FOCUSECONOMICS

Economic Forecasts from the World's Leading Economists

# CONSENSUS FORECAST

## Commodities • May 2016


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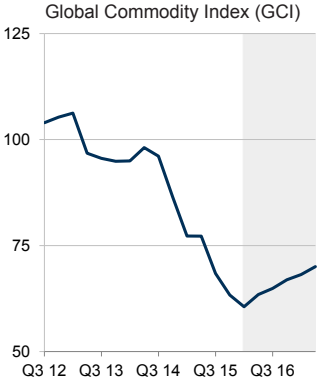
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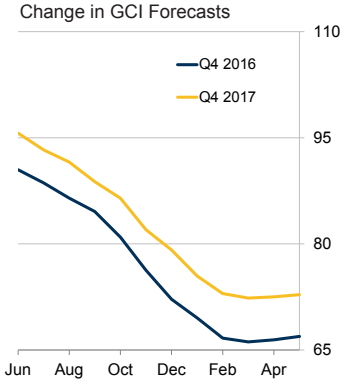
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# Summary

## Outlook improves




Note: Index, Q1 2007=100
Q1 2012 - Q4 2016.




Note: GCI, evolution of Q4 2016 and Q4 2017 forecasts during the last 10 months.

### OUTLOOK | Will the commodities price rally last?

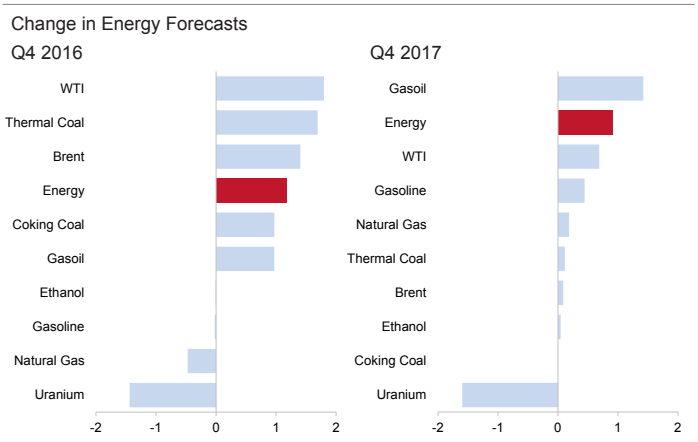
Commodities prices began to rally at the beginning of Q2 after hitting rock-bottom in Q1, raising the question of whether this represents a turnaround in the downward trend that began in Q3 2014 or just a temporary increase. Analysts agree that while commodities prices are unlikely to undershoot the lows registered at the beginning of the year, the formation of bottoms could occur in the coming months. The Consensus view, however, is that the nascent recovery is here to stay, but its pace is expected to be slow and uneven across different commodities. Moreover, analysts reckon that—in the near and medium term–strong price corrections are likely since part of the recent rise is being driven by shifting investor sentiment and speculative trades. In the long term, analysts concur that commodities prices will rise due to fundamental factors, i.e. stronger demand and falling oversupply.

Looking at the individual commodity groups, the fledgling recovery in energy commodities prices, led mainly by oil, was triggered by a reduction in production. The price reversal in base metals was not due to further production declines, but as a result of higher demand. Risk aversion and the resulting search for safe havens provided tailwinds to prices of precious metals, in particular gold. Finally, the moderate increase in agricultural prices was influenced by disruptions in supply due to harsh weather conditions in some parts of the globe and higher demand.

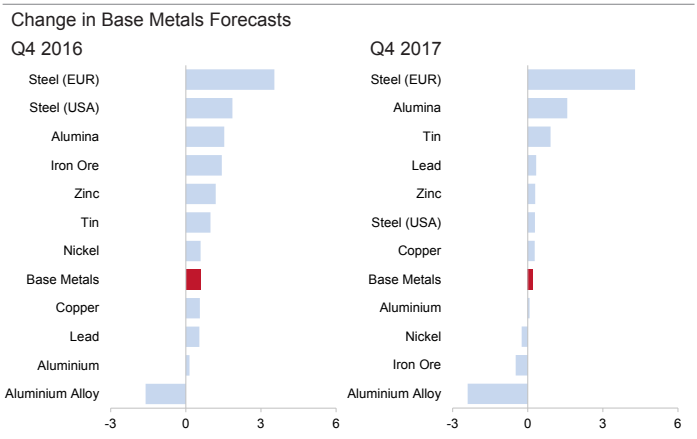
The majority of analysts surveyed for this month's Commodities Consensus Forecast agree that prices for most raw materials will continue to rise throughout the year. Against a backdrop of a more favorable environment for large commodity consumers like China, analysts see prices embarking on a gradual path to recovery toward the end of this year. Commodities prices are expected to increase 5.6% year-on-year in Q4 2016, which marked an upward revision from the 4.9% rise expected last month.

### ENERGY | Supply outages in oil sustain the price rally

After a prolonged slump, energy prices continue to recover. In mid-May, crude oil prices for both Brent and WTI climbed nearly 70% from the multi-year lows seen on 20 January and moved closer to USD 50.0 per barrel. Despite the fruitless negotiations between the world's major oil producers in Doha on 17 April to freeze production, a sustained recovery in oil prices has been mainly supported by a decline in crude oil output. According to recent data released in May, U.S. crude production has already fallen by 800,000 barrels per day from the 9.6 million per day peak registered last year. In addition, supply outages, around the




Note: Percentage change between April 2016 and May 2016.
Source: FocusEconomics Consensus Forecast.




Note: Percentage change between April 2016 and May 2016.
Source: FocusEconomics Consensus Forecast.

world and lately in Nigeria and Kuwait have added to the evidence that oil production is declining. Moreover, low prices continue to bite on high-cost producers' margins and capital investment levels. Moreover, in May, wildfires in Alberta, where many of the workers and support infrastructure related to Canada's oil sands production are located, are expected to disrupt output, although temporarily as there are no reports of damage to facilities. At the same time, analysts believe that market participants remain cautious regarding the impact on prices of the return of Iranian oil exports, which was probably overestimated.

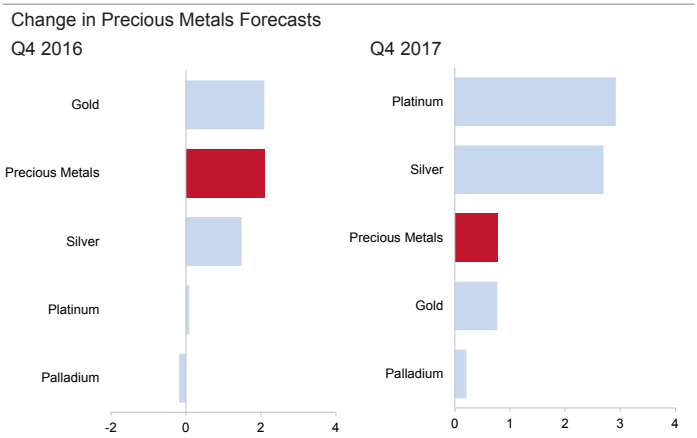
In a recent report, the EIA said that it expects non-OPEC crude oil output to fall by 0.7 million barrels per day (mbpd) in 2016 and by 0.2 mbpd in 2017, with most of the decline occurring in the U.S. For OPEC countries, the Agency expects crude oil production to increase by 0.9 mbpd in 2016, with Iran accounting for most of the increase. For 2017, the EIA sees OPEC producing an additional 0.7 mbpd. On the demand side, the Agency expects global consumption of oil and other liquid fuels to increase by 1.4 mbpd in 2016 and by 1.5 mbpd in in 2017. China and India are seen as the main drivers of consumption.

Despite the unsuccessful Doha producer talks, increased oil supply outages have tightened the market in recent weeks, leading to price rally for the hydrocarbon. The rally in oil prices, and, consequently, in energy prices, is expected to prevail in the coming weeks as there are increasing signs that output is falling among producers with higher costs. Energy prices, in general, are expected to rise 12.4% year-on-year in Q4 2016, with the outlook skewed to the upside as analysts hiked the forecast from the 11.1% increase expected last month.

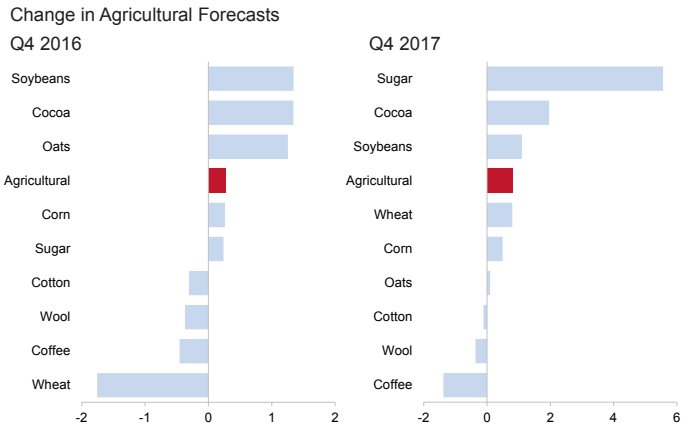
### BASE METALS | Prices rise in Q2 due to fundamental factors

Following the sharp decline in Q1, prices for the base metals picked up in recent weeks. The gain was the result of fundamental factors, including a pickup in demand from China—due to a recent increase in heavy construction in the country—as well as a relatively-weak U.S. dollar and improved market sentiment. Analysts believe that, going forward, the recovery in base metals prices will continue, but at a very slow pace. High volatility has been observed in some markets, namely in aluminium, copper, iron ore, lead and nickel. According to analysts, volatility was due to corrections that have removed some of the speculative froth that accumulated in the past weeks. Iron ore was in the spotlight last month, as the price for the commodity peaked above USD 70 per metric ton on 22 April. That said, prices for iron ore fell sharply following that peak, shedding about 20% by mid-May. Analysts suggests that the pullback reflects rising port stocks in China and tighter restrictions on speculative activity in the commodity market in that country.

Following the deep lows registered at the end of 2015 and beginning of 2016, analysts see base metal prices rising, albeit timidly, toward the end of this year. Further output cuts and a slow increase in demand will support prices and will cause them to




Note: Percentage change between April 2016 and May 2016.
Source: FocusEconomics Consensus Forecast.




Note: Percentage change between April 2016 and May 2016.
Source: FocusEconomics Consensus Forecast.

increase by 4.2% year-on-year in Q4 2016. This month's forecast was revised up from the 3.6% rise projected last month.

### PRECIOUS METALS | Risk aversion continues to drive rally

Prices for precious metals, led mainly by gold, rose in Q1 and the rally persisted in Q2 due to strong investment demand and as a result of a sharp increase in risk aversion, which prompted investors to search for safe-haven assets. Up until April this year, physically-backed gold Exchange Traded Funds (ETF's) had expanded by 24% or nearly 350 metric tons, which means that around a third of global mining output has flowed into gold ETF's. In contrast, total ETF holdings fell by 140 metric tons in 2015 as a whole. Gold prices have been trading lower in recent days despite disappointing U.S. unemployment data for April. Also, physical buying slowed recently following the Akshaya Tritiya Hindu festival, which took place on 9 May. Meanwhile, the World Silver Survey 2016, released recently by the Silver Institute, showed that demand for the metal was strong in 2015, bolstered by record demand for jewelry and for investment coins and bars. Moreover, the Institute reported that silver demand for solar panels in China increased a healthy 23% in 2015 and that total supply declined 4% as mine production stalled.

Following the strong rally seen in Q1, precious metals prices are expected to continue increasing. The outlook for precious metals remains positive and analysts project that prices will rise 9.0% annually in Q4 2016. This month's projection was revised up from the 6.7% increase that analysts had expected last month.

### AGRICULTURAL | Prices for agricultural raw materials continue flying low

Prices for most agricultural commodities extended their losses and continued to decline at the outset of the second quarter. Corn, wheat and soybeans were a few exceptions. Following the release of the U.S. Department of Agriculture's report on Prospective Plantings, the price drop in corn and wheat stabilized whereas prices for soybeans increased. According to the report, the planted area for corn is expected to increase by 6% this year relative to 2015, while the planting areas for soybeans and wheat are expected to decrease. The generalized price rout in agricultural commodities in Q1 and the beginning of Q2 is mainly explained by high inventory levels which offset the impact of adverse weather conditions. Moreover, prices for raw materials have not seen a substantial increase in recent weeks due to expectations that global production will increase this year, while consumption is projected to remain largely unchanged.

Risks associated to the arrival of La Niña—unusually cold temperatures in the equatorial Pacific Ocean—in the second half of the year are likely to provide support to prices for agricultural commodities this year. However, governments' growing engagement in farm support policies will maintain downward pressure on prices. Meanwhile, the evolution of energy prices could also present upward and downward risks to the price outlook for agricultural commodities. Forecasters surveyed this month expect that agricultural prices will increase an average of

5.1% year-on-year in Q4 2016, which was revised up from the 4.8% increase expected last month.

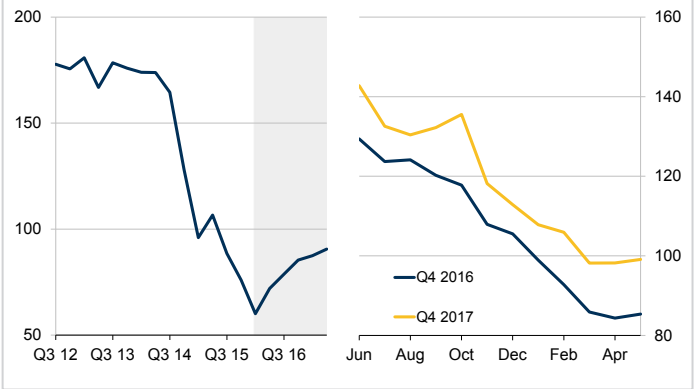
**Ricardo Aceves**
Senior Economist

| Commodity | Unit | Spot (13-May) | Change YTD | Forecasts Q2 16 | Δ Spot | Q4 16 | Δ Spot | Q4 17 | Δ Spot | Fcsts Q2 16-Q1 18 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Brent** | USD per barrel | 47.4 | +30.2% | 40.5 | -14.7% | 47.6 | +0.4% | 57.4 | +21.0% | |
| **WTI** | USD per barrel | 46.2 | +24.5% | 39.1 | -15.3% | 47.0 | +1.8% | 56.3 | +21.7% | |
| **Natural Gas** | USD per MMBtu | 1.96 | -15.2% | 2.11 | +7.5% | 2.64 | +34.6% | 3.05 | +55.4% | |
| **Thermal Coal** | USD per metric ton | 50.5 | -3.4% | 49.7 | -1.6% | 51.5 | +2.1% | 55.2 | +9.3% | |
| **Coking Coal** | USD per metric ton | 122 | +27.1% | 83.5 | -31.6% | 85.7 | -29.7% | 92.0 | -24.6% | |
| **Uranium** | USD per pound | 27.6 | -19.4% | 36.3 | +31.5% | 39.7 | +43.7% | 44.8 | +62.3% | |
| **Ethanol** | USD per gallon | 1.62 | +11.0% | 1.45 | -10.5% | 1.37 | -15.7% | 1.28 | -21.0% | |
| **Gasoil** | USD per metric ton | 414 | +28.7% | 383 | -7.4% | 462 | +11.5% | 528 | +27.5% | |
| **Gasoline** | USD per gallon | 1.49 | -23.2% | 1.42 | -4.9% | 1.50 | +0.5% | 1.61 | +8.2% | |
| **Aluminium** | USD per metric ton | 1,517 | +1.1% | 1,532 | +1.0% | 1,583 | +4.3% | 1,681 | +10.9% | |
| **Alumina** | USD per metric ton | 315 | +10.3% | 252 | -19.9% | 253 | -19.8% | 266 | -15.6% | |
| **Aluminium Alloy** | USD per metric ton | 1,544 | -3.5% | 1,567 | +1.5% | 1,598 | +3.5% | 1,661 | +7.6% | |
| **Copper** | USD per metric ton | 4,636 | -1.5% | 4,776 | +3.0% | 4,972 | +7.2% | 5,373 | +15.9% | |
| **Lead** | USD per metric ton | 1,708 | -5.0% | 1,732 | +1.4% | 1,823 | +6.7% | 1,901 | +11.3% | |
| **Nickel** | USD per metric ton | 8,599 | -2.1% | 8,944 | +4.0% | 9,843 | +14.5% | 11,353 | +32.0% | |
| **Tin** | USD per metric ton | 16,657 | +14.2% | 16,234 | -2.5% | 16,652 | -0.0% | 17,379 | +4.3% | |
| **Zinc** | USD per metric ton | 1,880 | +18.1% | 1,749 | -7.0% | 1,840 | -2.1% | 2,043 | +8.7% | |
| **Iron Ore** | USD per metric ton | 54.0 | +24.1% | 48.4 | -10.3% | 47.0 | -13.0% | 51.6 | -4.4% | |
| **Steel (EUR)** | USD per metric ton | 470 | +37.4% | 384 | -18.3% | 374 | -20.5% | 407 | -13.4% | |
| **Steel (USA)** | USD per metric ton | 609 | +60.7% | 439 | -28.0% | 440 | -27.7% | 461 | -24.3% | |
| **Gold** | USD per troy ounce | 1,271 | +19.6% | 1,221 | -3.9% | 1,204 | -5.3% | 1,256 | -1.2% | |
| **Silver** | USD per troy ounce | 17.1 | +23.6% | 15.6 | -8.9% | 15.7 | -8.1% | 17.3 | +0.9% | |
| **Palladium** | USD per troy ounce | 592 | +6.7% | 573 | -3.3% | 625 | +5.6% | 726 | +22.6% | |
| **Platinum** | USD per troy ounce | 1042 | +20.0% | 960 | -7.8% | 999 | -4.1% | 1,089 | +4.5% | |
| **Corn** | USD cents per bushel | 375 | +7.1% | 381 | +1.6% | 392 | +4.4% | 401 | +6.9% | |
| **Soybeans** | USD cents per bushel | 1029 | +19.2% | 919 | -10.7% | 927 | -9.9% | 984 | -4.4% | |
| **Wheat** | USD cents per bushel | 457 | +8.8% | 486 | +6.3% | 506 | +10.8% | 551 | +20.6% | |
| **Cocoa** | USD per metric ton | 3,040 | -7.0% | 2,989 | -1.7% | 2,913 | -4.2% | 3,012 | -0.9% | |
| **Sugar** | USD cents per pound | 17.0 | +14.1% | 14.8 | -13.1% | 15.1 | -11.2% | 15.4 | -9.9% | |
| **Coffee** | USD cents per pound | 134 | +4.7% | 126 | -6.1% | 133 | -0.8% | 146 | +8.6% | |
| **Oats** | USD cents per bushel | 245 | -9.9% | 245 | +0.1% | 242 | -1.3% | 249 | +1.3% | |
| **Cotton** | USD cents per pound | 59.1 | -5.6% | 62.5 | +5.6% | 62.1 | +5.1% | 63.5 | +7.4% | |
| **Wool** | AUD per kilogram | 1,287 | +1.7% | 1,261 | -2.1% | 1,261 | -2.1% | 1,266 | -1.6% | |

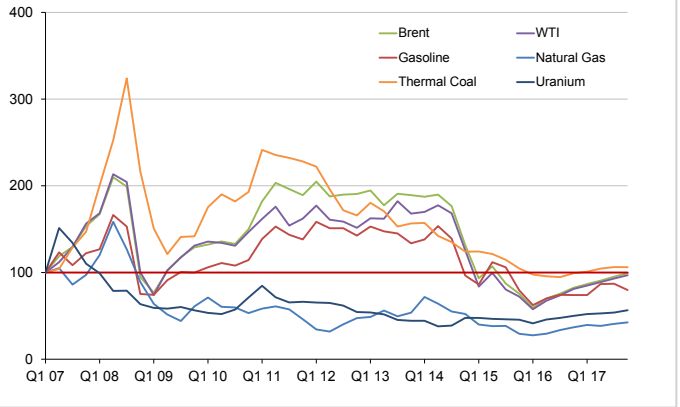
## Quarterly Data | Prices and Price Index (Q1 2007 = 100) | Q1 2015 - Q4 2017

| Energy - Nominal Prices - Average of Period | | | 2015 | | | | 2016 | | | | 2017 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Commodity | | Unit | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Crude Oil | Brent | USD per barrel | 53.9 | 61.9 | 50.4 | 43.6 | 34.2 | 40.5 | 43.6 | 47.6 | 50.1 | 52.4 | 55.0 | 57.4 |
| Crude Oil | WTI | USD per barrel | 48.6 | 57.7 | 46.6 | 41.9 | 33.5 | 39.1 | 42.8 | 47.0 | 49.3 | 51.6 | 54.0 | 56.3 |
| Natural Gas | U.S. H. Hub | USD per MMBtu | 2.9 | 2.7 | 2.8 | 2.1 | 2.0 | 2.1 | 2.4 | 2.6 | 2.8 | 2.8 | 2.9 | 3.0 |
| Thermal Coal | Australia | USD per metric ton | 64.6 | 63.1 | 59.6 | 54.4 | 50.8 | 49.7 | 49.3 | 51.5 | 52.5 | 54.3 | 55.3 | 55.2 |
| Coking Coal | Australia | USD per metric ton | 142 | 125 | 116 | 103 | 94 | 84 | 86 | 85.7 | 89.0 | 89.6 | 90.8 | 92.0 |
| Uranium | U3O8 | USD per pound | 37.8 | 36.9 | 36.5 | 36.1 | 32.9 | 36.3 | 37.8 | 39.7 | 41.3 | 41.9 | 42.6 | 44.8 |
| Ethanol | NY Harbor | USD per gallon | 1.6 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.3 | 1.3 |
| Gasoil | 0.2% Sulph. | USD per metric ton | 517 | 570 | 473 | 395 | 304 | 383 | 426 | 462 | 464 | 479 | 504 | 528 |
| Gasoline | RBOB | USD per gallon | 1.7 | 2.3 | 2.1 | 1.6 | 1.3 | 1.4 | 1.5 | 1.5 | 1.5 | 1.8 | 1.8 | 1.6 |

### Energy Prices | Index, Q1 2007 = 100 and Evol of Fcts.

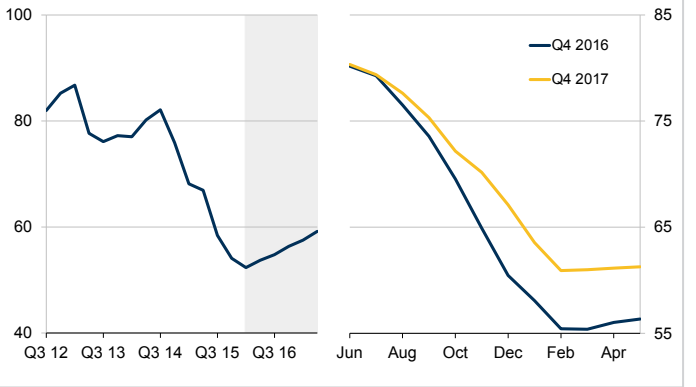



### Energy Prices | Index, Q1 2007 = 100

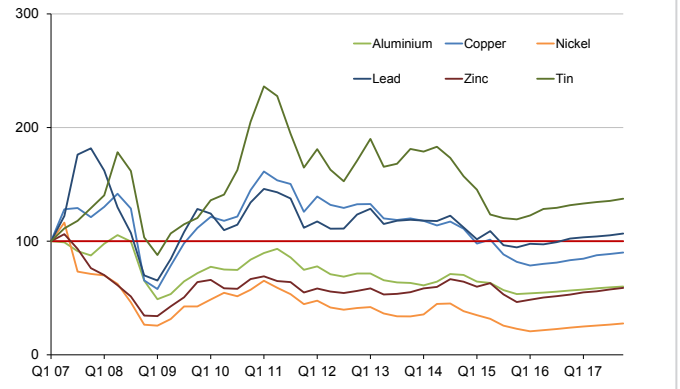



| Base Metals - Nominal Prices - Average of Period | | | 2015 | | | | 2016 | | | | 2017 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Commodity | | Unit | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Aluminium | LME | USD per metric ton | 1,802 | 1,769 | 1,594 | 1,495 | 1,513 | 1,532 | 1,556 | 1,583 | 1,605 | 1,636 | 1,660 | 1,681 |
| Alumina | Australia | USD per metric ton | 438 | 427 | 389 | 324 | 288 | 252 | 250 | 253 | 257 | 259 | 263 | 266 |
| Alum. Alloy | LME | USD per metric ton | 1,797 | 1,769 | 1,700 | 1,619 | 1,567 | 1,567 | 1,582 | 1,598 | 1,613 | 1,629 | 1,645 | 1,661 |
| Copper | LME | USD per metric ton | 5,845 | 6,051 | 5,272 | 4,884 | 4,688 | 4,776 | 4,846 | 4,972 | 5,049 | 5,232 | 5,297 | 5,373 |
| Lead | LME | USD per metric ton | 1,811 | 1,939 | 1,718 | 1,684 | 1,741 | 1,732 | 1,768 | 1,823 | 1,842 | 1,856 | 1,873 | 1,901 |
| Nickel | LME | USD per metric ton | 14,391 | 13,043 | 10,589 | 9,412 | 8,515 | 8,944 | 9,358 | 9,843 | 10,272 | 10,617 | 10,969 | 11,353 |
| Tin | LME | USD per metric ton | 18,374 | 15,614 | 15,217 | 15,073 | 15,511 | 16,234 | 16,359 | 16,652 | 16,842 | 16,996 | 17,124 | 17,379 |
| Zinc | LME | USD per metric ton | 2,080 | 2,188 | 1,846 | 1,611 | 1,682 | 1,749 | 1,789 | 1,840 | 1,907 | 1,937 | 1,996 | 2,043 |
| Iron Ore | CFR China | USD per metric ton | 63.3 | 58.3 | 55.1 | 46.9 | 48.5 | 48.4 | 47.7 | 47.0 | 48.8 | 48.2 | 49.0 | 51.6 |
| Steel | HRC EUR | USD per metric ton | 458 | 439 | 424 | 362 | 359 | 384 | 381 | 374 | 392 | 415 | 410 | 407 |
| Steel | HRC USA | USD per metric ton | 544 | 456 | 461 | 390 | 402 | 439 | 440 | 440 | 446 | 452 | 455 | 461 |

### Base Metals Prices | Index, Q1 2007 = 100 and Evol of Fcts.



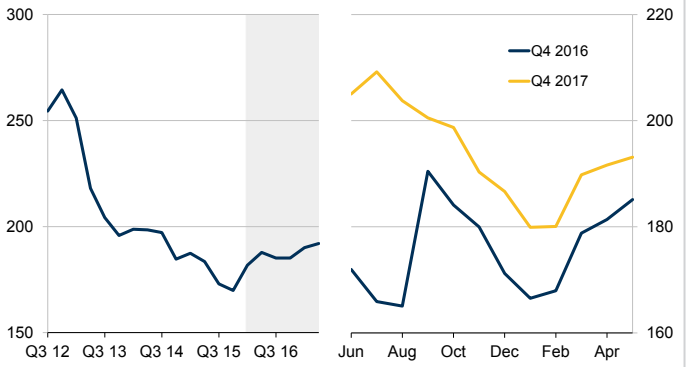

### Base Metals Prices | Index, Q1 2007 = 100



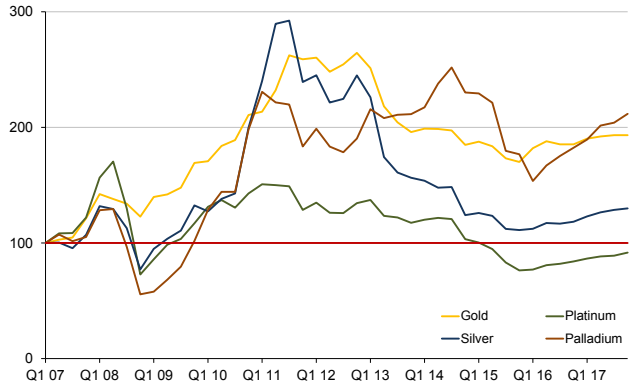
## Quarterly Data | Prices and Price Index (Q1 2007 = 100) | Q1 2015 - Q4 2017

| Precious Metals - Nominal Prices - Avg. of Period | | | 2015 | | | | 2016 | | | | 2017 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Commodity | Unit | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Gold | LME | USD per troy ounce | 1,219 | 1,193 | 1,125 | 1,105 | 1,182 | 1,221 | 1,204 | 1,204 | 1,236 | 1,248 | 1,256 | 1,256 |
| Silver | H&H | USD per troy ounce | 16.8 | 16.4 | 14.9 | 14.8 | 14.9 | 15.6 | 15.5 | 15.7 | 16.4 | 16.8 | 17.1 | 17.3 |
| Palladium | LME | USD per troy ounce | 786 | 759 | 616 | 606 | 527 | 573 | 600 | 625 | 649 | 691 | 699 | 726 |
| Platinum | LME | USD per troy ounce | 1,193 | 1,126 | 988 | 906 | 916 | 960 | 974 | 999 | 1,029 | 1,050 | 1,058 | 1,089 |

**Precious Metals Prices | Index, Q1 2007 = 100 and Evol of Fcts.**

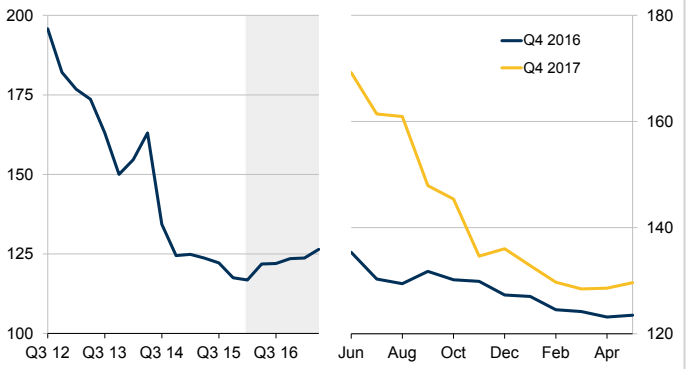



**Precious Metals Prices | Index, Q1 2007 = 100**

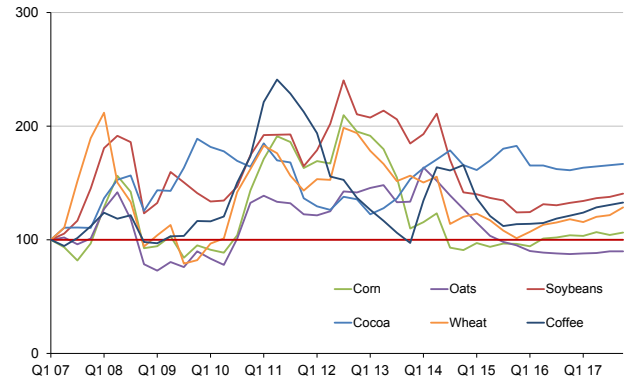



| Agricultural - Nominal Prices - Average of Period | | | 2015 | | | | 2016 | | | | 2017 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Commodity | Unit | | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |
| Corn | CBOT | USD cents per bushel | 366 | 354 | 364 | 363 | 355 | 381 | 385 | 392 | 390 | 402 | 393 | 401 |
| Soybeans | CBOT | USD cents per bushel | 980 | 957 | 942 | 868 | 870 | 919 | 912 | 927 | 938 | 956 | 964 | 984 |
| Wheat | CBOT | USD cents per bushel | 528 | 503 | 464 | 435 | 459 | 486 | 494 | 506 | 496 | 516 | 522 | 551 |
| Cocoa | ICCO | USD per metric ton | 2,917 | 3,068 | 3,255 | 3,301 | 2,988 | 2,989 | 2,931 | 2,913 | 2,954 | 2,973 | 2,993 | 3,012 |
| Sugar | ISA | USD cents per pound | 14.4 | 13.0 | 12.1 | 14.4 | 14.3 | 14.8 | 15.0 | 15.1 | 15.3 | 15.2 | 15.2 | 15.4 |
| Coffee | Arabica | USD cents per pound | 149 | 133 | 123 | 125 | 125 | 126 | 130 | 133 | 136 | 141 | 143 | 146 |
| Oats | CBOT | USD cents per bushel | 318 | 286 | 272 | 263 | 249 | 245 | 244 | 242 | 244 | 245 | 249 | 249 |
| Cotton | ICAC | USD cents per pound | 60.2 | 62.9 | 61.5 | 61.3 | 58.3 | 62.5 | 61.5 | 62.1 | 62.5 | 62.8 | 62.5 | 63.5 |
| Wool | AWEX EMI | AUD per kilogram | 1,079 | 1,236 | 1,241 | 1,234 | 1,263 | 1,261 | 1,269 | 1,261 | 1,266 | 1,274 | 1,275 | 1,266 |

**Agricultural Prices | Index, Q1 2007 = 100 and Evol of Fcts.**

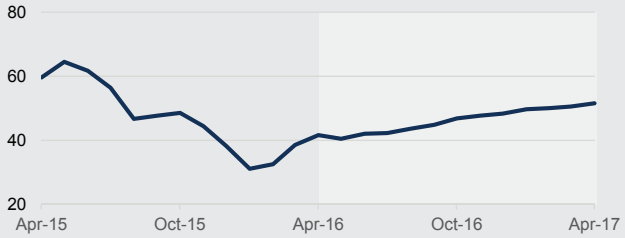



**Agricultural Prices | Index, Q1 2007 = 100**



# Brent Crude Oil

**Brent Crude Oil** (prices in USD/bbl, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 47.4 | 42.7 | 36.4 | 66.5 |
| 13-May-16 | +11.0% | +30.2% | -28.7% |

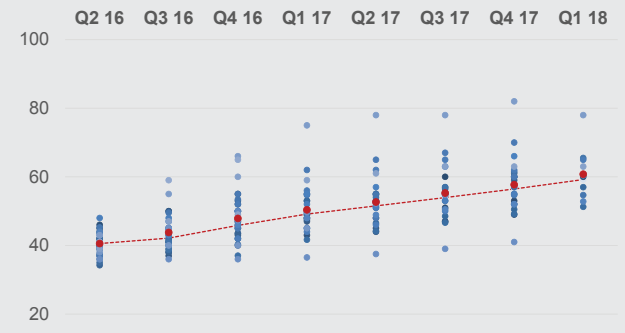
**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 40.5 -14.7% | |
| Q4 16 | 47.6 +0.4% | |
| Q4 17 | 57.4 +21.0% | |

**Forecast Revisions (by number of panelists)**

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 10 | ↑ | 8 | ↑ | 2 |
| = | 15 | = | 15 | = | 18 |
| ↓ | - | ↓ | 2 | ↓ | - |

**Panelist Spread**




After falling to a multi-year low in mid-January, the price for Brent Crude Oil rebounded to just above USD 40 per barrel in April and prices have continued to trade with a stronger tone in recent weeks. On 13 May, Brent Crude Oil traded at USD 47.4 per barrel, which was 11.0% higher than on the same day in April. The price was up 30.2% on a year-to-date basis, while it was 28.7% lower than on the same day last year. The price of the global benchmark is now trading at the levels last seen at the beginning of November 2015.

The rally at the beginning of Q2 reflects a combination of factors. Notwithstanding the fruitless negotiations between the world's major oil producers in Doha on 17 April, oil prices continued to rise at the beginning of May due to a substantial disruption in Nigeria, falling crude oil production and declining rig counts in the U.S., a weaker U.S. dollar and a recent report from the IEA, in which it projected global oil stocks to drop substantially in the second half of this year on the back of strong demand and falling supply from major oil producers. Experts noted recently that market positioning is long and a growing number of investors are basing their decision on oil balances alone.

The global benchmark for oil prices is expected to rise in the coming quarters due to falling production. However, the rise will be gradual as the impact on global supply from higher exports from Iraq and Iran remains to be seen. This month, Brent Crude Oil is seen averaging USD 47.6 per barrel in Q4 2016. Analysts see prices rising further and averaging USD 57.4 per barrel in Q4 2017.

In light of recent developments, this month 8 analysts raised their projections for Q4 2016, while 15 left them unchanged. Conversely, 2 analysts revised down their forecasts over the previous month.

Brent Crude Oil prices bottomed out in Q1 and are rising gradually. Although sentiment among analysts is positive, uncertainty persists. While the majority of analysts predict higher prices in Q4 2016, with a maximum forecast of USD 66.0 per barrel, some still consider that prices will remain low, with a minimum forecast of USD 36.0 per barrel.

**Brent prices and futures prices**

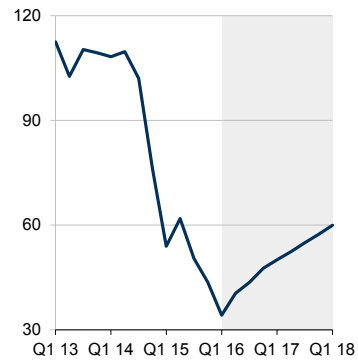
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per bbl (aop) | 61.6 | 79.6 | 111.4 | 111.7 | 108.7 | 98.9 | 52.4 | 42.3 | 54.2 | 60.7 | 65.8 | 70.9 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per bbl (aop) | 61.9 | 50.4 | 43.6 | 34.2 | 40.5 | 43.6 | 47.6 | 50.1 | 52.4 | 55.0 | 57.4 | 60.0 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per bbl (aop) | 40.5 | 42.0 | 42.2 | 43.6 | 44.8 | 46.8 | 47.7 | 48.3 | 49.7 | 50.0 | 50.5 | 51.5 |
| Futures Prices (13-May) | - | 47.8 | 48.1 | 48.5 | 48.8 | 49.0 | 49.3 | 49.5 | 49.7 | 50.0 | 50.1 | 50.3 |

## Brent Crude Oil | Forecasts and futures prices

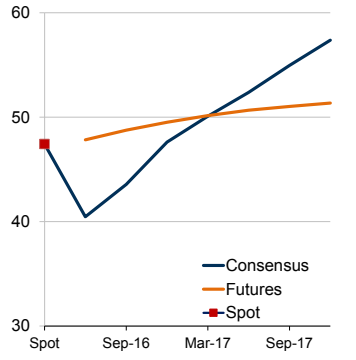
### Brent Crude Oil

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 45.0 | 50.0 | 55.0 | 55.0 | 55.0 | 60.0 | 60.0 | 60.0 | 50.0 | 60.0 |
| ANZ | 40.0 | 44.0 | 47.0 | 48.0 | 48.0 | 51.0 | 53.0 | - | 40.0 | 50.0 |
| Barclays Capital | 46.0 | 41.0 | 52.0 | - | - | - | - | - | 43.5 | - |
| BayernLB | 42.0 | 38.0 | 40.0 | 43.0 | 45.0 | 47.0 | 49.0 | - | - | - |
| BBVA | 37.7 | 35.6 | 38.5 | 41.8 | 45.1 | 46.7 | 49.3 | 51.9 | 36.8 | 45.7 |
| BMI Research | - | - | - | - | - | - | - | - | 46.5 | 57.0 |
| BNP Paribas | 39.0 | 37.0 | 43.0 | 47.0 | 44.0 | 47.0 | 52.0 | - | 37.8 | 47.5 |
| BofA Merrill Lynch | 44.0 | 50.0 | 53.0 | - | - | - | - | - | - | - |
| Capital Economics | 40.0 | 41.0 | 43.5 | 47.5 | 52.5 | 56.5 | 59.0 | - | 45.0 | 60.0 |
| Commerzbank | 40.0 | 45.0 | 50.0 | 53.0 | 55.0 | - | - | - | 42.3 | - |
| Credit Agricole | 37.0 | 42.0 | 45.0 | 48.0 | 53.0 | 55.0 | 60.0 | - | - | - |
| Credit Suisse | 34.3 | 38.0 | 43.5 | 49.0 | 51.5 | 55.5 | 61.0 | - | 37.8 | 54.3 |
| Danske Bank | 40.0 | 43.0 | 46.0 | 49.0 | 51.0 | 53.0 | 55.0 | - | 52.0 | - |
| Dekabank | 41.0 | 39.0 | 42.0 | 45.0 | 46.5 | 48.5 | 50.5 | - | 39.0 | 48.0 |
| Deutsche Bank | 42.0 | 45.0 | 50.0 | 53.0 | 53.0 | 57.0 | 57.0 | 57.0 | 42.5 | 55.0 |
| DZ Bank | 35.0 | 40.0 | 42.0 | - | - | - | - | - | 38.1 | - |
| E2 Economia | 42.0 | 41.1 | 40.3 | 41.7 | 44.2 | 46.7 | 49.2 | 51.3 | 39.4 | 45.4 |
| Ecoanalitica | 43.5 | 41.5 | 37.0 | - | - | - | - | - | 39.3 | 56.5 |
| EIU | 41.0 | 38.7 | 46.9 | 49.5 | 54.0 | 57.0 | 61.5 | 65.5 | 40.2 | 55.5 |
| Emirates NBD | 37.5 | 41.0 | 45.0 | 50.0 | 55.0 | 55.0 | 60.0 | - | 39.4 | 55.0 |
| Investec | - | - | - | - | - | - | - | - | 40.0 | 50.0 |
| Itaú BBA | 45.3 | 49.6 | 53.4 | 54.7 | 54.7 | 54.7 | 54.7 | 54.7 | 45.9 | 54.7 |
| JPMorgan | 39.0 | 45.0 | 45.0 | 45.0 | 48.0 | 55.0 | 60.0 | - | 41.1 | 52.0 |
| Lloyds TSB | 37.0 | 45.0 | 55.0 | 62.0 | 65.0 | 67.0 | 70.0 | - | 43.0 | 66.0 |
| Macquarie Research | 40.0 | 47.0 | 52.0 | 56.0 | 62.0 | 65.0 | 62.0 | 65.0 | 43.2 | 61.3 |
| Natixis | 36.0 | 40.0 | 42.0 | 44.0 | 46.0 | 50.0 | 52.0 | - | 38.1 | 48.0 |
| NORD/LB | 48.0 | 48.0 | 50.0 | 52.0 | 51.0 | 53.0 | 55.0 | - | 45.0 | 52.0 |
| Nordea | 39.0 | 43.0 | 50.0 | 55.0 | 57.0 | 63.0 | 66.0 | - | 41.3 | - |
| Novo Banco | 44.0 | 45.0 | 46.0 | 48.0 | 48.9 | 50.5 | 52.0 | 52.8 | 43.0 | 49.9 |
| OCBC | 40.0 | 45.0 | 50.0 | - | - | - | - | - | 42.5 | - |
| Oxford Economics | 36.0 | 36.0 | 36.0 | 36.5 | 37.5 | 39.0 | 41.0 | - | 35.4 | 38.5 |
| Pezco | 43.0 | 45.1 | 47.4 | 49.7 | 52.2 | 54.8 | 57.6 | 60.4 | 42.4 | 53.6 |
| Société Générale | 38.0 | 40.0 | 40.0 | 45.0 | - | - | - | - | 40.6 | 52.5 |
| Standard Chartered | 43.0 | 55.0 | 66.0 | 75.0 | 78.0 | 78.0 | 82.0 | 78.0 | 50.0 | 78.0 |
| Toronto-Dominion | 39.0 | 47.0 | 60.0 | 59.0 | 61.0 | 63.0 | 63.0 | 63.0 | 46.0 | 62.0 |
| UBS | 41.0 | 44.0 | 49.0 | - | - | - | - | - | 42.5 | 55.0 |
| Unicredit | 41.0 | 59.0 | 65.0 | - | - | - | - | - | 50.0 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 34.3 | 35.6 | 36.0 | 36.5 | 37.5 | 39.0 | 41.0 | 51.3 | 35.4 | 38.5 |
| Maximum | 48.0 | 59.0 | 66.0 | 75.0 | 78.0 | 78.0 | 82.0 | 78.0 | 52.0 | 78.0 |
| Median | 40.0 | 43.0 | 46.9 | 49.0 | 52.2 | 54.9 | 57.3 | 60.0 | 42.3 | 54.3 |
| **Consensus** | **40.5** | **43.6** | **47.6** | **50.1** | **52.4** | **55.0** | **57.4** | **60.0** | **42.3** | **54.2** |
| **Additional Forecasts** | | | | | | | | | | |
| EIA (Apr. 2016) | 35.0 | 35.0 | 35.0 | 36.3 | 38.0 | 42.0 | 46.0 | - | 34.7 | 40.6 |
| IMF (Mar. 2016) | 33.8 | 36.0 | 37.9 | 39.3 | 40.5 | 41.6 | 42.5 | - | 34.8 | 41.0 |

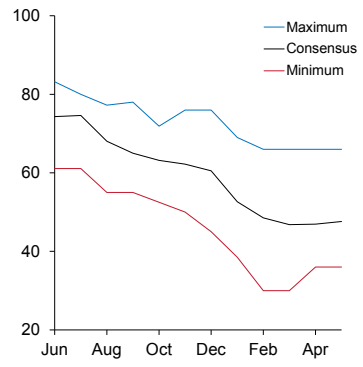
### 1 | Brent Crude Oil



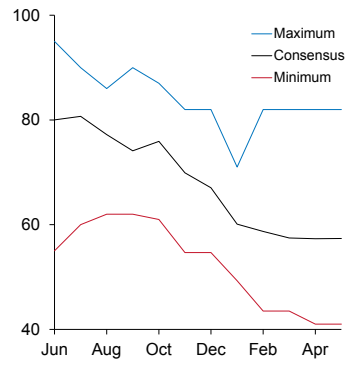

### 2 | Futures and Consensus Forecast




### 3 | Brent Crude Q4 2016 | evol. of fcst.




### 4 | Brent Crude Q4 2017 | evol. of fcst.



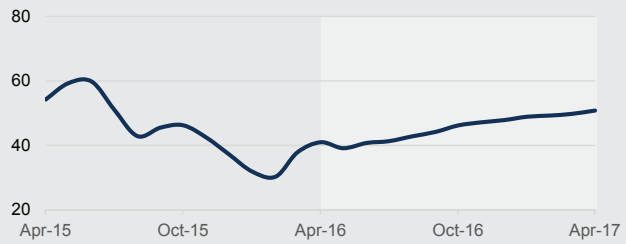

### Notes and sources

General:
Brent Crude Oil spot prices in USD per barrel (bbl). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Additional forecasts from the International Monetary Fund (IMF) refer to the average of Brent, Dubai and WTI Crude Oils.

**1** Quarterly prices of Brent Crude Oil in USD/bbl (aop).
**2** Consensus Forecast of quarterly Brent Crude Oil average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at each quarter. Futures prices are as of spot date.
**3** Quarterly price of Brent Crude Oil, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of Brent Crude Oil, evolution of Q4 2017 forecast during the last 12 months.

