Investor Information
First Quarter 2018
Safe Harbor Statement

This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements include, but are not limited to, statements about the anticipated benefits and synergies of our acquisition of the global phosphate and potash operations of Vale S.A. conducted through Vale Fertilizantes S.A. (now known as Mosaic Fertilizantes P&K S.A.) (the "Transaction"), other proposed or pending future transactions or strategic plans and other statements about future financial and operating results. Such statements are based upon the current beliefs and expectations of The Mosaic Company’s management and are subject to significant risks and uncertainties. These risks and uncertainties include, but are not limited to: difficulties with realization of the benefits and synergies of the Transaction, including the risks that the acquired business may not be integrated successfully or that the anticipated synergies or cost or capital expenditure savings from the Transaction may not be fully realized or may take longer to realize than expected, including because of political and economic instability in Brazil or changes in government policy in Brazil; the predictability and volatility of, and customer expectations about, agriculture, fertilizer, raw material, energy and transportation markets that are subject to competitive and other pressures and economic and credit market conditions; the level of inventories in the distribution channels for crop nutrients; the effect of future product innovations or development of new technologies on demand for our products; changes in foreign currency and exchange rates; international trade risks and other risks associated with Mosaic's international operations and those of joint ventures in which Mosaic participates, including the performance of the Wa’ad Al Shamal Phosphate Company (also known as MWSPC), the ability of MWSPC to obtain additional planned funding in acceptable amounts and upon acceptable terms, the timely development and commencement of operations of production facilities in the Kingdom of Saudi Arabia, and the future success of current plans for MWSPC and any future changes in those plans; the risk that protests against natural resource companies in Peru extend to or impact the Miski Mayo mine, which is operated by an entity in which we are the majority owner; difficulties with realization of the benefits of our long term natural gas based pricing ammonia supply agreement with CF Industries, Inc., including the risk that the cost savings initially anticipated from the agreement may not be fully realized over its term or that the price of natural gas or ammonia during the term are at levels at which the pricing is disadvantageous to Mosaic's customer defaults; the effects of Mosaic’s decisions to exit business operations or locations; changes in government policy; changes in environmental and other governmental regulation, including expansion of the types and extent of water resources regulated under federal law, carbon taxes or other greenhouse gas regulation, implementation of numeric water quality standards for the discharge of nutrients into Florida waterways or efforts to reduce the flow of excess nutrients into the Mississippi River basin, the Gulf of Mexico or elsewhere; further developments in judicial or administrative proceedings, or complaints that Mosaic’s operations are adversely impacting nearby farms, business operations or properties; difficulties or delays in receiving, increased costs of or challenges to necessary governmental permits or approvals or increased financial assurance requirements; resolution of global tax audit activity; the effectiveness of Mosaic's processes for managing its strategic priorities; adverse weather conditions affecting operations in Central Florida, the Mississippi River basin, the Gulf Coast of the United States, Canada or Brazil, and including potential hurricanes, excess heat, cold, snow, rainfall or drought; actual costs of various items differing from management’s current estimates, including, among others, asset retirement, environmental remediation, reclamation or other environmental regulation, Canadian resources taxes and royalties, or the costs of the MWSPC, its existing or future funding and Mosaic’s commitments in support of such funding; reduction of Mosaic's available cash and liquidity, and increased leverage, due to its use of cash and/or available debt capacity to fund financial assurance requirements and strategic investments; brine inflows at Mosaic’s Esterhazy, Saskatchewan, potash mine or other potash shaft mines; other accidents and disruptions involving Mosaic's operations, including potential mine fires, floods, explosions, seismic events, sinkholes or releases of hazardous or volatile chemicals; and risks associated with cyber security, including reputational loss; as well as other risks and uncertainties reported from time to time in The Mosaic Company’s reports filed with the Securities and Exchange Commission. Actual results may differ from those set forth in the forward-looking statements. All forward-looking statements speak only as of the date of this press release. Mosaic assumes no obligation, and disclaims any obligation, to update the information in this release.
The Mosaic Company Overview
Mosaic: Benefits from Economics of Scale

World's Largest P&K Producers (Mosaic includes Vale Fertilizantes)

