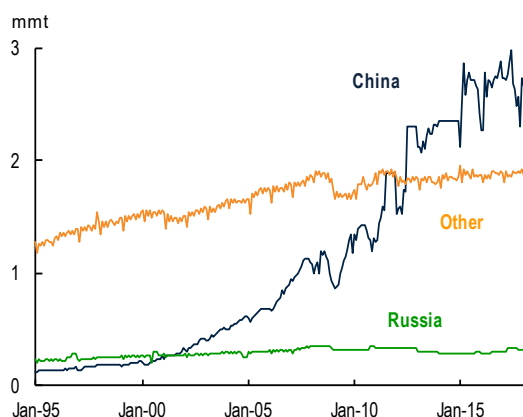
Lead prices rose 1 percent on falling stocks, strong demand, and reduced supply following the closure of large zinc mines due to depletion (lead is often a by-product in zinc mining). Rising mine production this year is expected to meet increases in battery demand. Over the long term, mine supply is at risk due to depletion and increasing environmental oversight, while demand faces challenges from electric vehicle penetration.

Price projections and risks

Metals prices are projected to increase 9 percent in 2018. Iron ore prices are projected to decline 11 percent due to oversupply, which are more than offset by increases in all base metals prices, led by nickel (up 30 percent), due to growing demand and supply tightness.

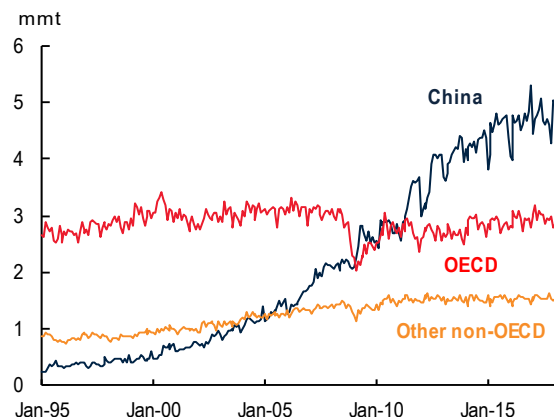
Upside risks to the price forecast include more robust global demand, as well as production shortages. Supply could be curtailed by slower ramp-up of new capacity, tighter environmental constraints, sanctions against commodity producers, rising costs, and policy action that limits output and exports, notably in China. Downside risks include slower growth in China, risks of higher-than-expected production—including the restart of idled capacity—as well as easing production restriction policies in China, and an escalation of trade tensions.

24 World refined aluminum production



Source: World Bureau of Metal Statistics.
Note: Last observation is February 2018.

25 World refined metal consumption



Source: World Bureau of Metal Statistics.
Note: Last observation is February 2018.

Precious metals

The World Bank's *Precious Metals Price Index* gained 4 percent in the first quarter (q/q), following a marginal increase in 2017 (Figure 26). Gold and platinum prices advanced by 4 and 6 percent, respectively, on stronger investment demand due to expectations of rising inflation, growing geopolitical tensions, and a weaker U.S. dollar. Silver prices were marginally higher on weaker industrial demand.

Gold prices rose 4 percent in the first quarter, averaging \$1,329/toz, on stronger investment demand amid a weakening dollar and rising inflation. Much of the step-up in prices occurred during a volatile December, and prices during the first quarter were fairly stable as prices tracked the dollar, which was also reasonably steady. While higher U.S. policy rates tend to reduce investment demand for non-yielding assets such as gold, the rate hike on March 21 by the U.S. Federal Reserve had been anticipated and gold prices remained broadly steady.

On the physical side, gold imports into India fell sharply in the first quarter. Jewelry demand has been weak in the country from earlier policy actions. India accounts for more than one-quarter of global gold jewelry consumption. Global gold mine supply continues to climb, up for the ninth straight year in 2017, with increases in all main regions except China where environmental regulations have led to mine closures (Figure 27). However, over the longer term, miners face rising production and development costs, as well as declining ore grades at existing operations.

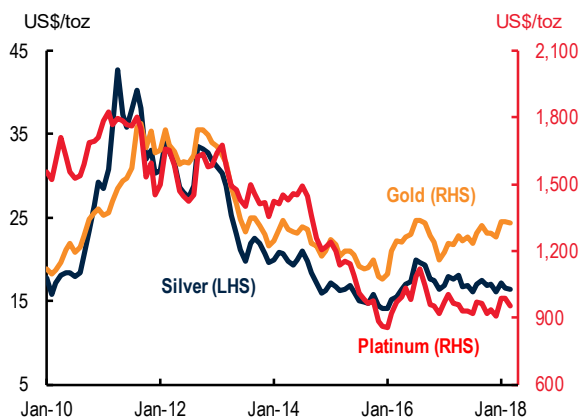
Platinum prices increased by 6 percent on strong investment demand and expected supply tightening in South Africa due to weak production investment and a stronger rand which squeezes producer profitability. Auto catalyst demand, the largest component of plati-

num consumption, remains under pressure from declining diesel vehicle sales following the Volkswagen emissions scandal and a German court ruling that the country's cities have the right to ban diesel cars.

Silver prices edged higher on declining mine production and despite relatively weak investment demand compared to the other two metals. The gold-to-silver price ratio surged above 80 compared to its 30-year average of 67 amid investor concerns about the negative impact on industrial activity of a trade dispute between the United States and China. More than half of silver consumption goes to industrial use. Demand from the photovoltaic and electronic sectors remains strong, but is being eroded by substitution and more efficient production techniques that use less silver.

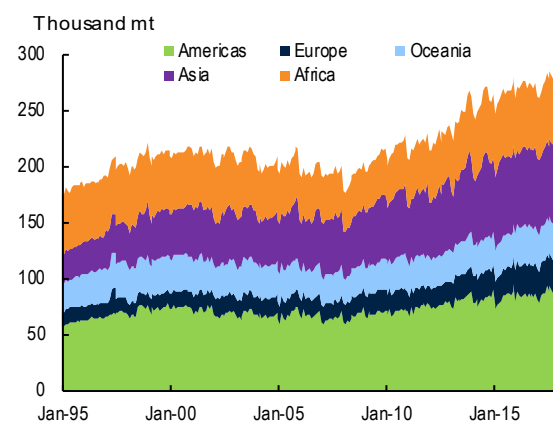
Precious metals prices are projected to rise 3 percent in 2018, but with some divergence. Gold prices are expected to rise 3 percent supported by firm investment demand. Platinum prices are seen climbing 4 percent on tightening mine supply. Silver prices are forecast to ease slightly on moderating industrial demand. Upside risks to the forecast include deepening geopolitical tensions, delays in central bank rate increases, and a weaker-than-expected dollar. Downside risks include stronger economic growth, rising equity markets, a stronger dollar, and an easing in geopolitical tensions.

26 Precious metal prices



Source: World Bank.
Note: Last observation is March 2018.

27 Global gold mine production



Source: World Bureau of Metal Statistics.
Notes: Production of ores and concentrates. Last observation is February 2018.



APPENDIX A

Historical commodity prices
Price forecasts

TABLE A.1 Commodity prices

Commodity	Unit		2016	2017	Q1	Q2	Q3	Q4	Q1	Jan	Feb	Mar
			2016	2017	2017	2017	2017	2017	2018	2018	2018	2018
Energy												
Coal, Australia	\$/mt	*	65.9	88.4	81.6	80.0	93.4	98.6	102.5	106.9	104.7	95.9
Coal, Colombia	\$/mt		57.6	77.8	77.3	70.0	80.2	83.9	81.2	86.4	81.5	75.8
Coal, South Africa	\$/mt		64.1	81.9	80.4	75.9	84.0	87.3	89.8	92.7	90.0	86.6
Crude oil, average	\$/bbl		42.8	52.8	52.9	49.4	50.2	58.7	64.6	66.2	63.5	64.2
Crude oil, Brent	\$/bbl	*	44.0	54.4	54.1	50.2	51.7	61.5	67.0	69.0	65.4	66.5
Crude oil, Dubai	\$/bbl	*	41.2	53.1	52.9	49.7	50.6	59.2	64.0	66.0	62.8	63.3
Crude oil, WTI	\$/bbl	*	43.2	50.9	51.8	48.2	48.2	55.4	62.9	63.7	62.2	62.8
Natural gas, Index	2010=100		56.6	68.2	68.5	68.0	66.6	69.8	77.5	89.0	71.3	72.3
Natural gas, Europe	\$/mmbtu	*	4.56	5.65	5.70	5.33	5.33	6.22	7.15	7.56	6.87	7.03
Natural gas, U.S.	\$/mmbtu	*	2.49	2.96	2.99	3.05	2.93	2.87	3.08	3.88	2.67	2.69
Natural gas, Japan	\$/mmbtu	*	6.89	8.04	7.69	8.33	8.23	7.92	8.98	8.73	9.10	9.10
Non-Energy												
Agriculture												
Beverages												
Cocoa	\$/kg	**	2.89	2.03	2.10	1.98	1.99	2.05	2.19	1.95	2.12	2.50
Coffee, Arabica	\$/kg	**	3.61	3.32	3.64	3.30	3.28	3.08	3.01	3.06	3.00	2.98
Coffee, Robusta	\$/kg	**	1.95	2.23	2.36	2.23	2.27	2.04	1.96	1.95	1.97	1.94
Tea, average	\$/kg		2.64	3.10	2.91	3.15	3.19	3.16	2.93	3.05	2.94	2.80
Tea, Colombo	\$/kg	**	3.24	4.07	4.05	4.10	4.00	4.12	4.06	4.16	4.08	3.94
Tea, Kolkata	\$/kg	**	2.39	2.44	1.87	2.57	2.75	2.57	1.98	2.20	1.93	1.80
Tea, Mombasa	\$/kg	**	2.30	2.80	2.82	2.79	2.81	2.80	2.75	2.78	2.82	2.65
Food												
Oils and Meals												
Coconut oil	\$/mt	**	1,475	1,603	1,689	1,655	1,573	1,497	1,258	1,399	1,252	1,123
Copra	\$/mt		982	1,065	1,129	1,092	1,045	995	841	943	835	745
Fishmeal	\$/mt		1,501	1,365	1,348	1,320	1,379	1,415	1,594	1,572	1,605	1,604
Groundnuts	\$/mt		1,362	1,471	1,650	1,583	1,400	1,252	1,242	1,225	1,200	1,302
Groundnut oil	\$/mt	**	1,502	1,484	1,548	1,542	1,470	1,378	1,328	1,335	1,325	1,325
Palm oil	\$/mt	**	700	715	772	696	687	703	674	677	663	681
Palmkernel oil	\$/mt		1,290	1,279	1,520	1,052	1,173	1,371	1,143	1,260	1,148	1,022
Soybean meal	\$/mt	**	380	359	378	346	348	362	423	386	431	452
Soybean oil	\$/mt	**	809	846	840	815	857	871	847	864	842	834
Soybeans	\$/mt	**	406	401	419	386	398	400	419	405	418	433
Grains												
Barley	\$/mt	**	104	98	92	94	96	108	127	122	129	131
Maize	\$/mt	**	159	155	161	158	151	149	164	156	163	172
Rice, Thailand 5%	\$/mt	**	396	399	371	420	404	401	432	442	425	430
Rice, Thailand 25%	\$/mt		385	385	365	399	389	385	417	422	411	418
Rice, Thailand A1	\$/mt		380	380	354	398	386	381	407	411	408	404
Rice, Vietnam 5%	\$/mt		356	363	338	349	386	379	395	381	395	410
Sorghum	\$/mt		156	163	155	158	167	171	182	178	187	181
Wheat, US HRW	\$/mt	**	167	174	154	179	184	180	192	192
Wheat, US SRW	\$/mt		176	178	177	177	184	175	189	178	191	199
Other Food												
Bananas, EU	\$/kg		0.91	0.90	0.84	0.91	0.93	0.92	1.05	0.98	1.07	1.11
Bananas, U.S.	\$/kg	**	1.00	1.08	1.04	1.08	1.10	1.09	1.19	1.14	1.27	1.16
Meat, beef	\$/kg	**	3.93	4.22	4.05	4.40	4.29	4.15	4.23	4.14	4.29	4.27
Meat, chicken	\$/kg	**	1.85	2.12	2.00	2.31	2.22	1.97	2.07	2.07	1.98	2.17
Meat, sheep	\$/kg		4.69	5.42	5.08	5.32	5.57	5.71	5.87	5.60	6.01	6.01
Oranges	\$/kg	**	0.89	0.81	0.92	0.78	0.73	0.82	0.76	0.76	0.78	0.74
Shrimp	\$/kg		11.22	13.32	13.61	14.31	13.23	12.12	12.63	12.36	12.73	12.79
Sugar, EU	\$/kg	**	0.36	0.37	0.35	0.36	0.38	0.38	0.40	0.40	0.40	0.40
Sugar, U.S.	\$/kg	**	0.61	0.62	0.66	0.62	0.58	0.60	0.57	0.59	0.57	0.55
Sugar, World	\$/kg	**	0.40	0.35	0.43	0.34	0.32	0.32	0.30	0.31	0.30	0.29

Continued

TABLE A.1 Commodity prices

Commodity	Unit		2016	2017	Q1	Q2	Q3	Q4	Q1	Jan	Feb	Mar
			2016	2017	2017	2017	2017	2017	2018	2018	2018	2018
Raw Materials												
Timber												
Logs, Africa	\$/cum		387	395	373	385	411	412	430	427	433	432
Logs, S.E. Asia	\$/cum	**	274	265	262	268	268	264	275	268	276	281
Plywood	¢/sheets		503	487	480	492	492	484	504	492	506	515
Sawnwood, Africa	\$/cum		650	617	593	613	627	636	667	661	670	669
Sawnwood, S.E. Asia	\$/cum	**	739	702	675	697	713	723	758	752	762	761
Woodpulp	\$/mt		875	875	875	875	875	875	875	875	875	875
Other Raw Materials												
Cotton	\$/kg	**	1.64	1.84	1.87	1.91	1.79	1.80	1.99	2.01	1.95	2.03
Rubber, RSS3	\$/kg	**	1.61	2.00	2.54	2.01	1.81	1.62	1.73	1.72	1.72	1.76
Rubber, TSR20	\$/kg		1.38	1.67	2.12	1.54	1.56	1.45	1.47	1.50	1.46	1.44
Fertilizers												
DAP	\$/mt	**	357	350	337	366	345	350	395	385	395	405
Phosphate rock	\$/mt	**	126	97	107	102	95	85	90	85	90	95
Potassium chloride	\$/mt	**	265	212	209	209	214	216	216	216	216	216
TSP	\$/mt	**	291	283	279	278	280	296	321	320	320	324
Urea, E. Europe	\$/mt	**	198	221	245	192	204	245	230	226	230	236
Metals and Minerals												
Aluminum	\$/mt	**	1,604	1,968	1,851	1,907	2,010	2,103	2,154	2,210	2,182	2,069
Copper	\$/mt	**	4,868	6,170	5,840	5,668	6,349	6,823	6,957	7,066	7,007	6,799
Iron ore	\$/dmt	**	58.4	71.8	85.8	63.4	71.8	66.1	74.7	76.3	77.5	70.4
Lead	\$/mt	**	1,867	2,315	2,278	2,160	2,331	2,490	2,518	2,584	2,581	2,390
Nickel	\$/mt	**	9,595	10,410	10,273	9,232	10,532	11,601	13,284	12,865	13,596	13,393
Tin	\$/mt	**	17,934	20,061	20,004	19,923	20,514	19,803	21,187	20,697	21,652	21,212
Zinc	\$/mt	**	2,090	2,891	2,779	2,593	2,962	3,230	3,415	3,442	3,533	3,269
Precious Metals												
Gold	\$/toz	***	1,249	1,258	1,219	1,258	1,278	1,275	1,329	1,331	1,331	1,325
Platinum	\$/toz	***	987	948	981	941	952	921	977	990	987	955
Silver	\$/toz	***	17.15	17.07	17.49	17.24	16.85	16.69	16.73	17.13	16.58	16.47
Commodity Price Indexes (2010=100)												
Energy			55.0	68.0	67.9	64.0	65.3	74.9	82.3	85.5	80.5	81.0
Non-energy			79.5	83.9	85.0	82.1	83.8	84.7	88.0	87.4	88.5	88.2
Agriculture			87.7	87.2	89.5	87.4	86.4	85.6	89.1	87.5	89.2	90.6
Beverages			91.0	82.8	85.9	82.4	82.8	80.3	79.6	77.9	78.8	82.1
Food			90.0	90.7	92.5	91.0	89.8	89.4	93.2	91.5	93.4	94.7
Oils and Meals			89.6	89.1	93.6	86.6	87.4	88.7	91.9	89.4	92.0	94.4
Grains			80.7	80.5	77.8	82.9	81.2	80.3	87.4	86.1	86.9	89.1
Other Food			99.2	101.9	104.4	103.9	100.9	98.4	100.1	99.2	101.2	100.0
Raw Materials			80.2	81.2	84.0	81.4	79.9	79.3	83.9	82.8	84.1	84.9
Timber			89.6	85.6	82.8	85.3	86.8	87.4	91.5	90.4	91.9	92.2
Other Raw Materials			70.0	76.3	85.3	77.2	72.3	70.5	75.6	74.5	75.5	76.9
Fertilizers			78.2	74.0	78.2	69.9	71.2	76.6	76.7	75.2	76.5	78.3
Metals and Minerals			63.0	78.2	76.6	72.7	79.9	83.7	87.2	88.6	88.6	84.5
Base Metals		****	68.3	84.9	80.7	79.5	87.0	92.6	95.6	97.0	96.9	92.9
Precious Metals			97.5	97.8	95.9	98.0	98.9	98.6	102.1	102.7	102.1	101.6

Source: See Appendix C.

Notes: (*) Included in the energy index; (**) Included in the non-energy index; (***) Included in the precious metals index; (****) Metals and Minerals excluding iron ore. Monthly updates posted at www.worldbank.org/commodities.

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

Commodity	Unit	Forecasts								
		2015	2016	2017	2018	2019	2020	2021	2025	2030
Energy										
Coal, Australia	\$/mt	57.5	65.9	88.4	85.0	75.0	65.0	64.5	62.4	60.0
Crude oil, avg	\$/bbl	50.8	42.8	52.8	65.0	65.0	65.4	65.9	67.7	70.0
Natural gas, Europe	\$/mmbtu	7.26	4.56	5.65	6.50	6.61	6.73	6.85	3.56	4.00
Natural gas, U.S.	\$/mmbtu	2.61	2.49	2.96	3.03	3.10	3.17	3.25	9.89	10.00
Natural gas, Japan	\$/mmbtu	10.22	6.89	8.04	8.80	8.95	9.10	9.25	9.9	10.0
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	3.14	2.89	2.03	2.20	2.26	2.32	2.38	2.64	3.00
Coffee, Arabica	\$/kg	3.53	3.61	3.32	3.25	3.26	3.27	3.29	3.34	3.40
Coffee, Robusta	\$/kg	1.94	1.95	2.23	2.00	2.02	2.03	2.05	2.11	2.20
Tea, average	\$/kg	2.71	2.64	3.10	3.05	3.06	3.07	3.09	3.14	3.20
Food										
Oils and Meals										
Coconut oil	\$/mt	1,110	1,475	1,603	1,275	1,285	1,295	1,305	1,346	1,400
Groundnut oil	\$/mt	1,337	1,502	1,484	1,375	1,400	1,424	1,450	1,556	1,700
Palm oil	\$/mt	623	700	715	690	705	721	737	806	900
Soybean meal	\$/mt	395	380	359	425	427	429	431	439	450
Soybean oil	\$/mt	757	809	846	857	868	879	891	938	1,000
Soybeans	\$/mt	390	406	401	415	424	432	441	479	530
Grains										
Barley	\$/mt	121	104	98	125	130	135	141	164	200
Maize	\$/mt	170	159	155	165	168	172	175	190	210
Rice, Thailand, 5%	\$/mt	386	396	399	420	422	423	425	432	440
Wheat, U.S., HRW	\$/mt	204	167	174	190	194	198	201	218	240
Other Food										
Bananas, U.S.	\$/kg	0.96	1.00	1.08	1.20	1.19	1.18	1.17	1.14	1.10
Meat, beef	\$/kg	4.42	3.93	4.22	4.20	4.19	4.18	4.17	4.14	4.10
Meat, chicken	\$/kg	1.99	1.85	2.12	2.00	2.02	2.05	2.07	2.17	2.30
Oranges	\$/kg	0.68	0.89	0.81	0.75	0.77	0.79	0.81	0.89	1.00
Shrimp	\$/kg	13.22	11.22	13.32	12.80	12.90	12.99	13.09	13.49	14.00
Sugar, World	\$/kg	0.30	0.40	0.35	0.30	0.31	0.31	0.32	0.34	0.38
Raw Materials										
Timber										
Logs, Africa	\$/cum	389	387	395	420	422	425	427	437	450
Logs, S.E. Asia	\$/cum	246	274	265	270	275	281	286	309	340
Sawnwood, S.E. Asia	\$/cum	833	739	702	740	759	778	798	882	1000
Other Raw Materials										
Cotton A	\$/kg	1.55	1.64	1.84	1.95	1.97	1.99	2.01	2.09	2.20
Rubber, RSS3	\$/kg	1.57	1.61	2.00	1.80	1.84	1.89	1.93	2.13	2.40
Tobacco	\$/mt	4,908	4,806	4,679	4,900	4,865	4,831	4,797	4,663	4,500
Fertilizers										
DAP	\$/mt	466	357	350	390	395	399	404	424	450
Phosphate rock	\$/mt	131	126	97	95	97	99	102	111	125
Potassium chloride	\$/mt	299	265	212	216	223	231	238	272	320
TSP	\$/mt	378	291	283	315	320	325	330	351	380
Urea, E. Europe	\$/mt	273	198	221	220	226	232	238	264	300
Metals and Minerals										
Aluminum	\$/mt	1,665	1,604	1,968	2,175	2,100	2,109	2,118	2,154	2,200
Copper	\$/mt	5,510	4,868	6,170	6,800	6,816	6,833	6,849	6,916	7,000
Iron ore	\$/dmt	55.9	58.4	71.8	64.0	60.0	55.0	55.9	59.8	65.0
Lead	\$/mt	1,788	1,867	2,315	2,500	2,483	2,465	2,448	2,381	2,300
Nickel	\$/mt	11,863	9,595	10,410	13,500	13,828	14,163	14,507	15,967	18,000
Tin	\$/mt	16,067	17,934	20,061	20,700	20,883	21,067	21,252	22,012	23,000
Zinc	\$/mt	1,932	2,090	2,891	3,200	2,900	2,500	2,490	2,449	2,400
Precious Metals										
Gold	\$/toz	1,161	1,249	1,258	1,300	1,282	1,264	1,247	1,179	1,100
Silver	\$/toz	15.72	17.15	17.07	17.00	16.91	16.83	16.74	16.41	16.00
Platinum	\$/toz	1,053	987	948	985	1,020	1,057	1,094	1,259	1,500

Next update: October 2018.