# WTI Crude Oil

**WTI Crude Oil** (prices in USD/bbl, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 46.2 | 41.7 | 37.1 | 60.5 |
| 13-May-16 | +10.8% | +24.5% | -23.6% |

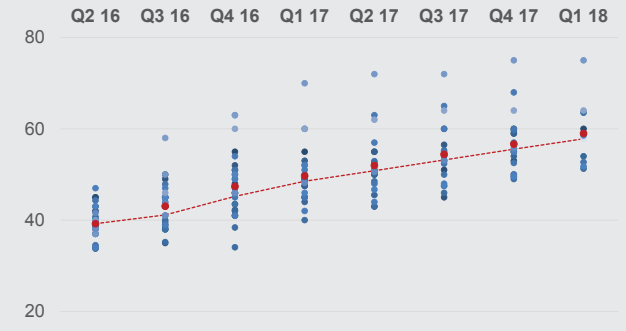
**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 39.1 -15.3% | |
| Q4 16 | 47.0 +1.8% | |
| Q4 17 | 56.3 +21.7% | |

**Forecast Revisions (by number of panelists)**

| | Q2 16 | Q4 16 | Q4 17 |
|---|---|---|---|
| ↑ | 10 | 8 | 2 |
| = | 13 | 13 | 15 |
| ↓ | 1 | 3 | 1 |

**Panelist Spread**




The rally seen in prices in recent weeks seems to prove that a gradual recovery in oil prices does not depend on an agreement between major oil producers, but on fundamentals and investor sentiment. On 13 May, WTI Crude Oil settled at USD 46.2 per barrel, which was 10.8% higher than on the same day of the previous month. The price was up 24.5% on a year-to-date basis, but was 23.6% lower than on the same day last year. The U.S. benchmark for oil prices is now trading at a six-month high.

WTI Crude Oil continued to rise in the middle of Q2, lifted by a surprising fall in U.S. crude stocks and news of another supply outage in Nigeria. According to a report released in May by the EIA, U.S. crude oil inventories fell for the first time in March and U.S. production declined by 800,000 barrels from its peak of over 9.6 million registered last year. Moreover, the Agency noted that more disruptions to global supply added to expectations of a tighter market going forward. Meanwhile, the report showed that there has been little impact thus far from the devastating wildfires in the forests of Northern Alberta, which is home to Canada's oil sands production.

WTI Crude Oil prices averaged USD 33.5 per barrel in Q1 2016 and are projected to increase in the coming quarters, albeit slowly. For Q4 2016, analysts expect prices to average USD 47.0 per barrel, before rising further to USD 56.3 per barrel in Q4 2017.

In light of recent developments, sentiment among analysts is turning more positive. This month, 3 analysts revised down their projections for Q4 2016, while 8 forecasters raised them. 13 forecasters left them unchanged.

Oil prices have rebounded from the ultra-lows seen in January and, despite the failure of the Doha talks in April, the rally continued. However, some analysts remain concerned that the rally may run out of steam. For Q4 2016, the maximum price forecast is USD 63.0 per barrel, while the minimum is USD 34.1 per barrel.

**WTI prices and futures prices**

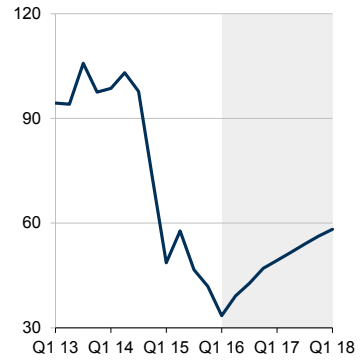
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per bbl (aop) | 61.8 | 79.5 | 94.9 | 94.1 | 98.0 | 93.0 | 48.7 | 41.3 | 52.8 | 58.7 | 63.6 | 68.6 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per bbl (aop) | 57.7 | 46.6 | 41.9 | 33.5 | 39.1 | 42.8 | 47.0 | 49.3 | 51.6 | 54.0 | 56.3 | 58.2 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per bbl (aop) | 39.1 | 40.7 | 41.3 | 42.8 | 44.2 | 46.2 | 47.1 | 47.8 | 48.9 | 49.2 | 49.8 | 50.8 |
| Futures Prices (13-May) | - | 46.2 | 46.9 | 47.4 | 47.8 | 48.2 | 48.5 | 48.8 | 49.0 | 49.1 | 49.3 | 49.3 |

## WTI Crude Oil | Forecasts and futures prices

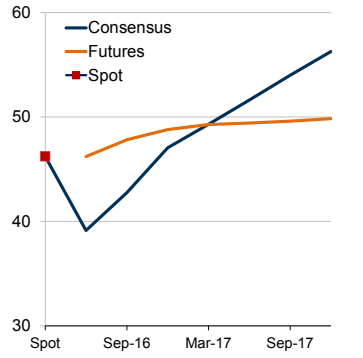
### WTI Crude Oil

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 45.0 | 50.0 | 55.0 | 55.0 | 55.0 | 60.0 | 60.0 | 60.0 | 50.0 | 60.0 |
| ANZ | 42.0 | 45.0 | 48.0 | 49.0 | 50.0 | 51.0 | 53.0 | - | 40.8 | 50.8 |
| Barclays Capital | 45.0 | 39.0 | 51.0 | - | - | - | - | - | 42.3 | - |
| BBVA | 35.7 | 33.6 | 37.0 | 40.3 | 43.6 | 45.2 | 47.8 | 50.4 | 35.0 | 44.2 |
| BMI Research | - | - | - | - | - | - | - | - | 46.0 | 57.0 |
| BNP Paribas | 37.0 | 35.0 | 41.0 | 45.0 | 43.0 | 45.0 | 50.0 | - | 36.3 | 45.8 |
| BofA Merrill Lynch | 43.0 | 49.0 | 52.0 | - | - | - | - | - | - | - |
| Capital Economics | 39.0 | 41.0 | 43.5 | 47.5 | 52.5 | 56.5 | 59.0 | - | 45.0 | 60.0 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 42.0 | 60.0 |
| Commerzbank | 38.0 | 45.0 | 50.0 | 53.0 | 55.0 | - | - | - | 41.5 | - |
| Credit Suisse | 33.8 | 38.0 | 42.3 | 47.5 | 50.5 | 54.5 | 59.0 | - | 36.9 | 52.9 |
| Danske Bank | 39.0 | 43.0 | 46.0 | 49.0 | 51.0 | 53.0 | 55.0 | - | 52.0 | - |
| Dekabank | 39.7 | 38.0 | 41.0 | 44.0 | 45.5 | 47.5 | 49.5 | - | 38.0 | 47.0 |
| Deutsche Bank | 40.0 | 43.0 | 47.0 | 50.0 | 50.0 | 54.0 | 54.0 | 54.0 | 40.8 | 52.0 |
| DZ Bank | 34.0 | 40.0 | 42.0 | - | - | - | - | - | 37.4 | - |
| E2 Economia | 40.7 | 39.6 | 38.4 | 40.0 | 43.0 | 46.0 | 49.0 | 51.3 | 38.0 | 44.5 |
| Ecoanalitica | 38.5 | 35.2 | 34.1 | - | - | - | - | - | 35.2 | 51.8 |
| EIU | 40.2 | 38.0 | 46.0 | 48.5 | 52.9 | 55.3 | 59.7 | 63.5 | 39.3 | 54.1 |
| Emirates NBD | 34.5 | 38.5 | 43.5 | 45.0 | 48.5 | 50.0 | 55.0 | - | 37.4 | 49.6 |
| Investec | - | - | - | - | - | - | - | - | 40.0 | 50.0 |
| Itaú BBA | 44.3 | 47.9 | 51.0 | 52.1 | 52.3 | 52.4 | 52.6 | 52.7 | 44.5 | 52.3 |
| JPMorgan | 38.0 | 45.0 | 45.0 | 45.0 | 48.0 | 55.0 | 60.0 | - | 40.4 | 52.0 |
| Liberum | - | - | - | - | - | - | - | - | 41.0 | 45.0 |
| Lloyds TSB | 34.0 | 44.0 | 54.0 | 60.0 | 63.0 | 65.0 | 68.0 | - | 42.0 | 60.0 |
| Macquarie Research | 37.0 | 45.0 | 49.0 | 51.0 | 57.0 | 60.0 | 57.0 | 59.0 | 41.1 | 56.3 |
| Natixis | 34.0 | 39.0 | 41.0 | 42.0 | 44.0 | 48.0 | 50.0 | - | 36.6 | 46.0 |
| NORD/LB | 47.0 | 47.0 | 49.0 | 52.0 | 51.0 | 53.0 | 55.0 | - | 44.0 | 52.0 |
| Novo Banco | 43.0 | 45.0 | 46.0 | 46.0 | 46.7 | 47.5 | 49.5 | 51.8 | 42.0 | 47.4 |
| OCBC | 40.0 | 45.0 | 50.0 | - | - | - | - | - | 42.5 | - |
| Pezco | 41.6 | 43.7 | 45.9 | 48.2 | 50.6 | 53.1 | 55.7 | 58.5 | 41.1 | 51.9 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 38.0 | 50.0 |
| Société Générale | 36.0 | 38.0 | 38.0 | 43.0 | - | - | - | - | 38.5 | 50.5 |
| Standard Chartered | 37.0 | 50.0 | 63.0 | 70.0 | 72.0 | 72.0 | 75.0 | 75.0 | 45.0 | 72.0 |
| Toronto-Dominion | 38.0 | 46.0 | 60.0 | 60.0 | 62.0 | 64.0 | 64.0 | 64.0 | 45.0 | 63.0 |
| UBS | 38.0 | 41.0 | 46.0 | - | - | - | - | - | 40.0 | 52.0 |
| Unicredit | 40.0 | 58.0 | 63.0 | - | - | - | - | - | 49.0 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 33.8 | 33.6 | 34.1 | 40.0 | 43.0 | 45.0 | 47.8 | 50.4 | 35.0 | 44.2 |
| Maximum | 47.0 | 58.0 | 63.0 | 70.0 | 72.0 | 72.0 | 75.0 | 75.0 | 52.0 | 72.0 |
| Median | 39.0 | 43.0 | 46.0 | 48.3 | 50.6 | 53.0 | 55.0 | 58.5 | 41.0 | 52.0 |
| **Consensus** | **39.1** | **42.8** | **47.0** | **49.3** | **51.6** | **54.0** | **56.3** | **58.2** | **41.3** | **52.8** |
| **Additional Forecasts** | | | | | | | | | | |
| EIA (Apr. 2016) | 35.0 | 35.0 | 35.0 | 36.3 | 38.0 | 42.0 | 46.0 | - | 34.6 | 40.6 |
| IMF (Mar. 2016) | 33.8 | 36.0 | 37.9 | 39.3 | 40.5 | 41.6 | 42.5 | - | 34.8 | 41.0 |

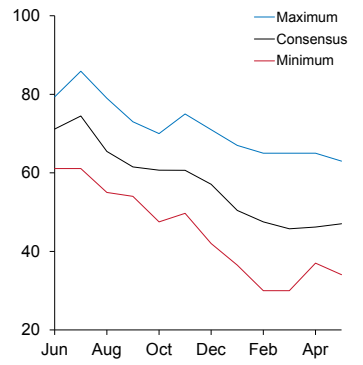
### 1 | WTI Crude Oil



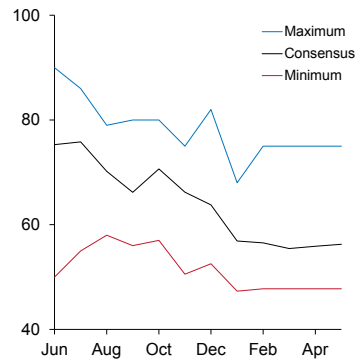

### 2 | Futures and Consensus Forecast




### 3 | WTI Crude Q4 2016 | evol. of fcst.




### 4 | WTI Crude Q4 2017 | evol. of fcst.



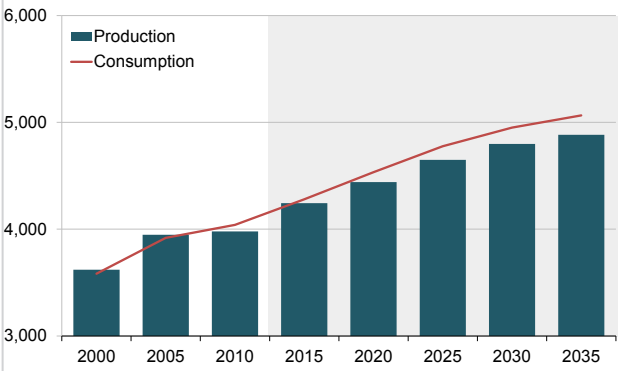

### Notes and sources

General:
WTI Crude Oil spot prices in USD per Barrel (USD/bbl). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Additional forecasts from the International Monetary Fund (IMF) refer to the average of Brent, Dubai and WTI Crude Oils.

**1** Quarterly prices of WTI Crude Oil in USD/bbl (aop).
**2** Consensus Forecast of quarterly WTI Crude Oil average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of WTI Crude Oil, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of WTI Crude Oil, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Million metric tons

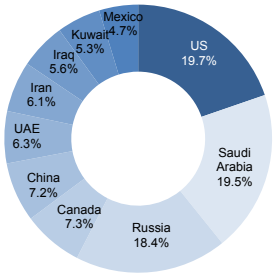



### Global production and consumption outlook

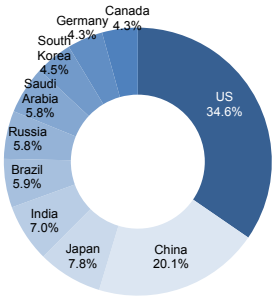
| | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million metric tons** | | | | | | | | |
| **Global** | **3,618** | **3,942** | **3,975** | **4,342** | **4,504** | **4,694** | **4,835** | **4,901** |
| North America | 642 | 638 | 639 | 897 | 971 | 1,065 | 1,144 | 1,191 |
| Europe and Eurasia | 729 | 849 | 859 | 840 | 838 | 824 | 794 | 773 |
| Middle East | 1,151 | 1,226 | 1,218 | 1,406 | 1,469 | 1,543 | 1,599 | 1,637 |
| Asia Pacific | 382 | 383 | 403 | 402 | 396 | 376 | 358 | 350 |
| Africa | 370 | 471 | 480 | 397 | 417 | 411 | 414 | 414 |
| **Consumption \| Million metric tons** | | | | | | | | |
| **Global** | **3,582** | **3,919** | **4,042** | **4,293** | **4,602** | **4,839** | **5,010** | **5,115** |
| North America | 1,062 | 1,131 | 1,040 | 1,038 | 1,062 | 1,040 | 1,014 | 976 |
| Europe and Eurasia | 931 | 965 | 908 | 862 | 867 | 864 | 839 | 806 |
| Middle East | 244 | 293 | 354 | 396 | 429 | 481 | 528 | 557 |
| Asia Pacific | 997 | 1,149 | 1,289 | 1,485 | 1,669 | 1,822 | 1,942 | 2,038 |
| Africa | 119 | 139 | 164 | 185 | 221 | 256 | 291 | 324 |

### Major producers and consumers in 2014

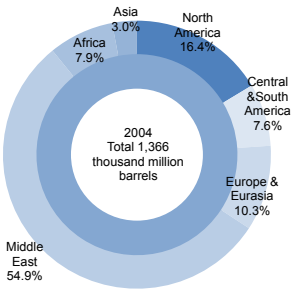
Production | %-share in World

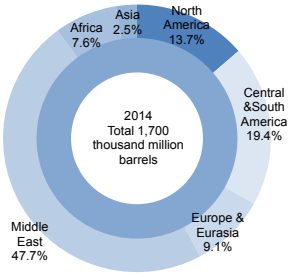



Consumption | %-share in World




### Distribution of proven reserves in 2004 and 2014




### Crude Oil futures at a glance

| | |
|---|---|
| Contract: | Crude Oil Futures Contracts |
| Ticker: | CL (NYMEX), CS (ICE), OQ (DME) |
| Price quotation: | USD per barrel |
| Settlement type: | Physical and Financial |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 1,000 barrels |
| Intercontinental Exchange (ICE) | 1,000 barrels |
| Dubai Mercantile Exchange Limited (DME) | 1,000 barrels |

### Crude Oil facts

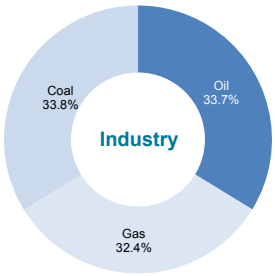
- The leading energy commodity futures contract in the world by volume.
- Underlying commodity for the world's largest-volume futures contract—NYMEX.
- There are four types of oil: light, heavy, sweet and sour.
- Crude oil is in high demand by stakeholders as it is a key source of the world's energy.

### Factors influencing prices

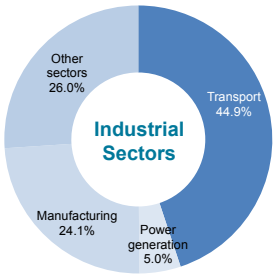
- OPEC output, supply and spare capacities
- Increased demand due to economic growth
- Geopolitical developments
- U.S. crude production and inventories data
- Speculation, hedging, investment
- Extreme weather conditions
- Currency fluctuations
- Changes in the refining sector, such as a drop in the refinery utilization rate

### Share of fuel usage in industry

Fuel usage in industry | share in %

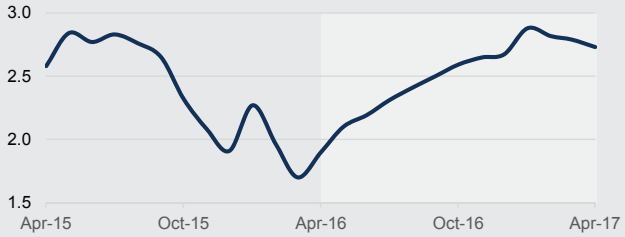



Oil usage by sector | share in %



# Natural Gas

## U.S. Henry Hub Natural Gas (prices in USD/MMBtu, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1.96 | 1.98 | 2.31 | 2.86 |
| 13-May-16 | -1.0% | -15.2% | -31.5% |

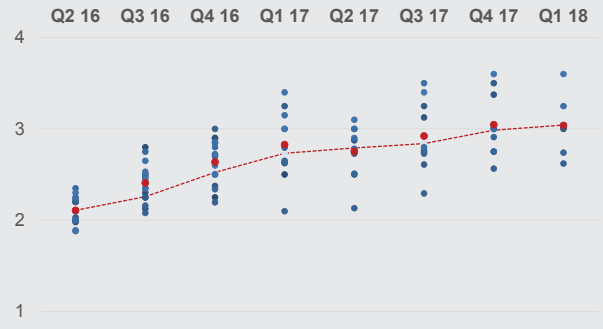
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 2.11 +7.5% | |
| Q4 16 | 2.64 +34.6% | |
| Q4 17 | 3.05 +55.4% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 2 | ↑ | 1 | ↑ | 1 |
| = | 12 | = | 13 | = | 9 |
| ↓ | 2 | ↓ | 2 | ↓ | - |

## Panelist Spread




Demand for natural gas has been tepid so far this year thanks to a warmer-than-usual winter, which reduced heating demand. However, the U.S. Senate approved a bill in late April that expedites the process of exporting U.S. natural gas, thus initiating a modest rally in prices. On 13 May, the Henry Hub Natural Gas price closed the trading day at USD 1.96 per one million British thermal units (MMBtu). This price was 1.0% lower than on the same day last month. The price was down 15.2% on a year-to-date basis and was 31.5% lower than on the corresponding date in 2015.

Gas prices rose modestly following the Senate's decision as there is still a great deal of downward pressure on prices. Advances in technology make it possible for natural gas producers in the U.S. to react quickly to changes in prices and they are able to change production levels accordingly. This has kept the prices for natural gas low. These downward forces also kept prices from increasing on 11 May, when the U.S. Energy Information Administration (EIA) reported that the increase in natural gas supplies had been less than previously expected for the first week of May.

Opening up the U.S. natural gas market could bring up prices as producers would gain access to Asian and European markets in which natural gas demand is increasing. However, global markets remain oversupplied and therefore prices are only expected to increase gradually in the U.S. over the next two years. Panelist see the spot price rising to USD 2.64 per MMBtu in Q4 2016 and expect it to climb to USD 3.05 per MMBtu in Q4 2017.

The data released by the EIA has had an impact on some panelists' forecasts. 2 panelist revised down their projection for Q4 2016, while 1revised it up. However, 13 analysts felt that the new information did not warrant a revision to their forecasts.

Analysts predict, on Consensus, that natural gas will recover from its current low levels and climb toward the end of the year as demand picks up from both inside and outside the U.S. For Q4 2016, the maximum price that panelists forecast is USD 3.00 per MMBtu, while the minimum price forecast is USD 2.20 per MMBtu.

### Natural gas prices and futures prices

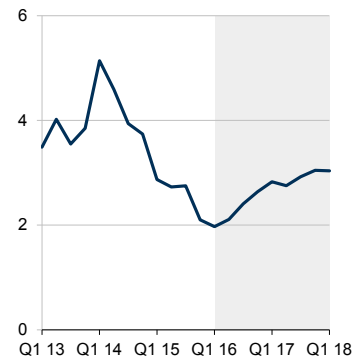
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per MMBtu (aop) | 3.95 | 4.37 | 3.99 | 2.76 | 3.73 | 4.34 | 2.61 | 2.34 | 2.99 | 3.21 | 3.40 | 3.58 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per MMBtu (aop) | 2.73 | 2.75 | 2.10 | 1.97 | 2.11 | 2.41 | 2.64 | 2.83 | 2.75 | 2.92 | 3.05 | 3.04 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per MMBtu (aop) | 2.10 | 2.19 | 2.31 | 2.41 | 2.50 | 2.59 | 2.65 | 2.67 | 2.88 | 2.82 | 2.79 | 2.73 |
| Futures Prices (13-May) | - | 2.10 | 2.24 | 2.33 | 2.37 | 2.44 | 2.63 | 2.92 | 3.04 | 3.04 | 2.99 | 2.80 |

## Natural Gas | Forecasts and futures prices

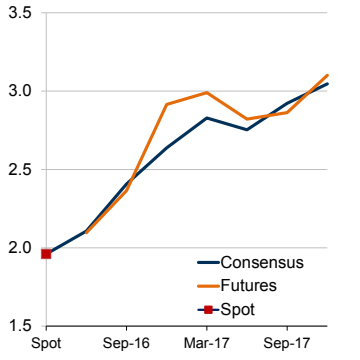
### U.S. Henry Hub Natural Gas

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 2.00 | 2.25 | 2.25 | 2.50 | 2.50 | 2.75 | 2.75 | 3.00 | 2.10 | 2.60 |
| Barclays Capital | 2.20 | 2.80 | 2.90 | - | - | - | - | - | 2.47 | - |
| BMI Research | - | - | - | - | - | - | - | - | 2.30 | 2.80 |
| BofA Merrill Lynch | 2.00 | 2.30 | 2.90 | - | - | - | - | - | - | - |
| Capital Economics | 1.98 | 2.13 | 2.38 | 2.63 | 2.88 | 3.13 | 3.38 | - | 2.50 | 3.50 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 2.70 | 3.50 |
| Credit Suisse | 2.20 | 2.25 | 2.70 | 3.25 | 3.00 | 3.25 | 3.50 | - | 2.30 | 3.25 |
| Deutsche Bank | 2.20 | 2.35 | 2.50 | 2.65 | 2.73 | 2.61 | 3.01 | 3.01 | 2.25 | 2.75 |
| DZ Bank | 2.10 | 2.50 | 3.00 | - | - | - | - | - | 2.40 | - |
| E2 Economia | 2.03 | 2.08 | 2.20 | 2.10 | 2.13 | 2.29 | 2.56 | 2.62 | 2.07 | 2.27 |
| EIU | 1.88 | 2.16 | 2.34 | 2.64 | 2.51 | 2.73 | 2.91 | 3.04 | 2.09 | 2.70 |
| Investec | - | - | - | - | - | - | - | - | 2.50 | 2.80 |
| Itaú BBA | 2.23 | 2.47 | 2.72 | 2.80 | 2.78 | 2.77 | 2.75 | 2.74 | 2.38 | 2.77 |
| JPMorgan | 2.35 | 2.75 | 2.85 | - | - | - | - | - | 2.57 | - |
| Liberum | - | - | - | - | - | - | - | - | 2.20 | 3.00 |
| Lloyds TSB | 2.00 | 2.50 | 2.80 | 3.00 | 2.90 | 2.80 | 3.00 | - | 2.40 | 2.90 |
| Macquarie Research | 2.25 | 2.35 | 2.85 | 3.15 | 3.00 | 3.50 | 3.00 | 3.25 | 2.36 | 3.16 |
| OCBC | 1.89 | 2.65 | 2.50 | - | - | - | - | - | 2.27 | - |
| Société Générale | 2.10 | 2.53 | 2.72 | 3.40 | - | - | - | - | 2.35 | 3.53 |
| Toronto-Dominion | 2.30 | 2.45 | 2.60 | 3.00 | 3.10 | 3.40 | 3.60 | 3.60 | 2.33 | 3.28 |
| **Summary** | | | | | | | | | | |
| Minimum | 1.88 | 2.08 | 2.20 | 2.10 | 2.13 | 2.29 | 2.56 | 2.62 | 2.07 | 2.27 |
| Maximum | 2.35 | 2.80 | 3.00 | 3.40 | 3.10 | 3.50 | 3.60 | 3.60 | 2.70 | 3.53 |
| Median | 2.10 | 2.40 | 2.71 | 2.80 | 2.83 | 2.78 | 3.00 | 3.01 | 2.35 | 2.90 |
| **Consensus** | **2.11** | **2.41** | **2.64** | **2.83** | **2.75** | **2.92** | **3.05** | **3.04** | **2.34** | **2.99** |
| **Additional Forecasts** | | | | | | | | | | |
| EIA (Apr. 2016) | 1.81 | 2.28 | 2.65 | 3.05 | 2.81 | 3.01 | 3.22 | - | 2.18 | 3.02 |
| IMF (Mar. 2016) | 1.90 | 2.07 | 2.23 | 2.57 | 2.40 | 2.50 | 2.60 | - | 2.07 | 2.52 |

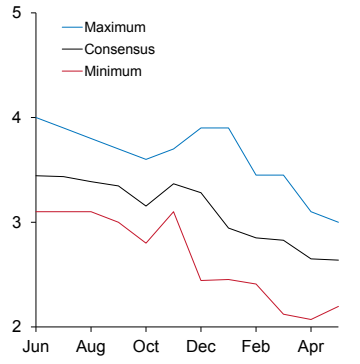
### 1 | Natural Gas | U.S. Henry Hub



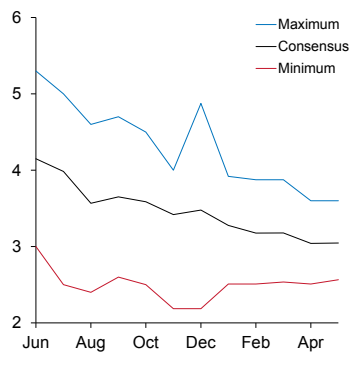

### 2 | Futures and Consensus Forecast




### 3 | Natural Gas Q4 2016 | evol. of fcst.




### 4 | Natural Gas Q4 2017 | evol. of fcst.



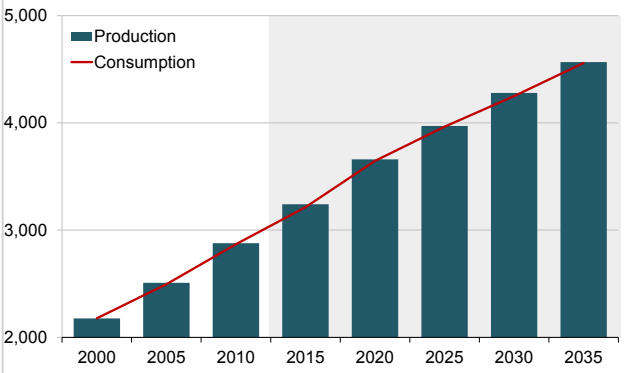

### Notes and sources

General:
U.S. Henry Hub Natural Gas spot prices in USD per Million of British Thermal Units (MMBtu). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of U.S. Henry Hub Natural Gas in USD/MMBtu (aop).
**2** Consensus Forecast of quarterly U.S. Henry Hub Natural Gas average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of natural gas, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of natural gas, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Mtoe

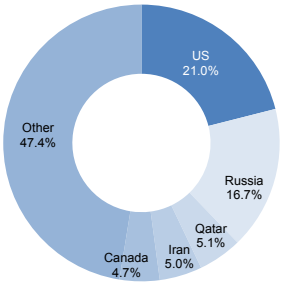



### Global production and consumption outlook

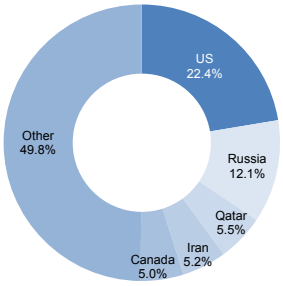
| | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million tonnes of oil equivalent (Mtoe)** | | | | | | | | |
| **Global** | **2,176** | **2,508** | **2,878** | **3,241** | **3,660** | **3,971** | **4,279** | **4,567** |
| North America | 694 | 683 | 745 | 870 | 1,005 | 1,114 | 1,205 | 1,279 |
| Europe and Eurasia | 843 | 926 | 924 | 931 | 961 | 1,049 | 1,062 | 1,082 |
| Middle East | 187 | 287 | 431 | 565 | 671 | 734 | 790 | 832 |
| Asia Pacific | 245 | 327 | 438 | 511 | 621 | 625 | 657 | 758 |
| Other | 208 | 286 | 340 | 365 | 402 | 449 | 566 | 616 |
| **Consumption \| Million tonnes of oil equivalent (Mtoe)** | | | | | | | | |
| **Global** | **2,177** | **2,495** | **2,868** | **3,213** | **3,645** | **3,964** | **4,249** | **4,558** |
| North America | 721 | 712 | 770 | 865 | 929 | 988 | 1,038 | 1,112 |
| Europe and Eurasia | 889 | 988 | 1,015 | 954 | 1,007 | 1,051 | 1,092 | 1,127 |
| Middle East | 168 | 249 | 347 | 443 | 536 | 598 | 652 | 720 |
| Asia Pacific | 261 | 358 | 506 | 670 | 848 | 966 | 1,053 | 1,142 |
| Other | 138 | 189 | 230 | 281 | 324 | 360 | 413 | 458 |

### Major producers and consumers in 2014

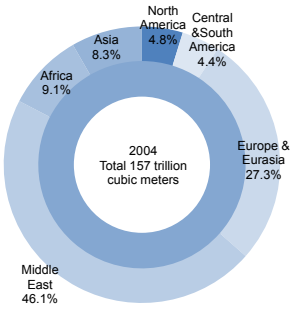
Production | %-share in World

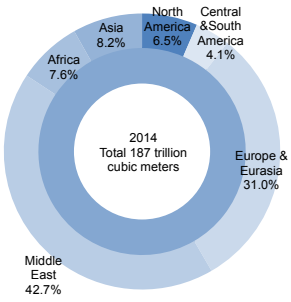



Consumption | %-share in World




### Distribution of proven reserves in 2004 and 2014




### Natural gas futures at a glance

| | |
|---|---|
| Contract: | Henry Hub Natural Gas Futures |
| Ticker (open outcry): | NG |
| Price quotation: | USD per MMBtu |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 10,000 MMBtu |
| Intercontinental Exchange (ICE) | 1,000 ThBtu |
| Multicommodity Exchange India (MCX) | 500 MMBtu |

### Natural gas facts

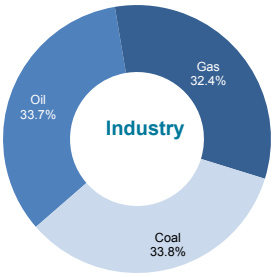
- Third-largest physical commodity futures contract in the world by volume.
- Used as a U.S. benchmark price for natural gas, which continues to increase in importance as a global benchmark.
- Independent and stand-alone commodity.
- The natural gas market is not a global market.

### Factors influencing prices

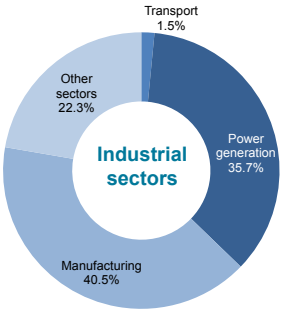
- Natural gas production
- Natural gas held in storage
- Economic growth
- Net imports
- Transportation costs
- Extreme weather conditions (e.g., hurricanes) may disrupt production
- Prices of other fuels, mainly petroleum and coal
- High residential demand in winter due to space heating
- Demand from electric power sector high in summer due to electricity generation for air conditioning

### Share of fuel usage in industry

Fuel usage in industry | share in %

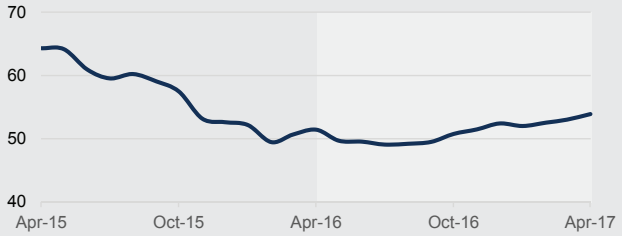



Nat. gas usage by sector | share in %



# Thermal Coal

## Australian Thermal Coal (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 50.5 | 51.5 | 52.3 | 64.3 |
| 13-May-16 | -1.9% | -3.4% | -21.4% |

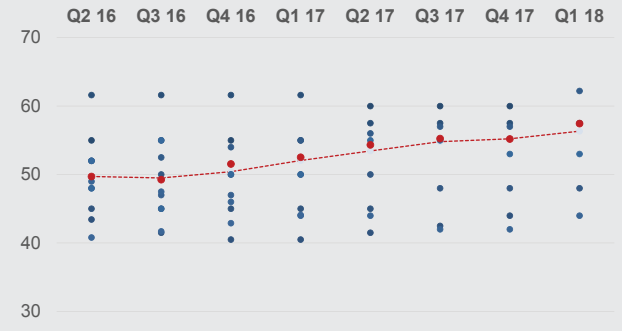
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 49.7 -1.6% | |
| Q4 16 | 51.5 +2.1% | |
| Q4 17 | 55.2 +9.3% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 2 | ↑ | 2 | ↑ | 1 |
| = | 8 | = | 8 | = | 6 |
| ↓ | 1 | ↓ | 1 | ↓ | 1 |

## Panelist Spread




Increased competition amongst thermal coal suppliers is translating into cheaper forward contracts for buyers and the market is responding accordingly by lowering the spot price. On 13 May, the spot price for Australian Thermal Coal was USD 50.5 per metric ton. The price was 1.9% lower than on the same day in April and was down 3.4% on a year-to-date basis. The price was 21.4% lower than on the same day last year.

Thermal coal is a dirtier fuel than alternatives such as natural gas. As countries gathered in April to sign the Paris Climate Agreement, increased pressure will be put on heavily-polluting industries, including thermal coal power generation. This has made investors nervous about excess thermal coal supply and investment in thermal coal fired power plants. This is evident in Japan, which has become more reliant on thermal coal for electrical production since the Fukushima disaster. However, amidst mounting environmental pressures, Japanese firms are now starting to trim thermal coal investment and sellers have been cutting prices in order to remain competitive.

The decelerating demand for resources in China has left a supply glut in the global thermal coal market. This has combined with environmental concerns and the growing unpopularity of thermal coal power plants to keep prices subdued. However, analysts see the global economy picking up steam in the second half of 2016, which should boost demand for energy products like thermal coal somewhat. Analysts project that thermal coal prices will average USD 51.5 per metric ton in Q4 2016. At the end of 2017, analysts see prices inching up and averaging USD 55.2 per metric ton in Q4 2017.

New developments over the past month have done little to change the outlook for prices. 2 panelists revised upward their forecasts, while 1 revised his forecast downward. The majority of panelists left their forecast unchanged.

The view among panelists remains heterogeneous and includes both upside and downside extremes. For Q4 2016, the maximum price projected was USD 75.0 per metric ton, while the lowest price forecast was USD 40.5 per metric ton.

### Thermal Coal prices and futures prices

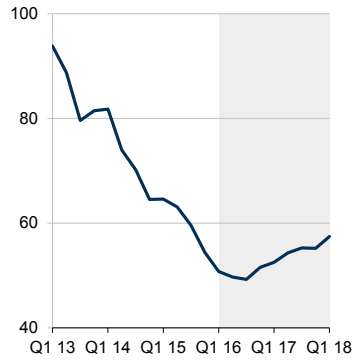
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 72.1 | 96.3 | 121.9 | 98.2 | 85.8 | 72.5 | 60.4 | 51.0 | 53.0 | 54.0 | 55.7 | 57.3 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 63.1 | 59.6 | 54.4 | 50.8 | 49.7 | 49.3 | 51.5 | 52.5 | 54.3 | 55.3 | 55.2 | 57.5 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 49.7 | 49.5 | 49.1 | 49.2 | 49.5 | 50.8 | 51.5 | 52.4 | 52.0 | 52.5 | 53.0 | 53.9 |
| Futures Prices (13-May) | - | 51.3 | 50.8 | 50.8 | 50.8 | 51.0 | 51.0 | 51.0 | 51.3 | 51.3 | 50.4 | 50.4 |

## Thermal Coal | Forecasts and futures prices

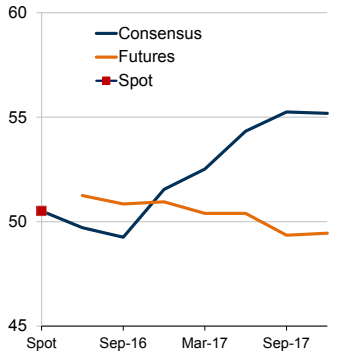
### Australian Thermal Coal

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ANZ | 55.0 | 55.0 | 55.0 | 55.0 | 60.0 | 60.0 | 60.0 | - | 52.5 | 58.8 |
| BMI Research | - | - | - | - | - | - | - | - | 51.0 | 52.0 |
| BMO Capital Markets | 61.6 | 61.6 | 61.6 | 61.6 | 57.5 | 57.5 | 57.5 | 57.5 | 63.2 | 58.5 |
| Capital Economics | 43.4 | 41.5 | 40.5 | 40.5 | 41.5 | 42.5 | 44.0 | - | 40.0 | 45.0 |
| Commerzbank | 45.0 | 45.0 | 45.0 | 45.0 | 45.0 | - | - | - | 45.0 | - |
| Deutsche Bank | 52.0 | 50.0 | 50.0 | 50.0 | 50.0 | 48.0 | 48.0 | 48.0 | 51.0 | 49.0 |
| EIU | 52.0 | 52.5 | 54.0 | 55.0 | 56.0 | 57.0 | 57.0 | 62.2 | 52.3 | 56.3 |
| Investec | - | - | - | - | - | - | - | - | 62.5 | 53.5 |
| JPMorgan | 48.0 | 47.0 | 47.0 | - | - | - | - | - | 48.0 | - |
| Liberum | - | - | - | - | - | - | - | - | 50.0 | 45.0 |
| Macquarie Research | 49.0 | 47.5 | 46.0 | 44.0 | 44.0 | 42.0 | 42.0 | 44.0 | 48.2 | 43.0 |
| Société Générale | 40.8 | 41.7 | 42.9 | 44.1 | - | - | - | - | 43.8 | 41.3 |
| Standard Chartered | 48.0 | 45.0 | 50.0 | 50.0 | 55.0 | 55.0 | 53.0 | 53.0 | 48.4 | 53.3 |
| Toronto-Dominion | 52.0 | 55.0 | 75.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 58.0 | 80.0 |
| **Summary** | | | | | | | | | | |
| Minimum | 40.8 | 41.5 | 40.5 | 40.5 | 41.5 | 42.0 | 42.0 | 44.0 | 40.0 | 41.3 |
| Maximum | 61.6 | 61.6 | 75.0 | 80.0 | 80.0 | 80.0 | 80.0 | 80.0 | 63.2 | 80.0 |
| Median | 49.0 | 47.5 | 50.0 | 50.0 | 55.0 | 56.0 | 55.0 | 55.3 | 50.5 | 52.6 |
| **Consensus** | **49.7** | **49.3** | **51.5** | **52.5** | **54.3** | **55.3** | **55.2** | **57.5** | **51.0** | **53.0** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 49.5 | 47.3 | 46.2 | 44.8 | 43.8 | 43.8 | 43.8 | - | 48.7 | 44.1 |

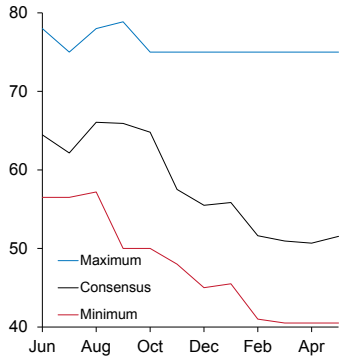
### 1 | Australian Thermal Coal



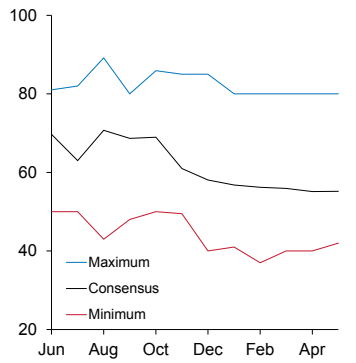

### 2 | Futures and Consensus Forecast




### 3 | Thermal Coal Q4 2016 | evol. of fcst.




### 4 | Thermal Coal Q4 2017 | evol. of fcst.



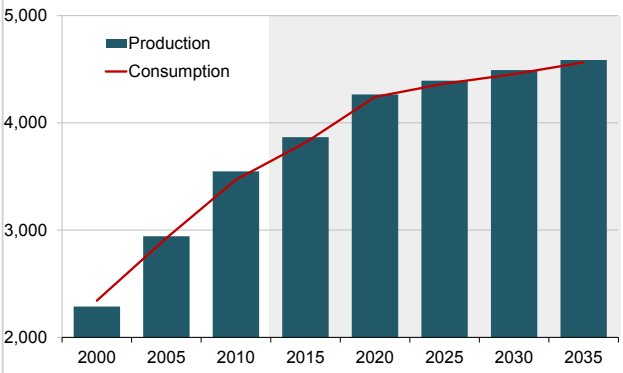

### Notes and sources

General:
Astralian Thermal Coal spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of Astralian Thermal Coal in USD/mt (aop).
**2** Consensus Forecast of quarterly Astralian Thermal Coal average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of Astralian Thermal Coal, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of Astralian Thermal Coal, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Mtoe

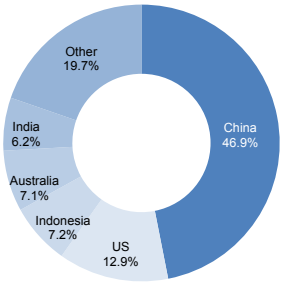



### Global production and consumption outlook

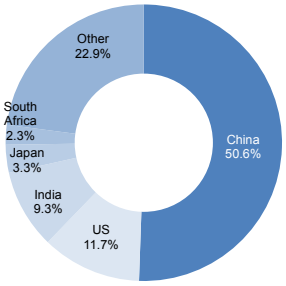
| | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million tonnes of oil equivalent (Mtoe)** | | | | | | | | |
| **Global** | **2,287** | **2,943** | **3,548** | **3,867** | **4,265** | **4,394** | **4,492** | **4,586** |
| North America | 615 | 622 | 594 | 537 | 498 | 468 | 446 | 390 |
| Europe and Eurasia | 430 | 441 | 435 | 427 | 402 | 393 | 388 | 385 |
| Middle East | 0.7 | 1.0 | 0.6 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 |
| Asia Pacific | 1,077 | 1,692 | 2,317 | 2,685 | 3,140 | 3,298 | 3,411 | 3,543 |
| Other | 165 | 187 | 201 | 217 | 224 | 234 | 247 | 267 |
| **Consumption \| Million tonnes of oil equivalent (Mtoe)** | | | | | | | | |
| **Global** | **2,343** | **2,926** | **3,469** | **3,816** | **4,242** | **4,366** | **4,455** | **4,564** |
| North America | 605 | 616 | 562 | 438 | 438 | 364 | 300 | 254 |
| Europe and Eurasia | 527 | 515 | 486 | 474 | 457 | 435 | 404 | 377 |
| Middle East | 7.4 | 9.3 | 8.8 | 8.2 | 8.2 | 8.2 | 8.2 | 8.2 |
| Asia Pacific | 1,101 | 1,672 | 2,288 | 2,766 | 3,193 | 3,400 | 3,567 | 3,726 |
| Other | 103 | 114 | 125 | 129 | 146 | 159 | 176 | 198 |

### Major producers and consumers in 2014

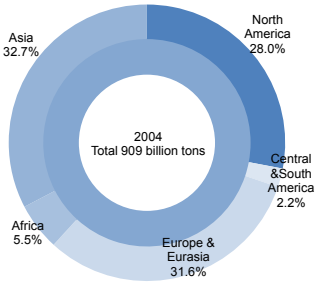
Production | %-share in World

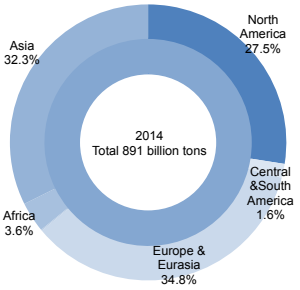



Consumption | %-share in World




### Distribution of proven reserves in 2004 and 2014




### Thermal coal futures at a glance

| | |
|---|---|
| Contract: | Coal API 5 FOB Newcastle Futures |
| Ticker: | ACM |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 1,000 metric tons |
| Intercontinental Exchange (ICE) | 1,000 metric tons |
| European Energy Exchange (EEX) | 1,000 metric tons |

### Thermal coal facts

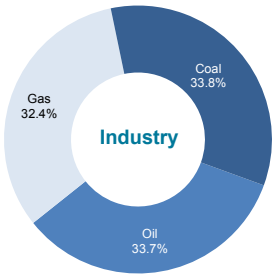
- API 5 Coal tracks the fob Newcastle market and is the most closely-watched futures contract with global influence.
- Power-generating companies prefer short-term coal supply contracts that rely more on cash market purchases.
- The thermal coal market is divided into the Atlantic and the Pacific markets.

### Factors influencing prices

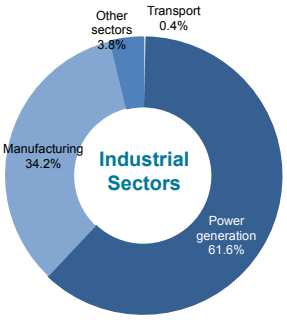
- Thermal coal production
- Transportation cost
- Productive capacity of mines
- Economic growth, mainly in China and India
- Electricity generation costs
- Prices of other fuels, mainly gas and petroleum
- Drop in production due to natural disasters
- Drop in production due to strikes or accidents in mines

### Share of fuel usage in industry

Fuel usage in industry | share in %

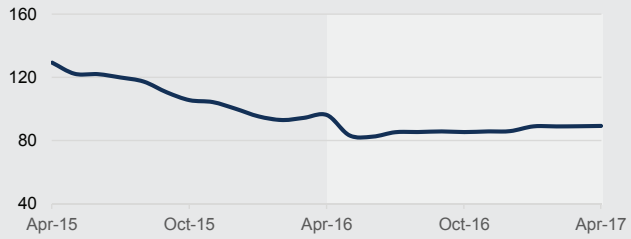



Coal usage by sector | share in %



# Coking Coal

**Australian Coking Coal** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 122.0 | 95.0 | 96.0 | 122 |
| 13-May-16 | +28.4% | +27.1% | 0.0% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 83.5 -31.6% | |
| Q4 16 | 85.7 -29.7% | |
| Q4 17 | 92.0 -24.6% | |

Coking coal prices rallied this month and returned to levels last seen in mid-2015. Prices were pushed up by the spectacular rise in the price of iron ore. On 13 May, coking coal traded at USD 122.0 per metric ton, which was up 28.4% from the same day in April. The price was 27.1% higher on a year-to-date basis and was stable compared to the same day last year.