- Mosaic
- PotashCorp
- Uralkali
- Belaruskali
- OCP
- K+S
- ICL
- Yuntianhua
- Qinghai Salt Lake
- Agrium

**MOP Equivalent**

**DAP Equivalent**

Based on 2015 production
Mosaic includes approximately 2 million tonnes Vale Fertilizantes production, excluding Cubatão
P₂O₅ production based on PACID and SSP production
K₂O production includes MOP, KMS, and SOP

Source: Company reports, IFA, CRU, and Mosaic estimates

Mosaic operates a unique combination of high quality assets
Mosaic Assets: Global, Long Life, Low Cost
Transformational Year for Mosaic

- Idled Plant City Concentrates Plant
- Additional Transformational Efforts in:
  - Potash
  - Phosphates
  - Corporate
- Increased Vale Fertilizantes Value Creation Target to $275 million
- Issued Debt to Finance Vale Fertilizantes Transaction
- Began Deleveraging the Balance Sheet

We also continued to invest and grow the business
Transformation:
Idled Plant City

Estimated Cash Conversion Costs/Tonne* - 2017

Conversion Costs ($USD / Tonne)

$100
$95
$90
$85
$80
$75
$70

Conversion Cash Costs ($USD / Tonne)

$60  $65  $70  $75  $80

size of bubble = production volume

Excluding Plant City
Existing Footprint

Expect positive gross margin impact

* Phosphate cash conversion costs are reflective of actual costs, excluding realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.
Tightened phosphate supply & demand even without expected China capacity rationalization

Transformation:

Idled Plant City, Anticipated S&D Impact

Forecast Global Phosphate Capacity vs. Shipments
Cumulative Change 2018-2020

Source: CRU and Mosaic

Tightened phosphate supply & demand even without expected China capacity rationalization
Transformation in Potash:
Asset Optimization and Cost Control

$/Tonne

2013 2014 2015 2016 2017

MOP Cash Production Costs Per Tonne*
Brine

*MOP cash production costs are reflective of actual costs during the quarter, excluding CRT and realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.
Transformation in Potash:

Expected Elimination of Brine Management Costs

Esterhazy Expected Cash Production Costs Below $50 per Tonne

$ per Tonne

$50

$60

$70

$80

$90

Thousand Ore Tonnes

0

2,000

4,000

6,000

8,000

10,000

12,000

14,000

16,000

2013

2016

2017F

2018F

2019F

2020F

2021F

2022F

2023F

2024F

2025F

Cash Production Costs / Tonne

K1/K2 Ore

K3 Ore

Forecast as of April 12, 2017

*MOP cash production costs are reflective of actual costs during the quarter, excluding CRT and realized mark-to-market gains and losses. These costs are captured in inventory and are not necessarily reflective of costs included in costs of goods sold for the period.
Transformation in Mosaic Fertilizantes:

Expected Benefits through 2020

Annual Synergy and Operational Improvements

Dollars in Millions

<table>
<thead>
<tr>
<th>Year</th>
<th>2018E</th>
<th>2019E</th>
<th>2020E</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dollars</td>
<td>$50</td>
<td>$100</td>
<td>$150</td>
</tr>
</tbody>
</table>

$200 $250 $300
Visible Cost Controls

$ Per Tonne

Selling, General & Administrative Expenses

- 2013
- 2014
- 2015
- 2016
- 2017
Consistent Capital Allocation Philosophy

- Maintain Ratings & Financial Strength
- Sustain Assets: Safety & Reliability
- Decision: What Drives the Most Value for Mosaic
- Investments to Drive Organic Growth
- Opportunistic Strategic Investments
- Shareholder Returns Including Dividends
Markets
Agricultural Outlook
Steady Crop Prices Underpin Positive P&K Demand Outlook
Positive Agronomic & Economic Demand Drivers

