Fertilizer Week

Price Forecasts

Ben Farey
Editor-in-Chief
+44 (0)20 7903 2015
Ben.Farey@crugroup.com

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PRICES

Urea prices are set to remain under downwards pressure in the near-term with India not expected to float another import tender until January 2020 at the earliest. This follows purchases of close to 1.76 Mt in RCF's November 14 tender stipulating shipment by December 19.

UAN prices are forecast to fall further than previously expected as wet weather weighs on prices in Europe and the fertilizer follows other nitrogen prices lower. Prices are expected to firm modestly towards the end of Q1 and into the spring.

Ammonia availability will continue to be ample and outweigh demand through January with a slight recovery forecast late Q1 in line with seasonal trends before weakening again in Q2 on abundant supply.

DAP/MAP oversupply in the current demand glut is likely to continue putting downward pressure on prices through early 2020 before good affordability supports limited price recovery between February and May.

Potash spot prices are forecast to decline slightly over the next six months, while a new China contract price is not expected to be agreed until late Q1 at a $25/t decrease year on year.

Sulphur spot prices are expected to remain weak through the first half of 2020, with only slight recovery currently forecast for Q2.

Sulphuric acid prices are still expected to remain relatively stable over the forecast period, although weak downstream demand and high freights continue to exert pressure.

NPK 16-16-16 prices are forecast lower through March amid increased competition for sales and as weak DAP prices limit NPK demand.

Monthly Forecast

Commodity/Type	Unit	NOV 2019 (Actual)	DEC 2019	JAN 2020	FEB 2020	MAR 2020	APR 2020	MAY 2020
UREA								
Prilled Bulk FOB								
Black Sea Spot	USD/t	215	215	220	225	240	230	220
Baltic Sea Spot	USD/t	212	205	210	215	235	225	215
Middle East Spot	USD/t	239	235	240	245	260	250	245
China Spot [3]	USD/t	241	245	252	260	275	280	275
Granular Bulk FOB								
Middle East Spot (all netbacks)	USD/t	217	220	225	230	245	260	260
Egypt Spot	USD/t	229	235	240	245	260	270	268
US New Orleans Spot barge	USD/st	208	205	210	215	225	240	245
UAN								
Bulk FOB								
Black Sea Spot 32%	USD/t	135	130	130	135	135	142	137
US New Orleans Spot barge 32%	USD/st	146	140	135	145	155	160	165
Bulk FCA								
Rouen Spot 30%	EUR/t	161	155	154	159	162	170	165
AMMONIA								
Bulk FOB								
Black Sea Spot	USD/t	235	215	210	220	230	220	210
Baltic Sea Spot	USD/t	233	220	215	225	235	225	215
Middle East Spot	USD/t	255	240	235	240	250	240	230
Caribbean Spot	USD/t	225	215	210	225	245	235	215
Southeast Asia Spot	USD/t	260	260	255	265	275	265	255
Bulk CFR								
Southeast Asia Spot	USD/t	290	290	285	295	305	295	285
US Gulf Spot	USD/t	260	250	245	260	280	270	250
DAP								
Bulk FOB								
US New Orleans Spot	USD/st	246	240	240	250	258	269	275
US Gulf/Tampa Spot	USD/t	280	270	270	273	281	295	300
Baltic/Black Sea Spot	USD/t	288	271	269	277	286	295	298
North Africa Spot	USD/t	301	285	281	290	299	308	311
Saudi Arabia Spot	USD/t	311	301	293	293	296	300	303
China Spot [2]	USD/t	304	294	287	288	292	296	300
Bulk CFR								
India Spot	USD/t	320	308	300	300	304	309	310
MAP								
Granular Bulk CFR								
Brazil Spot	USD/t	294	282	280	284	292	306	312
NPKS								
Bulk FOB								
Baltic Sea 16-16-16 Spot	USD/t	278	271	267	263	263	267	272
POTASH								
Standard Bulk CFR								
China Contract	USD/t	290	290	290	290	265	265	265
India Contract 180 days	USD/t	280	280	280	280	280	280	280
Southeast Asia Spot	USD/t	276	274	273	271	268	265	263
Granular Bulk CFR								
Brazil Spot	USD/t	291	285	283	280	280	278	276
SULPHUR								
Bulk FOB								
Middle East Spot	USD/t	43	41	38	40	40	43	50
Vancouver Spot	USD/t	42	41	38	40	40	43	48
Bulk CFR								
China Spot (Crushed lump and gran) [1]	USD/t	61	58	57	60	63	65	70
Brazil Spot	USD/t	66	64	58	60	60	63	68
SULPHURIC ACID								
Bulk FOB								
NW Europe Spot 30 days	USD/t	35	35	37	35	33	32	30
Bulk CFR								
Chile Spot	USD/t	75	75	70	70	72	73	73

(3) China tax = Zero from January 2017. Predicted unchanged through Q1 2018 (2) China DAP tax 2017 removed. VAT at 13%. (1) China Sulphur: prices include granular and crushed lump material

Forecasts

Urea

Urea prices to remain under pressure until Q1 2020

Urea prices are set to remain under downwards pressure in the near-term with India not expected to float another import tender until January 2020 at the earliest. This follows purchases of close to 1.76 Mt in RCF's November 14 tender stipulating shipment by December 19.

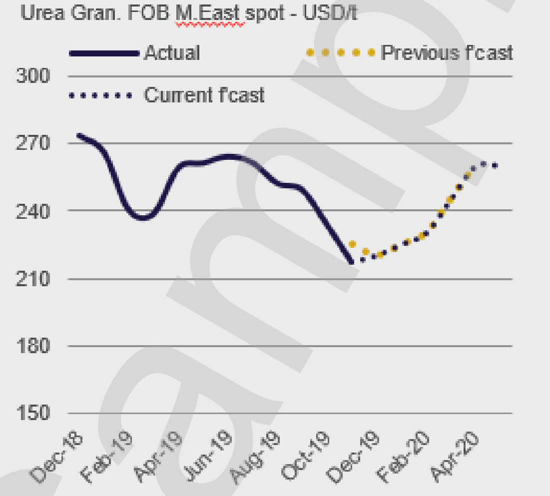
Key risk: DOWNSIDE Poor weather in the US and lower demand in the Americas could push granular benchmarks below current forecast prices. Higher global freights predicted for Q1 and beyond are also set to negatively impact FOB returns.

Monthly Price Forecasts

Urea FOB Prilled Bulk	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Black Sea Spot	$/t	215	215	220	225	240	230	220
Baltic Sea Spot	$/t	212	205	210	215	235	225	215
Middle East Spot	$/t	239	235	240	245	260	250	245
China Spot	$/t	241	245	252	260	275	280	275
FOB Granular Bulk								
Middle East (all netbacks) Spot	$/t	217	220	225	230	245	260	260
Egypt	$/t	229	235	240	245	260	270	268
US New Orleans barge Spot	$/st	209	205	210	215	225	240	245

Urea price weakness in the US lowers Middle East all netbacks prices

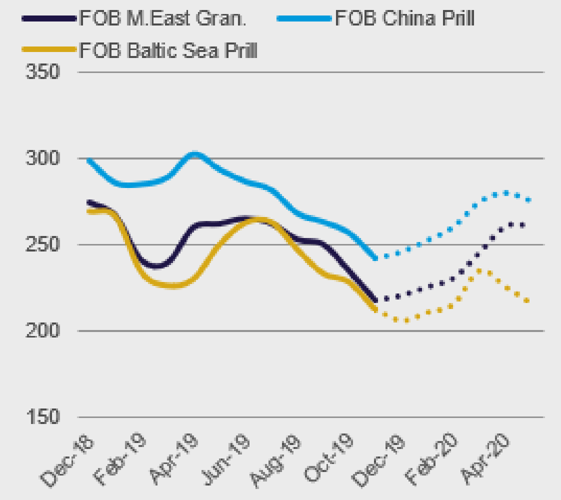
Urea Gran. FOB M.East spot - USD/t



DATA: CRU Urea Market Outlook

Urea price recovery delayed to Q1 2020

Urea price - FOB USD/t

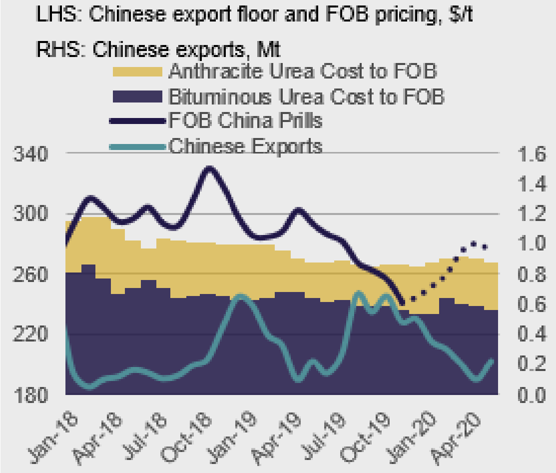


DATA: CRU Urea Market Outlook

On the positive side for producers, barter ratios for urea are forecast to remain favourable as global stocks to use ratio for corn are falling, increasing ethanol production in Brazil and paving the way for higher margins.