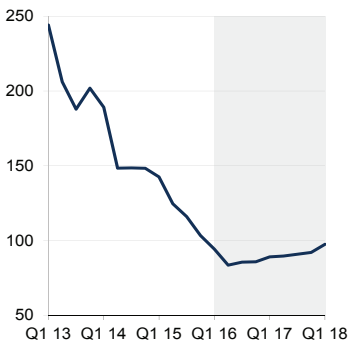
Coking coal prices are tightly linked to the price of steel and the upcoming construction season in China prompted steel demand to rise. This caused the price of steel to increase strongly and translated into a surge in coking coal prices. Further, coal supply finds itself in the middle of a global downsizing process, and several coal mines China are on alert regarding forthcoming safety inspections.

Despite the recent rally, analysts remain skeptical about the long-term sustainability of current prices. Environmental concerns, the sluggishness in reducing overall supply and the likeliness that the surge in Chinese demand will be short-lived are seen as being more structural factors that will bring prices down. Our panelists expect prices to fall this year and to average USD 85.7 per metric ton in Q4 2016. Prices should partially recover through 2017 and average USD 92.0 per metric ton in Q4.

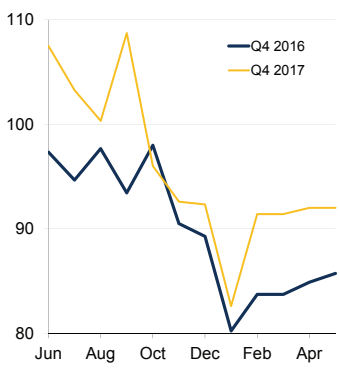
**Coking Coal prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 243 | 265 | 297 | 252 | 210 | 158 | 121 | 86.3 | 90.7 | 99.1 | 107 | 114 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 125 | 116 | 103 | 94.2 | 83.5 | 85.5 | 85.7 | 89.0 | 89.6 | 90.8 | 92.0 | 97.4 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 83.3 | 82.5 | 85.3 | 85.4 | 85.8 | 85.4 | 85.8 | 86.0 | 89.0 | 89.0 | 89.1 | 89.3 |
| Futures Prices (13-May) | - | 101.2 | 111.8 | 103.1 | 103.0 | 101.0 | 105.1 | 103.4 | 100.4 | 101.8 | 100.6 | - |

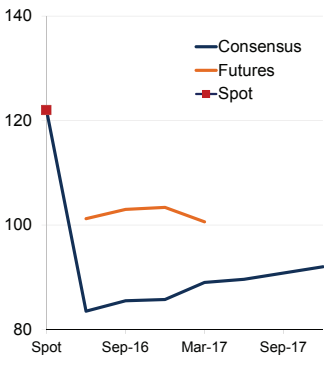
**1 | Australian Coking Coal**




**2 | Coking Coal | evol. of fcst.**




**3 | Consensus and futures**



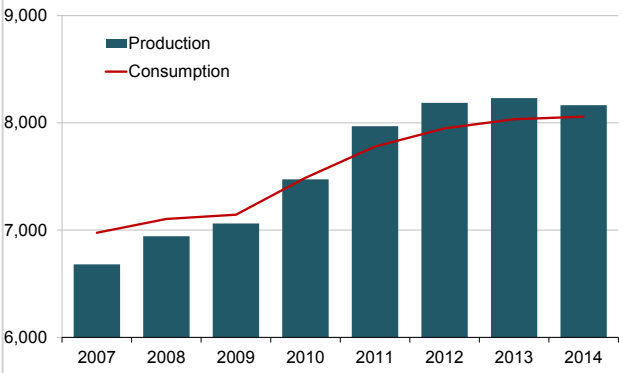

**Notes and sources**

General:
Australian coking coal spot prices in USD per metric tone (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of Australian coking coal in USD/mt (aop).
**2** Quarterly price of Australian coking coal, evolution of Q4 2016 and Q4 2017 forecast during the last 12 months.
**3** Consensus Forecast of quarterly Australian coking coal average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.

## Fact Sheet

### Global production and consumption | Million metric tons

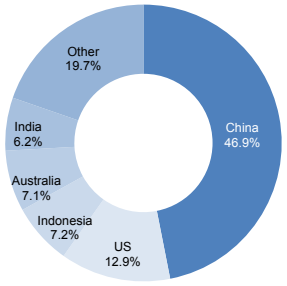



### Global production and consumption outlook

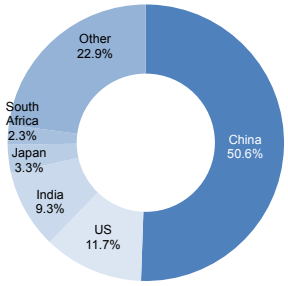
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million metric tons** | | | | | | | | |
| **Global** | **6,681** | **6,943** | **7,062** | **7,473** | **7,969** | **8,187** | **8,231** | **8,165** |
| North America | 1,124 | 1,145 | 1,052 | 1,067 | 1,080 | 1,005 | 977 | 989 |
| Europe and Eurasia | 1,249 | 1,267 | 1,198 | 1,209 | 1,273 | 1,293 | 1,244 | 1,196 |
| Africa | 251 | 255 | 251 | 259 | 257 | 263 | 264 | 268 |
| Asia Pacific | 3,971 | 4,187 | 4,477 | 4,854 | 5,263 | 5,528 | 5,644 | 5,607 |
| Other | 84.6 | 87.7 | 83.5 | 84.5 | 95.6 | 99.2 | 101 | 105 |
| **Consumption \| Million metric tons** | | | | | | | | |
| **Global** | **6,976** | **7,104** | **7,143** | **7,487** | **7,779** | **7,948** | **8,034** | **8,058** |
| North America | 1,106 | 1,088 | 966 | 1,019 | 965 | 846 | 876 | 877 |
| Europe and Eurasia | 1,094 | 1,071 | 985 | 1,016 | 1,053 | 1,109 | 1,056 | 989 |
| Africa | 163 | 181 | 178 | 176 | 172 | 168 | 170 | 173 |
| Asia Pacific | 4,241 | 4,403 | 4,691 | 4,956 | 5,247 | 5,517 | 5,618 | 5,718 |
| Other | 371 | 362 | 323 | 319 | 342 | 309 | 314 | 300 |

### Major producers and consumers in 2014

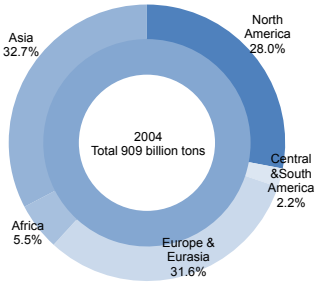
Production | %-share in World

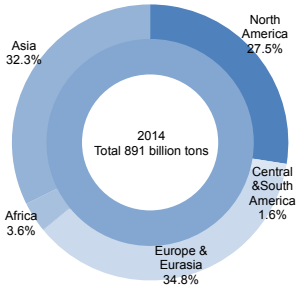



Consumption | %-share in World




### Distribution of proven reserves in 2004 and 2014



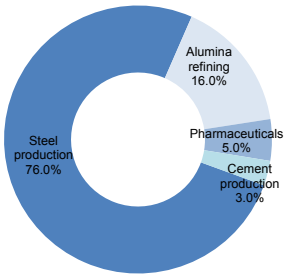

### Coking coal futures at a glance

| | |
|---|---|
| Contract: | Australian Hard Coking Coal Futures |
| Ticker: | ALW |
| Price quotation: | USD per metric ton |
| Settlement type: | Financial |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 1,000 metric tons |
| Intercontinental Exchange (ICE) | 1,000 metric tons |

### Share of coal usage in industry




### Coking coal facts

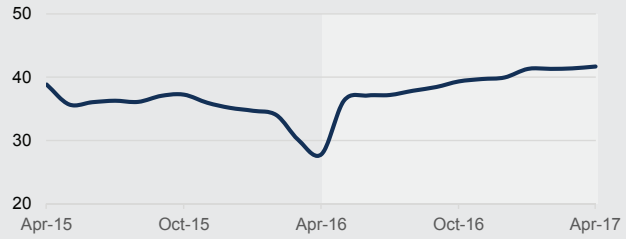
- Coking coal also referred to as metallurgical coal is essentially used for iron and steel production.
- Coking coal for steel production needs to be high quality (lower sulphur and phosphorous content).
- Coking coal is more expensive than thermal coal (used in power generation).

### Factors influencing prices

- Coking coal production
- Transportation costs
- Productive capacity of mines
- Economic growth, mainly in China, India and Japan
- Drop in production due to strikes or accidents in mines
- Drop in production due to natural disasters
- Most coking coal is procured between producers and steel makers with annual contracts

# Uranium

**Uranium U3O8 (prices in USD/lb, aop)**




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 27.6 | 28.5 | 34.3 | 35.8 |
| 13-May-16 | -3.2% | -19.4% | -22.8% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 36.3 +31.5% | |
| Q4 16 | 39.7 +43.7% | |
| Q4 17 | 44.8 +62.3% | |

Uranium prices continued to decrease over the course of the past month. On 13 May, uranium traded at USD 27.6 per pound, which was down 3.2% from the same day in April and was 19.4% lower on a year-to-date basis. Moreover, the price was down 22.8% from the same day last year.

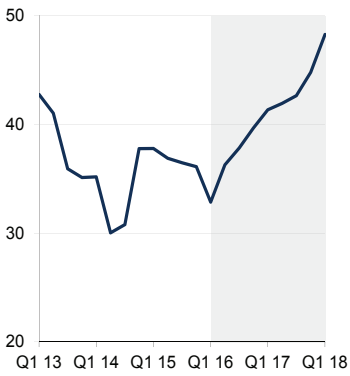
Prices have been under pressure since the nuclear disaster in Fukushima in 2011, which led to a sharp decrease in demand for the metal and the closure of numerous nuclear reactors around the world. Moreover, the uranium market remains oversupplied due to excess inventories, thus putting downward pressure on prices. However, a depletion of stockpiles coupled with the construction of new reactors, particularly in countries such as China, India and Russia, will boost prices going forward.

Panelists expect uranium prices to increase in the medium term due to higher global energy demand. They project prices to average USD 39.7 per pound in Q4 2016 and see prices picking up over the course of 2017 to an average of USD 44.8 per pound in Q4.

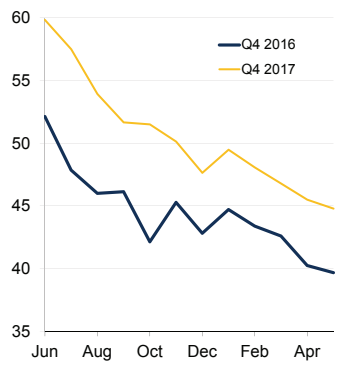
**Uranium U3O8 prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per lb (aop) | 46.4 | 46.4 | 57.0 | 48.9 | 38.7 | 33.4 | 36.8 | 37.9 | 42.2 | 46.4 | 50.1 | 53.8 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per lb (aop) | 36.9 | 36.5 | 36.1 | 32.9 | 36.3 | 37.8 | 39.7 | 41.3 | 41.9 | 42.6 | 44.8 | 48.3 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per lb (aop) | 36.3 | 37.1 | 37.2 | 37.9 | 38.4 | 39.3 | 39.7 | 40.0 | 41.3 | 41.3 | 41.4 | 41.7 |
| Futures Prices (13-May) | - | 28.0 | 28.0 | 28.1 | 28.1 | 28.1 | 28.3 | 28.3 | 28.3 | 28.5 | 28.6 | 28.8 |

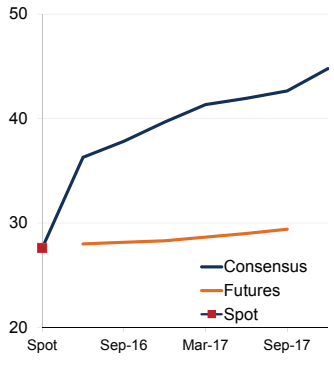
**1 | Uranium U308**




**2 | Uranium U3O8 | evol. of fcst.**




**3 | Consensus and futures**



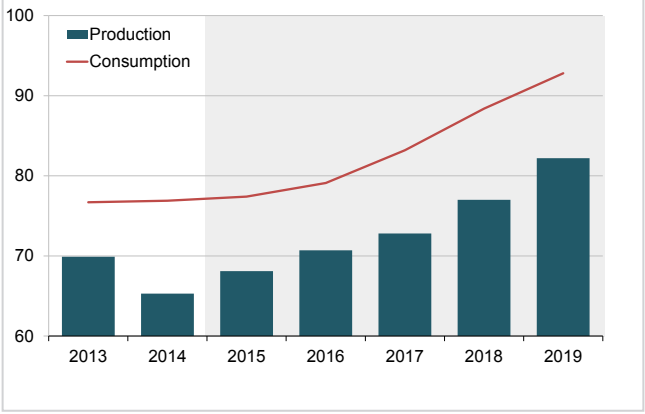

**Notes and sources**

General:
Uranium U3O8 spot prices in USD per pound (lb). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of Uranium U3O8 in USD/lb (aop).
**2** Quarterly prices of Uranium U3O8, evolution of Q4 2016 and Q4 2017 forecasts during the last 12 months.
**3** Consensus Forecast of quarterly Uranium U3O8 average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.

## Fact Sheet

### Global production and consumption | Thousand metric tons

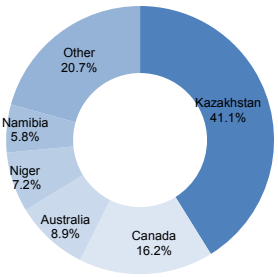



### Global production and consumption outlook

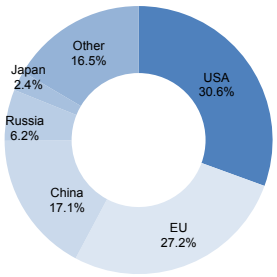
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| **Production from Mines \| Thousand metric tons** | | | | | | | | |
| **Global** | **69.9** | **65.3** | **68.1** | **70.7** | **72.8** | **77.0** | **82.2** | **87.9** |
| Kazakhstan | 26.5 | 26.4 | 26.9 | 26.9 | 26.9 | 27.3 | 27.8 | 28.3 |
| Canada | 11.0 | 10.7 | 12.9 | 14.1 | 14.2 | 15.5 | 16.4 | 17.8 |
| Australia | 5.0 | 5.7 | 6.2 | 6.2 | 6.1 | 6.5 | 7.5 | 8.5 |
| Africa | 10.5 | 10.7 | 12.9 | 14.1 | 14.2 | 15.5 | 16.4 | 17.8 |
| Other | 16.9 | 11.8 | 9.2 | 9.4 | 11.4 | 12.2 | 14.1 | 15.5 |
| **Consumption \| Thousand metric tons** | | | | | | | | |
| **Global** | **76.7** | **76.9** | **77.4** | **79.1** | **83.2** | **88.4** | **92.8** | **97.9** |
| European Union | 23.3 | 23.1 | 23.0 | 22.5 | 24.0 | 24.0 | 22.9 | 23.6 |
| United States | 23.1 | 22.2 | 22.8 | 23.1 | 23.1 | 23.1 | 23.6 | 24.4 |
| China | 7.9 | 9.1 | 9.8 | 12.5 | 14.8 | 17.1 | 18.3 | 20.4 |
| Russia | 6.0 | 6.4 | 6.0 | 6.2 | 6.5 | 7.0 | 7.6 | 7.6 |
| Other | 16.4 | 16.1 | 15.8 | 14.8 | 14.8 | 17.2 | 20.4 | 21.9 |

### Major producers and consumers in 2014

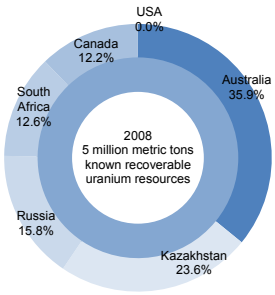
Production | %-share in World

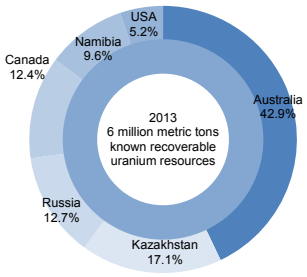



Consumption | %-share in World




### Known recoverable Uranium resources in 2008 and 2013




### Uranium U308 futures at a glance

| | |
|---|---|
| Contract: | UxC Uranium U3O8 Futures Contracts |
| Ticker: | UX |
| Price quotation: | USD cents per pound |
| Settlement type: | Financial |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 250 pounds |
| Intercontinental Exchange (ICE) | 250 pounds |

### Uranium U308 facts

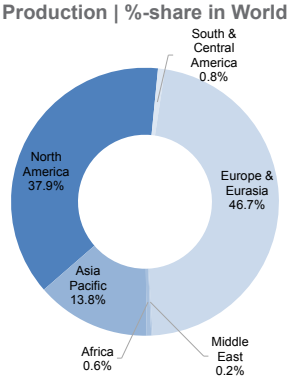
- Spot prices apply only to marginal trading, which represents about one quarter of supply. Most contracts are long-term.
- Primary production from mines is mainly supplemented by secondary supplies coming from ex-military material.
- Nuclear power has been slowly making a comeback as an electricity source of choice since the Fukushima disaster in 2011

### Factors influencing prices

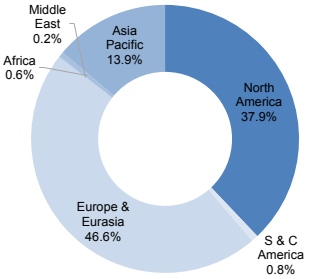
- Mine production
- Steady increase in demand for electricity
- New nuclear reactors and increase in nuclear capacity
- China has secured long-term contracts with Kazakhstan
- Russia stopped selling uranium at market prices to build up inventories

### Major nuclear energy producers and consumers in 2014

Production | %-share in World

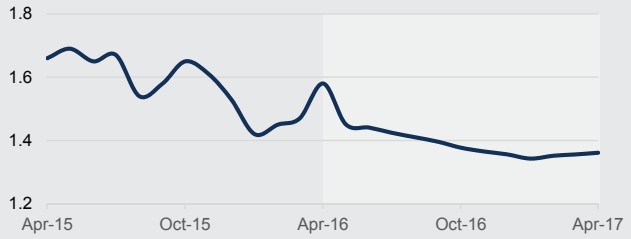



Consumption | %-share in World



# Ethanol

**NY Harbor Ethanol** (prices in USD/gal, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1.62 | 1.58 | 1.46 | 1.71 |
| 13-May-16 | +2.5% | +11.0% | -5.3% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1.45 -10.5% | |
| Q4 16 | 1.37 -15.7% | |
| Q4 17 | 1.28 -21.0% | |

The price of ethanol continued rising in the past weeks, although gains have been slight. Ethanol is now above the USD 1.60 per gallon at which it traded throughout 2015. The spot price registered on 13 May was USD 1.62 per gallon. The price was 2.5% higher than on the same day of the previous month and was up 11.0% on a year-to-date basis. The price was 5.3% lower than on the same day last year.

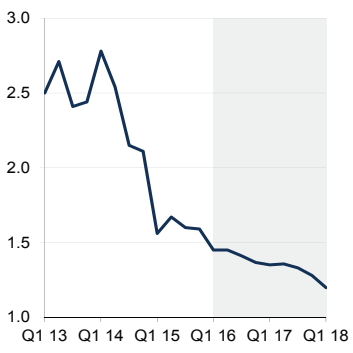
The broad price stability registered in the last month is the result of opposing factors. On one hand, dry weather in Brazil's Sao Paulo region in April led to an increase in sugarcane production, thus putting downward pressure on ethanol prices. On the other hand, optimism spread on news that ethanol exports from the U.S. rebounded in March and hit a four-year high after the sharp fall recorded in February; most of the exports went to China.

Despite the latest upward movements, our panelists expect prices to average USD 1.37 per gallon in Q4 2016. Panelists see prices dropping further in 2017 to an average of USD 1.28 per gallon in Q4.

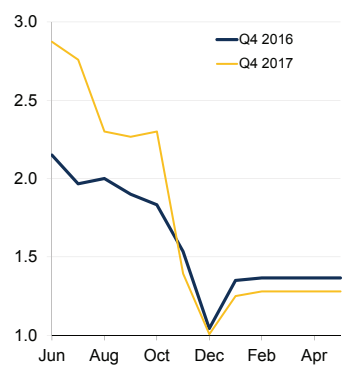
**Ethanol prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per gal (aop) | 1.82 | 1.96 | 2.73 | 2.37 | 2.51 | 2.39 | 1.60 | 1.41 | 1.33 | 1.35 | 1.39 | 1.42 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per gal (aop) | 1.67 | 1.60 | 1.59 | 1.45 | 1.45 | 1.41 | 1.37 | 1.35 | 1.36 | 1.33 | 1.28 | 1.20 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per gal (aop) | 1.45 | 1.44 | 1.42 | 1.41 | 1.40 | 1.38 | 1.36 | 1.36 | 1.34 | 1.35 | 1.36 | 1.36 |
| Futures Prices (13-May) | - | 1.54 | 1.54 | 1.53 | 1.52 | 1.50 | 1.48 | 1.47 | 1.46 | 1.46 | 1.46 | 1.46 |

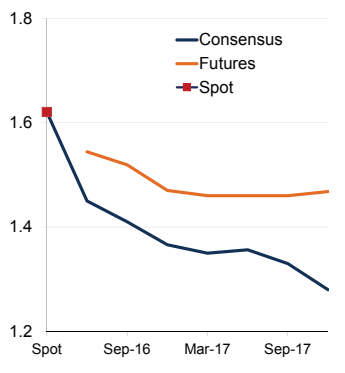
**1 | NY Harbor Ethanol**




**2 | NY Harbor Ethanol | evol. of fcst.**




**3 | Consensus and futures**



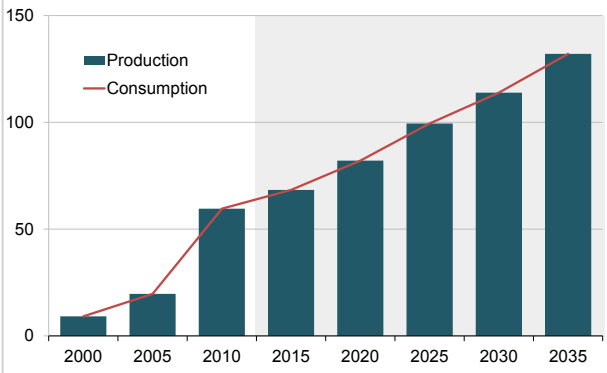

**Notes and sources**

General:
New York Harbor Ethanol spot prices in USD per gallons (gal). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of New York Harbor Ethanol in USD/gal (aop).
**2** Quarterly prices of New York Harbor Ethanol, evolution of Q4 2016 and Q4 2017 forecast during the last 12 months.
**3** Consensus Forecast of quarterly New York Harbor Ethanol average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Futures prices are as of spot date.

## Fact Sheet

### Global production and consumption | Mtoe

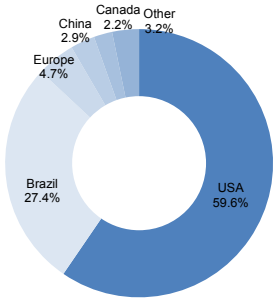



### Global biofuels production and consumption outlook

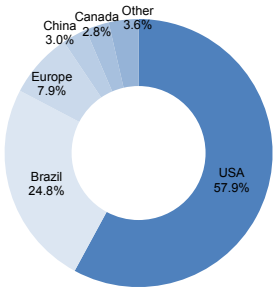
| | 2000 | 2005 | 2010 | 2015 | 2020 | 2025 | 2030 | 2035 |
|---|---|---|---|---|---|---|---|---|
| **Biofuels Production \| Million tonnes of oil equivalent (Mtoe)** | | | | | | | | |
| **Global** | **9.2** | **19.7** | **59.6** | **68.3** | **82.1** | **99.4** | **113.9** | **132.1** |
| North America | 3.1 | 7.6 | 26.3 | 31.4 | 35.6 | 41.4 | 45.1 | 48.5 |
| South America | 5.3 | 8.1 | 18.0 | 20.8 | 25.1 | 30.4 | 35.3 | 40.8 |
| Europe and Eurasia | 0.7 | 3.2 | 11.2 | 10.4 | 13.6 | 15.6 | 15.7 | 15.2 |
| Asia Pacific | 0.1 | 0.8 | 4.0 | 5.6 | 7.3 | 11.2 | 16.4 | 22.8 |
| Other | 0.0 | 0.0 | 0.0 | 0.2 | 0.5 | 0.8 | 1.3 | 4.7 |
| **Biofuels Consumption \| Million tonnes oil of equivalent (Mtoe)** | | | | | | | | |
| **Global** | **9.2** | **19.7** | **59.6** | **68.3** | **82.1** | **99.4** | **113.9** | **132.1** |

### Major producers and consumers in 2014

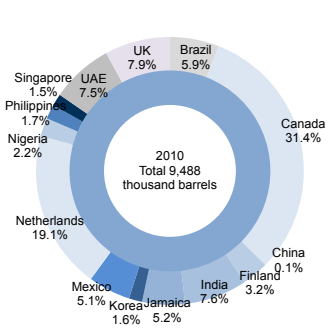
Production | %-share in World

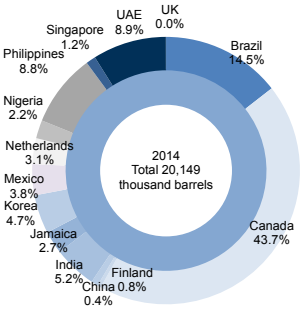



Consumption | %-share in World




### Distribution of U.S. ethanol exports by destination in 2004 and 2014




### Ethanol futures at a glance

| | |
|---|---|
| Contract: | Ethanol Futures Contract Specs |
| Ticker: | EH and ETH |
| Price quotation: | USD per gallon |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| Chicago Board of Trade (CBOT) | 29,000 gallons |
| New York Mercantile Exchange (NYMEX) | 42,000 gallons |
| BM&FBOVESPA (Brazil) | 30 cubic meters |

### Ethanol facts

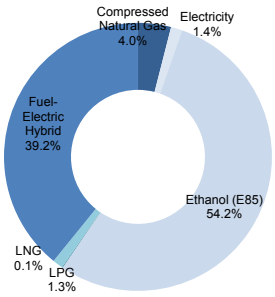
- Unlike petroleum, ethanol is a renewable resource made from plant material, such as corn, sugar cane, or grasses.
- Using ethanol can reduce oil dependence and greenhouse gas emissions.
- Anhydrous ethanol is used for blending with gasoline (E-10, E-25, E-85) and hydrous ethanol is used as a standalone fuel.

### Factors influencing prices

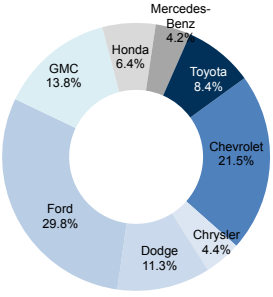
- Global oil prices
- Global corn prices
- Sugar cane prices (in Brazil)
- Gasoline prices
- Transportation costs
- Countries' environmental legislation
- Economic growth and growth of motor vehicles markets
- Weather conditions

### U.S. alternative fuel vehicles (AFV) data

U.S. AFV in 2013 | share in %

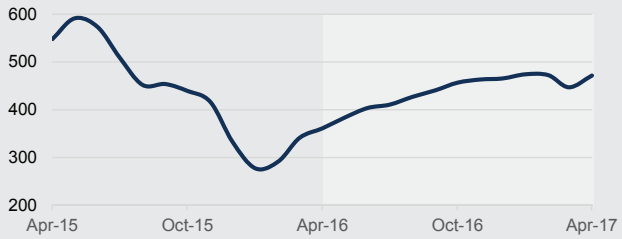



AFV models in the market | share in %



# Gasoil

**European Gasoil 0.2% Sulfur** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 414 | 364 | 322 | 603 |
| 13-May-16 | +14.0% | +28.7% | -31.2% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 383 -7.4% | |
| Q4 16 | 462 +11.5% | |
| Q4 17 | 528 +27.5% | |

European Low Sulfur Gasoil prices have been on a recovery path after hitting a multi-year low in January. On 13 May, gasoil traded at USD 414 per metric ton, which was up 14.0% from the same day in April and was 28.7% higher on a year-to-date basis. The price, however, was down 31.2% from the same day last year.

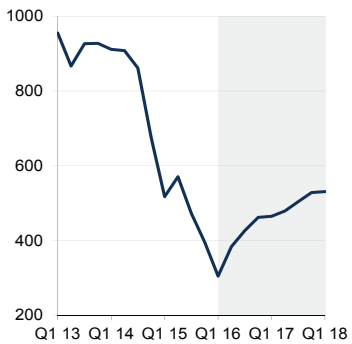
The rally in prices observed in May was supported by numerous factors ranging from production disruptions in various countries such as Canada and Nigeria to an encouraging report from the IEA that dispelled earlier reports that stockpiles had accumulated in Europe. The 11 May report from the IEA stated that global supply will drop significantly in the second half of this year and that the global market will balance soon.

FocusEconomics panelists expect gasoil to trade at an average of USD 462 per metric ton in Q4 2016. Analysts expect prices to continue rising over the course of 2017 and to trade at an average of USD 528 per metric ton in Q4.

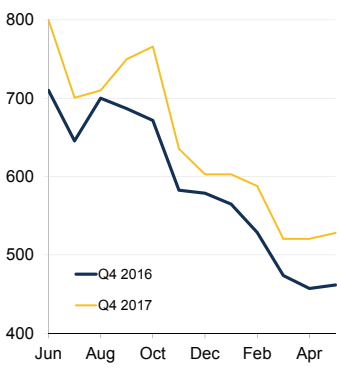
**Gasoil prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 517 | 670 | 931 | 953 | 919 | 838 | 488 | 407 | 512 | 532 | 545 | 559 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 570 | 473 | 395 | 304 | 383 | 426 | 462 | 464 | 479 | 504 | 528 | 531 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 383 | 403 | 411 | 427 | 441 | 457 | 463 | 465 | 474 | 472 | 447 | 471 |
| Futures Prices (13-May) | - | 419 | 421 | 425 | 429 | 435 | 438 | 440 | 444 | 447 | 452 | 454 |

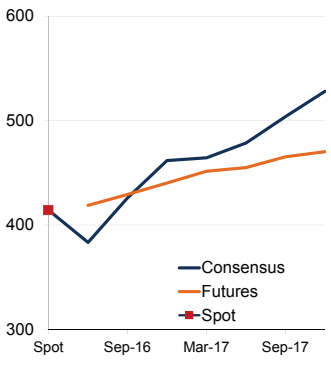
**1 | European Gasoil 0.2% Sulfur**




**2 | European Gasoil | evol. of fcst.**




**3 | Consensus and futures**



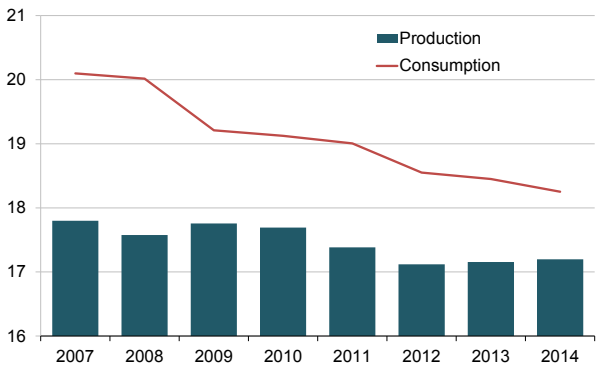

**Notes and sources**

General:
European Gasoil (0.2% maximum sulphur content) spot prices in USD per metric tone (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of European Gasoil 0.2% sulfur in USD/mt (aop).
**2** Quarterly prices of European Gasoil 0.2% sulfur, evolution of Q4 2016 and Q4 2017 forecast during the last 12 months.
**3** Consensus Forecast of quarterly average European Gasoil 0.2% sulfur prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at each quarter. Futures prices are as of spot date.

## Fact Sheet

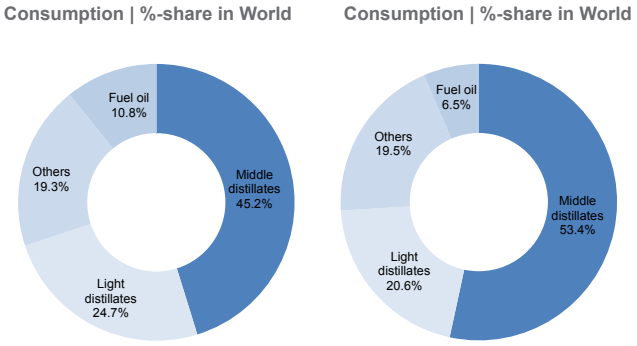
### European production and consumption | Million barrels per day



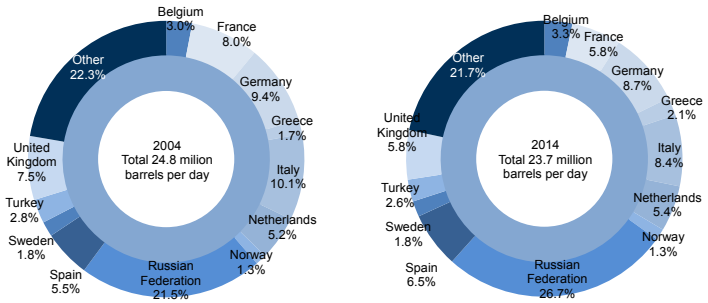

### European fuels production and consumption

| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million barrels per day** | | | | | | | | |
| **Total Europe** | **17.8** | **17.6** | **17.8** | **17.7** | **17.4** | **17.1** | **17.2** | **17.2** |
| Russia | 10.0 | 10.0 | 10.1 | 10.4 | 10.5 | 10.6 | 10.8 | 10.8 |
| Kazakhstan | 1.4 | 1.5 | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Norway | 2.6 | 2.5 | 2.3 | 2.1 | 2.0 | 1.9 | 1.8 | 1.9 |
| United Kingdom | 1.7 | 1.6 | 1.5 | 1.4 | 1.1 | 0.9 | 0.9 | 0.9 |
| **Consumption \| Million barrels per day** | | | | | | | | |
| **Total Europe** | **20.1** | **20.0** | **19.2** | **19.1** | **19.0** | **18.6** | **18.5** | **18.3** |
| France | 1.9 | 1.9 | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 1.6 |
| Germany | 2.4 | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| Russia | 2.8 | 2.9 | 2.8 | 2.9 | 3.1 | 3.1 | 3.2 | 3.2 |
| United Kingdom | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 |

### European consumption by distilate group in 2004 and 2014




### European oil refinery capacity in 2004 and 2014




### Gasoil futures at a glance

| | |
|---|---|
| Contract: | European Low Sulfur Gasoil Futures |
| Ticker: | G (ICE), GLI (NYMEX) |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| Intercontinental Exchange (ICE) | 100 metric tons |
| New York Mercantile Exchange (NYMEX) | 100 metric tons |

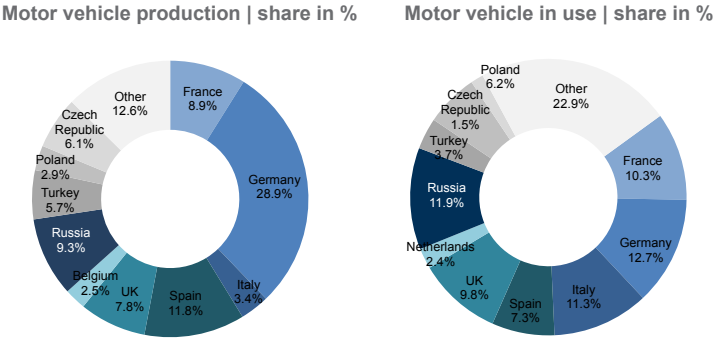
### Gasoil facts

- Gasoil or diesel (middle distillate) is mainly used for automotive diesel fuel and home heating oil.
- Use of gasoil (diesel) is preferred in Europe due to legislation for green gas emissions. Gasoline is preferred in the U.S. due to lower nitrogenous oxide emissions.

### Factors influencing prices

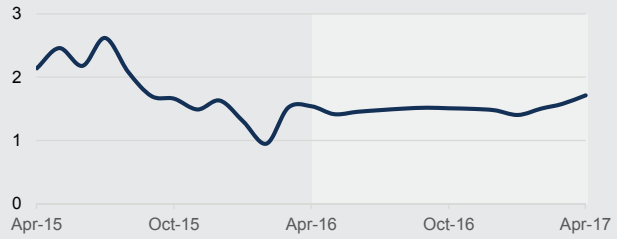
- Global oil prices
- Steady increase in demand for automobiles
- Refining and distribution costs
- Supply and demand in European markets
- Storage and inventories
- Severe weather conditions

### Motor vehicle production and motor vehicle in use by country



# Gasoline

**RBOB Gasoline** (prices in USD/gal, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1.49 | 1.61 | 1.94 | 2.71 |
| 13-May-16 | -7.7% | -23.2% | -45.0% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1.42 -4.9% | |
| Q4 16 | 1.50 +0.5% | |
| Q4 17 | 1.61 +8.2% | |

Volatility in the price of reformulated blendstock for oxygenate blending (RBOB) gasoline persisted in the first weeks of May. On 13 May, the price was USD 1.49 per gallon, which was 7.7% lower than on the same day of the previous month. Moreover, the price was down 23.2% on a year-to-date basis and was 45.0% lower than on the same day of last year.

Volatility in RBOB gasoline prices in Q1 and at the beginning of Q2 reflects upward pressures coming from the rally in oil prices and downward pressures stemming from weaker gasoline demand. According to the EIA, prices are expected to rise in Q2 and Q3 due to the start of the 2016 summer driving season (April through September).

The Consensus view is that gasoline prices will rise timidly this year. Forecasters expect gasoline to trade at an average of USD 1.50 per gallon in Q4. Over the course of 2017, prices are seen rising mildly and trading at an average of USD 1.61 per gallon in Q4.

| | | | | | | | | | Annual average | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Individual Forecasts** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** | **2016** | **2017** |
| BMI Research | - | - | - | - | - | - | - | - | 1.52 | 1.69 |
| BNP Paribas | 1.43 | 1.31 | 1.26 | 1.48 | 1.52 | 1.50 | 1.45 | 1.45 | 1.29 | 1.49 |
| Deutsche Bank | 1.58 | 1.56 | 1.40 | 1.45 | 1.73 | 1.77 | 1.48 | 1.48 | 1.41 | 1.66 |
| OCBC | 1.33 | 1.50 | 1.67 | - | - | - | - | - | 1.42 | - |
| Société Générale | 1.35 | 1.30 | 1.18 | 1.25 | - | - | - | - | 1.34 | 1.57 |
| Toronto-Dominion | 1.40 | 1.50 | 1.65 | 1.80 | 2.00 | 2.00 | 1.90 | 1.90 | 1.44 | 1.93 |
| Unicredit | 1.40 | 1.83 | 1.81 | - | - | - | - | - | 1.57 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 1.33 | 1.30 | 1.18 | 1.25 | 1.52 | 1.50 | 1.45 | 1.45 | 1.29 | 1.49 |
| Maximum | 1.58 | 1.83 | 1.81 | 1.80 | 2.00 | 2.00 | 1.90 | 1.90 | 1.57 | 1.93 |
| Median | 1.40 | 1.50 | 1.53 | 1.47 | 1.73 | 1.77 | 1.48 | 1.50 | 1.42 | 1.66 |
| **Consensus** | **1.42** | **1.50** | **1.50** | **1.50** | **1.75** | **1.76** | **1.61** | **1.59** | **1.43** | **1.67** |
| **Additional Forecasts** | | | | | | | | | | |
| EIA (Apr. 2016) | 2.07 | 2.01 | 1.79 | 1.78 | 2.07 | 2.12 | 2.10 | - | 1.94 | 2.00 |

**Gasoline prices and futures prices**

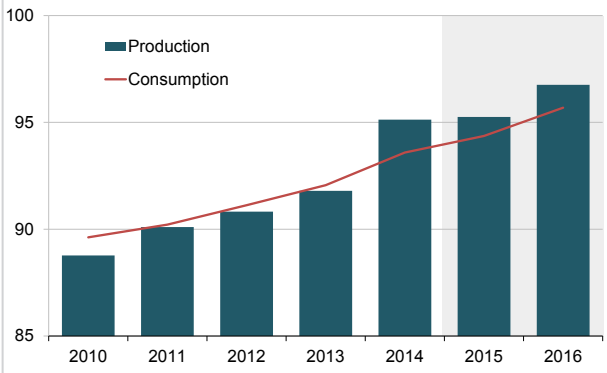
| **Annual data** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per gal (aop) | 1.85 | 2.22 | 2.90 | 3.04 | 2.92 | 2.66 | 1.94 | 1.43 | 1.67 | 1.73 | 1.80 | 1.88 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per gal (aop) | 2.26 | 2.14 | 1.60 | 1.26 | 1.42 | 1.50 | 1.50 | 1.50 | 1.75 | 1.76 | 1.61 | 1.59 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per gal (aop) | 1.42 | 1.45 | 1.48 | 1.50 | 1.52 | 1.51 | 1.50 | 1.48 | 1.40 | 1.50 | 1.58 | 1.71 |
| Futures Prices (13-May) | - | 1.59 | 1.60 | 1.59 | 1.57 | 1.43 | 1.39 | 1.37 | 1.37 | 1.38 | 1.40 | 1.62 |

**Notes and sources**

Reformulated Blendstock for Oxgenate Blending (RBOB) Gasoline spot prices in USD per gallon (gal). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Futures prices traded on the New York Mercantile Exchange (NYMEX). Additional forecasts from the U.S. Energy Information Administration (EIA) refer to average regular pump price. Futures are as of spot date.

## Fact Sheet

### Global production and consumption | Million barrels per day

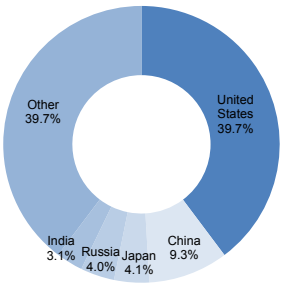



### Global production and consumption outlook

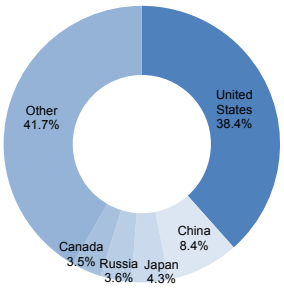
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| **Production \| Million barrels per day** | | | | | | | |
| **Global** | **88.8** | **90.1** | **90.8** | **91.8** | **95.1** | **95.3** | **96.8** |
| United States | 9.3 | 10.1 | 11.1 | 12.4 | 14.1 | 14.8 | 15.4 |
| OECD | 21.1 | 22.6 | 23.5 | 24.9 | 26.9 | 26.5 | 27.2 |
| Non-OECD | 66.0 | 67.5 | 67.3 | 66.9 | 68.2 | 68.7 | 69.5 |
| OPEC | 35.4 | 36.9 | 36.6 | 35.8 | 36.6 | 37.4 | 38.0 |
| **Consumption \| Million barrels per day** | | | | | | | |
| **Global** | **89.6** | **90.2** | **91.1** | **92.1** | **93.6** | **94.4** | **95.7** |
| United States | 18.1 | 18.7 | 18.1 | 19.0 | 19.5 | 19.6 | 19.7 |
| OECD | 46.4 | 47.0 | 45.8 | 46.2 | 47.2 | 47.0 | 47.2 |
| Non-OECD | 42.6 | 43.2 | 45.3 | 45.8 | 46.4 | 47.3 | 48.5 |
| **Gasoline Inventories \| Million barrels** | | | | | | | |
| United States | 219 | 223 | 231 | 228 | 240 | 230 | 232 |

### Major producers and consumers in 2014

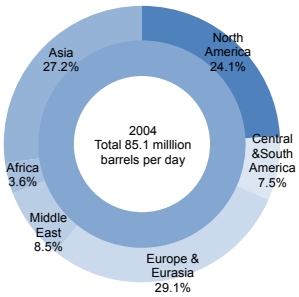
Refinery prod. | %-share in World

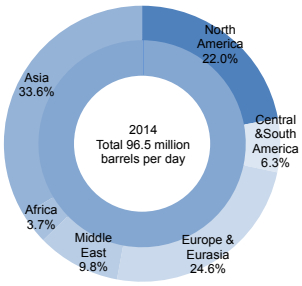



Refinery cons. | %-share in World




### Global oil refinery capacity in 2004 and 2014




### Gasoline futures at a glance

| | |
|---|---|
| Contract: | RBOB Gasoline Futures |
| Ticker: | RB (NYMEX), LG (ICE) |
| Price quotation: | USD per gallon |
| Settlement type: | Physical and Financial |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 42,000 gallons |
| Intercontinental Exchange (ICE) | 1,000 barrels |

### Gasoline facts

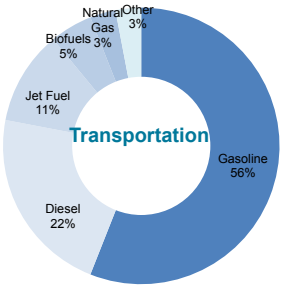
• RBOB Gasoline is the new benchmark form of gasoline in the U.S. market.
• As gasoline is derived from crude oil, its price shows strong correlation with crude oil prices.
• The Crude-Gasoline crack spread is the margin that refineries earn when they refine oil into various products. World crack spread margins vary from USD 4 to USD 14.

### Factors influencing prices

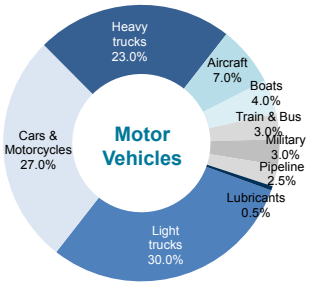
• Global oil prices
• Crude oil alone makes up for 70% of gasoline price
• Severe weather conditions
• Refining and distribution costs
• Seasonal fluctuation in prices due to increased driving and air travel
• Storage and inventories
• Supply and demand in the U.S. market

### Share of fuel usage in transportation

Fuel usage in transp. | share in %

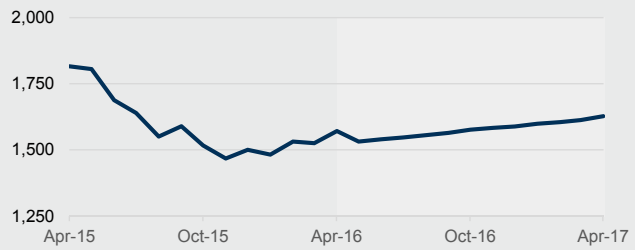



Fuel usage by motor vehicle | share in %



# Aluminium

## Aluminium LME (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,517 | 1,547 | 1,500 | 1,848 |
| 13-May-16 | -2.0% | +1.1% | -17.9% |

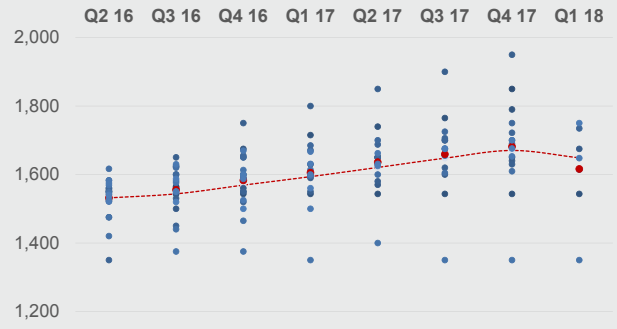
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1,532 +1.0% | |
| Q4 16 | 1,583 +4.3% | |
| Q4 17 | 1,681 +10.9% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 5 | ↑ | 2 | ↑ | 3 |
| = | 16 | = | 18 | = | 10 |
| ↓ | - | ↓ | 1 | ↓ | 1 |

## Panelist Spread




Prices have been somewhat volatile since January, dropping slightly in the last month. On 13 May, aluminium traded at USD 1,517 per metric ton, which was down 2.0% from the same day in April, but was 1.1% higher on a year-to-date basis. The price was down 17.9% from the same day a year ago.