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

Commodity	Unit	Forecasts								
		2015	2016	2017	2018	2019	2020	2021	2025	2030
Energy										
Coal, Australia	\$/mt	58.8	70.0	90.9	88.0	76.2	64.9	63.3	57.2	50.3
Crude oil, avg	\$/bbl	51.9	45.5	54.3	67.3	66.0	65.3	64.7	62.0	58.7
Natural gas, Europe	\$/mmbtu	7.42	4.85	5.80	6.73	6.72	6.72	6.72	6.72	6.71
Natural gas, U.S.	\$/mmbtu	2.67	2.65	3.04	3.14	3.15	3.17	3.19	3.26	3.35
Natural gas, Japan	\$/mmbtu	10.44	7.33	8.27	9.11	9.09	9.09	9.09	9.07	8.39
Non-Energy										
Agriculture										
Beverages										
Cocoa	\$/kg	3.20	3.07	2.09	2.28	2.29	2.31	2.33	2.42	2.52
Coffee, Arabica	\$/kg	3.60	3.84	3.42	3.37	3.31	3.27	3.23	3.06	2.85
Coffee, Robusta	\$/kg	1.98	2.08	2.29	2.07	2.05	2.03	2.01	1.94	1.85
Tea, average	\$/kg	2.77	2.81	3.19	3.16	3.11	3.07	3.03	2.87	2.68
Food										
Oils and Meals										
Coconut oil	\$/mt	1,134	1,568	1,648	1,321	1,305	1,293	1,282	1,234	1,174
Groundnut oil	\$/mt	1,366	1,598	1,526	1,424	1,421	1,423	1,424	1,426	1,426
Palm oil	\$/mt	636	745	735	715	716	720	724	738	755
Soybean meal	\$/mt	403	404	369	440	434	428	423	403	377
Soybean oil	\$/mt	773	860	869	888	882	878	875	859	839
Soybeans	\$/mt	399	431	412	430	430	432	433	439	444
Grains										
Barley	\$/mt	124	111	100	129	132	135	138	151	168
Maize	\$/mt	173	169	159	171	171	172	172	174	176
Rice, Thailand, 5%	\$/mt	394	421	410	435	428	423	417	395	369
Wheat, U.S., HRW	\$/mt	209	177	179	197	197	197	198	200	201
Other Food										
Bananas, U.S.	\$/kg	0.98	1.06	1.11	1.24	1.21	1.18	1.15	1.05	0.92
Meat, beef	\$/kg	4.52	4.18	4.34	4.35	4.26	4.18	4.10	3.79	3.44
Meat, chicken	\$/kg	2.03	1.97	2.18	2.07	2.06	2.04	2.03	1.99	1.93
Oranges	\$/kg	0.69	0.95	0.83	0.78	0.78	0.79	0.79	0.81	0.84
Shrimp	\$/kg	13.50	11.93	13.69	13.26	13.10	12.97	12.86	12.36	11.74
Sugar, World	\$/kg	0.30	0.42	0.36	0.31	0.31	0.31	0.31	0.32	0.32
Raw Materials										
Timber										
Logs, Africa	\$/cum	397	412	406	435	429	424	420	401	377
Logs, S.E. Asia	\$/cum	251	292	273	280	280	280	281	283	285
Sawnwood, S.E. Asia	\$/cum	851	786	722	766	771	777	784	808	839
Other Raw Materials										
Cotton A	\$/kg	1.59	1.74	1.89	2.02	2.00	1.99	1.97	1.92	1.85
Rubber, RSS3	\$/kg	1.61	1.71	2.05	1.86	1.87	1.89	1.90	1.95	2.01
Tobacco	\$/mt	5,015	5,111	4,810	5,075	4,941	4,824	4,711	4,272	3,774
Fertilizers										
DAP	\$/mt	476	380	359	404	401	399	397	388	377
Phosphate rock	\$/mt	134	134	100	98	99	99	100	102	105
Potassium chloride	\$/mt	306	282	218	224	227	230	234	249	268
TSP	\$/mt	386	310	291	326	325	325	324	322	319
Urea, E. Europe	\$/mt	279	210	228	228	229	231	233	242	252
Metals and Minerals										
Aluminum	\$/mt	1,701	1,706	2,023	2,253	2,133	2,106	2,080	1,974	1,845
Copper	\$/mt	5,631	5,177	6,342	7,043	6,923	6,824	6,727	6,337	5,871
Iron ore	\$/dmt	57.1	62.1	73.8	66.3	60.9	54.9	54.9	54.8	54.5
Lead	\$/mt	1,827	1,985	2,379	2,589	2,521	2,462	2,405	2,182	1,929
Nickel	\$/mt	12,121	10,204	10,700	13,983	14,043	14,144	14,248	14,629	15,096
Tin	\$/mt	16,417	19,072	20,621	21,440	21,209	21,038	20,874	20,169	19,289
Zinc	\$/mt	1,974	2,223	2,972	3,314	2,945	2,497	2,445	2,244	2,013
Precious Metals										
Gold	\$/toz	1,186	1,328	1,293	1,346	1,302	1,263	1,225	1,081	923
Silver	\$/toz	16.06	18.23	17.54	17.61	17.18	16.81	16.45	15.04	13.42
Platinum	\$/toz	1,076	1,050	975	1,020	1,036	1,055	1,075	1,153	1,258

Sources and Notes: See Appendix C.

Next update: October 2018.

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

Commodity	Forecasts								
	2015	2016	2017	2018	2019	2020	2021	2025	2030
Nominal US dollars (2010=100)									
Energy	64.9	55.0	68.0	81.5	81.2	81.3	82.0	84.5	87.8
Non-energy	81.6	79.5	83.9	87.3	87.6	88.1	89.1	93.3	99.1
Agriculture	87.9	87.7	87.2	89.2	90.4	91.6	92.8	97.9	105.1
Beverages	93.5	91.0	82.8	82.6	83.6	84.5	85.5	89.7	95.3
Food	88.7	90.0	90.7	93.0	94.2	95.3	96.5	101.4	108.2
Oils and Meals	85.2	89.6	89.1	92.7	94.0	95.4	96.8	102.7	110.6
Grains	87.1	80.7	80.5	86.6	87.9	89.4	90.8	96.8	105.1
Other food	94.8	99.2	101.9	99.3	99.9	100.6	101.2	104.0	108.0
Raw materials	83.3	80.2	81.2	83.2	84.6	86.0	87.5	93.6	102.3
Timber	96.1	89.6	85.6	89.4	91.5	93.7	96.0	105.5	118.8
Other Raw Materials	69.3	70.0	76.3	76.5	77.0	77.6	78.1	80.6	84.2
Fertilizers	96.6	78.2	74.0	75.5	77.4	79.2	81.2	89.5	101.1
Metals and minerals *	66.9	63.0	78.2	84.9	83.1	82.0	82.5	84.2	86.6
Base Metals **	73.6	68.3	84.9	94.4	92.9	92.3	92.7	94.3	96.4
Precious Metals	90.6	97.5	97.8	100.6	99.4	98.3	97.2	92.9	88.0
Constant 2010 US dollars (2010=100), deflated by the MUV Index									
Energy	66.3	58.5	69.9	84.4	82.4	81.2	80.5	77.4	73.6
Non-energy	83.4	84.6	86.3	90.5	89.0	88.0	87.5	85.5	83.1
Agriculture	89.9	93.2	89.7	92.4	91.8	91.4	91.1	89.7	88.1
Beverages	95.6	96.8	85.1	85.6	84.9	84.4	84.0	82.2	80.0
Food	90.6	95.8	93.2	96.4	95.6	95.2	94.8	93.0	90.8
Oils and Meals	87.0	95.2	91.6	96.0	95.5	95.3	95.1	94.1	92.8
Grains	89.0	85.8	82.8	89.7	89.3	89.2	89.2	88.7	88.1
Other food	96.9	105.4	104.7	102.9	101.5	100.4	99.4	95.3	90.5
Raw materials	85.1	85.3	83.4	86.2	85.9	85.9	85.9	85.8	85.8
Timber	98.2	95.3	87.9	92.6	93.0	93.6	94.3	96.7	99.7
Other Raw Materials	70.8	74.4	78.5	79.2	78.2	77.5	76.8	73.9	70.6
Fertilizers	98.7	83.1	76.0	78.2	78.6	79.1	79.7	82.0	84.8
Metals and minerals *	68.4	67.0	80.4	87.9	84.4	81.9	81.0	77.2	72.6
Base Metals **	75.2	72.6	87.3	97.8	94.3	92.2	91.1	86.4	80.8
Precious Metals	92.6	103.6	100.6	104.1	101.0	98.1	95.4	85.1	73.8
Inflation indices, 2010=100									
MUV index ***	97.9	94.0	97.3	96.5	98.5	100.1	101.8	109.1	119.2
% change per annum	-9.6	-3.9	3.5	-0.8	2.0	1.7	1.7	1.8	1.8
US GDP deflator	108.7	110.1	111.8	113.9	116.0	118.1	120.5	130.4	144.0
% change per annum	1.1	1.3	1.6	1.8	1.9	1.8	2.0	2.0	2.0

Source: See Appendix C.

Notes: (*) Base metals plus iron ore; (**) Includes aluminum, copper, lead, nickel, tin and zinc; (***) MUV is the unit value index of manufacture exports. For other notes see Appendix C.
Next update: October 2018.



APPENDIX B

Supply-Demand balances

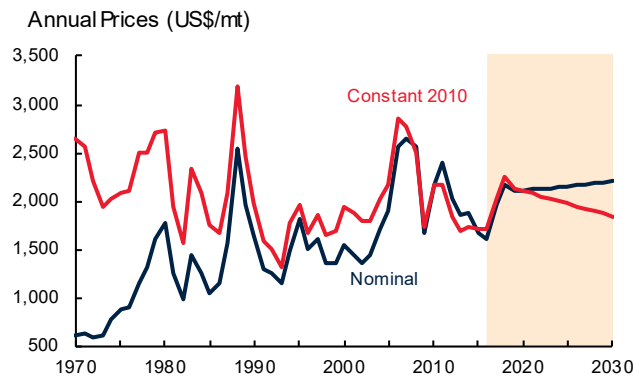
Aluminum	37	Natural gas	52
Bananas	38	Natural rubber	53
Coal	39	Nickel	54
Cocoa	40	Palm oil and Soybean oil	55
Coconut oil and Palm kernel oil	41	Platinum	56
Coffee	42	Rice	57
Copper	43	Silver	58
Cotton	44	Soybeans	59
Crude oil	45	Sugar	60
Fertilizers—Nitrogen	46	Tea	61
Fertilizers—Phosphate and Potash	47	Timber—Roundwood and Sawnwood	62
Gold	48	Timber—Wood panels and Woodpulp	63
Iron Ore	49	Tin	64
Lead	50	Wheat	65
Maize	51	Zinc	66

Aluminum



Source: World Bank.

Note: Last observation is Marcj 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1980	1990	2000	2005	2010	2014	2015	2016	2017
(thousand metric tons)									
Bauxite Production									
Australia	27,179	40,697	53,801	59,959	68,535	78,632	80,910	82,152	87,898
China	1,700	3,655	7,900	17,408	36,837	59,212	60,788	60,788	60,788
Guinea	13,911	16,150	17,992	19,237	17,633	21,204	21,049	30,772	42,716
Brazil	4,152	9,876	14,379	22,365	32,028	36,308	37,057	39,244	39,244
India	1,785	5,277	7,562	12,385	12,662	20,688	26,383	24,219	22,776
Jamaica	12,064	10,937	11,127	14,118	8,540	9,677	9,629	8,540	8,245
Russian Federation	n/a	n/a	5,000	6,409	5,475	5,589	5,389	5,432	5,524
Malaysia	920	398	123	5	124	3,266	24,187	7,664	4,857
Kazakhstan	n/a	n/a	3,729	4,815	5,310	4,516	4,683	4,802	4,843
Saudi Arabia	0	0	0	0	0	1,965	2,174	3,843	3,843
European Union	n/a	n/a	3,222	3,176	2,302	1,962	1,911	1,934	1,967
Greece	3,286	2,496	1,991	2,495	1,902	1,876	1,832	1,848	1,880
Sierra Leone	0	0	0	42	1,053	1,161	1,334	1,437	1,794
Others	n/a	n/a	12,064	14,392	36,400	13,473	10,144	7,597	9,734
World	93,326	114,835	138,889	176,807	228,802	259,528	287,468	280,272	296,109
Refined Production									
China	358	854	2,647	7,759	16,244	28,317	31,518	31,870	32,273
Russian Federation	n/a	n/a	3,258	3,647	3,947	3,488	3,529	3,561	3,879
Canada	1,075	1,567	2,373	2,894	2,963	2,858	2,880	3,209	3,212
United Arab Emirates	35	174	536	722	1,400	2,296	2,464	2,471	2,677
India	185	433	647	942	1,610	1,899	1,930	1,909	2,028
Australia	304	1,233	1,761	1,903	1,928	1,704	1,646	1,635	1,487
Norway	662	867	1,026	1,376	1,090	1,182	1,224	1,247	1,247
Bahrain	126	212	509	708	851	931	961	971	981
Saudi Arabia	0	0	0	0	0	662	839	869	914
Iceland	75	88	226	272	826	749	878	854	863
Brazil	261	931	1,271	1,498	1,536	962	772	793	801
United States	4,654	4,048	3,668	2,480	1,728	1,710	1,587	818	741
South Africa	87	157	683	851	806	745	695	701	716
Others	n/a	n/a	5,699	6,788	6,620	6,405	6,690	7,002	6,923
World	16,036	19,362	24,304	31,841	41,549	53,908	57,612	57,910	58,742
Refined Consumption									
China	550	861	3,352	7,072	15,854	28,003	31,068	31,615	31,908
United States	4,454	4,330	6,161	6,114	4,242	5,250	5,325	5,121	5,615
Germany	1,272	1,379	1,632	1,758	1,912	2,289	2,163	2,197	2,157
Japan	1,639	2,414	2,223	2,276	2,025	2,034	1,779	1,742	1,950
Korea, Rep.	68	369	823	1,201	1,255	1,282	1,366	1,453	1,420
India	234	433	601	958	1,475	1,655	1,521	1,378	1,220
Turkey	45	152	211	390	703	915	952	949	961
Italy	23	0	780	977	857	810	801	909	924
Brazil	296	341	514	759	985	1,027	801	764	868
Others	6,731	8,947	8,708	10,135	11,255	10,994	11,689	11,971	12,232
World	15,312	19,227	25,004	31,640	40,563	54,261	57,465	58,099	59,253

Source: World Bureau of Metal Statistics (April 2018 update).

Note: n/a implies data not available.

Bananas

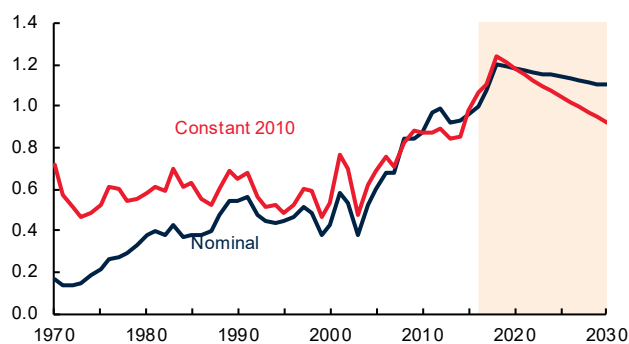
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is March 2018.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2018-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
(thousand metric tons)									
Exports									
Ecuador	1,246	1,291	2,157	3,940	5,010	5,013	5,195	5,716	6,040
Guatemala	200	371	360	801	1,371	1,542	1,805	2,064	2,153
Costa Rica	856	973	1,434	1,883	1,828	1,977	2,042	2,169	1,964
Philippines	107	923	840	1,599	1,589	2,648	3,293	3,680	1,852
Colombia	262	692	1,148	1,680	1,803	1,508	1,633	1,786	1,674
Honduras	799	973	781	375	512	584	896	636	690
Mexico	1	16	154	46	174	306	348	386	417
Côte d'Ivoire	140	122	94	217	336	339	355	335	305
Cameroon	50	65	78	238	233	226	261	265	283
Panama	600	504	745	489	295	348	252	256	268
Peru	0	0	0	1	89	123	123	160	191
Dominican Republic	4	10	11	80	408	438	353	377	138
Bolivia	0	0	0	9	88	73	115	124	133
Belize	0	15	24	66	82	104	99	103	99
Suriname	25	34	28	35	79	62	77	75	85
Brazil	204	67	53	72	140	92	98	84	80
India	7	0	0	9	61	55	28	55	80
Nicaragua	n/a	n/a	n/a	46	52	44	43	65	77
Pakistan	1	12	0	2	58	30	85	43	54
Others	1,016	705	1,121	333	1,354	130	146	178	160
World	5,519	6,772	9,030	11,922	15,560	15,641	17,249	18,557	16,741
Imports									
United States	1,846	2,423	3,099	3,630	3,858	3,851	4,028	4,036	4,063
Russian Federation	n/a	n/a	n/a	500	1,054	1,254	1,320	1,275	1,227
China	29	21	48	642	724	690	579	1,188	1,139
Japan	844	726	758	1,079	1,110	1,087	975	97	960
Canada	199	246	341	398	496	513	542	555	562
Argentina	164	195	73	340	351	370	383	411	427
Korea, Rep.	3	15	22	184	338	368	314	359	364
Algeria	11	n/a	n/a	0	188	222	274	263	246
Saudi Arabia	22	135	129	187	278	206	192	204	230
Iran, Islamic Rep.	2	0	50	200	640	356	370	468	220
Turkey	0	0	62	124	161	225	235	207	219
Chile	n/a	n/a	n/a	193	176	135	177	175	199
Ukraine	n/a	n/a	n/a	60	215	243	266	215	146
United Arab Emirates	0	23	30	69	120	31	111	121	144
Kuwait	10	25	15	23	91	83	134	64	132
Switzerland	59	64	76	72	80	79	82	84	87
Norway	33	31	49	60	79	77	81	85	85
New Zealand	24	37	49	68	81	59	63	66	77
Belarus	n/a	n/a	n/a	31	45	59	75	66	72
El Salvador	11	50	44	59	49	50	52	57	61
Tunisia	3	9	0	16	19	6	18	36	60
Others	2,324	2,680	4,037	4,217	5,320	5,377	5,616	6,465	5,672
World	5,584	6,680	8,881	12,151	15,470	15,337	15,884	16,496	16,390

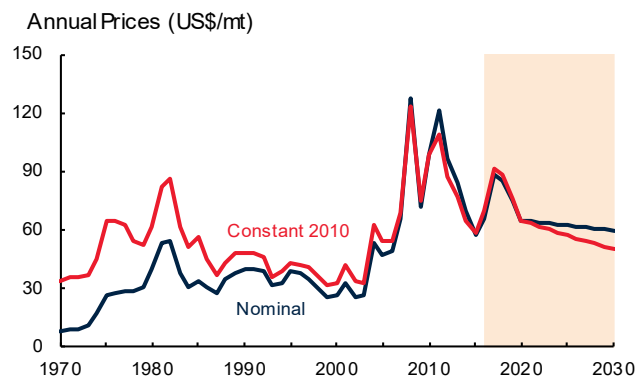
Source: Food and Agriculture Organization.

Notes: n/a implies data not available. Data include re-exports. Data for 1970, 1980, and 1990 are from the Intergovernmental Group on Bananas and Tropical Fruits (March 8, 2018 update) while data for 2000 onwards are from Banana Market Review (2015-16). Due to different methodologies, pre- and post-2000 data may not be directly comparable.

Coal



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

	1981	1990	2000	2005	2010	2013	2014	2015	2016
(million metric tons oil equivalent)									
Production									
China	311	540	707	1,242	1,665	1,895	1,864	1,826	1,686
United States	463	566	570	580	551	501	508	449	365
Australia	68	115	172	215	251	286	306	306	299
India	64	106	152	190	252	256	269	281	289
Indonesia	0	6	45	90	162	280	270	272	256
Russian Federation	n/a	186	121	136	151	173	177	186	193
South Africa	75	100	127	138	144	145	148	143	142
Colombia	3	14	26	41	51	59	61	59	62
Poland	103	100	72	69	55	57	54	53	52
Kazakhstan	n/a	57	32	37	47	51	49	46	44
Germany	149	125	61	57	46	45	44	43	40
Canada	23	40	39	35	35	36	36	32	31
Mongolia	2	3	2	4	15	18	15	15	23
Vietnam	3	3	7	19	25	23	23	23	22
Ukraine	n/a	76	36	35	32	37	26	16	17
Czech Republic	43	36	25	24	21	18	17	17	16
Turkey	7	12	12	11	18	15	16	13	15
Serbia	n/a	n/a	n/a	n/a	7	8	6	7	7
Bulgaria	5	5	4	4	5	5	5	6	5
Mexico	2	3	5	6	7	7	7	7	4
Thailand	0	4	5	6	5	5	5	4	4
Romania	8	8	6	6	6	5	4	5	4
Greece	3	7	8	9	7	7	6	6	4
Others	n/a	168	93	86	73	75	76	73	74
World	1,866	2,279	2,329	3,040	3,633	4,006	3,992	3,887	3,656
Consumption									
China	303	527	706	1,325	1,749	1,969	1,954	1,914	1,888
India	64	110	164	211	290	353	388	397	412
United States	401	483	569	574	525	455	454	392	358
Japan	65	78	95	114	116	121	119	120	120
Russian Federation	n/a	182	106	95	91	91	88	92	87
South Africa	51	67	75	80	93	89	90	83	85
Korea, Rep.	15	24	43	55	76	82	85	85	82
Germany	144	132	85	81	77	83	80	78	75
Indonesia	0	3	13	24	39	57	45	51	63
Poland	91	78	56	55	55	53	49	49	49
Australia	29	38	48	52	49	43	43	44	44
Taiwan, China	4	11	27	35	38	39	39	38	39
Turkey	7	16	22	22	31	32	36	35	38
Kazakhstan	n/a	39	18	27	33	36	41	36	36
Ukraine	n/a	75	39	38	38	42	36	27	32
Others	n/a	382	317	346	335	344	344	344	325
World	1,838	2,246	2,385	3,134	3,636	3,887	3,889	3,785	3,732

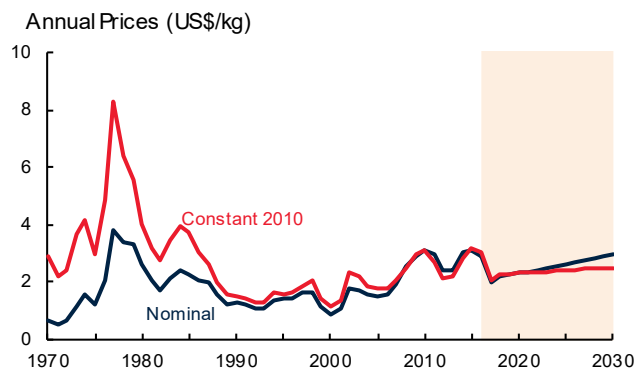
Source: BP Statistical Review (June 2017 update).