Record Harvests Remove Record Amounts of P&K

World Grain and Oilseed Production

Estimated World Grain & Oilseed Nutrient Removal

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>2007-12 Mil Tonnes</th>
<th>2013-17 Mil Tonnes</th>
<th>Change</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>N Removal</td>
<td>59.3 (2.74 bmt)</td>
<td>66.2 (3.06 bmt)</td>
<td>6.9</td>
<td>11.6%</td>
</tr>
<tr>
<td>P&lt;sub&gt;2&lt;/sub&gt;O&lt;sub&gt;5&lt;/sub&gt; Removal</td>
<td>22.9</td>
<td>25.4</td>
<td>2.5</td>
<td>10.9%</td>
</tr>
<tr>
<td>K&lt;sub&gt;2&lt;/sub&gt;O Removal</td>
<td>19.2</td>
<td>21.5</td>
<td>2.2</td>
<td>11.7%</td>
</tr>
</tbody>
</table>

Source: USDA, IPNI, Mosaic

Plant Nutrients Still Affordable

Plant Nutrient Affordability

Plant Nutrient Price Index / Crop Price Index

Source: Weekly Price Publications, CME, USDA, AAPFCO, Mosaic

Estimated World Grain & Oilseed Nutrient Removal

Source: USDA
Grain and Oilseed Fundamentals Still OK Despite the String of Bin-Busting Harvests

- A big step-up in global production since 2012/13
- But continued strong and steady demand growth
- Stocks ex China increased to a record high in 2016/17
- Inventories ex China projected to decline in 2017/18
- Stocks as a percentage of use projected to drop into the lower half of the 16%-19% range by the end of 2017/18
- The Food Story is not in vogue but it still is intact!
Markets
Brazil
Brazil: Agricultural Powerhouse

Brazil Grain and Oilseed Production

Million Tonnes

Source: CONAB and projections from FIESP Outlook
Mosaic is Logistically Advantage to Key Growing Areas

• Exposure to the Cerrado region
• Just-in-time deliveries
• Long-term relationship with customers
• Integrated logistics

- Warehouse/Blender
- Phosphate Production
- Port
- Phosphate Mine
- Potash Production
- Cerrado Region
- High Growth Prospect
Post Transformation: Competitive Delivered Basis

Brazil MAP Cost Curve
2021 Forecast Delivered Upcountry

Source: Mosaic

Mosaic Uberaba

Thousand Tonnes

0 1,000 2,000 3,000 4,000 5,000
Markets
Potash Outlook
Prices Continue to Trend Up

- Strong broad-based demand growth
- Stable to stronger potash export currencies
- No immediate threat from new capacity
- Optimized/restructured operations

Potash Prices

Source: Argus
Canpotex exported a record 11.6 million tons in 2017 in order to meet the big jump in global demand last year.

Exports are projected to increase to another record this year. Shipments likely will climb to 12.0-12.5 million tonnes in 2018.

In addition to strong agronomic and economic drivers, import demand is bolstered by stronger currencies in key importing countries.
Strong, Broad-Based and Less Volatile Demand Growth

After declining during the two previous years, we now estimate that global MOP shipments jumped 6.9% or 4.2 million tonnes KCl to 65.0 million in 2017. Shipments are forecast to increase another 2.6% or 1.7 million tonnes to 66.7 million this year.

CRU forecasts released at the end of last August estimated MOP shipments at 63.9 million tonnes in 2017 and 67.0 million tonnes this year.
Strong and Broad-Based Demand Growth

Brazil demand continues its upward march driven mainly by steady increases in soybean production.

North American shipments surged to 10.4 million tonnes KCl in 2017 due to a strong fall application season and early positioning of 2018 needs. Demand is expected to stay stable this year, but shipments are projected to drop to the 9.8 mmt in 2017.

Shipments outside the “Big Six” countries/regions have taken off led mostly by other Asian and other Latin American countries as well as a doubling of African use (albeit from a low starting point).

Chinese shipments also are trending up due to record crop production as well as efforts to improve the potassium balance. Higher domestic MOP production met much of the recent growth, but domestic output is beginning to plateau.

India shipments are beginning to recover following changes to the subsidy program in 2010/11 that resulted in a near tripling of retail potash prices. Higher crop support prices and more normal monsoon rainfall also is aiding the recovery.