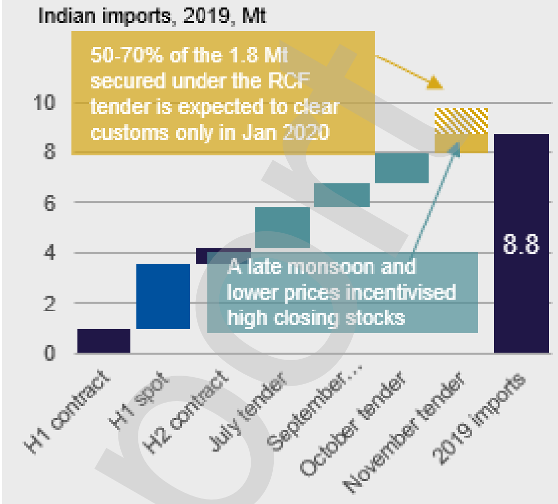
India is on track to import close to 8.8 Mt by the end of 2019, according to CRU estimates, with only 600,000 t to 1 Mt of urea secured under the RCF tender expected to be discharged

Chinese exports forecast to be cutback once winter kicks in and domestic demand starts



DATA: CRU Nitrogen Cost Service, Urea Market Outlook

A run of import tenders in H2 2019 make another tender in the short-term unlikely



DATA: CRU Urea Market Outlook, IHS-Markit

and cleared by customs by the end of December. Reports of substantial backlogs at Indian ports suggests the remainder will only be cleared in 2020.

The total volume procured by India for loading in 2019 does not suggest urgent need for added imports to arrive early in Q1 unless sales of urea will be up substantially in December.

In the November RCF tender, about 412,000 t Chinese product is expected to be supplied of the total 1.76 Mt awarded. Chinese exports in Q4 2019 are forecast to total 1.6 Mt, 23% higher year-on-year than the Q4 2018 export volume of 1.3 Mt. Import demand emergence from India, lower year-on-year coal prices and delayed winter-heating production cuts have increased the volumes available for export.

Exports from China in Q1 2020 are forecast to total 850,000 t, representing a 35% year-on-year decline in export volumes in the first quarter of the year. Chinese domestic producers are likely to step away from the export market from January/February owing to demand from domestic NPK producers and inland distributors in preparation for the spring demand season. Volumes of exports originating from China are likely to be restricted due to environmental regulations and the winter heating season.

As such Chinese prills prices are set to peak in March-April 2020 at $275-280/t FOB. This should support higher prices for prills from the Middle East and the FSU when Indian demand re-emerges.

Demand from Europe and Brazil is not expected to commence in earnest until February as mainstream importers are yet to be convinced that granular urea prices have reached a floor. Iranian urea is set to continue negatively impacting pricing in Brazil and Turkey.

CRU’s Middle East granular (all netbacks) forecast sees prices only recovering to a high of $260/t FOB by April 2020 on renewed European and US buying. North African producers should also benefit from European demand.

US buyers are still hoping for prices under $200/st FOB at New Orleans, but they also continued to buy as high as $205/st FOB in late November. This signals greater concern that prices could rise unexpectedly rather than fall much further. The US supply chain does not particularly need to rebound before late February to begin attracting spot cargoes of granular urea to help meet spring demand. However, buying decisions may begin to be driven by replacement costs from overseas before that time.

Nitrates & Sulphates

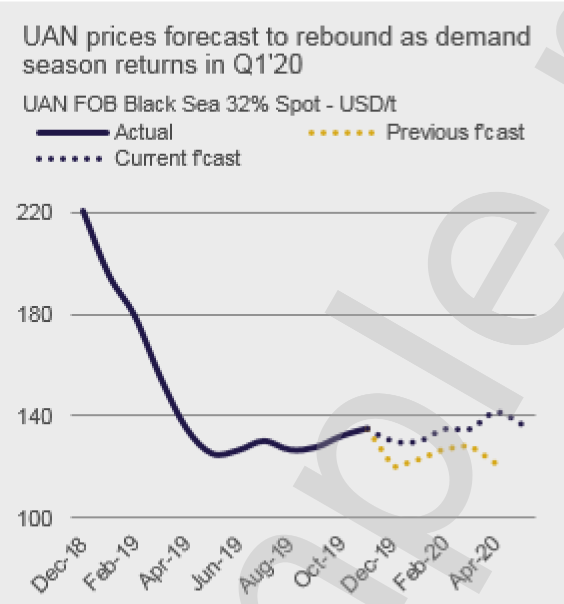
UAN forecast for steeper price declines

UAN prices are forecast to fall further over the coming three months than previously expected as wet weather weighs on prices in Europe and the fertilizer follows other nitrogen prices lower. Prices are expected to firm modestly toward the end of Q1 and into the spring.

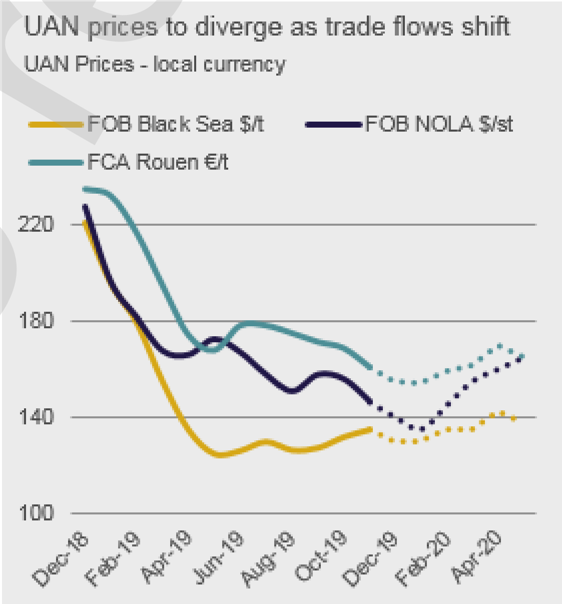
Key risk: DOWNSIDE Reversing last month's key risk that demand may emerge more quickly than forecast, wet weather in Europe and high stocks point to a risk of lower-than-forecast prices.