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

Cocoa



Source: World Bank.
Note: Last observation is March 2018.



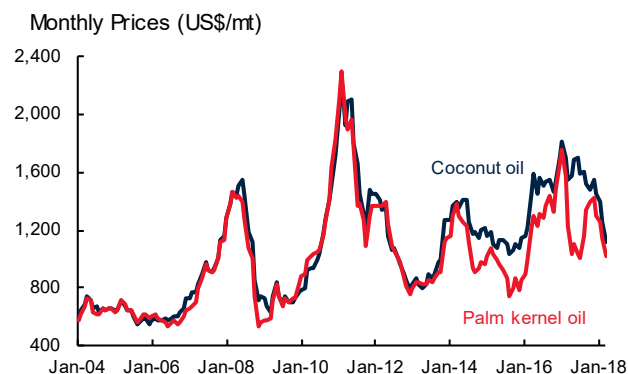
Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(thousand metric tons)									
Production									
Côte d'Ivoire	180	417	804	1,212	1,511	1,796	1,581	2,020	2,000
Ghana	406	258	293	395	1,025	740	778	970	900
Indonesia	2	12	150	385	440	325	320	290	280
Ecuador	72	87	111	89	161	261	232	270	270
Cameroon	112	117	115	133	229	232	211	250	240
Nigeria	305	156	160	180	240	195	200	245	240
Brazil	182	353	368	163	200	230	141	174	165
Peru	2	7	11	17	54	92	105	115	120
Dominican Republic	35	35	42	45	54	82	80	57	70
Others	233	252	452	233	396	298	346	358	353
World	1,528	1,694	2,507	2,852	4,309	4,251	3,993	4,748	4,638
Grindings									
Côte d'Ivoire	35	60	118	285	361	558	492	577	600
Netherlands	116	140	268	452	540	501	534	565	589
Indonesia	1	10	32	83	190	335	382	455	480
Germany	151	180	294	227	439	415	430	410	421
United States	279	186	268	445	401	400	398	390	398
Ghana	48	27	30	70	212	234	202	250	260
Brazil	67	191	260	195	239	224	225	227	232
Others	735	773	1,055	1,285	1,557	1,486	1,465	1,527	1,508
World	1,431	1,566	2,325	3,041	3,938	4,152	4,127	4,401	4,487
Exports									
Côte d'Ivoire	138	406	688	903	1,079	1,234	1,089	n/a	n/a
Ghana	348	182	245	307	694	586	582	n/a	n/a
Ecuador	46	19	56	57	136	235	207	n/a	n/a
Nigeria	216	76	142	149	219	113	180	n/a	n/a
Cameroon	75	96	96	102	204	205	176	n/a	n/a
Malaysia	3	40	148	17	21	71	87	n/a	n/a
Dominican Republic	29	27	36	34	52	81	77	n/a	n/a
Others	265	255	326	417	590	284	323	n/a	n/a
World	1,119	1,100	1,737	1,987	2,996	2,807	2,720	n/a	n/a
Imports									
Netherlands	116	167	267	549	806	507	795	n/a	n/a
Germany	155	187	300	228	434	343	407	n/a	n/a
United States	269	246	320	355	472	445	387	n/a	n/a
Belgium	18	28	50	101	194	252	297	n/a	n/a
Malaysia	1	n/a	1	110	320	228	229	n/a	n/a
France	42	59	74	157	149	137	139	n/a	n/a
Spain	34	37	45	49	88	104	113	n/a	n/a
Italy	41	32	56	72	86	97	94	n/a	n/a
Turkey	1	2	6	39	71	88	86	n/a	n/a
Others	462	440	643	749	737	703	648	n/a	n/a
World	1,139	1,198	1,761	2,409	3,357	2,904	3,196	n/a	n/a

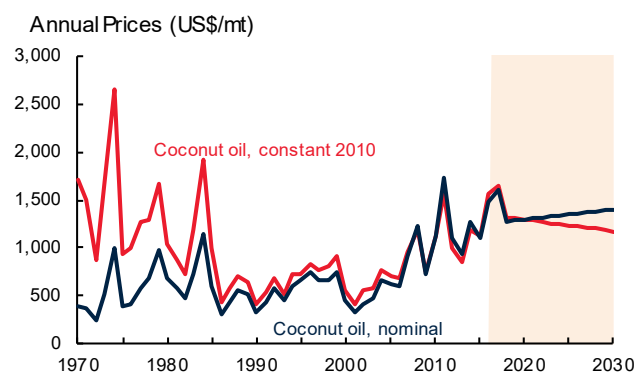
Source: Quarterly Bulletin of Cocoa Statistics (Cocoa year 2017/18 Volume XLIV No. 1 update).

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

Coconut oil and Palm kernel oil



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

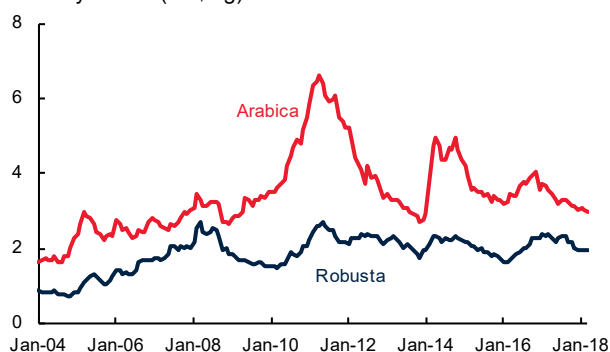
	1980/81	1990/91	2000/01	2010/11	2013/14	2014/15	2015/16	2016/17	2017/18
(thousand metric tons)									
Coconut oil production									
Philippines	1,159	1,448	1,207	1,240	1,153	1,099	888	953	1,071
Indonesia	677	833	825	847	933	937	805	691	799
India	228	292	442	398	390	377	346	270	300
Mexico	99	126	126	131	127	127	129	131	131
Sri Lanka	n/a	n/a	n/a	32	45	49	53	58	57
Malaysia	64	32	38	49	51	51	45	45	46
Vietnam	n/a	n/a	n/a	34	34	34	33	33	34
Others	596	628	606	363	323	310	295	298	309
World	2,823	3,359	3,244	3,094	3,056	2,984	2,594	2,479	2,747
Coconut oil consumption									
European Union	498	632	734	739	646	536	536	476	539
United States	373	400	585	474	518	531	469	439	470
India	233	301	448	411	392	389	340	262	295
Indonesia	639	600	200	153	377	160	167	169	159
China	27	32	43	216	142	137	138	133	149
Philippines	195	318	297	336	364	238	198	119	141
Mexico	115	139	139	153	129	130	136	140	141
Malaysia	4	4	32	90	49	90	70	75	74
Japan	78	67	45	42	53	54	43	42	42
Others	497	692	670	629	454	639	588	589	655
World	2,659	3,185	3,193	3,243	3,124	2,904	2,685	2,444	2,665
Palm kernel oil production									
Indonesia	36	229	709	2,534	3,264	3,538	3,382	3,808	4,020
Malaysia	250	827	1,289	2,072	2,332	2,280	2,019	2,149	2,406
Thailand	n/a	n/a	n/a	140	176	184	171	206	251
Colombia	n/a	n/a	n/a	80	95	107	101	127	129
Nigeria	82	146	190	108	109	114	114	118	124
Papua New Guinea	n/a	n/a	n/a	43	57	58	63	66	69
Ecuador	n/a	n/a	n/a	35	37	40	48	50	53
Others	195	261	349	379	453	466	501	532	552
World	563	1,463	2,537	5,391	6,523	6,787	6,399	7,056	7,604
Palm kernel oil consumption									
Indonesia	29	66	113	851	1,518	1,670	1,790	1,901	2,022
Malaysia	4	117	686	1,420	1,414	1,504	1,401	1,467	1,530
European Union	238	417	500	537	674	675	724	754	783
China	1	12	31	421	495	578	560	595	645
United States	69	149	224	279	266	274	341	345	353
Brazil	2	10	55	201	249	241	234	229	237
India	1	7	13	198	265	245	138	124	145
Nigeria	24	146	175	107	105	113	111	111	114
Japan	15	39	64	69	78	87	75	77	77
Others	132	426	644	1,145	1,328	1,341	1,293	1,354	1,439
World	515	1,389	2,505	5,228	6,392	6,728	6,667	6,957	7,345

Source: Oil World (March 16, 2018 update).

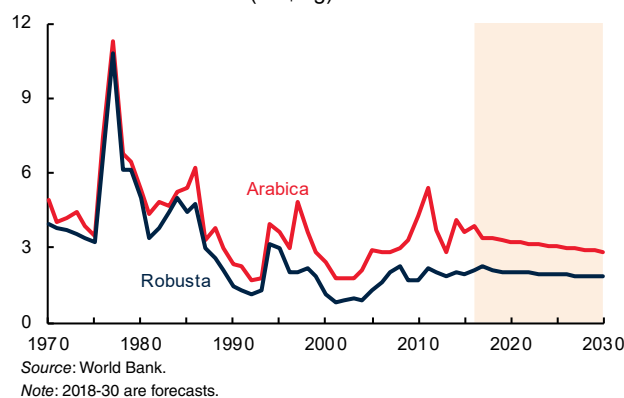
Notes: All quantities are for the crop year (beginning October 1). For example, 2001/02 refers to October 2001 to September 2002. European Union includes EU-15 for 1980/81, 1990/91, 2000/01 and EU-28 for 2010-2017.

Coffee

Monthly Prices (US\$/kg)



Annual Constant Prices (US\$/kg)



	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(thousand 60kg bags)									
Production									
Brazil	11,000	21,500	31,000	34,100	54,500	54,300	49,400	56,100	51,200
Vietnam	56	77	1,200	15,333	19,415	27,400	28,930	26,700	29,900
Colombia	8,000	13,500	14,500	10,500	8,525	13,300	14,000	14,600	14,700
Indonesia	2,330	5,365	7,480	6,495	9,325	10,470	12,100	10,600	10,900
Honduras	545	1,265	1,685	2,821	3,975	5,100	5,300	7,400	7,500
Ethiopia	2,589	3,264	3,500	2,768	6,125	6,475	6,510	6,520	6,545
India	1,914	1,977	2,970	5,020	5,035	5,440	5,800	5,200	5,600
Uganda	2,667	2,133	2,700	3,097	3,212	3,550	3,650	4,200	4,350
Mexico	3,200	3,862	4,550	4,800	4,000	3,180	2,300	3,300	3,800
Peru	1,114	1,170	1,170	2,824	4,100	2,900	3,500	4,225	3,800
Guatemala	1,965	2,702	3,282	4,564	3,960	3,185	3,295	3,570	3,400
Nicaragua	641	971	460	1,610	1,740	2,125	2,125	2,625	2,525
Malaysia	66	88	75	700	1,100	2,100	2,200	2,100	2,100
Costa Rica	1,295	2,140	2,565	2,502	1,575	1,400	1,625	1,300	1,550
Côte d'Ivoire	3,996	6,090	3,300	5,100	1,600	1,400	1,600	1,180	1,400
Tanzania, United Rep.	909	1,060	763	809	1,050	1,150	1,100	1,050	1,150
Papua New Guinea	401	880	964	1,041	865	810	750	1,115	950
Kenya	999	1,568	1,455	864	710	750	750	830	800
Thailand	19	201	785	1,692	1,000	1,000	700	800	700
Others	15,496	16,361	15,777	10,577	9,597	7,631	7,510	7,116	7,018
World	59,202	86,174	100,181	117,217	141,409	153,666	153,145	160,531	159,888
Consumption									
European Union	n/a	n/a	n/a	n/a	41,350	43,870	44,200	45,220	45,070
United States	305	297	229	183	22,383	23,578	25,114	25,019	25,840
Brazil	8,890	7,975	9,000	13,100	19,420	20,420	20,855	21,525	22,195
Japan	n/a	n/a	n/a	n/a	7,015	7,860	8,060	8,170	8,025
Philippines	496	432	810	900	2,825	4,230	6,210	7,025	5,950
Canada	n/a	n/a	n/a	n/a	4,245	4,495	4,545	4,780	4,875
Russian Federation	n/a	n/a	n/a	n/a	4,355	4,050	4,395	4,615	4,750
China	n/a	n/a	n/a	n/a	1,106	2,416	3,008	3,765	4,115
Indonesia	888	1,228	1,295	1,335	1,650	2,900	3,175	3,220	3,290
Ethiopia	1,170	1,600	1,900	1,667	2,860	2,985	3,110	3,220	3,240
Vietnam	31	35	100	417	1,337	2,217	2,630	2,770	2,880
Korea, Rep.	n/a	n/a	n/a	n/a	1,910	2,305	2,465	2,690	2,700
Mexico	1,512	1,500	1,400	978	2,620	2,339	2,325	2,092	2,400
Algeria	n/a	n/a	n/a	n/a	1,815	2,195	2,320	2,160	2,240
Australia	n/a	n/a	n/a	n/a	1,445	1,775	1,785	1,765	1,785
Switzerland	n/a	n/a	n/a	n/a	1,570	1,445	1,420	1,500	1,700
Colombia	1,349	1,825	1,615	1,530	1,120	1,400	1,415	1,475	1,590
Venezuela, RB	638	1,090	850	735	1,305	1,151	1,151	1,111	1,215
India	665	887	1,224	959	1,231	1,191	1,250	1,200	1,205
Others	n/a	n/a	n/a	n/a	12,933	12,828	13,244	13,523	13,410
World	19,408	20,438	22,265	26,303	134,495	145,650	152,677	156,845	158,475

Source: U.S. Department of Agriculture (April 10, 2018 update).

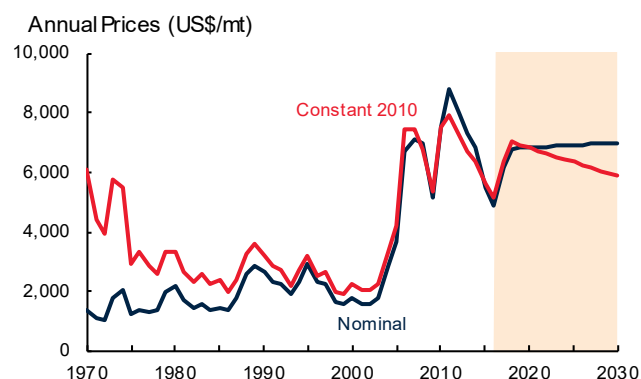
Note: n/a implies data not available.

Copper



Source: World Bank.

Note: Last observation is March 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1980	1990	2000	2005	2010	2014	2015	2016	2017
(thousand metric tons)									
Mine Production									
Chile	1,068	1,588	4,602	5,321	5,419	5,761	5,772	5,553	5,504
Peru	367	318	553	1,010	1,247	1,378	1,701	2,354	2,445
China	177	296	549	639	1,180	1,741	1,667	1,851	1,656
United States	1,181	1,587	1,440	1,157	1,129	1,383	1,410	1,431	1,256
Congo, Dem. Rep.	460	356	33	98	378	996	1,039	1,024	1,095
Zambia	596	496	249	441	732	756	725	738	942
Australia	244	327	832	930	870	966	996	948	879
Mexico	175	291	365	391	270	527	608	766	756
Kazakhstan	n/a	n/a	433	436	404	501	566	596	745
Russian Federation	n/a	n/a	580	805	703	740	740	740	740
Indonesia	59	169	1,006	1,064	871	366	580	696	666
Canada	716	794	634	595	522	673	715	708	606
Poland	343	370	454	523	425	421	426	425	420
Others	n/a	n/a	1,486	1,625	1,988	2,385	2,505	2,601	2,569
World	7,864	8,997	13,217	15,035	16,139	18,593	19,450	20,429	20,278
Refined Production									
China	314	562	1,312	2,566	4,540	7,649	7,964	8,436	8,889
Chile	811	1,192	2,669	2,824	3,244	2,729	2,688	2,613	2,430
Japan	1,014	1,008	1,437	1,395	1,549	1,554	1,483	1,553	1,488
United States	1,686	2,017	1,802	1,257	1,093	1,095	1,141	1,221	1,079
Russian Federation	n/a	n/a	824	968	900	894	876	867	867
India	23	39	265	518	647	764	792	768	845
Germany	425	533	709	639	704	673	678	672	695
Congo, Dem. Rep.	144	173	29	3	254	742	793	707	673
Korea, Rep.	79	187	471	527	556	604	604	607	552
Poland	357	346	486	560	547	577	574	536	522
Zambia	607	479	226	465	767	499	482	405	432
Kazakhstan	n/a	n/a	395	419	323	297	397	413	429
Mexico	102	152	399	387	247	398	446	474	424
Others	n/a	n/a	3,737	4,108	3,841	3,993	4,115	3,820	3,899
World	9,390	10,809	14,761	16,635	19,214	22,469	23,032	23,092	23,225
Refined Consumption									
China	286	512	1,869	3,621	7,385	11,303	11,353	11,642	11,790
United States	1,868	2,150	2,979	2,264	1,760	1,767	1,796	1,811	1,775
Germany	870	1,028	1,309	1,115	1,312	1,162	1,219	1,243	1,176
Japan	1,158	1,577	1,351	1,229	1,060	1,072	997	973	998
Korea, Rep.	85	324	862	868	856	759	705	759	656
Italy	388	475	674	680	619	625	613	596	633
Brazil	246	129	329	332	460	384	434	511	583
Taiwan, China	85	265	628	638	532	465	471	507	498
India	77	135	246	397	514	434	491	499	486
Others	4,322	4,186	4,848	5,504	4,848	4,778	4,814	4,877	4,892
World	9,385	10,780	15,096	16,649	19,347	22,750	22,893	23,418	23,487

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

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

Cotton

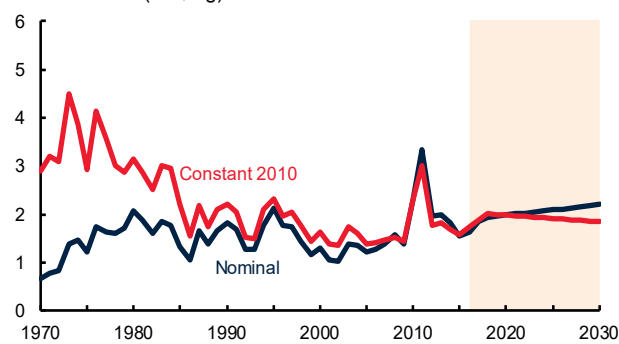
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is March 2018.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2018-30 are forecasts.

1970/71 1980/81 1990/91 2000/01 2010/11 2015/16 2016/17 2017/18 2018/19
(thousand metric tons)

Production

India	909	1,322	1,989	2,380	5,865	5,746	5,865	6,296	6,096
China	1,995	2,707	4,508	4,505	6,400	5,200	4,900	5,345	5,345
United States	2,219	2,422	3,376	3,742	3,942	2,806	3,738	4,621	4,266
Pakistan	543	714	1,638	1,816	1,948	1,537	1,663	1,799	2,094
Brazil	594	623	717	939	1,960	1,289	1,530	1,703	1,616
Australia	19	99	433	804	898	629	960	968	890
Turkey	400	500	655	880	594	640	703	840	852
Uzbekistan	n/a	1,671	1,593	975	910	832	789	800	804
Mexico	312	353	175	72	157	188	207	335	320
Burkina Faso	8	23	77	116	141	244	285	283	302
Turkmenistan	n/a	n/a	437	187	380	295	296	304	300
Others	n/a	n/a	3,354	3,109	2,214	2,079	2,158	2,495	2,484
World	11,740	13,831	18,951	19,524	25,408	21,485	23,094	25,789	25,369

Stocks

China	412	476	1,589	3,755	2,087	12,650	10,619	9,236	8,062
India	376	491	539	922	1,850	1,507	1,701	2,211	2,211
United States	915	581	510	1,306	566	827	697	1,336	1,336
Brazil	321	391	231	755	1,400	843	1,045	1,327	1,327
Turkey	24	112	150	283	412	826	705	907	817
Pakistan	55	131	313	608	316	704	734	455	673
Vietnam	10	16	8	10	77	129	235	306	370
Others	2,492	2,952	3,419	2,974	2,755	2,822	3,079	3,476	3,357
World	4,605	5,151	6,761	10,614	9,463	20,308	18,815	19,254	18,153

Exports

United States	848	1,290	1,697	1,467	3,130	1,993	3,248	3,157	3,532
Australia	4	53	329	849	545	616	812	944	944
India	34	140	255	24	1,085	1,258	991	927	935
Brazil	220	21	167	68	435	939	607	820	898
Uzbekistan	n/a	n/a	n/a	750	600	500	403	344	440
Burkina Faso	9	22	73	112	136	275	261	249	297
Mali	19	35	114	134	92	221	249	252	295
Others	n/a	n/a	n/a	2,401	1,694	1,746	1,619	1,684	1,036
World	3,875	4,414	5,069	5,805	7,717	7,548	8,190	8,377	8,377

Imports

China	108	773	480	52	2,609	959	1,096	1,387	1,852
Bangladesh	0	45	80	248	843	1,378	1,412	1,573	1,546
Vietnam	33	40	31	84	350	1,001	1,198	1,431	1,455
Turkey	1	0	46	381	760	918	801	801	833
Indonesia	36	106	324	570	471	640	746	792	776
Pakistan	1	0	43	410	283	585	538	290	609
India	155	9	49	350	87	240	228	323	339
Others	3,753	3,582	4,167	3,670	2,354	1,851	2,109	1,780	1,749
World	4,086	4,555	5,220	5,764	7,756	7,572	8,128	8,377	9,159

Source: International Cotton Advisory Committee (January-February 2018 update).

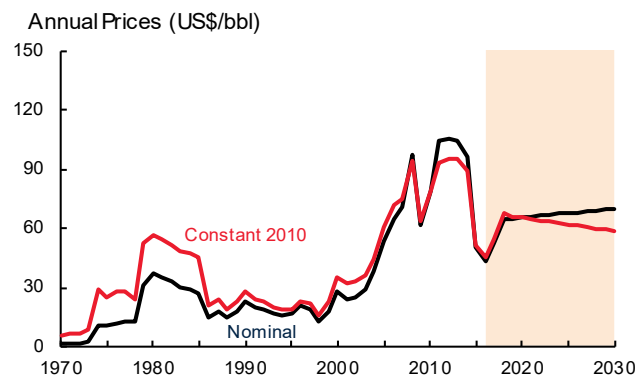
Note: n/a implies data not available.