Indonesian and Malaysian shipments also have trended steadily upward with surges in 2011 and 2014. The gains are driven mostly by increases in palm oil production, but positive rice profitability also has helped to underpin potash use in this region as well as other Asian countries.
### Global Potash Shipment Forecasts by Region (February 2018)

<table>
<thead>
<tr>
<th>Muriate of Potash Million Tonnes (KCl)</th>
<th>2015</th>
<th>2016</th>
<th>2017E</th>
<th>Low 2018F</th>
<th>High 2018F</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>16.4</td>
<td>14.0</td>
<td>14.8</td>
<td>16.0</td>
<td>16.2</td>
<td>2017 shipments were revised down to 14.8 mmt (7.5 mmt production plus 7.3 mmt net imports). 2018 shipments are projected to rebound to more than 16 mmt (7.5 mmt production plus 8.6 mmt net imports) due to high domestic crop prices, moderate potash prices and low channel inventories especially at NPK plants.</td>
</tr>
<tr>
<td>India</td>
<td>4.1</td>
<td>3.9</td>
<td>4.5</td>
<td>4.5</td>
<td>4.7</td>
<td>CY 2017 shipments were revised up to 4.5 mmt based on the latest import statistics. 2018 shipments are forecast to increase to 4.6 mmt due to higher minimum support prices, a relatively strong rupee, moderate K prices and expectations for a normal monsoon this year.</td>
</tr>
<tr>
<td>Indonesia+Malaysia</td>
<td>4.6</td>
<td>4.7</td>
<td>5.0</td>
<td>5.0</td>
<td>5.2</td>
<td>2017 shipments were revised up based on the most recent statistics. Shipments are expected to increase again in 2018 due to still favorable palm oil and rice prices and the expectation of normal rainfall this year.</td>
</tr>
<tr>
<td>Other Asia</td>
<td>4.4</td>
<td>4.5</td>
<td>5.0</td>
<td>4.9</td>
<td>5.1</td>
<td>Shipments to this region jumped in 2017 led by big gains in Thailand, and Vietnam. Demand continues buoyed by good weather, favorable policies, OK crop prices and moderate K prices.</td>
</tr>
<tr>
<td>W. Europe</td>
<td>4.8</td>
<td>5.0</td>
<td>4.8</td>
<td>4.7</td>
<td>4.9</td>
<td>We estimate that shipments dropped in 2017 as a result of elevated channel inventories and the aftermath of the drought in southern Europe last year. Shipments are forecast to stay in the 4.8 mmt range this year.</td>
</tr>
<tr>
<td>E. Europe+FSU</td>
<td>4.7</td>
<td>4.9</td>
<td>5.2</td>
<td>5.4</td>
<td>5.6</td>
<td>Shipments here are following the increase in agricultural output. Demand is underpinned by mostly favorable weather, strong local-currency crop prices (bolstered by still weak currencies) and moderate K prices.</td>
</tr>
<tr>
<td>Brazil</td>
<td>8.8</td>
<td>9.3</td>
<td>9.7</td>
<td>9.8</td>
<td>10.0</td>
<td>Based on 2017 ANDA statistics, shipments were revised up to a record 9.7 mmt last year (.49 mmt production plus 9.20 mmt net imports). 2018 shipments are expected to increase to 9.9 mmt and potentially flirt with 10.0 mmt due to continued good weather and positive agronomic and economic demand drivers.</td>
</tr>
<tr>
<td>Other L. America</td>
<td>2.6</td>
<td>2.8</td>
<td>3.0</td>
<td>2.9</td>
<td>3.1</td>
<td>2017 shipments were revised up as a result of broad-based gains in Central and South America. Shipments this year are forecast to remain flat at the higher level of last year due to continued positive farm economics.</td>
</tr>
<tr>
<td>N. America</td>
<td>8.8</td>
<td>9.4</td>
<td>10.4</td>
<td>9.6</td>
<td>9.9</td>
<td>2017 shipments were revised up 1.0 mmt due to another strong fall application season and early positioning of 2018 needs ahead of announced price increases. In 2018, on-farm use is expected to stay flat at higher new normal levels, but shipments are projected to drop to the 9.8 mmt as some tonnage shipped last year.</td>
</tr>
<tr>
<td>Other</td>
<td>2.5</td>
<td>2.4</td>
<td>2.7</td>
<td>2.7</td>
<td>2.8</td>
<td>Africa accounted for about two-thirds of the increase last year. Shipments are forecast to increase modestly this year with additional but less robust gains in Africa, Oceania and the Mideast.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61.7</strong></td>
<td><strong>60.8</strong></td>
<td><strong>65.0</strong></td>
<td><strong>65.5</strong></td>
<td><strong>67.5</strong></td>
<td>2017 shipments were revised up to 65.0 mmt based on recent production and trade statistics – an jump of 6.9% or 4.2 mmt from 2016. All regions except Western Europe posted gains last year. Shipments this year are forecast to increase to 65.5-67.5 mmt with a point estimate of 66.7 mmt, a gain of 2.6% or 1.7 mmt.</td>
</tr>
</tbody>
</table>
Five-Year Outlook: Strong, Broad-Based and Less Volatile Demand Growth the Key Feature