Monthly Price Forecasts

UAN FOB	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
US NOLA barge 32% Spot	$/st	146	140	135	145	155	160	165
Black Sea 32% Spot	$/t	135	130	130	135	135	142	137
UAN FCA								
Rouen 30% Spot	EUR/t	161	155	154	159	162	170	165



DATA: CRU Fertilizer Nitrates Market Outlook



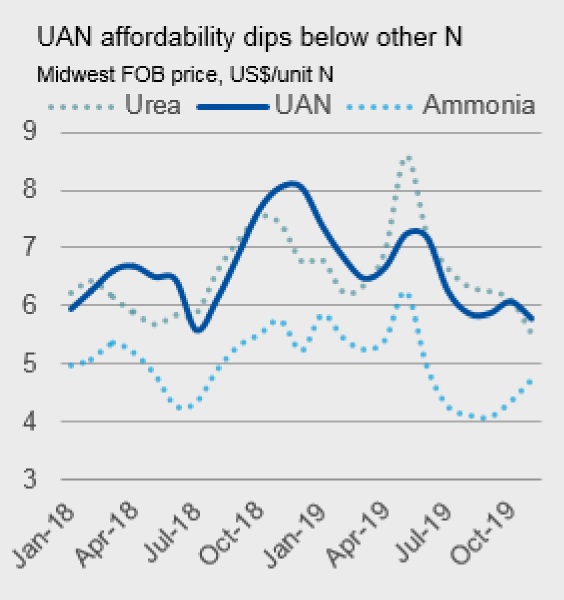
DATA: CRU Fertilizer Nitrates Market Outlook

The UAN-30 price at Rouen is forecast to fall in January to a low of €154/t FCA. The benchmark slipped to €155-160/t FCA end November, the lowest since July, 2018 and a decline of as much as $83/t, or 35%, since the start of the year.

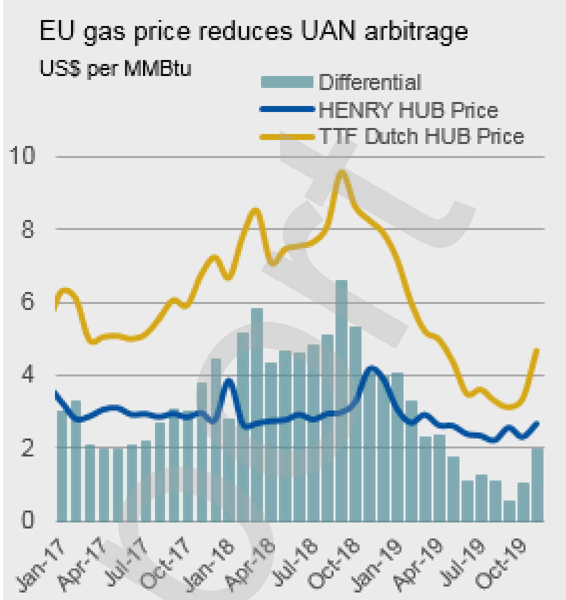
Prices at Rouen are extremely weak with limited business after a flurry of forward purchasing early in the season that left the market more than 55% covered for the balance of the fertilizer year ending May 31, 2020. Forward purchases this year meant prices spiked much earlier in the season – in early-July – and have declined since then.

Wet weather across Europe is the cause of serious concern, with farmers yet to complete harvests for corn, maize and sugar beet, among other crops. Tanks are said to be full at Rouen where most conservative estimates peg capacity in excess of 350,000 t.

GrodnoAzot floated UAN tenders through October and November and failed to elicit buying interest until very late in the month when it sold 10,000 t at €135/t FOB Klaipeda, equating to around $149/t FOB at the prevailing exchange rate.



DATA: CRU



DATA: CRU

The Black Sea price is expected to fall to $130/t FOB in December with export demand unlikely to pick up after a quiet autumn – the season has also ended in Argentina and elsewhere. The Black Sea price may recover modestly in mid-Q1 following increases in demand in Europe.

In October, the European Commission imposed anti-dumping duties on UAN from Russia, the US and Trinidad and Tobago. The Commission opted to impose fixed-rate duties on a €/t basis rather than percentage-based ad valorem duties as provisionally introduced in April. Fixed-rate duties may allow market arbitrage opportunities to return when the market requires tonnes.

New Orleans and US Midwest UAN prices have crept lower down, influenced by declining urea and ammonia prices at key US inland and overseas markets. The trend is not unusual during Q4, especially as inventories begin to build for suppliers. US producers can often achieve a price increase for winter fill offers for product delivered during Q1, but end users are pushing for a further price cut. Buyers point to declines in competing nitrogen prices. They also note current spot quotes from independent distributors below summer fill offers.

CF Industries began offering UAN-32 from terminals along the Ohio River, including Cincinnati, Ohio at $165/st ($5.16/unit) FOB December 2, according to multiple distributors in the Midwest. Buyers must take the tonnes from CF tanks at this price during December and January, according to sources. The new offer is below the producer's summer fill pricing and is the lowest spot prompt cost from Midwest river terminals reported to *Fertilizer Week* this calendar year.

Ammonia

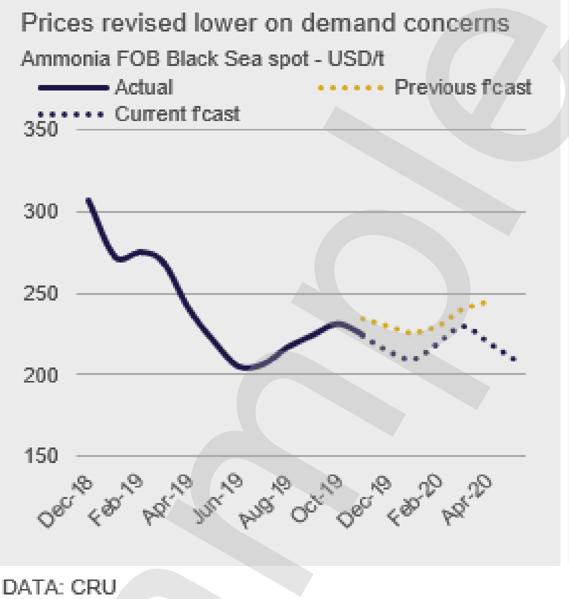
Ample supply maintains pressure on ammonia prices

Ample ammonia availability will continue to outweigh demand through January with a slight recovery forecast late Q1 in line with seasonal trends before weakening again in Q2 on abundant supply.

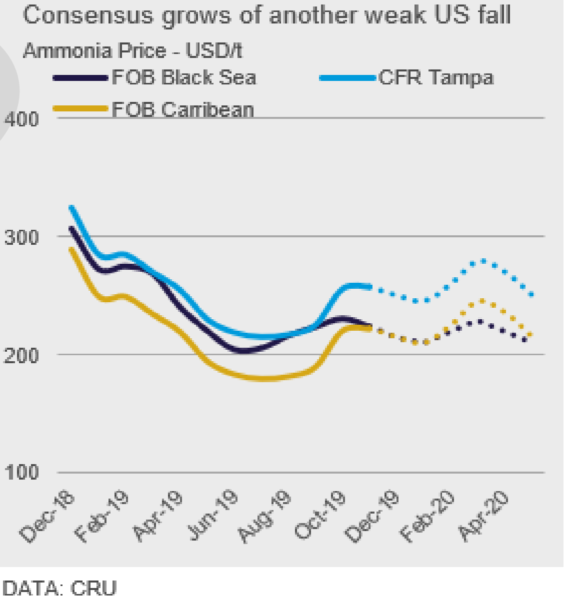
Key risk: DOWNSIDE Should US fall direct application rates be even lower than expected, high stocks coupled with a less satisfactory direct spring application could push prices lower.

Monthly Price Forecasts

Ammonia FOB	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Black Sea Spot	$/t	235	215	210	220	230	220	210
Baltic Sea Spot	$/t	233	220	215	225	235	225	215
Middle East Spot	$/t	255	240	235	240	250	240	230
Caribbean Spot	$/t	225	215	210	225	245	235	215
Southeast Asia Spot (FOB)	$/t	260	260	255	265	275	265	255
Ammonia CFR								
Southeast Asia Spot (CFR)	$/t	290	290	285	295	305	295	285
US Gulf Spot	$/t	260	250	245	260	280	270	250



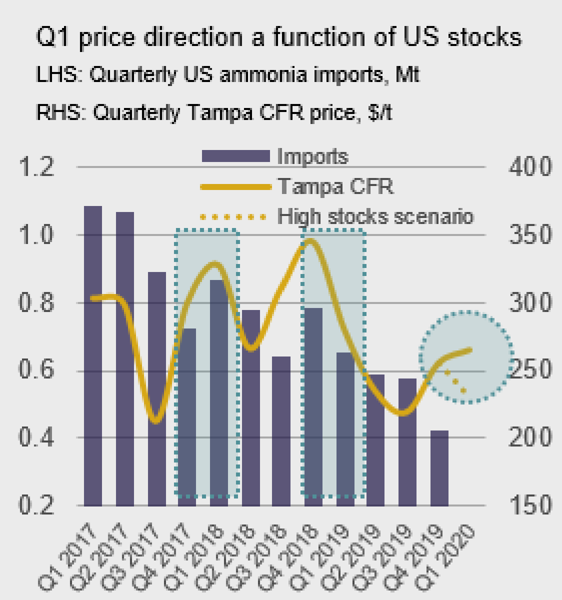
DATA: CRU



DATA: CRU

Suppliers' fears of a poor US fall direct application season following a late harvest have in part been realised, with unfavourable weather prompting a bleak outlook across most of the Midwest. Less ammonia applied in the fall means more carryover for the spring season and will have an impact on US market sentiment, but domestic suppliers are still expected to push for higher prices for shipment through March or April. Nevertheless, it is probably overly optimistic to bet on 2020 pre-plant applications making up for sales lost in the fall of 2019.