Crude oil



Source: World Bank.

Note: Last observation is September 2017.



Source: World Bank.

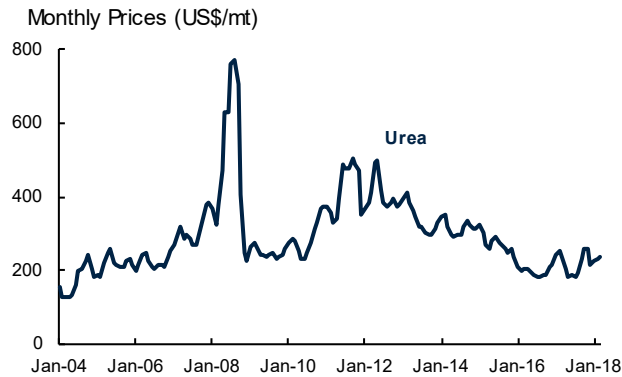
Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2013	2014	2015	2016
(thousand barrels per day)									
Production									
United States	11,297	10,170	8,914	7,732	7,549	10,073	11,779	12,757	12,354
Saudi Arabia	3,851	10,270	7,105	9,470	10,075	11,393	11,505	11,986	12,349
Russian Federation	n/a	n/a	10,342	6,584	10,367	10,780	10,838	10,981	11,227
Iran, Islamic Rep.	3,848	1,479	3,270	3,852	4,417	3,615	3,725	3,897	4,600
Iraq	1,549	2,658	2,149	2,613	2,490	3,141	3,285	4,031	4,465
Canada	1,473	1,764	1,968	2,703	3,332	4,000	4,271	4,389	4,460
United Arab Emirates	762	1,745	2,283	2,660	2,895	3,627	3,674	3,928	4,073
China	616	2,122	2,778	3,257	4,077	4,216	4,246	4,309	3,999
Kuwait	3,036	1,757	964	2,244	2,560	3,129	3,101	3,068	3,151
Brazil	167	188	651	1,276	2,137	2,110	2,341	2,525	2,605
Mexico	487	2,129	2,941	3,456	2,959	2,875	2,784	2,587	2,456
Venezuela, RB	3,754	2,228	2,244	3,112	2,842	2,680	2,692	2,644	2,410
Nigeria	1,084	2,059	1,870	2,155	2,471	2,270	2,347	2,329	2,053
Norway	n/a	528	1,716	3,346	2,136	1,838	1,889	1,948	1,995
Qatar	363	476	434	853	1,638	1,906	1,886	1,890	1,899
Angola	103	150	475	746	1,863	1,799	1,712	1,826	1,807
Kazakhstan	n/a	n/a	571	740	1,676	1,737	1,710	1,695	1,672
Algeria	1,052	1,139	1,347	1,549	1,689	1,485	1,589	1,558	1,579
United Kingdom	4	1,676	1,933	2,696	1,356	864	852	963	1,013
Oman	332	285	695	955	865	942	943	981	1,004
Colombia	226	131	446	687	786	1,004	990	1,006	924
Indonesia	854	1,577	1,539	1,456	1,003	882	852	841	881
India	140	193	715	726	882	906	887	876	856
Others	n/a	n/a	8,036	10,068	11,187	9,334	8,926	8,690	8,318
World	48,056	62,958	65,384	74,934	83,251	86,606	88,826	91,704	92,150
Consumption									
United States	14,710	17,062	16,988	19,701	19,180	18,961	19,106	19,531	19,631
China	554	1,707	2,297	4,697	9,436	10,734	11,209	11,986	12,381
India	390	643	1,211	2,259	3,319	3,727	3,849	4,164	4,489
Japan	3,876	4,905	5,240	5,542	4,442	4,516	4,303	4,139	4,037
Saudi Arabia	435	592	1,136	1,627	3,218	3,470	3,726	3,868	3,906
Russian Federation	n/a	n/a	5,042	2,540	2,878	3,135	3,299	3,137	3,203
Brazil	516	1,125	1,417	2,029	2,721	3,110	3,239	3,170	3,018
Korea, Rep.	162	476	1,041	2,260	2,370	2,455	2,454	2,577	2,763
Germany	2,765	3,014	2,685	2,746	2,445	2,408	2,348	2,340	2,394
Canada	1,472	1,898	1,747	2,043	2,305	2,383	2,372	2,299	2,343
Mexico	412	1,048	1,580	1,965	2,014	2,020	1,943	1,923	1,869
Iran, Islamic Rep.	224	591	1,069	1,455	1,817	2,014	1,961	1,850	1,848
Indonesia	138	395	653	1,139	1,411	1,639	1,663	1,592	1,615
France	1,860	2,220	1,895	1,994	1,763	1,664	1,616	1,616	1,602
United Kingdom	2,031	1,649	1,751	1,713	1,623	1,518	1,511	1,565	1,597
Others	n/a	n/a	20,898	23,235	27,780	28,358	28,428	29,246	29,862
World	45,253	61,436	66,650	76,946	88,722	92,114	93,025	95,003	96,558

Source: BP Statistical Review (June 2017 update).

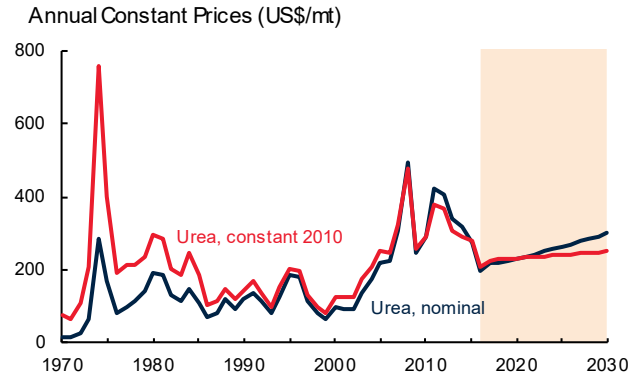
Notes: n/a implies data not available. Production includes crude oil and natural gas liquids but excludes liquid fuels from other sources such as biomass and derivatives of coal and natural gas included in consumption.

Fertilizers—Nitrogen



Source: World Bank.

Note: Last observation is September 2017.



Source: World Bank.

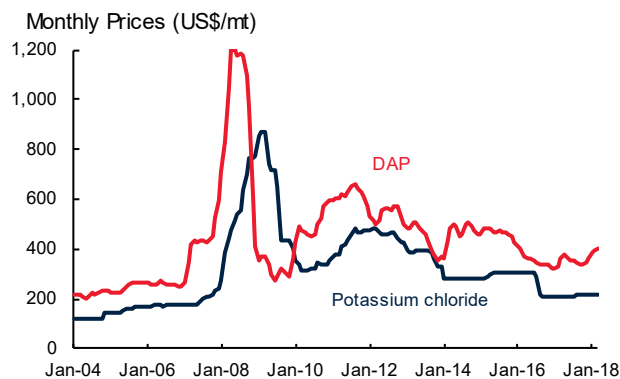
Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
	(thousand tons nutrients)								
Production									
China	1,200	9,993	14,637	22,175	35,678	36,056	36,810	35,540	36,312
India	838	2,164	6,993	10,943	12,178	12,237	12,409	12,434	13,476
United States	8,161	12,053	10,816	8,352	9,587	10,150	8,494	8,793	9,291
Russian Federation	n/a	n/a	n/a	5,452	6,544	6,605	6,819	7,089	7,742
Canada	726	1,755	2,683	3,797	3,364	3,344	3,213	3,323	3,534
Indonesia	45	958	2,462	2,853	3,207	3,313	3,442	3,406	3,456
Pakistan	140	572	1,120	2,054	2,629	2,232	2,589	2,647	2,918
Qatar	n/a	295	350	748	1,556	2,095	2,535	2,499	2,618
Saudi Arabia	0	138	568	1,278	1,695	1,923	1,920	2,119	2,330
Iran, Islamic Rep.	31	72	376	726	1,524	2,058	1,920	1,733	1,918
Egypt, Arab Rep.	118	401	678	1,441	2,761	2,474	2,274	1,941	1,721
Ukraine	n/a	n/a	3,004	2,130	2,312	3,072	2,394	1,863	1,627
Poland	1,030	1,290	1,233	1,497	1,509	1,529	1,456	1,394	1,379
Germany	1,900	2,380	1,165	1,558	1,289	1,326	1,316	1,316	1,253
Netherlands	957	1,624	1,928	1,300	1,175	1,293	1,281	1,328	1,226
Vietnam	0	15	18	227	479	861	999	1,067	1,124
Belarus	n/a	n/a	747	574	740	832	922	1,060	1,101
Belgium	594	743	770	935	947	932	1,053	1,027	1,044
Uzbekistan	n/a	n/a	1,113	682	911	875	811	925	881
Others	16,949	28,500	21,303	17,904	18,031	18,366	18,257	18,146	18,688
World	32,690	62,951	71,964	86,624	108,116	111,571	110,916	109,648	113,637
Consumption									
China	2,987	11,787	19,233	22,720	25,058	26,692	27,960	25,154	27,340
India	1,310	3,522	7,566	10,911	16,558	16,821	16,750	16,950	17,372
United States	7,363	10,818	10,239	10,467	11,737	12,188	12,212	11,862	12,268
Brazil	276	886	797	1,998	2,855	3,435	3,699	3,872	3,533
Indonesia	184	851	1,610	1,964	3,045	3,063	2,820	2,981	2,833
Pakistan	264	843	1,472	2,265	3,143	2,853	3,179	3,315	2,682
Canada	323	946	1,158	1,592	1,990	2,479	2,457	2,575	2,538
France	1,425	2,146	2,493	2,317	2,337	2,140	2,178	2,195	2,212
Germany	1,642	2,303	1,787	1,848	1,786	1,648	1,675	1,823	1,711
Russian Federation	n/a	n/a	4,344	960	1,483	1,576	1,537	1,485	1,708
Vietnam	166	129	425	1,332	1,250	1,407	1,261	1,354	1,508
Turkey	243	782	1,200	1,276	1,344	1,432	1,584	1,493	1,487
Mexico	406	878	1,346	1,342	1,166	1,201	1,518	1,506	1,357
Australia	123	248	439	951	982	1,099	1,315	1,407	1,274
Bangladesh	99	266	609	996	1,237	1,112	1,133	1,321	1,258
Thailand	50	136	577	922	1,311	1,382	1,419	1,409	1,240
Egypt, Arab Rep.	331	554	745	1,084	1,159	1,087	1,104	1,122	1,219
Ukraine	n/a	n/a	1,836	350	650	1,254	1,219	1,181	1,216
Poland	785	1,344	671	896	1,090	1,204	1,098	1,004	1,050
Others	13,446	22,054	18,231	15,880	16,797	17,122	17,965	18,488	18,015
World	31,423	60,493	76,777	82,070	96,978	101,194	104,083	102,496	103,820

Source: International Fertilizer Industry Association (<http://ifadata.fertilizer.org/ucSearch.aspx>, September 2017 update).

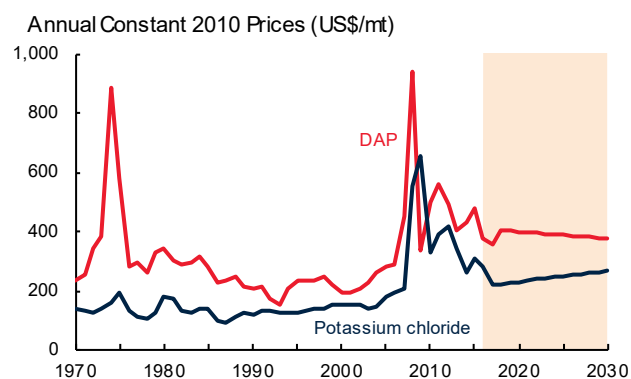
Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see www.fertilizers.org for details).

Fertilizers—Phosphate and Potash



Source: World Bank.

Note: Last observation is September 2017.



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2012	2013	2014	2015
(thousand tons nutrients)									
Phosphate production									
China	907	2,607	4,114	6,759	15,998	16,387	16,545	16,576	17,289
United States	n/a	7,437	8,105	7,337	6,297	6,456	5,861	5,578	5,257
India	228	854	2,077	3,751	4,378	3,825	3,973	4,125	4,429
Russian Federation	n/a	0	4,943	2,320	2,926	2,940	2,929	2,858	3,217
Morocco	99	174	1,180	1,122	1,875	2,433	2,198	2,403	2,044
Brazil	169	1,623	1,091	1,496	2,004	2,183	2,100	1,990	2,021
Saudi Arabia	0	0	0	159	119	826	919	1,220	1,328
Others	14,279	20,982	14,908	9,800	9,099	8,639	8,860	8,887	8,653
World	15,682	33,677	36,417	32,744	42,697	43,688	43,384	43,637	44,239
Phosphate consumption									
China	907	2,952	5,770	8,664	13,893	14,065	14,877	15,254	15,046
India	305	1,091	3,125	4,248	8,050	6,653	5,634	6,099	6,979
Brazil	416	1,965	1,202	2,544	3,384	4,325	4,641	4,752	4,401
United States	4,671	4,926	3,811	3,862	3,890	4,289	4,339	4,080	4,264
Indonesia	45	274	581	263	500	1,175	1,260	1,331	1,442
Canada	326	634	578	634	723	831	887	949	1,025
Pakistan	31	227	389	675	767	747	881	975	1,007
Australia	757	853	579	1,107	817	803	816	919	964
Vietnam	77	23	106	501	650	696	670	700	711
Others	13,666	18,967	19,782	10,314	9,746	10,106	10,993	10,875	10,615
World	21,202	31,912	35,920	32,812	42,420	43,690	44,998	45,933	46,454
Potash production									
Canada	3,179	7,337	7,005	9,174	10,289	9,877	9,461	10,636	11,500
Russian Federation	n/a	n/a	n/a	3,716	6,128	5,403	6,086	7,340	6,907
Belarus	n/a	n/a	4,992	3,372	5,223	4,831	4,229	6,286	6,402
China	0	20	46	275	3,101	4,007	4,565	5,680	5,970
Germany	4,824	6,123	4,967	3,409	2,962	3,056	2,968	3,053	3,055
Israel	576	797	1,296	1,748	1,944	2,100	2,150	2,126	1,518
Jordan	0	0	842	1,162	1,166	1,094	1,047	1,255	1,413
Chile	21	23	41	408	850	1,241	1,187	1,239	1,229
Spain	525	691	642	522	313	637	692	703	723
Others	8,346	12,616	3,007	2,356	1,730	1,787	2,111	1,930	2,087
World	17,471	27,608	22,838	26,141	33,706	34,033	34,497	40,247	40,803
Potash consumption									
China	25	527	1,761	3,364	5,861	6,572	7,050	8,176	8,732
Brazil	307	1,267	1,210	2,760	3,894	4,844	5,094	5,395	5,163
United States	3,827	5,733	4,537	4,469	4,165	4,385	4,819	4,450	4,717
India	199	618	1,309	1,565	3,514	2,062	2,099	2,533	2,402
Indonesia	18	91	310	266	1,250	1,490	1,620	1,772	1,635
Malaysia	61	250	494	650	1,150	1,290	1,290	1,237	1,120
Vietnam	38	39	29	450	400	552	570	600	539
Others	11,289	15,302	14,671	8,571	7,956	8,394	9,012	9,357	9,164
World	15,764	23,826	24,320	22,095	28,191	29,588	31,553	33,520	33,471

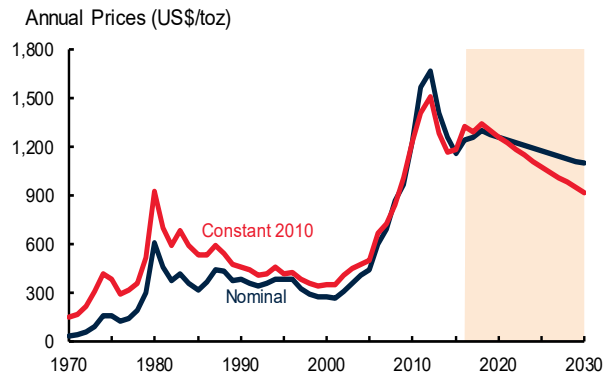
Source: International Fertilizer Industry Association (<http://ifadata.fertilizer.org/ucSearch.aspx>, September 2017 update).Notes: n/a implies data not available. The statistics are based on the nutrient content. All production statistics are expressed on a calendar-year basis, while consumption statistics are expressed either on a calendar- or on a fertilizer-year basis (see www.fertilizers.org for details).

Gold



Source: World Bank.

Note: Last observation is March 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1995	2000	2005	2010	2012	2013	2014	2015	2016
(metric tons)									
Production									
China	136	175	209	341	403	428	452	450	453
Russian Federation	128	144	163	201	183	230	249	256	289
Australia	247	296	263	260	252	267	274	279	288
United States	317	353	256	231	235	230	210	214	222
Canada	152	156	121	91	105	134	152	163	163
Peru	56	134	206	164	162	151	140	147	153
South Africa	522	428	297	191	154	169	152	145	142
Ghana	53	72	67	93	99	95	137	130	121
Mexico	20	24	30	79	103	120	118	123	117
Uzbekistan	70	88	84	90	93	98	102	103	102
Brazil	64	61	38	62	67	80	81	83	83
Sudan	4	6	5	2	46	70	73	82	82
Indonesia	63	125	158	106	69	60	69	92	81
Kazakhstan	11	27	18	30	40	42	50	64	75
Argentina	1	26	28	64	55	52	60	63	63
Colombia	22	37	36	54	66	56	57	59	62
Papua New Guinea	52	73	67	67	58	63	56	55	57
Mali	8	29	44	39	41	41	45	51	53
Tanzania	0	15	48	39	40	43	41	42	44
Others	246	291	326	389	441	504	566	566	549
World	2,174	2,560	2,464	2,594	2,711	2,933	3,085	3,167	3,199
Fabrication									
China	217	213	277	523	698	1,175	925	854	731
India	426	704	695	783	736	716	771	812	506
United States	245	277	219	179	149	163	152	165	171
Turkey	126	228	303	109	114	178	156	112	101
Japan	189	161	165	158	126	124	119	102	99
Italy	458	522	290	126	96	92	96	94	88
Korea, Rep.	82	107	83	93	70	65	61	56	52
Iran, Islamic Rep.	37	46	41	72	87	93	62	56	47
Russian Federation	n/s	34	61	61	72	74	70	52	47
United Arab Emirates	30	50	55	33	30	38	42	45	45
Indonesia	133	99	87	45	53	61	53	50	45
Canada	28	25	27	44	32	45	32	40	41
South Africa	12	14	10	25	27	31	25	31	38
Switzerland	47	54	56	41	48	46	44	41	35
Malaysia	78	86	74	45	39	49	45	41	34
Saudi Arabia	156	153	125	47	33	41	37	41	32
Germany	71	64	52	41	36	37	36	32	32
Egypt, Arab Rep.	61	107	71	43	39	42	42	39	28
Singapore	22	26	30	28	25	28	29	29	27
Others	877	791	606	384	332	362	352	353	317
World	3,294	3,761	3,325	2,878	2,840	3,459	3,148	3,044	2,515

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

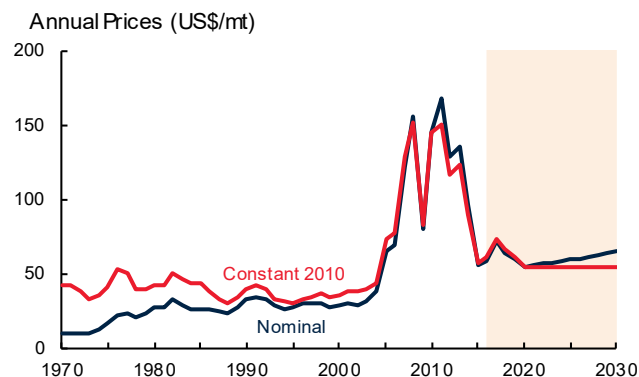
Notes: n/a implies data not available. Fabrication includes the use of scrap. Fabrication of "Saudi Arabia" includes Saudi Arabia and the Republic of Yemen in 1995 and 2000.

Iron Ore



Source: World Bank.

Note: Last observation is March 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1971	1980	1990	2000	2010	2013	2014	2015	2016
(million metric tons)									
Iron ore production									
Australia	62	99	109	176	433	609	746	811	n/a
Brazil	38	113	152	209	372	391	399	423	n/a
India	34	41	54	75	209	136	140	143	n/a
China	55	113	148	105	357	315	195	124	n/a
Russian Federation	n/a	n/a	n/a	87	99	102	101	102	n/a
Ukraine	n/a	n/a	n/a	56	79	84	82	82	n/a
South Africa	10	n/a	30	34	55	61	67	61	n/a
Canada	43	49	37	36	38	42	44	46	n/a
United States	82	71	55	63	50	52	54	43	n/a
Iran, Islamic Rep.	n/a	n/a	2	12	33	49	48	39	n/a
Sweden	34	27	20	21	25	27	28	25	n/a
Chile	11	9	8	8	10	12	13	15	n/a
Mexico	5	8	9	11	14	19	17	14	n/a
Mauritania	8	9	11	11	11	13	13	12	n/a
Kazakhstan	n/a	n/a	n/a	15	18	19	16	11	n/a
Venezuela, RB	20	14	20	17	14	8	6	8	n/a
Peru	9	6	3	4	9	7	7	7	n/a
Turkey	2	3	6	4	6	8	7	6	n/a
Mongolia	n/a	n/a	n/a	n/a	3	6	7	6	n/a
Liberia	23	18	4	n/a	n/a	4	5	4	n/a
Norway	4	4	2	0	3	3	4	3	n/a
Others	n/a	n/a	n/a	14	36	72	54	20	n/a
World	781	931	984	959	1,874	2,039	2,054	2,006	n/a
Crude steel production									
China	21	37	66	129	639	822	822	804	808
Japan	89	111	110	106	110	111	101	105	105
India	6	10	15	27	69	81	87	89	95
United States	109	101	90	102	80	87	88	79	78
Russian Federation	n/a	n/a	n/a	59	67	69	71	71	71
Korea, Rep.	0	9	23	43	59	66	72	70	69
Germany	40	44	38	46	44	43	43	43	42
Turkey	1	3	9	14	29	35	34	32	33
Brazil	6	15	21	28	33	34	34	33	31
Ukraine	n/a	n/a	n/a	32	33	33	27	23	24
Italy	17	27	25	27	26	24	24	22	23
Taiwan, China	0	3	10	17	20	22	23	21	22
Mexico	4	7	9	16	17	18	19	18	19
Iran, Islamic Rep.	n/a	1	1	7	12	15	16	16	18
France	23	23	19	21	15	16	16	15	14
Spain	8	13	13	16	16	14	14	15	14
Canada	11	16	12	17	13	12	13	12	13
Others	n/a	n/a	n/a	143	151	148	165	152	148
World	583	716	770	849	1,433	1,650	1,669	1,620	1,628

Source: Steel Statistical Yearbook 2017.