By our count, global shipments increased 2.3% per year or 7.7 million tonnes from 2010 to 2016. Growth was erratic with all of the gain coming in 2014. Shipments increased in three years and decreased in three years. India was a drag on growth due to subsidy cuts and a near tripling of retail MOP prices in 2010/11.

Shipments are forecast to increase 3.2% per year or 12.7 million tonnes from 2016 to 2022. We estimate that shipments surged 6.9% or 4.2 million tonnes to 65.0 million in 2017. Demand drivers continue to look positive, and more rapid and less volatile growth is expected given lower and more stable potash prices as well as continued moderate agricultural commodity prices. An expected rebound in India shipments as well as the low 2016 starting point and the big 2017 increase boost the odds of hitting our 2022 forecast.

The traditional growth geographies - Brazil, China, India, Indonesia, and Malaysia account for almost 70% of the projected gain from 2016 to 2022, but other regions such as the former Soviet Union (FSU), other Asian countries and Africa are expected to post notable increases during the next five years.

Based on its August outlook report, CRU forecasts that shipments will grow 3.3% per year or 13.4 million tonnes KCl during the forecast period.
Demand Growth Projected to Keep Pace with the Ramp-Up of New Capacity

- After declining during the two previous years, we now estimate that global MOP shipments jumped 6.9% or 4.2 million tonnes KCl to 65.0 million in 2017. Shipments are forecast to increase another 2.6% or 1.7 million tonnes to 66.7 million this year.

- CRU forecasts released at the end of last August estimated MOP shipments at 63.9 million tonnes in 2017 and 67.0 million tonnes this year.
We project no chronic or severe long term supply and demand imbalance. Global operational capacity is projected to increase 11.9 million tonnes from 69.3 million in 2016 to 81.2 million in 2022. This assumes no additional optimization of capacity in Canada or elsewhere.

The global operating rate is forecast to dip from 89% in 2016 and 91% in 2017 to 88% in 2018-20 before moving back up to more than 90% by the end of the forecast period.

This analysis assumes that global demand will grow 3.2% per year and that the four greenfield projects in Turkmenistan, Saskatchewan and Russia (2) will ramp up based on production estimates in the table below:

<table>
<thead>
<tr>
<th>Mil Tonnes KCl</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>.40</td>
<td>1.80</td>
<td>3.17</td>
<td>4.51</td>
<td>5.83</td>
<td>7.01</td>
</tr>
</tbody>
</table>
2021 Cost Curve Forecast

2021 MOP Cost Curve fob Mine at Effective Capacity

Source: CRU, Mosaic
Markets
Phosphate Outlook
Beginning of Phosphate Cyclical Recovery

[Graph showing phosphate prices from Jan-14 to Jan-18 with different lines representing DAP NOLA, MAP Brazil, and DAP China. Source: Argus]
Key Phosphates Currencies Have Strengthened

- Currencies of key phosphate importing and exporting countries have strengthened during the last year or two, putting upward pressure on phosphate prices.
- A stronger currency for exporting countries increases the dollar cost of exports (i.e., export supply shifts up, other things equal).
- A stronger currency for importing countries decreases the local currency cost of imports (i.e., import demand increases or shifts out, other things equal).
- Some currencies track commodity prices. For example, the Ruble and oil prices are correlated so recent gains in oil prices are expected to cause further strengthening of the Ruble.
Our DAP benchmark stripping margin is calculated from published spot prices for DAP, sulphur and ammonia. It is a gauge to measure relative profitability of the phosphate industry over time and is not intended to approximate Mosaic’s realized margins.