The Tampa December benchmark price agreed between Yara and Mosaic has already been cut $10/t versus November to $250/t CFR on news of reduced US ammonia consumption and softer prices across the globe. A further decline to $245/t CFR is expected in January before recovering to $280/t CFR by March. A return to $250/t CFR is forecast by May 2020.



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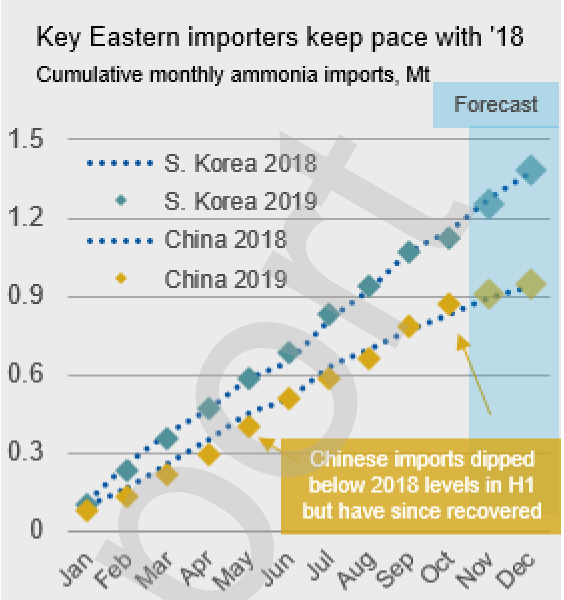


DATA: CRU

Black and Baltic Sea pricing follows a similar trend with prices peaking at $230-235/t FOB in March and then softening to $210-215/t FOB by May. Ample supply from Algeria, both from Sorfert and Fertial Arzew, plus regular export volumes out of Baltic ports, steady output at TogliattiAzot, Rossosh and to some extent OPZ as well as Parna Raya attempts to sell into Turkey have increased competition for regional spot business and are keeping prices low.

Substantial curtailments to Black Sea production over the forecast period are considered unlikely given that prices are not expected to fall as low as the $180/t FOB cost floor for marginal Russian producers.

In the east, all producers in the Middle East and Southeast Asia are still reported running at rated capacity and are expected to continue doing so throughout the forecast. This will effectively cap prices from rising above $250/t FOB Middle East and $275/t FOB Southeast Asia over the next six months.

Suppliers in Indonesia are still concerned if prices dip much below the $255/t FOB forecast for January, eradicating a producer margin for some.

Saudi Arabian producers Ma'aden and Sabic are expected to have spot availability over the coming six months, alongside the occasional export cargo from PIC/GPIC Bahrain.

Southeast Asia's Petronas and Parna Raya will continue targeting China as a key import market with total imports for 2019 set to close at 950,000 t, with a stronger performance in the second half of this year. Additional improvements will be made to Chinese port infrastructure in 2020, with a new 50,000 t/year ammonia import tank expected to be built in Lianyungang port stimulating ammonia imports going forward.

Phosphates

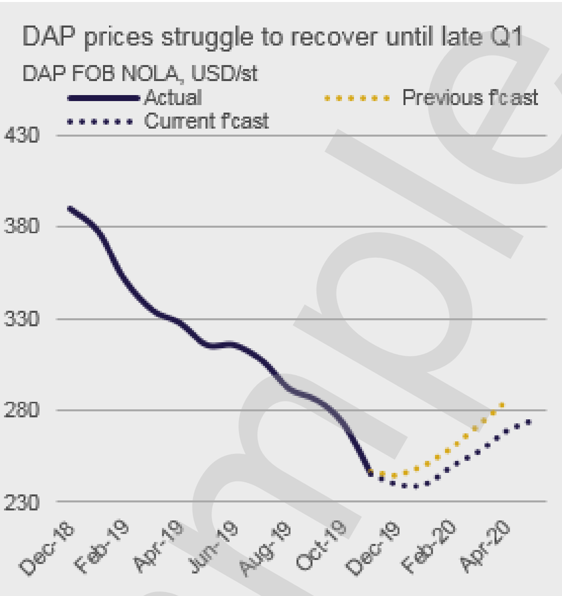
DAP/MAP price recovery to be limited in 2020

Oversupply in the current demand slump is likely to continue putting downward pressure on DAP/MAP prices through early 2020 before good affordability supports limited price recovery between February and May.

Key risk: DOWNSIDE that weak seasonal demand and high stocks lead to a larger decline in DAP/MAP prices globally in the near-term or a more limited recovery in the second quarter.

Monthly Price Forecasts

DAP FOB Bulk	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
US Tampa Spot	$/t	280	270	270	273	281	295	300
Baltic/Black Sea Spot	$/t	288	271	269	277	286	295	298
N.Africa Spot	$/t	301	285	281	290	299	308	311
Saudi Arabia Spot	$/t	311	301	293	293	296	300	303
China Spot	$/t	304	294	287	288	292	296	300
US NOLA barge Spot	$/st	246	240	240	250	258	269	275
DAP CFR Bulk								
India Spot	$/t	320	308	300	300	304	309	310
MAP CFR Bulk								
Brazil Spot	$/t	294	282	280	284	292	306	312



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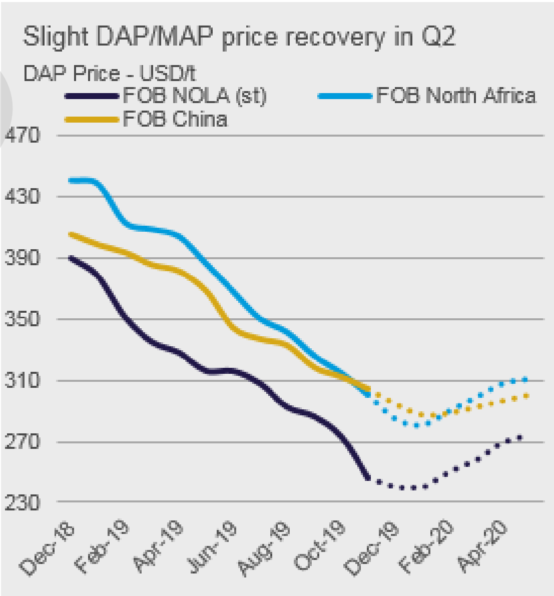


DATA: CRU

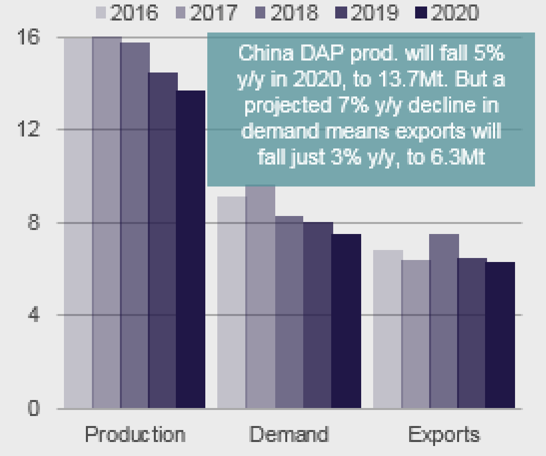
The slump in prices through 2019 brought multiple markets to 12-13-year lows, making DAP/MAP very affordable, with high margins to import DAP and sell inland in India, while the barter ratio for Brazilian MAP v soybean is its most favourable in nearly six years.