Excess supply coupled with subdued demand were behind a gradual drop in aluminum prices during recent years. As producers' profit margins decreased with the price, some firms, particularly in China, cut back production. That said, modest reductions in production contributed to a stabilization and slight increase in aluminium prices in recent months. However, aluminium markets still remain oversupplied, which is preventing a stronger price increase. Adding to this, prices for aluminium and energy—particularly that of oil—are strongly positively correlated due to the large share of energy-related costs in aluminium production. Therefore, volatility in aluminium prices partly reflects developments in the price of oil. Against this backdrop, a projected increase in oil prices is expected to provide some support for aluminium prices both this year and next.

A gradual reduction of excess supply coupled with a moderate increase in oil prices is expected to provide some support for aluminum prices this year. Analysts forecast prices to average USD 1,583 per metric ton in Q4 2016. For 2017, analysts project the average price to increase further to USD 1,681 per metric ton in Q4.

Overall, panelists' views on aluminum prices were little changed compared to April. This month, 18 analysts left their Q4 2016 projections unchanged, while 1 cut the forecast and 2 increased them.

The majority of analysts expect that aluminium prices will register a gradual increase in the next quarters. For Q4 2016, the maximum price forecast is USD 1,750 per metric ton, while the minimum is USD 1,375 per metric ton.

**Aluminium prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 1,673 | 2,175 | 2,401 | 2,021 | 1,846 | 1,867 | 1,664 | 1,543 | 1,626 | 1,695 | 1,695 | 1,794 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 1,769 | 1,594 | 1,495 | 1,513 | 1,532 | 1,556 | 1,583 | 1,605 | 1,636 | 1,660 | 1,681 | 1,616 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 1,531 | 1,540 | 1,547 | 1,556 | 1,564 | 1,577 | 1,583 | 1,588 | 1,598 | 1,605 | 1,612 | 1,627 |
| Futures Prices (13-May) | - | 1,517 | 1,526 | 1,531 | 1,535 | 1,539 | 1,542 | 1,545 | 1,547 | 1,549 | 1,552 | 1,555 |

## Aluminium | Forecasts and futures prices

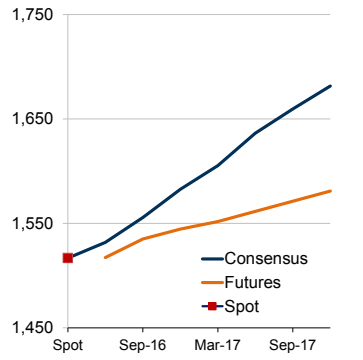
### Aluminium LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 1,550 | 1,565 | 1,590 | 1,630 | 1,650 | 1,675 | 1,650 | - | 1,550 | 1,650 |
| ANZ | 1,525 | 1,563 | 1,600 | 1,600 | 1,650 | 1,700 | 1,850 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 1,600 | 1,625 |
| BMO Capital Markets | 1,543 | 1,543 | 1,543 | 1,543 | 1,543 | 1,543 | 1,543 | 1,543 | 1,538 | 1,543 |
| Capital Economics | 1,555 | 1,625 | 1,675 | 1,715 | 1,740 | 1,765 | 1,790 | - | 1,700 | 1,800 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 1,450 | 1,537 |
| Commerzbank | 1,475 | 1,500 | 1,550 | 1,600 | 1,650 | - | - | - | - | - |
| CPM Group | 1,522 | 1,545 | 1,560 | 1,590 | 1,570 | 1,600 | 1,640 | 1,675 | 1,536 | 1,600 |
| Danske Bank | 1,550 | 1,650 | 1,750 | 1,800 | 1,850 | 1,900 | 1,950 | - | 1,616 | 1,875 |
| Deutsche Bank | 1,560 | 1,530 | 1,520 | 1,550 | 1,580 | 1,620 | 1,630 | - | 1,538 | 1,595 |
| DZ Bank | 1,350 | 1,450 | 1,550 | - | - | - | - | - | 1,466 | - |
| E2 Economia | 1,583 | 1,623 | 1,655 | 1,671 | 1,687 | 1,706 | 1,722 | 1,735 | 1,594 | 1,697 |
| EIU | 1,560 | 1,600 | 1,650 | 1,600 | 1,650 | 1,700 | 1,700 | - | 1,581 | 1,663 |
| Emirates NBD | 1,550 | 1,600 | 1,650 | 1,685 | 1,700 | 1,725 | 1,750 | - | 1,575 | 1,715 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 1,500 | - |
| Investec | - | - | - | - | - | - | - | - | 1,528 | 1,576 |
| Itaú BBA | 1,617 | 1,620 | 1,599 | 1,595 | 1,600 | 1,605 | 1,610 | 1,614 | 1,586 | 1,602 |
| JPMorgan | 1,420 | 1,440 | 1,465 | - | - | - | - | - | 1,431 | 1,510 |
| Macquarie Research | 1,475 | 1,375 | 1,375 | 1,350 | 1,400 | 1,350 | 1,350 | 1,350 | 1,435 | 1,363 |
| OCBC | 1,548 | 1,581 | 1,613 | - | - | - | - | - | - | - |
| Oxford Economics | 1,569 | 1,576 | 1,591 | 1,614 | 1,629 | 1,655 | 1,690 | - | 1,566 | 1,647 |
| Pezco | 1,583 | 1,630 | 1,669 | 1,667 | 1,662 | 1,657 | 1,653 | 1,648 | 1,600 | 1,660 |
| Société Générale | 1,575 | 1,550 | 1,525 | 1,500 | - | - | - | - | 1,475 | 1,550 |
| Standard Chartered | 1,530 | 1,550 | 1,600 | 1,600 | 1,625 | 1,675 | 1,700 | 1,750 | 1,550 | 1,650 |
| Toronto-Dominion | 1,521 | 1,587 | 1,587 | 1,631 | 1,631 | 1,676 | 1,676 | - | 1,551 | 1,653 |
| Unicredit | 1,540 | 1,520 | 1,500 | 1,560 | - | - | - | - | 1,520 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 1,350 | 1,375 | 1,375 | 1,350 | 1,400 | 1,350 | 1,350 | 1,350 | 1,431 | 1,363 |
| Maximum | 1,617 | 1,650 | 1,750 | 1,800 | 1,850 | 1,900 | 1,950 | 1,750 | 1,700 | 1,875 |
| Median | 1,549 | 1,564 | 1,591 | 1,600 | 1,650 | 1,675 | 1,683 | 1,648 | 1,550 | 1,636 |
| **Consensus** | **1,532** | **1,556** | **1,583** | **1,605** | **1,636** | **1,660** | **1,681** | **1,616** | **1,543** | **1,626** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 1,563 | 1,569 | 1,576 | 1,584 | 1,595 | 1,605 | 1,615 | - | 1,558 | 1,599 |

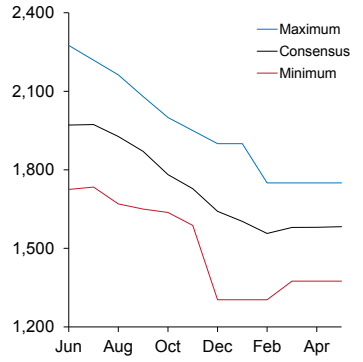
### 1 | Aluminium | LME



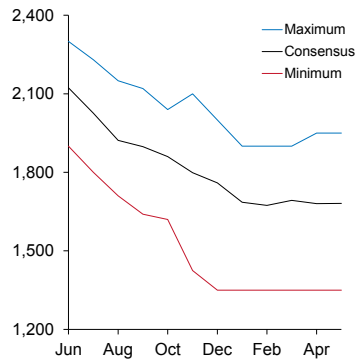

### 2 | Futures and Consensus Forecast




### 3 | Aluminium Q4 2016 | evol. of fcst.




### 4 | Aluminium Q4 2017 | evol. of fcst.



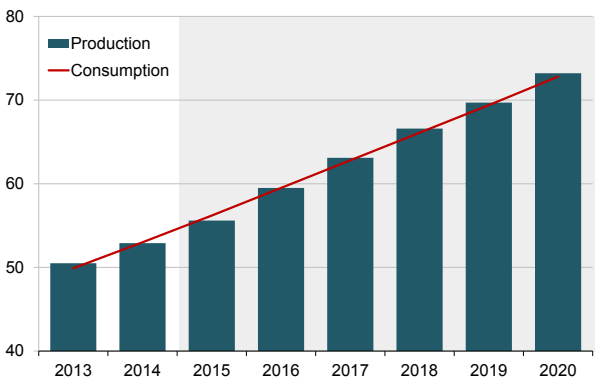

### Notes and sources

General:
London Metal Exchange (LME) Aluminium spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of LME Aluminium in USD/mt (aop).
**2** Consensus Forecast of quarterly LME Aluminium average prices and futures prices traded on the London Metal Exchange (LME) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of LME Aluminium, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of LME Aluminium, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Million metric tons

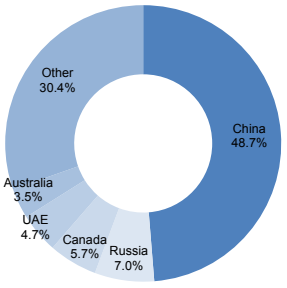



### Global production and consumption outlook

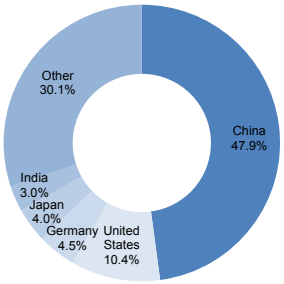
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million metric tons of primary aluminium** | | | | | | | | |
| **Global** | **50.5** | **52.9** | **55.6** | **59.5** | **63.1** | **66.6** | **69.7** | **73.2** |
| EU & N.America | 8.5 | 8.1 | 8.3 | 8.8 | 9.3 | 9.4 | 9.4 | 9.4 |
| Middle East | 4.3 | 5.2 | 5.5 | 5.6 | 5.6 | 5.7 | 5.7 | 5.7 |
| Russia | 3.7 | 3.5 | 3.6 | 3.8 | 3.9 | 4.3 | 4.7 | 4.9 |
| China | 24.8 | 27.1 | 28.8 | 31.0 | 33.6 | 35.7 | 38.1 | 40.4 |
| Other | 9.2 | 9.0 | 9.4 | 10.3 | 10.7 | 11.5 | 11.8 | 12.8 |
| **Consumption \| Million metric tons of primary aluminium** | | | | | | | | |
| **Global** | **49.9** | **53.0** | **56.2** | **59.5** | **62.8** | **66.1** | **69.4** | **72.8** |
| EU15 | 8.4 | 8.6 | 8.8 | 9.0 | 9.2 | 9.4 | 9.6 | 9.8 |
| North America | 5.9 | 6.1 | 6.4 | 6.8 | 7.0 | 7.3 | 7.5 | 7.6 |
| China | 23.9 | 26.2 | 28.5 | 30.7 | 33.0 | 35.3 | 37.6 | 40.1 |
| Oth. Developing | 11.6 | 12.0 | 12.5 | 13.1 | 13.8 | 14.4 | 15.1 | 15.9 |

### Major producers and consumers in 2014

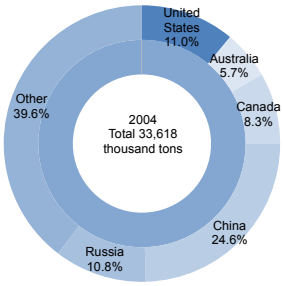
Production | %-share in World

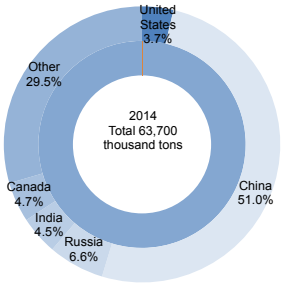



Consumption | %-share in World




### Distribution of smelting capacity in 2004 and 2014



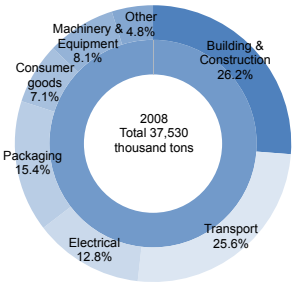

### Aluminium futures at a glance

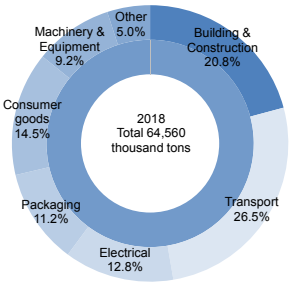
| | |
|---|---|
| Contract: | LME Aluminium Futures |
| Ticker: | AH |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 5 metric tons |
| Shanghai Futures Exchange (SHFE) | 5 metric tons |
| Multicommodity Exchange India (MCX) | 5,000 kilograms |

### Share of aluminium usage by industry in 2008 and 2018




### Aluminium facts

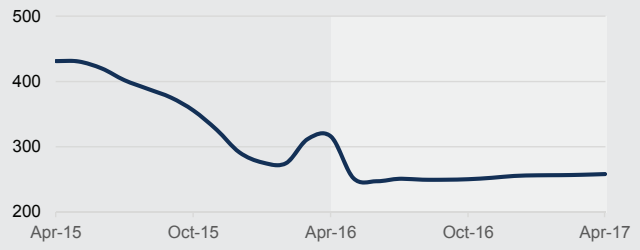
- It is the most extensively-used non-ferrous metal in the world and its future is the most liquid contract traded on the LME.
- Smelting companies wage on futures to offset the risk from increasing energy costs and its effect on aluminium prices.
- LME is prone to fluctuations in inventory cancelations and premiums due to change in regulation of load-in, load-out rules.

### Factors influencing prices

- Bauxite imports
- Smelting capacity
- Regional deficits on production
- Supply growth from China, producer of half the world's production
- Warehousing rules on the LME
- Recycled aluminium as a cheap substitute to primary aluminium
- Energy costs (mainly coal and hydroelectric) related to the extraction of primary aluminium
- Currency developments

# Alumina

**Australian Alumina** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 315 | 316 | 286 | 431 |
| 13-May-16 | -0.3% | +10.3% | -26.9% |

Australian Alumina FOB prices inched down as increasing volatility in international aluminium markets halted the upward momentum observed in Q1. Alumina traded at USD 315 per metric ton on 13 May. The price was down 0.3% from the same day in April and was 10.3% higher on a year-to-date basis. It was down 26.9% from the same day last year.

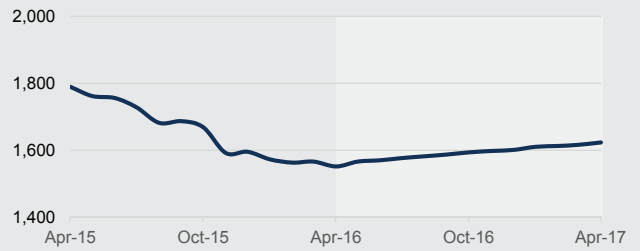
Following months of price hikes driven by a drawdown in supply, increasing average inventories and excess capacity prompted by refinery restarts and output ramp ups are set to push the price of alumina downward. Analysts project prices to average USD 253 per metric ton in Q4 2016 and USD 266 per metric ton in Q4 2017.

**Alumina prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 342 | 426 | 471 | 429 | 427 | 425 | 394 | 255 | 266 | 283 | 308 | 334 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 427 | 389 | 324 | 288 | 252 | 250 | 253 | 257 | 259 | 263 | 266 | 260 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 252 | 247 | 251 | 249 | 249 | 250 | 252 | 255 | 256 | 256 | 257 | 258 |

# Aluminium Alloy

**Aluminium Alloy LME** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,544 | 1,550 | 1,599 | 1,715 |
| 13-May-16 | -0.4% | -3.5% | -10.0% |

Aluminium alloy prices were subdued in the first weeks of Q2 as faltering momentum in aluminium markets and a lack of competitiveness in prices for scrap aluminium dragged on market sentiment. Aluminium alloy traded at USD 1,544 per metric ton on 13 May. The price was down 0.4% from the same day in April and was 3.5% lower on a year-to-date basis. The price was down 10.0% from the same day last year.

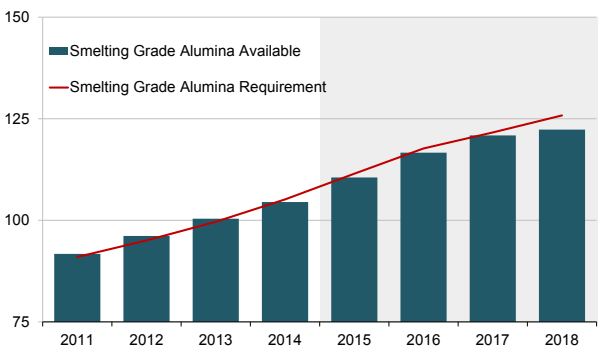
The downstream market is set to face headwinds due to increasing overcapacity in the primary aluminium market. Analysts project the price to regain lost ground in 2016 and average USD 1,598 per metric ton in Q4. Panelists expect the price to increase further in 2017 and average USD 1,661 per metric ton in Q4.

**Aluminium Alloy prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 1,470 | 2,090 | 2,269 | 1,936 | 1,798 | 1,950 | 1,721 | 1,578 | 1,637 | 1,765 | 1,847 | 1,930 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 1,769 | 1,700 | 1,619 | 1,567 | 1,567 | 1,582 | 1,598 | 1,613 | 1,629 | 1,645 | 1,661 | 1,677 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 1,566 | 1,570 | 1,577 | 1,582 | 1,587 | 1,594 | 1,598 | 1,601 | 1,610 | 1,613 | 1,616 | 1,623 |
| Futures Prices (13-May) | - | 1,544 | 1,551 | 1,561 | 1,566 | 1,571 | 1,576 | 1,581 | 1,586 | 1,590 | 1,593 | 1,597 |

## Fact Sheet

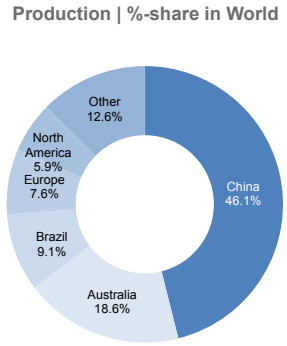
### SGA Alumina Available and Required | Million metric tons



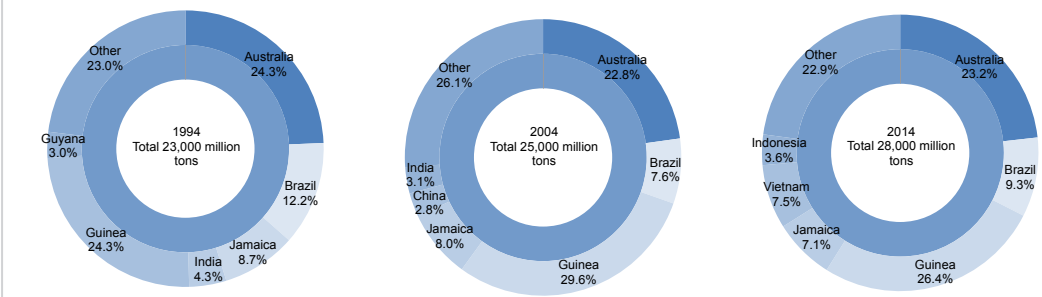

### Global production and requirement outlook

| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|---|
| **Production \| Million metric tons of alumina** | | | | | | | | |
| **Global** | **98.2** | **102.6** | **107.3** | **111.5** | **117.8** | **124.1** | **128.6** | **130.3** |
| China | 39.2 | 43.0 | 47.2 | 51.4 | 56.0 | 61.0 | 62.6 | 60.3 |
| Australia | 19.6 | 21.6 | 21.8 | 20.8 | 20.7 | 21.1 | 21.3 | 21.4 |
| Brazil | 10.3 | 10.4 | 9.9 | 10.2 | 10.3 | 10.5 | 10.7 | 10.8 |
| Europe | 8.7 | 8.3 | 8.5 | 8.5 | 8.6 | 9.0 | 9.0 | 9.1 |
| North America | 5.7 | 6.1 | 6.8 | 6.6 | 6.7 | 7.0 | 7.0 | 7.1 |
| India | 3.9 | 3.8 | 3.7 | 4.9 | 6.0 | 6.7 | 7.0 | 7.5 |
| **Capacity Util. (%)** | **83.4** | **81.6** | **82.0** | **80.5** | **83.0** | **84.9** | **85.9** | **84.7** |
| **SGA Alumina \| Million metric tons of smelting grade alumina** | | | | | | | | |
| SGA Available | 91.7 | 96.2 | 100.4 | 104.5 | 110.5 | 116.6 | 120.9 | 122.3 |
| SGA Requirement | 91.0 | 95.0 | 99.6 | 105.1 | 111.5 | 117.7 | 121.6 | 125.8 |

### Major alumina producers in 2014




### Distribution of bauxite reserves in 1994, 2004 and 2014




### Aluminium Alloy futures at a glance

| | |
|---|---|
| Contract: | LME Aluminium Alloy Futures |
| Ticker: | AA |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Alumina futures at a glance

Alumina, despite its importance as the primary component for the production of aluminium, lacks a global market of futures and its price is instead measured as Chinese imports of Australian aluminium oxide in USD.

### Aluminium Alloy facts

- The LME contract for aluminium alloy makes reference to grades used in the production of automotive engine parts.
- The main components of LME's underlying metal—A380.1 or 226—are aluminium, copper, silicon, magnesium and zinc.
- The production of secondary aluminium alloy continues to increase as new techniques allow for more efficient recycling.

### Alumina facts

- Alumina price is generally linked to the LME primary aluminium price and normally measured as price FOB.
- Alumina is a crucial input on aluminium production; it takes two metric tons of the former to produce a metric ton of the latter.
- Aluminium oxide is mainly extracted from bauxite ore with a ratio of 2-3 metric ton of bauxite ore per metric ton of alumina.

### Factors influencing Aluminium Alloy prices

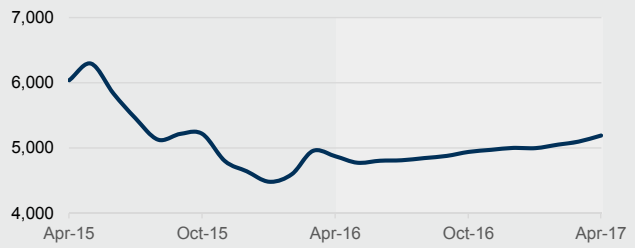
- Bauxite imports and prices
- Transportation costs
- Geopolitical pressures in countries that produce bauxite ore
- Price fluctuations on major components of aluminium alloy
- Economic outlook for aerospace and automotive industries
- Smelting capacity
- Demand as a substitute for copper in the construction of large power transmission lines

### Factors influencing Alumina prices

- Bauxite imports and prices
- Alumina smelting capacity
- Transportation costs
- Geopolitical pressures in countries producing Bauxite ore
- Energy costs related to the electrolysis process to convert
- Barriers to enter into integrated bauxite/alumina projects
- Lower demand for primary aluminium as recycled aluminium is used as a substitute
- Scarcity of economical bauxite

# Copper

## Copper LME (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 4,636 | 4,849 | 4,706 | 6,410 |
| 13-May-16 | -4.4% | -1.5% | -27.7% |

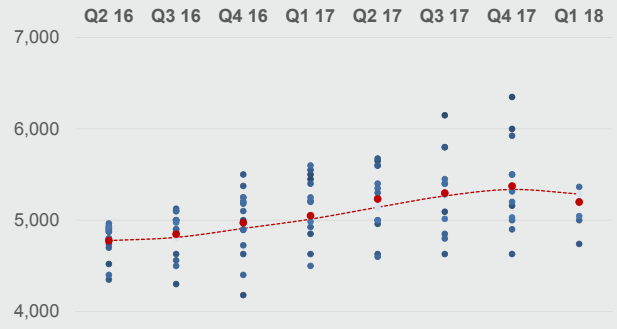
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 4,776 +3.0% | |
| Q4 16 | 4,972 +7.2% | |
| Q4 17 | 5,373 +15.9% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 6 | ↑ | 5 | ↑ | 2 |
| = | 14 | = | 15 | = | 10 |
| ↓ | 2 | ↓ | 2 | ↓ | 2 |

## Panelist Spread




Copper prices paused their prolonged downward trend in February and March and were somewhat volatile before continuing to drop in May. On 13 May, the spot price was USD 4,636 per metric ton, which was 4.4% lower than on the same day in April, and was down 1.5% on a year-to-date basis. The price was 27.7% lower than on the same day in 2015.

Ample supply has dragged on prices in recent years. China is the world's top consumer of copper, thus prices are highly dependent on Chinese demand. Copper hit a multi-year high in 2010, but followed a steady downward trend thereafter on the back of slowing Chinese demand. The fact that prices did not continue to rise in April and May, following February's and March's temporary increase, reflects that the underlying dynamics of oversupply and subdued demand remain in place. Against this backdrop, the price rise in the last two months of Q1, which came partly on the back of production cutbacks, rising imports from China and expectations for a further pickup in Chinese demand, was rather short-lived.

Copper prices are forecast to increase only slightly this year. For next year, analysts project a moderate price rise due to decreasing oversupply as mines are gradually downsizing operations. Analysts forecast that prices will average USD 4,972 per metric ton in Q4 2016. They expect prices to increase next year and average USD 5,373 per metric ton in Q4.

The overall Consensus Forecast for copper prices is little changed from last month: 15 analysts surveyed by FocusEconomics left their projections unchanged, while 5 analyst revised their forecasts up and 2 revised them down.

On balance, analysts project that copper prices will rise gradually in the next quarters. Their opinions on how prices will develop, however, are divergent. For Q4 2016, the maximum price forecast is USD 6,000 per metric ton, while the minimum is USD 4,180 per metric ton.

**Copper prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 5,179 | 7,556 | 8,820 | 7,954 | 7,330 | 6,863 | 5,509 | 4,842 | 5,141 | 5,380 | 5,666 | 5,952 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 6,051 | 5,272 | 4,884 | 4,688 | 4,776 | 4,846 | 4,972 | 5,049 | 5,232 | 5,297 | 5,373 | 5,198 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 4,775 | 4,805 | 4,812 | 4,846 | 4,879 | 4,940 | 4,972 | 5,002 | 4,998 | 5,052 | 5,098 | 5,191 |
| Futures Prices (13-May) | - | 4,637 | 4,633 | 4,629 | 4,627 | 4,625 | 4,624 | 4,623 | 4,622 | 4,622 | 4,621 | 4,621 |

## Copper | Forecasts and futures prices

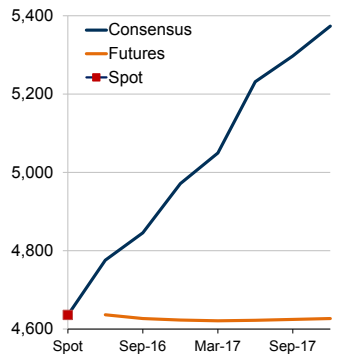
### Copper LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 4,875 | 5,100 | 5,250 | 5,450 | 5,650 | 6,150 | 6,350 | - | 5,050 | 6,050 |
| ANZ | 4,800 | 4,850 | 5,000 | 5,500 | 5,600 | 5,800 | 6,000 | - | - | - |
| Barclays Capital | 4,520 | 4,300 | 4,180 | - | - | - | - | - | 4,417 | - |
| BBVA | 4,916 | 4,872 | 4,894 | 4,850 | 4,960 | 5,093 | 5,159 | 5,203 | 4,850 | 5,027 |
| BMI Research | - | - | - | - | - | - | - | - | 4,900 | 5,000 |
| BMO Capital Markets | 4,740 | 4,630 | 4,630 | 4,630 | 4,630 | 4,630 | 4,630 | 4,740 | 4,668 | 4,630 |
| BofA Merrill Lynch | 4,350 | 5,000 | 5,500 | - | - | - | - | - | - | - |
| Capital Economics | 4,940 | 5,125 | 5,375 | 5,550 | 5,675 | 5,800 | 5,925 | - | 5,500 | 6,000 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 5,000 | 5,300 |
| Commerzbank | 4,700 | 4,900 | 5,200 | 5,400 | 5,600 | - | - | - | - | - |
| CPM Group | 4,774 | 4,560 | 4,725 | 4,925 | 5,000 | 4,850 | 4,900 | 5,000 | 4,682 | 4,919 |
| Danske Bank | 4,900 | 5,000 | 5,100 | 5,200 | 5,300 | 5,400 | 5,500 | - | 4,917 | 5,350 |
| Deutsche Bank | 4,900 | 4,500 | 4,400 | 4,500 | 4,600 | 4,800 | 5,000 | - | 4,619 | 4,725 |
| DZ Bank | 4,400 | 4,900 | 4,900 | - | - | - | - | - | 4,719 | - |
| E2 Economia | 4,964 | 5,099 | 5,180 | 5,213 | 5,245 | 5,283 | 5,315 | 5,364 | 4,978 | 5,264 |
| EIU | 4,800 | 5,000 | 5,200 | 5,600 | 5,400 | 5,400 | 5,200 | - | 4,918 | 5,400 |
| Emirates NBD | 4,875 | 5,000 | 5,250 | 5,250 | 5,350 | 5,450 | 5,500 | - | 4,934 | 5,388 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 5,000 | - |
| Investec | - | - | - | - | - | - | - | - | 4,861 | 5,456 |
| Itaú BBA | 4,927 | 4,975 | 4,975 | 4,985 | 5,000 | 5,015 | 5,030 | 5,045 | 4,880 | 5,007 |
| JPMorgan | 4,600 | 4,300 | 4,500 | 4,300 | - | - | - | - | 4,425 | 4,300 |
| Macquarie Research | 5,000 | 5,100 | 5,200 | 5,100 | 5,400 | 5,300 | 5,250 | 5,000 | 4,993 | 5,263 |
| Novobanco | 4,760 | 4,685 | 4,680 | 4,680 | - | - | - | - | 4,701 | 4,720 |
| OCBC | 4,676 | 4,838 | 5,000 | - | - | - | - | - | - | - |
| Oxford Economics | 4,799 | 4,740 | 4,750 | 4,829 | 4,860 | 4,945 | 5,074 | - | 4,740 | 4,927 |
| Pezco | 4,589 | 4,582 | 4,645 | 4,802 | 4,836 | 4,869 | 4,902 | 4,936 | 4,622 | 4,852 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 4,806 | 4,960 |
| Société Générale | 4,600 | 4,500 | 4,350 | 4,200 | - | - | - | - | 4,400 | 4,500 |
| Standard Chartered | 5,000 | 5,500 | 6,000 | 5,800 | 6,000 | 6,200 | 6,500 | 6,300 | 5,300 | 6,125 |
| Toronto-Dominion | 4,875 | 4,935 | 4,975 | 5,025 | 5,065 | 5,071 | 5,115 | - | 4,873 | 5,069 |
| Unicredit | 4,890 | 5,000 | 5,400 | 5,300 | - | - | - | - | 4,993 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 4,350 | 4,300 | 4,180 | 4,200 | 4,600 | 4,630 | 4,630 | 4,740 | 4,400 | 4,300 |
| Maximum | 5,000 | 5,500 | 6,000 | 5,800 | 6,000 | 6,200 | 6,500 | 6,300 | 5,500 | 6,125 |
| Median | 4,800 | 4,900 | 4,988 | 5,063 | 5,273 | 5,283 | 5,200 | 5,022 | 4,873 | 5,027 |
| **Consensus** | **4,776** | **4,846** | **4,972** | **5,049** | **5,232** | **5,297** | **5,373** | **5,198** | **4,842** | **5,141** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 4,709 | 4,702 | 4,697 | 4,694 | 4,693 | 4,693 | 4,693 | - | 4,677 | 4,693 |

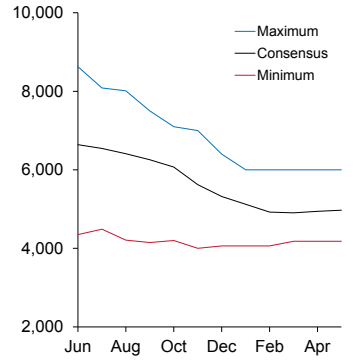
1 | Copper | LME



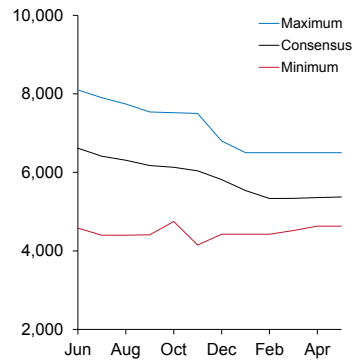

2 | Futures and Consensus Forecast




3 | Copper Q4 2016 | evol. of fcst.




4 | Copper Q4 2017 | evol. of fcst.



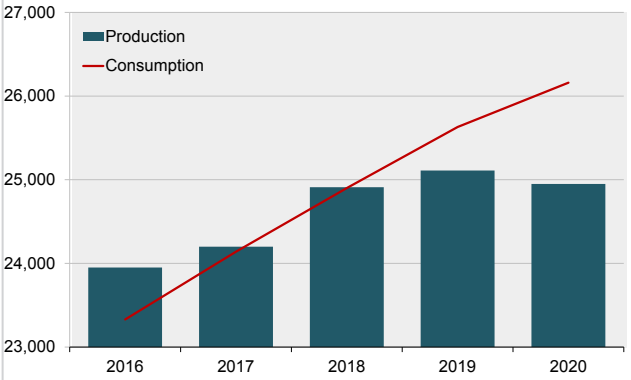

### Notes and sources

General:
London Metal Exchange (LME) Copper spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of LME Copper in USD/mt (aop).
**2** Consensus Forecast of quarterly LME Copper average prices and futures prices traded on the London Metal Exchange (LME) at the end of each quarter. Future prices are as of spot date.
**3** Quarterly price of LME Copper, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of LME Copper, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Thousand metric tons

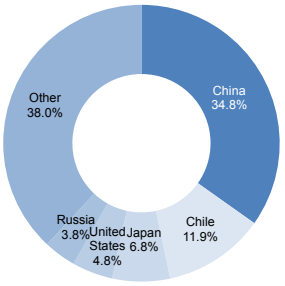



### Global production and consumption outlook

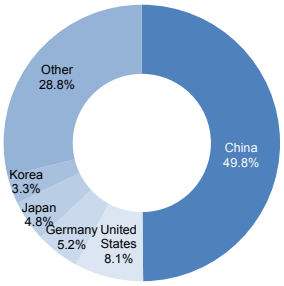
| | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|
| **Mine Production \| Thousand metric metric tons of non-refined copper** | | | | | |
| **Global** | **20,800** | **20,890** | **21,370** | **21,540** | **21,290** |
| Chile production | 5,910 | 5,940 | 6,100 | 6,070 | 6,000 |
| **Copper Production \| Thousand metric metric tons of refined copper** | | | | | |
| **Global** | **23,950** | **24,200** | **24,910** | **25,110** | **24,950** |
| Smelting capacity | 22,510 | 22,160 | 22,310 | 22,310 | 22,300 |
| Anode production | 19,240 | 19,320 | 19,940 | 20,440 | 20,560 |
| **Consumption \| Thousand metric metric tons of refined copper** | | | | | |
| **Global** | **23,330** | **24,140** | **24,900** | **25,630** | **26,160** |
| China | 10,880 | 11,410 | 11,970 | 12,500 | 12,820 |
| Western Europe | 2,980 | 2,990 | 2,980 | 2,960 | 2,950 |
| United States | 2,470 | 2,520 | 2,210 | 2,510 | 2,500 |
| BRI countries | 1,640 | 1,710 | 1,780 | 1,850 | 1,930 |
| Other | 5,360 | 5,510 | 5,960 | 5,810 | 5,960 |

### Major producers and consumers in 2014

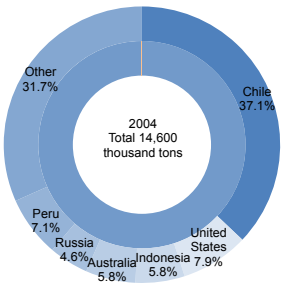
Production | %-share in World

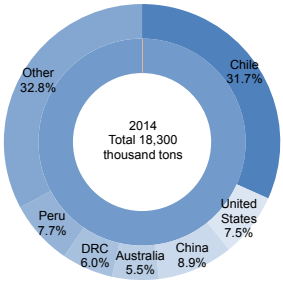



Consumption | %-share in World




### Distribution of mining production in 2004 and 2014



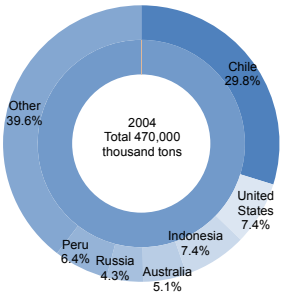

### Copper futures at a glance

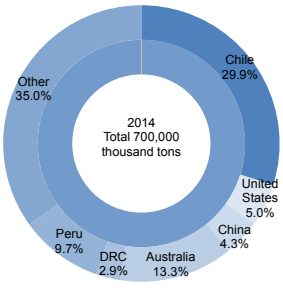
| | |
|---|---|
| Contract: | LME Copper Futures |
| Ticker: | CA |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 25 metric tons |
| New York Mercantile Exchange (COMEX) | 25,000 pounds |
| Shanghai Futures Exchange (SHFE) | 5 metric tons |

### Distribution of proven reserves in 2004 and 2014




### Copper facts

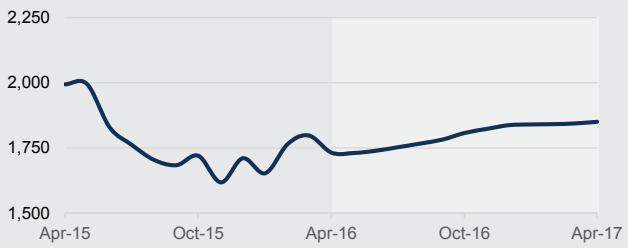
- Copper remains the least-preferred long position among base metals due to the well-supplied market, oil prices and risks to China's economic outlook.
- Copper exchange stocks follow cyclical changes that mostly affect SHFE due to the existence of stockpiling during winter.
- About one third of copper's mining output is concentrated in Latin America, making supply prone to local political turmoil.

### Factors influencing prices

- Supply of mined copper
- Transportation costs
- Productive capacity of mines
- Impact of strength of U.S. dollar on costs denominated in local currency
- Emerging markets demand
- Substitution effect given that other base metals have similar uses
- Stock build-up by the Chinese State Reserves Bureau (SRB)
- Disruption factors in producing countries

# Lead

## Lead LME (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,708 | 1,749 | 1,797 | 2,006 |
| 13-May-16 | -2.3% | -5.0% | -14.8% |

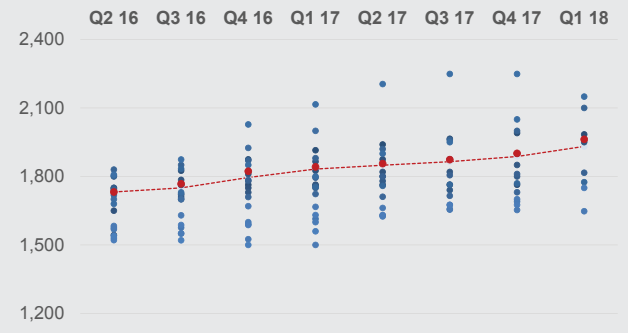
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1,732 +1.4% | |
| Q4 16 | 1,823 +6.7% | |
| Q4 17 | 1,901 +11.3% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 2 | ↑ | 1 | ↑ | 2 |
| = | 9 | = | 10 | = | 7 |
| ↓ | 1 | ↓ | 1 | ↓ | 1 |

## Panelist Spread




Lead prices have dropped after experiencing some volatility this year. On 13 May, the spot price closed the day at USD 1,708 per metric ton, which was down 2.3% from the same day in April. The price was 5.0% lower on a year-to-date basis, while it was down 14.8% from the same day last year.

Prices declined as demand from battery makers in the spot market dropped because the winter season came to an end. Demand for lead generally increases during the winter months as battery use and failure are more common in cold weather. Lower spot demand for lead helped lead futures trade lower. Disappointing economic data from China and the United States have exerted downward pressure on lead prices. Furthermore, higher prices for zinc in recent weeks have driven traders to favor zinc over lead.

A strong U.S. dollar and a drop in seasonal demand from China and the United States will weigh on prices in the short-term, while prices should gradually climb as oversupply fades from the market. FocusEconomics panelists see prices averaging USD 1,823 per metric ton in Q4 2016 and expect an average price of USD 1,901 per metric ton in Q4 2017.

Prices are expected to remain stable in the coming quarters and a recovery is foreseen in 2017, owing to mine closures and output cuts. This month, 1 projection for Q4 2016 was cut, while 10 analysts left their forecasts unchanged and 1 raised them.

The Consensus view is of a gradual increase in prices in 2016, although some panelists share the opinion that lead prices will remain low. For Q4 2016, panelists' minimum projected price is USD 1,710 per metric ton, while the maximum is USD 2,028 per metric ton.