This benchmark has increased from a seasonal low of $216 per tonne in January 2017 to a peak of $257 per tonne in September. Most of the gain resulted from lower ammonia prices. In early 2018, the benchmark rose to $259 in early February, largely on the back of rising prices.

DAP prices have increased significantly since bottoming out in mid-2017. Since July 2017, the fob China port DAP price has risen about $75 per tonne, from ~$337 in July to ~$413 in early February. (Our benchmark DAP margin calculation utilizes only U.S. prices.)
Pace of Demand Growth Picked Up in 2017

- Shipments of the leading finished phosphate products are estimated to have risen 2.5% or 1.7 million tonnes to 68.2 million in 2017, but slowing to 1.8% or 1.2 million tonnes to 69.4 million in 2018. The slowdown in shipment growth is not predicated on a slowdown in farmer demand, but rather our expectation that there will be a destocking of channel inventories next year (due in large part to higher phosphate prices).

- The pace of demand growth picked up in 2017 and shipments during the next five years are expected to increase at a rate similar or higher than that of the recent past. The steady-to-higher growth rate is due to stable Chinese shipments, a rebound in India, and strong and steady gains in growth geographies like Brazil, the rest of Latin America and Asia, the former Soviet Union, and Africa.

- CRU forecasts exceed our projections with shipments forecast at 70.7 million tonnes in 2018.
Strong Broad-Based Demand Growth

Phosphate demand in Brazil continues its strong upward trend driven mainly by steady increases in soybean production. The growth in NPS shipments – mostly Mosaic’s MicroEssentials – is noteworthy.

Shipments in the rest of Latin America held flat last year after a surge in 2016, led by large gains in Argentina following the elimination or reduction of grain export taxes. The region is expected to increase in 2018 due to generally profitable farm economics throughout the region.

Chinese shipments peaked at more than 21 million tonnes in 2013. Growth was driven by high support prices for leading crops such as corn and a build-up of strategic reserves. Shipments are expected to stabilize in the 18 million tonne neighborhood in the new economic/policy environment.