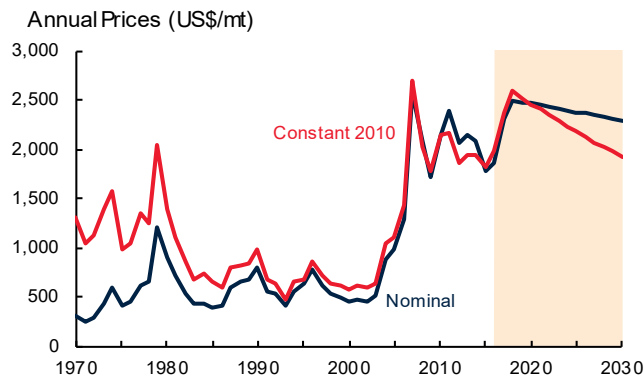
Notes: n/a implies data not available. Crude steel production includes all qualities: carbon, stainless, and other alloy.

Lead



Source: World Bank.

Note: Last observation is April 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1980	1990	2000	2005	2010	2014	2015	2016	2017
	(thousand metric tons)								

Mine Production

China	160	364	660	1,142	1,981	2,609	2,335	2,230	2,443
Australia	398	570	678	767	711	728	653	453	460
United States	562	493	447	437	356	381	373	342	313
Peru	189	188	271	319	262	278	316	314	307
Mexico	146	174	138	134	192	250	261	241	241
Russian Federation	n/a	n/a	13	36	97	196	180	192	187
India	15	26	38	60	89	105	120	139	170
Kazakhstan	n/a	n/a	39	31	35	38	41	71	112
Bolivia	16	20	10	11	73	76	75	90	111
Turkey	8	18	16	19	39	62	76	65	75
Sweden	72	84	107	61	68	71	79	75	71
Tajikistan	0	0	2	0	4	28	38	47	51
South Africa	8	18	75	42	51	29	35	39	48
Others	n/a	n/a	588	392	409	427	400	386	405
World	3,595	3,150	3,080	3,453	4,367	5,278	4,981	4,684	4,994

Refined Production

China	175	297	1,100	2,359	4,157	4,704	4,422	4,665	4,663
United States	1,151	1,291	1,431	1,293	1,255	1,020	1,050	1,120	1,010
Korea, Rep.	15	80	222	254	321	670	682	831	760
India	26	39	57	56	366	477	496	508	563
Germany	392	394	387	342	405	380	378	343	357
United Kingdom	325	329	328	304	301	267	357	375	354
Mexico	149	238	332	272	270	363	354	341	342
Canada	231	184	284	230	273	281	269	274	273
Japan	305	327	312	275	267	240	232	240	237
Australia	234	229	223	267	210	226	228	225	214
Brazil	85	76	86	121	115	160	176	160	195
Italy	134	171	237	211	150	210	210	187	187
Spain	121	124	120	110	163	166	172	165	166
Others	2,083	1,683	1,588	1,578	1,566	1,768	1,699	1,710	1,756
World	5,424	5,460	6,707	7,671	9,820	10,933	10,725	11,145	11,077

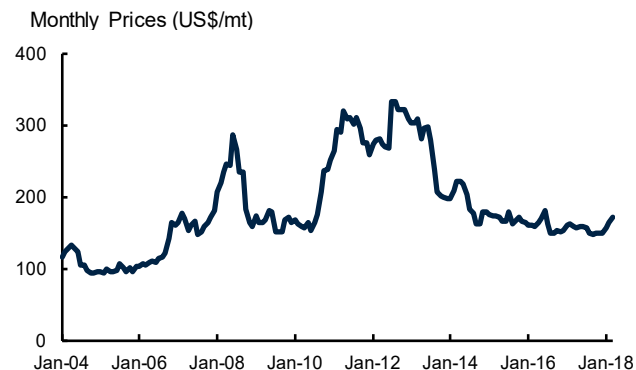
Refined Consumption

China	210	244	660	1,974	4,171	4,682	4,380	4,655	4,741
United States	1,094	1,275	1,660	1,490	1,430	1,510	1,560	1,610	1,640
Korea, Rep.	54	80	309	376	382	601	602	622	577
India	33	147	56	139	420	521	539	567	551
Germany	433	448	390	330	343	337	357	374	414
United Kingdom	296	302	301	288	211	208	217	285	295
Japan	393	416	343	291	224	254	269	264	285
Brazil	83	75	155	189	201	229	240	211	266
Spain	111	115	219	279	262	249	238	262	261
Others	2,643	2,246	2,398	2,421	2,146	2,298	2,354	2,451	2,465
World	5,348	5,348	6,491	7,777	9,790	10,890	10,756	11,300	11,495

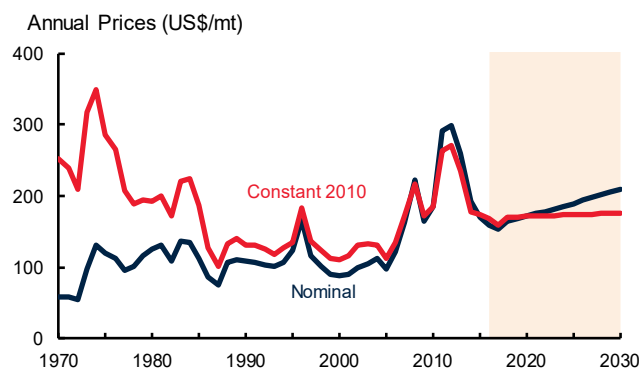
Source: World Bureau of Metal Statistics (April 2018 update).

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

Maize



Source: World Bank.
Note: Last observation is March 2018.



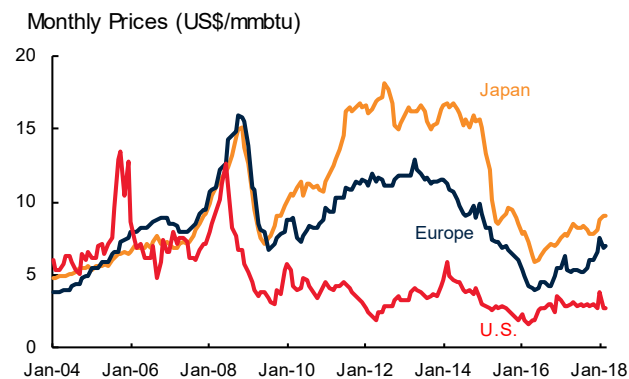
Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(million metric tons)									
Production									
United States	105.5	168.6	201.5	251.9	315.6	361.1	345.5	384.8	371.0
China	33.0	62.6	96.8	106.0	177.2	215.6	224.6	219.6	215.9
Brazil	14.1	22.6	24.3	41.5	57.4	85.0	67.0	98.5	92.0
European Union	29.8	42.5	36.5	51.8	58.6	75.7	58.7	61.5	61.1
Argentina	9.9	12.9	7.7	15.4	25.2	29.8	29.5	41.0	33.0
India	7.5	7.0	9.0	12.0	21.7	24.2	22.6	25.9	27.2
Mexico	8.9	10.4	14.1	17.9	21.1	25.5	26.0	27.6	26.8
Ukraine	n/a	n/a	4.7	3.8	11.9	28.5	23.3	28.0	24.1
Canada	2.6	5.8	7.1	7.0	12.0	11.5	13.6	13.2	14.1
Russian Federation	n/a	n/a	2.5	1.5	3.1	11.3	13.2	15.3	13.2
South Africa	8.6	14.9	8.6	8.0	10.9	10.6	8.2	17.6	13.2
Indonesia	2.8	4.0	5.0	5.9	6.8	9.0	10.5	10.9	11.4
Nigeria	1.3	1.7	5.8	4.0	7.7	10.8	9.5	10.8	10.5
Others	44.0	55.8	58.2	64.7	107.0	124.8	120.0	121.1	122.6
World	268.1	408.7	481.8	591.5	836.3	1,023.4	972.2	1,075.5	1,036.1
Stocks									
China	8.9	42.8	82.8	102.4	49.4	100.5	110.8	100.7	79.6
United States	16.8	35.4	38.6	48.2	28.6	44.0	44.1	58.3	55.4
Brazil	2.0	1.3	0.8	2.7	6.3	7.8	6.8	14.0	10.9
European Union	2.3	4.8	3.7	3.2	5.2	9.6	6.7	7.5	7.1
Iran, Islamic Rep.	0.0	0.1	0.0	0.9	2.8	5.7	6.1	6.3	5.7
Others	6.2	18.1	15.5	17.6	30.2	42.1	39.5	44.1	39.1
World	36.1	102.5	141.4	175.1	122.6	209.7	213.9	230.9	197.8
Exports									
United States	12.9	60.7	43.9	49.3	46.5	47.4	48.3	58.2	56.5
Brazil	0.9	0.0	0.0	6.3	8.4	34.5	14.0	31.6	33.0
Argentina	6.4	9.1	4.0	9.7	16.3	19.0	21.6	26.0	24.0
Ukraine	n/a	n/a	0.4	0.4	5.0	19.7	16.6	21.3	20.0
Russian Federation	n/a	n/a	0.4	0.0	0.0	3.2	4.7	5.6	4.8
Paraguay	0.0	0.0	0.0	0.6	1.8	3.5	1.9	2.1	2.1
European Union	5.4	1.3	0.2	0.5	1.1	4.0	1.9	2.2	2.0
Others	6.5	9.2	9.6	10.1	12.3	11.1	10.7	12.8	10.2
World	32.2	80.3	58.4	76.7	91.6	142.4	119.7	159.8	152.6
Imports									
European Union	18.9	26.6	5.7	3.7	7.4	8.9	13.8	15.2	16.2
Mexico	0.1	3.8	1.9	6.0	8.3	11.3	14.0	14.6	16.2
Japan	5.2	14.0	16.3	16.3	15.6	14.7	15.2	15.2	15.0
Egypt, Arab Rep.	0.1	1.0	1.9	5.3	5.8	7.8	8.7	8.8	10.0
Korea, Rep.	0.3	2.4	5.6	8.7	8.1	10.2	10.1	9.2	9.7
Vietnam	0.1	0.1	0.0	0.1	1.3	5.0	8.0	8.1	9.0
Iran, Islamic Rep.	0.0	0.4	0.8	1.3	3.5	6.1	6.6	7.8	8.5
Others	3.7	25.9	26.2	33.5	43.4	61.0	62.8	56.8	62.0
World	28.4	74.3	58.5	74.9	93.4	124.9	139.2	135.6	146.6

Source: U.S. Department of Agriculture (April 10, 2018 update).

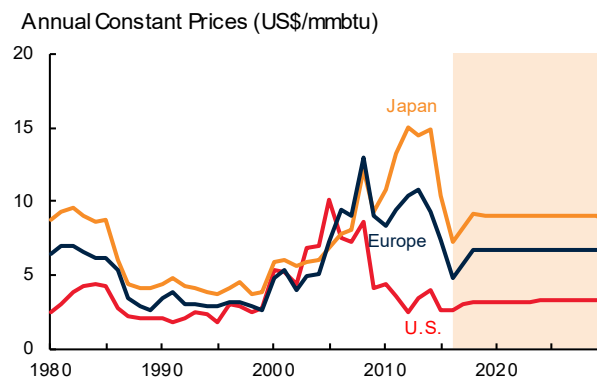
Notes: n/a implies data not available. The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

Natural gas



Source: World Bank.

Note: Last observation is September 2017.



Source: World Bank.

Note: 2017-30 are forecasts.

	1970	1980	1990	2000	2010	2013	2014	2015	2016
(billion cubic metres)									
Production									
United States	595	549	504	543	604	685	733	766	749
Russian Federation	n/a	n/a	590	529	589	605	582	575	579
Iran, Islamic Rep.	4	5	26	60	152	167	186	189	202
Qatar	1	5	6	25	131	178	174	178	181
Canada	52	71	99	168	145	141	147	149	152
China	3	15	16	28	99	122	132	136	138
Norway	0	25	25	50	107	109	109	117	117
Saudi Arabia	2	10	34	50	88	100	102	104	109
Algeria	3	15	49	88	80	82	83	85	91
Australia	2	11	20	30	50	59	64	73	91
Malaysia	0	2	17	47	56	67	68	71	74
Indonesia	1	19	44	70	86	76	75	75	70
Turkmenistan	n/a	n/a	79	43	42	62	67	70	67
Uzbekistan	n/a	n/a	37	51	54	57	57	58	63
United Arab Emirates	1	8	20	38	51	55	54	60	62
Mexico	11	26	27	38	58	58	57	54	47
Nigeria	0	2	4	12	37	36	45	50	45
Egypt, Arab Rep.	0	2	8	21	61	56	49	44	42
Pakistan	3	7	12	22	42	43	42	42	42
United Kingdom	10	35	45	108	57	36	37	40	41
Netherlands	27	76	61	58	70	69	58	43	40
Thailand	0	0	6	20	36	41	42	39	39
Argentina	6	9	19	38	40	36	35	36	38
Others	n/a	n/a	216	271	455	463	467	474	472
World	988	1,432	1,967	2,406	3,192	3,404	3,466	3,531	3,552
Consumption									
United States	599	563	543	661	682	741	753	773	779
Russian Federation	n/a	n/a	408	360	414	413	410	403	391
China	3	15	16	25	111	172	188	195	210
Iran, Islamic Rep.	3	5	24	63	153	163	184	191	201
Japan	3	24	48	72	95	117	118	113	111
Saudi Arabia	2	10	34	50	88	100	102	104	109
Canada	36	52	67	93	95	104	104	102	100
Mexico	10	23	28	41	72	83	87	87	90
Germany	15	58	61	79	84	81	71	74	80
United Kingdom	11	45	52	97	94	73	67	68	77
United Arab Emirates	1	5	17	31	61	67	66	74	77
Italy	12	25	43	65	76	64	56	61	65
Uzbekistan	n/a	n/a	36	46	41	47	49	50	51
Egypt, Arab Rep.	0	2	8	20	45	51	48	48	51
India	1	1	12	26	60	49	49	46	50
Others	n/a	n/a	562	688	1,017	1,058	1,049	1,090	1,101
World	977	1,431	1,958	2,418	3,188	3,384	3,401	3,480	3,543

Source: BP Statistical Review (June 2017 update).

Note: n/a implies data not available.

Natural rubber

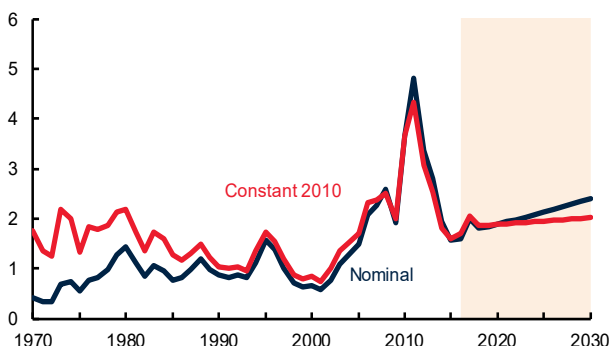
Monthly Prices (US\$/kg)



Source: World Bank.

Note: Last observation is March 2018.

Annual Prices (US\$/kg)



Source: World Bank.

Note: 2018-30 are forecasts.

	1970	1980	1990	2000	2010	2014	2015	2016	2017
(thousand metric tons)									
Production									
Thailand	287	501	1,275	2,346	3,252	4,324	4,473	4,519	4,755
Indonesia	815	822	1,261	1,501	2,736	3,153	3,145	3,208	3,409
Vietnam	28	46	94	291	752	954	1,013	1,032	1,086
China	46	113	264	445	687	840	794	774	779
Malaysia	1,269	1,530	1,291	928	939	669	722	674	739
India	90	155	324	629	851	705	575	624	714
Côte d'Ivoire	11	23	69	123	231	317	351	392	545
Myanmar	10	16	15	36	128	198	212	230	249
Brazil	42	53	78	96	136	193	199	206	219
Others	542	591	314	417	691	790	787	793	886
World	3,140	3,850	4,985	6,811	10,403	12,142	12,271	12,451	13,380
Consumption									
China	250	340	600	1,150	3,622	4,804	4,680	4,863	5,108
European Union	991	1,007	1,012	1,293	1,136	1,139	1,159	1,186	1,240
India	86	171	358	638	944	1,015	987	1,033	1,073
United States	568	585	808	1,195	926	932	936	932	969
Thailand	8	28	99	243	487	541	601	650	701
Japan	283	427	677	752	749	709	691	677	680
Indonesia	25	46	108	139	421	540	509	583	611
Malaysia	20	45	184	364	458	447	475	486	489
Brazil	37	81	124	227	378	422	405	428	429
Others	822	1,050	1,099	1,307	1,638	1,633	1,698	1,748	1,790
World	3,090	3,780	5,068	7,306	10,759	12,181	12,140	12,587	13,090
Exports									
Thailand	279	457	1,151	2,166	2,866	3,729	3,776	3,922	4,419
Indonesia	790	976	1,077	1,380	2,369	2,662	2,680	2,642	3,251
Vietnam	23	33	80	273	782	1,066	1,137	1,254	1,380
Malaysia	1,304	1,482	1,322	978	1,245	1,192	1,119	1,023	1,185
Côte d'Ivoire	11	23	69	121	226	323	348	397	555
Cambodia	7	15	24	33	43	100	128	145	189
Myanmar	29	30	41	52	67	79	86	109	123
Others	377	254	198	274	448	704	931	886	959
World	2,820	3,270	3,962	5,277	8,047	9,855	10,205	10,379	12,060
Imports									
China	178	242	340	820	2,888	3,809	3,851	4,131	5,277
European Union	1,071	1,068	1,072	1,474	1,427	1,546	1,536	1,543	1,570
Malaysia	45	43	136	548	706	924	955	931	1,113
United States	543	576	820	1,192	931	946	952	946	972
Japan	292	458	663	801	747	689	682	660	699
India	3	1	61	11	187	424	414	460	398
Korea, Rep.	26	118	254	331	388	403	388	383	387
Others	651	729	1,423	1,204	1,406	1,482	1,561	1,703	1,845
World	2,810	3,235	4,769	6,380	8,681	10,223	10,340	10,756	12,262

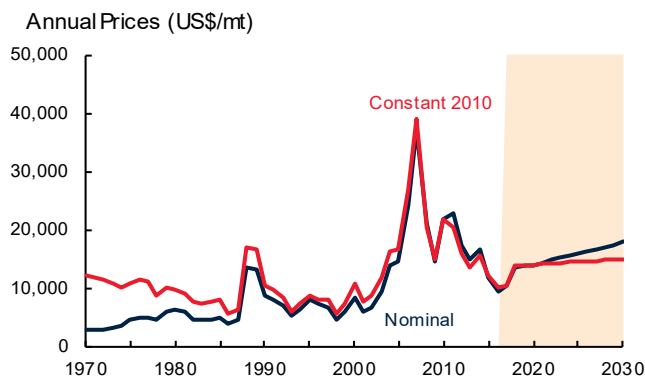
Source: Rubber Statistical Bulletin; International Rubber Study Group (January-March 2018 update).

Nickel



Source: World Bank.

Note: Last observation is March 2018.



Source: World Bank.

Note: 2018-30 are forecasts.

	1980	1990	2000	2005	2010	2014	2015	2016	2017
	(thousand metric tons)								

Mine Production

Philippines	38	16	17	27	184	411	465	311	315
Indonesia	41	69	117	156	216	146	129	173	270
Canada	189	196	191	200	160	229	235	236	211
Russian Federation	n/a	n/a	266	289	274	264	261	221	207
Australia	74	67	170	186	168	266	225	203	179
China	11	33	51	59	80	101	101	90	94
Brazil	3	13	32	38	54	86	89	74	69
Guatemala	7	0	0	0	0	47	57	45	54
Cuba	38	41	71	74	65	52	54	52	51
South Africa	26	30	37	42	40	55	57	49	48
Colombia	0	0	28	53	49	41	37	37	41
Finland	6	12	3	3	12	20	10	21	36
Madagascar	0	0	0	0	0	37	47	42	35
Others	n/a	n/a	208	229	214	311	356	348	378
World	749	888	1,191	1,357	1,518	2,064	2,122	1,902	1,989

Refined Production

China	11	28	52	97	314	537	446	415	414
Japan	109	103	161	164	166	178	193	196	187
Canada	145	127	134	140	105	149	150	158	164
Russian Federation	n/a	n/a	242	264	263	239	232	192	160
Indonesia	4	5	10	7	19	22	47	95	140
New Caledonia	33	32	44	47	40	62	78	96	104
Australia	35	43	112	122	102	138	153	121	104
Norway	37	58	59	85	92	91	91	93	87
Finland	13	17	54	41	49	43	61	85	85
Brazil	3	13	23	30	28	79	68	74	69
Korea, Rep.	n/a	n/a	0	0	23	25	42	47	53
South Africa	18	28	37	42	34	35	42	43	42
Colombia	0	18	28	53	49	41	37	37	41
Others	n/a	n/a	155	196	153	202	210	184	175
World	743	858	1,110	1,288	1,437	1,840	1,849	1,835	1,824

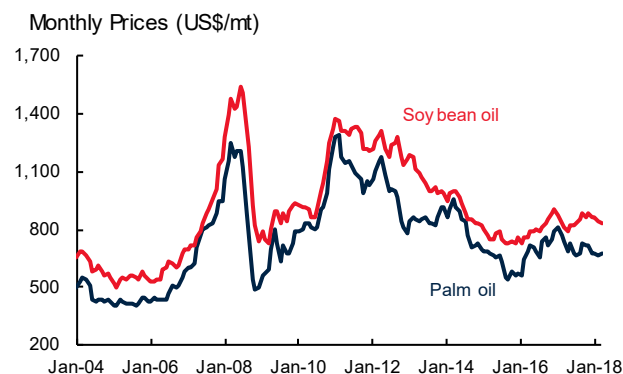
Refined Consumption

China	18	28	58	197	489	654	836	876	775
United States	142	127	153	128	119	152	152	136	199
Japan	122	159	192	180	177	157	151	162	163
Korea, Rep.	0	24	91	118	101	100	83	103	109
Taiwan, China	0	18	106	84	73	66	60	66	84
India	12	14	23	16	27	27	37	57	82
Germany	78	93	102	116	100	62	60	58	64
Italy	27	27	53	85	62	60	60	56	60
Finland	9	19	49	50	39	20	44	64	57
Others	309	332	325	344	238	292	288	325	326
World	717	842	1,150	1,317	1,426	1,590	1,772	1,903	1,920

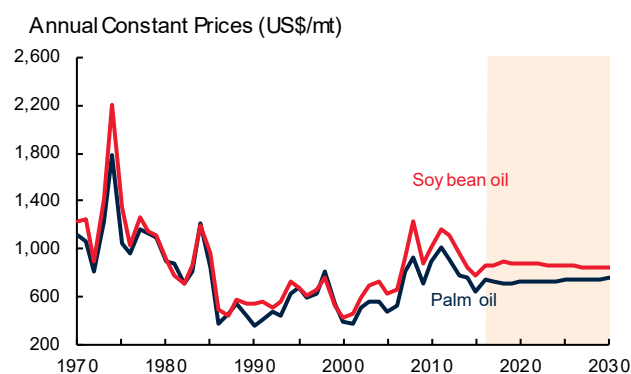
Source: World Bureau of Metal Statistics (April 2018 update).