Chinese DAP suppliers agreed to extend current production limits through 2020. The cuts should bring production to 14.5 Mt in 2019 and 13.7 Mt in 2020, from 15.7 Mt in 2018. Much of the cut will offset lower domestic demand, only marginally limiting export supply next year.

Mosaic is set to restart its Louisiana DAP/MAP operations in the first quarter while both Moroccan and Saudi Arabian DAP/MAP supply will continue ramping up in 2020. As a result, overall DAP supply should rise next year despite the weak pricing environment.

China set for a modest decline in 2020 DAP exports

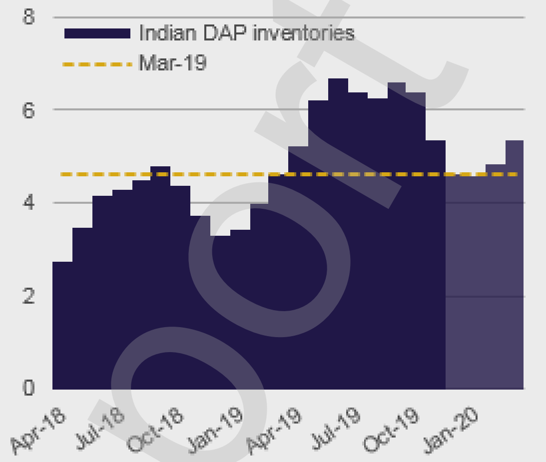
China DAP output and demand, Mt



DATA: CRU, CPFIA

Indian DAP inventories to begin 2020 fertilizer year higher

Indian system-wide DAP inventories, Mt product



DATA: CRU

Vast stocks across markets remains the main limitation to DAP/MAP price recovery. India's November domestic DAP sales hit 1.9 Mt but large import volumes earlier this year and high domestic production should mean DAP stocks enter April 2020 up year on year.

Limited demand for imports is likely to bring down Indian DAP prices another $15/t to $300/t CFR by late January before a slight recovery to $310/t CFR by May.

DAP demand from Pakistan, Bangladesh and Southeast Asia will also be sluggish through the forecast leading to further declines in Chinese DAP prices to roughly $285-290/t FOB in January before returning to $300/t FOB in May.

Similarly, the Saudi Arabia DAP price is expected to fall from around $305-310/t FOB to $290-295/t FOB in January/February before a slight improvement.

In the US market, low DAP/MAP prices are unlikely to draw much demand through the near term due to high inventories and continued imports. US New Orleans DAP barge prices are expected to dip below $240/st FOB in late December/early January before recovering somewhat.

Latin American prices are also likely to drop further through January on high stocks, reaching around $280/t CFR for MAP in Brazil during January. High affordability and a return to demand from February should push up prices to an average of $310-315/t CFR in May.

Tampa DAP prices are expected to fall to around $270/t FOB in December/January before improving roughly $30/t through May.

In Europe, pockets of demand are still being met by strong competition for sales. European DAP prices are expected to fall by another $10/t by February before gradually recovering.

Baltic/Black Sea DAP should slip to around $265-270/t FOB in January before a $15-20/t recovery through May while North Africa DAP should drop to around $280/t FOB by January before OCP is supported by likely volumes to multiple African markets in Q1.

Potash

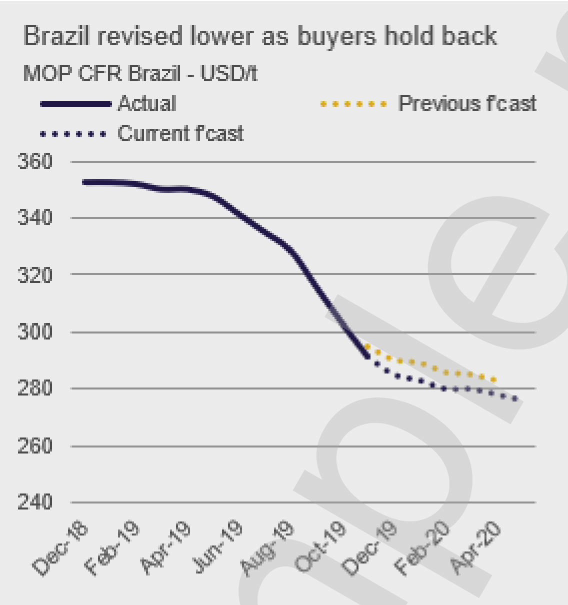
Potash prices forecast to decline slightly further

A new China potash contract price is not expected to be agreed until late in the first quarter of 2020, with global spot prices forecast to decrease slightly further in the meantime.

Key risk: DOWNSIDE Brazilian granular MOP spot prices may fall faster than forecast over the next couple of months if competition heats up more amid seasonally limited demand.

Monthly Price Forecasts

MOP Standard CFR	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
China contract	$/t	290	290	290	290	265	265	265
India 180 days contract	$/t	280	280	280	280	280	280	280
Southeast Asia spot	$/t	276	274	273	271	268	265	263
MOP Granular CFR								
Brazil spot	$/t	291	285	283	280	280	278	276



DATA: CRU

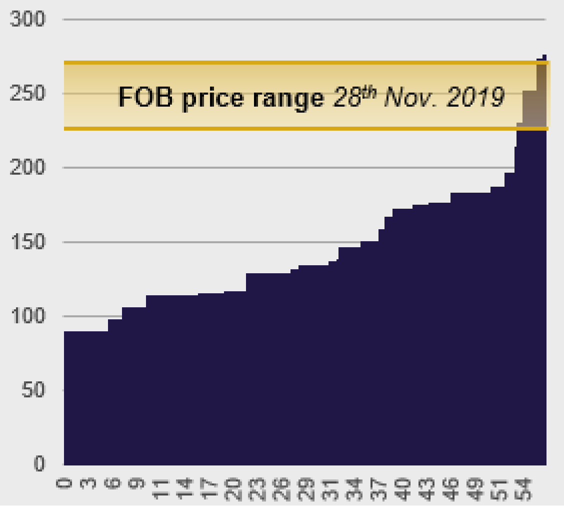
DATA: CRU

The settlement of a new China contract price is now forecast in March rather than February, albeit still at $265/t CFR, a $25/t decrease year on year. As with recently agreed India contracts, the new China contracts may include higher rebates for the importers. The fresh cross-border rail price reportedly agreed between Russian supplier Uralkali and Chinese importers could imply that the import consortium could secure a seaborne contract price as low as around $260/t CFR.

China's MOP port inventories were at a record-high of roughly 3.7 Mt as of late October. Demand in China has been weaker in 2019 and is expected to remain muted in 2020. Moreover, downwards pressure on global spot pricing is giving the importers a good reason to delay settlements further.

FOB prices now below marginal costs

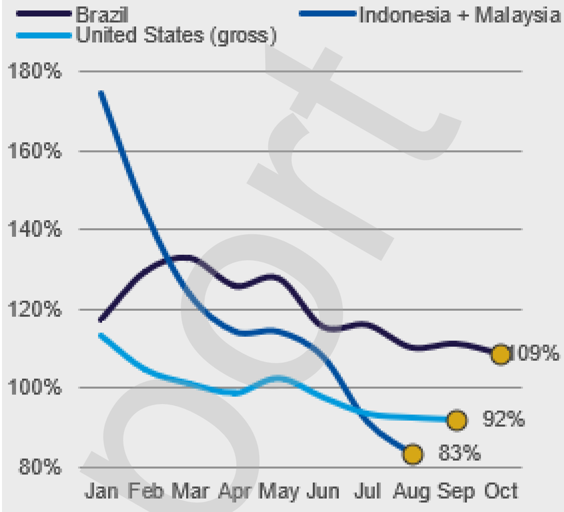
Cost to FOB & FOB price range, US$/t



DATA: CRU Potash Cost Service 2019

MOP Imports have slowed throughout 2019

Cumulative 2019 MOP imports vs 2018



DATA: CRU, IHS Markit

Recently agreed India contracts cover supply through the end of Q1 at $280/t CFR. Indian importers may seek fresh settlements at a lower price following the agreement of a new China price, though current contract cargoes are likely to be received by India beyond March. India contracts have not relieved downwards pressure on global spot prices because of the lower volumes and shorter time period.