Shipments in the rest of Asia have increased significantly since 2013. The biggest gains were in Pakistan, Vietnam and Indonesia, but most countries registered increases during this period. Profitable farm economics underpin demand growth.
## Global Phosphate Shipment Forecasts by Region (February 2018)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>China</strong></td>
<td>19.8</td>
<td>18.4</td>
<td>17.9</td>
<td>18.1</td>
<td>18.3</td>
<td>We estimate that shipments came in a whisker shy of 18 mmt in 2017, slightly below our expectations despite a good fall and a fast start to the winter fill season (which carried over into the first several weeks of 2018). Shipments are projected to tick up this year as a result of low channel inventories and high domestic agricultural commodity prices (part of the rural revitalization initiative).</td>
<td></td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>9.2</td>
<td>9.2</td>
<td>9.4</td>
<td>9.5</td>
<td>9.8</td>
<td>Shipments in calendar year 2017 showed moderate growth on the basis of a decent monsoon, a relatively stable rupee and supportive agricultural policies. Inventories, however, were sharply reduced and will necessitate earlier-than-typical import purchases by Indian buyers in 2018. Positive momentum to projected to continue in 2018, aided by an expected boost to the phosphate subsidy, though implementation of the Direct Benefit Scheme and affordability remain wildcards.</td>
<td></td>
</tr>
<tr>
<td><strong>Other Asia / Oceania</strong></td>
<td>9.0</td>
<td>8.7</td>
<td>9.5</td>
<td>9.6</td>
<td>9.9</td>
<td>Broad-based gains across the region resulted in a nearly 10% jump in shipments last year. Pakistan posted exceptional numbers, with DAP imports up ~600,000 tonnes, but increases were also notable in Indonesia, Thailand, Vietnam (despite the import duty imposed in August), Japan, South Korea, Australia and New Zealand. Assuming normal weather, we expect demand to grow at a more moderate pace in 2018.</td>
<td></td>
</tr>
<tr>
<td><strong>Europe and FSU</strong></td>
<td>4.6</td>
<td>5.3</td>
<td>5.3</td>
<td>5.3</td>
<td>5.6</td>
<td>Our 2017 estimate is unchanged, showing flat demand as channel inventories were worked through and farm economics in Europe were subpar. Moderate growth is projected in 2018, led by Russia, while Southern Europe is expected to act as a drag.</td>
<td></td>
</tr>
<tr>
<td><strong>Brazil</strong></td>
<td>6.9</td>
<td>7.8</td>
<td>8.2</td>
<td>8.4</td>
<td>8.7</td>
<td>Total phosphate shipments rose 1% in 2017, but imports of DAP/MAP/TSP were up 11% or nearly one-half a million tonnes last year. Farm economics remain OK despite the relative strength of the real and a deterioration of barter ratios due to lower crop prices (though these have recently improved) and rising fertilizer prices. We project that shipments will continue to trend higher in 2018, moderated by slightly elevated carry-in inventories.</td>
<td></td>
</tr>
<tr>
<td><strong>Other L. Am.</strong></td>
<td>2.8</td>
<td>3.6</td>
<td>3.6</td>
<td>3.7</td>
<td>3.9</td>
<td>We have left our 2017 and 2018 estimates little-changed, calling for a pick-up in the pace of demand growth in 2018 as a result of continued profitable farm economics and lean channel inventories.</td>
<td></td>
</tr>
<tr>
<td><strong>N. America</strong></td>
<td>8.9</td>
<td>9.4</td>
<td>9.7</td>
<td>9.5</td>
<td>9.6</td>
<td>Conducive weather kept the fertilizer application window open late – to the end of 2017. This pulled some 2018 demand into 2017. On-farm demand is expected to remain strong driven by U.S. corn, soybean and wheat acreage forecasts of 89.5-90.5, 91-92, and 45-46 million acres, respectively, and steady-to-higher application rates (required to replace large withdrawals during the last few years).</td>
<td></td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>4.2</td>
<td>4.6</td>
<td>4.8</td>
<td>4.8</td>
<td>5.1</td>
<td>We bumped up our 2018 forecast as a result of increasingly strong demand growth across Africa from Nigeria to South Africa to Ethiopia. Middle East demand got a boost from Iran in 2017, but we see only moderate demand growth prospects in the region in 2018.</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>65.7</td>
<td>66.9</td>
<td>68.5</td>
<td>68.9</td>
<td>70.9</td>
<td>Our 2017 shipment estimate is little changed at 68.2 mmt – an increase of 2.4% or 1.6 mmt from our upwardly-revised 2016 figure. Shipments this year are forecast to increase to 69-71 mmt with a current point estimate of 69.7 mmt, a gain of 1.8% or 1.2 mmt.</td>
<td></td>
</tr>
</tbody>
</table>

* NPS products included in this analysis are those with a combined N and P₂O₅ nutrient content of 45 units or greater.
**Five-Year Outlook: Positive Demand Outlook**

- Global shipments increased 1.9% per year or 8.3 million tonnes from 2010 to 2017. India was a heavy drag on demand with shipments dropping 2.2 million tonnes during this period due to subsidy cuts and a doubling of retail phosphate prices. Demand slightly declined in China with shipments increasing significantly during the first half of this period but then declining during the second half.

- Shipments are forecast to increase 2.0% per year or 7.1 million tonnes from 2017 to 2022. Prospects for lower and more stable raw materials costs are expected to help keep phosphate prices at moderate levels and help to fuel steady gains. Indian demand also is expected to recover due to high domestic crop prices, a workable subsidy, and a relatively stable or stronger rupee.

- Brazil and other Latin American countries as well as other Asia/Oceania are projected to post strong gains during this period. Increases in Africa and the former Soviet Union (FSU) also are noteworthy.

- CRU projects that demand will grow at a much slower rate of 1.1% from 2017 to 2022, but that is a function of their significantly higher baseline demand estimate for 2017.