**Lead prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 1,724 | 2,149 | 2,398 | 2,062 | 2,139 | 2,095 | 1,787 | 1,766 | 1,856 | 1,947 | 2,027 | 2,108 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 1,939 | 1,718 | 1,684 | 1,741 | 1,732 | 1,768 | 1,823 | 1,842 | 1,856 | 1,873 | 1,901 | 1,962 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 1,731 | 1,740 | 1,753 | 1,767 | 1,783 | 1,808 | 1,823 | 1,838 | 1,840 | 1,842 | 1,844 | 1,850 |
| Futures Prices (13-May) | - | 1,706 | 1,706 | 1,709 | 1,711 | 1,712 | 1,714 | 1,715 | 1,716 | 1,716 | 1,716 | 1,717 |

## Lead | Forecasts and futures prices

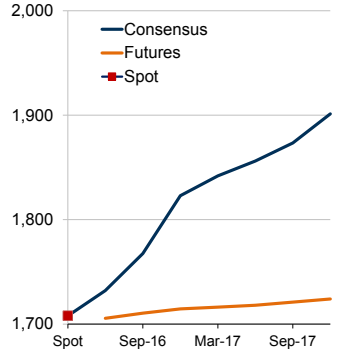
### Lead LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| BMI Research | - | - | - | - | - | - | - | - | 1,800 | 1,850 |
| BMO Capital Markets | 1,543 | 1,764 | 1,764 | 1,764 | 1,764 | 1,764 | 1,764 | 1,984 | 1,703 | 1,764 |
| Capital Economics | 1,750 | 1,825 | 1,875 | 1,915 | 1,940 | 1,965 | 1,990 | - | 1,745 | 1,750 |
| Commerzbank | 1,650 | 1,700 | 1,750 | 1,825 | 1,875 | - | - | - | - | - |
| CPM Group | 1,745 | 1,785 | 1,810 | 1,865 | 1,820 | 1,875 | 1,900 | 1,950 | 1,771 | 1,865 |
| Deutsche Bank | 1,800 | 1,720 | 1,730 | 1,760 | 1,800 | 1,820 | 1,850 | - | 1,750 | 1,808 |
| EIU | 1,750 | 1,710 | 1,780 | 1,750 | 1,780 | 1,740 | 1,800 | - | 1,746 | 1,768 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 1,830 | - |
| Investec | - | - | - | - | - | - | - | - | 1,749 | 1,753 |
| Itaú BBA | 1,740 | 1,763 | 1,784 | 1,795 | 1,800 | 1,805 | 1,811 | 1,816 | 1,754 | 1,803 |
| Macquarie Research | 1,830 | 1,850 | 1,870 | 1,880 | 1,920 | 1,960 | 2,000 | 2,100 | 1,823 | 1,940 |
| Oxford Economics | 1,719 | 1,724 | 1,710 | 1,723 | 1,711 | 1,715 | 1,731 | - | 1,709 | 1,720 |
| Pezco | 1,803 | 1,833 | 1,823 | 1,754 | 1,759 | 1,764 | 1,769 | 1,775 | 1,801 | 1,761 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 1,808 | 1,874 |
| Société Générale | 1,700 | 1,700 | 1,925 | 2,000 | - | - | - | - | 1,650 | 2,050 |
| Standard Chartered | 1,680 | 1,730 | 1,850 | 1,800 | 1,900 | 1,950 | 2,050 | 2,150 | 1,750 | 1,925 |
| Toronto-Dominion | 1,808 | 1,874 | 2,028 | 2,116 | 2,205 | 2,249 | 2,249 | - | 1,865 | 2,205 |
| **Summary** | | | | | | | | | | |
| Minimum | 1,543 | 1,700 | 1,710 | 1,723 | 1,711 | 1,715 | 1,731 | 1,775 | 1,650 | 1,720 |
| Maximum | 1,830 | 1,874 | 2,028 | 2,116 | 2,205 | 2,249 | 2,249 | 2,150 | 1,865 | 2,205 |
| Median | 1,745 | 1,763 | 1,810 | 1,800 | 1,810 | 1,820 | 1,850 | 1,967 | 1,752 | 1,808 |
| **Consensus** | **1,732** | **1,768** | **1,823** | **1,842** | **1,856** | **1,873** | **1,901** | **1,962** | **1,766** | **1,856** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 1,746 | 1,749 | 1,752 | 1,756 | 1,760 | 1,763 | 1,766 | - | 1,742 | 1,761 |

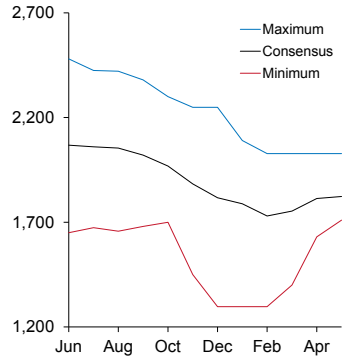
### 1 | Lead | LME



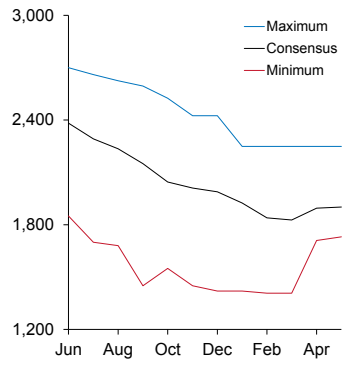

### 2 | Futures and Consensus Forecast




### 3 | Lead Q4 2016 | evol. of fcst.




### 4 | Lead Q4 2017 | evol. of fcst.



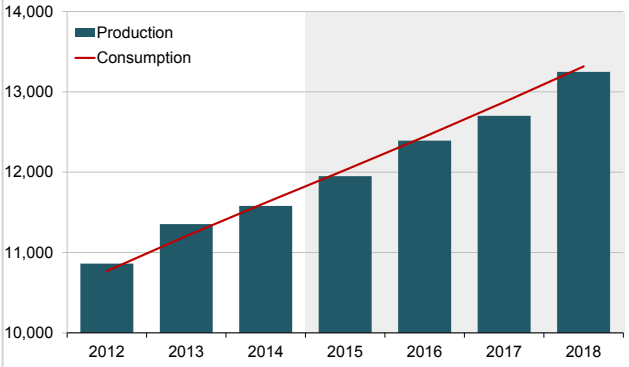

### Notes and sources

General:
London Metal Exchange (LME) Lead spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

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## Fact Sheet

### Global production and consumption | Thousand metric tons

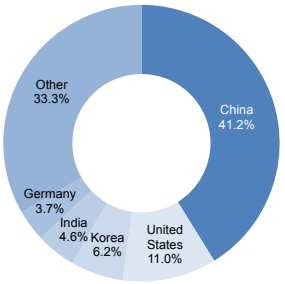



### Global production and consumption outlook

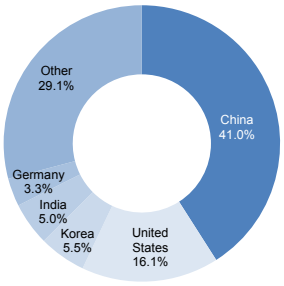
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Mine Production \| Thousand metric tons of non-refined lead** | | | | | | | |
| **Global** | **4,724** | **5,225** | **5,403** | **5,426** | **5,676** | **5,869** | **6,301** |
| China | 2,474 | 2,813 | 2,957 | 2,978 | 3,136 | 3,292 | 3,445 |
| NA (incl. Mexico) | 578 | 564 | 575 | 649 | 668 | 640 | 689 |
| S&C America | 353 | 374 | 384 | 419 | 420 | 428 | 431 |
| Australia | 568 | 655 | 672 | 610 | 687 | 684 | 685 |
| **Lead Production \| Thousand metric tons of refined lead** | | | | | | | |
| **Global** | **10,861** | **11,354** | **11,580** | **11,951** | **12,393** | **12,702** | **13,249** |
| China | 4,681 | 5,103 | 5,288 | 5,941 | 6,267 | 6,392 | 6,392 |
| Primary prod. | 5,730 | 5,885 | 5,876 | 5,905 | 6,083 | 6,265 | 6,453 |
| **Consumption \| Thousand metric tons of refined lead** | | | | | | | |
| **Global** | **10,769** | **11,205** | **11,621** | **12,027** | **12,442** | **12,873** | **13,316** |
| China | 4,755 | 5,070 | 5,299 | 5,511 | 5,759 | 6,018 | 6,289 |

### Major producers and consumers in 2014

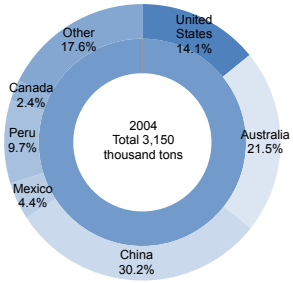
Production | %-share in World

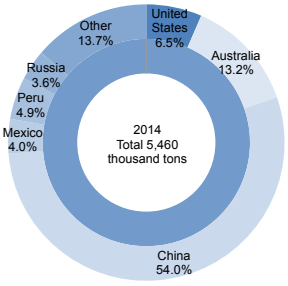



Consumption | %-share in World




### Distribution of mining production in 2004 and 2014



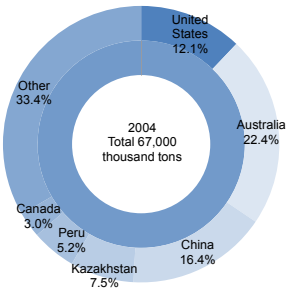

### Lead futures at a glance

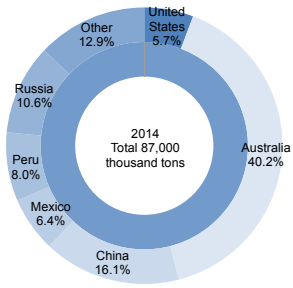
| | |
|---|---|
| Contract: | LME Lead futures |
| Ticker: | PB |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 25 metric tons |
| Shanghai Futures Exchange (SHFE) | 25 metric tons |
| Multicommodity Exchange India (MCX) | 5,000 kilograms |

### Distribution of proven reserves in 2004 and 2014




### Lead facts

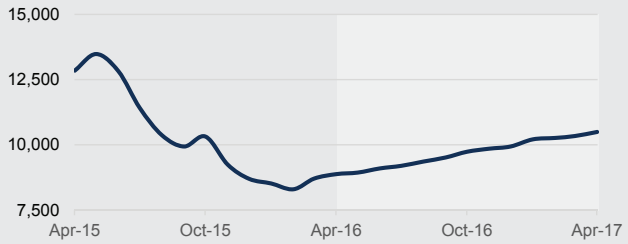
- Lead is the fourth most used metal worldwide with the largest applications in batteries and communications.
- It can be recycled indefinitely without losing its properties; recycled lead accounts for more than 60% of total production.
- Lead is increasingly being used in radiation shields for X-ray equipment and nuclear reactors due to its absorption capacity.

### Factors influencing prices

- Global economic growth
- Strength of the U.S. dollar
- Emerging markets demand
- Environmental and profitability issues on lead mine supplies
- Market supply expectations based on existing stocks
- Supply of secondary lead due to its high recycling rate
- Demand on lead-consuming sectors, mainly cars & e-bikes
- Substitution effect as lead acid batteries are gradually supplanted by lithium ion

# Nickel

**Nickel LME (prices in USD/mt, aop)**




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 8,599 | 8,953 | 8,780 | 14,014 |
| 13-May-16 | -4.0% | -2.1% | -38.6% |

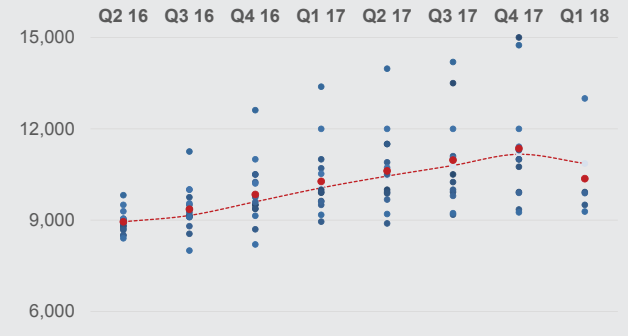
**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 8,944 +4.0% | |
| Q4 16 | 9,843 +14.5% | |
| Q4 17 | 11,353 +32.0% | |

**Forecast Revisions (by number of panelists)**

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 4 | ↑ | 3 | ↑ | 2 |
| = | 12 | = | 16 | = | 9 |
| ↓ | 4 | ↓ | 1 | ↓ | 2 |

**Panelist Spread**




Nickel prices remained stable at lows of between USD 8,500 and 9,500 per metric ton in the last weeks. After hitting rock-bottom at below USD 8,000 in February, nickel prices rebounded and have seen only minor swings since. On 13 May, nickel traded at USD 8,599 per metric ton, which was 4.0% lower than on the same day in April and was down 2.1% on a year-to-date basis. Moreover, the price of nickel was 38.6% lower than on the same day last year.

Slowing economic growth in China was mainly responsible for sending the nickel price down last year. Less demand for the base metal caused a supply surplus and stock piles around the globe are growing. The drop in prices is now forcing mines to operate in loss-making territory. As a consequence, the default rate in the mining sector increased in the first quarter of the year. More structural adjustments are likely before nickel prices regain ground.

Against this backdrop, prices are expected to rise timidly this year. Our panelists see prices averaging USD 9,843 per metric ton in Q4 2016. Analysts see prices continuing to rise gradually through 2017 and expect them to average USD 11,353 per metric ton in Q4 2017.

The analysts we surveyed for this month's FocusEconomics Consensus Forcast remain cautious. For Q4 2016, 16 analysts left their price projections unaltered, while 1 made a cut to his forecast and only 3 upgraded their forecasts.

While most of the panelists see prices increasing in the coming quarters, opinions remain varied. For Q4 2016, the maximum price forecast is USD 12,614 per metric ton, while the minimum price is USD 8,185 per metric ton.

**Nickel prices and futures prices**

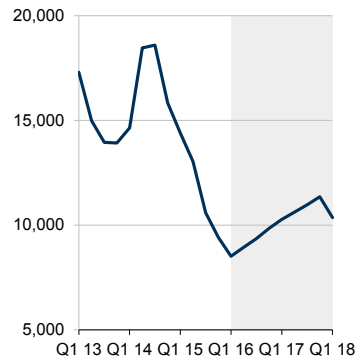
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 14,699 | 21,852 | 22,874 | 17,522 | 15,023 | 16,898 | 11,835 | 9,176 | 10,391 | 11,616 | 13,000 | 14,384 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 13,043 | 10,589 | 9,412 | 8,515 | 8,944 | 9,358 | 9,843 | 10,272 | 10,617 | 10,969 | 11,353 | 10,363 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 8,938 | 9,098 | 9,197 | 9,361 | 9,516 | 9,737 | 9,854 | 9,938 | 10,211 | 10,265 | 10,339 | 10,495 |
| Futures Prices (13-May) | - | 8,600 | 8,613 | 8,628 | 8,642 | 8,656 | 8,668 | 8,679 | 8,694 | 8,706 | 8,718 | 8,728 |

## Nickel | Forecasts and futures prices

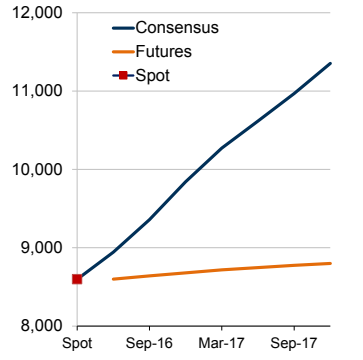
### Nickel LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 8,900 | 9,150 | 9,500 | 9,900 | 10,000 | 10,500 | 11,000 | - | 9,050 | 11,100 |
| ANZ | 8,800 | 9,100 | 9,500 | 10,000 | 11,500 | 13,500 | 15,000 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 9,000 | 10,500 |
| BMO Capital Markets | 8,818 | 9,370 | 9,370 | 9,921 | 9,921 | 9,921 | 9,921 | 9,921 | 9,017 | 9,921 |
| Capital Economics | 8,724 | 9,125 | 9,375 | 9,625 | 9,875 | 10,250 | 10,750 | - | 8,614 | 8,724 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 9,250 | 10,865 |
| Commerzbank | 9,000 | 9,750 | 10,500 | 11,000 | 11,500 | - | - | - | - | - |
| CPM Group | 8,674 | 8,550 | 8,700 | 8,950 | 8,890 | 9,180 | 9,350 | 9,500 | 8,606 | 9,093 |
| Danske Bank | 8,500 | 9,500 | 10,500 | 10,700 | 10,900 | 11,100 | 11,300 | - | 9,261 | 11,000 |
| Deutsche Bank | 8,500 | 8,800 | 10,250 | 9,500 | 10,500 | 10,000 | 11,000 | - | 9,063 | 10,250 |
| DZ Bank | 9,000 | 9,250 | 9,750 | - | - | - | - | - | 9,128 | - |
| E2 Economia | 9,041 | 9,347 | 9,589 | 9,610 | 9,675 | 9,795 | 9,897 | 9,885 | 9,118 | 9,744 |
| EIU | 9,821 | 11,254 | 12,614 | 13,385 | 13,973 | 14,193 | 14,745 | - | 10,546 | 14,074 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 10,500 | - |
| Investec | - | - | - | - | - | - | - | - | 8,580 | 9,590 |
| Itaú BBA | 8,997 | 9,097 | 9,140 | 9,172 | 9,200 | 9,227 | 9,255 | 9,282 | 8,933 | 9,213 |
| JPMorgan | 8,400 | 8,000 | 8,200 | - | - | - | - | - | 8,150 | 7,000 |
| Macquarie Research | 9,500 | 10,000 | 11,000 | 12,000 | 12,000 | 12,000 | 12,000 | 13,000 | 9,750 | 12,000 |
| OCBC | 9,290 | 9,549 | 9,804 | - | - | - | - | - | - | - |
| Oxford Economics | 9,050 | 10,006 | 10,203 | 10,521 | 10,724 | 11,029 | 11,409 | - | 9,619 | 10,920 |
| Pezco | 8,180 | 8,050 | 8,185 | 8,782 | 8,950 | 9,118 | 9,286 | 9,454 | 8,228 | 9,034 |
| Société Générale | 9,000 | 9,000 | 9,500 | 9,500 | - | - | - | - | 9,000 | 11,000 |
| Standard Chartered | 9,500 | 10,500 | 11,000 | 10,750 | 11,250 | 11,500 | 11,600 | 11,500 | 9,875 | 11,275 |
| Toronto-Dominion | 8,825 | 9,225 | 9,820 | 10,472 | 11,023 | 13,228 | 13,779 | - | 9,101 | 12,125 |
| Unicredit | 9,300 | 9,900 | 10,200 | 11,100 | - | - | - | - | 9,476 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 8,180 | 8,000 | 8,185 | 8,782 | 8,890 | 9,118 | 9,255 | 9,282 | 8,150 | 7,000 |
| Maximum | 9,821 | 11,254 | 12,614 | 13,385 | 13,973 | 14,193 | 15,000 | 13,000 | 10,546 | 14,074 |
| Median | 8,997 | 9,250 | 9,750 | 9,960 | 10,612 | 10,500 | 11,000 | 9,885 | 9,082 | 10,500 |
| **Consensus** | **8,944** | **9,358** | **9,843** | **10,272** | **10,617** | **10,969** | **11,353** | **10,363** | **9,176** | **10,391** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 8,488 | 8,517 | 8,547 | 8,573 | 8,598 | 8,625 | 8,652 | - | 8,495 | 8,612 |

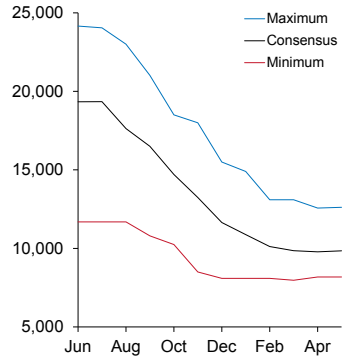
1 | Nickel | LME



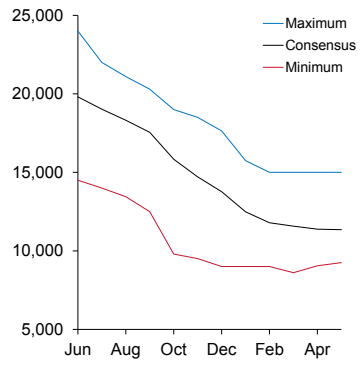

2 | Futures and Consensus Forecast




3 | Nickel Q4 2016 | evol. of fcst.




4 | Nickel Q4 2017 | evol. of fcst.



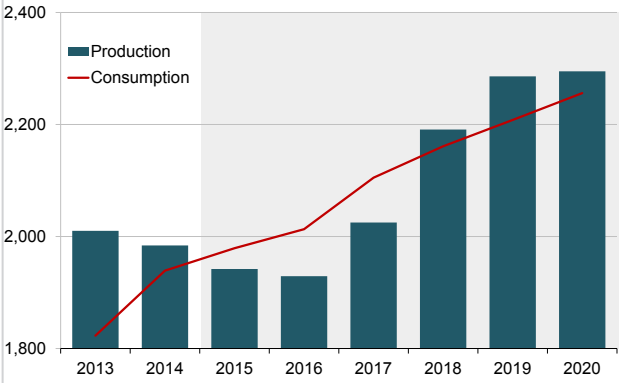

### Notes and sources

General:
London Metal Exchange (LME) Nickel spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of LME Nickel in USD/mt (aop).
**2** Consensus Forecast of quarterly LME Nickel average prices and futures prices traded on the London Metal Exchange (LME) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of LME Nickel, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of LME Nickel, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Thousand metric tons

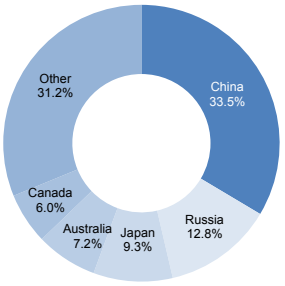



### Global production and consumption outlook

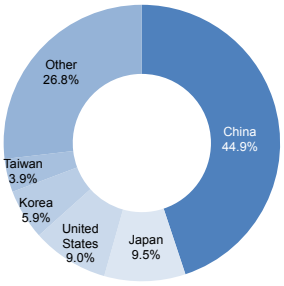
| | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|
| **Mine Production \| Thousand metric tons of non-refined nickel** | | | | | | | | |
| **Global** | **2,468** | **1,846** | **1,961** | **2,126** | **2,157** | **2,214** | **2,295** | **2,279** |
| Australia | 233 | 272 | 261 | 240 | 216 | 200 | 196 | 195 |
| Indonesia | 822 | 175 | 179 | 233 | 282 | 376 | 476 | 476 |
| Philippines | 236 | 307 | 324 | 339 | 315 | 315 | 315 | 315 |
| Canada | 223 | 227 | 234 | 245 | 241 | 235 | 235 | 228 |
| Russia | 243 | 235 | 238 | 232 | 217 | 221 | 219 | 219 |
| **Nickel Production \| Thousand metric tons of refined nickel** | | | | | | | | |
| **Global** | **2,010** | **1,984** | **1,942** | **1,929** | **2,025** | **2,191** | **2,286** | **2,295** |
| **Consumption \| Thousand metric tons of refined nickel** | | | | | | | | |
| **Global** | **1,823** | **1,939** | **1,979** | **2,013** | **2,105** | **2,161** | **2,208** | **2,256** |
| Stainless | 1,248 | 1,335 | 1,357 | 1,372 | 1,444 | 1,487 | 1,521 | 1,556 |
| Non-stainless | 575 | 604 | 622 | 641 | 660 | 673 | 687 | 701 |

### Major producers and consumers in 2014

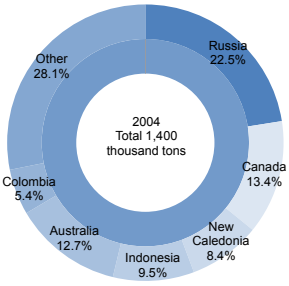
Production | %-share in World

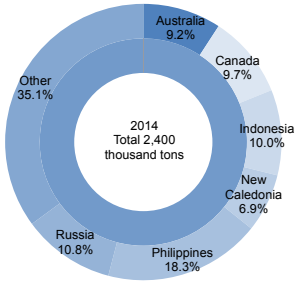



Consumption | %-share in World




### Distribution of mining production in 2004 and 2014



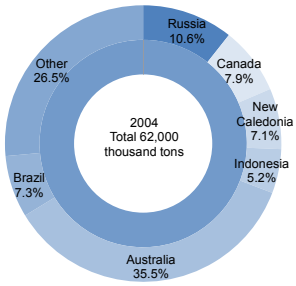

### Nickel futures at a glance

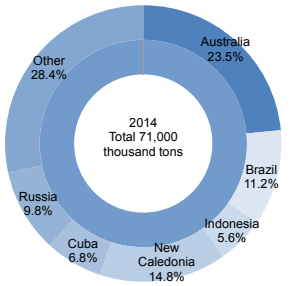
| | |
|---|---|
| Contract: | LME Nickel futures |
| Ticker: | NI |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 6 metric tons |
| Shanghai Futures Exchange (SHFE) | 1 metric ton |
| Multicommodity Exchange India (MCX) | 250 kilograms |

### Distribution of proven reserves in 2004 and 2014




### Nickel facts

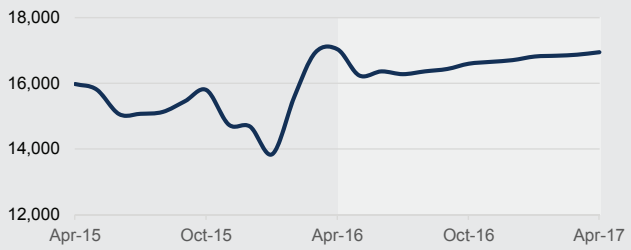
- The high melting point and resistance to corrosion make this alloying metal crucial in the stainless steel industry.
- SHFE premiums for LME grade nickel generally track increases in Chinese imports that affect market conditions.
- Nickel's substitute in the stainless steel industry, Nickel Pig Iron (NPI), normally tracks LME's refined nickel prices.

### Factors influencing prices

- Global economic growth
- Strength of the U.S. dollar
- Grade level of existing stocks
- Geopolitical pressure in nickel ore producing countries
- Market supply expectations based on existing stocks
- Substitution effects due to cheaper Nickel Pig Iron
- Nickel recycled from scraps as a cheap metal source
- Demand for stainless steel, which accounts for two-thirds of total nickel consumption

# Tin

**Tin LME (prices in USD/mt, aop)**




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 16,657 | 17,109 | 14,591 | 15,670 |
| 13-May-16 | -2.6% | +14.2% | +6.3% |

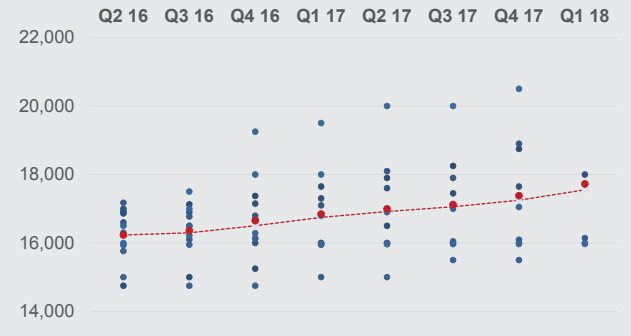
**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 16,234 -2.5% | |
| Q4 16 | 16,652 -0.0% | |
| Q4 17 | 17,379 +4.3% | |

**Forecast Revisions (by number of panelists)**

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 5 | ↑ | 4 | ↑ | 1 |
| = | 6 | = | 6 | = | 4 |
| ↓ | - | ↓ | 1 | ↓ | 3 |

**Panelist Spread**




Tin prices have recovered some lost ground in recent months. However, on 13 May, tin traded at USD 16,657 per metric ton. This was down 2.6% from the same day in April and was 14.2% higher on a year-to-date basis. Moreover, the figure was up 6.3% from the same day last year.

Despite the recent drop, tin prices remain at relatively high levels. Lower exports from Indonesia, which is one of the world's largest producers of tin, have are keeping prices of tin high. The country's state-owned tin miner incurred a 40% decrease in production in the first quarter of this year. The significant drop was due to adverse weather conditions, which affected mining operations, as well as relatively-low tin prices. Moreover, Indonesia's exports have been in freefall in recent years due to tighter regulations introduced by the government.

Our panel projects the price to drop this year and average USD 16,652 per metric ton in Q4 2016 before increasing slightly and reaching an average of USD 17,379 per metric ton in the final quarter of 2017.

This month, 6 of the panelists we surveyed made no change to their forecasts for Q4 2016. Conversely, 4 analysts revised their estimates upward while only 1 downgraded the forecast.

The majority of analysts foresee tin prices closing the year at a lower level compared to this month's figures. The minimum forecast this month for Q4 2016 is USD 14,750 per metric ton. Conversely, the maximum price forecast is USD 19,250 per metric ton.

**Tin prices and futures prices**

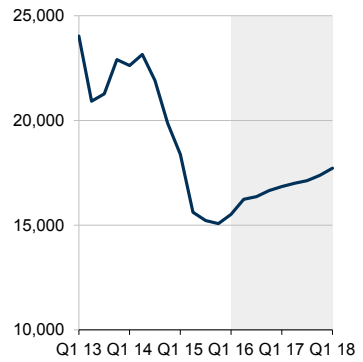
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 13,607 | 20,415 | 26,006 | 21,100 | 22,273 | 21,879 | 16,053 | 16,199 | 17,380 | 18,456 | 19,506 | 20,556 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 15,614 | 15,217 | 15,073 | 15,511 | 16,234 | 16,359 | 16,652 | 16,842 | 16,996 | 17,124 | 17,379 | 17,723 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 16,240 | 16,362 | 16,278 | 16,364 | 16,436 | 16,597 | 16,653 | 16,705 | 16,815 | 16,840 | 16,871 | 16,946 |
| Futures Prices (13-May) | - | 16,657 | 16,675 | 16,665 | 16,653 | 16,634 | 16,615 | 16,597 | 16,579 | 16,554 | 16,529 | 16,508 |

## Tin | Forecasts and futures prices

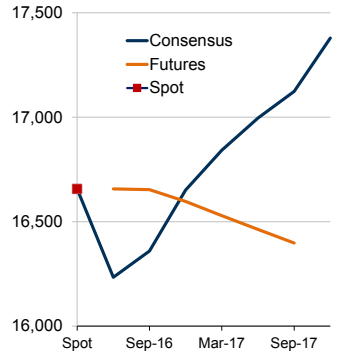
### Tin LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| BMI Research | - | - | - | - | - | - | - | - | 16,500 | 17,500 |
| Capital Economics | 16,865 | 17,125 | 17,375 | 17,650 | 17,900 | 18,250 | 18,750 | - | 17,500 | 19,000 |
| Commerzbank | 14,750 | 15,000 | 15,250 | 16,000 | 16,500 | - | - | - | - | - |
| CPM Group | 16,924 | 16,900 | 17,150 | 17,300 | 17,600 | 17,450 | 17,650 | 18,000 | 16,612 | 17,500 |
| Deutsche Bank | 17,000 | 16,500 | 16,000 | 16,000 | 16,000 | 16,000 | 16,000 | - | 16,250 | 16,000 |
| EIU | 16,600 | 16,100 | 16,797 | 17,100 | 18,100 | 17,900 | 18,900 | - | 16,248 | 18,000 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 16,250 | - |
| Itaú BBA | 17,172 | 16,773 | 16,133 | 15,952 | 15,999 | 16,047 | 16,095 | 16,143 | 16,344 | 16,023 |
| Macquarie Research | 15,000 | 14,750 | 14,750 | 15,000 | 15,000 | 15,500 | 15,500 | 16,000 | 15,001 | 15,250 |
| OCBC | 15,762 | 15,949 | 16,129 | - | - | - | - | - | - | - |
| Oxford Economics | 16,300 | 16,500 | 16,700 | 16,800 | 16,900 | 17,000 | 17,050 | - | 16,103 | 16,938 |
| Pezco | 15,935 | 16,216 | 16,287 | 15,962 | 15,964 | 15,966 | 15,969 | 15,971 | 15,985 | 15,965 |
| Société Générale | 16,000 | 17,000 | 18,000 | 18,000 | - | - | - | - | 14,500 | 19,000 |
| Standard Chartered | 16,500 | 17,500 | 19,250 | 19,500 | 20,000 | 20,000 | 20,500 | 22,500 | 17,100 | 20,000 |
| **Summary** | | | | | | | | | | |
| Minimum | 14,750 | 14,750 | 14,750 | 15,000 | 15,000 | 15,500 | 15,500 | 15,971 | 14,500 | 15,250 |
| Maximum | 17,172 | 17,500 | 19,250 | 19,500 | 20,000 | 20,000 | 20,500 | 22,500 | 17,500 | 20,000 |
| Median | 16,400 | 16,500 | 16,493 | 16,800 | 16,700 | 17,000 | 17,050 | 16,143 | 16,250 | 17,500 |
| **Consensus** | **16,234** | **16,359** | **16,652** | **16,842** | **16,996** | **17,124** | **17,379** | **17,723** | **16,199** | **17,380** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 15,925 | 15,825 | 15,735 | 15,677 | 15,643 | 15,643 | 15,643 | - | 15,666 | 15,651 |

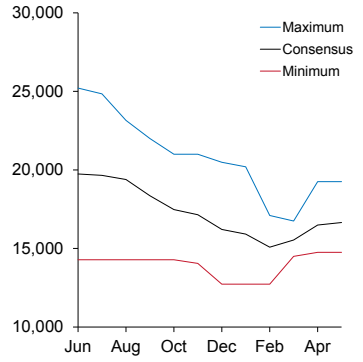
### 1 | Tin | LME



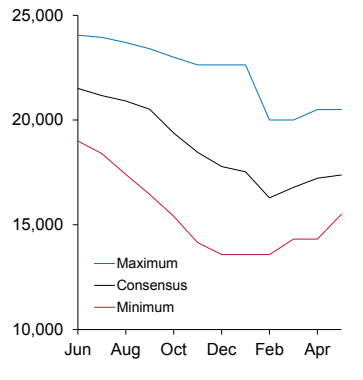

### 2 | Futures and Consensus Forecast




### 3 | Tin Q4 2016 | evol. of fcst.




### 4 | Tin Q4 2017 | evol. of fcst.



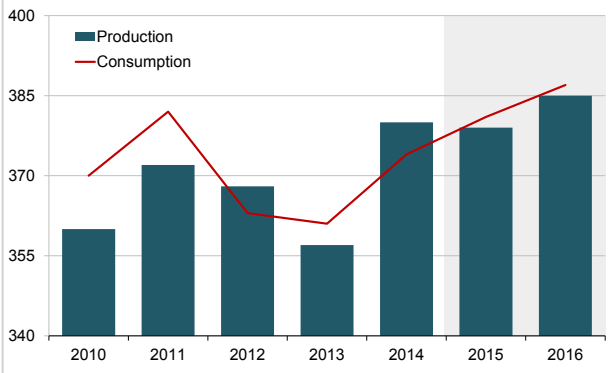

### Notes and sources

General:
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**3** Quarterly price of LME Tin, evolution of Q4 2016 forecast during the last 12 months.
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# Fact Sheet

## Global production and consumption | Thousand metric tons

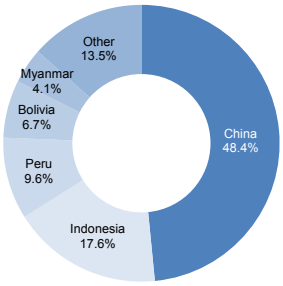



## Global production and consumption outlook

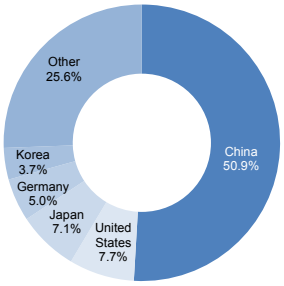
| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| **Mine Production \| Thousand metric tons of non-refined tin** | | | | | | | |
| **Global** | **282** | **281** | **272** | **273** | **282** | **279** | **282** |
| China | 93.0 | 105.0 | 95.0 | 95.0 | 96.0 | 97.0 | 99.0 |
| Indonesia | 84.0 | 78.0 | 90.0 | 84.0 | 76.0 | 70.0 | 69.0 |
| Peru | 34.0 | 29.0 | 26.0 | 24.0 | 21.0 | 18.0 | 15.0 |
| Myanmar | 1.0 | 2.0 | 2.0 | 9.0 | 25.0 | 28.0 | 31.0 |
| **Tin Production \| Thousand metric tons of refined tin** | | | | | | | |
| **Global** | **360** | **372** | **368** | **357** | **380** | **379** | **385** |
| Primary | 273 | 271 | 262 | 264 | 272 | 269 | 272 |
| **Consumption \| Thousand metric tons of refined tin** | | | | | | | |
| **Global** | **370** | **382** | **363** | **361** | **374** | **381** | **387** |
| Solder | 195 | 197 | 183 | 177 | 186 | 191 | 197 |
| Tinplate | 60.0 | 63.0 | 61.0 | 62.0 | 63.0 | 63.0 | 63.0 |

## Major producers and consumers in 2014

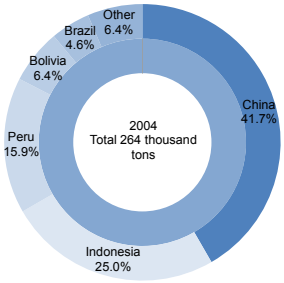
Production | %-share in World

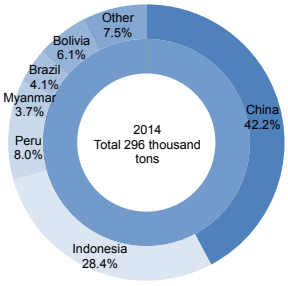



Consumption | %-share in World




## Distribution of mining production in 2004 and 2014



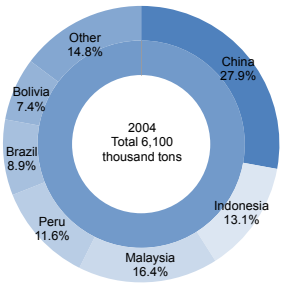

## Tin futures at a glance

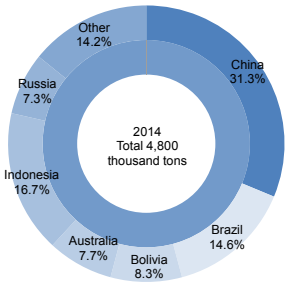
| | |
|---|---|
| Contract: | LME Tin futures |
| Ticker: | SN |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

## Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 5 metric tons |
| Shanghai Futures Exchange (SHFE) | 1 metric ton |

## Distribution of proven reserves in 2004 and 2014




## Tin facts

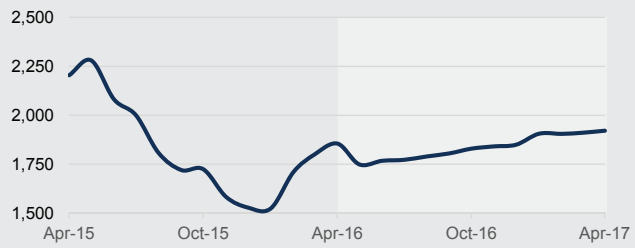
- Tin is mainly sourced from the 'tin belt', a geographical area stretching through China, Myanmar and Indonesia.
- Tin is mainly used as a protective coating on other metals due to its outstanding corrosion resistance properties.
- Indonesia, the world's leading exporter of tin, created the Indonesia Tin Exchange (ICDX) in 2013 to allow for domestic trade.

## Factors influencing prices

- Global economic growth
- Strength of the U.S. dollar
- Demand for semiconductors
- China sourcing tin from its own mines versus importing refined tin
- Market supply expectations based on existing stocks
- Recycling of clean scraps as a supply source of secondary tin
- Substitution effects from plastics and aluminium
- Indonesian geopolitical pressure due to its relevance for Chinese imports

# Zinc

## High Grade Zinc LME (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,880 | 1,875 | 1,593 | 2,347 |
| 13-May-16 | +0.3% | +18.1% | -19.9% |

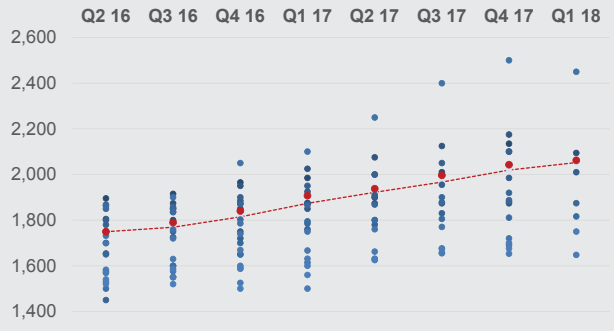
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1,749 -7.0% | |
| Q4 16 | 1,840 -2.1% | |
| Q4 17 | 2,043 +8.7% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 8 | ↑ | 5 | ↑ | 1 |
| = | 12 | = | 13 | = | 11 |
| ↓ | - | ↓ | 2 | ↓ | 1 |

## Panelist Spread




Zinc prices have been rising for five consecutive months. On 13 May, zinc traded at USD 1,880 per metric ton, which was up 0.3% from the same day in April and was 18.1% higher on a year-to-date basis. Despite the increase, the price was down 19.9% from the same day last year.

Zinc prices fell almost 30% last year due to weak global demand. Nevertheless, current developments in falling supply are supporting prices. Large-scale mines have been closed over the last few years—the most recent was the Century mine in Australia, which accounted for around 4% of the world's supply of zinc. Moreover, production is dropping and no major discoveries of zinc deposits have been made in recent times. In addition, London Metal Exchange stocks of zinc fell to their lower level since 2009 last week, which created expectations of future restocking.

The analysts FocusEconomics polled this month expect prices to average USD 1,840 per metric ton in Q4 2016. Analysts expect prices to rise gradually throughout next year to an average of USD 2,043 per metric ton in Q4.

This month, 13 of the analysts FocusEconomics consulted maintained their forecasts unchanged for Q4 2016. While 2 lowered their projections, 5 revised their forecasts up.

Analysts expect prices to be broadly stable, although opinions diverge on what the average price will be at the end of this year. The maximum average price projected for Q4 2016 is USD 2,050 per metric ton, while the minimum average price forecast is of USD 1,650 per metric ton.

**Zinc prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 1,663 | 2,162 | 2,193 | 1,948 | 1,910 | 2,162 | 1,929 | 1,767 | 1,949 | 2,055 | 2,151 | 2,248 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 2,188 | 1,846 | 1,611 | 1,682 | 1,749 | 1,789 | 1,840 | 1,907 | 1,937 | 1,996 | 2,043 | 2,062 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 1,749 | 1,767 | 1,772 | 1,790 | 1,805 | 1,830 | 1,841 | 1,850 | 1,906 | 1,905 | 1,911 | 1,921 |
| Futures Prices (13-May) | - | 1,880 | 1,884 | 1,887 | 1,890 | 1,893 | 1,895 | 1,897 | 1,899 | 1,900 | 1,901 | 1,901 |

## Zinc | Forecasts and futures prices

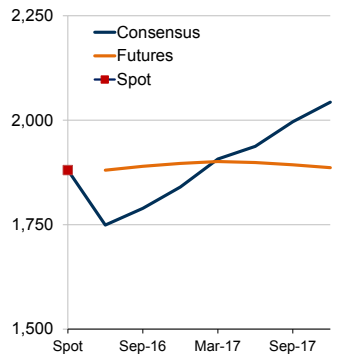
### High Grade Zinc

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 1,895 | 1,915 | 1,965 | 1,985 | 2,000 | 2,010 | 2,135 | - | 1,840 | 2,075 |
| ANZ | 1,750 | 1,800 | 1,850 | 1,875 | 1,900 | 2,000 | 2,100 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 1,750 | 1,850 |
| BMO Capital Markets | 1,654 | 1,874 | 1,874 | 1,874 | 1,874 | 1,874 | 1,874 | 2,094 | 1,769 | 1,874 |
| Capital Economics | 1,805 | 1,850 | 1,950 | 2,025 | 2,075 | 2,125 | 2,175 | - | 2,000 | 2,200 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 1,700 | 1,908 |
| Commerzbank | 1,700 | 1,725 | 1,750 | 1,850 | 1,900 | - | - | - | - | - |
| CPM Group | 1,868 | 1,835 | 1,885 | 1,925 | 1,910 | 1,955 | 1,985 | 2,010 | 1,816 | 1,944 |
| Danske Bank | 1,800 | 1,850 | 1,900 | 1,950 | 2,000 | 2,050 | 2,100 | - | 1,808 | 2,025 |
| Deutsche Bank | 1,780 | 1,750 | 1,720 | 1,760 | 1,780 | 1,830 | 1,880 | - | 1,734 | 1,813 |
| DZ Bank | 1,450 | 1,550 | 1,650 | - | - | - | - | - | 1,583 | - |
| E2 Economia | 1,850 | 1,857 | 1,870 | 1,866 | 1,868 | 1,878 | 1,887 | 1,874 | 1,813 | 1,875 |
| EIU | 1,650 | 1,600 | 1,700 | 1,785 | 1,800 | 1,900 | 1,920 | - | 1,657 | 1,851 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 1,780 | - |
| Investec | - | - | - | - | - | - | - | - | 1,767 | 1,797 |
| Itaú BBA | 1,862 | 1,836 | 1,802 | 1,795 | 1,800 | 1,805 | 1,811 | 1,816 | 1,794 | 1,803 |
| JPMorgan | 1,500 | 1,600 | 1,650 | - | - | - | - | - | 1,550 | 1,600 |
| Macquarie Research | 1,750 | 1,900 | 2,050 | 2,100 | 2,250 | 2,400 | 2,500 | 2,450 | 1,845 | 2,313 |
| OCBC | 1,732 | 1,759 | 1,786 | - | - | - | - | - | - | - |
| Oxford Economics | 1,700 | 1,720 | 1,740 | 1,750 | 1,760 | 1,770 | 1,720 | - | 1,703 | 1,750 |
| Pezco | 1,766 | 1,821 | 1,851 | 1,823 | 1,827 | 1,831 | 1,835 | 1,839 | 1,779 | 1,829 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 1,874 | 1,984 |
| Société Générale | 1,750 | 1,700 | 1,900 | 2,000 | - | - | - | - | 1,600 | 2,100 |
| Standard Chartered | 1,850 | 1,950 | 2,000 | 1,950 | 2,050 | 2,200 | 2,300 | 2,350 | 1,870 | 2,125 |
| Toronto-Dominion | 1,800 | 1,900 | 1,950 | 2,116 | 2,205 | 2,315 | 2,425 | - | 1,836 | 2,265 |
| Unicredit | 1,820 | 1,780 | 1,800 | 1,900 | - | - | - | - | 1,770 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 1,450 | 1,550 | 1,650 | 1,750 | 1,760 | 1,770 | 1,720 | 1,816 | 1,550 | 1,600 |
| Maximum | 1,895 | 1,950 | 2,050 | 2,116 | 2,250 | 2,400 | 2,500 | 2,450 | 2,000 | 2,313 |
| Median | 1,766 | 1,821 | 1,851 | 1,888 | 1,900 | 1,955 | 1,985 | 2,010 | 1,779 | 1,891 |
| **Consensus** | **1,749** | **1,789** | **1,840** | **1,907** | **1,937** | **1,996** | **2,043** | **2,062** | **1,767** | **1,949** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 1,757 | 1,764 | 1,768 | 1,768 | 1,767 | 1,765 | 1,763 | - | 1,738 | 1,766 |

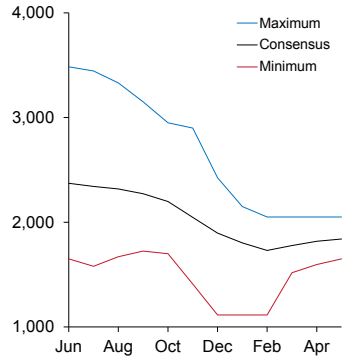
### 1 | High Grade Zinc



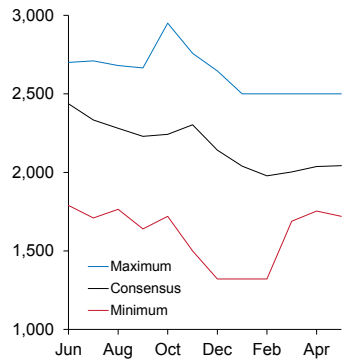

### 2 | Futures and Consensus Forecast




### 3 | Zinc Q4 2016 | evol. of fcst.




### 4 | Zinc Q4 2017 | evol. of fcst.



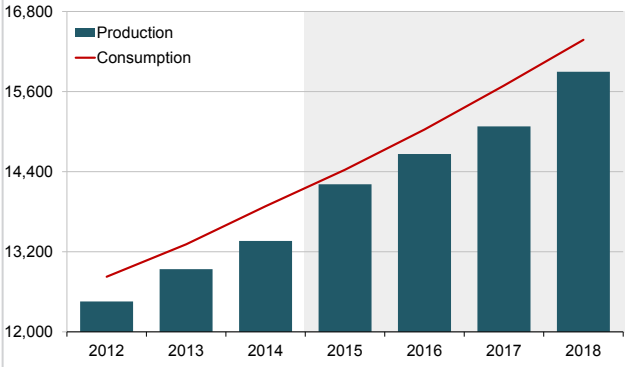

### Notes and sources

General:
High Grade Zinc spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of High Grade Zinc in USD/mt (aop).
**2** Consensus Forecast of quarterly High Grade Zinc average prices and futures prices traded on the London Metal Exchange (LME) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of High Grade Zinc, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of High Grade Zinc, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global production and consumption | Thousand metric tons

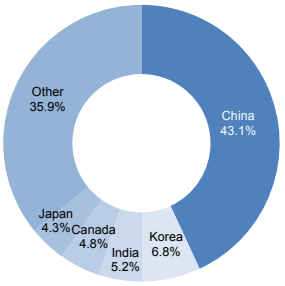



### Global production and consumption outlook

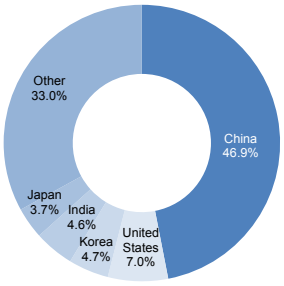
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Mine Production \| Thousand metric tons of non-refined zinc** | | | | | | | |
| **Global** | **12,759** | **12,914** | **13,065** | **13,811** | **14,008** | **14,453** | **14,755** |
| China | 4,500 | 4,715 | 4,960 | 5,198 | 5,622 | 5,982 | 5,401 |
| North America | 1,979 | 1,796 | 1,787 | 1,852 | 1,934 | 1,909 | 1,985 |
| South America | 1,823 | 1,905 | 1,894 | 2,082 | 2,190 | 2,308 | 2,350 |
| Australia | 1,477 | 1,481 | 1,507 | 1,607 | 1,238 | 1,245 | 1,516 |
| **Zinc Production \| Thousand metric tons of refined zinc** | | | | | | | |
| **Global** | **12,454** | **12,939** | **13,361** | **14,211** | **14,665** | **15,079** | **15,898** |
| China | 4,820 | 5,209 | 5,747 | 6,601 | 6,936 | 7,036 | 7,236 |
| **Capacity util. (%)** | **80.6** | **83.4** | **82.5** | **86.5** | **92.3** | **96.6** | **105.1** |
| **Consumption \| Thousand metric tons of refined zinc** | | | | | | | |
| **Global** | **12,826** | **13,311** | **13,881** | **14,429** | **15,032** | **15,690** | **16,376** |
| China | 5,606 | 6,063 | 6,486 | 6,875 | 7,300 | 7,775 | 8,250 |

### Major producers and consumers in 2014

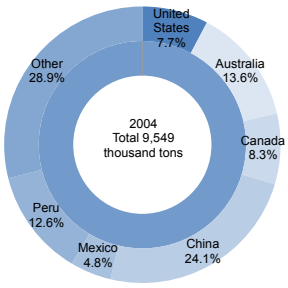
Production | %-share in World

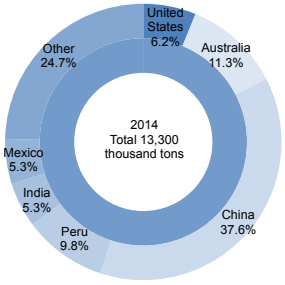



Consumption | %-share in World




### Distribution of mining production in 2004 and 2014



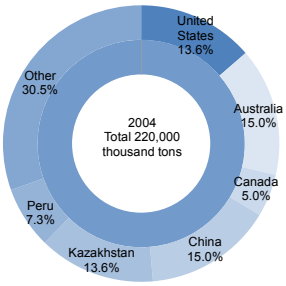

### Zinc futures at a glance

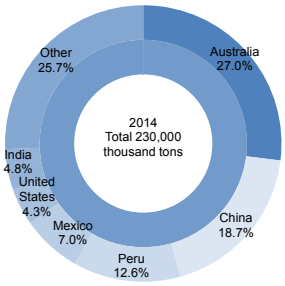
| | |
|---|---|
| Contract: | LME Zinc futures |
| Ticker: | ZS |
| Price quotation: | USD per metric ton |
| Settlement type: | Physical |

### Main exchanges and contract size

| | |
|---|---|
| London Metal Exchange (LME) | 25 metric tons |
| Shanghai Futures Exchange (SHFE) | 5 metric tons |
| Multicommodity Exchange India (MCX) | 5,000 kilograms |

### Distribution of proven reserves in 2004 and 2014




### Zinc facts

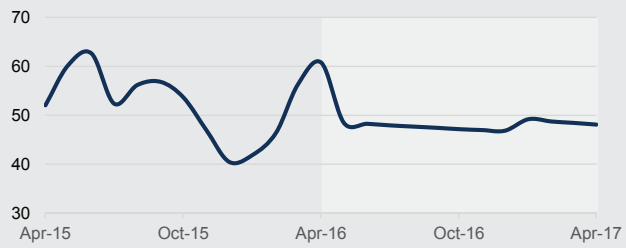
- Galvanization of other metals accounts for around half of world zinc consumption due to its anticorrosive properties.
- Exchange stocks are expected to deplete over the shortfalls in mine production caused by closure of Western zinc mines.
- Zinc can be recycled indefinitely without any loss of its physical or chemical properties.