Ongoing production cutbacks may be preventing more significant global potash price declines, but they are unlikely to completely stabilise markets until stocks are drawn down in end-user markets.

The Southeast Asia standard MOP price forecast has been revised up very slightly from last month, but the market is still expected to decrease from an average of $275/t CFR to $263/t CFR by May. Higher palm oil prices have resulted in some stabilisation of MOP prices in Indonesia, but prices in the wider region remain under downwards pressure due to the China contract settlement delays.

Brazilian granular MOP spot prices are again forecast lower this month following steeper-than-expected declines over recent weeks. Prices in Brazil are forecast to decline from a current average of $288/t CFR to $276/t CFR by May. Demand is seasonally weak, and buyers are holding back due to expectations of further declines heading in to 2020. Agricultural fundamentals are supportive of MOP sales, but competition is expected to remain strong over the short term.

The outlook for US domestic granular potash does not differ much from other nutrients. Many independent distributors still predict higher offers will have to wait for dealers to exhaust current inventories. Recent declines in spot prices in the Corn Belt and elsewhere have prompted calls from US resellers for lower offers for new fill business as the New Year approaches.

Sulphur

Sulphur prices to stay weak in early 2020

Sulphur spot prices are expected to remain weak through the first half of 2020, with only slight recovery currently forecast for Q2.

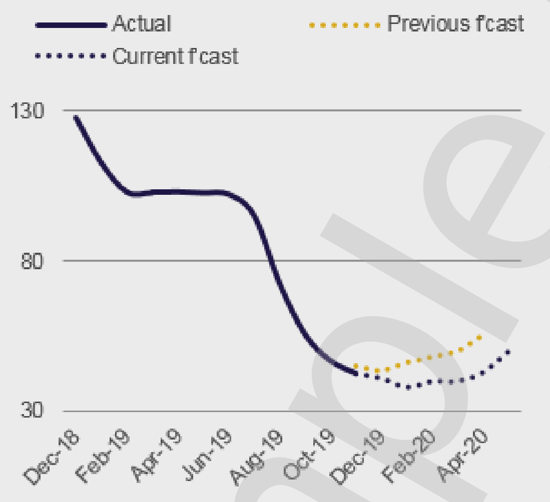
Key risk: DOWNSIDE Limits on phosphates production could lead to even weaker demand, leaving sulphur prices lower over the forecast.

Monthly Price Forecasts

Sulphur FOB Bulk	**units**	**Nov-19 actual**	**Dec-19**	**Jan-20**	**Feb-20**	**Mar-20**	**Apr-20**	**May-20**
Middle East Spot	$/t	43	41	38	40	40	43	50
Vancouver Spot	$/t	42	41	38	40	40	43	48
Sulphur CFR Bulk								
China Spot *	$/t	61	58	57	60	63	65	70
Brazil Spot	$/t	66	64	58	60	60	63	68

Limited recovery expected in H1 2020

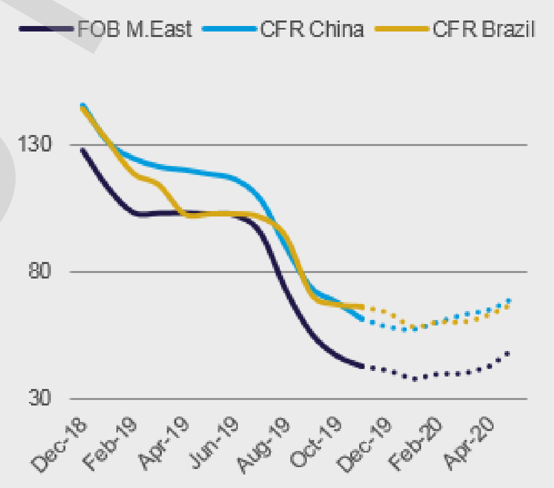
Sulphur FOB Middle East, USD/t



DATA: CRU

Fundamentals stay weak through forecast

Price, USD/t



DATA: CRU

Average Middle East spot prices declined to a $43/t FOB average for November, down from $47/t the previous month and from $170/t in October 2018. Although the rate of decline has slowed, there may be further downside.

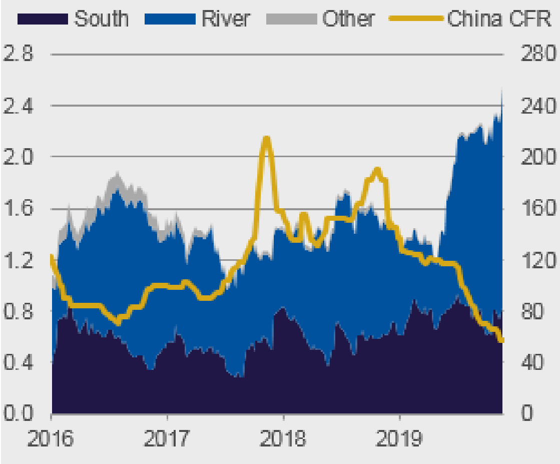
Sulphur port stocks in China are at their highest level on record, and seem unlikely to decline at least within the next couple of months, as offtake is slow and arrivals are plentiful.

The lack of a Q4 agreement between OCP and Adnoc led to much of the Adnoc volume being redirected to China. OCP has increased its contract offtake from other suppliers, particularly Gazprom.

Downstream DAP prices have fallen further, and more declines are expected before stabilisation in early 2020, with a very slight recovery in Q2. This slight recovery is expected to be supported by limits in production, weakening sulphur demand.

Stocks surge to record level as imports continue to arrive

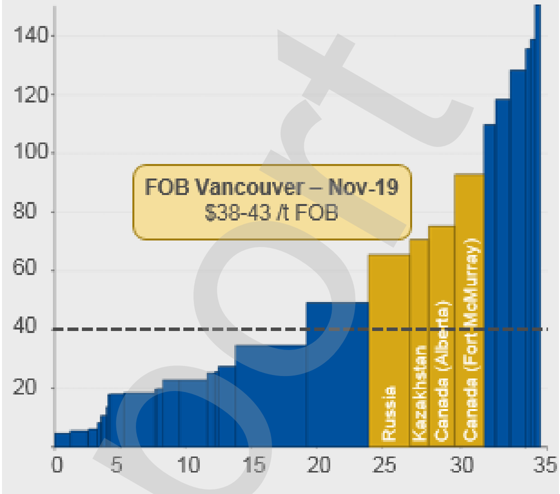
LHA: China sulphur port inventory by location, Mt
RHA: China CFR, $ /t



DATA: CRU Sulphur Market Outlook

Current price incentivises stock build at key marginal exporters

Cost to FOB, $/t



DATA: CRU Sulphur Market Outlook

Still, some uptick in downstream prices or production in 2020 could boost sulphur prices, as spot availability is unlikely to be plentiful.

At current prices or lower, logistics costs to port are not covered for sales from some producers in regions such as the CIS and parts of Canada with a high cost to export. Some are therefore likely to increase stockbuild at the expense of exports, and there is little additional production likely to materialise within 2019 or early 2020.

KPC's Clean Fuels expansion and the RAPID refinery in Malaysia are the only key projects that may add volume within the forecast period, and only towards the end. There is increased capacity in China this year and next.

In addition, winter conditions will limit sales from some origins during Q4 2019 and Q1 2020.

US molten sulphur availability also appears ample given weak downstream demand, while an issue with the loading arm at Beaumont is limiting granular exports from the US Gulf until at least January.