Note: n/a implies data not available.

Palm oil and Soybean oil



Source: World Bank.
Note: Last observation is March 2018.



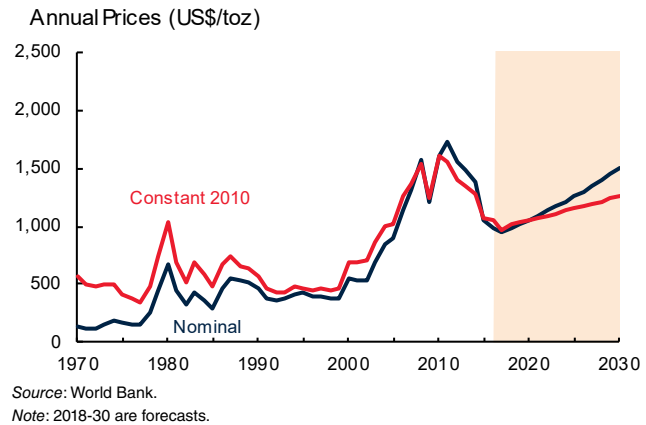
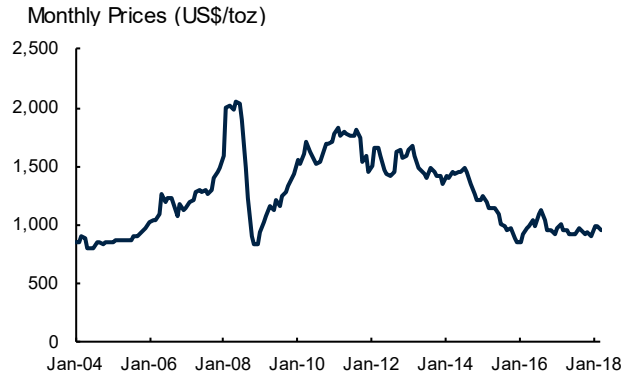
Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(thousand metric tons)									
Palm oil production									
Indonesia	248	752	2,650	8,300	23,600	33,000	32,000	36,000	38,500
Malaysia	589	2,692	6,031	11,937	18,211	19,879	17,700	18,858	20,500
Thailand	0	19	200	580	1,832	2,068	1,804	2,500	2,700
Colombia	36	80	252	520	753	1,110	1,275	1,147	1,628
Nigeria	432	520	600	730	971	970	970	970	970
Guatemala	0	0	6	124	231	510	625	740	740
Papua New Guinea	0	45	145	336	488	537	570	650	630
Ecuador	5	44	150	222	380	484	520	565	593
Honduras	0	18	64	148	320	470	490	620	580
Others	612	726	936	1,352	2,435	2,861	2,938	3,018	3,052
World	1,922	4,896	11,034	24,249	49,221	61,889	58,892	65,068	69,893
Palm oil consumption									
India	1	431	259	3,160	5,910	9,150	9,100	9,650	10,800
Indonesia	29	561	1,330	3,263	6,269	7,520	8,870	9,070	9,350
European Union	595	607	1,509	2,790	4,750	6,900	6,600	6,800	6,550
China	53	16	1,194	2,028	5,797	5,700	4,800	4,830	4,800
Malaysia	8	420	914	1,571	2,204	2,941	2,990	2,685	3,117
Pakistan	1	231	800	1,245	2,093	2,738	2,815	3,070	3,085
Thailand	0	43	208	508	1,304	1,925	1,835	2,085	2,460
Others	1,112	2,454	4,941	8,100	17,355	21,834	22,070	23,660	24,876
World	1,799	4,763	11,155	22,665	45,682	58,708	59,080	61,850	65,038
Soybean oil production									
China	181	183	599	3,240	9,840	13,347	14,605	15,770	17,024
United States	3,749	5,112	6,082	8,355	8,568	9,706	9,956	10,035	10,321
Brazil	0	2,601	2,669	4,333	6,970	7,759	7,627	7,850	8,250
Argentina	0	158	1,179	3,190	7,181	7,687	8,433	8,395	7,950
European Union	1,260	2,478	2,317	3,033	2,343	2,746	2,841	2,736	2,774
India	2	69	425	810	1,683	1,386	990	1,620	1,494
Mexico	52	255	330	795	648	745	785	820	870
Russian Federation	n/a	n/a	75	62	373	654	726	806	860
Paraguay	10	6	56	170	310	700	720	730	700
Others	945	1,713	2,033	2,830	3,555	4,592	4,877	5,099	5,496
World	6,199	12,575	15,765	26,818	41,471	49,322	51,560	53,861	55,739
Soybean oil consumption									
China	179	256	1,055	3,542	11,409	14,200	15,350	16,350	17,250
United States	2,854	4,134	5,506	7,401	7,506	8,600	9,145	9,009	9,434
Brazil	0	1,490	2,075	2,932	5,205	6,265	6,290	6,590	6,920
India	79	708	445	1,750	2,550	4,100	5,200	5,300	5,100
Argentina	0	56	101	247	2,520	2,401	2,830	2,970	3,285
European Union	1,170	1,926	1,879	2,186	2,400	2,040	2,285	2,205	2,215
Mexico	52	305	404	863	840	1,001	1,020	1,080	1,100
Others	1,624	3,542	3,976	7,226	8,065	9,229	9,954	10,151	10,448
World	5,958	12,417	15,441	26,147	40,495	47,836	52,074	53,655	55,752

Source: U.S. Department of Agriculture (April 10, 2017 update).

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

Platinum

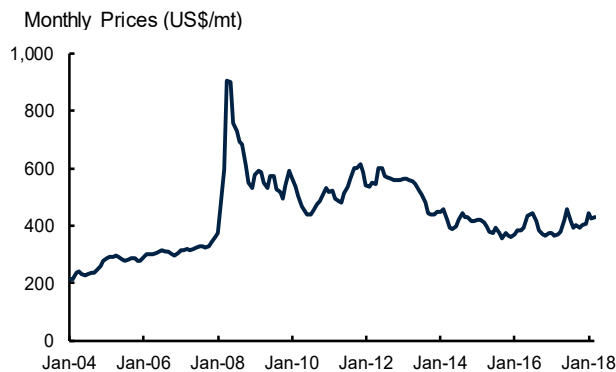


	2003	2005	2008	2010	2012	2013	2014	2015	2016
(metric tons)									
Mine production									
South Africa	146.1	157.2	145.4	147.7	130.1	135.9	100.2	140.7	133.9
Russian Federation	25.9	29.9	25.8	24.4	25.0	23.0	21.4	22.4	22.1
Zimbabwe	4.3	5.0	5.6	8.9	10.4	12.7	12.4	12.4	15.0
Canada	4.6	7.2	7.1	4.0	6.9	6.8	8.7	7.5	8.3
United States	4.2	3.9	3.6	3.5	3.7	3.7	3.7	3.8	4.0
Others	2.3	2.8	4.0	3.8	4.2	4.9	4.6	4.7	4.7
World	187.4	206.0	191.5	192.3	180.3	187.0	151.0	191.5	188.0
Autocatalyst scrap									
Europe	3.9	5.4	9.2	9.3	9.7	11.7	13.5	11.9	12.7
North America	15.1	15.6	17.3	14.0	12.8	14.4	13.2	10.9	10.9
Japan	2.1	1.7	2.1	1.9	1.8	1.9	2.1	2.2	2.0
China	n/a	0.1	0.2	0.4	0.7	0.9	1.1	1.3	1.7
Others	1.8	2.3	2.5	2.5	3.8	3.8	4.1	4.6	5.1
World	22.9	25.1	31.3	28.1	28.8	32.7	34.0	30.9	32.4
Old jewellery scrap									
China	0.9	5.1	10.4	6.7	7.3	7.3	7.8	9.8	11.2
Japan	4.0	6.0	18.0	8.7	8.0	7.3	7.6	6.7	6.2
North America	0.1	0.2	1.3	0.4	0.3	0.3	0.3	0.2	0.2
Europe	0.1	0.1	0.4	0.3	0.3	0.2	0.2	0.2	0.2
Others	0.1	0.1	0.0	0.1	0.0	0.2	0.2	0.1	0.1
World	5.2	11.5	30.1	16.2	15.9	15.3	16.1	17.0	17.9
TOTAL SUPPLY	215.5	242.6	252.9	236.7	225.0	234.9	201.1	239.4	238.3
Autocatalyst demand									
Europe	41.3	56.1	56.9	44.5	39.6	37.7	40.7	44.2	46.3
North America	26.8	23.3	17.5	12.0	14.6	14.4	15.7	15.1	13.8
Japan	16.6	18.1	17.0	13.5	12.1	11.3	10.6	10.6	10.3
China	4.7	5.5	5.7	6.7	5.5	7.0	8.3	8.0	9.2
Others	8.0	12.5	14.1	17.2	20.7	21.6	21.5	22.0	22.6
World	97.4	115.5	111.2	93.9	92.5	92.0	96.8	99.9	102.2
Jewellery demand									
China	46.1	35.0	34.5	44.8	54.0	55.2	52.3	48.6	40.4
Japan	21.3	20.5	7.7	8.1	10.0	10.2	9.9	10.1	9.9
North America	9.9	8.1	6.4	6.6	7.0	7.3	7.6	7.7	7.0
Europe	8.5	7.9	7.4	6.8	6.6	6.9	6.7	6.7	6.4
Others	2.4	1.2	1.4	2.2	2.8	3.0	3.1	3.6	4.0
World	88.2	72.7	57.4	68.5	80.4	82.6	79.6	76.7	67.7
Other demand									
Japan	9.9	13.2	17.9	10.4	11.7	1.7	2.6	17.9	17.2
China	n/a	4.7	9.1	7.6	20.6	10.8	8.0	10.1	17.1
North America	15.8	15.8	14.2	11.3	14.2	13.5	13.6	13.6	15.6
Europe	11.1	9.5	9.8	9.7	10.1	9.7	11.0	11.4	11.8
Others	14.0	14.0	18.7	23.0	5.1	11.4	16.0	14.4	12.7
World	50.8	57.2	69.7	62.0	61.7	47.1	51.2	67.4	74.4
TOTAL DEMAND	236.4	245.4	238.3	224.4	234.6	221.7	227.6	244.0	244.3

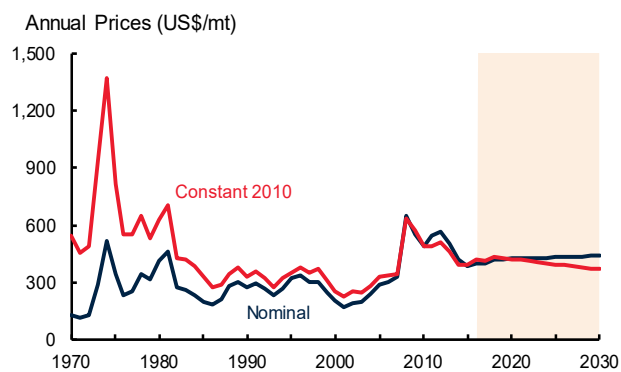
Sources: Platinum & Palladium Survey; Thomson Reuters (May 2017 update).

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

Rice



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(million metric tons)									
Production									
China	77.0	97.9	132.5	131.5	137.0	144.6	145.8	145.0	146.0
India	42.2	53.6	74.3	85.0	96.0	105.5	104.4	109.7	110.0
Indonesia	13.1	22.3	29.0	33.0	35.5	35.6	36.2	36.9	37.0
Bangladesh	11.1	13.9	17.9	25.1	31.7	34.5	34.5	34.6	32.7
Vietnam	6.4	7.7	12.4	20.5	26.4	28.2	27.6	27.4	28.5
Thailand	9.0	11.5	11.3	17.1	20.3	18.8	15.8	19.2	20.4
Myanmar	5.1	6.7	7.9	10.8	11.1	12.6	12.2	12.7	13.2
Philippines	3.4	5.0	6.4	8.1	10.5	11.9	11.0	11.7	12.3
Brazil	3.7	5.9	6.8	6.9	9.3	8.5	7.2	8.4	8.1
Japan	11.5	8.9	9.6	8.6	7.8	7.8	7.7	7.8	7.6
Pakistan	2.2	3.1	3.3	4.8	4.8	7.0	6.8	6.9	7.5
United States	2.8	4.8	5.1	5.9	7.6	7.1	6.1	7.1	5.7
Cambodia	2.5	1.1	1.6	2.5	4.2	4.7	4.8	5.0	5.0
Others	22.9	27.6	33.3	39.4	48.1	52.8	52.9	54.0	53.7
World	213.0	269.9	351.4	399.2	450.2	479.5	472.9	486.2	487.5
Stocks									
China	11.0	28.0	94.0	93.0	42.5	69.0	78.5	86.5	94.0
India	6.0	6.5	14.5	25.0	23.5	17.8	18.4	20.6	20.0
Indonesia	0.6	3.0	2.1	4.6	7.1	4.1	3.5	3.2	4.1
Thailand	1.2	2.0	0.9	2.2	5.6	11.3	8.4	4.2	3.2
Philippines	0.6	1.5	1.8	2.8	2.5	2.4	2.1	2.0	2.7
Others	9.4	11.6	13.3	19.0	18.7	23.3	21.8	20.7	20.5
World	28.8	52.6	126.6	146.7	99.9	127.9	132.7	137.1	144.4
Exports									
India	0.0	0.9	0.7	1.7	2.8	12.2	10.2	11.8	13.2
Thailand	1.6	3.0	4.0	7.5	10.6	9.8	9.9	11.6	10.5
Vietnam	0.0	0.0	1.0	3.5	7.0	6.6	5.1	6.5	6.7
Pakistan	0.2	1.2	1.3	2.4	3.4	3.8	4.2	3.6	4.0
Myanmar	0.8	0.7	0.2	0.7	1.1	1.7	1.3	3.4	3.5
United States	1.5	3.1	2.3	2.6	3.5	3.1	3.4	3.7	3.0
China	1.3	0.5	0.7	1.8	0.5	0.4	0.3	0.8	1.3
Others	3.1	3.0	1.9	3.7	6.3	5.9	6.0	6.1	5.9
World	8.5	12.4	12.1	24.0	35.2	43.5	40.3	47.4	48.1
Imports									
China	0.0	0.2	0.1	0.3	0.5	4.7	4.8	5.3	5.5
Bangladesh	0.3	0.1	0.0	0.7	1.3	1.3	0.2	0.1	3.6
Nigeria	0.0	0.4	0.2	1.3	2.4	2.6	2.1	2.5	2.6
European Union	0.9	0.5	0.7	1.2	1.4	1.7	1.8	1.8	1.9
Côte d'Ivoire	0.1	0.3	0.3	0.5	0.9	1.3	1.3	1.3	1.5
Philippines	0.0	0.0	0.4	1.4	1.3	1.8	1.6	1.1	1.4
Indonesia	0.5	0.5	0.2	1.5	3.1	1.4	1.0	0.3	1.3
Others	5.9	9.3	8.8	15.3	22.2	26.9	25.6	28.8	29.7
World	7.7	11.3	10.6	22.1	33.1	41.6	38.3	41.2	47.5

Source: U.S. Department of Agriculture (April 10, 2018 update).

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

Silver

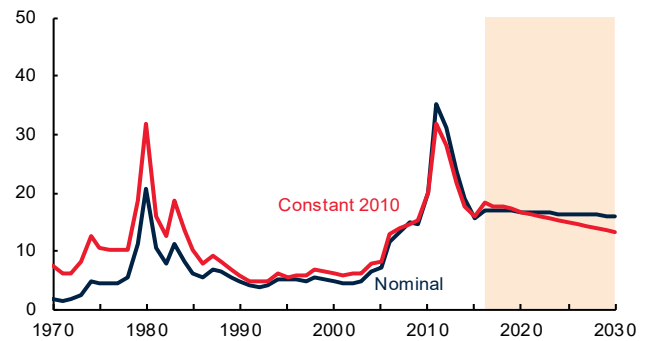
Monthly Prices (US\$/toz)



Source: World Bank.

Note: Last observation is March 2018.

Annual Prices (US\$/toz)



Source: World Bank.

Note: 2018-30 are forecasts.

	1995	2000	2005	2010	2013	2014	2015	2016	2017
(metric tons)									
Production									
Mexico	2,334	2,483	2,894	4,411	5,821	5,767	5,975	5,409	5,397
Peru	1,881	2,418	3,193	3,640	3,674	3,777	4,102	4,273	4,304
China	1,000	1,600	2,500	3,085	3,673	3,568	3,421	3,496	2,615
Russian Federation	250	400	1,350	1,145	1,412	1,434	1,580	1,449	1,571
Poland	1,001	1,164	1,262	1,183	1,200	1,384	1,407	1,482	1,438
Chile	1,036	1,245	1,400	1,276	1,174	1,572	1,504	1,497	1,260
Bolivia	425	434	420	1,259	1,287	1,345	1,306	1,353	1,196
Australia	920	2,060	2,417	1,879	1,840	1,848	1,430	1,418	1,120
United States	1,565	2,017	1,230	1,280	1,050	1,180	1,090	1,150	1,031
Kazakhstan	371	927	883	552	964	982	1,305	1,180	1,029
Argentina	48	78	264	723	768	905	929	933	648
India	38	40	32	165	367	338	490	445	491
Sweden	268	329	310	302	341	383	480	515	488
Canada	1,285	1,204	1,124	591	640	495	384	405	394
Guatemala	0	0	7	195	284	857	803	838	310
Dominican Republic	21	0	0	23	80	135	100	122	294
Morocco	204	290	186	243	194	186	216	237	236
Turkey	70	110	80	364	190	184	190	174	176
Papua New Guinea	65	73	51	84	90	84	72	90	90
Others	1,400	1,322	1,095	1,049	1,073	891	891	874	857
World	14,183	18,194	20,697	23,450	26,124	27,315	27,675	27,340	24,944
Fabrication									
United States	n/a	n/a	5,891	6,768	6,343	6,838	7,346	6,828	5,845
China	n/a	n/a	4,307	6,792	8,446	7,801	6,855	5,862	6,020
India	n/a	n/a	3,116	2,486	5,379	6,247	7,374	5,081	5,651
Japan	n/a	n/a	3,860	3,020	2,901	2,700	3,056	3,431	3,674
Germany	n/a	n/a	1,260	1,690	1,205	1,003	1,121	1,213	1,250
Canada	n/a	n/a	126	667	1,031	1,079	1,243	1,182	732
Italy	n/a	n/a	1,577	1,109	820	875	878	854	890
Thailand	n/a	n/a	1,150	991	843	779	863	815	733
Mexico	n/a	n/a	693	556	729	763	815	736	763
Russian Federation	n/a	n/a	795	944	832	793	724	671	663
United Kingdom	n/a	n/a	1,330	677	641	629	677	665	667
Australia	n/a	n/a	210	450	467	430	566	583	499
Korea, Rep.	n/a	n/a	794	929	895	820	628	516	514
Taiwan, China	n/a	n/a	380	486	471	488	467	471	492
Belgium	n/a	n/a	846	577	449	447	440	441	439
France	n/a	n/a	381	697	551	415	446	439	443
Brazil	n/a	n/a	232	319	416	379	358	304	228
Indonesia	n/a	n/a	159	199	254	243	254	268	274
Turkey	n/a	n/a	309	201	208	240	233	228	228
Others	n/a	n/a	2,025	2,354	2,129	1,804	1,900	1,820	1,647
World	n/a	n/a	29,441	31,912	35,010	34,773	36,244	32,408	31,652

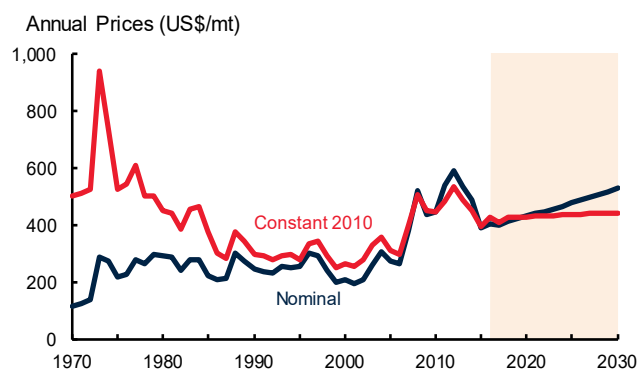
Sources: World Bureau of Metal Statistics, Thomson Reuters (April 2018 update).