### Factors influencing prices

- Global economic growth
- Strength of the U.S. dollar
- Demand for electric goods
- Exhaustion of Western mines and lack of new mine projects
- Market supply expectations based on existing stocks
- Demand from sectors that rely heavily on galvanizing
- Zinc recycled from scraps as a cheaper metal source
- Margins on refining charges and treatment charges (TC) for zinc refineries

# Iron Ore

## Iron Ore CFR China (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 54.0 | 61.4 | 43.5 | 63.0 |
| 13-May-16 | -12.1% | +24.1% | -14.3% |

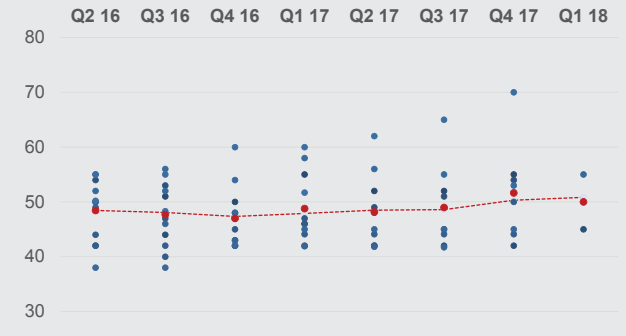
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 48.4 -10.3% | |
| Q4 16 | 47.0 -13.0% | |
| Q4 17 | 51.6 -4.4% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 3 | ↑ | 3 | ↑ | 1 |
| = | 9 | = | 9 | = | 6 |
| ↓ | - | ↓ | - | ↓ | 1 |

## Panelist Spread




Iron ore's proclivity for volatility has not subsided, in fact it appears to have increased. Iron ore futures have become a popular speculative derivative for Chinese traders and the volume of trades has skyrocketed in Chinese exchanges. Prices peaked at a over one year high in late April, however they fell sharply afterwards, erasing the late April gains.. The benchmark iron ore 62% Fe import price including freight and insurance at the Chinese port of Tianjin traded at USD 54.0 per metric ton on 13 May. The price was 12.1% lower than on the same day in April and was up 24.1% on a year-to-date basis. However, the price was 14.3% lower than on the corresponding day last year.

Due to the high volume of speculative trading in the iron ore market, it is difficult to disentangle short-term price fluctuations from long-term fundamentals. Traders react quickly to news that fosters positive and negative sentiment, like the positive industry PMI data from Chinese steel manufactures in May. However, factors that may affect longer-term market fundamentals also impact short term price behavior, such as the Chinese government's 22 April announcement that it would reduce overcapacity in its steel market, or major Australian producers indicating decreased production in 2016 and 2017.

Long-term supply and demand dynamics are still stacked against any major gains in iron ore prices, however, dynamics are shifting. Analysts still foresee prices falling form their recent highs and see them averaging USD 47.0 per metric ton in Q4 2016. For Q4 2017, analysts expect prices to increase modestly and average USD 51.6 per metric ton.

Analysts have taken note of changes in future supply and demand dynamics and as a result they see upward pressure on prices in the long term. Of the panelists we polled, 3 made an upward revision to their forecasts and no panelists made downward revisions.

Although prices have proven to be volatile in the short term, FocusEconomics panelist generally agree that prices in the longer term will be centered around the USD 50.0 per metric ton mark for Q4 2016, with the highest forecast at an average of USD 60.0 per metric ton, while the lowest is an average of just USD 42.0 per metric ton.

### Iron Ore prices and futures prices

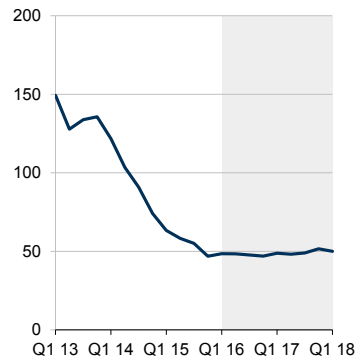
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 78.9 | 119.1 | 140.7 | 131.8 | 136.6 | 97.3 | 55.8 | 46.5 | 47.4 | 50.1 | 54.5 | 58.9 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 58.3 | 55.1 | 46.9 | 48.5 | 48.4 | 47.7 | 47.0 | 48.8 | 48.2 | 49.0 | 51.6 | 50.0 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 48.5 | 48.3 | 47.9 | 47.7 | 47.4 | 47.2 | 47.0 | 46.9 | 49.2 | 48.7 | 48.5 | 48.1 |
| Futures Prices (13-May) | - | 49.3 | 47.3 | 45.3 | 43.6 | 42.8 | 41.9 | 41.0 | 40.6 | 40.3 | 39.4 | 38.9 |

## Aluminium | Forecasts and futures prices

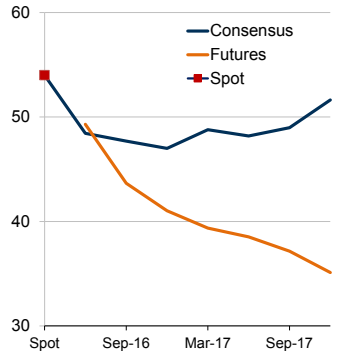
### Iron Ore FIne CFR China

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ANZ | 50.0 | 51.0 | 50.0 | 55.0 | 52.0 | 52.0 | 55.0 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 48.0 | 43.0 |
| BMO Capital Markets | 42.0 | 44.0 | 42.0 | 42.0 | 42.0 | 42.0 | 42.0 | 45.0 | 44.0 | 42.0 |
| Capital Economics | 54.0 | 53.0 | 48.0 | 46.0 | 49.0 | 51.0 | 54.0 | - | 45.0 | 55.0 |
| CIBC World Markets | - | - | - | - | - | - | - | - | 45.0 | 42.0 |
| Commerzbank | 50.0 | 47.0 | 45.0 | 47.0 | 48.0 | - | - | - | - | - |
| Deutsche Bank | 44.0 | 40.0 | 43.0 | 46.0 | 42.0 | 45.0 | 50.0 | - | 44.0 | 46.0 |
| EIU | 42.0 | 42.0 | 42.0 | 44.1 | 44.1 | 44.1 | 44.1 | - | 42.0 | 44.1 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 43.0 | - |
| Investec | - | - | - | - | - | - | - | - | 49.5 | 44.5 |
| Itaú BBA | 49.0 | 46.0 | 43.0 | 41.9 | 41.8 | 41.7 | - | - | 45.9 | 41.8 |
| JPMorgan | 38.0 | 38.0 | 42.0 | - | - | - | - | - | 40.0 | - |
| Macquarie Research | 52.0 | 52.0 | 48.0 | 45.0 | 45.0 | 45.0 | 45.0 | 55.0 | 50.1 | 45.0 |
| Oxford Economics | 55.0 | 56.0 | 54.0 | 58.0 | 56.0 | 55.0 | 53.0 | - | 53.0 | 56.0 |
| Société Générale | - | - | - | - | - | - | - | - | 45.0 | 45.0 |
| Toronto-Dominion | 55.0 | 55.0 | 60.0 | 60.0 | 62.0 | 65.0 | 70.0 | - | 55.0 | 64.0 |
| Unicredit | 50.2 | 48.3 | 47.0 | 51.7 | - | - | - | - | 48.5 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 38.0 | 38.0 | 42.0 | 41.9 | 41.8 | 41.7 | 42.0 | 45.0 | 40.0 | 41.8 |
| Maximum | 55.0 | 56.0 | 60.0 | 60.0 | 62.0 | 65.0 | 70.0 | 55.0 | 55.0 | 64.0 |
| Median | 50.0 | 47.7 | 46.0 | 46.0 | 46.5 | 45.0 | 51.5 | 50.0 | 45.0 | 44.8 |
| **Consensus** | **48.4** | **47.7** | **47.0** | **48.8** | **48.2** | **49.0** | **51.6** | **50.0** | **46.5** | **47.4** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 45.0 | 41.6 | 39.0 | 36.6 | 35.9 | 35.0 | 34.5 | - | 42.4 | 35.5 |

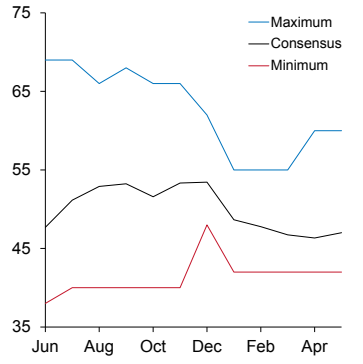
### 1 | Iron Ore Fine | CFR China



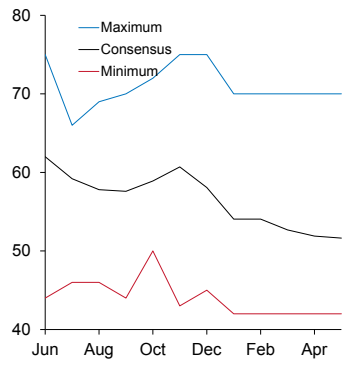

### 2 | Futures and Consensus Forecast




### 3 | Iron Ore Q4 2016 | evol. of fcst.




### 4 | Iron Ore Q4 2017 | evol. of fcst.



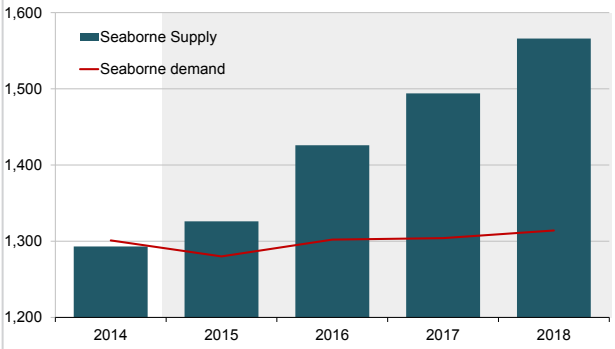

### Notes and sources

General:
Iron ore fines 62% Fe - CFR China Port spot prices in USD per metric ton (mt). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of iron ore fines 62% Fe - CFR China Port in USD/mt (aop).
**2** Consensus Forecast of quarterly 62% Fe - CFR China Port average prices and futures prices traded on the New York Mercantile Exchange (NYMEX) at the end of each quarter. Future prices are as of spot date.
**3** Quarterly price of iron ore, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of iron ore, evolution of Q4 2017 forecast during the last 12 months.

# Fact Sheet

## Global production and consumption | Million dry metric tons

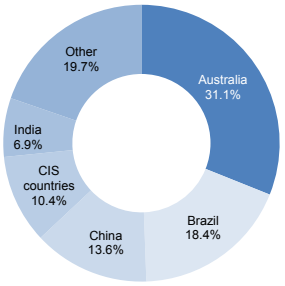



## Global supply and demand outlook

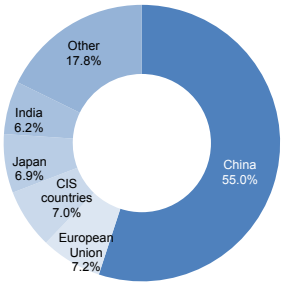
| | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| **Seaborne supply \| Million dry metric tons of iron ore** | | | | | |
| **Global** | **1,293** | **1,326** | **1,426** | **1,494** | **1,566** |
| Australia | 643 | 698 | 768 | 806 | 843 |
| Brazil | 319 | 339 | 374 | 407 | 437 |
| North America | 42 | 50 | 48 | 40 | 37 |
| South Africa | 65 | 60 | 62 | 61 | 61 |
| Russia | 66 | 66 | 66 | 66 | 73 |
| **Seaborne demand \| Million dry metric tons of iron ore** | | | | | |
| **Global** | **1,301** | **1,280** | **1,302** | **1,304** | **1,314** |
| China | 864 | 847 | 855 | 848 | 848 |
| Japan | 126 | 126 | 129 | 132 | 135 |
| EU 27 | 109 | 110 | 114 | 116 | 118 |
| Korea | 68 | 65 | 67 | 69 | 71 |

## Major producers and consumers in 2014

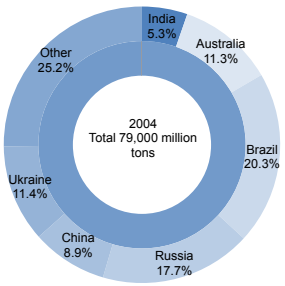
Production | %-share in World

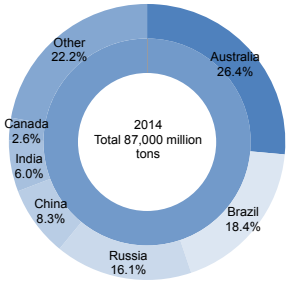



Consumption | %-share in World




## Distribution of mining production in 2004 and 2014




## Iron ore futures at a glance

| | |
|---|---|
| Contract: | Iron Ore 62% Fe, CFR China (TSI) |
| Ticker: | TIO |
| Price quotation: | USD per dry metric ton |
| Settlement type: | Financial |

## Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 500 dry metric tons |
| Singapore Exchange (SGX) | 500 dry metric tons |
| Dalian Commodity Exchange (DCE) | 100 dry metric tons |

## Iron ore facts

• Iron ore is mostly traded in world markets under contracts, with prices negotiated by iron ore producers and steel manufacturers. Australian and Brazilian fines are the most traded category, followed by lump iron ore.

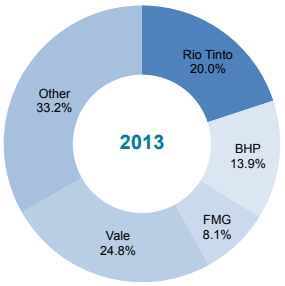
• The annual benchmark price was the most used system until 2010; it has since been dropped in favor of quarterly prices.

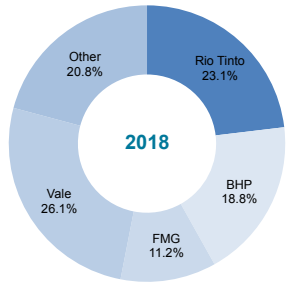
• Vale, Rio Tinto and BHP Billiton account for around 75% of seaborne trade.

## Factors influencing prices

• Global economic growth
• Transportation costs
• Demand for steel in developing countries where steel from scrap is more scarce
• Market supply expectations based on mine production
• Expected growth of Chinese construction activity
• Impact of China's supply sustainability on mined iron and imports
• Renminbi (RMB) closely tracking U.S. dollars

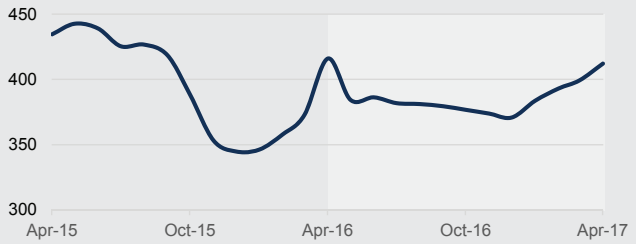
## Seaborn exports by major companies in 2013 and 2018



# Steel EUR

**Hot Rolled Coil Steel EUR** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 470 | 412 | 342 | 452 |
| 13-May-16 | +14.1% | +37.4% | +4.0% |

European steel prices rose in early May as depressed European stocks, coupled with subsiding imports triggered by a Chinese rally in domestic steel markets, supported North European prices. Hot-Rolled Coil steel traded at USD 470 per metric ton on 13 May. The price was up 14.1% from the same day in April and was 37.4% higher on a year-to-date basis. The price was up 4.0% from the same day last year.

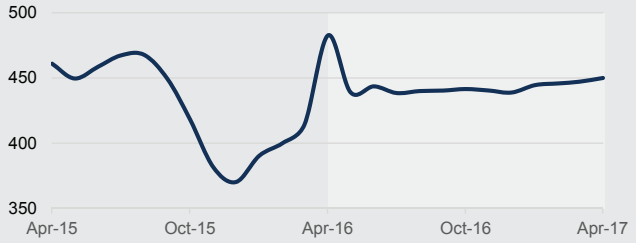
As preliminary anti-dumping duties are likely to be released in November amidst the European Commission's ongoing investigation regarding steel imports, European steel prices are set to recover lost ground. Analysts project prices to average USD 374 per metric ton in Q4 2016. The trend will continue in 2017 with the price averaging USD 407 per metric ton in Q4.

**Steel (Europe) prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 571 | 692 | 777 | 659 | 614 | 568 | 420 | 374 | 400 | 416 | 430 | 444 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 439 | 424 | 362 | 359 | 384 | 381 | 374 | 392 | 415 | 410 | 407 | 425 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 384 | 386 | 382 | 381 | 379 | 377 | 374 | 371 | 384 | 393 | 399 | 412 |

# Steel USA

**Hot Rolled Coil Steel USA** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 609 | 480 | 379 | 446 |
| 13-May-16 | +26.9% | +60.7% | +36.7% |

Following an increase in prices in Q1, the U.S. steel market continued its upward trend at a significantly-faster pace. The commodity traded at USD 609 per metric ton on 13 May, which was 26.9% higher than on the same day in April and was up 60.7% on a year-to-date basis. The price was 36.7% higher than on the same day last year.

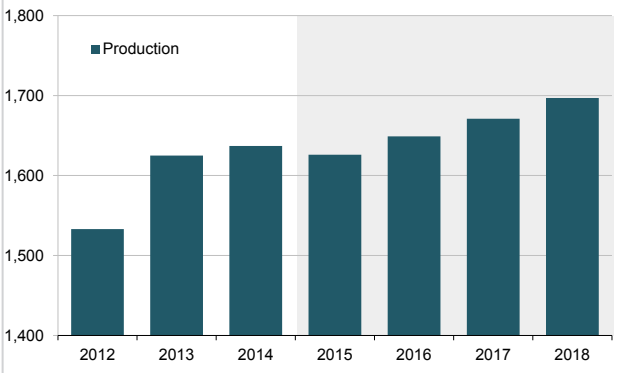
Higher prices for scrap steel have enabled U.S. producers to charge more for their products. In addition, falling inventories, a pickup in demand from the car industry and a trade complaint filed against Chinese steel producers by U.S. Steel have supported the increase. However, lower iron ore prices will benefit production and exert downward pressure on prices. Analysts project prices to average USD 440 per metric ton in Q4 2016 and see prices increasing to an average of USD 461 per metric ton in Q4 2017.

**Steel (USA) prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt (aop) | 488 | 613 | 746 | 657 | 630 | 658 | 462 | 446 | 455 | 464 | 477 | 490 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt (aop) | 456 | 461 | 390 | 402 | 439 | 440 | 440 | 446 | 452 | 455 | 461 | 463 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt (aop) | 439 | 444 | 438 | 440 | 440 | 442 | 440 | 439 | 445 | 446 | 447 | 450 |
| Futures Prices (13-May) | - | 76 | 81 | 85 | 91 | 96 | 101 | 106 | 111 | 116 | 121 | 126 |

## Fact Sheet

### Global production | Million metric tons

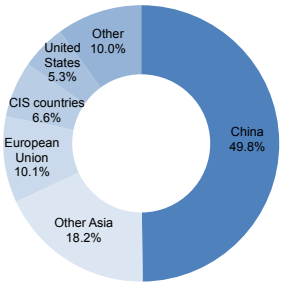



### Global production outlook

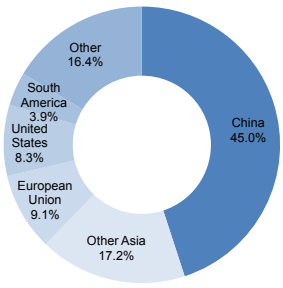
| | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|---|---|
| **Crude Steel production \| Million metric tons of crude steel** | | | | | | | |
| **Global** | **1,533** | **1,625** | **1,637** | **1,626** | **1,649** | **1,671** | **1,697** |
| China | 731 | 822 | 823 | 810 | 805 | 800 | 800 |
| European Union | 169 | 166 | 169 | 172 | 177 | 180 | 184 |
| NAFTA | 122 | 118 | 120 | 120 | 123 | 128 | 130 |
| Japan | 107 | 111 | 111 | 111 | 114 | 117 | 119 |
| India | 78 | 81 | 83 | 89 | 94 | 99 | 105 |
| Korea | 69 | 66 | 71 | 72 | 74 | 77 | 79 |
| Russia | 70 | 69 | 71 | 75 | 77 | 79 | 81 |
| Brazil | 35 | 34 | 34 | 33 | 33 | 34 | 34 |
| Turkey | 36 | 35 | 34 | 32 | 37 | 38 | 39 |
| Taiwan | 21 | 22 | 23 | 23 | 23 | 24 | 24 |
| Ukraine | 33 | 33 | 27 | 19 | 22 | 25 | 28 |

### Major producers and consumers in 2013

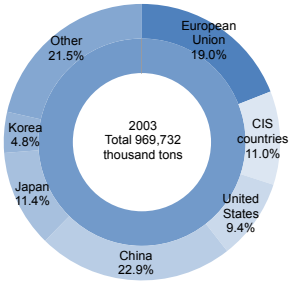
Production | %-share in World

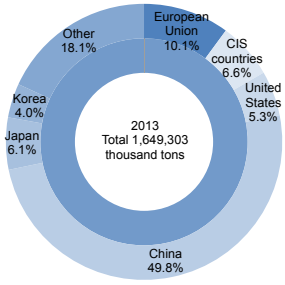



Consumption | %-share in World




### Distribution of mine production in 2003 and 2013




### Steel futures at a glance

| | |
|---|---|
| Contract: | U.S. Midwest Domestic Hot-Rolled Coil Steel |
| Ticker: | HR |
| Price quotation: | USD per short ton |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 20 short tons |
| Shanghai Futures Exchange - Rebars | 10 metric tons |
| London Metal Exchange (LME) - Billets | 65 metric tons |

### Steel facts

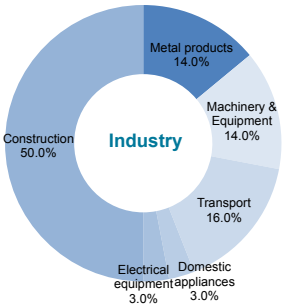
- Prices are set in contracts between major producers and clients; settlements are remarkably disaggregated among regional markets. Markets use different varieties of steel, but Hot Rolled Coil (HRC) is considered a referential price.
- Average world steel use per capita has increased steadily from 150 kilograms in 2001 to 251.2 kilograms in 2012.
- Housing and construction sectors account for around half the total consumption of steel produced.

### Factors influencing prices

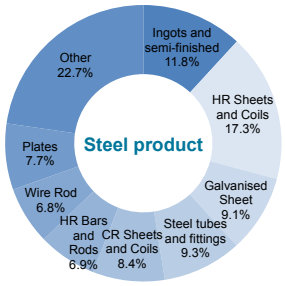
- Global economic growth
- Transportation costs
- Emerging markets demand
- New construction projects as a key driver of demand
- Market supply expectations based on producers' capacity
- Steel mill location as a relevant share of fixed costs
- China's increasing self-sufficiency on steel inputs
- Price of collateral metals for specific steel products, such as nickel for stainless steel

### Share of steel by industry and product

Steel industry usage | share in %

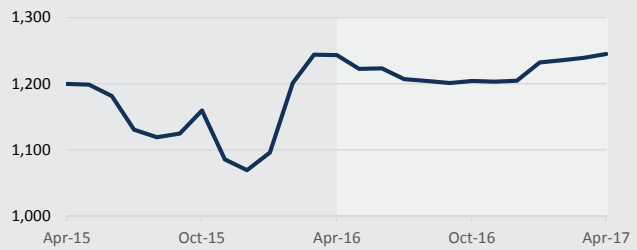



Steel exports by product | share in %



# Gold

## Gold LBMA (prices in USD/toz, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,271 | 1,247 | 1,062 | 1,214 |
| 13-May-16 | +1.9% | +19.6% | +4.7% |

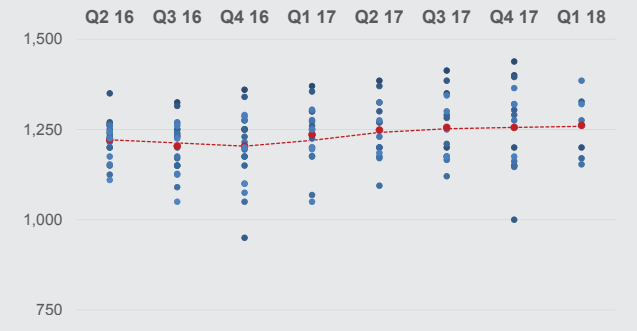
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 1,221 -3.9% | |
| Q4 16 | 1,204 -5.3% | |
| Q4 17 | 1,256 -1.2% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 5 | ↑ | 4 | ↑ | 3 |
| = | 15 | = | 17 | = | 11 |
| ↓ | - | ↓ | - | ↓ | 1 |

## Panelist Spread




After hitting the highest level in over one year at the start of the month, gold prices have retreated slightly in recent days and are now hovering near April's level. On 13 May, gold closed the trading day at USD 1,271 per troy ounce, which was up 1.9% from the same day in April. In addition, the price was 19.6% higher on a year-to-date basis and was up 4.7% from the same day last year.

Gold prices have fluctuated in recent weeks largely due to movements in the U.S. dollar. The dollar has fallen in recent months amid dovish comments from the Federal Reserve suggesting that further increases in interest rates are not as likely as before. This has contributed to a rise in the price of gold this year. In addition, global economic uncertainty and poor performances in stock markets have fueled demand for gold—a safe haven asset. Recent data show that demand for gold soared in the first quarter on the back of higher demand from investors as well as from Central Banks seeking to diversify assets.

Gold prices rose notably in Q1—recording the strongest performance in over two decades—but prices are expected to lose ground in the upcoming periods. However, weaker-than-expected global economic data or a further loosening in global monetary policy are upside risks to the forecast. Analysts project the price to average USD 1,204 per troy ounce in Q4 2016. The panel sees gold prices rising gradually and averaging USD 1,256 per troy ounce in Q4 2017.

Panelists took a wait-and-see approach to their forecasts in May. For Q4 2016, the majority of panelists left their forecasts unchanged, with 17 making no change to their projections. However, 4 panelists raised their projections, while no panelists revised their forecasts down.

Almost all of our panelists see the price falling by the end of 2016. However, divergent views persist. For Q4 2016, the maximum price forecast was USD 1,360 per troy ounce, while the minimum was USD 950 per troy ounce.

### Gold prices and futures prices

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per toz (aop) | 973 | 1,226 | 1,572 | 1,669 | 1,411 | 1,266 | 1,160 | 1,199 | 1,234 | 1,253 | 1,281 | 1,309 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per toz (aop) | 1,193 | 1,125 | 1,105 | 1,182 | 1,221 | 1,204 | 1,204 | 1,236 | 1,248 | 1,256 | 1,256 | 1,261 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per toz (aop) | 1,222 | 1,223 | 1,207 | 1,204 | 1,201 | 1,204 | 1,203 | 1,204 | 1,232 | 1,236 | 1,239 | 1,245 |
| Futures Prices (13-May) | - | 1,272 | 1,273 | 1,274 | 1,275 | 1,277 | 1,279 | 1,281 | 1,283 | 1,285 | 1,287 | 1,288 |

## Gold | Forecasts and futures prices

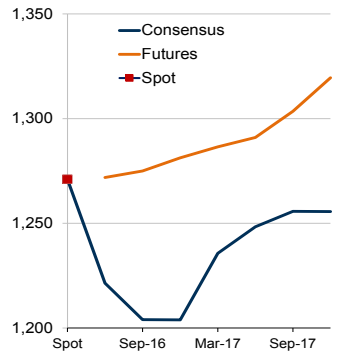
### Gold LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 1,266 | 1,325 | 1,360 | 1,370 | 1,385 | 1,413 | 1,438 | - | 1,283 | 1,401 |
| ANZ | 1,260 | 1,230 | 1,275 | 1,300 | 1,325 | 1,350 | 1,400 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 1,275 | 1,350 |
| BMO Capital Markets | 1,200 | 1,150 | 1,175 | 1,200 | 1,200 | 1,200 | 1,200 | 1,200 | 1,177 | 1,200 |
| BofA Merrill Lynch | 1,350 | 1,150 | 1,250 | - | - | - | - | - | - | - |
| Capital Economics | 1,270 | 1,315 | 1,340 | 1,355 | 1,370 | 1,385 | 1,395 | - | 1,350 | 1,400 |
| CIBC World Markets | - | - | 950 | - | - | - | 1,000 | - | - | - |
| Commerzbank | 1,225 | 1,250 | 1,250 | 1,300 | 1,300 | - | - | - | 1,206 | - |
| CPM Group | 1,238 | 1,232 | 1,250 | 1,272 | 1,269 | 1,282 | 1,304 | 1,327 | 1,225 | 1,282 |
| Credit Agricole | 1,230 | 1,240 | 1,250 | 1,260 | 1,270 | 1,290 | 1,320 | - | - | - |
| Danske Bank | 1,250 | 1,250 | 1,250 | 1,225 | 1,200 | 1,175 | 1,150 | - | 1,233 | 1,188 |
| Deutsche Bank | 1,150 | 1,170 | 1,230 | 1,250 | 1,175 | 1,210 | 1,290 | - | 1,195 | 1,231 |
| DZ Bank | 1,200 | 1,150 | 1,150 | - | - | - | - | - | 1,171 | - |
| EIU | 1,220 | 1,200 | 1,175 | 1,175 | 1,200 | 1,175 | 1,150 | 1,170 | 1,194 | 1,175 |
| Emirates NBD | 1,125 | 1,090 | 1,050 | 1,069 | 1,094 | 1,120 | 1,146 | - | 1,109 | 1,107 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 1,158 | - |
| Investec | - | - | - | - | - | - | - | - | 1,128 | 1,153 |
| Itaú BBA | 1,263 | 1,237 | 1,194 | 1,176 | 1,171 | 1,166 | 1,162 | 1,153 | 1,219 | 1,169 |
| Liberum Capital | - | - | - | - | - | - | - | - | 1,200 | 1,200 |
| Macquarie Research | 1,215 | 1,175 | 1,215 | 1,250 | 1,230 | 1,250 | 1,275 | 1,275 | 1,196 | 1,251 |
| Novobanco | 1,260 | 1,270 | 1,275 | 1,276 | - | - | - | - | 1,268 | 1,280 |
| OCBC | 1,153 | 1,127 | 1,100 | - | - | - | - | - | 1,140 | - |
| Pezco | 1,242 | 1,267 | 1,286 | 1,305 | 1,324 | 1,344 | 1,364 | 1,385 | 1,244 | 1,335 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 1,240 | 1,350 |
| Société Générale | 1,175 | 1,125 | 1,075 | 1,050 | - | - | - | - | 1,000 | 1,000 |
| Standard Chartered | 1,225 | 1,260 | 1,290 | 1,250 | 1,275 | 1,300 | 1,320 | 1,320 | 1,240 | 1,285 |
| Toronto-Dominion | 1,245 | 1,225 | 1,200 | 1,195 | 1,185 | 1,175 | 1,175 | - | 1,214 | 1,183 |
| Unicredit | 1,110 | 1,050 | 1,100 | 1,200 | - | - | - | - | 1,100 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 1,110 | 1,050 | 950 | 1,050 | 1,094 | 1,120 | 1,000 | 1,153 | 1,000 | 1,000 |
| Maximum | 1,350 | 1,325 | 1,360 | 1,370 | 1,385 | 1,413 | 1,438 | 1,385 | 1,350 | 1,401 |
| Median | 1,228 | 1,228 | 1,230 | 1,250 | 1,250 | 1,250 | 1,283 | 1,275 | 1,203 | 1,216 |
| **Consensus** | **1,221** | **1,204** | **1,204** | **1,236** | **1,248** | **1,256** | **1,256** | **1,261** | **1,199** | **1,234** |

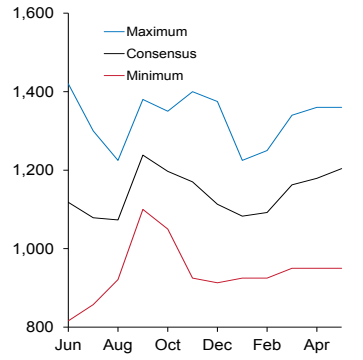
### 1 | Gold | LME



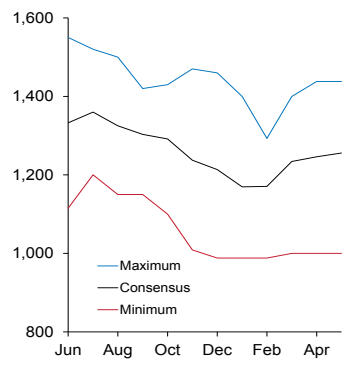

### 2 | Futures and Consensus Forecast




### 3 | Gold Q4 2016 | evol. of fcst.




### 4 | Gold Q4 2017 | evol. of fcst.



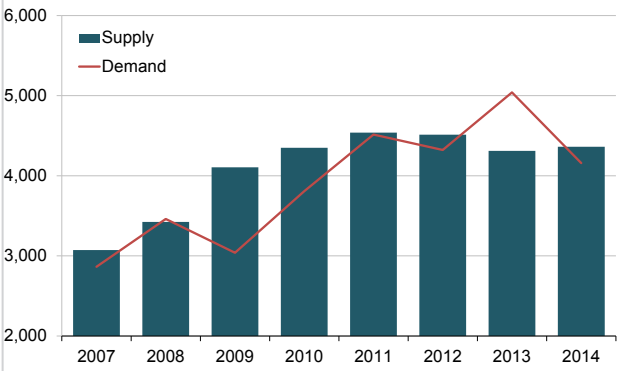

### Notes and sources

General:
London Bullion Market Association (LBMA) spot prices in USD per troy ounce (toz). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of London Bullion Market Association (LBMA) in USD/toz (aop).
**2** Consensus Forecast of quarterly London Bullion Market Association (LBMA) average prices and futures prices traded on the New York Mercantile Exchange (COMEX division) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of London Bullion Market Gold (LME), evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of London Bullion Market Gold (LME), evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global supply and consumption | Metric tons

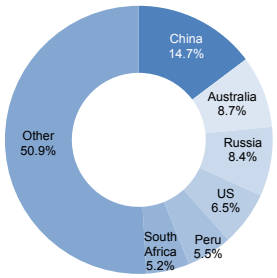



### Global supply and demand

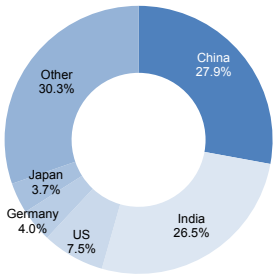
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|---|
| **Supply \| Metric tons** | | | | | | | | |
| **Global** | **3,072** | **3,424** | **4,106** | **4,349** | **4,539** | **4,513** | **4,310** | **4,362** |
| Mine production | 2,499 | 2,429 | 2,612 | 2,742 | 2,846 | 2,875 | 3,061 | 3,133 |
| Scrap | 1,006 | 1,352 | 1,728 | 1,713 | 1,675 | 1,677 | 1,287 | 1,125 |
| Net hedging | -432 | -357 | -234 | -106 | 18 | -40 | -39 | 103 |
| **Demand \| Metric tons** | | | | | | | | |
| **Global** | **2,864** | **3,460** | **3,038** | **3,807** | **4,515** | **4,321** | **5,041** | **4,158** |
| Jewellery | 2,426 | 2,308 | 1,819 | 2,033 | 2,034 | 2,008 | 2,439 | 2,213 |
| Industrial | 487 | 471 | 422 | 476 | 468 | 426 | 419 | 400 |
| Net official sector | -484 | -235 | -34 | 77 | 457 | 544 | 409 | 466 |
| Real investment | 436 | 916 | 830 | 1,221 | 1,556 | 1,343 | 1,775 | 1,079 |

### Major producers and consumers in 2014

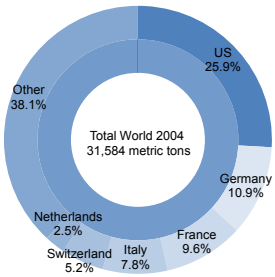
Production | %-share in World

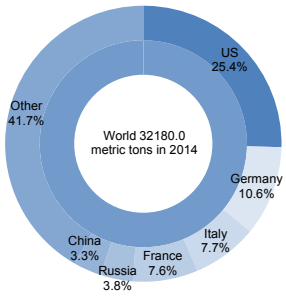



Consumption | %-share in World




### Central banks' gold reserves in 2004 and 2014




### Gold futures at a glance

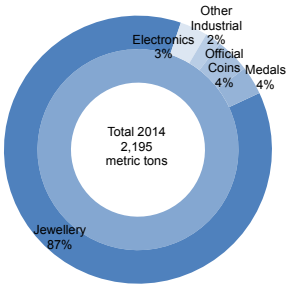
| | |
|---|---|
| Contract: | CMX-Gold 100 oz |
| Ticker: | GC |
| Price quotation: | USD per ounce |
| Settlement type: | Deliverable |

### Main exchanges and contract size

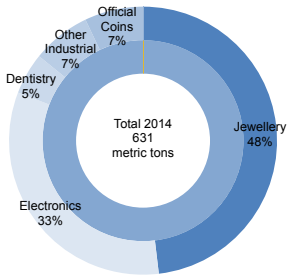
| | |
|---|---|
| New York Mercantile Exchange (COMEX) | 100 ounces |
| Dubai Gold and Commodities Exchange | 32 ounces |
| Multi Commodity Exchange of India | 100 ounces |

### Usage of gold by industry in developing and developed countries

Industry in developing | share in %




Industry in developed | share in %




### Gold facts

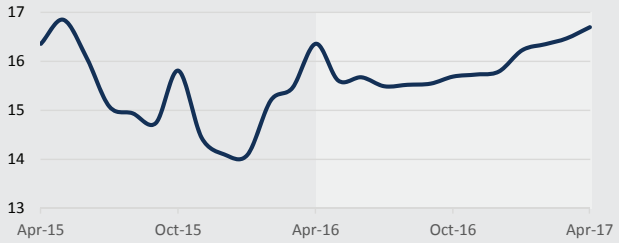
- Comex futures contracts refer to gold of a minimum of 995 fineness.
- London is the world's biggest clearing house; Dubai, Hong Kong, Istanbul and Singapore are gateways to important consuming regions.
- India is the world's largest market for gold jewelry.

### Factors influencing prices

- Mining and new exploration costs
- Declining confidence in paper money
- Geopolitical tensions
- Inflation pressures
- Central banks' reserves
- Strength of the U.S. dollar
- Stock markets and interest rates
- Demand from China and India
- Gold production, supply and demand disequilibria

# Silver

## Handy & Harman Silver (prices in USD/toz, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 17.1 | 16.3 | 13.9 | 17.1 |
| 13-May-16 | +5.3% | +23.6% | -0.1% |

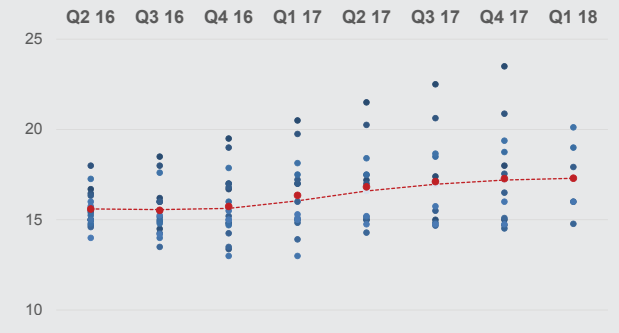
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 15.6 -8.9% | |
| Q4 16 | 15.7 -8.1% | |
| Q4 17 | 17.3 +0.9% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 4 | ↑ | 5 | ↑ | 3 |
| = | 13 | = | 12 | = | 7 |
| ↓ | - | ↓ | 1 | ↓ | 2 |

## Panelist Spread




Silver prices soared in May, continuing to build on gradual gains made throughout the year. On 13 May, silver closed the trading day at USD 17.1 per troy ounce, which was up 5.3% from the same day in April and was 23.6% higher on a year-to-date basis. However, the result was down 0.1% from the same day last year.

The positive momentum in silver prices comes on the back of rising demand and the current weak value of the U.S. dollar. Safe-haven buying swelled in the first quarter of 2016 amid uncertainty over the global economy. Expectations of further delays in U.S. interest rates hikes should continue to increase the metal's attractiveness. In addition, concern over supply is fueling the price gain and output is set to fall in 2016 for the first time in 5 years.

Silver prices are expected to recede slightly in the coming quarters before gaining ground in 2017. While concerns over the global economy, and in particular China's slowdown, should boost the metal's appeal as a safe-haven asset, it may hurt demand for industrial uses. Our panel sees the price of silver averaging USD 15.7 per troy ounce in Q4 2016. For 2017, the panel sees prices rising and averaging USD 17.3 per troy ounce in Q4.

Despite the recent upward momentum in prices, the majority of our panelists maintained their forecasts this month. For Q4 2016, 12 panelists made no change to their forecasts, taking a wait-and-see approach. However, 5 panelists raised their projections in light of recent developments, while 1 panelist revised down their forecast.

The majority of the analysts we polled see prices ending 2016 at a lower level than presently, however, views are divergent. For Q4 2016, panelists' minimum projected price is USD 13.0 per troy ounce, while the maximum is USD 19.5 per troy ounce.