Once the Beaumont issues are resolved, more US Gulf volumes are likely to move to Brazil. In addition, if OCP and Adnoc settle Q1 contracts, Morocco will soak up less FSU volume, leaving more for Brazil. This means some discount in Brazil prices relative to China is likely to re-emerge.

Some US liquid volumes are likely to move to Europe given relatively tight availability and high prices there, but the impact of this is not expected to be market-moving.

Overall, although increased supply and weak downstream markets add downwards pressure to sulphur prices, supply control should provide a floor.

Any improvement in demand would have to bring prices higher in order to draw tonnes out, but improvements in demand appear elusive within the forecast period.

Sulphuric Acid

Sulphuric acid balanced but freights add pressure

Sulphuric acid prices are still expected to remain relatively stable over the forecast period, although weak downstream demand and high freights continue to exert pressure.

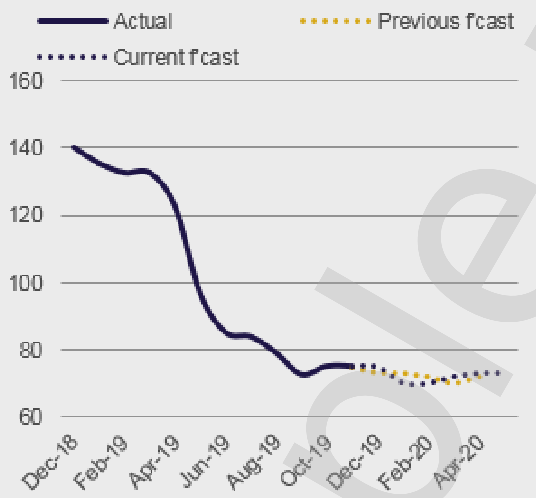
Key risk: DOWNSIDE There is potential for prices to be forced lower by freights and lack of demand, particularly if Chinese exports stay strong.

Monthly Price Forecasts

Sulphuric Acid FOB Bulk	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
NW Europe Spot	$/t	35	35	37	35	33	32	30
Sulphuric Acid CFR Bulk								
Chile Spot	$/t	75	75	70	70	72	73	73

Balanced market leaves prices stable

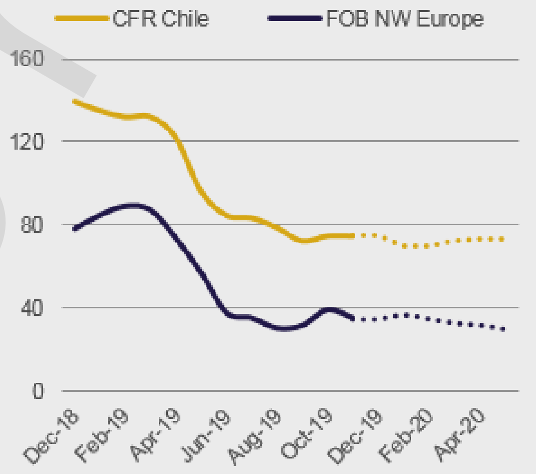
Sulphuric Acid CFR Chile - USD/t



DATA: CRU

Freights keep pressure on netbacks

Sulphuric Acid Price - USD/t



DATA: CRU

Global prices have remained relatively stable over the second half of 2019 following a Q2 correction, although Far East netbacks have been driven down by high freight rates and competition from Chinese exports.

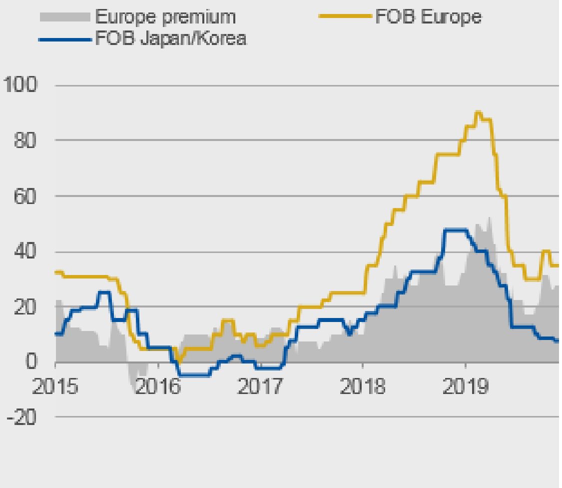
Tight global availability late last year and early this year drew out large volumes of acid from China. These tonnes added to downwards pressure on prices. Exports were expected to slow considerably in H2 due to low prices not covering logistics, but weak domestic demand has kept export volumes moving, and this year's exports are likely to reach around 2 Mt – by far the highest ever.

Chinese exports are expected to decline somewhat in 2020, but the exact volume pushed into the seaborne market will be a key determinant of how markets move over the coming months.

Producers in Japan and South Korea have been placing their 2020 volumes. Sellers have less of an option to place volumes in China given weaker demand there.

Europe supply tightness increase price premium to East Asia FOB

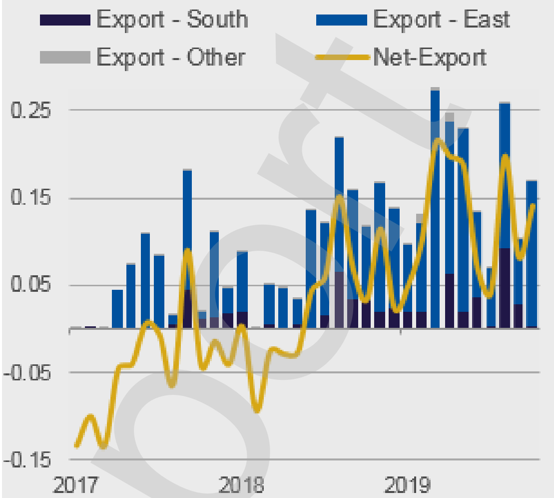
Acid prices/premium, $ /t



DATA: CRU Fertilizer Week

China exports remain strong in late-2019

Chinese export by origin/net-export, Mt



DATA: CRU; IHS Markit

Pasar in the Philippines restarted in September following a lengthy maintenance and is now likely to have greater availability, though buyer Philphos may absorb some of this volume as it returns to the market.

The 1.1 Mt/year Sterlite smelter in India is not expected to return to production within the forecast period. Meanwhile, increased demand from CIL for higher phosphoric acid production will be supportive, though the demand will be price-sensitive due to high fertilizer stocks in India.

A large volume of Chilean supply was lost in 2019 due to smelter shutdowns. Domestic availability in Chile is set to recover in 2020, while demand is weakening, reducing import requirements.

Strong demand from Europe's industrial sector as well as some importers has left a large share of European smelter tonnes committed, particularly given low production this year. Sellers appear relatively comfortable going into 2020.

Import requirements for Brazil fell in 2018 as domestic production improved but the subsequent impact on import demand has been smaller.

High acid import prices combined with weak downstream fertilizer prices limited buyers' ability to purchase acid, and price falls in phosphates and sulphur markets are limiting potential for increased demand despite lower acid prices.

Morocco's imports increased again in 2018 to a new record level of 1.68 Mt. Additional burner capacity should gradually reduce OCP's import requirement slightly this year and next, though it will remain a key importer with around 1.4-1.5 Mt of imports expected for 2020.

Market participants are now focused on 2020 contracts and tenders, and volumes agreed thus far are mostly around the lower end of published spot ranges.

Producers in both Europe and the Far East are resisting further price declines, but high freights rates and uncertainty over freights are keeping pressure on.

NPKs

NPK price expectations drop on DAP price slump

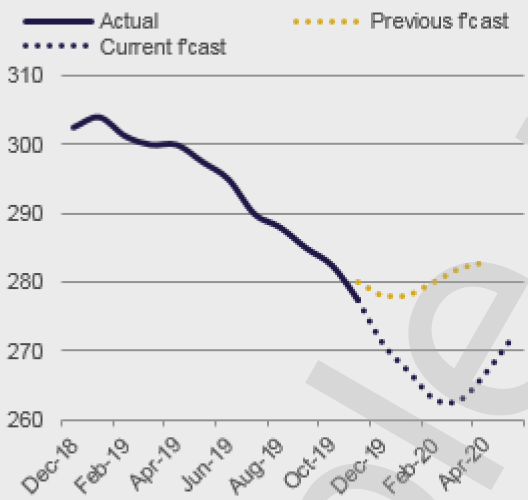
NPK 16-16-16 prices are forecast lower through March amid increased competition for sales and as weak DAP prices limit NPK demand.