**Global Phosphate Shipments**

<table>
<thead>
<tr>
<th>MMT DAP/MAP/NPS/TSP (Percentage is CAGR)</th>
<th>Source: Mosaic and CRU Phosphate Outlook January 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>Change in Phosphate Shipments 2016 vs. 2010</td>
</tr>
<tr>
<td>Brazil</td>
<td>Change in Phosphate Shipments 2022F vs. 2016</td>
</tr>
<tr>
<td>Other Asia + Oceania</td>
<td></td>
</tr>
<tr>
<td>North America</td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td></td>
</tr>
<tr>
<td>Other Latin Am</td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
</tr>
<tr>
<td>Europe/FSU</td>
<td></td>
</tr>
<tr>
<td>Mideast/Other</td>
<td></td>
</tr>
</tbody>
</table>

**Global Phosphate Shipments**

<table>
<thead>
<tr>
<th>MMT DAP/MAP/NPS/TSP</th>
<th>Mosaic Scenario</th>
<th>CRU</th>
<th>Jan 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 Shipments</td>
<td>60.2</td>
<td>61.0</td>
<td></td>
</tr>
<tr>
<td>2017 Shipments</td>
<td>68.5</td>
<td>71.5</td>
<td></td>
</tr>
<tr>
<td>Change 2010-17</td>
<td>8.3</td>
<td>10.5</td>
<td></td>
</tr>
<tr>
<td>CAGR 2010-17</td>
<td>1.9%</td>
<td>2.3%</td>
<td></td>
</tr>
<tr>
<td>2022 Forecast</td>
<td>74.5</td>
<td>75.6</td>
<td>77.0</td>
</tr>
<tr>
<td>Change 2017-22</td>
<td>6.0</td>
<td>7.1</td>
<td>8.5</td>
</tr>
<tr>
<td>CAGR 2017-22</td>
<td>1.7%</td>
<td>2.0%</td>
<td>2.4%</td>
</tr>
</tbody>
</table>

Source: Mosaic and CRU Phosphate Outlook January 2018
We project that global phosphoric acid capacity will increase less than a million tonnes P₂O₅ from 2017 to 2022, with Morocco and Saudi Arabia accounting for all of the net increase, but largely offset by the idling of Plant City. Nearly all of the projected increase is on line by 2019. This analysis incorporates just a nominal 300,000t P₂O₅ net change in Chinese capacity, although we expect a restructuring of the industry with the permanent closure of less efficient plants and higher and more consistent operating rates at cost competitive facilities.

Production required to meet projected phosphate demand is forecast to increase 5.1 million tonnes P₂O₅ during this same period. As a result, the global effective capacity operating rate is projected to move up from 83% in 2017 to 91% by the end of the forecast period. The projected rate increases in 2018 due to the combination of moderate demand growth and the closure of our Plant City facility that offsets much of the expected ramp-up of new capacity next year.

There are no world-scale projects in the pipeline behind the first four OCP Jorf Phosphate Hubs (JPH 1-4) in Morocco and the Ma’aden Wa’ad al Shamal Phosphate Company (MWSPC) JV in Saudi Arabia. We do not expect additional capacity from either debottlenecking in Morocco or the next round of expansions in Saudi Arabia and Morocco until after the forecast period. This is a primary difference between our forecast and CRU’s, which includes both a new line and debottlenecking at Jorf, as well as the commissioning of a first phosphoric acid complex at Laayoune within the forecast period.
Key Factor Update: New Capacity Ramp Up

- More clarity on the start-up and ramp-up of new P&K capacity
  - Ma’aden Wa’ad al Shamal Phosphate Company (MWSPC)

- First DAP produced on July 8, 2017.
- MWSPC produced ~450,000 tonnes of DAP in 2017 and we are expecting ~1.5-2.0 million tonnes in 2018.
Chinese exports of DAP/MAP/TSP surpassed most analyst expectations in 2017 by increasing to over 10 million tonnes.

Exports during Q4, however, showed a dramatic slowdown from a year earlier, falling by 1mmt y-o-y (and q-o-q).

Based on our five-year forecasts, China likely will need to export 7.0 to 8.0 million tonnes of phosphate products in order to balance the global market during the forecast period. We expect that the restructuring of the Chinese industry will result in a smaller, more stable, and more profitable industry that runs at higher and more consistent rates.
Phosphates S&D: Taxes + Scrutiny on the Yangtze
2021 Cost Curve Forecast

2021 DAP Cost Curve fob Plant at Effective Capacity

Source: CRU, Mosaic