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

Soybeans



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(million metric tons)									
Production									
United States	30.7	48.9	52.4	75.1	90.7	106.9	106.9	116.9	119.5
Brazil	0.0	15.2	15.8	39.5	75.3	97.2	96.5	114.1	115.0
Argentina	0.0	3.5	11.5	27.8	49.0	61.4	56.8	57.8	40.0
China	8.7	7.9	11.0	15.4	15.1	12.2	11.8	12.9	14.2
Paraguay	0.1	0.6	1.3	3.5	7.1	8.2	9.2	10.7	9.2
India	0.0	0.4	2.6	5.3	10.1	8.7	6.9	11.0	9.0
Canada	0.3	0.7	1.3	2.7	4.4	6.0	6.5	6.6	8.0
Ukraine	n/a	n/a	0.1	0.1	1.7	3.9	3.9	4.3	3.9
Russian Federation	n/a	n/a	0.7	0.3	1.1	2.4	2.7	3.1	3.6
Bolivia	0.0	0.0	0.4	1.1	2.3	3.1	3.2	2.1	2.6
European Union	0.1	0.5	2.3	1.3	1.2	1.8	2.3	2.4	2.5
Others	2.3	3.1	5.0	3.7	6.3	8.3	7.1	8.9	7.3
World	42.1	80.9	104.3	175.8	264.4	320.0	313.8	350.8	334.8
Crushings									
China	1.5	1.5	3.9	18.9	55.0	74.5	81.5	88.0	95.0
United States	20.7	27.8	32.3	44.6	44.9	51.0	51.3	51.7	53.6
Brazil	0.0	13.8	14.2	22.7	36.3	40.4	39.7	40.9	43.0
Argentina	0.0	0.9	7.0	17.3	37.6	40.2	43.3	43.3	41.2
European Union	7.3	14.1	13.0	16.8	12.3	14.5	15.0	14.4	14.6
India	0.0	0.4	2.4	4.5	9.4	7.7	5.5	9.0	8.3
Mexico	0.3	1.5	1.9	4.5	3.6	4.2	4.4	4.6	4.9
Russian Federation	n/a	n/a	0.4	0.4	2.1	3.7	4.1	4.5	4.8
Paraguay	0.1	0.0	0.3	0.9	1.7	3.7	3.8	3.9	3.7
Others	5.4	9.7	11.4	15.8	19.4	25.1	26.6	27.9	30.1
World	35.3	69.8	86.8	146.5	222.3	264.9	275.2	288.2	299.2
Exports									
Brazil	0.0	1.8	2.5	15.5	30.0	50.6	54.4	63.1	73.1
United States	11.8	19.7	15.2	27.1	41.0	50.1	52.9	59.2	56.2
Paraguay	0.0	0.6	1.0	2.4	5.1	4.6	5.4	6.1	5.8
Canada	0.0	0.1	0.2	0.7	2.9	3.8	4.2	4.6	5.5
Argentina	0.0	2.7	4.5	7.3	9.2	10.6	9.9	7.0	4.2
Others	0.5	0.4	2.1	0.7	3.4	6.5	5.8	7.4	5.6
World	12.3	25.3	25.4	53.7	91.6	126.2	132.6	147.5	150.4
Imports									
China	0.0	0.5	0.0	13.2	52.3	78.4	83.2	93.5	97.0
European Union	7.4	13.6	13.2	17.7	12.5	13.9	15.1	13.4	14.0
Mexico	0.1	1.4	1.4	4.4	3.5	3.8	4.1	4.1	4.4
Japan	3.2	4.2	4.4	4.8	2.9	3.0	3.2	3.2	3.3
Thailand	0.0	0.0	0.0	1.3	2.1	2.4	2.8	3.1	3.2
Indonesia	0.0	0.4	0.5	1.1	1.9	2.0	2.3	2.6	2.7
Egypt, Arab Rep.	0.0	0.0	0.0	0.3	1.6	1.9	1.3	2.1	2.6
Others	1.9	6.1	6.0	10.3	12.9	18.9	21.3	22.3	24.6
World	12.6	26.2	25.5	53.1	89.8	124.4	133.3	144.3	151.7

Source: U.S. Department of Agriculture (April 10, 2018 update).

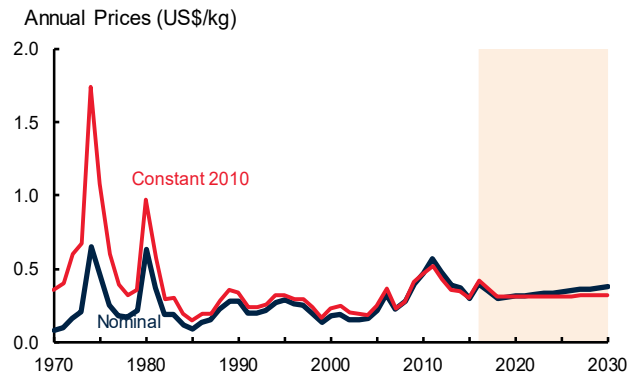
Notes: The trade year is January-December of the later year of the split. For example, 1970/71 refers to calendar year 1971.

Sugar



Source: World Bank.

Note: Last observation is March 2018.



Source: World Bank.

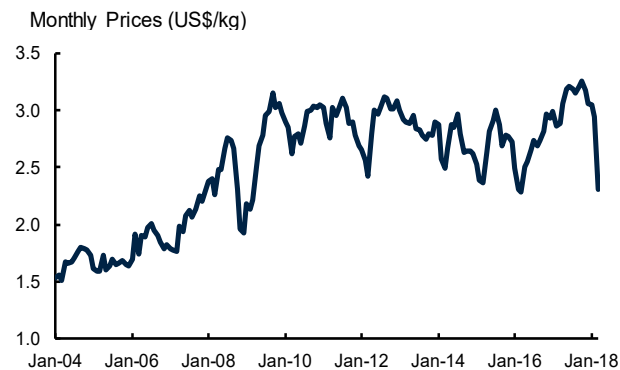
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(million metric tons)									
Production									
Brazil	5.1	8.5	7.9	17.1	38.4	36.0	34.7	39.2	40.2
India	4.5	6.5	13.7	20.5	26.6	30.5	27.4	22.2	27.7
European Union	15.4	19.0	23.2	22.1	15.9	18.4	14.3	16.5	20.1
Thailand	0.5	1.7	4.0	5.1	9.7	10.8	9.7	10.0	11.2
China	2.1	3.2	6.8	6.8	11.2	11.0	9.1	9.3	10.5
United States	5.6	5.6	6.3	8.0	7.1	7.9	8.2	8.1	8.0
Pakistan	0.0	0.9	2.1	2.6	3.9	5.2	5.3	6.1	6.5
Mexico	2.5	2.5	3.9	5.2	5.5	6.3	6.5	6.3	6.5
Russian Federation	n/a	n/a	2.6	1.6	3.0	4.4	5.2	6.2	6.4
Australia	2.7	3.3	3.6	4.2	3.7	4.7	4.9	5.1	4.8
Guatemala	0.2	0.5	1.0	1.6	2.0	3.0	2.8	2.8	2.9
Others	31.7	36.7	39.4	35.9	35.2	39.4	36.8	39.6	40.1
World	70.3	88.6	114.4	130.8	162.2	177.5	164.7	171.5	184.9
Stocks									
India	1.8	1.1	3.6	12.0	6.3	10.6	9.3	6.7	8.0
China	0.3	0.7	1.4	1.0	1.6	10.4	9.6	7.8	6.7
Thailand	0.0	0.2	0.2	0.6	3.0	5.3	5.3	5.1	5.1
Pakistan	0.0	0.1	0.3	0.4	1.5	1.3	1.5	2.1	2.8
United States	2.9	1.4	1.4	2.0	1.3	1.6	1.9	1.7	1.6
Indonesia	0.4	0.3	0.4	1.4	0.6	0.9	1.1	1.3	1.3
Philippines	0.0	0.2	0.2	0.3	0.9	1.0	1.1	1.3	1.2
Others	14.7	13.7	14.9	22.2	14.3	17.7	14.4	13.1	14.1
World	20.2	17.6	22.4	39.9	29.5	48.8	44.0	39.0	40.8
Exports									
Brazil	1.2	2.3	1.3	7.7	25.8	24.0	24.4	28.5	29.6
Thailand	0.2	1.0	2.7	3.4	6.6	8.3	7.1	7.5	8.6
Australia	1.8	2.6	2.8	3.1	2.8	3.6	3.7	4.0	3.7
European Union	2.7	6.5	8.1	0.0	1.1	1.6	1.5	1.6	2.5
Guatemala	0.1	0.2	0.7	1.2	1.5	2.3	2.0	2.2	2.2
Mexico	0.6	0.0	0.3	0.2	1.6	1.5	1.3	1.3	1.5
India	0.3	0.1	0.2	1.4	3.9	2.6	3.8	1.8	1.4
Others	14.4	15.7	17.8	21.5	10.6	11.2	10.2	12.2	12.3
World	21.3	28.4	33.9	38.3	53.9	55.0	54.0	59.0	61.9
Imports									
Indonesia	0.1	0.6	0.2	1.6	3.1	3.0	3.7	4.9	4.6
China	0.4	1.1	1.1	1.1	2.1	5.1	6.1	4.6	4.2
United States	4.8	4.4	2.6	1.4	3.4	3.2	3.0	2.9	3.4
Bangladesh	0.0	0.0	0.0	0.8	1.5	2.0	2.3	2.1	2.9
United Arab Emirates	0.0	0.1	0.1	1.1	2.0	2.4	1.8	1.9	2.6
Algeria	0.0	0.7	1.0	1.0	1.2	1.8	1.8	2.1	2.3
Malaysia	0.0	0.5	0.9	1.3	1.8	2.1	2.0	1.9	2.1
Others	12.0	20.9	26.2	32.0	34.0	30.7	33.7	34.6	31.6
World	17.3	28.2	32.1	40.4	49.1	50.2	54.6	55.0	53.6

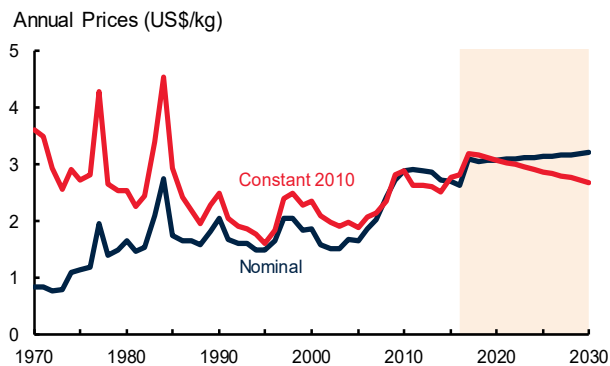
Source: U.S. Department of Agriculture (April 10, 2018 update).

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

Tea



Source: World Bank.
Note: Last observation is March 2018.



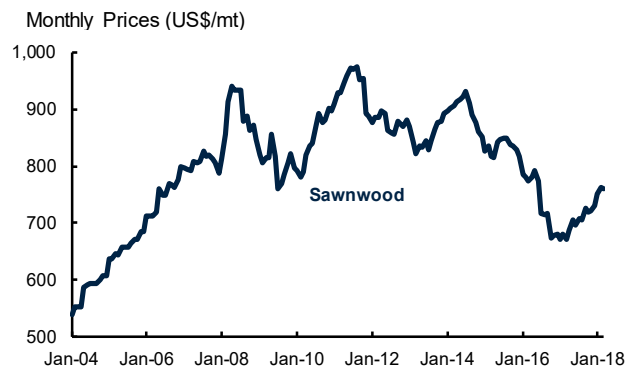
Source: World Bank.
Note: 2018-30 are forecasts.

	1970	1980	1990	2000	2010	2013	2014	2015	2016
(thousand metric tons)									
Production									
China	163	328	562	704	1,467	1,939	2,111	2,263	2,415
India	419	570	688	826	991	1,209	1,207	1,233	1,252
Kenya	41	90	197	236	399	432	445	399	473
Sri Lanka	212	191	233	306	331	340	338	342	349
Vietnam	15	21	32	70	198	218	228	236	240
Turkey	33	96	123	139	235	212	227	239	243
Indonesia	64	106	156	163	150	146	154	133	144
Myanmar	11	13	15	63	95	96	99	100	102
Argentina	26	36	51	74	92	80	84	90	90
Japan	91	102	90	85	85	85	84	80	80
Iran, Islamic Rep.	20	32	37	223	121	97	72	70	75
Bangladesh	31	40	39	46	60	66	64	66	65
Uganda	18	2	7	29	49	61	61	61	63
Burundi	0	1	4	34	38	42	54	54	53
Malawi	19	30	39	42	52	46	45	48	48
Others	123	236	252	191	258	258	238	249	262
World	1,287	1,894	2,525	3,231	4,622	5,329	5,512	5,662	5,954
Consumption									
China	109	220	383	497	1,217	1,671	n/a	n/a	n/a
India	218	331	490	632	774	973	n/a	n/a	n/a
Brazil	90	81	133	514	406	481	n/a	n/a	n/a
Iran, Islamic Rep.	24	39	79	48	200	228	n/a	n/a	n/a
Turkey	26	91	95	137	242	214	n/a	n/a	n/a
Argentina	122	132	149	271	219	210	n/a	n/a	n/a
United States	68	81	84	145	170	166	n/a	n/a	n/a
Russian Federation	n/a	n/a	n/a	158	176	162	n/a	n/a	n/a
Japan	105	116	123	144	127	121	n/a	n/a	n/a
Pakistan	30	61	106	111	93	118	n/a	n/a	n/a
United Kingdom	234	186	142	133	121	116	n/a	n/a	n/a
Others	476	748	1,055	935	1,308	1,595	n/a	n/a	n/a
World	1,502	2,086	2,839	3,725	5,053	6,055	n/a	n/a	n/a
Exports									
Kenya	42	84	166	217	418	449	n/a	n/a	n/a
China	61	120	211	238	308	332	n/a	n/a	n/a
Sri Lanka	208	185	216	287	313	318	n/a	n/a	n/a
India	200	239	198	201	235	255	n/a	n/a	n/a
Vietnam	2	9	16	56	137	90	n/a	n/a	n/a
Argentina	19	33	46	50	86	77	n/a	n/a	n/a
Indonesia	41	74	111	106	87	71	n/a	n/a	n/a
Uganda	15	1	5	26	55	62	n/a	n/a	n/a
United Arab Emirates	0	8	7	12	50	45	n/a	n/a	n/a
Others	164	231	251	271	336	352	n/a	n/a	n/a
World	752	984	1,228	1,464	2,023	2,051	n/a	n/a	n/a

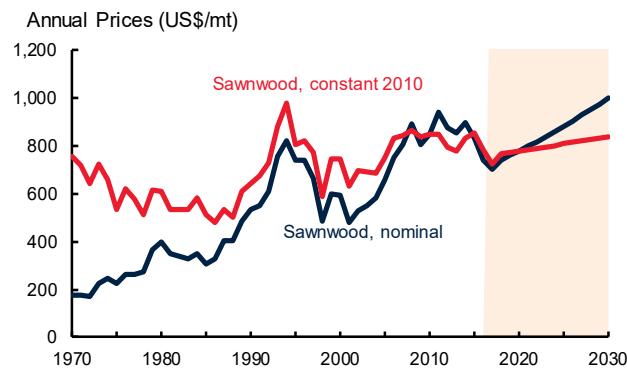
Sources: Food and Agriculture Organization, Intergovernmental Group on Tea (March 21, 2018 update).

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

Timber—Roundwood and Sawnwood



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

	1970	1980	1990	2000	2010	2013	2014	2015	2016
	(million cubic meters)								

Industrial roundwood: production

United States	312.7	327.1	427.2	420.6	336.1	354.9	356.8	354.7	356.6
Russian Federation	n/a	n/a	n/a	145.6	161.6	180.4	188.3	190.5	198.2
China	42.2	79.2	91.2	96.0	161.8	168.7	162.5	148.7	164.4
Canada	117.5	150.8	156.0	198.9	138.8	147.8	148.8	151.4	157.8
Brazil	23.9	61.7	74.3	103.0	128.4	142.6	137.7	136.2	145.1
Indonesia	12.7	30.9	38.4	48.8	54.1	74.0	74.0	74.0	74.0
Sweden	56.7	44.8	49.1	57.4	66.3	63.7	67.4	67.3	67.2
Finland	37.5	43.0	40.2	50.1	46.0	49.3	49.2	51.4	54.3
India	12.7	19.7	35.1	41.2	48.8	49.5	49.5	49.5	49.5
Others	660.7	689.5	798.1	525.5	562.0	576.5	598.3	602.3	606.5
World	1,276.4	1,446.7	1,709.5	1,687.2	1,703.9	1,807.5	1,832.6	1,826.0	1,873.7

Industrial roundwood: imports

China	2.0	8.3	7.2	15.7	35.4	45.8	52.3	44.9	49.1
Austria	2.0	3.7	4.4	8.5	8.0	8.2	7.2	7.8	9.1
Germany	5.2	3.8	2.0	3.5	7.7	8.4	8.4	8.7	8.7
Sweden	0.6	3.1	2.0	11.7	6.3	7.5	8.1	6.9	6.8
Finland	2.3	3.8	5.2	9.9	6.3	6.7	6.3	5.7	5.9
India	0.0	0.0	1.3	2.2	5.3	6.5	7.0	5.8	5.5
Canada	2.1	3.0	1.5	6.5	4.7	4.9	4.3	4.6	4.3
Others	69.0	69.7	58.9	57.2	36.1	38.2	39.6	37.4	37.7
World	83.1	95.4	82.6	115.3	109.8	126.3	133.1	121.9	127.1

Sawnwood: production

United States	63.7	65.3	86.1	91.1	60.0	71.1	75.8	76.4	78.2
China	14.8	21.2	23.6	6.7	37.2	63.0	68.4	74.4	77.2
Canada	19.8	32.8	39.7	50.5	38.7	42.8	43.4	47.1	49.7
Russian Federation	n/a	n/a	n/a	20.0	28.9	33.5	34.6	34.5	36.8
Germany	11.6	13.0	14.7	16.3	22.1	21.5	21.8	21.5	22.2
Sweden	12.3	11.3	12.0	16.2	16.8	16.2	17.5	18.2	18.0
Brazil	8.0	14.9	13.7	21.3	17.5	15.4	15.2	14.8	14.6
Finland	7.4	10.3	7.5	13.4	9.5	10.4	10.9	10.6	11.4
Japan	42.8	37.0	29.8	17.1	9.4	10.1	9.6	9.6	9.6
Others	208.8	215.2	235.8	132.3	135.7	139.2	142.4	146.1	149.9
World	389.1	420.9	463.0	384.8	375.6	423.2	439.6	453.1	467.6

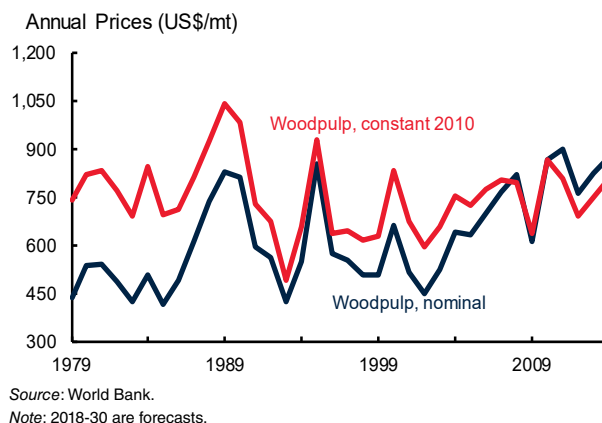
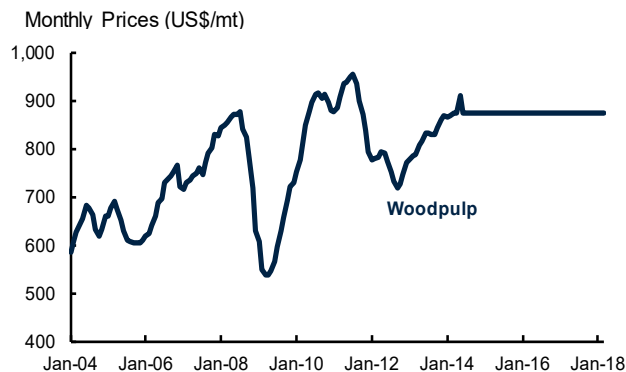
Sawnwood: imports

China	0.1	0.3	1.3	6.1	16.2	25.5	28.6	28.2	32.8
United States	10.6	17.0	22.5	34.4	16.6	20.5	22.2	24.4	29.8
United Kingdom	9.0	6.6	10.7	7.9	5.7	5.5	6.4	6.3	6.6
Japan	3.0	5.6	9.0	10.0	6.4	7.5	6.2	6.0	6.3
Germany	6.0	6.9	6.1	6.3	4.4	4.5	4.6	4.8	5.3
Egypt, Arab Rep.	0.4	1.6	1.6	2.0	4.8	4.5	6.6	5.8	5.0
Italy	4.0	5.8	6.0	8.4	6.1	4.7	4.7	4.7	4.7
Others	19.6	27.8	27.3	40.6	48.2	49.1	51.2	50.5	50.3
World	52.6	71.5	84.5	115.6	108.4	121.8	130.6	130.7	140.8

Source: Food and Agriculture Organization (December 20, 2017 update).

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

Timber—Wood panels and Woodpulp



	1970	1980	1990	2000	2010	2013	2014	2015	2016
	(million cubic meters)								

Wood-based panels: production

China	0.9	2.3	3.0	19.3	109.2	177.0	191.2	200.7	211.5
United States	23.0	26.4	37.0	45.7	32.6	33.5	33.8	33.9	34.5
Russian Federation	n/a	n/a	n/a	4.8	10.1	12.7	13.2	14.3	15.0
Canada	3.3	4.8	6.4	15.0	9.9	11.3	11.8	12.4	13.2
Germany	5.8	8.3	9.6	14.1	12.6	12.2	12.3	12.2	12.7
Brazil	0.8	2.5	2.9	5.8	10.2	11.7	11.6	11.5	11.6
Poland	1.0	2.0	1.4	4.7	8.2	9.0	9.2	9.7	10.1
Turkey	0.2	0.4	0.8	2.4	6.6	8.8	9.6	9.4	9.8
Romania	0.9	1.6	1.1	0.3	3.0	4.9	4.9	6.0	6.2
Others	33.8	53.0	66.8	74.4	85.8	84.0	87.4	88.9	91.1
World	69.8	101.3	129.0	186.4	288.3	365.1	385.0	399.1	415.6

Wood-based panels: imports

United States	2.5	2.1	4.2	13.9	8.1	8.8	9.6	11.5	12.9
Germany	1.0	2.3	3.3	4.1	4.6	5.1	5.3	5.5	5.6
Japan	0.6	0.3	3.8	6.2	4.2	5.0	4.8	4.2	4.1
United Kingdom	2.0	2.4	3.3	3.3	2.7	3.0	3.3	3.2	3.4
Canada	0.2	0.2	0.5	1.5	2.8	2.8	3.5	3.3	3.4
China	0.1	0.3	3.2	6.6	3.0	3.1	3.5	3.6	3.4
Italy	0.1	0.8	0.9	1.7	2.4	2.4	2.8	2.7	3.0
Others	3.5	7.1	11.1	22.5	39.2	44.2	45.4	45.9	48.1
World	10.0	15.7	30.3	59.9	67.0	74.4	78.1	80.0	84.0

Woodpulp: production

United States	37.3	46.2	57.2	57.8	50.9	49.1	50.1	49.4	49.5
Brazil	0.8	3.4	4.3	7.3	14.5	15.5	16.8	17.8	19.4
Canada	16.6	19.9	23.0	26.7	18.9	18.1	17.3	17.2	17.1
Sweden	8.1	8.7	10.2	11.5	11.9	11.7	11.5	11.6	11.6
Finland	6.2	7.2	8.9	12.0	10.5	10.5	10.5	10.5	10.9
China	1.2	1.3	2.1	3.7	7.5	9.6	10.4	10.2	10.6
Japan	8.8	9.8	11.3	11.4	9.5	8.8	9.1	8.9	8.8
Russian Federation	0.0	0.0	0.0	5.8	7.4	7.2	7.7	8.1	8.4
Indonesia	0.0	0.0	0.7	4.1	5.7	6.7	6.7	6.7	6.7
Others	22.5	29.1	37.1	30.8	33.9	35.0	36.2	36.0	36.5
World	101.6	125.7	154.8	171.2	170.7	172.1	176.2	176.3	179.5

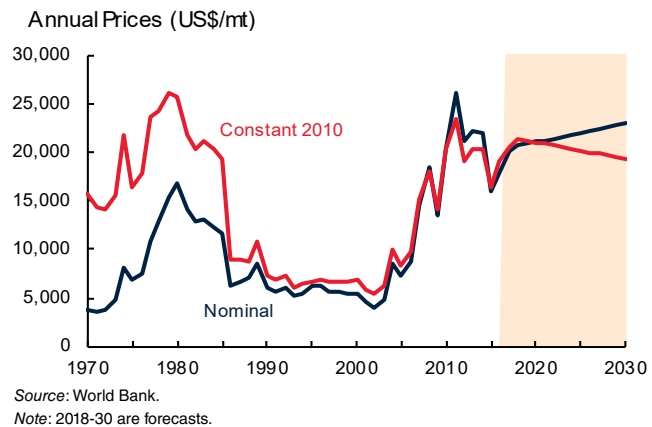
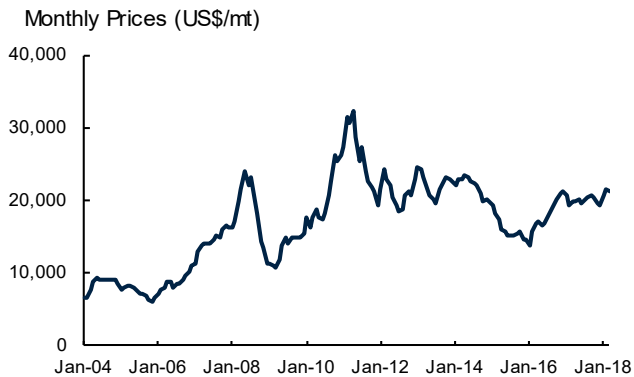
Woodpulp: imports

China	0.1	0.4	0.9	4.0	12.1	17.6	18.7	20.6	21.9
United States	3.2	3.7	4.4	6.6	5.6	5.5	5.8	5.4	5.6
Germany	1.8	2.6	3.7	4.1	5.1	5.0	4.9	4.9	4.9
Italy	1.4	1.8	2.1	3.2	3.4	3.5	3.4	3.5	3.4
Netherlands	0.6	0.6	0.6	0.9	1.2	2.5	2.4	2.5	2.4
Korea, Rep.	0.2	0.5	1.1	2.1	2.5	2.4	2.3	2.3	2.2
France	1.3	1.8	1.9	2.4	1.9	2.1	2.0	2.0	1.9
Others	7.9	9.2	10.5	14.5	15.9	18.3	19.0	19.1	20.4
World	16.6	20.6	25.2	37.8	47.9	56.9	58.4	60.3	62.8

Source: Food and Agriculture Organization (December 20, 2017 update).