Key risk: DOWNSIDE Growing supply and low DAP/MAP prices could support lower NPK prices during the forecast period.

Monthly Price Forecasts

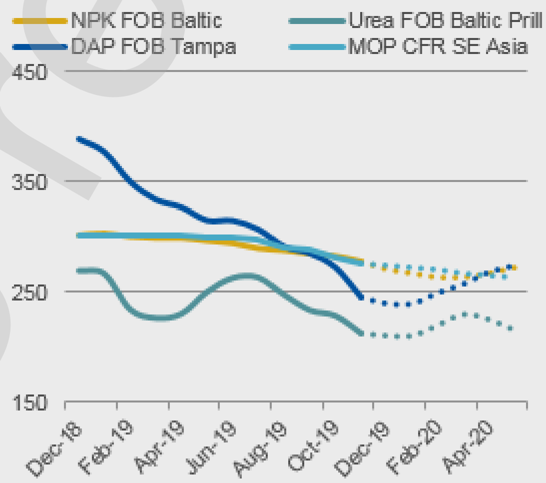
NPK FOB Bulk	units	Nov-19 actual	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20
Baltic 16-16-16	$/t	278	271	267	263	263	267	272

NPK prices continue to trend lower
NPK 16-16-16 FOB Baltic - USD/t



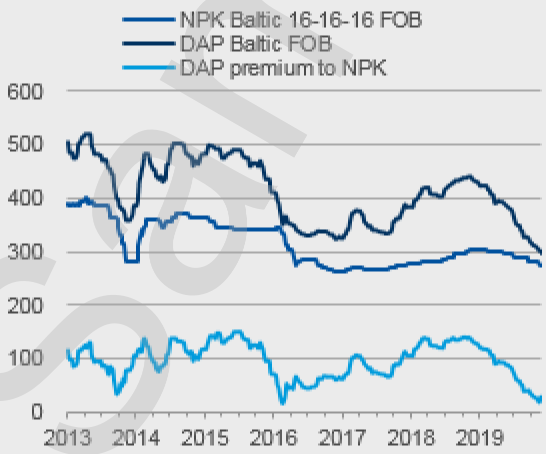
DATA: CRU

Flat, weak outlook for all nutrient prices
NPK and Nutrient Prices - USD/t



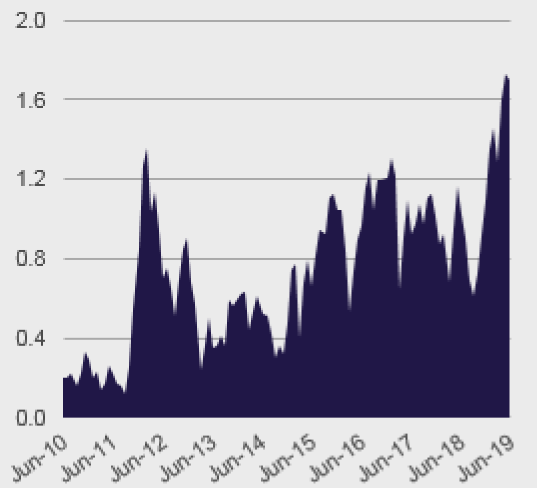
DATA: CRU

DAP premium to NPK slumps as 16-16-16 fails to correct lower
NPK 16-16-16 price & premium, US$ /t



DATA: CRU Fertilizer Week

India stocks at record in summer 2019
India inland NPK/NP inventories, Mt product



DATA: CRU Fertilizer Week

Baltic DAP prices recently neared NPK prices, forcing a reaction in NPK prices which slumped roughly $15/t in November. Still, the premium return to sell compound NPK over its individual nutrients remains high after 2019's slump in phosphates prices.

This supports higher NPK production through the forecast period, particularly from granular phosphate producers trying to stabilise DAP/MAP prices by diversifying production. This may further pressure NPK prices.

A gradual seasonal slowdown in domestic/regional demand for Russian suppliers in October/November led to a drop in most NPK 16-16-16 export offers to around $240/t FOB and NPK 15-15-15 offers to around $230/t FOB. Latest 15-15-15 sales to Europe/Turkey were as low as $225/t FOB and further declines are expected as competition grows.

Demand in Brazil has been strong for NPK -- with January to October imports up 25% to 1.2 Mt -- though competition has also increased recently. Small-volume 15-15-15 deals to Brazil were recently reported down $20/t at around $235/t FOB Baltic. With Latin American MAP/DAP prices still struggling, 15-15-15 prices should ease in the near-term by around $5-10/t.

Chinese NPK production slowed in October/November due to environmental checks and slow domestic demand. Slightly lower NPK imports (1.2 Mt from January to October) have held prices at around $310/t CFR for 16-16-16, or roughly $260/t FOB Baltic. Prices are expected to also decline by $5-10/t in the near term.

Chinese NPK export taxes were removed entering 2019. The removal took another roughly $15/t off costs to export from Chinese suppliers. January-October NPK exports from China jumped to 863,300 t from 351,324 t and should reach 1 Mt this year.

An increase in Chinese NPK sales to Myanmar, Laos and Philippines, coupled with bad weather and weak crop prices in Thailand, led to a recent decline in 16-16-16 deals to Southeast Asia to around $350/t CFR, or no higher than $300-305/t FOB Baltic. Pressure continues to build and prices are expected to also decline roughly $10/t through the forecast.

Indian NPK import demand improved slightly in the 2019/20 fertilizer year, with April-October domestic production down 2.5% year on year at 5.1 Mt and imports up 21%. Indian consumption has been slow to build and stocks remain high, limiting imports in the coming months. Indian 15-15-15 sales would now likely netback to no higher than $230/t FOB Baltic.

African NPK import demand slowed somewhat through 2019 as Nigeria implemented a ban on NPK imports. OCP were awarded all of Ethiopia's tender for 888,000 t NPS products and a set of other tenders for Q1 2020 shipment to African markets.

The average price of Baltic 16-16-16 is expected to decline from an average $278/t FOB in November by around $15-20/t to around $260-265/t FOB in February, with the low end as low as $220-225/t FOB.

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Editor

Ben Farey
Editor-in-Chief, CRU London

t +44 20 7903 2015
e ben.farey@crugroup.com

CONTRIBUTORS

CRU London

Jennifer Willis-Jones
Ammonia & Nitrates
Markets Editor
t +44 20 7903 2196
e jennifer.willis-jones@crugroup.com

CRU London

Brendan Daly
Sulphur/Sulphuric Acid
Markets Editor
t +44 20 7903 2185
e brendan.daly@crugroup.com

CRU London

Tom McIvor
Phosphates
Markets Editor
t +44 20 7903 2142
e tom.mcivor@crugroup.com

CRU London

Logan Collins
Potash
Markets Editor
t +44 20 7903 2020
e logan.collins@crugroup.com

CRU Norway

Lars Taarland
Urea & Nitrates
Senior Markets Editor
t +47 9958 1740
e lars.taarland@crugroup.com

CRU London

Rajiv Ram
Analyst, Demand
t +44 20 7903 2122
e rajiv.ram@crugroup.com

CRU Beijing

Gavin Ju
Senior Analyst
t +86 10 6510 2206
e gavin.ju@crugroup.com

CRU Mumbai

Koyel Choudhury
Analyst
t +91 22 4504 5710
e koyel.choudhury@crugroup.com

CRU North America

BK Morris
North America
Senior Markets Editor
t +1 301 441 9091
e bk.morris@crugroup.com

CRU Shanghai

Isabel Chen
Analyst
t +86 21 6028 6810
e isabel.chen@crugroup.com

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