**Silver prices and futures prices**

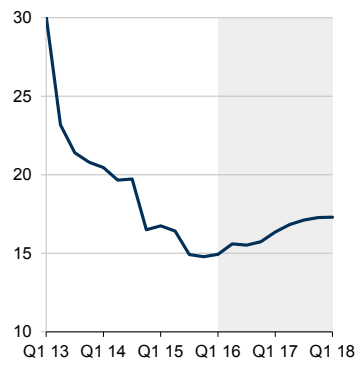
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per toz (aop) | 14.7 | 20.2 | 35.3 | 31.1 | 23.8 | 19.1 | 15.7 | 15.5 | 16.6 | 17.5 | 18.6 | 19.7 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per toz (aop) | 16.4 | 14.9 | 14.8 | 14.9 | 15.6 | 15.5 | 15.7 | 16.4 | 16.8 | 17.1 | 17.3 | 17.3 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per toz (aop) | 15.6 | 15.7 | 15.5 | 15.5 | 15.5 | 15.7 | 15.7 | 15.8 | 16.2 | 16.4 | 16.5 | 16.7 |
| Futures Prices (13-May) | - | 17.1 | 17.1 | 17.1 | 17.2 | 17.2 | 17.3 | 17.3 | 17.3 | 17.4 | 17.4 | 17.5 |

## Siver | Forecasts and futures prices

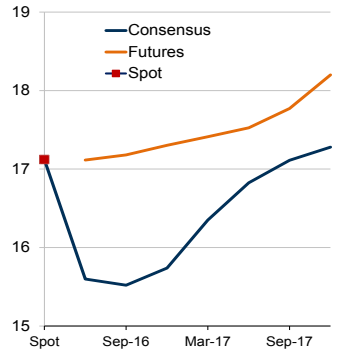
### Handy & Harman Silver

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 16.7 | 18.5 | 19.5 | 20.5 | 21.5 | 22.5 | 23.5 | - | 17.4 | 22.0 |
| ANZ | 15.5 | 16.2 | 16.7 | 17.0 | 17.2 | 17.4 | 18.0 | - | - | - |
| BMO Capital Markets | 15.0 | 14.5 | 14.8 | 15.0 | 15.0 | 15.0 | 15.0 | 16.0 | 14.8 | 15.0 |
| BofA Merrill Lynch | 18.0 | 16.0 | 17.0 | - | - | - | - | - | - | - |
| Capital Economics | 16.5 | 18.0 | 19.0 | 19.8 | 20.3 | 20.6 | 20.9 | - | 19.5 | 21.0 |
| CIBC World Markets | - | - | 13.4 | - | - | - | 14.7 | - | - | - |
| Commerzbank | 15.0 | 16.0 | 17.0 | 17.0 | 17.0 | - | - | - | 15.6 | - |
| CPM Group | 16.3 | 16.0 | 16.8 | 17.2 | 17.5 | 17.1 | 17.6 | 17.9 | 16.0 | 17.4 |
| Deutsche Bank | 15.0 | 14.9 | 15.2 | 16.0 | 15.0 | 15.5 | 16.5 | - | 15.2 | 15.8 |
| DZ Bank | 14.7 | 14.3 | 14.3 | - | - | - | - | - | 14.5 | - |
| EIU | 15.4 | 15.2 | 14.8 | 14.8 | 15.2 | 14.8 | 14.5 | 14.8 | 14.0 | 14.2 |
| Emirates NBD | 14.6 | 13.5 | 13.5 | 13.9 | 14.3 | 14.7 | 15.1 | - | 14.1 | 14.5 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 15.2 | - |
| Investec | - | - | - | - | - | - | - | - | 14.7 | 15.7 |
| Liberum Capital | - | - | - | - | - | - | - | - | 16.0 | 16.0 |
| Macquarie Research | 15.3 | 15.0 | 16.0 | 17.5 | 17.5 | 18.5 | 18.8 | 19.0 | 15.3 | 18.1 |
| OCBC | 14.8 | 14.8 | 14.7 | - | - | - | - | - | 14.8 | - |
| Pezco | 17.3 | 17.6 | 17.9 | 18.1 | 18.4 | 18.7 | 19.4 | 20.1 | 16.9 | 18.6 |
| Scotiabank Peru | - | - | - | - | - | - | - | - | 16.0 | 17.3 |
| Société Générale | 15.0 | 14.0 | 13.0 | 13.0 | - | - | - | - | 14.0 | 13.0 |
| Standard Chartered | 16.0 | 15.5 | 15.5 | 15.1 | 15.2 | 15.8 | 16.0 | 16.0 | 15.5 | 15.5 |
| Toronto-Dominion | 15.8 | 15.3 | 15.0 | 15.0 | 14.8 | 14.8 | 14.8 | - | 15.3 | 14.8 |
| Unicredit | 14.0 | 14.2 | 15.0 | 15.3 | - | - | - | - | 14.5 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 14.0 | 13.5 | 13.0 | 13.0 | 14.3 | 14.7 | 14.5 | 14.8 | 14.0 | 13.0 |
| Maximum | 18.0 | 18.5 | 19.5 | 20.5 | 21.5 | 22.5 | 23.5 | 20.1 | 19.5 | 22.0 |
| Median | 15.3 | 15.2 | 15.2 | 16.0 | 17.0 | 16.4 | 16.5 | 17.0 | 15.2 | 15.9 |
| **Consensus** | **15.6** | **15.5** | **15.7** | **16.4** | **16.8** | **17.1** | **17.3** | **17.3** | **15.5** | **16.6** |

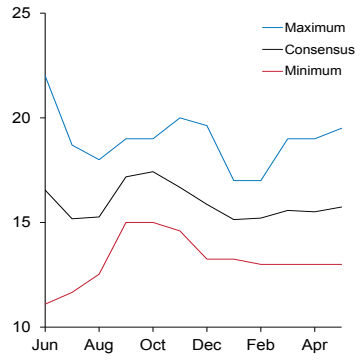
### 1 | Silver | Handy & Harman




### 2 | Futures and Consensus Forecast




### 3 | Silver Q4 2016 | evol. of fcst.




### 4 | Silver Q4 2017 | evol. of fcst.



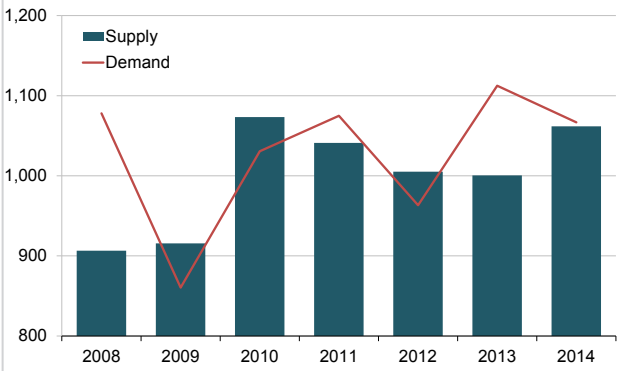

### Notes and sources

General:
Handy & Harman, 99.9% refined grade Silver spot prices in USD per troy ounce (toz). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of Handy & Harman, 99.9% refined grade Silver in USD/toz (aop).
**2** Consensus Forecast of quarterly Handy & Harman, 99.9% refined grade Silver average prices and futures prices traded on the New York Mercantile Exchange (COMEX division) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of Handy & Harman, 99.9% refined grade Silver, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of Handy & Harman, 99.9% refined grade Silver, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global supply and demand | Million ounces

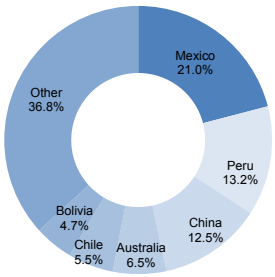



### Global supply and demand

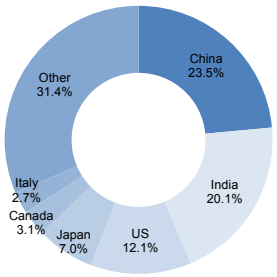
| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| **Supply \| Million ounces** | | | | | | | |
| **Global** | **907** | **916** | **1,073** | **1,041** | **1,005** | **1,001** | **1,062** |
| Mine production | 683 | 716 | 751 | 755 | 789 | 835 | 878 |
| Net gov. sales | 30.5 | 15.6 | 44.2 | 12.0 | 7.4 | 7.9 | - |
| Scrap | 202 | 201 | 228 | 262 | 256 | 193 | 169 |
| Net hedging | -8.7 | -17.4 | 50.4 | 12.2 | -47.1 | -35.4 | 15.8 |
| **Demand \| Million ounces** | | | | | | | |
| **Global** | **1,078** | **860** | **1,031** | **1,075** | **963** | **1,112** | **1,067** |
| Jewellery | 178 | 178 | 191 | 189 | 186 | 212 | 215 |
| Coins and bars | 187 | 88 | 143 | 211 | 138 | 244 | 196 |
| Silverware | 58.4 | 53.2 | 51.6 | 47.2 | 43.7 | 58.8 | 60.7 |
| Industrial fabric. | 654 | 542 | 645 | 628 | 595 | 598 | 595 |

### Major producers and consumers in 2014

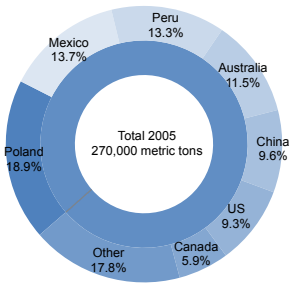
Production | %-share in World

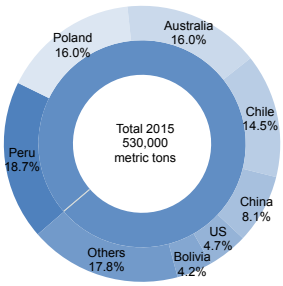



Consumption | %-share in World




### Reserves by country in 2005 and 2015




### Silver futures at a glance

| | |
|---|---|
| Contract: | CMX-Silver 5,000 oz |
| Ticker: | SI |
| Price quotation: | USD per ounce |
| Settlement type: | Deliverable |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (COMEX) | 5,000 ounces |
| Euronex Liffe NYSE | 5,000 ounces |
| Tokyo Commodity Exchange (TOCOM) | 10,000 grams |

### Silver facts

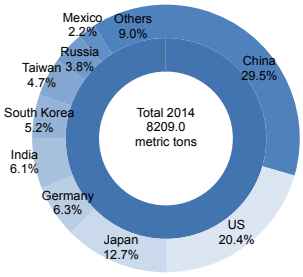
- London Bullion Market Association (LBMA) is the metal's main physical market.
- Comex is the futures and options exchange where most fund activities are focused.
- Lead ore is the main source of silver.
- Silver is suitable for a wide range of applications such as in medicine, water purification and nanotechnology.

### Factors influencing prices

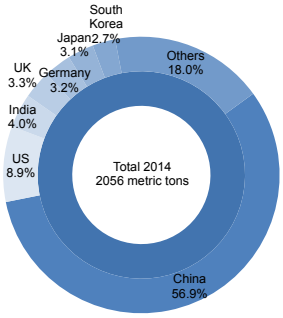
- Health of electronics industry
- Strength of the U.S. dollar
- Gold price dynamics
- Economic growth, mainly in China and India
- Geopolitical tensions
- Decline in production of film photography
- Development of new technologies
- Commodity-specific events like mine or plant closures

### Industrial sector usage by country in 2014

Electronics industry | share in %

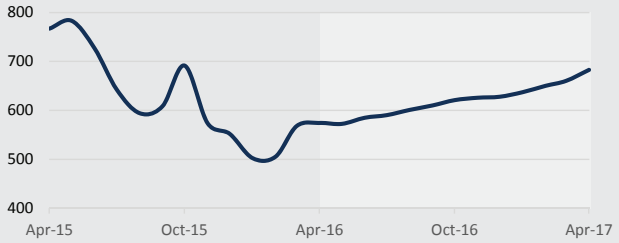



Brazing industry | share in %



# Palladium

**Palladium LME** (prices in USD/toz, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 592 | 541 | 555 | 786 |
| 13-May-16 | +9.4% | +6.7% | -24.7% |

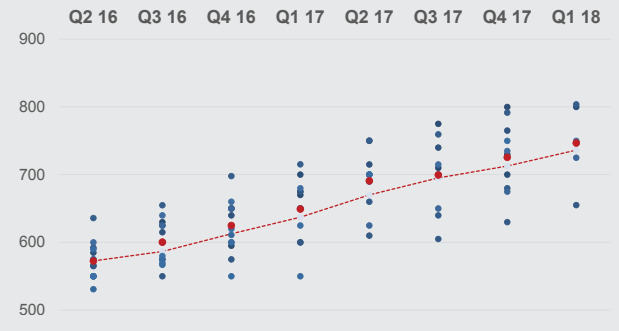
**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 573 -3.3% | |
| Q4 16 | 625 +5.6% | |
| Q4 17 | 726 +22.6% | |

**Forecast Revisions (by number of panelists)**

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 2 | ↑ | 2 | ↑ | 1 |
| = | 11 | = | 11 | = | 8 |
| ↓ | 1 | ↓ | 1 | ↓ | 1 |

**Panelist Spread**




Since climbing to the highest level seen in 2016 at the start of May, palladium prices have receded slightly in recent days although they remain above April's levels. On 13 May, the price closed the day at USD 592 per troy ounce, which was up 9.4% from the same day in April and was 6.7% higher on a year-to-date basis. However, the price was down 24.7% from the corresponding day in 2015.

This year's rise in palladium prices comes against a broader rally in the precious metals market. A weaker U.S. dollar has fueled price gains across precious metals, however, palladium prices have risen at a slower pace comparatively. Soft economic data and concerns over the health of the global economy have weighed on industrial demand for palladium.

Prices are expected to rise slowly by the end of this year and to continue picking up throughout 2017. A more pronounced supply deficit and improving demand for industrial uses should drive the steady increase. Analysts polled for this month's FocusEconomics Consensus Forecast project that the price will average USD 625 per troy ounce in Q4 2016 and see prices rising to an average of USD 726 per troy ounce in Q4 2017.

This month, the majority of panelists took a wait-and-see approach and maintained their forecasts for Q4 2016, with 11 leaving them unchanged. Only 2 panelists upgraded their projections, while 1 cut their forecast from last month.

Almost all of our panelists see the price of palladium rising by Q4 2016. Yet, 2 panelists are predicting lower prices. For Q4 2016, the maximum price forecast is USD 698 per troy ounce, while the minimum is projected to be USD 550 per troy ounce.

**Palladium prices and futures prices**

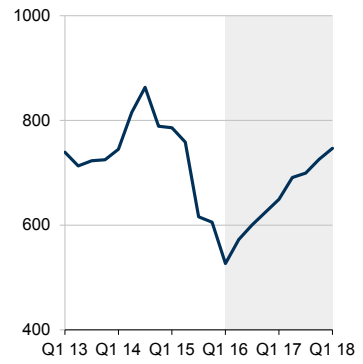
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per toz (aop) | 264 | 528 | 733 | 643 | 725 | 803 | 691 | 580 | 673 | 737 | 805 | 873 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per toz (aop) | 759 | 616 | 606 | 527 | 573 | 600 | 625 | 649 | 691 | 699 | 726 | 747 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per toz (aop) | 572 | 585 | 590 | 601 | 610 | 621 | 626 | 628 | 637 | 650 | 660 | 683 |
| Futures Prices (13-May) | - | 592 | 592 | 593 | 594 | 594 | 596 | 597 | - | - | - | - |

## Palladium | Forecasts and futures prices

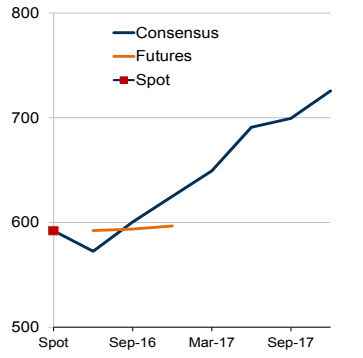
### Palladium LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 592 | 630 | 650 | 670 | 690 | 710 | 730 | - | 600 | 700 |
| ANZ | 565 | 575 | 595 | 600 | 750 | 775 | 800 | - | - | - |
| BMO Capital Markets | 575 | 625 | 600 | 700 | 700 | 700 | 700 | 800 | 582 | 700 |
| Capital Economics | 585 | 615 | 640 | 675 | 715 | 740 | 765 | - | 650 | 775 |
| Commerzbank | 550 | 600 | 650 | 675 | 700 | - | - | - | 594 | - |
| CPM Group | 566 | 550 | 575 | 600 | 610 | 605 | 630 | 655 | 554 | 611 |
| Deutsche Bank | 550 | 600 | 650 | 650 | 660 | 640 | 680 | - | 581 | 658 |
| EIU | 636 | 655 | 698 | 715 | 750 | 760 | 792 | 804 | 630 | 754 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 565 | - |
| Investec | - | - | - | - | - | - | - | - | 513 | 535 |
| Liberum Capital | - | - | - | - | - | - | - | - | 568 | 639 |
| Macquarie Research | 575 | 625 | 650 | 650 | 625 | 650 | 675 | 725 | 594 | 650 |
| OCBC | 531 | 567 | 611 | - | - | - | - | - | 552 | - |
| Société Générale | 550 | 575 | 550 | 550 | - | - | - | - | 550 | 600 |
| Standard Chartered | 600 | 640 | 660 | 680 | 700 | 715 | 735 | 750 | 610 | 710 |
| Toronto-Dominion | 590 | 570 | 600 | 625 | 700 | 700 | 750 | - | 573 | 694 |
| Unicredit | 550 | 580 | 620 | 650 | - | - | - | - | 568 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 531 | 550 | 550 | 550 | 610 | 605 | 630 | 655 | 513 | 535 |
| Maximum | 636 | 655 | 698 | 715 | 750 | 775 | 800 | 804 | 650 | 775 |
| Median | 571 | 600 | 630 | 650 | 700 | 705 | 733 | 750 | 577 | 694 |
| **Consensus** | **573** | **600** | **625** | **649** | **691** | **699** | **726** | **747** | **580** | **673** |

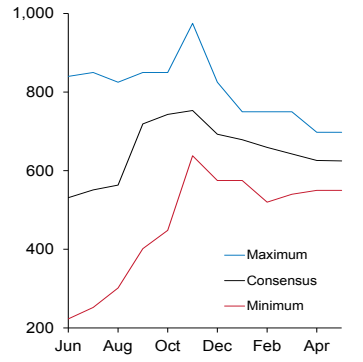
### 1 | Palladium | LME



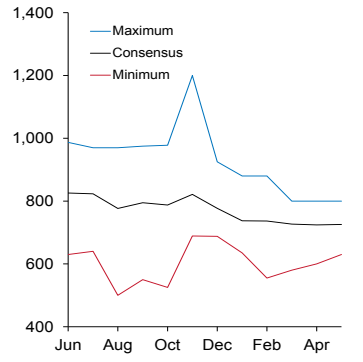

### 2 | Futures and Consensus Forecast




### 3 | Palladium Q4 2016 | evol. of fcst.




### 4 | Palladium Q4 2017 | evol. of fcst.



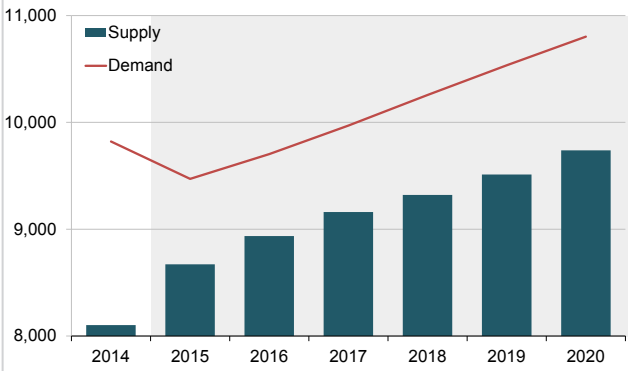

### Notes and sources

General:
London Metal Exchange (LME) Palladium spot prices in USD per troy ounce (toz). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of London Metal Exchange (LME) Palladium in USD/toz (aop).
**2** Consensus Forecast of quarterly London Metal Exchange (LME) Palladium average prices and futures prices traded on the New York Mercantile Exchange (COMEX division) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of London Metal Exchange (LME) Palladium, evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of London Metal Exchange (LME) Palladium, evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global supply and demand | Thousand ounces

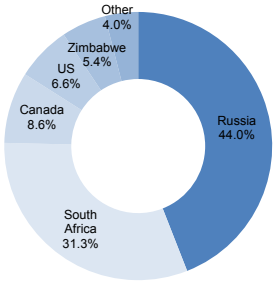



### Global supply and demand outlook

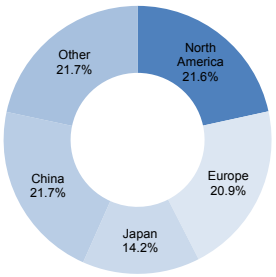
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **Supply \| Thousand ounces** | | | | | | | |
| **Global** | **8,102** | **8,671** | **8,936** | **9,161** | **9,321** | **9,512** | **9,738** |
| South Africa | 1,771 | 2,276 | 2,421 | 2,511 | 2,521 | 2,546 | 2,585 |
| North America | 976 | 969 | 951 | 944 | 938 | 931 | 924 |
| Russia | 2,650 | 2,650 | 2,650 | 2,650 | 2,650 | 2,650 | 2,650 |
| Zimbabwe | 279 | 332 | 342 | 342 | 342 | 342 | 342 |
| Autocat. recycling | 1,926 | 2,044 | 2,172 | 2,314 | 2,470 | 2,643 | 2,837 |
| **Demand \| Thousand ounces** | | | | | | | |
| **Global** | **9,821** | **9,471** | **9,703** | **9,970** | **10,257** | **10,535** | **10,803** |
| Autocatalyst | 7,460 | 7,834 | 8,151 | 8,496 | 8,857 | 9,207 | 9,548 |
| Dental | 450 | 445 | 430 | 415 | 403 | 390 | 375 |
| Electrical | 601 | 511 | 441 | 373 | 306 | 241 | 176 |
| Chemical | 510 | 551 | 553 | 560 | 567 | 575 | 584 |
| Investment | 800 | 130 | 128 | 126 | 124 | 122 | 120 |

### Major producers and consumers in 2014

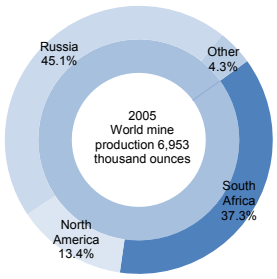
Production | %-share in World

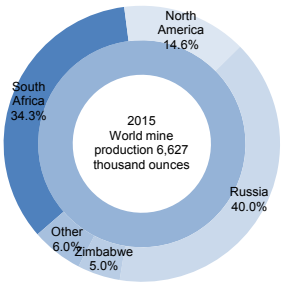



Consumption | %-share in World




### Distribution of mine production in 2005 and 2017




### Palladium futures at a glance

| | |
|---|---|
| Contract: | NYM-Palladium 100 oz |
| Ticker: | PA |
| Price quotation: | USD per ounce |
| Settlement type: | Deliverable |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 100 ounces |
| Tokyo Commodity Exchange (TOCOM) | 500 grams |
| Moscow Exchange (MOEX) | 10 ounces |

### Palladium facts

• Palladium is one of the rarest metals on earth: It's 15 times more rare than platinum and 30 times than gold.

• The London Platinum and Palladium Market is the world's leading market for platinum and palladium. LPPM members fix the bid prices twice a working day.

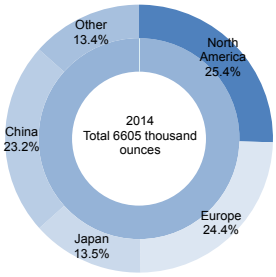
• Palladium's application is in the catalytic converters as substitute for platinum, followed by electronics and jewellery.

### Factors influencing prices

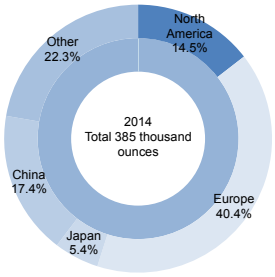
• Health of electronics industry
• Stocks movements
• Mines' productive capacities
• Commodity-specific events like mine or plant closures
• Variation in platinum prices
• Automotive industry's growing demand
• Development of new technologies
• Russian and South African geopolitical pressure

### Industry share of palladium usage by country

Autocatalysts | share in %

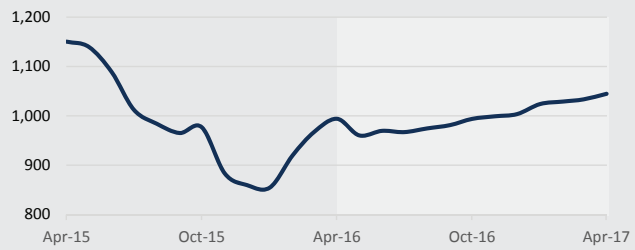



Chemicals | share in %



# Platinum

## Platinum LME (prices in USD/toz, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,042 | 994 | 868 | 1,143 |
| 13-May-16 | +4.8% | +20.0% | -8.8% |

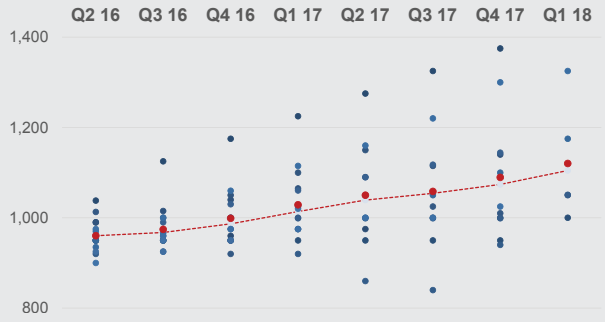
## Forecasts and change from spot

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 960 -7.8% | |
| Q4 16 | 999 -4.1% | |
| Q4 17 | 1,089 +4.5% | |

## Forecast Revisions (by number of panelists)

| Q2 16 | | Q4 16 | | Q4 17 | |
|---|---|---|---|---|---|
| ↑ | 3 | ↑ | 3 | ↑ | 3 |
| = | 12 | = | 12 | = | 8 |
| ↓ | - | ↓ | - | ↓ | - |

## Panelist Spread




Platinum prices continued to post solid gains in recent weeks amid a strong rally from January's multi-year low. On 13 May, platinum traded at 1,042 USD per troy ounce, which was up 4.8% from the same day in April and was 20.0% higher on a year-to-date basis. However, the price was down 8.8% from the same day last year.

The rebound in platinum prices comes after increased supply and a general downturn in commodity markets pushed prices to historically-low levels in 2015. Since January, upward momentum in prices has emerged amid expectations of a return to supply deficit in 2016 and a weaker U.S. dollar. Despite the rebound, the price of platinum remains at low levels as concerns over the global economy weigh on demand for industrial uses.

Prices are expected to recede from the current level and fall in the coming quarters. However, improving prospects for the global economy should facilitate upward momentum next year. Analysts surveyed by FocusEconomics see prices averaging 999 USD per troy ounce in Q4 2016. The panel sees prices rising gradually to USD 1,089 per troy ounce in Q4 2017.

This month, most of the panelists we polled maintained their forecasts for Q4 2016 unchanged, despite recent developments. 12 panelists left their projections stable. Only 3 panelists raised their projection, while no panelists cut their forecasts.

The majority of our panel sees prices falling by the fourth quarter of this year, however, 3 panelists disagree. For Q4 2016, analysts' projections fall between a maximum forecast of USD 1,175 per troy ounce and a minimum of USD 920 per troy ounce.

**Platinum prices and futures prices**

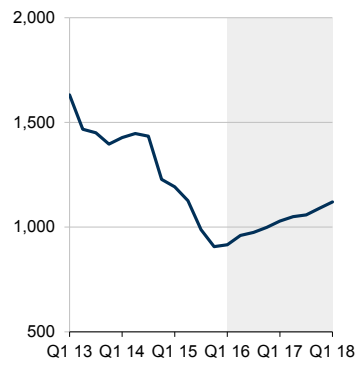
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per toz (aop) | 1,205 | 1,611 | 1,719 | 1,549 | 1,485 | 1,384 | 1,052 | 967 | 1,067 | 1,132 | 1,213 | 1,293 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per toz (aop) | 1,126 | 988 | 906 | 916 | 960 | 974 | 999 | 1,029 | 1,050 | 1,058 | 1,089 | 1,120 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per toz (aop) | 961 | 970 | 967 | 975 | 981 | 994 | 999 | 1,004 | 1,024 | 1,029 | 1,034 | 1,045 |
| Futures Prices (13-May) | - | 1,052 | 1,052 | 1,052 | 1,054 | 1,055 | 1,057 | 1,059 | - | - | - | - |

## Platinum | Forecasts and futures prices

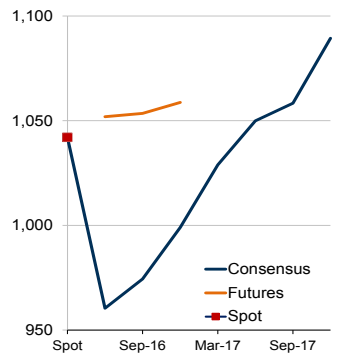
### Platinum LME

| Individual Forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 1,038 | 1,125 | 1,175 | 1,225 | 1,275 | 1,325 | 1,375 | - | 1,078 | 1,300 |
| ANZ | 990 | 950 | 960 | 975 | 975 | 1,000 | 1,000 | - | - | - |
| BMO Capital Markets | 950 | 950 | 950 | 950 | 950 | 950 | 950 | 1,000 | 942 | 950 |
| Capital Economics | 990 | 1,015 | 1,040 | 1,065 | 1,090 | 1,115 | 1,140 | - | 1,050 | 1,150 |
| Commerzbank | 950 | 1,000 | 1,050 | 1,100 | 1,150 | - | - | - | 975 | - |
| CPM Group | 1,013 | 950 | 920 | 1,000 | 1,050 | 1,025 | 1,010 | 1,050 | 950 | 1,021 |
| Deutsche Bank | 920 | 960 | 950 | 920 | 860 | 840 | 940 | - | 939 | 890 |
| EIU | 950 | 950 | 950 | 999 | 999 | 999 | 999 | 1,051 | 950 | 999 |
| Emirates NBD | 950 | 990 | 1,030 | 1,061 | 1,090 | 1,118 | 1,144 | - | 970 | 1,103 |
| FastMarkets Ltd | - | - | - | - | - | - | - | - | 1,068 | - |
| Investec | - | - | - | - | - | - | - | - | 884 | 922 |
| Liberum Capital | - | - | - | - | - | - | - | - | 1,000 | 1,125 |
| Macquarie Research | 950 | 925 | 975 | 1,025 | 1,000 | 1,050 | 1,100 | 1,175 | 941 | 1,044 |
| OCBC | 935 | 966 | 1,000 | - | - | - | - | - | 952 | - |
| Société Générale | 925 | 925 | 950 | 975 | - | - | - | - | 850 | 975 |
| Standard Chartered | 970 | 1,000 | 1,060 | 1,115 | 1,160 | 1,220 | 1,300 | 1,325 | 990 | 1,200 |
| Toronto-Dominion | 975 | 960 | 975 | 975 | 1,000 | 1,000 | 1,025 | - | 958 | 1,000 |
| Unicredit | 900 | 950 | 1,000 | 1,020 | - | - | - | - | 941 | - |
| **Summary** | | | | | | | | | | |
| Minimum | 900 | 925 | 920 | 920 | 860 | 840 | 940 | 1,000 | 850 | 890 |
| Maximum | 1,038 | 1,125 | 1,175 | 1,225 | 1,275 | 1,325 | 1,375 | 1,325 | 1,078 | 1,300 |
| Median | 950 | 960 | 975 | 1,010 | 1,025 | 1,025 | 1,025 | 1,051 | 952 | 1,032 |
| **Consensus** | **960** | **974** | **999** | **1,029** | **1,050** | **1,058** | **1,089** | **1,120** | **967** | **1,067** |

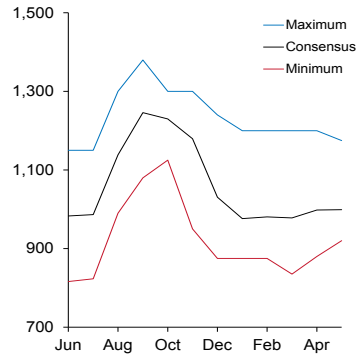
### 1 | Platinum | LME



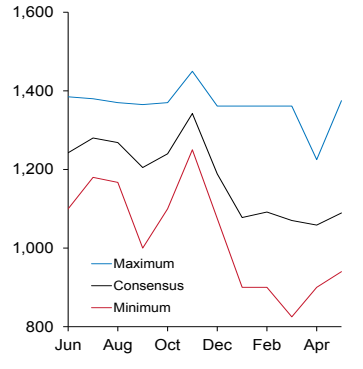

### 2 | Futures and Consensus Forecast




### 3 | Platinum Q4 2016 | evol. of fcst.




### 4 | Platinum Q4 2017 | evol. of fcst.



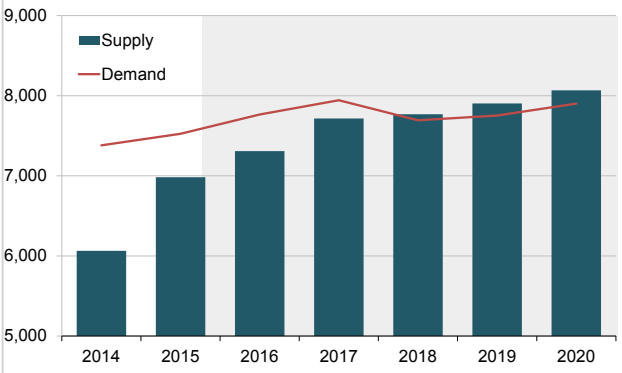

### Notes and sources

General:
London Free Market Platinum (LME) spot prices in USD per troy ounce (toz). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast.

**1** Quarterly prices of London Free Market Platinum (LME) in USD/toz (aop).
**2** Consensus Forecast of quarterly London Free Market Platinum (LME) average prices and futures prices traded on the New York Mercantile Exchange (COMEX division) at the end of each quarter. Futures prices are as of spot date.
**3** Quarterly price of London Free Market Platinum (LME), evolution of Q4 2016 forecast during the last 12 months.
**4** Quarterly price of London Free Market Platinum (LME), evolution of Q4 2017 forecast during the last 12 months.

## Fact Sheet

### Global supply and demand | Thousad ounces

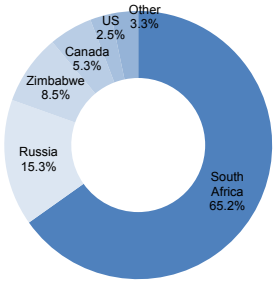



### Global supply and demand outlook

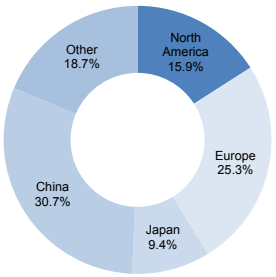
| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| **Supply \| Thousand ounces** | | | | | | | |
| **Global** | **6,064** | **6,983** | **7,308** | **7,715** | **7,768** | **7,903** | **8,066** |
| South Africa | 2,992 | 3,776 | 3,913 | 4,185 | 4,061 | 4,088 | 4,130 |
| North America | 378 | 360 | 360 | 345 | 350 | 350 | 350 |
| Russia | 760 | 760 | 760 | 760 | 760 | 760 | 760 |
| Zimbabwe | 403 | 402 | 448 | 448 | 448 | 448 | 448 |
| Other | 205 | 195 | 200 | 205 | 210 | 215 | 220 |
| Autocat. recycling | 1,326 | 1,490 | 1,627 | 1,773 | 1,939 | 2,042 | 2,159 |
| **Demand \| Thousand ounces** | | | | | | | |
| **Global** | **7,380** | **7,525** | **7,766** | **7,943** | **7,693** | **7,753** | **7,902** |
| Autocatalyst | 3,273 | 3,407 | 3,539 | 3,634 | 3,760 | 3,855 | 3,957 |
| Chemical | 650 | 655 | 644 | 652 | 659 | 666 | 675 |
| Jewellery | 2,221 | 2,385 | 2,382 | 2,390 | 2,309 | 2,225 | 2,247 |
| Other | 1,236 | 1,078 | 1,201 | 1,267 | 965 | 1,007 | 1,023 |

### Major producers and consumers in 2014

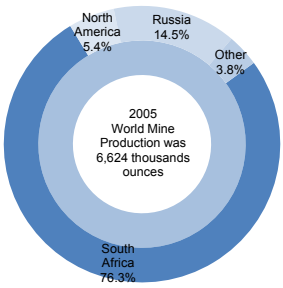
Production | %-share in World

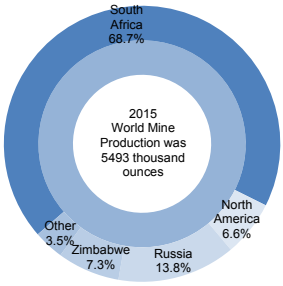



Consumption | %-share in World




### Distribution of mine production in 2005 and 2017




### Platinum futures at a glance

| | |
|---|---|
| Contract: | NYM-Platinum 50 oz |
| Ticker: | PL |
| Price quotation: | USD per ounce |
| Settlement type: | Deliverable |

### Main exchanges and contract size

| | |
|---|---|
| New York Mercantile Exchange (NYMEX) | 50 ounces |
| Tokyo Commodity Exchange (TOCOM) | 500 grams |
| Johannesburg Stock Exchange (JSE) | 10 ounces |

### Platinum facts

• Platinum is the rarest precious metal and its unique chemical and physical properties make it a key element in a wide range of environmental and industrial applications.

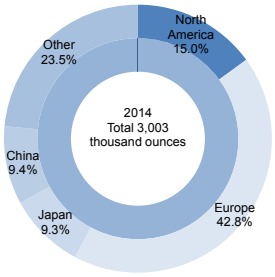
• The London Platinum and Palladium Market is the world's leading market for platinum and palladium. LPPM members fix the bid prices twice per working day.

### Factors influencing prices

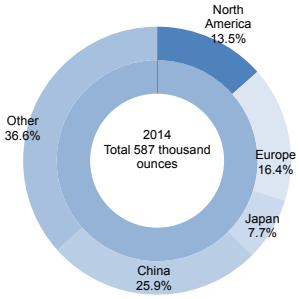
- Health of the auto industry
- Technological developments
- Economic conditions in major consuming countries like USA, Europe, Japan
- Labor conditions and collective bargaining in South Africa
- Consumers' choices in jewelry industry
- Demand for gold
- Demand for palladium in autocatalytic applications
- Currency movement, interest rates, global economy

### Industry share of platinum usage by country

Autocatalytics | share in %

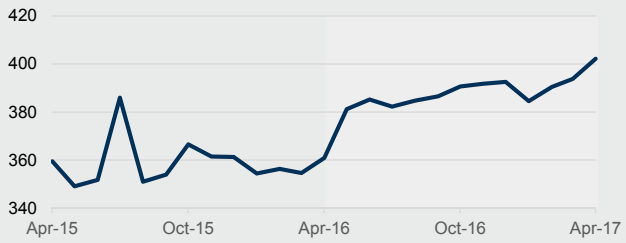



Chemicals | share in %



# Corn

**Corn CBOT** (prices in USD cents/bu, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 375 | 364 | 350 | 352 |
| 13-May-16 | +3.0% | +7.1% | +6.5% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 381 +1.6% | |
| Q4 16 | 392 +4.4% | |
| Q4 17 | 401 +6.9% | |

Corn prices have increased mildly recently. Corn traded at USD 375 cents per bushel on 13 May. The price was 3.0% higher than on the same day of the previous month and was up 7.1% on a year-to-date basis. The price was 6.5% higher than on the same day last year.

Excess global supply, a strong U.S. dollar and subdued demand have been keeping corn prices at fairly-low levels since mid-2014. Despite the low prices, corn stockpiles continue to rise in the U.S. as well as around the world, and U.S. farmers plan to increase production this year. However, dry weather in Brazil threatened crops in the country, sparking expectations for lower supply and providing some support for prices recently. On top of this, a slight weakening of the U.S. dollar recently drove expectations for rising external demand for U.S. corn, easing some price pressures.

Prices are forecast to rise gradually during this year. Panelists project an average price of USD 392 cents per bushel in Q4 2016. Next year, panelists expect a slightly-higher average price of USD 401 cents per bushel in Q4.

| | | | | | | | | | Annual average | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Individual forecasts** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** | **2016** | **2017** |
| ABN AMRO | 395 | 415 | 415 | - | - | - | - | - | 415 | - |
| ANZ | 360 | 330 | 340 | 370 | 370 | 350 | 350 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 380 | 410 |
| Capital Economics | 345 | 340 | 335 | 335 | 350 | 370 | 390 | - | 330 | 400 |
| Commerzbank | 419 | 445 | 445 | 457 | 470 | - | - | - | - | - |
| Danske Bank | 375 | 380 | 390 | 400 | 410 | 415 | 420 | - | 378 | 411 |
| DZ Bank | 370 | 390 | 410 | - | - | - | - | - | 383 | - |
| E2 Economia | 376 | 381 | 381 | 384 | 390 | 395 | 401 | 408 | 375 | 392 |
| EIU | 406 | 406 | 419 | 419 | 427 | 427 | 445 | - | 413 | 429 |
| Itaú BBA | 385 | 394 | 399 | 400 | 400 | 400 | 400 | 401 | 385 | 400 |
| Société Générale | 378 | 364 | 383 | 351 | - | - | - | - | 375 | 365 |
| **Summary** | | | | | | | | | | |
| Minimum | 345 | 330 | 335 | 335 | 350 | 350 | 350 | 401 | 330 | 365 |
| Maximum | 419 | 445 | 445 | 457 | 470 | 427 | 445 | 408 | 415 | 429 |
| Median | 377 | 385 | 394 | 392 | 400 | 398 | 400 | 404 | 380 | 400 |
| **Consensus** | **381** | **385** | **392** | **390** | **402** | **393** | **401** | **404** | **382** | **401** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 360 | 367 | 378 | 387 | 392 | 391 | 387 | - | 374 | 389 |

**Corn prices and futures prices**

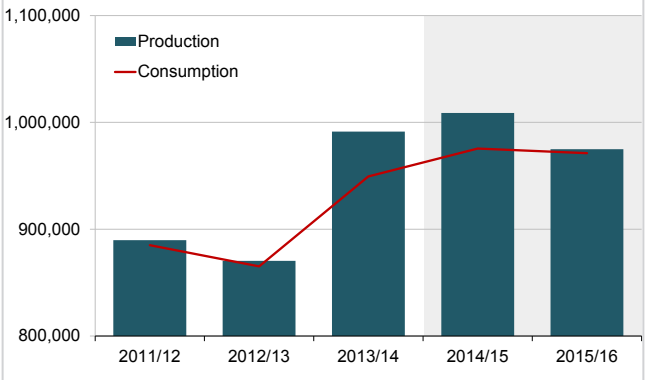
| **Annual data** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per bu | 355 | 403 | 670 | 699 | 598 | 398 | 362 | 382 | 401 | 417 | 439 | 460 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per bu | 354 | 364 | 363 | 355 | 381 | 385 | 392 | 390 | 402 | 393 | 401 | 404 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per bu | 381 | 385 | 382 | 385 | 387 | 391 | 392 | 393 | 384 | 390 | 394 | 402 |
| Futures Prices (13-May) | - | 382 | 391 | 393 | 398 | 406 | 410 | 414 | 410 | 414 | 422 | 427 |

**Notes and sources**

Corn spot prices in USD cents per bushel (bu). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Consensus Forecast of quarterly corn average prices and annual average prices. Futures prices traded on the Chicago Board of Trade (CBOT). Futures prices are as of spot date.

# Fact Sheet

## Global production and consumption | Thousand metric tons

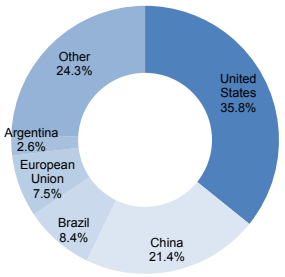



## Global production and consumption outlook

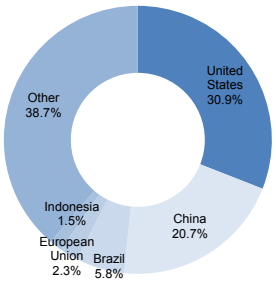
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | |
| **Global** | **889,772** | **870,303** | **991,433** | **1,008,788** | **974,866** |
| Brazil | 73,000 | 81,500 | 80,000 | 85,000 | 81,500 |
| China | 192,780 | 205,614 | 218,490 | 215,670 | 225,000 |
| European Union | 68,123 | 58,896 | 64,630 | 75,730 | 57,751 |
| United States | 312,789 | 273,192 | 351,272 | 361,091 | 346,815 |
| Others | 243,080 | 251,101 | 277,041 | 271,297 | 263,800 |
| **Consumption \| Thousand metric tons** | | | | | |
| **Global** | **885,051** | **865,187** | **949,456** | **975,462** | **971,164** |
| Brazil | 51,500 | 52,500 | 55,000 | 57,000 | 59,000 |
| China | 188,000 | 200,000 | 208,000 | 202,000 | 214,000 |
| European Union | 17,200 | 17,500 | 19,600 | 22,000 | 22,300 |
| United States | 277,961 | 262,973 | 292,965 | 301,851 | 301,131 |

## Major producers and consumers in 2014

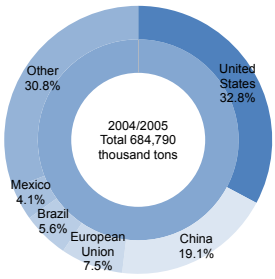
Production | %-share in World

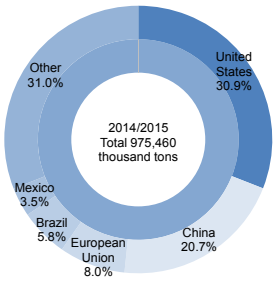



Consumption | %-share in World




## Distribution of total use in 2004/05 and 2014/15




## Corn futures at a glance

| | |
|---|---|
| Contract: | CBOT Corn Future |
| Ticker: | C |
| Price quotation: | USD cents per bushel |
| Settlement type: | Deliverable |

## Main exchanges and contract size

| | |
|---|---|
| Chicago Board of Trade (CBOT) | 5,000 bushels |
| Tokyo Grain Exchange (TGE) | 50,000 kilograms |
| Brazilian Mercantile and Futures Exchange | 27,000 kilograms |

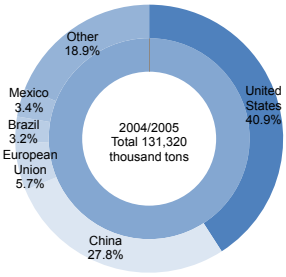
## Corn facts

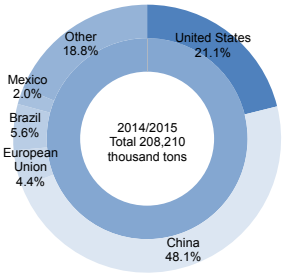
- Corn is the most widely-produced feed grain in the U.S. and it is the main energy ingredient in livestock feed.
- Japan is the world's largest corn importer; while producing almost no coarse grains, Japan is a very large meat producer.
- Corn is the primary grain used to produce ethanol, which is made by fermenting and distilling the simple sugars in it.

## Factors influencing prices

- Ethanol production
- Crude oil prices
- Regional deficits on production
- Climate outlook
- Pressure from Chinese demand
- Geopolitical issues
- El Niño effect
- Investor/speculator effect

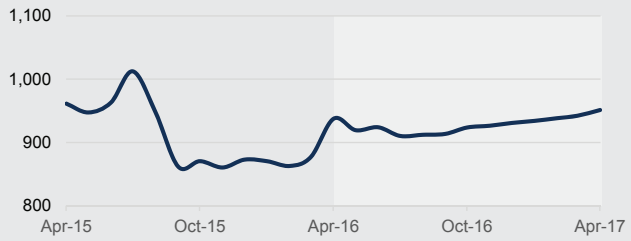
## Distribution of ending stocks in 2004/05 and 2014/15



# Soybeans

**Soybeans CBOT** (prices in USD cents/bu, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,029 | 934 | 863 | 953 |
| 13-May-16 | +10.2% | +19.2% | +8.0% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 919 -10.7% | |
| Q4 16 | 927 -9.9% | |
| Q4 17 | 984 -4.4% | |

Soybeans prices shot up and reached an eleven-month high on 10 May. On 13 May, soybeans traded at USD 1,029 cents per bushel. This was 10.2% higher than on the same day in April. The price was up 19.2% on a year-to-date basis and was 8.0% higher than on the same day in 2015.

Prices soared in recent days as floods in Argentina destroyed 1.6 million hectares of soybeans. This caused global supply to tumble since Argentina is the world's third biggest exporter of the crop after Brazil and the United States. Taking the supply drop into consideration, the U.S. Department of Agriculture reduced its outlook on soybeans stocks for the end of the 2016/2017 season in May. This news triggered a rally.

Looking forward, FocusEconomics panelists expect the rally to fade in the coming months. For Q4 2016 they foresee an average price of USD 927 cents per bushel. For Q4 2017, panelists expect prices to increase and average USD 984 cents per bushel.

| Individual forecasts | Q2 16 | Q3 16 | Q4 16 | Q1 17 | Q2 17 | Q3 17 | Q4 17 | Q1 18 | Annual average 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|
| ABN AMRO | 875 | 890 | 900 | - | - | - | - | - | 890 | - |
| ANZ | 910 | 840 | 920 | 980 | 920 | 910 | 990 | - | - | - |
| BBVA | 898 | 910 | 918 | 916 | 919 | 921 | 924 | 933 | 902 | 920 |
| BMI Research | - | - | - | - | - | - | - | - | 975 | 1,000 |
| Capital Economics | 930 | 915 | 850 | 830 | 840 | 865 | 890 | - | 825 | 900 |
| Commerzbank | 860 | 880 | 900 | 920 | 940 | - | - | - | - | - |
| Danske Bank | 920 | 930 | 935 | 940 | 945 | 950 | 955 | - | 916 | 948 |
| DZ Bank | 890 | 920 | 950 | - | - | - | - | - | 910 | - |
| E2 Economia | 973 | 998 | 1,026 | 1,052 | 1,075 | 1,093 | 1,109 | 1,132 | 970 | 1,082 |
| EIU | 966 | 939 | 953 | 980 | 1,007 | 1,007 | 1,021 | - | 951 | 1,004 |
| Itaú BBA | 998 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,002 | 969 | 1,000 |
| Société Générale | 885 | 810 | 845 | 826 | - | - | - | - | 874 | 1,018 |
| **Summary** | | | | | | | | | | |
| Minimum | 860 | 810 | 845 | 826 | 840 | 865 | 890 | 933 | 825 | 900 |
| Maximum | 998 | 1,000 | 1,026 | 1,052 | 1,075 | 1,093 | 1,109 | 1,132 | 975 | 1,082 |
| Median | 910 | 915 | 920 | 940 | 943 | 950 | 990 | 1,002 | 913 | 1,000 |
| **Consensus** | **919** | **912** | **927** | **938** | **956** | **964** | **984** | **1,022** | **918** | **984** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 863 | 872 | 876 | 882 | 885 | 887 | 877 | - | 870 | 883 |

**Soybeans prices and futures prices**

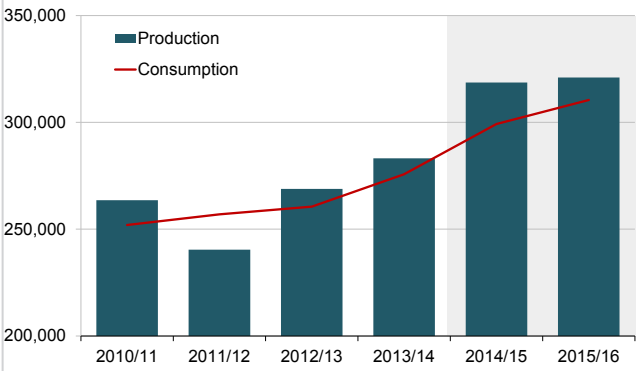
| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per bu | 1,021 | 1,032 | 1,298 | 1,455 | 1,420 | 1,251 | 936 | 918 | 984 | 1,020 | 1,059 | 1,098 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per bu | 957 | 942 | 868 | 870 | 919 | 912 | 927 | 938 | 956 | 964 | 984 | 1,022 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per bu | 919 | 924 | 910 | 912 | 914 | 924 | 926 | 931 | 934 | 938 | 942 | 951 |
| Futures Prices (13-May) | - | 1,065 | 1,067 | 1,060 | 1,055 | 1,052 | 1,030 | 1,025 | 1,026 | 1,012 | 988 | 959 |

**Notes and sources**

Soybeans spot prices in USD cent per bushel (bu). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Consensus Forecast of quarterly soybeans average prices and annual average prices. Futures prices traded on the Chicago Board of Trade (CBOT). Futures prices are as of spot date.