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

Tin

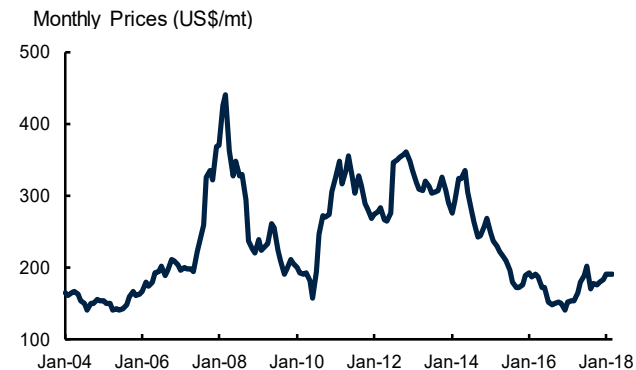


	1980	1990	2000	2005	2010	2014	2015	2016	2017
(thousand metric tons)									
Mine Production									
China	16.0	42.2	87.7	113.1	129.6	174.0	146.6	153.1	163.0
Indonesia	32.5	39.3	51.6	120.0	84.0	69.6	68.4	60.0	60.0
Myanmar	1.2	0.6	1.6	0.7	0.8	35.0	58.0	95.0	58.9
Brazil	6.9	39.1	14.2	11.7	10.4	25.5	18.8	18.0	18.0
Bolivia	22.5	17.3	12.5	18.6	20.2	19.8	20.1	17.5	18.0
Peru	1.1	4.8	36.4	42.5	33.8	23.1	19.5	18.8	17.8
Australia	11.6	7.4	9.1	2.7	18.6	6.9	7.2	6.6	7.4
Congo, Dem. Rep.	3.2	1.6	0.0	7.6	7.4	4.1	4.4	6.5	7.1
Nigeria	2.5	0.3	2.0	0.9	1.3	2.5	2.4	3.4	6.6
Vietnam	0.4	0.8	1.8	5.4	5.4	4.8	4.5	4.6	4.6
Malaysia	61.4	28.5	6.3	2.9	2.7	3.8	4.1	4.1	3.9
Rwanda	1.5	0.7	0.4	3.3	2.9	4.4	3.7	2.7	3.3
Lao PDR	0.6	0.3	0.4	0.6	0.4	0.8	0.7	1.0	0.8
Others	69.7	41.6	10.4	3.0	0.5	0.6	0.7	0.8	1.5
World	231.1	224.5	234.5	333.1	318.0	374.9	359.1	392.1	371.0
Refined Production									
China	15.0	35.8	109.9	112.2	149.0	187.1	167.2	182.7	182.2
Indonesia	30.5	38.0	46.4	78.0	64.2	64.8	67.4	52.3	72.0
Malaysia	71.3	49.0	26.2	39.2	38.7	36.7	30.3	26.5	27.2
Brazil	8.8	37.6	13.8	9.0	9.1	22.3	18.4	18.4	18.4
Peru	0.0	0.0	17.4	38.3	36.4	24.5	20.4	19.4	17.9
Bolivia	17.5	13.1	9.4	15.6	15.0	15.4	15.5	16.8	16.0
Thailand	34.8	15.5	17.2	29.4	23.5	16.3	10.5	11.1	10.6
Belgium	3.1	6.1	8.5	7.7	9.9	9.7	8.8	8.5	9.7
Vietnam	0.0	1.8	1.8	1.8	3.0	4.7	4.4	4.4	4.4
Poland	0.0	0.0	0.0	0.0	0.6	2.3	2.2	2.9	3.4
Japan	1.3	0.8	0.6	0.8	0.8	1.7	1.7	1.6	1.6
Nigeria	2.7	0.3	0.1	0.6	0.6	0.6	0.6	0.6	0.6
Argentina	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Others	59.4	49.8	10.9	7.9	5.5	4.3	0.0	0.0	0.0
World	244.6	248.0	262.3	340.5	356.6	390.5	347.1	345.1	364.0
Refined Consumption									
China	12.5	25.5	49.1	108.7	154.3	193.9	176.3	191.4	183.4
United States	46.5	36.8	51.0	42.3	32.0	28.8	31.4	29.5	31.5
Japan	30.9	34.8	25.2	33.2	35.7	27.1	26.8	26.1	29.1
Germany	19.0	21.7	20.7	19.1	17.4	18.8	17.9	18.2	20.0
Korea, Rep.	1.8	7.8	15.3	17.9	17.4	13.8	13.1	14.2	13.1
Brazil	4.7	6.1	7.2	5.7	8.7	14.9	11.0	11.3	10.0
India	2.3	2.3	6.4	8.4	10.7	11.9	8.7	8.3	9.1
Vietnam	0.0	0.0	0.8	1.2	2.0	5.5	6.0	6.0	6.0
Netherlands	5.0	6.9	3.6	3.5	5.4	7.2	6.0	6.0	6.0
Others	100.2	95.7	97.6	98.7	85.0	69.6	68.2	70.3	72.0
World	222.9	237.6	276.9	338.6	368.8	391.5	365.2	381.3	380.2

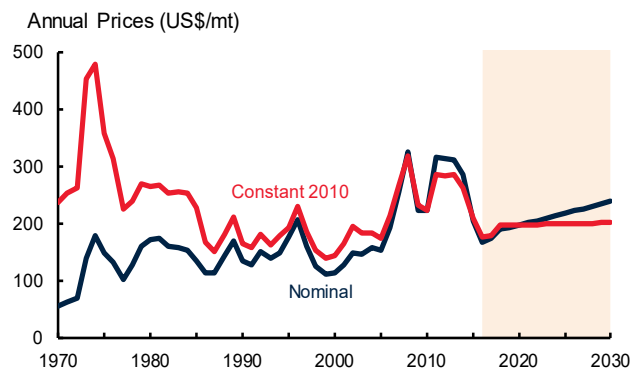
Source: World Bureau of Metal Statistics (April 2018 update).

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

Wheat



Source: World Bank.
Note: Last observation is March 2018.



Source: World Bank.
Note: 2018-30 are forecasts.

	1970/71	1980/81	1990/91	2000/01	2010/11	2014/15	2015/16	2016/17	2017/18
(million metric tons)									
Production									
European Union	62.5	93.3	125.0	132.7	136.7	156.9	160.5	145.2	151.6
China	29.2	55.2	98.2	99.6	115.2	126.2	130.2	128.8	129.8
India	20.1	31.8	49.9	76.4	80.8	95.9	86.5	87.0	98.5
Russian Federation	n/a	n/a	49.6	34.5	41.5	59.1	61.0	72.5	85.0
United States	36.8	64.8	74.3	60.6	58.9	55.1	56.1	62.8	47.4
Canada	9.0	19.3	32.1	26.5	23.3	29.4	27.6	31.7	30.0
Ukraine	n/a	n/a	30.4	10.2	16.8	24.8	27.3	26.8	27.0
Pakistan	7.3	10.9	14.4	21.1	23.3	26.0	25.1	25.6	26.6
Australia	7.9	10.9	15.1	22.1	27.4	23.7	22.3	30.4	21.5
Turkey	8.0	13.0	16.0	18.0	17.0	15.3	19.5	17.3	21.0
Argentina	4.9	7.8	11.0	16.3	17.2	13.9	11.3	18.4	18.0
Others	120.8	128.9	72.8	64.7	91.5	101.9	107.8	104.1	103.4
World	306.5	435.9	588.8	582.8	649.6	728.2	735.2	750.7	759.8
Stocks									
China	7.2	31.7	49.9	91.9	59.1	76.1	97.0	111.0	126.8
United States	22.4	26.9	23.6	23.8	23.5	20.5	26.6	32.1	29.0
European Union	8.6	13.0	22.5	17.9	11.9	12.7	15.6	10.8	13.0
Russian Federation	n/a	n/a	16.4	1.5	13.7	6.3	5.6	10.8	12.7
India	5.0	4.0	5.8	21.5	15.4	17.2	14.5	9.8	12.0
Canada	20.0	8.5	10.3	9.7	7.4	7.1	5.2	6.8	6.1
Iran, Islamic Rep.	0.7	1.2	3.2	2.9	2.9	8.7	9.7	8.7	5.5
Others	16.7	27.3	39.1	36.9	65.3	70.1	68.5	64.5	66.1
World	80.5	112.6	170.9	206.1	199.2	218.7	242.7	254.6	271.2
Exports									
Russian Federation	n/a	n/a	1.2	0.7	4.0	22.8	25.5	27.8	38.5
United States	20.2	41.2	29.1	28.9	35.1	23.5	21.2	28.7	25.2
European Union	6.7	17.5	23.8	15.7	23.1	35.5	34.7	27.3	24.0
Canada	11.8	16.3	21.7	17.3	16.6	24.2	22.1	20.2	22.5
Ukraine	0.0	0.0	2.0	0.1	4.3	11.3	17.4	18.1	17.2
Australia	9.1	9.6	11.8	15.9	18.6	16.6	16.1	22.6	16.0
Argentina	1.0	3.8	5.6	11.3	9.5	5.3	9.6	13.8	12.8
Others	7.7	1.7	8.6	11.2	21.9	25.1	26.2	24.7	25.8
World	56.5	90.1	103.8	101.2	133.0	164.2	172.8	183.3	182.0
Imports									
Indonesia	0.5	1.2	2.0	4.1	6.6	7.5	10.0	10.2	12.5
Egypt, Arab Rep.	2.8	5.4	5.7	6.1	10.6	11.3	11.9	11.2	12.0
Algeria	0.6	2.3	4.4	5.6	6.5	7.3	8.2	8.4	8.0
Brazil	1.7	3.9	4.4	7.2	6.7	5.4	6.7	7.3	7.3
Bangladesh	0.0	1.0	1.4	1.3	4.0	3.9	4.7	5.6	6.4
Japan	4.8	5.8	5.6	5.9	5.9	5.9	5.7	5.9	6.0
Philippines	0.6	0.9	1.5	3.1	3.2	5.1	4.9	5.7	5.8
Others	44.8	68.9	74.0	66.2	88.7	113.3	118.0	124.9	123.8
World	55.8	89.5	99.0	99.3	132.2	159.5	170.2	179.2	181.8

Source: U.S. Department of Agriculture (April 10, 2018 update).

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

Zinc

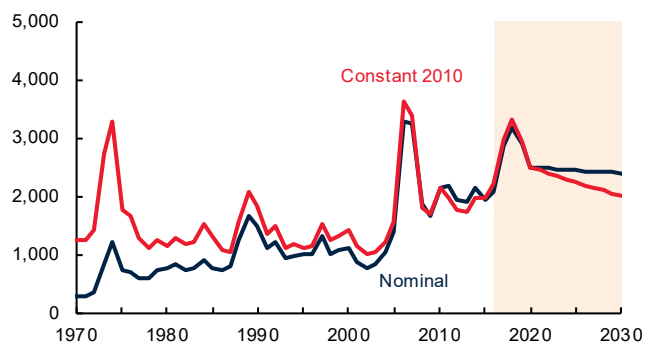
Monthly Prices (US\$/mt)



Source: World Bank.

Note: Last observation is March 2018.

Annual Prices (US\$/mt)



Source: World Bank.

Note: 2018-30 are forecasts.

	1980	1990	2000	2005	2010	2014	2015	2016	2017
	(thousand metric tons)								
Mine Production									
China	150	763	1,780	2,061	3,842	5,118	4,789	5,270	4,997
Peru	488	584	910	1,202	1,470	1,319	1,422	1,334	1,473
Australia	495	940	1,420	1,367	1,475	1,506	1,610	860	842
Mexico	243	307	401	476	570	643	660	695	661
India	32	70	208	447	741	712	819	653	838
United States	349	571	829	748	748	832	808	798	774
Mexico	243	307	401	476	570	660	695	661	683
Bolivia	50	108	149	160	411	449	442	487	504
Turkey	23	35	18	19	196	210	185	202	367
Kazakhstan	n/a	n/a	322	364	405	386	384	366	347
Canada	1,059	1,203	1,002	667	649	352	290	322	344
Russian Federation	n/a	n/a	132	186	214	192	201	282	294
Sweden	167	160	177	216	199	222	247	257	251
Others	n/a	n/a	1,066	1,180	977	954	824	752	873
World	6,172	7,176	8,815	9,569	12,469	13,555	13,373	12,938	13,249
Refined Production									
China	155	552	1,957	2,725	5,209	5,807	6,116	6,273	6,219
Korea, Rep.	76	248	473	650	750	915	935	1,011	1,069
India	44	79	176	266	701	700	817	612	807
Canada	592	592	780	724	691	649	683	691	608
Japan	735	688	654	638	574	583	567	534	525
Spain	152	253	386	501	517	498	509	507	508
Australia	301	309	489	457	507	488	489	464	471
Kazakhstan	n/a	n/a	263	357	319	325	324	326	329
Mexico	145	199	337	334	322	321	327	321	329
Peru	64	118	200	166	223	336	335	342	312
Finland	147	175	223	282	307	302	306	291	285
Brazil	79	150	192	267	288	246	231	285	266
Belgium	248	290	264	220	281	262	260	236	249
Others	n/a	n/a	2,759	2,531	2,230	2,041	1,968	1,840	1,749
World	6,159	6,698	9,153	10,119	12,919	13,473	13,867	13,732	13,728
Refined Consumption									
China	200	369	1,402	3,040	5,350	6,401	6,448	6,720	6,965
United States	810	992	1,315	1,080	907	962	931	789	829
Korea, Rep.	68	230	419	448	540	644	590	629	735
India	95	135	224	389	538	638	612	672	669
Japan	752	814	674	602	516	503	479	474	486
Germany	474	530	532	514	494	477	479	483	453
Belgium	155	178	394	256	321	388	450	368	306
Turkey	12	53	92	139	182	237	230	231	267
Italy	236	270	377	373	339	270	259	261	231
Others	3,329	2,997	3,460	3,555	3,345	3,277	3,280	3,358	3,273
World	6,131	6,568	8,889	10,396	12,532	13,797	13,757	13,986	14,214

Source: World Bureau of Metal Statistics (April 2018 update).

Note: n/a implies data not available.



APPENDIX C

Description of price series
Technical notes

Description of Price Series

ENERGY

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

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

Coal (South Africa). Thermal, f.o.b. Richards Bay, 6,000 kcal/kg, NAR netback assessment effective February 13, 2017 and replaces NAR 90-day forward delivery.

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

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

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

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

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

NON-ENERGY

Beverages

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

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

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

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

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

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

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

Oils and meals

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

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

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

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

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

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

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

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

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

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

Grains

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

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

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

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

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

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

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

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

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

Other food

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

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

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

Meat, chicken (U.S.). Urner Barry North East weighted average for broiler/fryer, whole birds, 2 -1/2 to 3.5 pounds, USDA grade "A".

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 (U.S.). brown, shell-on, headless, in frozen blocks, source Gulf of Mexico, 26 to 30 count per pound, wholesale US.

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

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

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

Timber

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

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

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

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

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

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

Other raw materials

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

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

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

Fertilizers

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

Phosphate rock, f.o.b. North Africa.

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

TSP (triple superphosphate), spot, import US Gulf.

Urea (Ukraine), f.o.b. Black Sea.

Metals and minerals

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

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

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

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

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

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

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

PRECIOUS METALS

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

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

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

Technical Notes

Definitions and explanations

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

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

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

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

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

Abbreviations

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

Acronyms

DAP	diammonium phosphate
EIA	Energy Information Administration
EU	European Union
EV	electric vehicles
EMDEs	Emerging markets and developing economies
FAO	Food and Agriculture Organization
GCC	Gulf Cooperation Council
GDP	gross domestic product

IEA	International Energy Agency
LME	London Metal Exchange
LNG	liquefied natural gas
MUV	Manufacture Unit Value
OECD	Organization of Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
SWF	Sovereign wealth fund
TSP	triple superphosphate
USDA	United States Department of Agriculture
VAT	Value-added tax
WTI	West Texas Intermediate

Data sources

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

Weights for commodity price indexes

Commodity group	Share of energy and non-energy indexes	Share of sub-group indexes
ENERGY	100.0	100.0
Coal	4.7	4.7
Crude Oil	84.6	84.6
Natural Gas	10.8	10.8
NON-ENERGY	100.0	
Agriculture	64.9	
Beverages	8.4	100.0
Coffee	3.8	45.7
Cocoa	3.1	36.9
Tea	1.5	17.4
Food	40.0	
Grains	11.3	100.0
Rice	3.4	30.1
Wheat	2.8	25.2
Maize (includes sorghum)	4.6	40.7
Barley	0.5	4.1
Oils and Meals	16.3	100.0
Soybeans	4.0	24.6
Soybean Oil	2.1	13.0
Soybean Meal	4.3	26.3
Palm Oil	4.9	30.2
Coconut Oil	0.5	3.1
Groundnut Oil (includes groundnuts)	0.5	2.8
Other Food	12.4	100.0
Sugar	3.9	31.5
Bananas	1.9	15.7
Meat, beef	2.7	22.0
Meat, chicken	2.4	19.2
Oranges (includes orange junice)	1.4	11.6
Agricultural Raw Materials	16.5	
Timber	8.6	100.0
Logs	1.9	22.1
Sawnwood	6.7	77.9
Other Raw Materials	7.9	100.0
Cotton	1.9	24.7
Natural Rubber	3.7	46.7
Tobacco	2.3	28.7
Fertilizers	3.6	100.0
Natural Phosphate Rock	0.6	16.9
Phosphate	0.8	21.7
Potassium	0.7	20.1
Nitogenous	1.5	41.3
Metals and Minerals	31.6	100.0
Aluminum	8.4	26.7
Copper	12.1	38.4
Iron Ore	6.0	18.9
Lead	0.6	1.8
Nickel	2.5	8.1
Tin	0.7	2.1
Zinc	1.3	4.1
PRECIOUS METALS	100.0	
Gold	77.8	
Silver	18.9	
Platinum	3.3	

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

Commodity Markets Outlook: Special Topics, 2011-2018

Topic	Date
Oil Exporters: Policies and Challenges	April 2018
Investment weakness in commodity exporters	January 2017
OPEC in historical context: Commodity agreements and market fundamentals	October 2016
From energy prices to food prices: Moving in tandem?	July 2016
Resource development in era of cheap commodities	April 2016
Weak growth in emerging market economies: What does it imply for commodity markets?	January 2016
Understanding El Niño: What does it mean for commodity markets?	October 2015
Iran nuclear agreement: A game changer for energy markets?	October 2015
How important are China and India in global commodity consumption?	July 2015
Anatomy of the last four oil price crashes	April 2015
Oil price plunge in perspective	January 2015
The role of income growth in commodities	October 2014
Price volatility for most commodities has returned to historical norms	July 2014
The nature and causes of oil price volatility	January 2014
A global energy market?	July 2013
Global reserves, demand growth, and the “super cycle” hypothesis	July 2013
The “energy revolution”, innovation, and the nature of substitution	January 2013
Commodity prices: levels, volatility, and comovement	January 2013
Which drivers matter most in food price movements?	January 2013
Induced innovation, price divergence, and substitution	June 2012
The role of emerging markets in commodity consumption	June 2012
WTI-Brent price dislocation	January 2012
Metals consumption in China and India	January 2012
China, global metal demand, and the super-cycle hypothesis	June 2011

Commodity prices strengthened in the first quarter of 2018. Broad-based price increases were supported by both demand and supply factors. Accelerating global growth lifted demand for some commodities while supply constraints affected the prices of others. Crude oil prices are expected to average \$65 per barrel (bbl) in 2018 (up from \$53/bbl in 2017) and remain at \$65/bbl in 2019—an upward revision from the October 2017 forecast. Metals prices are expected to increase 9 percent in 2018. Following three years of relative stability, agricultural prices are expected to gain 2 percent in 2018.

A *Special Focus* analyzes the policies of oil exporting economies in response to the 2014 oil price collapse, and concludes that oil exporters with flexible currency regimes, relatively large fiscal buffers, and diversified economies fared better than others.

The World Bank's *Commodity Markets Outlook* is published twice a year, in April and October. The report provides detailed market analysis for major commodity groups, including energy, metals, agriculture, precious metals, and fertilizers. Price forecasts to 2030 for 46 commodities are also presented together with historical price data. Commodity price data updates are published separately at the beginning of each month.

The report and data can be accessed at:

www.worldbank.org/commodities