## Fact Sheet

### Global production and consumption | Thousand metric tons

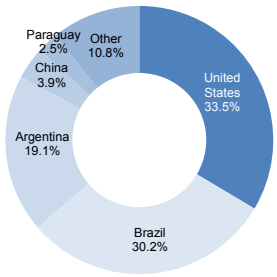



### Global supply and demand outlook

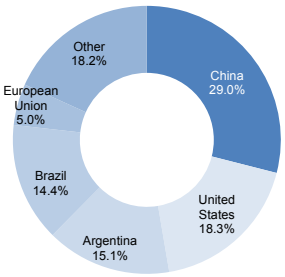
| | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | | |
| **Global** | **263,590** | **240,427** | **268,824** | **283,145** | **318,679** | **321,015** |
| United States | 90,610 | 84,291 | 82,791 | 91,389 | 106,878 | 108,354 |
| Brazil | 75,300 | 66,500 | 82,000 | 86,700 | 96,200 | 100,000 |
| Argentina | 49,000 | 40,100 | 49,300 | 53,500 | 60,800 | 57,000 |
| China | 15,100 | 14,485 | 13,050 | 12,200 | 12,350 | 11,500 |
| Others | 33,580 | 35,051 | 41,683 | 39,356 | 42,451 | 44,161 |
| **Consumption \| Thousand metric tons** | | | | | | |
| **Global** | **251,960** | **256,960** | **260,530** | **275,730** | **299,240** | **310,470** |
| United States | 48,400 | 48,720 | 48,830 | 50,090 | 54,910 | 55,060 |
| Argentina | 39,210 | 37,500 | 36,050 | 40,570 | 45,180 | 47,050 |
| European Union | 13,460 | 13,230 | 13,650 | 14,220 | 14,940 | 15,670 |
| China | 65,950 | 72,070 | 76,180 | 80,600 | 86,700 | 93,200 |

### Major producers and consumers in 2014/15

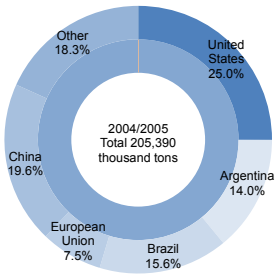
Production | %-share in World

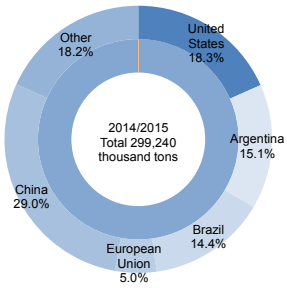



Consumption | %-share in World




### Total use by country in 2004/05 and 2014/15



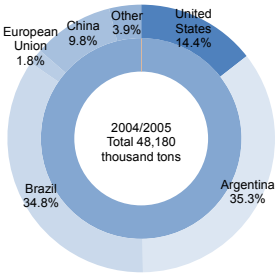

### Soybeans futures at a glance

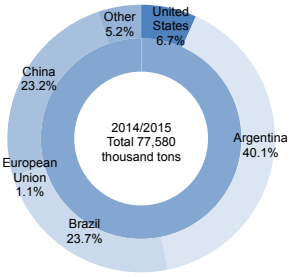
| | |
|---|---|
| Contract: | CBOT Soybeans Future |
| Ticker: | S |
| Price quotation: | USD cents per bushel |
| Settlement type: | Deliverable |

### Main exchanges and contract size

| | |
|---|---|
| Chicago Board of Trade (CBOT) | 5,000 bushels |
| Dalian Commodity Exchange (DCE) | 10,000 kilograms |
| Tokyo Grain Exchange (TGE) | 50,000 kilograms |

### Distribution by ending stocks in 2004/05 and 2014/15




### Soybeans facts

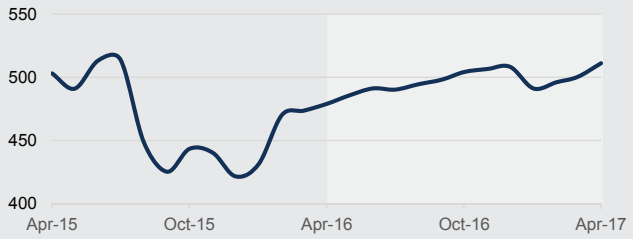
- As a staple crop across many countries, soybeans are widely used in sectors ranging from food to industrial products.
- Low labor cost and extensive fertile lands are behind the remarkable growth of soybean production in South America.
- In 2007, the EU-27 countries combined imported 24.8 million tons of soy meal and 15.5 million tons of soybeans.

### Factors influencing prices

- Emerging markets demand
- Demographic pressure
- Weather conditions
- Government regulation
- El Niño effect
- Crude oil prices
- Demand for biodiesel

# Wheat

**Wheat CBOT** (prices in USD cents/bu, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 457 | 468 | 420 | 479 |
| 13-May-16 | -2.4% | +8.8% | -4.6% |

**Forecasts and change from spot**

| Forecast Period | Forecast Δ Spot | Forecast (last 6 months) |
|---|---|---|
| Q2 16 | 486 +6.3% | |
| Q4 16 | 506 +10.8% | |
| Q4 17 | 551 +20.6% | |

Wheat prices have been broadly stable since last month. On 13 May, wheat traded at USD 457 cents per bushel, which was down 2.4% from the same day in April. However, the figure was 8.8% higher on a year-to-date basis. The price was down 4.6% from the same day last year.

Favorable weather conditions in the wheat-growing areas of the United States and the European Union have caused the supply outlook to improve considerably, thus putting downward pressure on prices. Cheap wheat has boosted wheat exports in France, which is the EU's largest producer. However, low prices are also making farmers more reluctant to sell, thus holding back grain in the hopes of better prices. Adding to that, geopolitical risks in key producing countries such as Ukraine and expectations of an increase in demand from China will boost prices.

Analysts see prices gaining momentum and returning to levels last seen at the start of 2015. FocusEconomics Consensus Forecast panelists expect prices to average USD 506 cents per bushel in Q4 2016. Prices are expected to pick up further over the course of 2017 and average USD 551 cents per bushel in Q4.

| | | | | | | | | | Annual average | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Individual forecasts** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** | **2016** | **2017** |
| ABN AMRO | 500 | 500 | 500 | - | - | - | - | - | 515 | - |
| ANZ | 440 | 460 | 490 | 470 | 480 | 490 | 610 | - | - | - |
| BMI Research | - | - | - | - | - | - | - | - | 500 | 495 |
| Capital Economics | 457 | 438 | 433 | 435 | 450 | 470 | 490 | - | 430 | 500 |
| Commerzbank | 476 | 503 | 517 | 517 | 531 | - | - | - | - | - |
| Danske Bank | 485 | 495 | 505 | 525 | 535 | 545 | 555 | - | 488 | 540 |
| DZ Bank | 500 | 530 | 560 | - | - | - | - | - | 514 | - |
| E2 Economia | 473 | 482 | 492 | 503 | 514 | 524 | 534 | 547 | 478 | 519 |
| EIU | 558 | 572 | 572 | 572 | 585 | 585 | 599 | - | 567 | 585 |
| Itaú BBA | 485 | 499 | 507 | 512 | 514 | 517 | 519 | 521 | 489 | 515 |
| Société Générale | 482 | 465 | 488 | 434 | - | - | - | - | 474 | 481 |
| **Summary** | | | | | | | | | | |
| Minimum | 440 | 438 | 433 | 434 | 450 | 470 | 490 | 521 | 430 | 481 |
| Maximum | 558 | 572 | 572 | 572 | 585 | 585 | 610 | 547 | 567 | 585 |
| Median | 483 | 497 | 503 | 507 | 514 | 520 | 544 | 534 | 489 | 515 |
| **Consensus** | **486** | **494** | **506** | **496** | **516** | **522** | **551** | **534** | **495** | **519** |
| **Additional Forecasts** | | | | | | | | | | |
| IMF (Mar. 2016) | 452 | 465 | 486 | 499 | 507 | 519 | 540 | - | 474 | 516 |

**Wheat prices and futures prices**

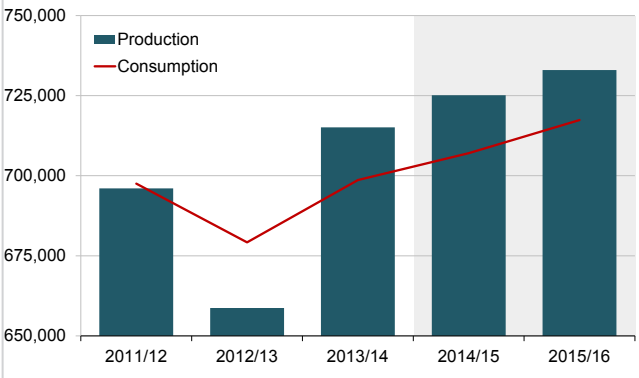
| **Annual data** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per bu | 405 | 540 | 706 | 749 | 700 | 578 | 482 | 495 | 519 | 527 | 545 | 562 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per bu | 503 | 464 | 435 | 459 | 486 | 494 | 506 | 496 | 516 | 522 | 551 | 534 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per bu | 486 | 491 | 490 | 495 | 498 | 504 | 507 | 508 | 491 | 496 | 500 | 511 |
| Futures Prices (13-May) | - | 465 | 475 | 484 | 499 | 513 | 522 | 524 | 530 | - | - | - |

**Notes and sources**

Wheat spot prices in USD cents per bushel (bu). All data are from Thomson Reuters. Forecasts based on FocusEconomics Consensus Forecast. Consensus Forecast of quarterly wheat average prices and annual average prices. Futures prices traded on the Chicago Board of Trade (CBOT). Futures prices are as of spot date.

## Fact Sheet

### Global production and consumption | Thousand metric tons

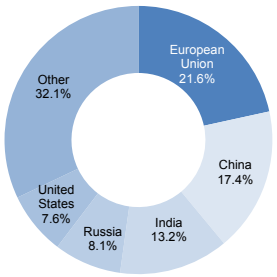



### Global production and consumption outlook

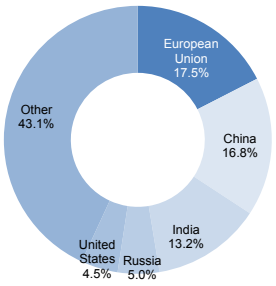
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | |
| **Global** | **696,057** | **658,702** | **715,107** | **725,122** | **732,984** |
| China | 117,400 | 121,023 | 121,930 | 126,170 | 130,000 |
| European Union | 138,182 | 133,949 | 144,428 | 156,466 | 157,274 |
| India | 86,874 | 94,882 | 93,506 | 95,850 | 88,940 |
| United States | 54,244 | 61,298 | 58,105 | 55,147 | 55,840 |
| Russia | 56,240 | 37,720 | 52,091 | 59,080 | 60,500 |
| Others | 243,117 | 209,830 | 245,047 | 232,409 | 240,430 |
| **Consumption \| Thousand metric tons** | | | | | |
| **Global** | **697,522** | **679,210** | **698,652** | **707,045** | **717,373** |
| China | 122,500 | 125,000 | 116,500 | 118,500 | 118,000 |
| European Union | 127,234 | 119,250 | 117,300 | 123,500 | 126,750 |
| India | 81,408 | 83,824 | 93,848 | 93,130 | 93,940 |

### Major producers and consumers in 2014/15

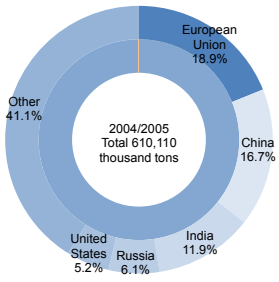
Production | %-share in World

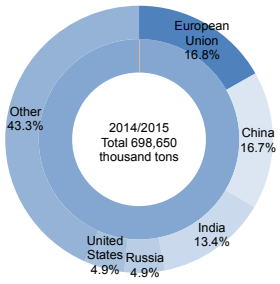



Consumption | %-share in World




### Distribution of proven reserves in 2004/05 and 2014/15




### Wheat futures at a glance

| | |
|---|---|
| Contract: | Chicago SRW Wheat Futures |
| Ticker: | W |
| Price quotation: | USD cents per bushel |
| Settlement type: | Deliverable |

### Main exchanges and contract size

| | |
|---|---|
| Chicago Board of Trade (CBOT) | 5,000 bushels |
| Minneapolis Grane Exchange (MGE) | 5,000 bushels |
| Kansas City Board of Trade (KCBOT) | 5,000 bushels |

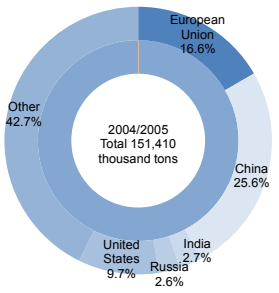
### Wheat facts

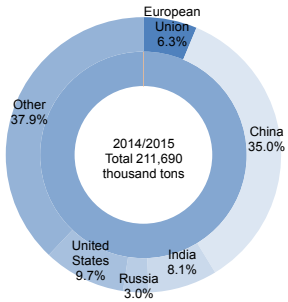
• The majority of wheat is used in human consumption rather than in the production of biofuels or feeding livestock.
• Wheat can be divided in two major groups—spring and winter—depending on the planting and harvesting seasons.
• The EU as an aggregate is the world's largest producer of wheat, followed by China and the U.S.

### Factors influencing prices

• Emerging markets demand
• Demographic pressure
• Weather conditions
• Government regulation
• Strength of the U.S. dollar
• El Niño effect
• Crude Oil prices
• Demand for ethanol

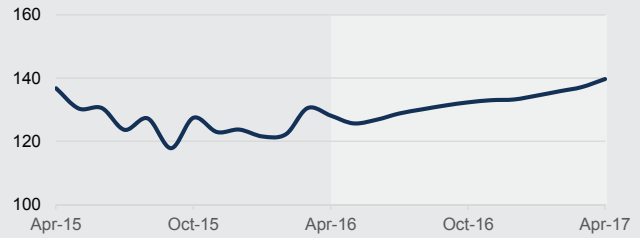
### Distribution by ending stocks in 2004/05 and 2014/15



# Coffee

**Coffee Arabica** (prices in USD cents/lb, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 134 | 127 | 128 | 132 |
| 13-May-16 | +5.9% | +4.7% | +1.6% |

The coffee market has been affected lately due to the Brazilian real losing ground because of the country's crisis. Prices had been seesawing in past month and finally embarked on a growth path in early May. Coffee traded at USD 134 cents per pound on 13 May, which was up 5.9% from the same day of the previous month. The price was 4.7% higher on a year-to-date basis and was up 1.6% from the same day of last year.

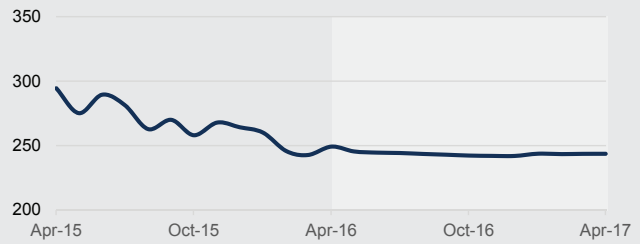
According to the International Center for Tropical Agriculture, dry weather conditions will cause a reduction in suitable coffee crops, thus triggering a supply shortage in the coming years. Analysts expects prices to average USD 133 cents per pound in Q4 2016. The average price forecast for Q4 2017 is USD 146 cents per pound.

**Coffee prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per lb | 115 | 154 | 248 | 175 | 122 | 171 | 132 | 130 | 140 | 137 | 135 | 134 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per lb | 133 | 123 | 125 | 125 | 126 | 130 | 133 | 136 | 141 | 143 | 146 | 150 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per lb | 126 | 127 | 129 | 130 | 131 | 132 | 133 | 133 | 134 | 136 | 137 | 140 |
| Futures Prices (13-May) | - | 129 | 130 | 132 | 135 | 137 | 139 | 140 | 141 | 143 | 144 | - |

# Oats

**Oats CBOT** (prices in USD cents/bu, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 245 | 247 | 272 | 271 |
| 13-May-16 | -0.7% | -9.9% | -9.4% |

Oats prices surged in mid-April, hitting the highest level since mid-January, and then fell back to the lowest value in more than a month on 9 May. The spot price on 13 May was USD 245 cents per bushel. The price was down 0.7% from the same day of the previous month and was 9.9% lower on a year-to-date basis. It was down 9.4% from same day last year.

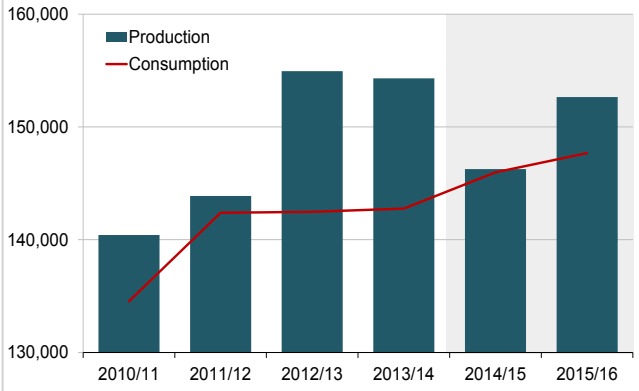
Panelists polled by FocusEconomics foresee a recovery in prices in the coming years. Analysts expect prices to pick up and average USD 242 cents per bushel in Q4 2016. For Q4 2017, are seen averaging USD 249 cents per bushel.

**Oats prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per bu | 221 | 274 | 364 | 367 | 387 | 402 | 285 | 245 | 246 | 307 | 389 | 470 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per bu | 286 | 272 | 263 | 249 | 245 | 244 | 242 | 244 | 245 | 249 | 249 | 248 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per bu | 245 | 244 | 244 | 243 | 243 | 242 | 242 | 242 | 244 | 243 | 244 | 244 |
| Futures Prices (13-May) | - | 179 | 195 | 207 | 219 | 228 | 228 | 234 | 234 | 234 | 234 | 234 |

## Fact Sheet Coffee

### Global production and consumption | Thousand 60-kg bags

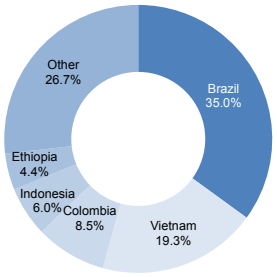



### Global production and consumption outlook

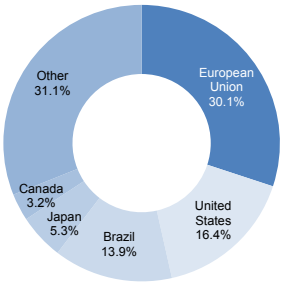
| | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|---|
| **Production \| Thousand 60-kg bags** | | | | | | |
| **Global** | **140,417** | **143,882** | **154,943** | **154,308** | **146,263** | **152,651** |
| Brazil | 54,500 | 49,200 | 57,600 | 56,000 | 51,200 | 52,400 |
| Vietnam | 19,415 | 26,000 | 26,500 | 29,833 | 28,167 | 28,600 |
| Colombia | 8,525 | 7,655 | 9,927 | 12,075 | 12,500 | 13,000 |
| Indonesia | 9,325 | 8,300 | 10,500 | 9,500 | 8,800 | 11,000 |
| Ethiopia | 6,125 | 6,320 | 6,500 | 6,345 | 6,475 | 6,500 |
| Others | 42,527 | 46,407 | 43,916 | 40,555 | 39,121 | 41,151 |
| **Consumption \| Thousand 60-kg bags** | | | | | | |
| **Global** | **134,535** | **142,384** | **142,476** | **142,762** | **145,973** | **147,684** |
| European Union | 41,350 | 45,250 | 43,270 | 41,405 | 43,875 | 43,900 |
| United States | 22,383 | 22,946 | 23,027 | 23,811 | 23,974 | 23,700 |
| Brazil | 19,420 | 20,025 | 20,110 | 20,210 | 20,330 | 20,580 |

### Major producers and consumers in 2014

Production | %-share in World




Consumption | %-share in World

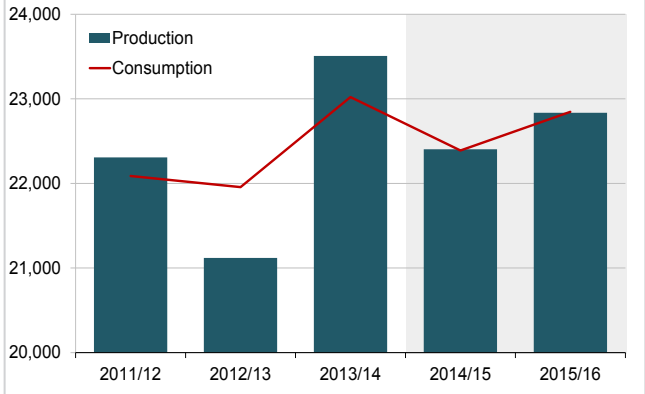



### Factors influencing prices

- Drought in Brazil
- Geopolitical tension in producing countries
- Transportation costs
- Discretionary income
- Competition between Arabica and Robusta producers
- Quality and availability
- Exchange rates
- Health concerns

## Fact Sheet Oats

### Global production and consumption | Thousand Metric tons

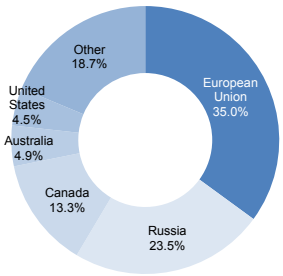



### Global production and consumption outlook

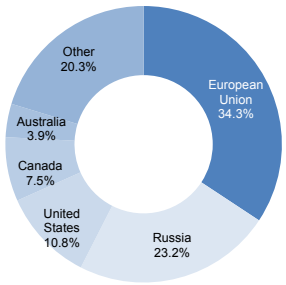
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | |
| **Global** | **22,308** | **21,119** | **23,508** | **22,403** | **22,836** |
| European Union | 7,927 | 7,909 | 8,386 | 7,849 | 7,719 |
| Russia | 5,332 | 4,027 | 4,932 | 5,267 | 5,000 |
| Canada | 3,158 | 2,830 | 3,906 | 2,979 | 3,350 |
| Australia | 1,262 | 1,121 | 1,255 | 1,096 | 1,300 |
| Others | 4,629 | 5,232 | 5,029 | 5,212 | 5,467 |
| **Consumption \| Thousand metric tons** | | | | | |
| **Global** | **22,088** | **21,957** | **23,022** | **22,390** | **22,846** |
| European Union | 7,800 | 7,700 | 8,075 | 7,675 | 7,675 |
| Russia | 5,000 | 4,300 | 4,900 | 5,200 | 5,100 |
| United States | 2,499 | 2,743 | 2,757 | 2,424 | 2,828 |
| Canada | 1,361 | 1,592 | 1,660 | 1,676 | 1,650 |

### Major producers and consumers in 2014

Production | %-share in World




Consumption | %-share in World

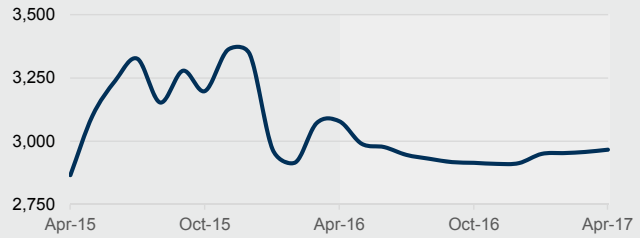



### Factors influencing prices

- Emerging markets demand
- Demographic pressure
- Weather conditions
- Government regulation
- Strength of the U.S. dollar
- El Niño effect
- Crude oil prices

# Cocoa

**Cocoa CBOT** (prices in USD/mt, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 3,040 | 3,008 | 3,269 | 3,110 |
| 13-May-16 | +1.1% | -7.0% | -2.2% |

Cocoa prices have been somewhat volatile since February, although they followed an overall upward trajectory. On 13 May, the spot price was USD 3,040 per metric ton, which was up 1.1% from the same day in April. However, the price was 7.0% lower on a year-to-date basis. The price was down 2.2% from the same day last year.

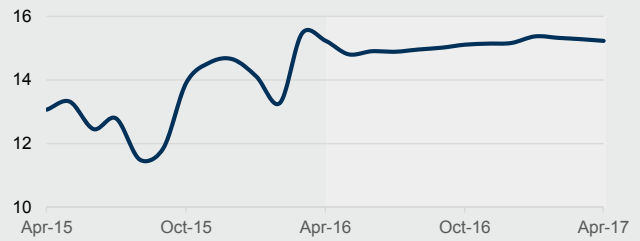
The price is expected to drop over the course of the year and analysts project that it will average USD 2,913 per metric ton in Q4 2016. For 2017, analysts forecast the price rising slightly to an average of USD 3,012 per metric ton in Q4.

**Cocoa prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD per mt | 2,890 | 3,131 | 2,977 | 2,391 | 2,441 | 3,064 | 3,137 | 2,946 | 2,981 | 2,932 | 2,892 | 2,851 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD per mt | 3,068 | 3,255 | 3,301 | 2,988 | 2,989 | 2,931 | 2,913 | 2,954 | 2,973 | 2,993 | 3,012 | 3,013 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD per mt | 2,990 | 2,977 | 2,946 | 2,931 | 2,917 | 2,915 | 2,910 | 2,913 | 2,950 | 2,953 | 2,958 | 2,966 |
| Futures Prices (13-May) | - | 2,961 | 2,967 | 2,975 | 2,962 | 2,944 | 2,937 | 2,932 | 2,925 | 2,918 | - | - |

# Sugar

**Sugar ISA** (prices in USD cents/lb, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 17.0 | 14.3 | 14.9 | 13.6 |
| 13-May-16 | +19.2% | +14.1% | +25.5% |

Sugar prices soared on the back of seasonal demand starting in mid-April despite the ongoing weakening of Brazilian real and the high uncertainty clouding the country's political outlook. Sugar traded at USD 17.0 cents per pound on 13 May. The price was up 19.2% from the same day last month and was 14.1% higher on a year-to-date basis. The price was up 25.5% from the same day last year.

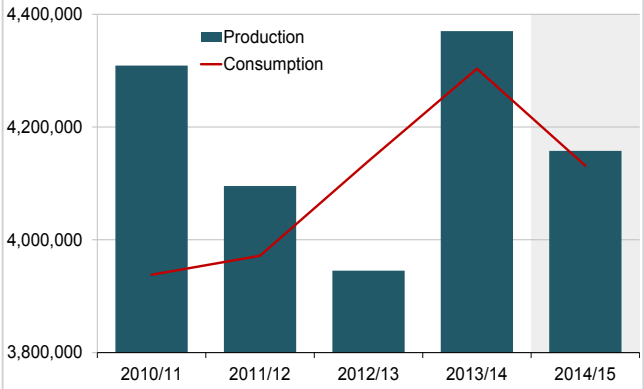
Dryer weather conditions in Brazil's central and southern regions and the weak monsoons in India are putting pressure on the seasonal crop in the world-largest producers as international demand increases. Analysts polled by FocusEconomics forecast prices averaging USD 15.1 cents per pound in Q4 2016 and USD 15.4 cents per pound in Q4 2017.

**Sugar prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per lb | 18.2 | 21.2 | 26.0 | 21.5 | 17.7 | 17.0 | 13.4 | 15.0 | 15.4 | 15.5 | 15.7 | 15.8 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per lb | 13.0 | 12.1 | 14.4 | 14.3 | 14.8 | 15.0 | 15.1 | 15.3 | 15.2 | 15.2 | 15.4 | 15.4 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per lb | 14.8 | 14.9 | 14.9 | 15.0 | 15.0 | 15.1 | 15.1 | 15.2 | 15.4 | 15.3 | 15.3 | 15.2 |
| Futures Prices (13-May) | - | 16.7 | 17.0 | 17.4 | 17.0 | 16.7 | 16.5 | 16.5 | 16.3 | 16.0 | 15.8 | 15.9 |

## Fact Sheet Cocoa

### Global production and consumption | Metric tons

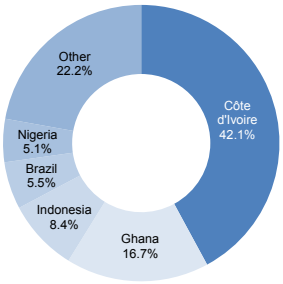



### Global production and consumption outlook

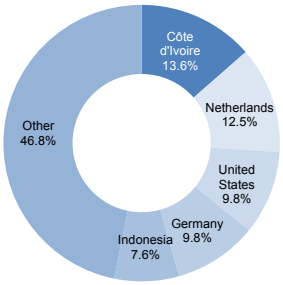
| | 2000/01 | 2010/11 | 2011/12 | 2012/13 | 2013/14 | 2014/15 |
|---|---|---|---|---|---|---|
| **Production \| Metric tons** | | | | | | |
| **Global** | **2,851,500** | **4,309,000** | **4,095,400** | **3,945,200** | **4,370,100** | **4,157,700** |
| Côte d'Ivoire | 1,214,000 | 1,511,300 | 1,485,900 | 1,449,000 | 1,746,200 | 1,750,000 |
| Ghana | 395,000 | 1,024,600 | 879,300 | 835,500 | 896,900 | 695,700 |
| Indonesia | 385,000 | 440,000 | 440,000 | 410,000 | 375,000 | 350,000 |
| Nigeria | 180,000 | 240,000 | 245,000 | 238,000 | 248,000 | 210,000 |
| Brazil | 162,800 | 199,800 | 220,000 | 185,300 | 228,200 | 230,000 |
| **Grindings \| Metric tons** | | | | | | |
| **Global** | **3,041,100** | **3,938,100** | **3,971,800** | **4,139,700** | **4,303,500** | **4,131,100** |
| Côte d'Ivoire | 285,000 | 360,900 | 430,700 | 471,100 | 519,400 | 560,000 |
| Netherlands | 451,900 | 540,000 | 500,000 | 545,000 | 528,500 | 515,500 |
| United States | 444,700 | 401,300 | 386,900 | 429,200 | 446,000 | 406,000 |
| Germany | 226,600 | 438,500 | 407,000 | 402,000 | 412,000 | 404,000 |

### Major producers and consumers in 2014/15

Production | %-share in World




Consumption | %-share in World

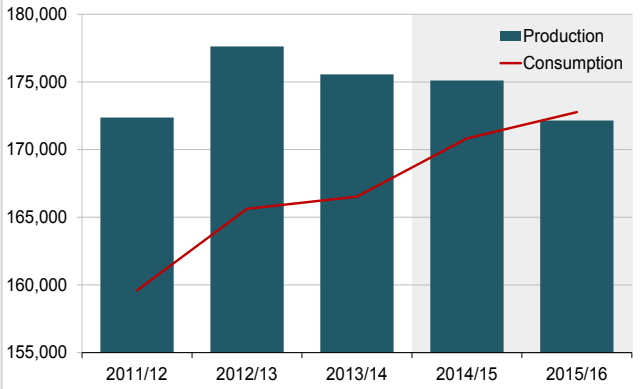



### Factors influencing prices

- Environmental pressure on pollinator bee colonies
- Emerging markets growing demand
- Seasonality
- Oligopolistic market
- Geopolitical tensions
- Global warming
- Discretionary income

## Fact Sheet Sugar

### Global production and consumption | Thousand Metric tons

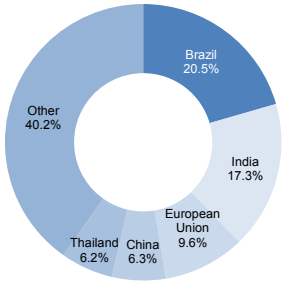



### Global production and consumption outlook

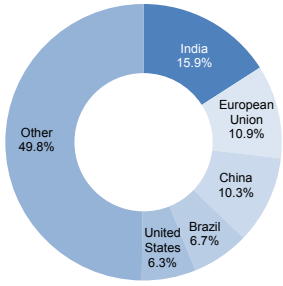
| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | |
| **Global** | **172,371** | **177,624** | **175,558** | **175,103** | **172,146** |
| Brazil | 36,150 | 38,600 | 37,800 | 35,950 | 35,000 |
| India | 28,620 | 27,337 | 26,605 | 30,240 | 28,530 |
| European Union | 18,320 | 16,655 | 16,020 | 16,750 | 16,100 |
| Thailand | 10,235 | 10,024 | 11,333 | 10,790 | 10,800 |
| Others | 79,046 | 85,008 | 83,800 | 81,373 | 81,716 |
| **Consumption \| Thousand metric tons** | | | | | |
| **Global** | **159,599** | **165,626** | **166,522** | **170,825** | **172,768** |
| India | 24,180 | 25,588 | 26,023 | 27,195 | 28,000 |
| European Union | 18,200 | 18,250 | 18,500 | 18,700 | 18,800 |
| China | 14,200 | 15,100 | 16,445 | 17,558 | 17,500 |
| Brazil | 11,500 | 11,200 | 11,260 | 11,500 | 11,150 |

### Major producers and consumers in 2014

Production | %-share in World




Consumption | %-share in World

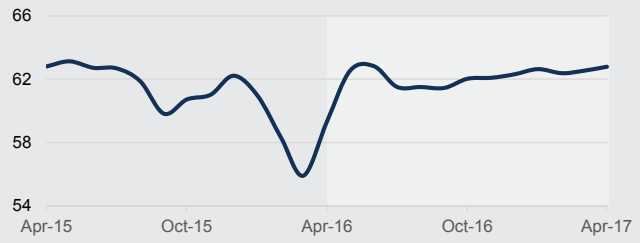



### Factors influencing prices

- Strength of Brazilian real
- Geopolitical tensions
- Health concerns
- Demand for Ethanol
- Stock levels
- Government intervention with subsidies and import tariffs
- Pressure from substitutes
- Weather conditions
- Emerging markets demand

# Cotton

**Cotton ICAC** (prices in USD cents/lb, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 59.1 | 59.5 | 62.6 | 62.9 |
| 13-May-16 | -0.6% | -5.6% | -5.9% |

Prices for cotton have remained low in the start of the second quarter as sluggish demand exerted downward pressure on prices. The spot price registered on 13 May was USD 59.1 cents per pound, which was 0.6% lower than on the same day in April, and was down 5.6% on a year-to-date basis. The price was 5.9% lower than on the same day last year.

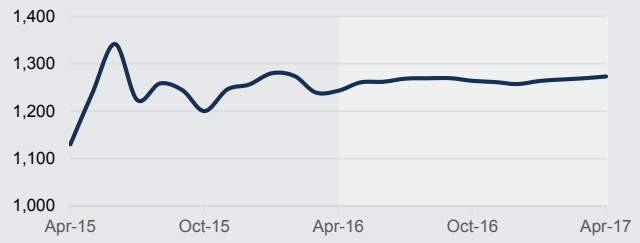
Looking forward, prices are expected to increase marginally on the back of smaller harvests in key markets. Analysts project prices to average USD 62.1 cents per pound in Q4 2016. In Q4 2017, panelists expect production cuts to push prices up and foresee an average price of USD 63.5 cents per pound.

**Cotton prices and futures prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| USD cents per lb | 52.6 | 88.0 | 132.6 | 74.4 | 79.6 | 73.4 | 61.5 | 55.1 | 54.8 | 62.7 | 68.7 | 74.6 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| USD cents per lb | 62.9 | 61.5 | 61.3 | 58.3 | 62.5 | 61.5 | 62.1 | 62.5 | 62.8 | 62.5 | 63.5 | 62.6 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| USD cents per lb | 62.5 | 62.8 | 61.5 | 61.5 | 61.5 | 62.0 | 62.1 | 62.3 | 62.6 | 62.4 | 62.5 | 62.8 |
| Futures Prices (13-May) | - | 60.6 | 61.3 | 60.5 | 60.9 | 61.3 | 61.7 | 62.8 | 62.2 | 62.9 | 63.3 | 63.3 |

# Wool

**Wool AWEX EMI** (prices in AUD cents/kg, aop)




| Spot | 1m ago | 31-Dec-15 | 1y ago |
|---|---|---|---|
| 1,287 | 1,270 | 1,265 | 1,243 |
| 13-May-16 | +1.3% | +1.7% | +3.5% |

Wool prices climbed as Oceania's approaching winter is hampering production. The price increased in the past four weeks—though only mildly—due to relatively-low supply. Moreover, in Australian dollar terms, the price increase was mainly caused by the currency depreciating following the Central Bank's latest rate cut. On 13 May, wool prices traded at AUD 1,287 cents per kilogram. The price was up 1.3% from the same day in April and was 1.7% higher on a year-to-date basis. Moreover, the price was up 3.5% from the same day last year.

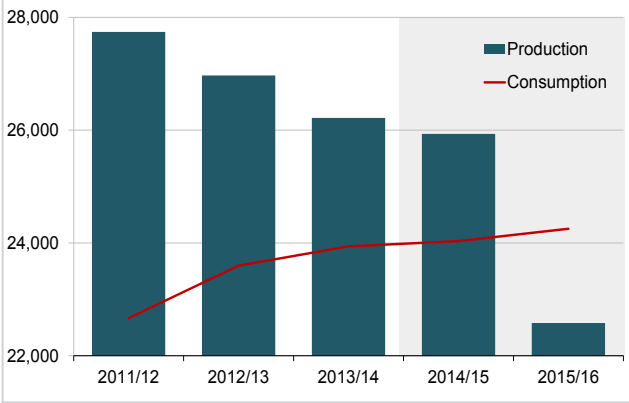
Analysts project the price to average AUD 1,261 cents per kilogram in Q4 2016 and see it inching up to AUD 1,266 cents per kilogram in Q4 2017.

**Wool prices**

| Annual data | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AUD cents per kg | 800 | 915 | 1,279 | 1,088 | 1,072 | 1,047 | 1,198 | 1,111 | 1,125 | 1,118 | 1,121 | 1,124 |
| **Quarterly data** | **Q2 15** | **Q3 15** | **Q4 15** | **Q1 16** | **Q2 16** | **Q3 16** | **Q4 16** | **Q1 17** | **Q2 17** | **Q3 17** | **Q4 17** | **Q1 18** |
| AUD cents per kg | 1,236 | 1,241 | 1,234 | 1,263 | 1,261 | 1,269 | 1,261 | 1,266 | 1,274 | 1,275 | 1,266 | 1,268 |
| **Monthly data** | **May-16** | **Jun-16** | **Jul-16** | **Aug-16** | **Sep-16** | **Oct-16** | **Nov-16** | **Dec-16** | **Jan-17** | **Feb-17** | **Mar-17** | **Apr-17** |
| AUD cents per kg | 1,260 | 1,262 | 1,268 | 1,269 | 1,269 | 1,264 | 1,261 | 1,257 | 1,264 | 1,267 | 1,269 | 1,273 |

## Fact Sheet Cotton

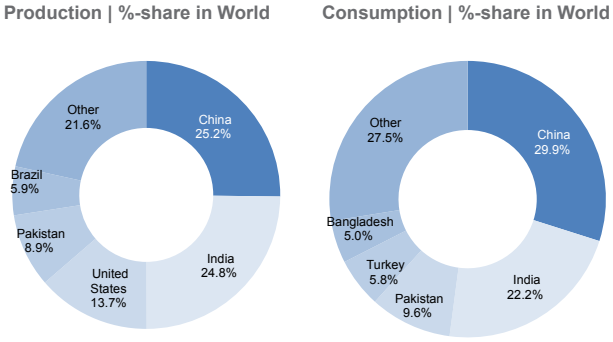
### Global production and consumption | Thousand Metric tons




### Global production and consumption outlook

| | 2011/12 | 2012/13 | 2013/14 | 2014/15 | 2015/16 |
|---|---|---|---|---|---|
| **Production \| Thousand metric tons** | | | | | |
| **Global** | **27,743** | **26,971** | **26,216** | **25,934** | **22,580** |
| India | 6,314 | 6,205 | 6,750 | 6,423 | 6,205 |
| China | 7,403 | 7,620 | 7,131 | 6,532 | 5,291 |
| United States | 3,391 | 3,770 | 2,811 | 3,553 | 2,837 |
| Pakistan | 2,308 | 2,025 | 2,068 | 2,308 | 1,742 |
| Others | 8,327 | 7,351 | 7,456 | 7,118 | 6,505 |
| **Consumption \| Thousand metric tons** | | | | | |
| **Global** | **22,666** | **23,598** | **23,939** | **24,032** | **24,252** |
| China | 8,274 | 7,838 | 7,512 | 7,185 | 7,076 |
| India | 4,235 | 4,736 | 5,062 | 5,334 | 5,508 |
| Pakistan | 2,177 | 2,341 | 2,264 | 2,308 | 2,199 |
| Turkey | 1,219 | 1,317 | 1,372 | 1,393 | 1,393 |

### Major producers and consumers in 2014

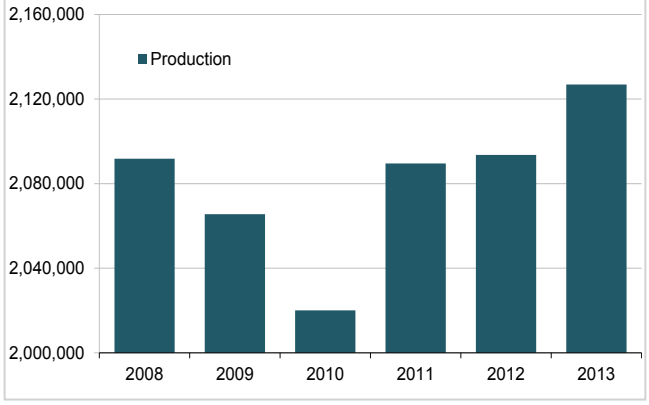



### Factors influencing prices

- Seasonal growing conditions
- Demand for synthetic fibers, mainly Nylon and Acetate
- U.S. Federal subsidies
- Emerging markets demand
- Prices of competing crops used for biofuels
- Demand for cottonseed
- Strength of the U.S. dollar
- Global stocks

## Fact Sheet Wool

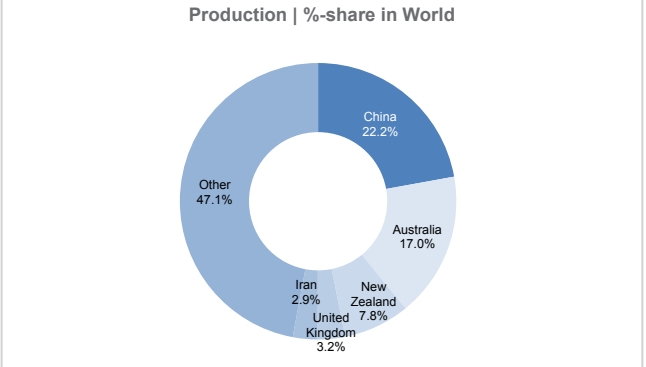
### Global production | Metric tons




### Global production

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| **Production \| Metric tons** | | | | | | |
| **Global** | **2,091,810** | **2,065,574** | **2,020,033** | **2,089,519** | **2,093,605** | **2,126,898** |
| Argentina | 65,000 | 65,000 | 54,000 | 48,000 | 45,000 | 45,000 |
| Australia | 407,880 | 370,600 | 352,740 | 368,330 | 362,100 | 360,520 |
| China | 367,687 | 364,002 | 386,768 | 443,981 | 437,119 | 471,111 |
| Iran | 73,700 | 74,655 | 60,000 | 61,000 | 61,500 | 61,500 |
| India | 42,901 | 43,224 | 42,991 | 44,700 | 46,100 | 46,500 |
| Morocco | 53,449 | 55,029 | 55,300 | 55,500 | 56,000 | 56,000 |
| New Zealand | 157,500 | 185,800 | 176,300 | 163,700 | 165,000 | 165,000 |
| Russia | 53,491 | 54,658 | 53,521 | 52,575 | 55,253 | 54,651 |
| Sudan (former) | 53,098 | 54,668 | 55,000 | 55,000 | 56,000 | 56,000 |
| UK | 63,290 | 65,393 | 67,000 | 67,500 | 68,000 | 68,000 |
| Others | 753,814 | 732,545 | 716,413 | 729,233 | 741,533 | 742,616 |

### Major producers in 2014




### Factors influencing prices

- Available stocks
- Quantity and quality on offer
- Demand for synthetic and cotton fiber
- Discretionary income
- Consumer preferences and fashon trends
- Exchange rates
- Emerging markets demand

## Notes and Statements

### PUBLICATION NOTE

Consensus Forecasts are mean averages of projections of economic forecasters surveyed by FocusEconomics for our monthly publication. Quarterly averages may not correspond to the annual figures due to different forecast panels. Monthly forecasts are interpolated values based on quarterly averages.

The production-weighted averages for the FocusEconomics Global Commodity Index and Energy, Base Metals, Precious Metals and Agricultural Indices refer to commodities surveyed by FocusEconomics on a monthly basis, and include the following commodities:

**Energy (9 commodities):** Brent Crude Oil, WTI Crude Oil, Natural Gas, Thermal Coal, Coking Coal, Uranium U308, Ethanol, Gasoil and Gasoline.
**Base Metals (11 commodities):** Aluminium, Alumina, Aluminium Alloy, Copper, Lead, Nickel, Tin, Zinc, Iron Ore, Steel (USA) and Steel (Europe)
**Precious Metals (4 commodities):** Gold, Silver, Palladium, Platinum.
**Agricultural (9 commodities):** Corn, Soybeans, Wheat, Cocoa, Sugar, Coffee, Oats, Cotton and Wool.

Weights are based on global production volumes and reflect the latest forecasts on production and market prices.

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